1937.

VICTORIA.

COUNTRY ROADS BOARD.

TWENTY-FOURTH ANNUAL REPORT

FOR YEAR ENDED 30TH JUNE, 1937.

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

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COUNTRY ROADS BOARD.

TWENTY-FOURTH ANNUAL REPORT.

Exhibition Building,
Carlton, N.3,
4th November, 1937.

The Honorable G. L. Goudie, M.L.C.,
Minister for Public Works,
Melbourne.

SIR,

In accordance 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 report of its proceedings for the year ended 30th June, 1937, together with the report of the Chief Engineer on matters of technical interest.

FINANCE.

The balance of £9,989 from loan moneys authorized by Parliament for expenditure on the construction of permanent works on declared main and developmental roads in country districts was expended during the year, bringing the total expenditure from that source up to £11,219,625.

For the construction and reconstruction of declared main roads in the metropolitan area an amount of £32,169 was available at the 1st July, 1936, under Act No. 4188, and this was supplemented by an amount of £150,000 authorized from loan under Act No. 4414. The total expenditure was £66,465 during the year, leaving a balance of £115,704 available on the 1st July, 1937, not including commitments entered into prior to that date.

The gross revenue from motor registration fees and fines paid into the Country Roads Board Fund was £1,588,450, representing an increase of £85,710 over that received from the same source during the previous year. The cost of collection and refunds was £108,178, making the total net revenue £1,480,272.

The total cost of maintaining, improving and repairing main roads, tourists' roads and State highways amounted to £1,046,320 compared with £985,280 for the year 1935–36, an increase of £61,040.

The sum of £634,447 was received under the Federal Aid Roads Agreement, of which £224,384 was expended on works of a developmental nature, £137,574 on the construction of main roads, £3,426 on the construction of tourists' roads and the balance of £222,152 on the maintenance of roads previously constructed from Federal Aid funds, restoring and re-building bridges and assisting municipalities in the maintenance of main and developmental roads constructed from loan funds.

Owing to the expiration of the Federal Aid Roads Agreement on the 30th June, 1937, a fresh agreement has been drawn up between the Commonwealth and State Governments, and this, it is expected, will be ratified by the Victorian Government at an early date.

The provision of £209,260 from unemployment relief funds, together with the sum of £100,372 brought forward from the previous year, resulted in many important works being carried out. The total expenditure for the year was £215,377, the sum of £94,255 having been carried forward to next financial year. This expenditure was supplemented by an amount of £53,555 from the Country Roads Board Fund and Federal Aid Funds.

STATE HIGHWAYS.

The work required in maintenance and minor reconstruction on sections of the State highways nearer to the metropolis is now fairly limited and is generally of a routine nature. The detailed work on these roads therefore has been transferred to the control of the Central District Engineer, and the officers concerned transferred to the Central District staff. The re-arrangement should allow the available staff to be used in the most economical manner, and will also relieve the Highways Engineer of much routine detail work. It should also allow more co-operation between Central District staff and Shire Engineers, particularly in regard to the rapidly changing surface-sealing technique.

Adhering to its programme of progressive improvement and maintenance of State highways, considerable progress was made by the Board during the year in restoring worn-out pavements, sealing gravelled surfaces, widening pavements to meet the increasing requirements of traffic, improving curves on dangerous bends by superelevation, repairing bridges and culverts and replacing old and worn-out structures.

All works of maintenance and improvements on State highways have been carried out without any charge on loan funds, the whole of the work having been done from the Country Roads Board Fund and moneys provided under the Federal Aid Roads Agreement.

In designing the highways the Board has given first consideration to making them safe for the traffic using them. Experience has shown that economical and relatively safe highway transportation cannot be attained without proper location, design, construction and maintenance. The practice adopted is to give attention to those features which will ensure easy and economical maintenance, and later, as traffic increases, to widen the pavement to an adequate width.

The demands of traffic due to the number of motor vehicles and their ever-increasing operating radius are being met by stage methods by sealing, resurfacing and widening where necessary, and by adopting suitable widths and thicknesses of material to carry the contemplated volume and weight of traffic at low maintenance costs. In trying out new methods and adopting those which have proved efficient and suitable for particular localities much has been done in the direction of improving the maintenance organization and cheapening the cost of work.

Utilization of modern plant has been found essential in the development of the highway system to ensure economical and efficient maintenance, and this is being achieved in conjunction with well-tried methods of construction, research into the qualities of road materials, the behaviour of soils under traffic conditions, and a progressive programme with a sound method of finance.

The matter of highway safety is one to which special attention is being given in view of the increasing number of motor traffic accidents and the necessity of designing the highways to meet the ever-increasing speed of motor vehicles. Roads designed only a few years ago which could then safely carry the traffic now require radical alterations to meet the needs of modern motor vehicles, the cruising speed of which increases year by year. Present-day speeds are approximately twice as great as those prevailing fifteen or sixteen years ago.

By improving short radius horizontal curves, vertical curves with short-sight distances, introducing white traffic lines on sealed roads and providing adequate superelevation and sufficient width of roadway not only has safety been introduced into the highways but maintenance costs are being reduced.

In the north-western portion of the State under the jurisdiction of the Bendigo District Engineer, between Sea Lake and Red Cliffs from mileage 241 to mileage 300, there are 104 sand hills over which the visibility is less than 500 feet. A commencement has been made with the gradual regrading of the sand hills in conjunction with the resheeting of the pavement. Owing to the tendency of some motorists to overtake other vehicles on the top of sand hills notices were erected to warn travellers against the dangerous practice.

In areas on the outskirts of the metropolis and of the provincial cities of Geelong, Ballarat, Bendigo and Warrnambool, where large industrial undertakings have been established, considerable danger arises from cyclists comprising factory workers in large numbers making use of the roads when proceeding to and from their work.

Owing to the increased motor traffic considerable danger is caused by the cyclists riding three or more abreast along the road pavement, this danger being accentuated by the fact that the road is largely used at the same time by through traffic.

The Board intends as soon as funds are available to lay down suitable cycle tracks alongside the pavement so that cycle traffic will be segregated from the ordinary road traffic and so eliminate the existing dangers.

The maintenance of shoulders along the State highways is a problem requiring close attention by the patrolmen, particularly on sealed highways on which only two lines of traffic are provided for. In many instances the shoulder material is liable to soften and become unstable after rain, thus creating a possible danger to traffic.

When heavy motor vehicles run off the edge of the sealed pavement on to the shoulders they frequently cut a deep rut near the pavement which, after rain, becomes filled with water and creates a potential danger through drivers running into the ruts and losing control of their vehicles.

To remedy this light graders are frequently run over the shoulders and the patrolmen are required to fill in any depressions or ruts that may constitute a traffic hazard. Along heavily trafficked roads shoulders are surfaced with gravel or fine-crushed rock.

Plate No. 1.—Showing grader at work on shoulder of a section of the Murray Valley Highway.

On the State highway system, comprising 2,306 miles of roads on which the whole cost of maintenance is borne by the Board, major improvement works costing £98,900 were carried

On lengths totalling 125.2 miles maintenance involved an expenditure of £99,910, whilst cost of materials such as aggregates for sealing works, tar, &c., totalled £94,000.

The work of replacing and restoring bridges formed an important part of the highway programme, £82,619 having been expended during the twelve months. Outlays of this nature must always be considered as items of recurring expenditure in the State highway programme in view of the necessity of providing for rebuilding roads and bridges which have worn out and require restoration or improvement to adequately meet traffic demands. To meet these demands and to ensure increased safety on the highways 45 bridges were completed or were in course of erection at the 30th June last to replace old and worn-out structures, 34 of which were built in reinforced concrete and eleven in timber. These were built 2 feet wider than the pavement to the standard design adopted by the Board.

The more important of the new bridges in course of erection during the year are on the Murray Valley Highway between Rutherglen and Wodonga, over a total length of 730 feet with a width of 22 feet between kerbs, and on the Prince's Highway east at Rosedale over the Latrobe River with lengths on 550 feet and 1,100 feet consisting of a series of 50 spans.

Particulars of these structures are given under the heading of " Bridges."

For the safety of pedestrian traffic it was also necessary to build footbridges on several of the existing structures, the principal being the bridge at Avenel on the Hume Highway. The total cost of the work was £376. Appreciative references have been received by the Board from residents of the localities in which these bridges are located as to the advantages of the footbridges, particularly where they are used by school children.

An outstanding feature of the work completed during the past year was the bitumen surfacing of 179·3 miles of State highways, including the resealing of 76·5 miles and sealing 102·8 miles. The mileage treated on the several highways were as follow :—

	Miles.
Prince's Highway West between Footscray and the South Australian border	37·4
Prince's Highway East between Oakleigh and the New South Wales border	24·1

	Miles.
Western Highway between Footscray and the South Australian border	30·6
Calder Highway between Essendon and Mildura	10·8
Northern Highway between Bendigo and Echuca	8·25
Hume Highway between Coburg and Albury	5·7
Omeo Highway between Bairnsdale and Tallangatta ..	4·9
Murray Valley Highway between Corryong and Echuca ..	20·0
Murray Valley Highway between Echuca and Swan Hill ..	16·5
South Gippsland Highway between Dandenong and Nyora ..	7·5
Midland Highway between Geelong and Ballarat	2·0
Midland Highway between Shepparton and Mansfield ..	10·6
Bonang Highway between Orbost and Delegate	0·95
Total mileage	179·3

With the completion of the above work the total mileage of bitumen-surfaced highways is now 1,247 of the total length of 2,306 miles.

The average cost of surfacing new sections was £790 per mile and of resealing £374 per mile. The total cost of new sealing was £34,950 and of resealing existing bitumen £28,620.

By reason of the extension of bitumen surfacing several patrols have been re-organized and an extension of the truck patrol system was made possible, resulting in reduction of maintenance costs. The average length of highway maintained by the truck patrol is 55·6 miles, whilst the power grader maintains an average section covering a distance of 75 to 100 miles.

During the five year period ended 30th June last reconstruction and improvement works totalled 2,682·7 miles, all of which were of low type construction. During this period no high type surfacing such as asphaltic concrete or Portland cement concrete were carried out. Details of the length of these works carried out each year are shown in Appendix G. of the various annual reports.

In this and other countries throughout the world roads were used in the past for various purposes alien to their original intention, such as for telegraph cables, electric transmission lines water and gas mains, without regard for the vehicles having to travel over them. Then the railways restricted the width of roadways by utilizing portion of them for railway tracks, making deviations of the roads and constructing level crossings, thereby rendering those roads quite unsuitable for present-day traffic, with the result that on several of the State highways in this State it has become necessary to take steps to eliminate the dangers of rail and road traffic by substituting overhead bridges or subways for the existing level crossings. This has already been done in the case of the Hume Highway north of Seymour where a marked improvement has been effected. A potential danger now exists on the same highway near Broadford, where it is proposed, at an early date, to replace the present level crossing by a subway or a bridge over the railway. In other instances the Board has deviated the highways to avoid the necessity for crossing the railway.

The erection of electric transmission lines is also a matter which has given the Board some concern, particularly with regard to the lopping and destruction of native timber growing along the sides of the highways, but after several conferences with the State Electricity Commission the mutilation and destruction of trees has been minimized by the decision of the Commission to acquire easements through private property or to deviate the line where possible.

The improved highways that now exist have been built up to their present standard during the past eleven years. In the initial improvement the work carried out was of a comparatively light nature sufficient for the traffic at the time, but with the increase of traffic it has been necessary to construct to a higher standard or reconstruct in accordance with the policy of stage construction. From year to year reconstruction will be required on certain sections of highways as the original improvement wears out, or the completion of the partial improvement originally made will be nesessary.

Along with this reconstruction the work of constant maintenance must proceed to repair the wear and tear of ordinary usage by thousands of motor vehicles. Any reduction in this seriously restricts the stitch-in-time process and involves greater expenditure in repairing damage at a later date.

As a means of introducing further safety into the highways the practice of marking the centre line of the pavement with a white line on the shorter horizontal curves and the vertical curves where visibility is bad was extended along the sealed highways.

For the convenience of the travelling public and in order to minimize the risk from fire suitable fireplaces have been erected along the State highways at or near creeks and rivers. These are largely used by the public, particularly on the eastern section of the Prince's Highway. It is proposed to provide additional facilities in this direction from time to time as necessity arises.

In last year's report reference was made to the fact that the Board had carried out a number of experiments by the use of common salt in the construction of roads and, as the result of these and further experiments carried out during the 1936–37 period on the Western Highway between Nhill and Kaniva, it has been found that the surface materials in the form of gravel or crushed rock are kept moist during the process of construction with comparatively little water, and consolidation is effected much sooner than under ordinary conditions. In addition, it has been observed that treated sections of roads require less maintenance to keep them in good condition than adjoining untreated lengths.

Experiments were also conducted last year by using calcium chloride, but owing to its greater cost (five times more than common salt) it does not appear that the use of this material has any advantage over common salt (sodium chloride). The effect, however, is being closely observed with a view to determining the most economical and effective treatment.

A census of traffic taken on the State highways and a number of main roads leading to the metropolitan area in March last did not represent a normal count for the summer of 1937 as the physical conditions at the time were not favorable. The weather conditions did not have any marked effect with regard to commercial vehicles, but did greatly affect the number of private cars. Most noticeable was the decrease in the number of solid-tired vehicles, the results obtained showing that only 148 vehicles, or 0·40 per cent. of the total recorded, were fitted with solid tires.

A comparison of the figures recorded shows that the percentage of increase in the total number of vehicles recorded was 10·01 per cent.

The following table shows the increase and decrease in the various classes of vehicles :—

—	Increase.	Decrease.
	%	%
Private cars	11·62	..
Commercial vehicles (including primary producers' vehicles)	48·86	..
Motor omnibuses	54·17	..
Motor cycles	15·90	..
Hire cars	..	34·38
Solid-tired vehicles	..	18·68
Horse-drawn vehicles	..	20·07
Average	32·64	24·38

The following table obtained from the Motor Registration Branch of the Police Department indicates the increase or decrease in the registrations of all types of motor vehicles during the twelve months ended 31st January, 1937, as compared with the registrations for the corresponding period of the previous year :—

—	Twelve Months ended 31st January, 1936.	Twelve Months ended 31st January, 1937.	Increase.	Decrease.	Percentage.
Private cars	143,799	133,851	..	9,948	6·9 decrease
Commercial vehicles (including primary producers' vehicles)	40,359	63,916	22,537	..	58·4 increase
Hire cars	2,146	1,995	..	151	7·0 decrease
Motor cycles	25,633	26,154	521	..	2·0 increase
Total	211,937	225,916	23,058	10,099	6·6 increase

A considerable increase is shown in the number of commercial vehicles, while a decrease has taken place in the total of private cars. This is probably due to motor cars owned by primary producers being classified as commercial vehicles under the provisions of Act No. 4285.

The use of pneumatic-tired power graders in maintaining sections of State highways has been extended by the purchase of six additional machines, four heavy compression ignition-engined units being now employed on State highways. Through the operations of this type of plant conspicuous improvements have been effected to unsealed gravelled roads, and the machines have proved an economic factor in the maintenance organization. By ensuring the fullest utilization of the plant throughout the year under a definite programme of work the results obtained have more than justified the expenditure incurred in purchasing these machines. When not engaged on works under the direct control of the Board, the graders have been hired to municipal councils for use on roads under their jurisdiction, and in several instances the councils have been so impressed by the effective and economic work performed that they themselves have purchased similar units, realizing that the first cost will be more than covered within a short period by the ultimate saving in the cost of maintenance.

In open country such as that of the Murray Valley basin, between Yarrawonga and Echuca, where the pavement consists chiefly of gravel or a thin skin of sand-clay, the surfaces being generally of very good shape, the advantages of the heavy compression ignition-engine grader over the medium weight kerosene-engined grader previously used for patrol maintenance have been established. The grader is able to operate at 8 to 10 miles an hour, and with very little additional maintenance work of any kind can cope with a length of about 75 to 100 miles in such country. In the hilly or undulating country between Tallangatta and Corryong, another Diesel-engined unit is in use in conjunction with individual patrolmen. The more severe work required in maintaining limestone rubble pavements such as exist on the Calder Highway is also being very satisfactorily performed by this type of power grader, whilst on the Prince's Highway from the vicinity of Heywood westerly, where the pavement consists largely of rather poor buckshot gravel very liable to corrugate, a fourth unit is utilized to keep the road surface and shoulders in good order. Medium weight kerosene-engined units are used on the sealed sections of the State highways to bring the shoulders into shape where heavy maintenance of this kind is required, although light pneumatic-tired graders drawn by a patrol truck are generally used for routine shoulder maintenance.

With the completion of the tables for facilitating setting out of transition curves and the familiarity now being gained by Shire Engineers with the method, the use of transition curves for all important work has become general, and Engineers are appreciating the advantages of the use of transition curves and consistent speed values in designing road alignments.

There is, however, still some misconception, not generally amongst Engineers, as to the value of designing roads for high speed values which, as a rule, means essentially the use of large radius curves. The view has been expressed that the construction of these curves is to satisfy the lust for speed of fast drivers, or to prevent "road hogs" meeting with accidents. This, however, is definitely not the case. While modern tendency in transportation is undoubtedly to make transport utilities—whether they be roads, railways or aeroplane services—safe for higher operating speeds, the fact that a road is designed for a speed value of say, 50 miles an hour, does not mean that drivers travelling from 30 to 40 miles an hour do not obtain considerable advantage from the large radius curves which make the road in fact safe at 50 miles per hour under conditions of good visibility, reasonable condition of vehicle tires, and road surface.

With the considerable increase in night traffic on main roads the difficulty of driving in safety at even moderate speeds in the face of oncoming headlights, even whem dimmed, is becoming appreciable. Under these circumstances easy radius curves make very greatly for increased safety, and this is an important factor in choosing a reasonably high speed value, which is merely a standard of construction for the more important roads.

Again, many vehicles in poor condition, with worn tires or in the hands of inexperienced drivers, require curves of quite high speed values to allow them to pass other cars with safety at even quite moderate speeds. For these reasons, while the Board is not financially in a position to generally attempt to reconstruct existing curves on comparatively poor alignment, except where they have been shown to be definitely dangerous, advantage is being taken of the necessity for re-construction due to weak pavement, and the necessity for resealing, or other reasons, to improve curves to a reasonably safe standard.

Apart from general maintenance, which included attention to drainage, bridges and culverts, and patching with gravel or crushed rock, the more important works of improvement and restoration carried out on the several State highways during the year were as follow :—

Bonang Highway.

Badly aligned and narrow sections were improved by widening, and surfacing was carried out over the full length of the highway. From the boundary of the old township of Orbost the existing road was reconditioned for a distance of ·97 of a mile by gravelling and subsequent spraying with a double coat seal of bitumen. The construction of a timber bridge of 30-ft. span near the 47-mile post was also completed.

Calder Highway.

Between Holden and Digger's Rest a section of the highway reserve was widened to 2 chains to provide for future improvements.

Old narrow bridges on short radius curves near Chewton and Wedderburn were reconstructed in reinforced concrete on improved alignments, and at Glenalbyn an old timber bridge was reconstructed in reinforced concrete and another timber structure widened.

General improvement was carried out to the riding qualities of the limestone pavement between Culgoa and Redcliffs, together with regrading of the sand-hills north and south of Ouyen, in order to provide reasonable visibility.

Sealing was continued for a distance of 2 miles from Nullawil to Warne and over a length of 3·75 miles near Yatpool, so that on the length of 357·49 miles between Melbourne and Mildura a bitumen-surfaced road now extends towards Mildura for a length of 201 miles and southerly from Mildura for a distance of 17·5 miles. It is intended to extend this work during the current financial year.

Hume Highway.

In the Avenel township a section of ·66 miles was treated with a road-mix seal and the general improvement of the pavement by pre-mixed patching was continued.

Near Wallan a dangerous curve was re-aligned to ensure additional safety.

Midland Highway.

The northern section of the Midland Highway between Benalla and Shepparton was generally improved by treating 10·37 miles with a road-mix seal and carrying out pre-mixed patching.

On the Benalla–Mansfield section considerable improvements were effected by the construction of ·6 miles of new alignment south of Swanpool and bitumen sealing in the Swanpool township.

On the highway between Geelong and Ballarat a re-organization of the patrol was effected and a truck patrol instituted with headquarters at Meredith.

By re-aligning a dangerous curve near Elaine a much-needed improvement was carried out.

Murray Valley Highway.

Sections of 5·71 miles near Tallangatta, 1·3 miles at Strathmerton, and ·42 miles at Nathalia received a seal coat of bitumen. Between Wodonga and Walwa effective maintenance was carried out by patrolmen in conjunction with a power grader, and from the junction of the Hume Highway at Barnawartha as far as McCoy's Bridge a Diesel-engined power grader was employed in maintaining the highway.

North of Granya the highway was re-aligned, formed, and surfaced for a distance of ·66 miles, whilst 1·3 miles were formed and surfaced and culverts provided west of Flaggy Creek.

5·8 miles between Bolga and Tallangatta received a double coat seal, thus completing the sealing of this section of the highway between Wodonga and Tallangatta.

The sealed surface which last year extended 4 miles east of Echuca to Lake Charm was extended a further 12·33 miles towards Swan Hill. With the extensions southerly from Swan Hill there are now only 6·5 miles of unsealed pavement between Echuca and Swan Hill.

From Swan Hill to Boundary Bend the longitudinal and cross-sectional shape of the pavement was improved. Light forming commenced during the previous year was continued for 7·58 miles to Lake Powell, resulting in a greatly improved track and good alignment. Unsurfaced lengths were also much improved by patrolmen.

Between Mildura and the South Australian border limestone gravelling was continued to within 11 miles of the border ; the unsurfaced section will be completed at an early date.

Northern Highway.

On the Northern Highway 8·25 miles of uneven surface from Strathallan to Echuca were improved by the application of a 3-in. road-mix seal.

Omeo Highway.

In continuation of the work previously done, widening was carried out on the narrow rocky side-cutting near Lightning Creek for a distance of 1·59 miles, 1·23 miles of which were done with unemployment relief funds.

Plate No. 2.—Showing Widening carried out on Omeo Highway, near Lightning Creek.

On the Noorongong Plain section 3,000 feet of formation was raised to a height sufficient to enable traffic to traverse the road in times of heavy floods in the Mitta Mitta River. A length of 3 miles subject to flooding was treated with a double coat seal to a width of 16 feet.

Lord's Flats, near Mitta Mitta, were formed and surfaced on a length of 1·3 miles Contracts were also entered into for widening Lord's side-cutting near Mitta Mitta and for widening 1·3 miles of side-cutting from Fernvale towards Tallangatta.

With moneys provided from unemployment relief funds approximately 2 miles of rock side-cuttings north of Lightning Creek were widened by day labour.

Through the township of Lucknow the existing bitumen road was surfaced with a ¾-in. road-mix seal; 3·03 miles from the top of the sand-hill near Sarsfield were reconditioned, re-aligned, and sprayed with a double coat seal.

Over the Bruthen Flats a section of ·81 miles was reconditioned, gravelled, and sprayed with a double coat seal. From Ramrod Creek to Lightning Creek systematic maintenance comprising top-dressing with gravel, dragging, and maintenance of bridges and culverts was carried out.

Widening was effected to sections between Red Knob and Double Bridges over a distance of 4·2 miles. A length of the old Omeo Road between Double Bridges and St. Patrick's Creek was re-aligned and constructed with funds provided from an unemployment relief grant.

Widening and reshaping near Jew's Pinch over a length of ·34 miles were completed, whilst a section beyond Tambo Crossing known as "The Tucker Box" was relocated on an improved alignment and grade, and constructed and gravelled to a width of 24 feet for a distance of ·37 of a mile.

Prince's Highway.

Eastern Section.

At Officer and Tynong the highway was re-aligned and the section between Drouin and Warragul was widened and reconstructed to cope with the increasing traffic; 7 miles of pavement between Springvale and Hallam were resurfaced with a ¾-in. road-mix seal in order to improve the riding qualities of the road.

Under the District Engineer stationed at Bairnsdale a number of important improvement works were carried out easterly from Stratford over a length of 2 miles by resurfacing the existing bitumen road with a single coat seal; a fresh bitumen surface was applied to the section of the highway between the B.R.C. Hotel and Gould-street Bairnsdale for a distance of 1·66 miles, and from the eastern boundary of the township of Lakes Entrance to Toorloo Arm the existing road was re-aligned, reconditioned, and sprayed with a double coat seal over a length of 11·82 miles.

Between Wombat Creek and Orbost several bad sections of the bituminous pavement were reconditioned with a ¾-in. road-mix seal; 4·16 miles on the eastern side of Mount Raymond were re-aligned and two new bridges erected over Newton's Creek, and between Bell Bird and Cadwallader's 1·09 miles were improved by reconditioning where necessary.

By constructing a deviation over the Cann River Flats, together with a bridge over Blue Nose Creek and subsequently spraying with a double coat seal, considerable improvement was made to the existing flood section for a distance of ·77 miles.

On the eastern side of Mount Drummer a length of 1·61 miles towards the Wingan River was reconditioned, widened, and surfaced.

Western Section.

As the maintenance of the section between Brooklyn railway crossing and Footscray, which carries heavy industrial traffic, had become excessive, a length of ·92 miles east of the railway was widened to 30 feet, sheeted with crushed rock, and sealed.

Between Geelong and Birregurra (3·5 miles) a gravel pavement constructed last year was sealed, and a further length of 1·5 miles at Moriac was constructed with gravel.

2·39 miles of pavement near Bolwarra reconstructed in buckshot gravel during last year were sealed, and 7·84 miles between Colac and Pirron Yallock, together with 2·20 miles east of Camperdown, were treated with a road-mix seal.

2·39 miles of old water-bound macadam were widened and surfaced between Allestree and Bolwarra, three sharp bends reconstructed to easy curves, and a dangerous section at Caledonian Hill was eliminated by a straight box cutting.

SOUTH GIPPSLAND HIGHWAY.

The important works commenced last year were continued a further stage by sealing 5 miles of pavement previously sanded between Kooweerup and Lang Lang, resulting in a continuous bitumen surface between Dandenong and Lang Lang.

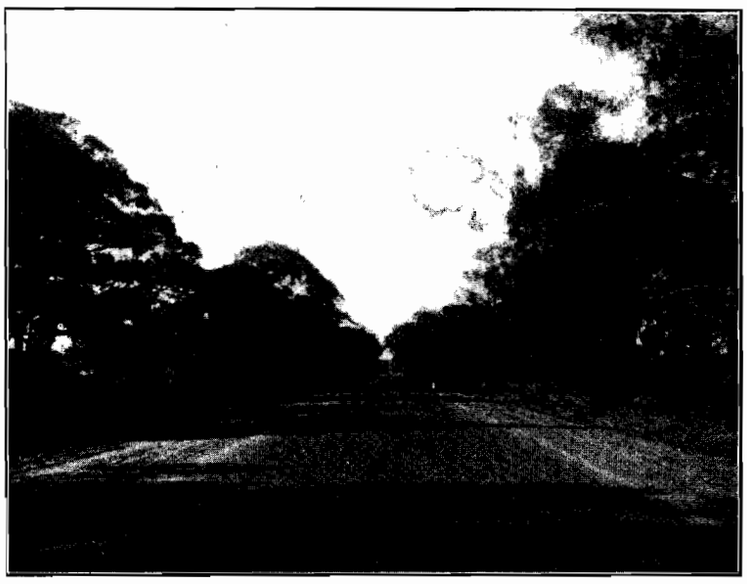


Plate No. 3.—Section of South Gippsland Highway reconstructed between Dandenong and Lang Lang.

A further length has been reconstructed prior to sealing with bitumen between Lang Lang and the Wonthaggi junction.

WESTERN HIGHWAY.

At Llandello a section of ½ mile was strengthened with crushed rock and sealed; 1½ miles were similarly treated easterly from the Ballarat City boundary, and west of Bacchus Marsh the highway was widened to 2 chains over a length of 1·7 miles.

4½ miles between Burrumbeet and Trawalla were resurfaced with a road-mix seal; two rough sections near Mount Mistake, together with a third narrow section extending easterly from Dobie, were completed and sealed for a length of 4½ miles.

Approximately 4 miles of pavement from Horsham to Pimpinio were resurfaced with road-mix seal after superelevating and improving a number of curves; 8½ miles of gravel—reconditioned last year—were sealed, leaving only a length of 4½ miles to be surfaced with bitumen in order to complete a continuous length of 268 miles from Melbourne to Lillimur.

West of Kaniva the bitumen pavement was extended by a further 2¾ miles.

MAIN ROADS.

Owing to an amount of £2,548 only being available from loan funds for declared country main roads, new construction works with the exception of those on which that amount was expended were provided for from moneys available under the Federal Aid Roads Agreement and from funds authorized by the Government as unemployed relief grants under the Unemployment Relief Loan and Application Act No. 4097.

With the expenditure of £2,548 above referred to, the total loan provision of £4,793,867 for the construction of declared country main roads authorized by Parliament has now been exhausted.

During the past year 254·84 miles of new works in country districts outside the metropolitan area were added to those completed in previous years. As, however, the grants from Federal funds were supplemented by municipal councils, the mileage of roads constructed includes the additional works completed with the municipal contributions. The works generally were carried out by municipal councils, but the Board itself undertook reconstruction works on several cross-country roads traversing a number of municipal districts in the north and north-western parts of the State, and forming connexions between important towns.

Municipal councils which generally carry out the work of maintenance estimated an amount of £937,026 as necessary for the year. The amount available from the Country Roads Board Fund was, however, £762,058 only, so that it was necessary to supplement that amount by the sum of £124,694 from Federal Aid road funds. The total sum available was, therefore, £886,752, or £50,274 short of estimated requirements.

The expenditure incurred on the maintenance, improvement, and restoration of 6,238 miles of declared main roads amounted to £722,216 for the year from the Country Roads Board Fund and Federal Aid funds compared with an expenditure of £628,208 from the same source during the previous year, an increase of £94,008.

For the construction of roads in the outer metropolitan area, which have been declared under the provisions of the Country Roads Act No. 3662, an amount of £182,169 was available from loan funds authorized under Acts Nos. 4188 and 4414. An expenditure of £66,465 was incurred on these works during the past year, as compared with £45,319 during the previous year.

For the maintenance of these roads £17,620 was expended during the twelve months. Further particulars of the works are given in Appendix E.

Details of the maintenance works carried out on country main roads are also set out in Appendix E. Roads maintained by the Board were through roads carrying traffic not of local origin previously restored on behalf of Councils who were unable to do the work owing to their not possessing the necessary plant.

On many of the main roads constructed some years ago with water-bound macadam, mainly for the use of horse-drawn traffic, the surfaces later seriously deteriorated from the effects of motor traffic. In their efforts to improve these roads several Councils placed a bitumen surface on them without taking the preliminary precaution to remove the irregularities before the bitumen was applied, resulting in very unsatisfactory pavements.

In order to improve the condition of these roads a considerable amount of work was done during the year from funds made available under the maintenance provisions of the Country Roads Act.

With a sum of £36,955 provided from unemployment relief funds a large amount of work was provided during the past year on main roads, on which 2,021 men were employed. The work accomplished formed a very valuable addition to the programme of work and enabled many cross-country roads to be put into trafficable order and thereby effected better connexions between important towns, and at the same time served many productive farms by affording direct access to railways and State highways. With further grants it is hoped to extend or complete the work, which will be of material advantage in improving the means of communication for farmers and through traffic.

The highest co-operation prevailed generally among municipalities during the year in carrying out works of road construction and maintenance, and much activity was displayed in pushing ahead with works for which provision had been made, particularly in the case of those projects financed from unemployment relief grants.

The declared main roads comprise 5·8 per cent. of the total mileage of the State. Besides serving as feeders to the State highways they carry a large amount of through traffic and consequently considerable expenditure is involved in their maintenance. For that reason the Board under the powers conferred under the Country Roads Act has assisted Councils as far as possible by reducing below one-third of the total cost the municipal contribution towards maintenance. An amount of £39,832 represents the assistance given in this respect during the last financial year.

The annual expenditure on maintenance reflects what municipal councils are prepared to expend on declared country roads rather than the expenditure required to keep them in order. As most of these roads are of low cost type periodical and continuous maintenance is necessary to secure satisfactory surfaces.

This weakness in the maintenance system is responsible for many roads reaching a stage where partial reconstruction is necessary, with the result that heavier expenditure is required under the maintenance programme to restore them to proper condition.

The extra cost involved in ultimately reconditioning these roads far exceeds the amount considered to have been saved and an inadequate and inefficient road surface has resulted in the meantime.

In addition, the direct economic loss due to neglected roads is reflected in increased wear and tear on the motor vehicle, additional fuel costs in the operation of the vehicle, and the extra time occupied on the journey, with the resultant increased cost of transport.

Taking each individual vehicle the losses referred to may be small, but when these losses are borne by the large number of vehicles using the roads (237,182 motor vehicles were registered in Victoria last financial year), and when the losses are distributed over the total road mileage of the State, the minimum cost to the community becomes enormous.

Although Councils generally are now realizing more and more the economy and necessity for continuous maintenance under a system of patrol, certain Councils still neglect to adequately maintain the main roads, even though money has been made available for the work by the Board. The Board has experienced some difficulty in impressing on those Councils the fact that continuous maintenance is required on all roads, no matter how constructed or of what type. It is essential that surface maintenance and incidental maintenance such as filling in pot-holes, attention to shoulders, culverts and bridges, &c., be given continuous attention, and by the employment of patrolmen this can be economically and efficiently done.

Owing to the neglect on the part of these Councils the Board feels that it must hesitate before making further allocations for the construction of new roads within the municipal districts of the Councils concerned.

The Board has now ten power graders driven by compression ignition engines. These units are not only better adapted for high speed maintenance than the medium weight kerosene-engined units but are also very efficient for reconstruction works where considerable widening or building up of the formation and heavy scarifying and reshaping of old pavements are required.

The kerosene-engined units still have a very large field for general maintenance work, and having observed the economical and superior maintenance work carried out by those Councils which have previously equipped themselves with such units, additional Councils have, during this year, purchased this type of maintenance equipment, and in some cases an additional unit has been purchased where the mileage of main roads to be dealt with is large and sealing has not progressed very far.

Increasing numbers of Councils are also obtaining light pneumatic-tired graders, which are capable of being operated with a patrol motor truck, one or two such patrol units being used to maintain the main roads in the Shire.

In order to examine the effect of the addition of calcium chloride and sodium chloride (common salt) on the moisture retained in soils, experiments were carried out on the Mount Dandenong-road in the Lilydale Shire, on the Point Nepean-road in the City of Chelsea, the Ballarat–Castlemaine Road in the Shire of Creswick, and the Newington–Ocean Grove Road in the Bellarine Shire.

The tests did not prove conclusive however, and it is intended to make further tests after traffic and wet weather have become more marked, and before the road surfaces are sealed.

It has been observed by the Board during its inspections that the erection of advertising hoardings and the display of advertisements on lands adjoining main roads is increasing. This inevitably results in creating danger to traffic by reason of the fact that the hoardings and advertisements, every feature of which is designed to force attention, tend to distract the attention of the motor driver when he should be concentrating his whole attention on the road and the driving of his vehicle. In addition, advertisements of this nature obscure the landscape and create needless hazards at bends and road intersections.

Several Councils realizing the importance of this matter have taken action under the powers conferred under sub-section 5 of Section 198 of the *Local Government Act* 1928, by obtaining an Order in Council prohibiting the erection of hoardings exceeding 20 square feet in area on land within a distance of 40 chains of the centres of a number of main roads within the municipal district, but exempting hoardings fixed by the owner or occupier of any shop, to the front of such shop, or to any verandah attached to the front thereof, for the purpose of indicating the nature of the business carried on in such shop and for advertising any goods sold in connexion with the business.

Whilst commending these Councils for the action taken, the Board cannot but express the opinion that the restriction does not effectively deal with the matter, and the prohibition should extend to all hoardings and advertisements irrespective of their dimensions, in which case material assistance would be given in making the roads safer for motor traffic, and would at the same time prevent the marring of the landscape and preserve the beauty of the surroundings.

For these reasons the Board appeals to all Councils to take action by obtaining the necessary Order in Council to prohibit the erection of any hoarding or advertisement likely to divert the attention of the driver of a motor vehicle or disfigure the beauty of the countryside.

It is considered in respect of declared main roads that the Board should be given similar powers to those existing under the Local Government Act.

Plate No. 4.—Showing a typical Advertising Hoarding on land adjoining a Main Road.

In the interests of safety many Councils have erected suitable direction and warning signs on main roads, either in replacement of existing inadequate signs or where none existed previously. It is noticeable, however, that other municipalities have not taken advantage of the Board's offer to supply the signs and, as a result, there are still many main roads with inconspicuous and, in some cases, illegible direction and warning signs. A further increase in the number of standard signs is confidently expected during the present year.

A feature of the year's work was the good progress made with the sealing of gravelled roads carrying local and through traffic between important country centres. The mileage of work done under the supervision of the Board's engineers within the several districts is shown hereunder :—

District.	Miles.
Bairnsdale	21
Benalla	27
Bendigo	24
Central	59
Stawell	8
Warrnambool	5
Total	144

In addition, 353 miles of sealing was carried out on main roads under the supervision of Shire Councils, for which purpose the Board's plant was hired to the municipalities.

With the extension of this work from year to year great improvements are being effected to the main roads and, at the same time, maintenance costs are being reduced.

In addition to road construction and maintenance works, 62 bridges were erected to replace structures which had reached the end of their useful life, several of which had been in use for more than 50 years. The principal works are described in detail under the heading of "Bridges." The total expenditure incurred on new bridges on main roads during the year was £36,000.

In many portions of the State the supplies of suitable gravels are becoming increasingly scarce and have to be transported many miles to the road works. It would appear that in such localities sealing will be an economic necessity even when the traffic is light. The Board is of opinion that with many miles of local roads to be constructed the local gravel supplies will need to be conserved.

Besides general maintenance, major works of construction carried out directly by the Board on main roads during the past year are given hereunder, those completed under municipal councils being shown in Appendix E.

Bairnsdale District.

On the Cann Valley Road a length of 2 miles, commencing at the bridge over the Cann River beyond Noorinbee, was improved by widening the formation to 20 feet, repairing existing culverts, erecting new culverts where required, and gravelling the surface.

Benalla District.

The Goulburn Valley Road was considerably improved by the construction of 4·08 miles and sealing 8·16 miles in the Seymour Shire, and the construction of 1·09 miles between Murchison and Murchison East.

Owing to the rapid development of traffic on this road it was necessary to strengthen the pavement at Taylor's Plains by resheeting a length of 3·86 miles with gravel.

The new bridge over the Goulburn River at Murchison, which replaced the old timber structure which had been in use for 70 years, was completed during the year.

The Murchison–Shepparton Road was constructed for a section of 1·2 miles and two reinforced concrete bridges constructed.

On the Wangaratta-Whitfield Road improvements were effected by the construction and gravelling of 1·01 miles.

The Springhurst–Wahgunyah Road, which forms an important interstate connexion between the Hume Highway and the Murray River at Wahgunyah, was continuously maintained by patrolmen.

Sealing was carried out on the Seymour–Yea Road over a section of 1·53 miles easterly from the railway at Seymour, thus completing the bitumen surfacing of the road as far as the military camp.

A rough section of ·98 miles of the Beechworth Road in the Shire of Wangaratta was constructed and 1·7 miles sealed, resulting in considerable improvement being effected.

The Mansfield East Road, between Merrijig and Mount Buller, was formed and graded over a distance of 3·3 miles and gravelled for 5·8 miles. With the completion of this work traffic is now able to use the road in any weather. This road serves two important sawmills established alongside the road.

In the town of Euroa the main Sydney Road was improved by placing a road-mix seal on 1·82 miles, and a footway was constructed on the bridge over the Seven Creeks.

Bendigo District.

On the Castlemaine–Maryborough Road west of Joyce's Creek, on the Castlemaine–Maldon Road, south of Maldon, and on the Mildura Road in the township of Ouyen, regrading and improvements in alignment were carried out preparatory to sealing.

The old timber bridges over the Muckleford Creek and the Loddon River floodway at Newstead, on the Castlemaine–Maryborough Road, were replaced by reinforced concrete structures on improved alignments.

Extensive work was carried out on the Ouyen–Pinnaroo Road which, with the work in hand, will provide a surfaced road to the South Australian border.

Works on the Heathcote–Elmore Road have greatly improved the road to Echuca and New South Wales via Kilmore and Heathcote.

The extension of works on important roads such as the Pyramid–Yarraberb, Terricks, Elmore–Mitiamo, Newbridge–Shelbourne, Nyah–Ouyen, Sea Lake–Manangatang, Culgoa–Lalbert, Kerang–Boort, and Elmore–Raywood Roads have advanced the programme for linking up important country centres. On the Elmore–Raywood Road the work done has extended from each town until there is now only approximately 8 miles to complete. The work on the Elmore–Mitiamo Road has provided a link with the Hunter–Drummartin Road, and the constructed lengths of the Bendigo–Tennyson Road, and the Kamarooka District now has an all-weather outlet via Elmore.

Road works in the Gordon and Kerang Shires will improve considerably the facilities for reaching local and city markets.

On the Gannawarra–Koondrook Road, in the Shires of Cohuna and Kerang, additional sand was spread on 6 miles of formation southerly from Koondrook to provide an all-weather road between Cohuna and Barham on the New South Wales side of the Murray River.

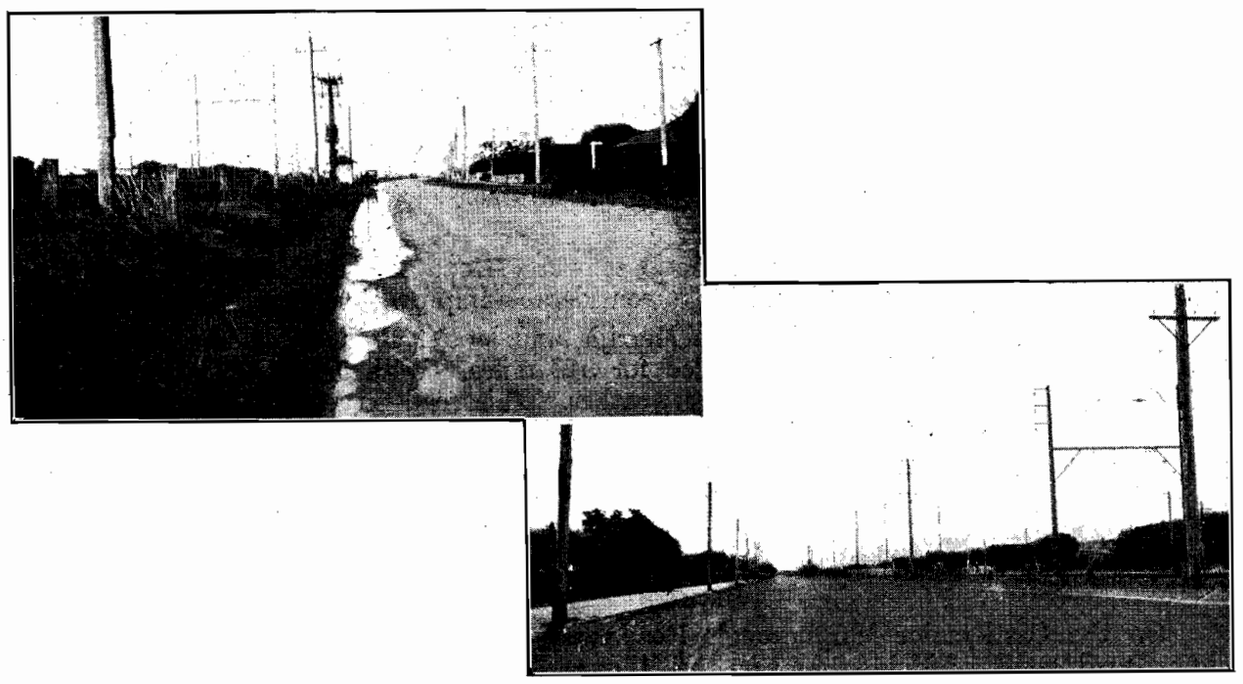
Central District.

The Anglesea Road was reconstructed and sealed between Merrijig Creek and Torquay Road in the Shire of Barrabool, and in the Bellarine Shire a section of the Geelong–Portarlington Road, 1 mile in length, was reconstructed with crushed rock preparatory to sealing with bitumen.

A further length of the Portarlington–St. Leonards Road, east of Portarlington, was reconstructed for a length of 2 miles.

In the Shire of Dandenong the Springvale Road, which provides an important connexion between the Healesville Road at Tunstall and the beach, was widened and surfaced with sand between Keysborough and Edithvale.

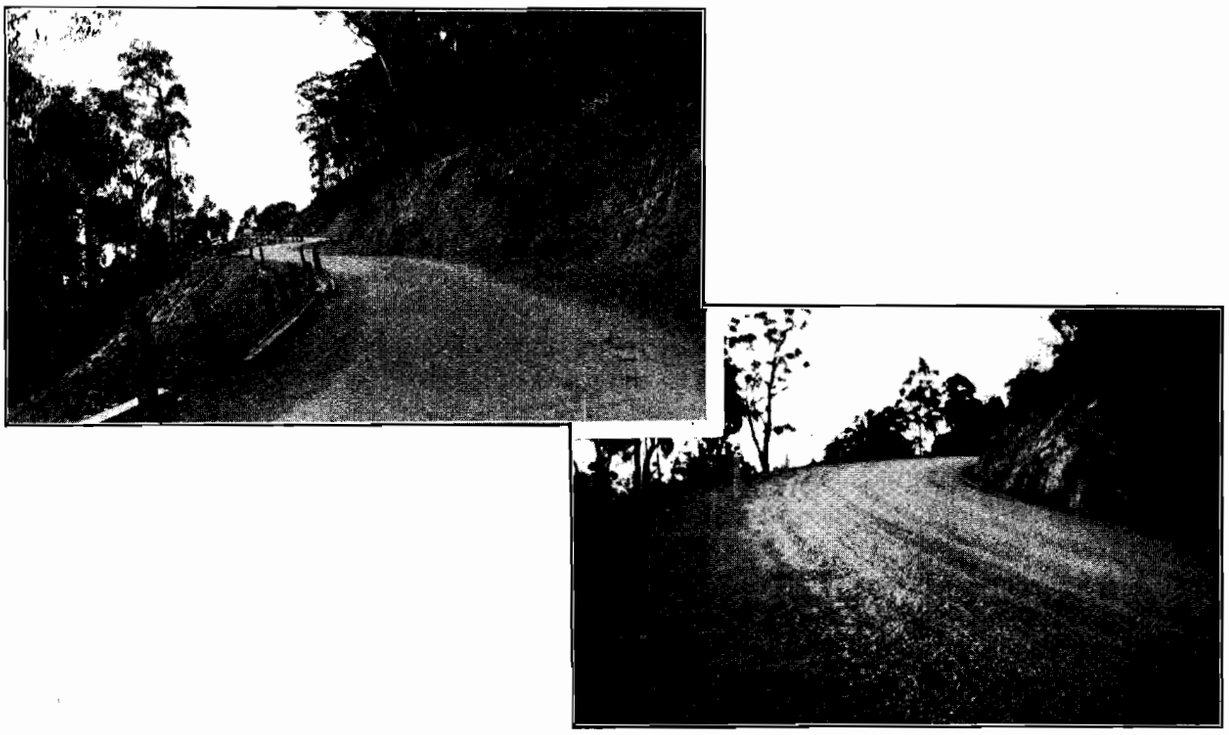
The Point Nepean Road which, during certain parts of the year, carries heavier traffic than any other road under the Board's control, becomes seriously congested. To cope with the congestion the road was widened to 30 feet between Mordialloc and Frankston. This provision will facilitate the flow of traffic during peak periods.



Plates 5 and 6.—Showing sections of the Point Nepean Road in the City of Chelsea, before and after widening.

The Mornington-Dromana Road in the Shire of Mornington was completed during the year by surfacing and bitumen sealing throughout.

Further progress was made with the widening of the Mount Dandenong Road between Montrose and Olinda, and below Kalorama a length of 2½ miles was surfaced with crushed rock preparatory to sealing during the coming summer.



Plates Nos. 7 and 8.—Showing sections of the Mt. Dandenong Road before and after widening.

In the Shire of Maffra the Licola Road was regraded and widened over a distance of 3 miles up to the fertile valley of the MacAllister River, thereby opening up excellent maize growing flats. A further 4 miles of work of a similar nature is now in progress.

The construction of new formation on the Callignee–Gormandale Road in the Shire of Rosedale has provided greatly improved access for old-established settlements towards Gormandale, their nearest town.

At Port Welshpool, in the South Gippsland Shire, a direct route for haulage to the new deep-water pier was constructed.

Stawell District.

The bitumen surface on the Ararat–Warrnambool Road in the Shire of Ararat was extended a further 2 miles towards Lake Bolac, and the Maroona–Glenthompson Road was similarly treated for 2¾ miles near Maroona.

Two rough sections of the Ballarat–Hamilton Road near Lake Bolac and Wickcliffe, totalling 4 miles, were resurfaced with a road-mix seal ; on the Ararat–Elmhurst Road, northerly from Ararat, a section of approximately 2 miles was sealed.

Bituminous sealing totalling 4½ miles was carried out in the Shire of Avoca on the Ararat–Maryborough and Ballarat–St. Arnaud Roads, near Avoca, and through the townships of Redbank and Navarre.

The Ballarat–Lexton Road, through the Ballarat Shire, was completed as a bitumen road throughout by sealing the remaining 1½ miles of gravel pavement ; in addition, a length of 2½ miles of resurfacing with road-mix seal was carried out. Sealing on the Ballarat–Maryborough Road was extended 1 mile near Tourello.

Considerable progress was made with the sealing of main roads in the Shire of Borung, 23 miles being treated on the Minyip, Birchip, Dimboola, and Rainbow Roads. A total length of approximately 3 miles of the sealed sections of the Dimboola and Minyip Roads was also resurfaced with road-mix seal.

By the reconstruction and sealing of 4½ miles of the Ballarat–Castlemaine Road in the Shire of Creswick a bitumen-surfaced road has been completed from Ballarat to Creswick ; in the same Shire the Ballarat–Daylesford Road was sealed for a length of 1¾ miles, and further sections were reconditioned in preparation for sealing during the current year.

Surfacing on the Rainbow Road in the Dimboola Shire was extended by 3 miles with limestone, and the bitumen road south from Jeparit was extended a distance of 1½ miles.

The important cross-country connexion between Dimboola and Warracknabeal has now been completely surfaced; the sealing was extended at the Dimboola end by approximately 2 miles, and in the Borung Shire at the eastern end by 1½ miles.

Surfacing of the Marnoo–Donald Road in Donald Shire was extended a further 1½ miles, leaving less than 3 miles of unsurfaced road between these towns.

A length of 6½ miles of the Stawell–Warracknabeal Road between Rupanyup and Minyip was reconstructed in preparation for sealing, and 2½ miles of the same road were resurfaced with a road-mix seal; the Rupanyup–Murtoa Road was also treated for a length of 2½ miles easterly from Murtoa.

Further progress was made to link Minyip and Donald with an all-weather road by the construction of 1½ miles of sandstone pavement in the Shire of Dunmunkle, and approximately 1 mile of gravel construction in the Shire of Donald.

The Pitfield Road in the Shire of Grenville, north of Cape Clear, was sealed for a length of 3 miles, resulting in great improvement to the road.

The St. Arnaud-Donald Road in the Shire of Kara Kara was resurfaced for a length of 3½ miles with road-mix seal.

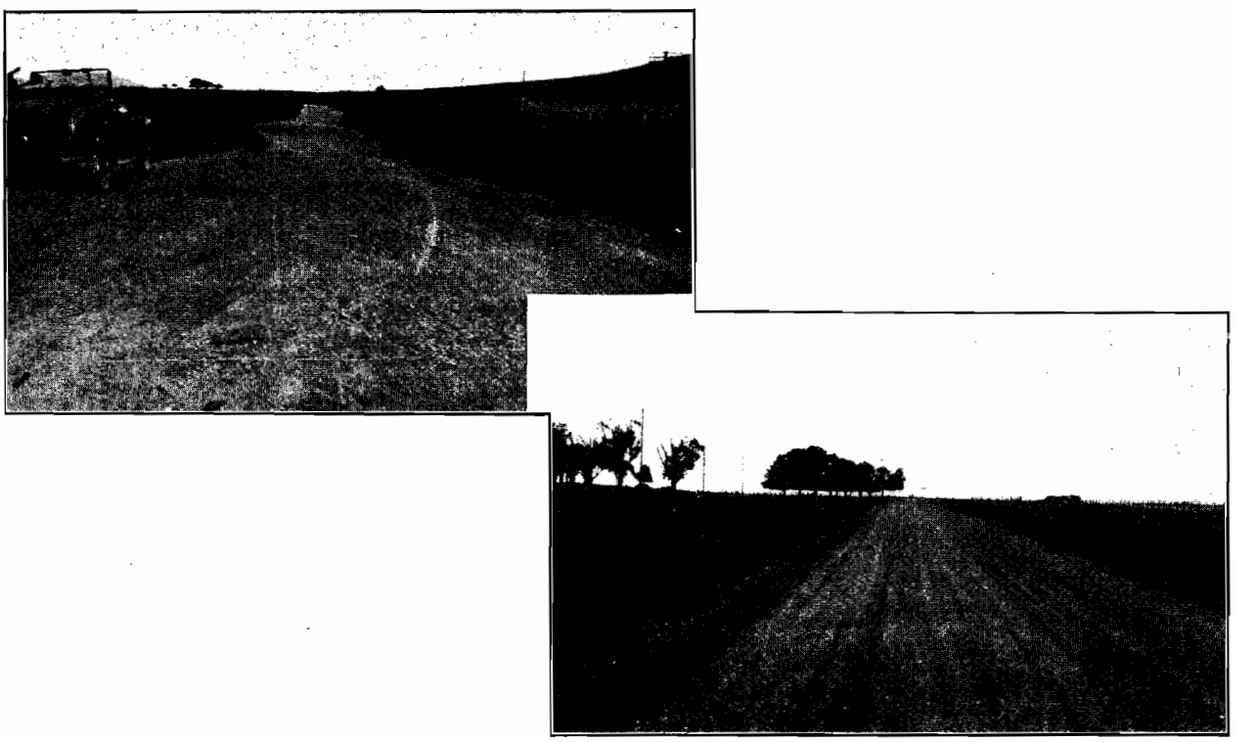
Two miles of sealing was carried out in the Shire of Karkarooc on the Hopetoun–Warracknabeal and the Rainbow–Beulah–Birchip Roads in extension of work commenced the previous year.

A commencement was made to seal portions of the Hamilton–Edenhope–Apsley Road in the Kowree Shire, a length of 5 miles having been completed at Harrow. Surfacing was extended on this road and on the Booroopki–Frances, Booroopki, Edenhope–Goroke, Wombelano and Kaniva-Edenhope Roads, the total length of gravelling and re-sheeting being approximately 11 miles.

The sealing of the Avoca–Ballarat Road in the Lexton Shire was extended a further length of nearly 3 miles, and a commencement was made to recondition a further 3 miles which, when sealed, will connect Lexton and Ballarat by a bitumen road.

In the Ripon Shire double-coat sealing was extended on the Beaufort–Skipton Road for a distance of 2 miles, and 5½ miles of existing sealing were resurfaced with road-mix seal on the Beaufort–Skipton and Ballarat–Hamilton Roads.

Double-coat sealing on the Stawell–Glenorchy–Horsham Road and the Warracknabeal Road, in the Shire of Stawell, was continued for a length of nearly 3 miles.



Plates Nos. 9 and 10.—Showing the Creswick - Clunes Road before and after reconstruction.

The Ballarat–Maryborough Road in the Shire of Talbot was surfaced with bitumen for a length of 2½ miles, leaving only 2½ miles to connect Ballarat and Maryborough with a bitumen road.

In the Wimmera Shire the Horsham–Natimuk Road was bitumen-surfaced for 2¼ miles, 1 mile in the Town of Horsham consisting of modified macadam, and the remainder, in the Shire of Wimmera, of double-coat sealing on a gravel foundation.

The Creswick–Clunes Road, which had fallen into a state of disrepair was reconditioned for a length of 10 miles in the Shires of Creswick, Talbot, and Ballarat, and the Borough of Clunes, and is now in excellent order.

A deviation on the Maryborough–Ballarat Road previously constructed to avoid an extensive scour undermining it was sealed with bitumen for a length of 1½ miles.

Plate No. 11.—New deviation of the Ballarat-Maryborough Road, with the scour and old road on the right.

Warrnambool District.

On the Winnap–Nelson Road the remaining section of 2·20 miles was surfaced with limestone rubble, and between Winnap and Drik Drik the rough limestone water-bound macadam was scarified and reshaped.

DEVELOPMENTAL ROADS.

Under the original Developmental Roads Act passed in 1918 a developmental road was classified as any road (not being a main 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. Only roads of this character, which were declared developmental roads, were able to participate in the expenditure of loan moneys on their construction, municipal councils being responsible for the whole of the maintenance after construction works had been completed.

As the full amount of loan moneys, totalling £6,425,758, authorized by Parliament was almost exhausted at the beginning of last financial year, and the Councils have since been relieved of payment of their contribution towards the interest on the cost, which they were required to make under the provisions of the Country Roads Act, any additional construction works carried out on roads of a developmental character have since been provided for from moneys available under the Federal-aid Roads Agreement, supplemented by a contribution from the Council, and from Unemployment Relief Funds authorized by the Government.

As funds from Federal-aid and Unemployment Relief sources—which have now supplanted loan funds—may be spent on any road of a developmental nature, it is no longer necessary by resolution to declare such roads as developmental roads.

Of the amount of £402,421 expended on developmental roads during the year under review, £7,441 was derived from loan, £224,384 from Federal-aid road funds, together with municipal contributions totalling £42,897 from municipalities, and £111,476 from the provision made under Act 4097 for the relief of unemployment, supplemented by £16,223 from Federal funds. The expenditure was distributed amongst 121 municipalities on 1,036 separate projects.

The vigorous policy pursued by the Board in the construction of developmental roads resulted in 387·16 miles of new work being added to that of previous years. Although greatly improved facilities for transporting primary produce are manifest throughout the State, and considerable progress was made during the past year, much remains to be done in the direction of linking up works already commenced and extending the system to connect with the State highways and main roads leading to markets and railways.

In the past most of the less important roads have been improved in a greater or less degree by the use of funds and methods available, although no co-ordinated effort has been made to make these roads a component part of the highway system. With the forward development of the State highways and main roads the improvement programme is being broadened from year to year by constructing roads for the development of rural areas as a necessary part of the highway system.

As in the case of several main roads, it has been observed by the Board that certain Councils have neglected to adequately maintain developmental roads constructed from loan funds and other sources through lack of systematic attention, or, in some instances, no attention at all. The failure to carry out the maintenance of constructed roads is a matter of grave concern to the Board and cannot be allowed to continue. In view of the relief granted to municipalities in respect of interest and sinking fund payments on past loan expenditure, and the financial assistance Councils receive by the allocation of moneys from Federal-aid funds and Unemployment Relief funds they should be in a position to maintain constructed roads, otherwise it is useless to continue to expend funds in creating assets which are allowed to deteriorate and even disappear for want of necessary maintenance.

As an instance of neglected maintenance may be mentioned a road situated within a northern municipality upon which a total expenditure of £35,600 had been incurred in construction. During a recent inspection by the Board's District Engineer it was found that a section of water-bound macadam was in a ravelled condition, a length constructed with granitic sand was in a badly neglected state owing to practically no maintenance having been carried out since the road was constructed five years ago, and no regular system existed for maintaining the remainder of the road.

Under the circumstances, the Board was compelled to take drastic action which resulted in the Council effecting repairs.

In order to assist Councils as far as possible in the maintenance of constructed developmental roads, the Board allocated to municipalities from the Federal grant the sum of £19,609, of which £15,994 was expended to the 30th June.

Requests continue to be received by the Board from municipal Councils for additional assistance in maintaining roads of a developmental character by declaring them main roads under the provisions of the Country Roads Act, with a view to two-thirds of the cost of maintenance being borne by the Board. Whilst it is recognized that many of these roads should rightly be classed as main roads as they are of sufficient importance and carry a large volume of traffic not of local origin, the Board is not in a position to accede to the requests, as the funds to the credit of the Country Roads Board Fund are insufficient to allow of this being done.

Following the usual practice the work done on developmental roads was of the low-cost type, gravel or crushed rock having been obtained, as a rule, in the district in which the works were situated.

The total mileage of new works completed or partially completed at the 30th June was 59·3 miles on declared developmental roads, and 327·86 miles on roads of a developmental nature. The work completed comprised the extension and linking up of existing sections and the construction of new roads.

The unemployment relief schemes financed from funds provided under Unemployment Relief Act No. 4097 were responsible for an addition of 101·21 miles of constructed roads.

Ninety-three bridges were erected on roads of a developmental character to replace old structures. The total expenditure for the year was £41,850. Reference to the principal projects is made under the heading of " Bridges."

As required by Section 96 of the Country Roads Act particulars as to the locality of works constructed are set out in Appendix F.

Of the developmental roads constructed or partially completed under the Board's direct supervision, the more important comprise works in Eastern Gippsland on the Bonang–Gelantipy Road, which extends from the Bonang Highway at Bonang along the valley of the Deddick River to the bridge over the Snowy River, thence along the valley of the Snowy River, ascending the mountain along the old mountain track, crossing Mount Turnback and Little River and

continuing to Wulgulmerang, Gelantipy, and W. Tree, about 11 miles from Buchan. At the top of Mount Turnback a deviation providing for a maximum grade of 1 in 15 was constructed for a length of 1·9 miles.

On the Dellicknora Road connexion in the Shire of Orbost formation works were continued from the end of the existing work for a distance of ·87 miles, completing the connexion to Cameron's property.

A contract was entered into for the construction of 1·8 miles of the Lower Bendock Road on an improved alignment and grade, and fencing was completed through private property.

On the Tamboon Road in the Shire of Orbost a contract was let for the construction of 1·89 miles, and ·34 of a mile of construction on the Lower Tonghi Road was carried out by contract, including the erection of a 30-ft. span timber bridge of standard design.

2·33 miles of construction completed on the Lindenow–Dargo Road has effected a marked improvement on the old existing track.

The Sandy Creek section of the Buchan–Ensay Road over a distance of 2·89 miles and 2·03 miles west from Timbarra River was constructed. A rolled-steel joist bridge over the Timbarra River was also completed.

The Orbost–Buchan Road at East Buchan and Bete Bolong was further extended by the construction of a total length of 2·04 miles.

In the Kerang Shire a number of developmental roads were formed and surfaced during the year in continuation of the work done in previous years. The total expenditure in the Shire for construction works was £8,676. The principal works carried out were on the Kerang–Koroop, Murrabit, Kerang–Quambatook, Dumosa–Lalbert, Kerang–Boort and Culgoa–Lalbert Roads.

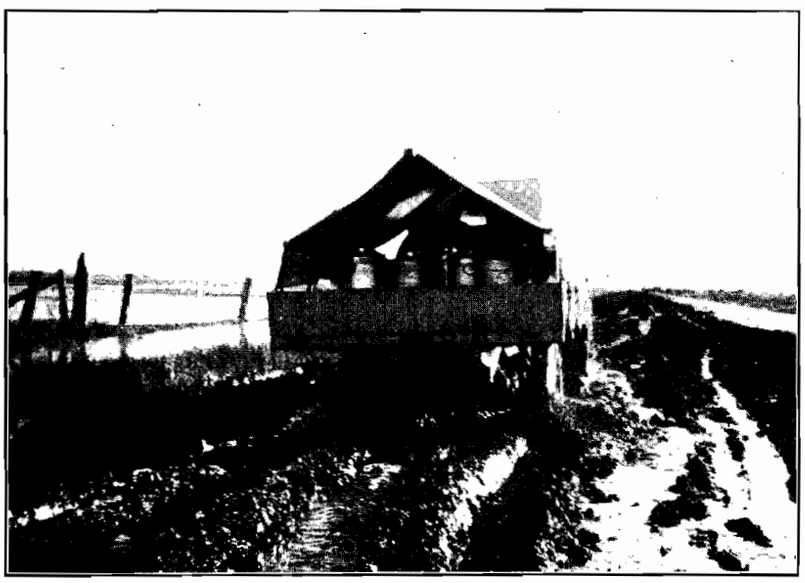


Plate No. 12.—Typical of condition of many of the roads in Kerang Shire during winter months.

In the Tolmie, Toombullup, and Tolmie East Districts a truck patrol carried out continuous maintenance, resulting in a good road system being available for the many new settlers who have taken up land since the Tolmie tableland was given an outlet to the rail heads at Whitfield and Mansfield.

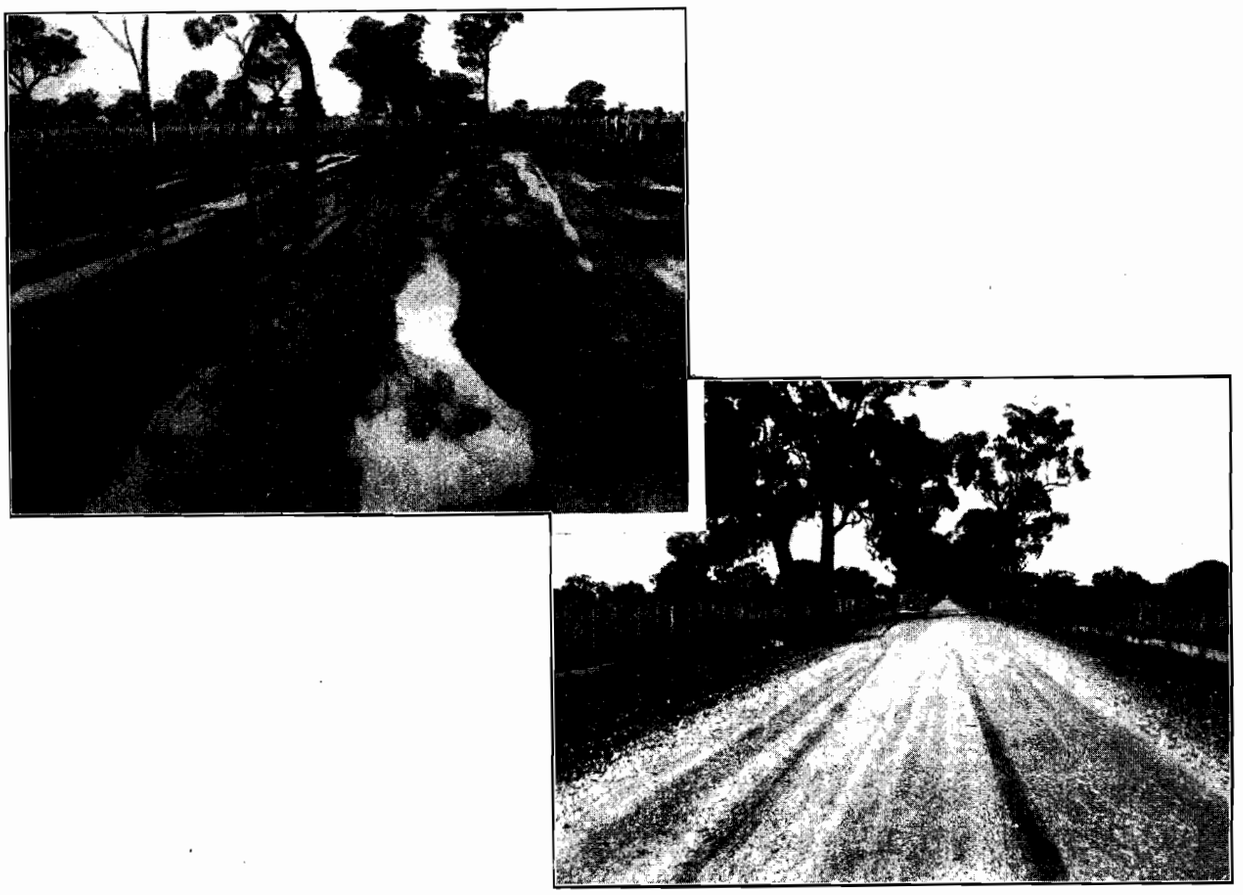
By forming a section of ·73 miles of the Rose River Road in the Oxley Shire the construction between Cheshunt and Dandongadale has been completed. In addition, 1·10 miles were gravelled.

On the Upper Rose River Road a distance of 1·64 miles was cleared and formed, resulting in improved road facilities for settlers reaching the railway at Whitfield.

Another link in the important road between Benalla and Tocumwal was completed by forming a further 2½ miles under contract in the Shire of Tungamah.

In the Shire of Bellarine the Ocean Grove Road via Newington was reconstructed for a length of 2½ miles between the Geelong–Queenscliff Road at Wallington and Newington.

In the Shire of Marong further works carried out on the Yarraberb Road effected great improvement in the road conditions.



Plates Nos. 13 and 14.—Showing section of the Yarraberb Road before and after construction.

A new road was formed in the Otway Shire between Barramunga and Gellibrand. When completed this road will serve a considerable area of highly-developed land devoted to dairying in the upper reaches of the Gellibrand River which, in the past, has been handicapped through lack of road facilities.

The Eildon Weir-Jamieson Road has now been completed between Peachey's Bridge and the Mansfield–Woods Point Road.

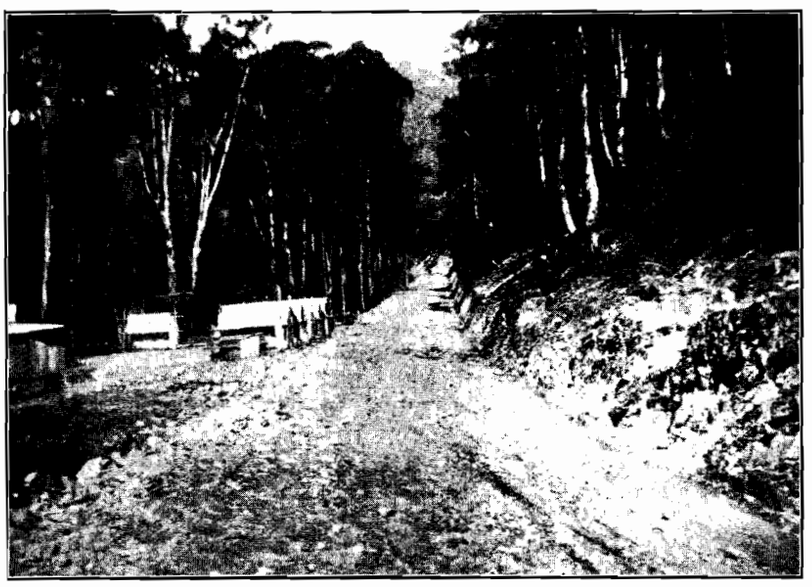


Plate No. 15.—Partially constructed section of Eildon Weir-Jamieson Road, between Peachey's Bridge and Woods Point Road.

Further progress was made with the formation of the Carlisle–Chapplevale Road, and only 1 mile now remains to be formed to complete this important connexion.

Clearing and forming of 1 mile of road from Black's Bridge towards Irrewillipe was carried out. On completion this road will, in addition to serving several settlers along the road, shorten the distance to Colac by 4 miles.

In the Gippsland District continued improvement has been made to developmental roads. The Hiawatha–Madalya Road in the Shire of Alberton over a total length of 1·7 miles was constructed. This connexion effects a considerable saving in the distance which was 16 miles around the old route. The construction of this connexion effects so much saving in time and distance that a daily collection of cream is now made at no extra cost in lieu of the former tri-weekly service.

The construction of new formations on the Willung South Road in the Shire of Rosedale has considerably improved the means of transport for old-established settlers travelling to Gormandale, their nearest town, and as soon as additional funds are available it is intended to surface these formations.

In the Heytesbury Settlement a further 2·19 miles were formed and 25·23 miles were lightly surfaced with buckshot gravel. The total length of roads now formed by the Board in the Settlement, apart from main roads, is approximately 102 miles, of which 85 miles have been lightly surfaced. These roads are being maintained by part-time patrolmen with periodical grading by a power grader.

Extensive works carried out in the Stanhope Estate Closer Settlement Irrigation area comprise the construction of a total length of 18¼ miles of gravelled roads during the past two years, and almost every settler has suitable access to the main roads. The area, which is devoted to dairy farming and fruit-growing, is an important centre in the north of the Waranga Shire, with average holdings of 70–80 acres. During the year ended 30th June last the local butter factory produced 266 tons of butter, whilst the output from the cheese factory was 230 tons.

Plate No. 16.—Showing a recently completed section of road in the Stanhope Estate, Waranga Shire.

ROADS FOR ISOLATED SETTLERS.

In providing roads to farms isolated from the main system an important factor which must be considered is that municipal councils are not financially able to undertake improvements to any great extent. In the interests of the State it is necessary that the farmer living in remote and inaccessible areas be served with a passable road on which he may travel in bringing his produce to the markets and railway at all seasons of the year. Any road plan that does not make provision for roads of this character fails in its objective to develop the State. Unless the intervening length of road between the constructed road and the farm is provided the full value of the constructed road is lost to the farmer and he is unable to keep pace with other industries in improving his production

The following extract from a letter from a settler urging provision of road access to his farm is typical of many received by the Board, and indicates the necessity of continuing the work of constructing roads to enable the farmer to reach the main system :—

> " Dear Sir—Just a line to ask you if you could do anything towards the road I want metalled. I am wanting to build a new house and I cannot get in the timber ; there is no truck or motor car can get in, the road is so bad. I am living in a tin shed—no windows or doors. It has been raining for three days and I am flooded out, the rain is coming in through the roof. I am up to my knees in mud when I have to go to the road to get my groceries. I have to cart out my cream through it. I have no horse or sledge. I pay my rates every year, so please see what you can do."

From the point of view of volume of traffic, only a small expenditure for improvements is justified on farm to market roads. In dealing first with the most necessitous cases considerable headway was made with the funds available, but much remains to be done to meet the insistent demands made upon the Board by municipal councils and settlers.

During the year applications for roads involving an expenditure of £94,624 were received by the Board for the construction of roads to isolated settlers, but the total amount available for allotment was £48,304, of which £28,304 was provided from Federal-aid funds and £20,000 from unemployment relief funds.

The total expenditure was £35,758 on 484 roads serving 1,059 farms. As the whole of the works were not completed at the end of the financial year commitments were carried forward to the current year.

With the stipulation that the grant for each road was to be supplemented by a contribution from the municipality or the settlers, either in money, materials or work, the value of the completed work far exceeds that represented by the expenditure. In this way longer lengths of serviceable roads were constructed for the benefit of individual farmers or groups of settlers, enabling them to travel with some measure of comfort throughout the year, and in dairying districts to have their cream picked up at the farm gate by the wagon of the local butter factory.

FEDERAL-AID ROADS.

The sum of £634,447 was made available to the Board under the Federal-aid Roads Agreement during the past year. Supplemented by an amount of £6,366 carried forward from the previous year these amounts were expended or committed at the 30th June last, the total expenditure to that date being £587,536.

Included in the amount received during the year was the sum of £100,000 temporarily diverted in the financial year 1930–31 from funds available to the State of Victoria to assist the State of South Australia, and which it was originally intended to restore to the State of Victoria after the 30th June, 1936. As, however, this sum was not received from the Commonwealth Government until February last, £10,828 only of the amount allocated was expended at the end of the financial year, the balance representing commitments carried forward to the present year.

Since the curtailment and subsequent cessation of expenditure from loan funds on country roads, the Board has utilized the greater proportion of Federal-aid funds in the construction of new roads, particularly roads designed to develop areas of country far removed from the main system, and in building roads to isolated farms.

The total expenditure on roads of a developmental character to the 30th June was £250,235, including £25,857 on isolated farm roads. In the former case the expenditure was supplemented by contributions from municipal councils totalling £43,852, whilst in the latter instance the estimated value of the contributions in money, materials and work, was £5,000, so that the actual work done represents an aggregate expenditure of £299,087.

The number of projects put in hand from Federal funds was 1,168, of which 956 were on developmental roads, apart from roads to isolated farms, and 212 on main roads. The work was spread over various parts of the State in 131 municipalities.

On main roads an expenditure of £137,574 was incurred, the work consisting largely of constructing and restoring trunk roads carrying traffic from developmental and other roads to the railways and distributing centres ; 127 projects were undertaken over a length of 166·55 miles and 118 municipalities participated.

To assist municipal councils in maintaining main and developmental roads previously constructed from loan funds or from moneys provided under the Federal-aid Roads Agreement an allotment of £51,772 was made. £45,866 was expended to the 30th June—£29,872 on main roads, and £15,994 on developmental roads.

An amount of £50,700 was expended on the construction of 93 bridges, the more important comprising Glenaladale bridge in the Bairnsdale Shire, Loddon River bridge at Newbridge, Avon River bridge on the Marnoo Road, and Yellow Creek bridge on the Beechworth Road in Wangaratta Borough.

A considerable mileage of roads was made possible under the Board's progressive construction policy. The total length of works completed and put in hand, not including isolated settlers' roads covered 440·2 miles, 166·55 miles on main roads and 273·65 miles on developmental roads.

The Federal-Aid Roads Agreement which was entered into between the Commonwealth and the State Governments in 1926 came into force on the 1st July of that year, and was to operate over a period of ten years. The total amount available was £2,000,000 per annum, to be distributed to the States on the basis of two-fifths area and three-fifths population with the exception of Tasmania, which received an amount of £100,000 per annum.

In 1931, however, the agreement was amended to provide, *inter alia*, for the distribution of the sum fixed under the agreement made in 1926 to be discontinued and for the provision of an amount equivalent to duty of 2½d. per gallon in respect of petrol imported into the Commonwealth and an excise duty of 1½d. per gallon in respect of locally refined petrol, the proceeds to be distributed to each State in the same proportions as in the original agreement, namely, on the basis of two-fifths area and three-fifths population, with the exception of the State of Tasmania, which received 5 per cent. of the total sum available.

The new agreement which has now been entered into provides for the distribution of the amount on the same basis as in the original agreement, but the population basis is to be according to the respective populations of each State as at the 30th June, 1936.

Provision has also been made in the new agreement for the distribution in the same proportion of the proceeds of an additional amount equivalent to ½d. per gallon on petrol imported into and on petrol refined in Australia. The agreement also provides that such additional amount shall be expended upon construction, reconstruction, maintenance or repair of roads or other works connected with transport as the State may think fit.

In addition, it is provided that whenever required by the Commonwealth Minister for the Interior the State will, to his reasonable satisfaction, make provision for the proper maintenance and repair to a standard necessary to meet the requirements of the Commonwealth and other traffic using such roads, of public roads adjoining or of approach to properties of the Commonwealth within the State, but the State shall not be required to make any provision in that respect in excess of an amount equivalent to one-twelfth of the moneys received from the extra distribution of ½d. per gallon.

The new agreement has yet to be ratified by the State of Victoria.

UNEMPLOYMENT RELIEF WORKS.

Moneys provided during the year for unemployment relief under Act No. 4097 totalled £203,260, and £6,000 was also provided for tree planting from unemployment relief taxation funds. Supplemented by the sum of £100,372 carried forward from the previous year and the sum of £53,555 from the Country Roads Board Fund and Federal-aid funds for the purchase of materials, making of surveys, &c., the total expenditure was £268,932.

The principal works provided for the construction of roads to open up new areas for settlement, the extension or improvement of existing roads for the same purpose, and the construction of roads to facilitate the cartage of timber from State forests.

The works carried out form a very valuable addition to the Board's normal programme in enabling roads to be constructed which, under ordinary circumstances, could not have been put in hand by the municipalities or the Board from their own financial resources for many years. At the same time means of access has been made available to undeveloped areas, thereby assisting in the development of the State, and rationed employment was found for 6,631 men.

Particulars of the expenditure are shown in the following statement :—

	Relief Grant.	Supplementary.		Federal Grant.	Total.
		Country Roads Board Fund.			
		Main Roads	State Highways.		
	£	£	£	£	£
State Highways	11,204*	..	3,409	..	14,613
Developmental Roads	111,476	..	..	16,223	127,699
Main Roads	70,891	9,041	..	21,883	101,815
Forest Roads	7,007	..	..	..	7,007
Roads to Isolated Settlers	9,907	..	..	1,729	11,636
Tourists' Roads	4,892	..	..	1,270	6,162
Total	215,377	9,041	3,409	41,105	268,932

* Includes £987 from Unemployment Relief Taxation.

The expenditure was distributed over 390 roads, and 101 municipalities participated.

The work, which was widely distributed over the State and comprised mainly grubbing, clearing and earthworks, provided the maximum employment without sacrificing any advantages from the use of such plant as was used on the work.

For the reconstruction and improvement of outer metropolitan roads an amount of £10,500 was made available from unemployment relief funds. This sum was supplemented by an amount of £11,615 from the Country Roads Board Fund and Federal funds.

The work done comprised the reconditioning and surfacing of the following roads, the amounts allotted having been fully expended :—

	Amount Allotted.
Burwood Road	£2,500
Edithvale–Springvale Road	3,000
Warrigal Road	3,000
North Road	2,000
Total	£10,500

The provision of £39,513 for the construction of roads in forest areas, including £30,000 for the Noojee–Erica Road granted in April last and £763 brought forward from the previous year enabled valuable work to be carried out in conjunction with the Forests Commission. These roads in addition to giving facilities for the cartage of forest produce will serve a very useful purpose in supplying the means of transporting the primary produce of a number of settlers whose farms adjoin or are situated in the vicinity. The sum of £7,007 was expended to the 30th June.

A further grant of £3,000 for the forming and gravelling of roads used by fruit growers in the Shepparton District was made on condition that a contribution of £750 was made by the Council. The expenditure to the 30th June was £1,804.

For the forming, widening, and surfacing of roads used by fruit growers in the Ardmona Settlement, the sum of £2,000 was also provided from unemployment relief funds, but as the amount was not made available until late in the year no expenditure was incurred before the end of the financial year.

The following are the more important works carried out during the year :—

Improvements to the Omeo Highway by the re-alignment and construction of a section between Double Bridges and St. Patrick's Creek, and the replacement of an old single-span timber bridge by a modern structure.

On the Bonang–Gelantipy Road a deviation at Mount Turnback for a distance of 1·9 miles.

2·33 miles of construction on the Lindenow–Dargo Road, 4·92 miles of similar work on the Buchan–Ensay Road, and a total of 2·04 miles on the Orbost–Buchan Road.

An important work on the Marlo Road, designed to raise the formation above normal flood level, was carried out over a length of 1,600 feet along the bank of the Snowy River at a point known as Gilbert's Gulch.

Improvement of the eastern section of the Prince's Highway beyond Orbost by re-alignment, widening, surfacing, and the erection of a new bridge.

Widening a section of the Omeo Highway near Lightning Creek for a distance of 1·23 miles, and clearing and forming on the Upper Rose River Road over a length of 1·64 miles.

Extension of clearing and forming on the Benambra-Limestone Road over a length of 14,178 feet.

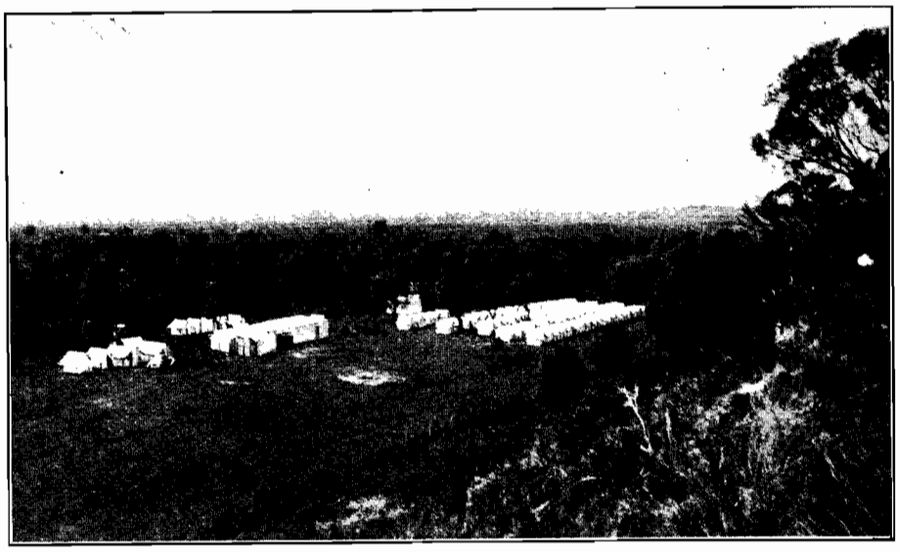


Plate No. 17—Showing a typical Unemployment Relief Camp.

Re-aligning and surfacing on the Ouyen–Pinaroo Road which, with the works in hand, will provide a surfaced road to the South Australian border.

In the Heytesbury Settlement 8·57 miles of light gravel surfacing and excavation of 6·33 miles of drains in the Brucknell area.

On the Glenfyne–Digney's Bridge Road and the Kennedy's Creek Road formation of 2·04 miles and 2·01 miles respectively. These works will be of considerable service to the settlers.

By the provision of unemployment relief funds, supplemented by allocations from Federal funds, a considerable amount of road works was completed in the Stanhope Estate closer settlement area; 18¼ miles were constructed in gravel, and almost every settler has now a suitable access to the main roads.

Construction of the Noojee–Erica Road to provide access to the Tanjil forest area which is now being developed.

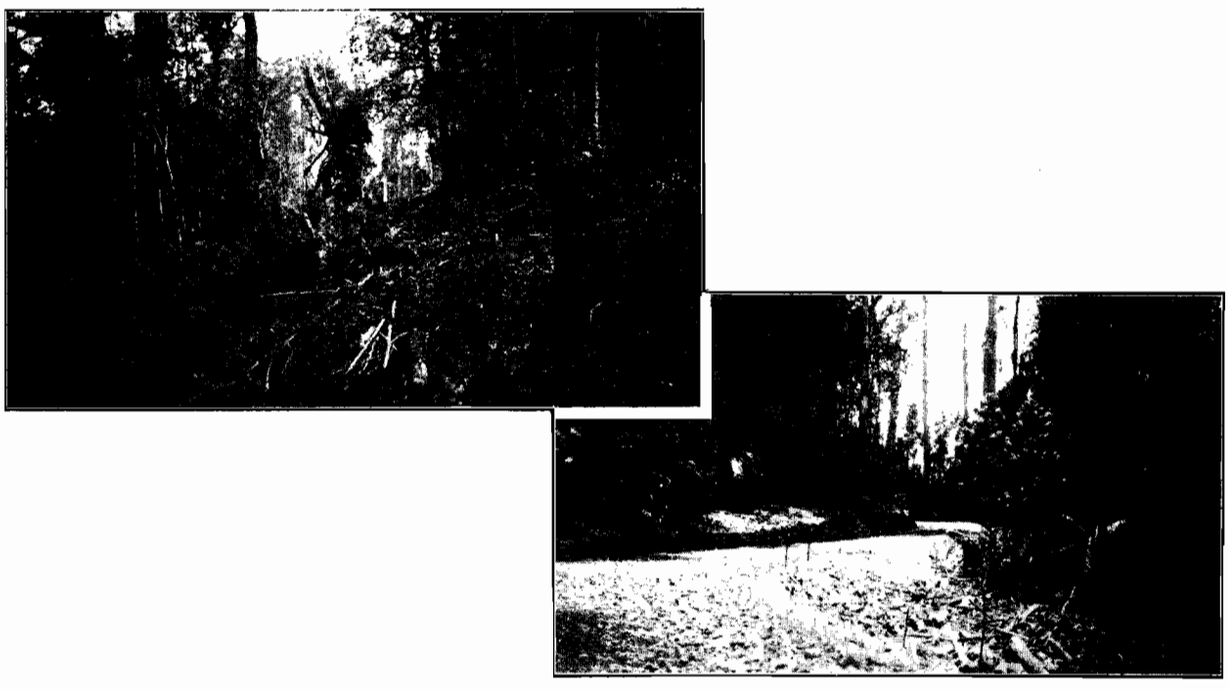


Plate No. 18—Illustrating type of country through which the Noojee-Erica Road is being constructed, and Plate No. 19—Completed section of forming under a light covering of snow on the same road.

Clearing and forming between Mount Little Bill and Bendoc in Eastern Gippsland, giving access to good country which has hitherto had no outlet towards Orbost.

Construction between Madalya and Hiawatha in South Gippsland, and Barramunga and Gellibrand in the Otway area, with a view to improving transport conditions in dairying districts.

Regrading, clearing, and reforming on Willung South Road (Rosedale Shire), Koetsveldt Road (Bass Shire) and Kennedy's Creek Road (Heytesbury Shire), to enable neglected areas to come into production.

The extension of the Upper Rose River Road in the North-Eastern District serving many new settlers.

Clearing, forming, and spreading of surfacing material on sticky clay on the Lake Marmal, Boort–Wycheproof, and Warracknabeal-Birchip Roads.

Reforming and reconstruction of the Mansfield Road (Merrijig–Mount Buller section), near Mansfield, enabling large sawmills to be established at the foot of Mount Buller and improving the access to an important winter resort.

Reconstruction of the Taggerty–Thornton Road in the Shire of Alexandra, thus providing a valuable connexion between the Healesville–Alexandra Road and the Upper Goulburn area.

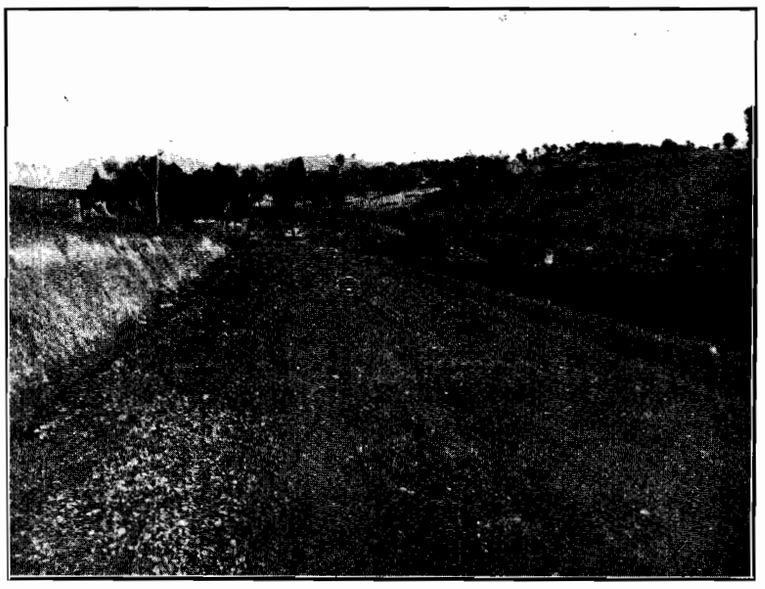


Plate No. 20—Showing a completed section of the Taggerty-Thornton Road in the Shire of Alexandra.

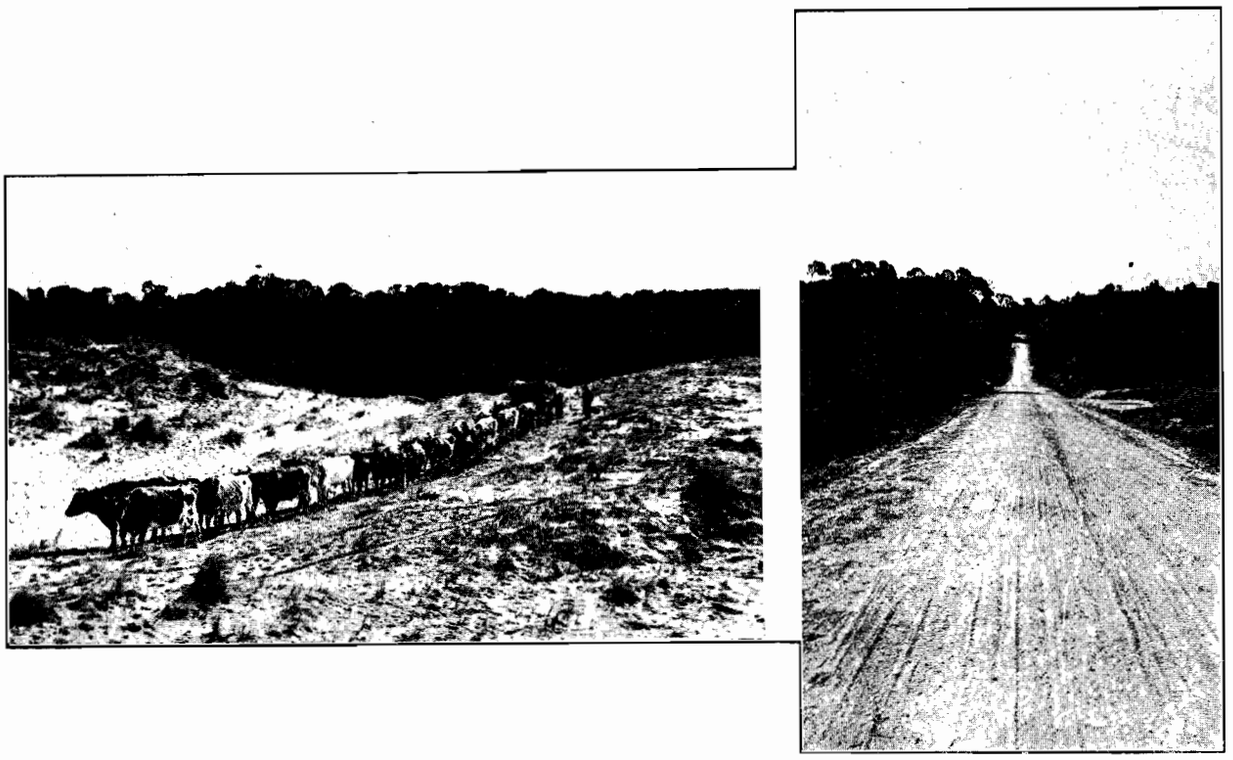
Extension of side-cutting from Bonnie Doon towards Maintongoon by ½ mile, and construction of two bridges and gravelling on previously formed lengths.

Widening a further section of the Mount Dandenong Road between Kalorama and Olinda and spreading a base course of surfacing material.

Further widening of the narrow side-cuttings on the Licola Road which has effected a much-needed improvement.

Widening of narrow sections of the Wood's Point Road, over lengths totalling almost 2 miles, on which traffic has in recent years increased considerably.

Construction of the Darby River Road through heavy sand dunes over a length of 2½ miles, the slopes of the new formation being loamed and a light surfacing of local materials provided. When complet d, this road will serve the National Park at Wilson's Promontory.



Plates Nos. 21 and 22.—Illustrate the condition of country and type of work being carried out on the Darby River Road on Wilson's Promontory.

BRIDGES.

In the construction of new bridges and the restoration of old structures considerable progress was made during the year. Plans and specifications for 200 bridges were prepared, 134 by municipal councils at a total estimated cost of £52,000, and the remainder by the Board at a total estimated cost of £136,800.

Of the main road bridges it was necessary to widen the bridge over the Patterson River at Carrum, on the Point Nepean Road, at an estimated cost of £5,000, and this work is now in progress. It is interesting to note that although the original bridge was only completed as late as 1927, the increase in traffic made it necessary to widen the structure ten years later.

A new bridge over the Goulburn River at Murchison, which replaced an old structure built 70 years ago, was completed during the year and opened by His Excellency the Governor in March last. The new bridge consists of six spans, of which five have a length of 42½ feet, the sixth having a length of 175 feet over the main channel of the river. The total length is 387½ feet.

Provision was made for a roadway of 20 feet and a footway of 4 feet. The structure has been so designed that debris is not likely to accumulate as in the case of the old bridge.

Including the road works the new bridge cost £14,000.

Plate No. 23.—New bridge over the Goulburn River at Murchison.

The flood in the Mitchell River at Bairnsdale in April, 1936, washed out the centre pier of the Glenaladale Bridge and caused the collapse of two 60-ft. span timber trusses. Reconstruction was completed during the year, the piers which remained intact having been strengthened, and welded steel trusses of a clear span of 120 feet being erected by contract. The strengthening of the piers and the construction of the new deck was undertaken by day labour under the supervision of the Shire Engineer.

To replace a decrepit bridge over the Loddon River at Newbridge a new bridge with timber approach spans and steel girder central spans was erected. This is one of the many bridges over the Loddon River, the replacement of which has been found necessary recently; others are located at Newstead, Eddington, Serpentine and Kerang, where new bridges in some cases have already been built and in other cases are about to be erected.

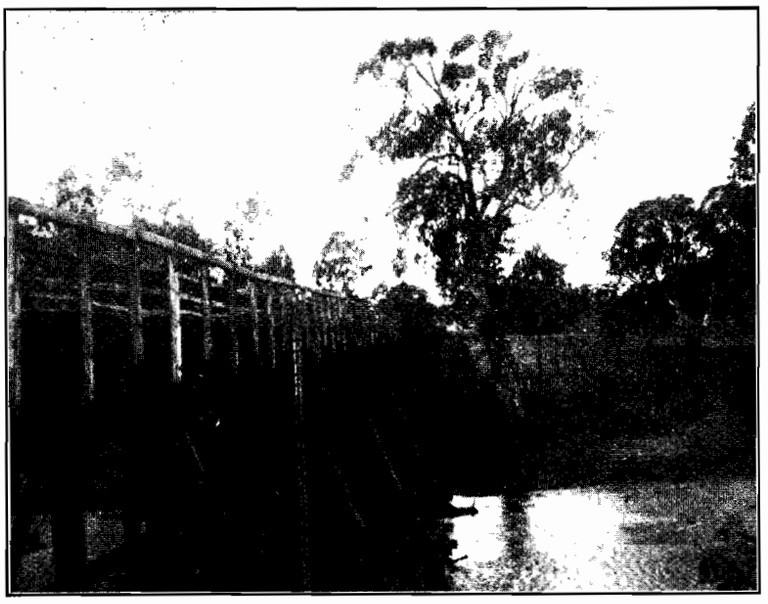


Plate No. 24.—Showing the Old Bridge over the Loddon River at Newbridge.

Plate No. 25.—Showing the New Bridge over the Loddon River at Newbridge.

On the Benalla–Yarrawonga Road a new reinforced concrete bridge of the flat slab type was erected over Stockyard Creek.

Plate No. 26.—New bridge over Stockyard Creek on the Benalla-Yarrawonga Road.

On the Shepparton–Nagambie Road two new reinforced concrete bridges each 22 feet wide and having lengths of 109 feet and 49 feet respectively were built at a cost of £2,000 and £700 to replace old worn-out narrow structures.

A new reinforced concrete bridge over the Ovens River on the Murray Valley Highway of a total length of 730 feet and a width between kerbs of 22 feet, was completed. The two end spans are each 40 feet and the thirteen intermediate spans each 50 feet. Included in the work was the construction of a deviation on the eastern side of the river and the construction of an embankment across the low flats on each side of the main river channel. The new road and bridge are above flood level, whereas the old route was on such a low level that traffic was blocked for days at a time on many occasions during the winter and spring. The total cost was £16,750.

Plate No. 27.—Showing new bridge erected over the Ovens River on the Murray Valley Highway.

Owing to difficulties experienced by the contractor, the Board determined his contract for the erection of two reinforced concrete bridges over the Latrobe River and adjacent flats on the Prince's Highway at Rosedale, and the work was completed by day labour under the Board's direct supervision.

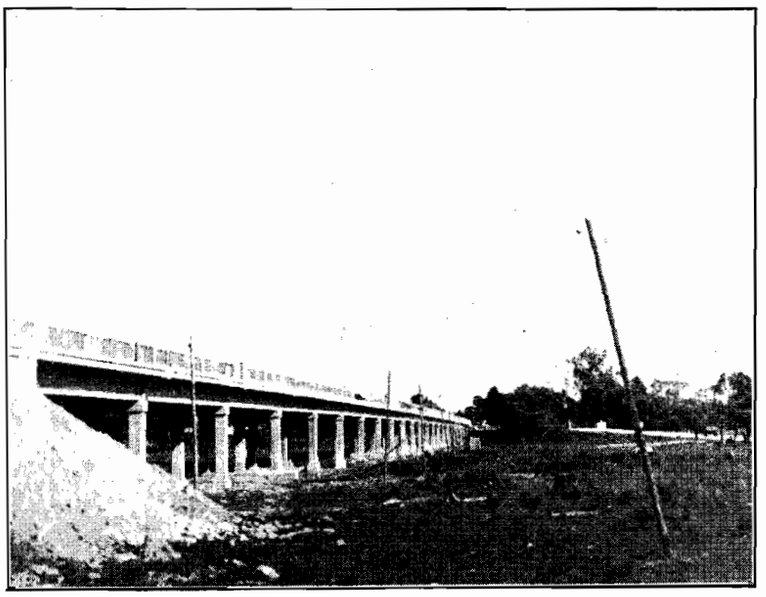


Plate No. 28.—Showing reinforced concrete bridge 1,100 feet long over river flats near Rosedale.

The two bridges, which are 550 feet and 1,100 feet long respectively, consist of a series of 50-ft. spans. By the end of the financial year 28 of the total number of 33 spans had been concreted. A contract was let for the construction of the embankments between the bridges and for regrading and re-aligning the road to the east of the river. The new structures have been designed to provide an excess waterway even over that of the colossal flood of 1935 and delays in crossing the river should be avoided in the future.

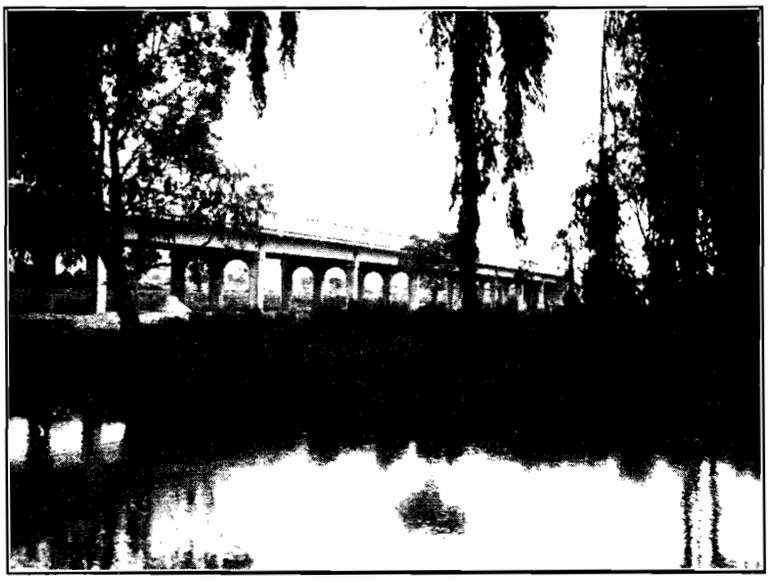


Plate No. 28a.—Showing second reinforced concrete Bridge 550 feet long over Latrobe River near Rosedale.

The estimated total cost of the bridges and road works is £37,000.

A view of the partially completed work is shown in Plates Nos. 28 and 28a.

Further progress was made on the bridges on the Murray Valley Highway between Echuca and Gunbower, at Nathalia, and on the Kiewa Flats; flat slab bridges, similar to those illustrated in last year's Annual Report, having been constructed at a cost of £1,700, £3,875 and £1,520 respectively.

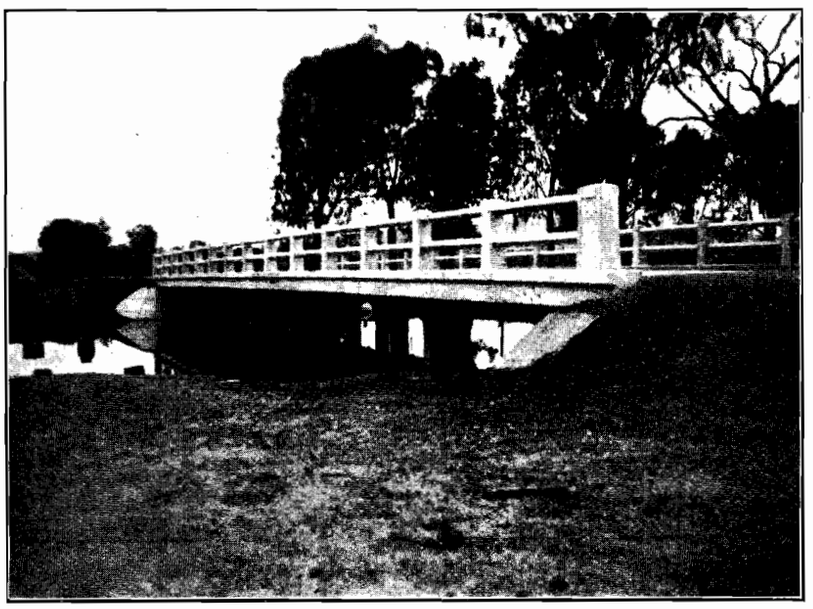


Plate No. 29.—Showing new flat slab bridge over Kiewa River flats at Bonegilla on the Murray Valley Highway.

A new concrete bridge at Chewton on the Hume Highway was constructed at a cost of £710, and the road re-aligned to eliminate a dangerous bend.

The bridge over and approaches to the Hopkins River on the Western Highway have been rebuilt to increase the safety of this section of the road. The former bridge had reached the end of its usefulness, and the deck was nearly 5 feet above the roadway. As the roadway acted as a floodway it could not be appreciably raised. The superstructure has been reconstructed in steel and timber on the original masonry abutments which were lowered and widened.

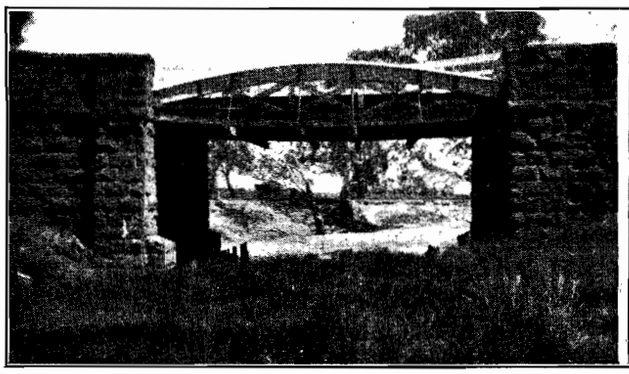


Plate No. 30.—Showing Old Bridge over Hopkins River on Western Highway at Dobie.

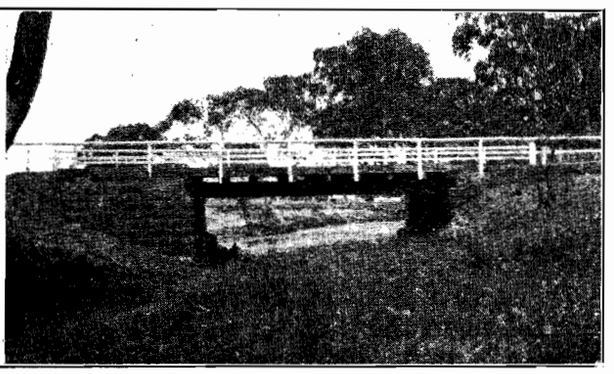


Plate No. 31.—Showing Bridge over Hopkins River after lowering and reconstruction on existing masonry abutments.

On the Prince's Highway West at Allansford a new reinforced concrete superstructure was erected in place of the old wooden bridge at a cost of £1,685.

Under the provisions of the *Country Roads Act* 1936 (No. 4458) the Board was given authority to maintain any bridge, punt, ferry, &c., over the Murray River, together with approaches thereto. The cost of constructing new bridges is to be defrayed out of any funds provided by Parliament for the purpose, or any other moneys at the disposal of the Board, except moneys standing to the credit of the Country Roads Board Fund.

After a Conference with the Department of Main Roads, New South Wales and the Victorian Railways, the necessary arrangements were completed for carrying out the maintenance of the bridges, &c., and decisions were arrived at as to the apportionment of the costs. An agreement has been reached in which each State is to bear half the cost of the maintenance of these crossings except where the railway crosses the structures, in which case a proportion is to eb borne by the Railways Commissioners. The amount expended by the Board during the financial year was £1,700.

Particulars of bridges constructed in the metropolitan area are set out under the heading of " Metropolitan Roads and Bridges."

METROPOLITAN ROADS AND BRIDGES.

Roads.

A feature of the year's work was the progress made in the construction or reconstruction of outer metropolitan roads situated between declared main country roads leading to the metropolis and tramway termini, or connecting with through metropolitan roads. The expenditure for the year was £66,465.

The total expenditure on these projects since the *Country Roads (Borrowing) Act* 1933 (No. 4188) came into force was £134,296 to the 30th June last, leaving a balance of £115,704 available from the existing authorization of £250,000, which was increased to that amount by Act No. 4414 passed by Parliament in November, 1936.

During the year the most important projects started were the reconstruction of Warrigal Road in the City of Moorabbin and the Punt Road bridge in the City of Melbourne.

Warrigal Road, which is an important thoroughfare for traffic from the eastern suburbs to the Mornington Peninsula at holidays, and also to numerous golf courses at all times, was in a very poor condition—being narrow, rough, and with a high crown. Unemployment relief funds were made available for labour only, and the Board supplemented this with maintenance funds to make it possible to widen and resheet the road from Centre Road to Oak Grove, a distance of 3 miles.

At the Maribyrnong River, on the Ballarat Road on the boundary of the Cities of Melbourne and Footscray, work was continued on a new high-level bridge, and on the Footscray side the road was reconstructed. This road has been in bad condition for some years, being rough, somewhat narrow, and with a high crown. Storm-water drains were constructed, making it possible to do away with the old-fashioned deep gutters; the old road was widened with modified macadam and the whole resheeted with a bituminous surface. The result is a very satisfactory roadway which can be travelled at any safe speed. The work was carried out at a total cost of £11,200. The roadway only cost £5,750, whereas to have reconstructed it completely would have cost about £15,000, representing a saving of £9,250.

The work on the Beach Road, Sandringham, which was commenced last financial year was completed, and of the total length of 5·82 miles within the city 4·58 miles are now in good condition, having been widened to 30 feet and reconstructed to a modern flat section. The amount reimbursed during the year was £10,000.

On the Heidelberg Road, at the boundary of the Cities of Collingwood and Heidelberg, where the old bridge over the Merri Creek was widened to double the original width, the approaches were reconstructed for some distance on both sides to join with the existing wide roadways, thus removing an objectionable bottle-neck which has persisted for many years. On this road where the width at the bridge is 54 feet between kerbs, and therefore sufficient to take six lanes of traffic comfortably, the Board introduced what is something of an innovation by dividing the roadway into "up" and "down" streams of traffic by a narrow concrete division. As a result, it is not now possible for vehicles to meet in head-on collisions and thus one element of danger has been avoided. The amount expended during the year was £12,619.

On the Healesville Road, in the City of Box Hill, the work started last year with loan funds was completed, and there is now a modern roadway with a bituminous top over a rolled concrete base in place of the worn-out macadam road. The remainder of the road has been put into good condition from maintenance funds. Towards the end of the year the work of improving the curve at Middleborough Road at the boundary of the Shire of Blackburn and Mitcham was commenced.

For the Burwood Road, in the same city, unemployment relief funds were made available resulting in the roadway on the east side of Gardiner's Creek to the city boundary at Middleborough Road being regraded and widened to 30 feet. Maintenance funds were made available by the Board to commence the surfacing of this section with fine-crushed rock. The sealing of this work will be completed next year.

In the City of Camberwell sections of the Doncaster Road were widened so that "through" traffic will not be impeded by stationary vehicles parked by the roadside. In addition, a very objectionable open crossing at Burke Road was removed by regrading, the water being taken underground. The Melbourne and Metropolitan Tramways Board has constructed a tram line between Burke Road and Bullen Road, a length of 0·71 miles, and this section has since been demained under the provisions of Section 7 of Act No. 4458.

In the City of Preston, Epping Road, which is commonly known as High Street, was widened for a length of ·7 miles north from Murray Road—modern kerbs and channels being constructed so as to form a reasonably flat cross-section, convenient to traffic, in place of the old high-crowned road. With the co-operation of the Melbourne and Metropolitan Board of Works a duplicate water main was constructed along this length, and the old one along the centre of the road abandoned so that the road surface will not be marred by openings made for alteration and repair to water services.

In the City of Coburg the rolled concrete base which was constructed last year over a length of ·6 miles was surfaced with a bituminous top, the amount reimbursed during the year being £6,828.

On the Bendigo Road, within the City of Essendon, which has been declared a main road over a length of ·68 miles, the Tramway Board extended its tramway for a length of ½ mile. On the remaining section to the city boundary a drag-spread bituminous top was constructed, and this section is now completed.

The experimental work on Napier Street, in the City of Footscray, has been continued, and interesting and important results have been obtained. The large number of vehicles using this section, combined with the very heavily-loaded steel tires of many of them, is so destructive that comparison between the different types of surfacing can be obtained in a few months, whereas with ordinary traffic no difference might be discernible for as many years. The actual cost during the year of these experiments was £246.

Bridges.

The widening of the old masonry arch bridge over the Merri Creek on the Main Heidelberg Road, which was commenced last year, has almost been completed in reinforced concrete to provide a total width of 66 feet. The original faced-stone of the old structure was stripped from the downstream side and placed as a covering to the new concrete to preserve the appearance of the old bridge. The old wrought-iron handrailing which was in an excellent state of preservation, was moved to the edge of the widened bridge.

The masonry end-posts of the bridge were slightly altered and made lower to take heavy cast-iron lamp standards, one standard supporting two large lamps having been placed in each of the four corners of the bridge. The total cost of the bridge and the roadway was £21,085, the whole of which was provided from loan funds.

In the last Annual Report reference was made to the letting of a contract for the substructure of a new bridge over the Maribyrnong River on the Ballarat Road on the boundary of the Cities of Melbourne and Footscray.

During the year the substructure contract was duly completed, and tenders were accepted for the construction of steel girders, reinforced concrete deck, wrought-iron ballustrade, and for the approaches. The steel girders, which have now been completed, are shown in position in the photograph reproduced in Plate No. 32.

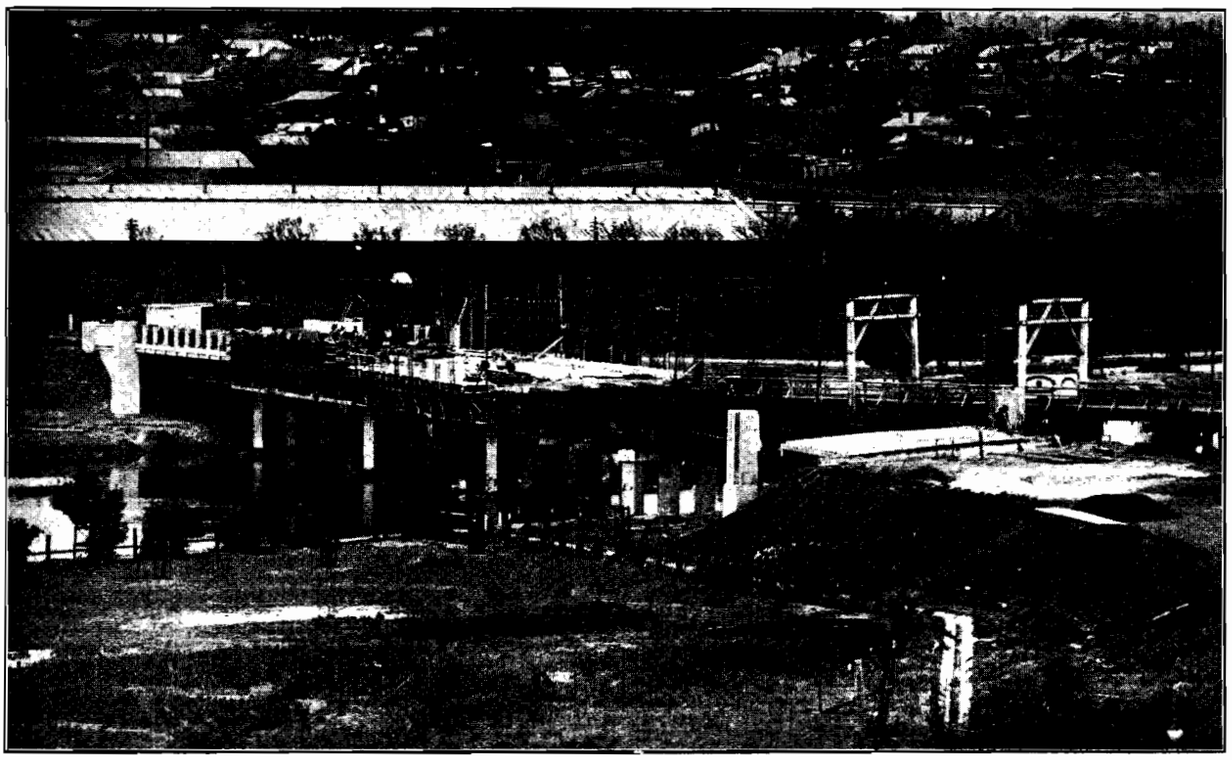


Plate No. 32.—Showing progress made with the construction of Lynch's Bridge over Maribyrnong River.

The contract for the superstructure was taken over by the Board at the contractor's request, and is now being proceeded with by day labour. Practically all the filling, consisting of 30,000 cubic yards, required in the new approaches has been placed.

It is anticipated that the new bridge and approaches will be completed by the end of 1938 at a total cost of £33,500, which is being charged to loan funds under the provisions of the Country Roads Act.

A new bridge over the River Yarra at Punt Road was commenced during the year. The estimated cost of the work is £78,000, including land resumption, construction of roads, and the transfer of public utilities from the present footbridge to the new bridge. The whole cost is being provided from loan funds under the Country Roads Act, half of which will be apportioned to the Melbourne City Council on completion of the work.

An artist's drawing of the completed bridge is shown in Plate No. 33.

The bridge, which will cross the river at an angle of 45 degrees on the continuation of Punt Road, Richmond, constitutes part of a scheme for the relief of traffic congestion in the City of Melbourne. A new connexion will ultimately be made with the bridge, by the construction of a new road by the Melbourne City Council between the railway line and the Melbourne Cricket Ground Oval, whilst Punt Road on the northern side of the river will be widened.

The new bridge will have a roadway width of 50 feet and two footways each 8 feet, making a total width of 66 feet between the balustrades.

There will be five visible spans in the structure, two end spans each of 65 feet and three central spans of 85 feet—a total length of 385 feet.

Extensive bores showed that bed-rock occurred all over the site of the proposed bridge at a depth of 50 to 60 feet below normal water-level. The complete general design was completed early in 1937 and tenders were invited for the construction of the abutments and piers in April. This work is now in hand, the first pile having been driven by the Honorable G. L. Goudie, M.L.C., Minister of Public Works, in the presence of representatives of the Council of the City of Melbourne and adjoining municipalities.

A contract for the superstructure will be entered into later in the year so that the new bridge should be completed at the end of 1938. In addition to providing for road and pedestrian traffic, the new structure will serve to carry public utilities such as water, electricity, gas, and telephones over the river.

The total expenditure on metropolitan roads during the year was £25,988, and £40,476 on bridges.

TOURISTS' ROADS.

In the past no definite system has been in force for the maintenance of roads to tourists' resorts which have been constructed from loan moneys and other sources.

In 1922 the sum of £50,000 was made available by the Government to the Tourist Resorts Committee from loan funds for the construction of tourists' roads, such as the Acheron Way between Warburton and Narbethong, roads in the Grampians, and other localities, and the whole of this sum has been expended, but no definite arrangement was made for the maintenance of these and other tourists' roads constructed from time to time as funds became available, other than money made available for expenditure by the Tourists' Resorts Committee for the maintenance of tourists' roads and tracks under the Appropriation Act. The meagre sum made available, however, has been altogether inadequate for the purpose, with the result that these roads have seriously deteriorated.

To ensure a continuance of essential work in the way of improvement and maintenance of these roads, a Bill was passed by Parliament in October last to provide that, in future, the Country Roads Board shall carry out permanent works on, permanent improvements to, and maintenance of such roads as may be proclaimed tourists' roads by the Governor in Council on the recommendation of the Board, and that any road or part of a road which was a tourists' road within the meaning of Part XII. of the *Land Act* 1928 immediately before the passing of the *Tourists' Roads Act* 1936 is to be included in the proclamation.

The cost of permanent works and permanent improvements is to be defrayed out of moneys provided by Parliament for that purpose, and any other moneys at the disposal of the Board, other than moneys standing to the credit of the Country Roads Board Fund. The cost of maintenance is to be defrayed out of the Country Roads Board Fund.

As the Board with its organization, modern equipment and plant, is in a position to carry out the necessary work from time to time both economically and efficiently, without increase in staff, and without any charge on the consolidated revenue of the State, the assets created by the construction of these roads will be preserved and improved facilities will be given to the public to visit many tourists' resorts which were hitherto inaccessible on account of lack of roads.

In accordance with the authority given under the Act, the following roads were proclaimed tourists' roads in December last :—

Acheron Way from its junction with the Marysville Main Road to Warburton Road.

Alpine Road from Harrietville to Omeo.

Donna Buang Road from its junction with the Acheron Way at Cement Creek to Mount Donna Buang, and thence from Panton's Gap to its junction with the main Healesville Road.

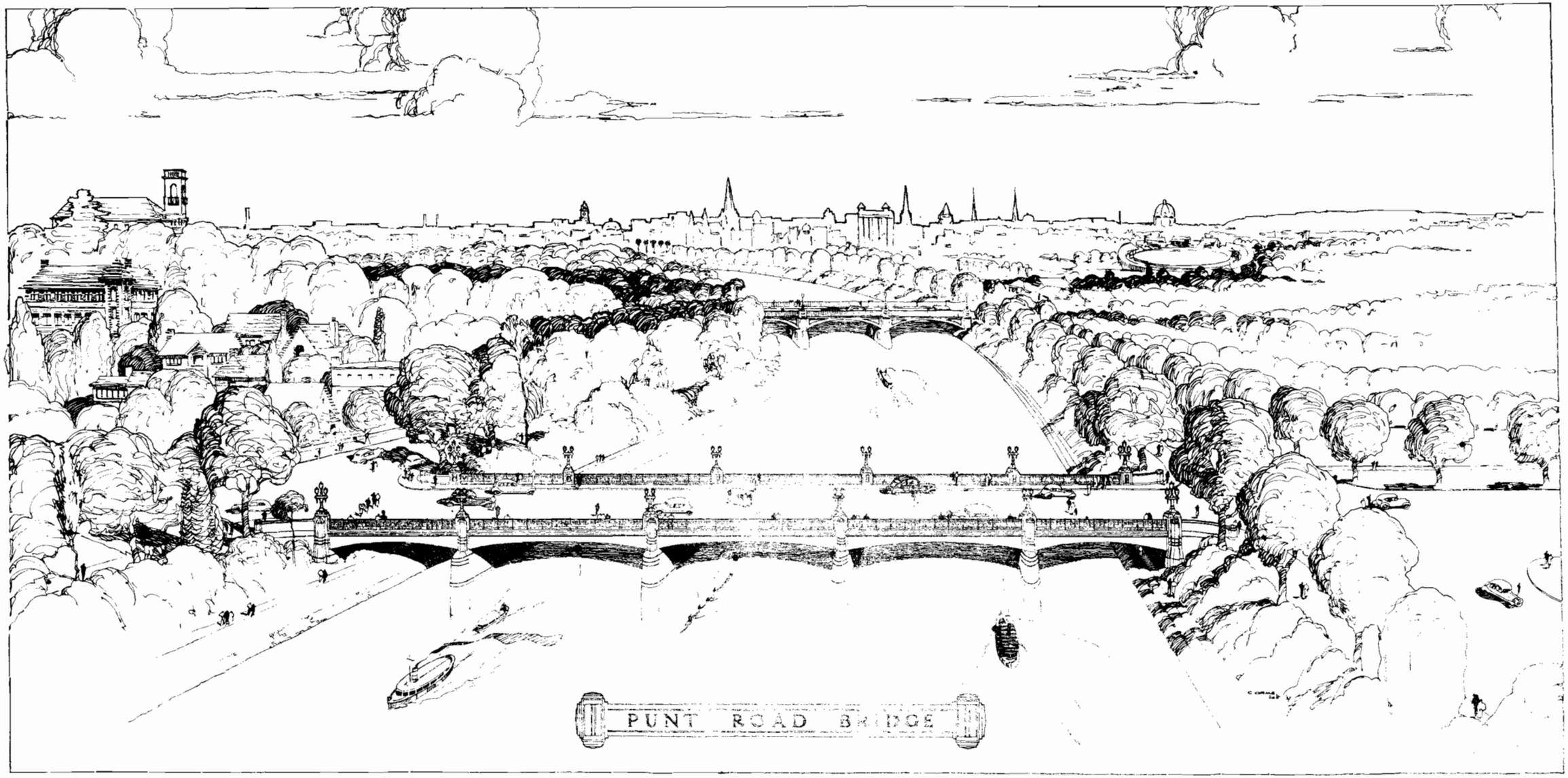


Plate No. 33.—Perspective drawing of Punt Road Bridge now in course of erection over Yarra River.

Grampians Roads—

(*a*) From Stawell through Hall's Gap to Victoria Valley.

(*b*) From its junction with the road at Hall's Gap, thence past Mount Victory and Wartook to Carter's bridge on the Horsham Road, including the connexion to Lake Wartook.

(*c*) Silverband Falls Road, forming a connexion between the above.

Mallacoota Road, from its junction with the Prince's Highway at Genoa to Mallacoota, including the connexion to Gipsy Point.

Mount Buffalo Road, from its junction with the Bright Road to the Government Chalet on Mount Buffalo.

Ocean Road, from Torquay through Anglesea and along the coast to Peterborough, omitting sections of main road through Lorne and Apollo Bay and including road to Cape Otway Lighthouse.

Sydenham Inlet Road, from its junction with the Prince's Highway thence to Sydenham Inlet.

A number of these roads includes sections which were formerly main roads on which commitments had been entered into prior to their declarations as tourists' roads in December last. The total expenditure incurred on account of reconstruction, widening, &c., was £22,657 to the 30th June. On the remainder of the roads on which no expenditure had previously been incurred by the Board, £8,015 was expended from the 2nd December to the end of the financial year. The total mileage of roads which were declared tourists' roads to the 30th June was 344.

With the progressive improvement and maintenance of tourists' roads from year to year the Board anticipates that these roads will be placed in good trafficable order within the next few years.

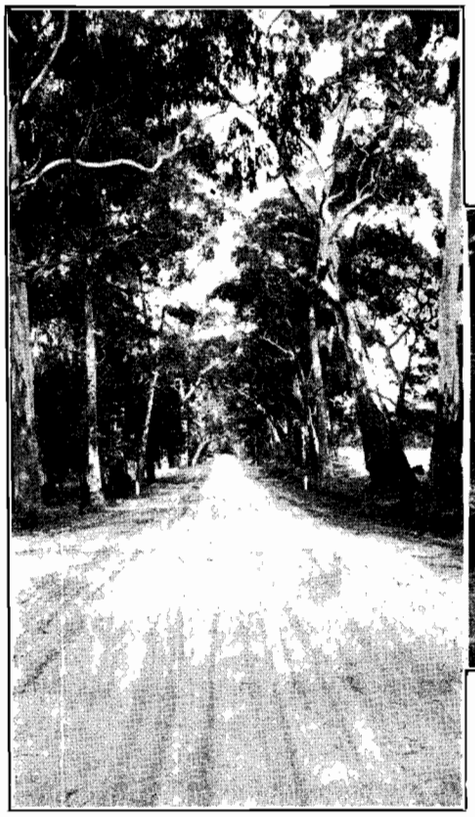


Plate No. 34.—Showing section of the Grampians Road, which was lightly gravelled during the year.

Plate No. 35.—Showing the New Bridge over Fyann's Creek, on the same road.

OCEAN ROAD.

In 1928 the Great Ocean Road Trust, which subsequently became the Great Ocean Road Trust Pty. Ltd., was formed by the Honorable Howard Hitchcock, C.M.G., O.B.E., M.L.C., with the object of making an appeal to the public for the necessary funds for the construction of a road along the southern coast of Victoria between Barwon Heads and Warrnambool for the purpose of providing employment for soldiers returning from the war.

About £20,000 was raised by public subscription and the Trust purchased land along the road. Such land as was not actually required for the road was sold from time to time and the proceeds applied towards the cost of road construction. The Country Roads Board, with the approval of the Government, carried out the work on behalf of the Trust.

As soon as the road was constructed to a standard sufficient to allow traffic to traverse it, a toll-gate was installed by the Company whereby funds were collected from users of the road for further improvements to the road as well as for maintaining the section under the immediate care of the Company.

In April, 1935, in anticipation of the visit to the road of His Royal Highness the Duke of Gloucester, the Company, under the terms of the Unemployment Relief Loan and Application Act, borrowed the sum of £25,000 for the purpose of widening and surfacing the road.

Having completed the road and linked it up with the district road system constructed by the Board, the Company entered into an agreement with the Honorable the Treasurer to transfer the care and management of the road to the State and to take steps for the winding up of the Company. This agreement was ratified in the *Great Ocean Roads Lands Act* 1936, passed by Parliament in October of that year. The toll-gate erected on the road by the Company was thereupon abolished.

Under the Act it is provided that the Great Ocean Road Trust Pty. Ltd. shall—

(*a*) Transfer and surrender to his Majesty the King—

(1) On or as soon as practicable after the 2nd day of October, 1936, all land on which is situated the road known as the Great Ocean Road.

(2) On or before the 1st May, 1939, all land held by the Company on that date.

(3) Other land indicated in order that same may be dedicated as a permanent forest under the Forests Acts.

(*b*) Transfer to the Crown all moneys received by the Company in payment for land sold except so much as is required for the expenses of the Company.

(*c*) On the 1st May, 1939, transfer to the Crown all moneys except so much as is required for the fulfilment of outstanding obligations.

(*d*) On the 1st May, 1939, transfer to the Country Roads Board all property held by the Company on that date. Such property may be held by the Board for the purpose of the Country Roads Acts or sold by the Board, the net proceeds to be paid into the Country Roads Board Fund.

Provision was also made for the Governor in Council to proclaim as a public highway so much of the Ocean Road situated on lands to be transferred to the Government; for the Company to be exonerated from liability for repayment of £25,000 advanced to the Company for widening and surfacing the road, and for such liability to be discharged by the Country Roads Board from the Country Roads Board Fund.

All moneys paid by the Company to the Government are to be paid into consolidated revenue and an equal amount is to be paid from consolidated revenue into the Country Roads Board Fund.

TREE PLANTING AND ROADSIDE IMPROVEMENTS.

A recommendation made by the Board to the Government that an amount of £3,000 per annum be set aside out of the Country Roads Board Fund to supplement local effort in planting trees along State Highways and Main Roads was approved by the Government, and legislation was enacted in December last providing that maintenance of Main Roads and State Highways shall include the planting of trees.

In addition, during last financial year the sum of £10,000 was provided by the Government from unemployment relief funds for the extension of tree-planting on roads. Of this sum, £4,000 was set apart to meet the cost of propagating and supplying trees by the Forests Commission, leaving £6,000 to defray the cost of labour in preparing the ground and erecting the guards and fencing, the material for which is to be supplied by the Country Roads Board. The Board is to care for such trees as have been planted on roads under its jurisdiction. The amount expended by the Board from this source to the 30th June, 1937, was £987.

The efforts made to improve the roadsides by the planting of suitable trees and the preservation of indigenous timber on each side of the roadway have aroused wide-spread interest throughout the State. This has been done with the co-operation of of Municipal Councils, Progress Associations, and other bodies, resulting in trees being planted in denuded areas along approximately 100 miles of State highways and 60 miles of main roads.

The improved appearance of the roadsides along the State highways by planting belts, avenues, or groups of trees is already apparent by the adoption of appropriate planting under a general policy and a definite plan to be continuously followed year by year.

The scheme of planting has been so designed that the trees will not interfere with the pavements should they be widened in the future, and the trees have been planted in such positions that they will not interfere with the existing power or telephone lines of the State Electricity Commission and the Postal Department.

The scheme launched by the *Sun News-Pictorial* during the previous season for the planting of trees by pupils of the State schools throughout the State made considerable progress during last autumn; 1,850 trees were planted on State highways by 50 schools over a distance of 20 miles.

Prizes offered by the *Sun* for the best planted and maintained trees in each of the Education Department's districts which were competed for during the previous season were won by pupils of the Swan Hill High School and the following State schools:—Aringa, Baddaginnie, Bullioh, Caldermeade, Culgoa, Granya, Great Western, Inglewood, Milne's Bridge, Nalinga, Narrawong East, Narre Warren, North Shore, Rochester, Rockbank, Swan Hill, Vinifera, and Wangaratta South.

Keen interest was taken by the various schools during the 1936 planting season when 78 schools competed in planting 3,630 trees along the various State highways in the vicinity of the schools.

To prevent the destruction of trees growing on roadsides the Board's officers exercised constant vigilance. No timber is allowed to be removed without the permission of the Board, but in several instances trees were destroyed without the Board's knowledge. Where satisfactory proof was obtainable against offenders proceedings were instituted and fines inflicted.

From the proceeds derived from the sale of dead timber on main roads and State highways additional trees have been planted, and trees which have been cut down on account of their interference with telephone and electric transmission lines have been replaced.

The amount collected from this source last year was £66.

The total number of trees planted during the 1936 season was 11,000 over a distance of 130 miles.

The following statement sets out the number of trees planted on State highways and main roads, including those planted under the *Sun News Pictorial* scheme during the autum of 1937 —

	No. of Trees Planted.	Approximate Mileage Planted.
State Highways—		
Prince's Highway West	1,384	
Prince's Highway East	964	
Western Highway	2,970	
Calder Highway	860	
Hume Highway	668	100
Omeo Highway	70	
Murray Valley Highway	916	
South Gippsland Highway	45	
Midland Highway	1,092	
Main Roads	5,152	60
Total	14,121	160

The Board's patrolmen are responsible for the care and maintenance of the trees as soon as they have been planted.

SAFETY OF THE ROAD.

In consequence of the steady trend to greater speed in motor vehicles, the Board has endeavoured to develop smoother and more durable road surfaces and with the increase in the number of vehicles, has improved the highways by re-aligning, widening, superelevating, marking with white lines, and generally enlarging the facilities for safer transport. It was not foreseen, however, that the improvements which were designed for safer travel would be immediately followed by a rapid development of high-speed vehicles, nor is there any indication that the limit of speed has yet been reached.

Generally speaking, when the main roads and State highways were declared the alignments adopted were those laid out many years ago and were quite suitable for horse-drawn traffic. In the earlier years of the Board's operations, when there was still a fair proportion of that traffic,

alterations were made with the object of improving grades with the result that it was necessary to introduce curves in the hilly country. With the development of motor traffic, however, the question of grade is not of so much importance, the more important feature being alignment. This is being accentuated to a greater extent with the increasing use of high-powered cars even of the cheaper make. In the interest of public safety it is therefore essential to ease curves wherever that is possible by introducing greater radius and by banking and widening. It is also found necessary to make improvement of curves in flat country where these occur on otherwise straight stretches of road in order that the dangerous conditions may be reduced to a minimum. As a general rule, however, it is not the practice to improve curves except in conjunction with more comprehensive works of reconditioning in the vicinity.

The amount expended last financial year on the re-alignment of the most dangerous curves on the whole of the State highways was approximately £17,000.

As far as the funds available will permit, the Board is using every endeavour to build safety into the road. It has planned to extend improvements from year to year in order to increase the capacity of the highways to accommodate present-day traffic, and its normal future increase and, at the same time, safeguard against the hazards that high-powered vehicles travelling at high speed are likely to cause in the hands of unskilled or reckless drivers.

The Board's records indicate that during the past year 386 accidents occurred on State highways, of which 35 were fatal. Information obtained from the Government Statist showed that during the calendar year ended 31st December, 1936, there were 3,680 accidents on roads outside the city and suburban radius, resulting in injury to 2,069 persons ; 185 persons sustained fatal injuries. In comparison with last year's figures, it was observed that there was an increase of 479 accidents on roads beyond the city and suburban area. This fact discloses that in spite of all the improvements effected on rural roads to make them safer, and to the vehicles themselves, the number of persons killed is greater than before the improvements were made. It would appear, therefore, that along with the traffic increase, speed is a factor which enters largely into the accident situation.

Some years ago speed limits through towns were fixed by municipal councils, but it was subsequently found that Councils had no power to do so. Since that time no restrictions have been imposed, as the Police Department, which administers the Motor Car Act, relied on the provisions of section 10 of the Act, which provided that every person who drives a car on a public highway at a speed or in a manner which is dangerous to the public, having regard to all the circumstances of the case, including the nature, condition and use of the highway and to the amount of traffic which actually is at the time or which might reasonably be expected to be on the highway, shall be guilty of an offence against the Act.

The Board is of opinion that in the interests of the safety of the public the time has now arrived when speed limits should be imposed through certain towns. From information recently received from the Police it has been ascertained that the Department is now in favour of restricting speeds in such cases, and the Board would urge that action to this end be taken immediately.

Under the powers conferred on the Board under Act No. 4332, passed in November, 1935, the Board is empowered to impound cattle grazing or found wandering on State highways without the consent in writing of the Board and without some person in attendance ; 1,564 cattle and 118 horses were impounded during the year, 876 persons were cautioned, and prosecutions were launched against 36 persons owing to their having ignored the caution given by the Board's Ranger. The action taken to rid the highways of unattended stock has had the effect of greatly diminishing dangers to traffic, but constant vigilance has to be exercised to prevent owners of stock turning them on to the highways, particularly at night.

The Board again expresses its appreciation of the ready co-operation of municipal councils and the efforts of municipal officers in supplying information and in giving their services, which have materially assisted the Board's officer in carrying out his work.

By the erection of standard warning signs in the form of red triangles, fitted with reflecting lenses for night use at danger points along the roads, drivers are warned to exercise care in the driving of their vehicles. These warning signs have proved of considerable value as they have been placed only in such positions where, after investigation, conditions have indicated that they are essential in the interests of safety, as it is realized that if signs of this nature are erected in any position except where actual danger exists they lose their effectiveness.

Owing to the wanton and wilful damage caused to these signs by irresponsible persons throwing stones and using the reflectors as rifle targets, their effectiveness as warning signs is greatly reduced. The Board has been put to considerable expense in replacing the damaged signs and has, through the Press, and by other means, pointed out that they have been erected

in the interests of public safety, but it is regretted that the disfiguring of the signs still continues. Plate No. 36 is an illustration of a warning triangle which has been so defaced that it has become useless. Owing to the difficulty in detecting offenders the Board has so far been unable to take action against them.

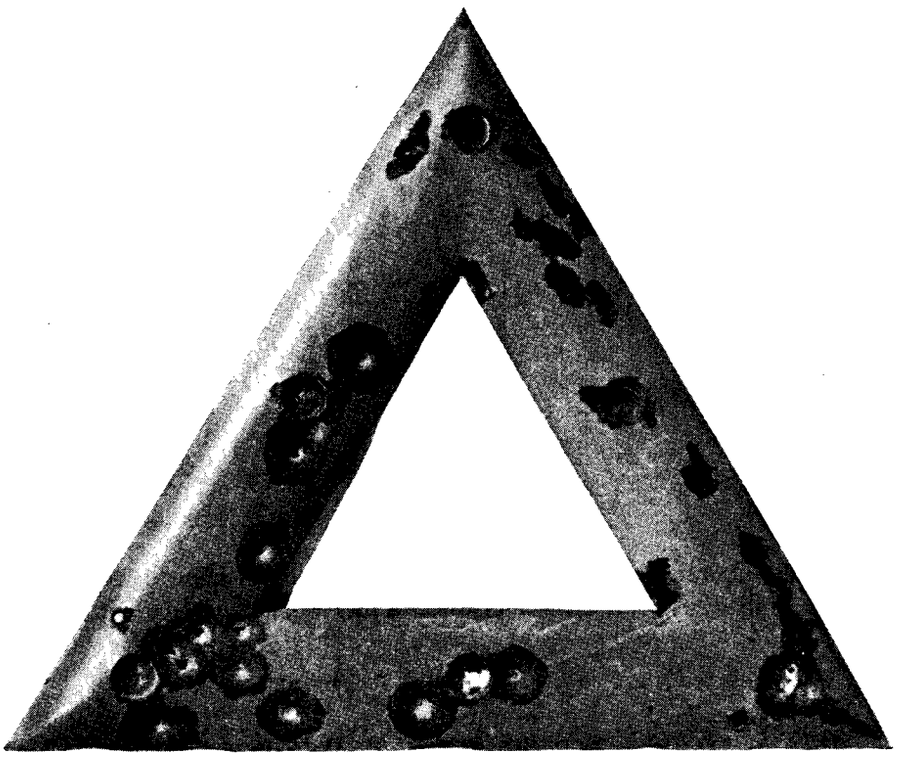


Plate No. 36.—Showing a damaged Warning Sign.

CARE OF ROADSIDES.

In the course of its inspections over various parts of the State it has been observed by the Board that in many Shires little or no attention is being given to the preservation of the natural rights-of-way on each side of the road pavement. In last year's Report the opinion was expressed by the Board that the improvement of the roadways should be accompanied by the improvement of the roadsides, and that the natural beauty of many of the tree-lined highways of the State must be preserved at all costs.

The fact that many of the country roads were originally laid out to widths of 2 and 3 chains primarily to provide suitable stock routes, away from the traffic-bearing portion of the road, must not be lost sight of. It must be recognized, too, that the roadsides are an integral part of the highway and that all the natural and desirable features along the highways should be preserved.

Apart from these considerations, it is imperative in the interests of the safety of the road users that stock should not use the road pavement. This is frequently necessitated through stock being forced to cross on to the pavement by reason of deep unsightly borrow pits having been gouged out for the purpose of obtaining material for shouldering the pavement, resulting in barren patches of ground, hacked areas with mounds of earth and debris remaining on the roadside after the work of constructing the pavement has been completed.

With a view to remedying this cause of complaint, the Board has circularized country municipal councils to the effect that it is imperative that, as far as is possible, stock should not use the road pavement, and with a view to safeguarding the travelling public stock traffic should be confined to the portions of the road area between the fences and the pavement, that care must be taken that fallen trees are removed as soon as possible, that borrow pits are neatly lined out and trimmed in the bottom, and an endeavour made to ensure that jinkers, which generally follow the stock, are given facilities for travelling with reasonable comfort along the roadsides. Where economically possible borrow pits must be drained and the ends and edges well sloped off.

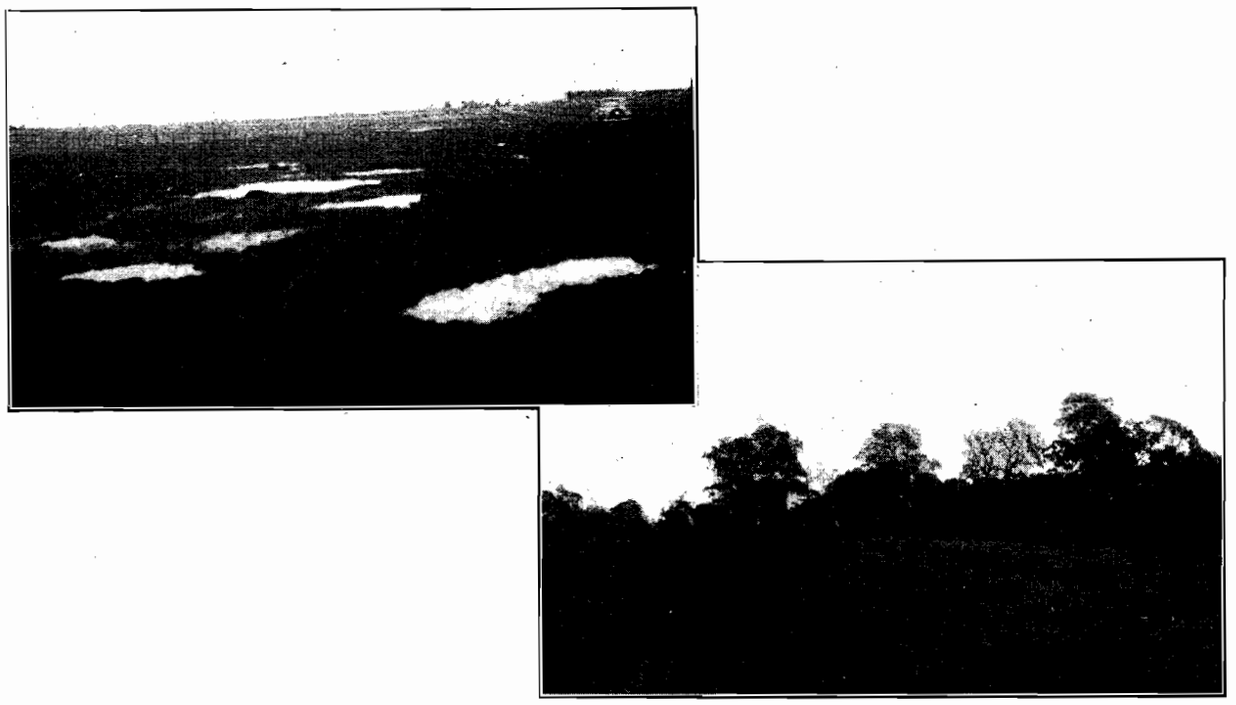


Plate No. 37.—Showing the results of indiscriminate removal of material from the roadside, and Plate No. 38 illustrating the manner in which a borrow pit should be left.

RESEARCH WORK.

The work carried out in the Board's laboratory during the year, in conjunction with the work done in the field, has been an important factor in the construction and maintenance of roads. The rapid increase in the number of motor vehicles and the demand for road improvement to cope with the increasing traffic present a problem in which research plays an important part, the outstanding feature of the problem being the relation of the design of the road to economic factors, such as the relative suitability of the available materials used in construction and maintenance, and the annual cost of maintenance.

The Board has found that a laboratory is an essential part of its organization in order that close control may be exercised over the quality of materials supplied, both to ensure durability of the work performed, and to provide an equitable basis for tendering. In addition, however, it is necessary to investigate adequately all new methods and materials of construction before more costly field experiments are undertaken and to define and develop known methods in order that they may be used in the most economical and satisfactory manner.

Contact with overseas laboratories and research organizations, and with those of other Australian States, is maintained by subscribing to their publications, by interstate conferences of technical officers, and by direct communication on particular subjects. Thus duplication of work is avoided and the results of overseas investigations can be applied or modified as may be necessary.

The Board has increasing evidence of the necessity for relying on continuous laboratory investigations. As an instance, both calcium chloride and common salt are used abroad in some types of construction. Tests performed in the Board's laboratory, and later confirmed by field experiments, have shown that for accelerating the consolidation of fine-crushed rock pavements salt is at least equal to calcium chloride and very much cheaper, while it has also been found possible to use a cheap by-product of salt manufacture for similar purposes.

By the use of such chemicals the period during which a fine-crushed rock pavement is dusty and unpleasant to travel over is reduced, while the cost of maintenance and preparation for sealing with bituminous materials is substantially less than for an untreated surface.

It may be noted that the total expenditure on testing and research, including the purchase of new equipment required and the salaries of officers employed exclusively on this work, was only one-tenth of 1 per cent. of the total expenditure on work carried out under the Board's control during the financial year.

Further details of special investigations performed in the Board's laboratory are given in the Chief Engineer's Report.

Apart from special investigations, routine tests were carried out as indicated in the following summary :—

SUMMARY OF TESTS CARRIED OUT FOR THE TWELVE MONTHS ENDED 30TH JUNE, 1937.

—	Number of Samples.	Number of Tests.
Soil, gravel and concrete aggregates	1,322	2,000 approx.
Bituminous and tarry materials	628	1,107
Lubricating Oils	82	105
Traffic marking lacquer	32	63
Miscellaneous	76	199
Total	2,140	3,384

CONFERENCE OF STATE ROAD AUTHORITIES.

The Fourth Annual Conference of representatives of State Road Authorities was held in Brisbane in March last, at which matters of common interest to the States concerning the construction and maintenance of roads and bridges were discussed. The resolutions adopted included administrative, technical, and financial matters in relation to the road problem.

Amongst the subjects discussed were the questions of (1) provision of stock routes and pedestrian footways wherever necessary, and in such cases to control the disposition of all traffic within the road boundaries, and (2) the erection and removal of advertising signs within the limits and in the vicinity of main roads and the possibility of the adoption of a uniform policy by all States.

Several technical matters were referred to the Conference of Senior Technical Officers to be held in Melbourne in November, 1937.

CONFERENCE OF ENGINEERS.

The Annual Conference of the Board's District Engineers was held in July last before entering on the programme of works for the current year. It is felt that conferences of this nature are of great advantage, inasmuch as facilities are given for an interchange of ideas and experience. In addition, close co-operation is assured between members of the Board's staff, which is so essential for the efficient carrying out of the work of road construction and maintenance and the improvement of maintenance methods.

At this Conference the necessity for carrying out works in such a way as to leave portion of the road between the pavement and the fence for easy movement of stock, methods of road design that would reduce the depth and height of borrow pits generally, the question of controlling wandering stock, and other matters were discussed.

Through the District Engineers closer contact is established with the Shire Engineers, with the result that there is a better appreciation of the particular problems with which municipal engineers have to deal. It is proposed during the present year to convene a conference of the Engineers of those municipalities within the area under the control of the Board's District Engineer at Bendigo to discuss road problems of mutual interest to the Board and the Councils.

OFFENCES UNDER ACTS AFFECTING THE BOARD.

Under the Motor Car Act proceedings were instituted against a number of offenders for exceeding the weight and speed limits of motor cars carrying goods for hire or in the course of trade on State highways and declared main roads. Fines were inflicted in 323 cases for travelling at speeds in excess of the limits allowed and against 135 persons for carrying excessive weights.

For carrying loads in excess of the carrying capacity of the motor vehicle, as shown by the certificate of registration, 79 cases came before the courts and fines and costs were imposed.

Two drivers of motor cars were also convicted for carrying on their vehicles loads in excess of the regulation width and height.

The total number of prosecutions during the year was 605, the total fines imposed being £2,180 10s. and costs £226.

Particulars of the cases dealt with are set out in the following table :—

LIST OF OFFENCES REPORTED AND ACTION TAKEN.

Nature of Offence.	Warned.	Convicted and Fined.	Fines Imposed.		Costs.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.
Motor Car Acts.						
Speeding (freight)	22	318	1,235 0 0		117 4 4	
Speeding (passenger)	1	5	15 0 0		1 0 6	
Exceeding six (6) tons	28	65	351 10 0		41 19 10	
Exceeding eight (8) tons	13	29	128 0 0		7 9 9	
Exceeding ten (10) tons	..	1	5 0 0		0 2 6	
Exceeding thirteen (13) tons	2	39	148 0 0		13 4 6	
Exceeding carrying capacity	19	79	173 0 0		24 4 3	
Exceeding eight (8) feet in width	3	2	2 0 0		1 3 0	
Exceeding three (3) tons on trailer axle	1	1	5 0 0		0 2 6	
Tires not in good condition	..	1	1 0 0		0 2 6	
Refusing to allow truck to be weighed	..	6	33 0 0		3 2 6	
Failing to comply with conditions of special permit	5	3	8 10 0		1 8 6	
	— 94	—549		2,105 0 0		211 4 2
Local Government and Country Roads Acts.						
Tare not marked	3	3	2 10 0		1 3 6	
Carting on closed road without permit	6	10	10 10 0		2 3 2	
Using trailer on closed road without permit	1	..	..		..	
Destroying or removing timber	1	1	1 0 0		0 7 0	
Exceeding load limit on bridge	..	1	2 0 0		0 2 6	
Removing gravel from road reserve	1	..	..		..	
	— 12	— 15		16 0 0		3 16 2
Justices Act.						
Aiding and abetting	..	3	..	8 0 0	..	0 14 6
Damage to Roads By-law No. 3.						
Using tractor with bars on wheels without permit	3	2	..	5 0 0	..	0 17 0
Country Roads (Impounding of Cattle) Act.						
Wandering stock	18	36	..	46 10 0	..	9 12 6
	127	605		2,180 10 0		226 4 4

AMENDING LEGISLATION.

During the year the following Acts affecting the Board were passed by Parliament :—

GREAT OCEAN ROAD LOANS ACT 1936, No. 4395.

This Act ratified, validated and approved an agreement between the Treasurer of Victoria and the Great Ocean Road Trust Pty. Ltd., and provided for other purposes incidental to the winding up of the Company, together with the transfer to the Crown of the Great Ocean Road and of any lands held by the Company.

The Governor in Council may proclaim as a public highway so much of the Great Ocean Road as is constructed on land transferred to the Crown, and the Company is to be exonerated from liability for repayment of £25,000 advanced to the Company under the Unemployment Relief Loan and Application Acts for widening and surfacing the road. Such liability is to be discharged by the Country Roads Board from the Country Roads Board Fund.

All moneys paid by the Company to the Government are to be paid into consolidated revenue, and an equal amount paid from consolidated revenue into the Country Roads Board Fund.

COUNTRY ROADS BOARD FUND ACT No. 4401.

This Act provides that—

(1) Fees for licences to drive motor cars paid under the Motor Car Act during the financial year 1936–37 were not to be paid into the Country Roads Board Fund. Similar provision was made in previous enactments in respect of the years 1933–34, 1934–35, and 1935–36.

(2) Annual payment of £50,000 from consolidated revenue into the Country Roads Board Fund to be suspended for the year 1936–37, £10,000 of which 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 (TOURISTS' ROADS) ACT 1936, No. 4405.

Under this Act the Country Roads Board is to carry out permanent works on, permanent improvements to and maintenance of, such roads as may be proclaimed tourists' roads by the Governor in Council on the recommendation of the Board provided that any road or part of a road which was a tourists' road within the meaning of Part XII. of the *Land Act* 1928 immediately before the passing of the Tourists' Roads Act shall also be proclaimed a tourists' road.

The cost of permanent works and permanent improvements is to be defrayed out of moneys provided by Parliament and any other moneys at the disposal of the Board other than moneys standing to the credit of the Country Roads Board Fund. The cost of maintenance is to be defrayed out of the Country Roads Board Fund.

COUNTRY ROADS (BORROWING) ACT 1936, No. 4414.

This Act extended the borrowing power for the construction of main roads by £150,000. The money is to be utilized for the carrying out of permanent works on such roads as have been declared main roads under the provisions of the Country Roads Act in the metropolitan area.

The total amount now authorized for the construction of main roads in the metropolitan area is £250,000.

COUNTRY ROADS BOARD FUND (AMENDMENT) ACT 1936, No. 4415.

Provision is made in this Act for the extension of relief to municipalities for payment of their liabilities in respect of permanent works on main and developmental roads in country districts.

The original Act provided for such municipalities as the Governor in Council on the recommendation of the Country Roads Board determines, to be relieved of a total liability of £150,000 for the year ended 30th June, 1936, or in any subsequent year. The amended Act makes provision for relief not to exceed £200,000 for the year ended 30th June, 1937, and in the case of the financial year ending 30th June, 1938, or any subsequent financial year, for relief of an amount not to exceed £250,000.

With relief of £250,000 per annum municipalities will be exempted from payment of the whole of their liabilities in respect of permanent works on main and developmental roads.

FEDERAL AID ROADS ACT 1936, No. 4434.

The principal agreement entered into between the Commonwealth Government and the State of Victoria, which was amended by the *Federal Aid Roads Act* 1931, was varied by providing that the amending agreement should be extended until 30th June, 1937.

This amendment was adopted, authorized, and ratified under Act No. 4434.

COUNTRY ROADS ACT 1936, No. 4458.

In view of a query having been raised as to the validity of certain payments made by the Board out of the Country Roads Board Fund, such payments were validated under this Act.

Power is also given to the Board, with the consent of the Governor-in-Council on the recommendation of the Board, to construct, maintain or carry out works of permanent improvement on any road and do all such matters and things as are incidental to any such construction maintenance or carrying out of works.

With the object of enlarging the purposes for which moneys to the credit of the Country Roads Board Fund may be applied in the future, it is provided that the Board may with the consent of the Governor in Council, on the recommendation of the Board, apply such fund in payment of any costs incurred in the maintenance or carrying out of works of permanent improvement on any road which has been constructed or permanently improved under the provisions of the Act, and do all such matters and things which are incidental to any such construction, maintenance or carrying out of works.

Provision was also made for the payment from the Country Roads Board Fund of any costs incurred on the maintenance of any bridge, punt, ferry, &c., over the River Murray. This work will be carried out by the Board in conjunction with the Department of Main Roads, New South Wales.

It is also enacted that any cost incurred by the Board in constructing or maintaining or carrying out permanent improvements on any road including any bridge over the River Murray may be defrayed out of any moneys provided by Parliament for that purpose or any other moneys at the disposal of the Board, not being (except where otherwise expressly provided) moneys standing to the credit of the Country Roads Board Fund.

In order to remove any doubt as to the authority of the Board to expend moneys such as funds provided under the Federal Aid Roads Agreement or where provision is made by Parliament, provision has been made under section 6 of the Act.

It is also provided that where the tramway system of the Melbourne and Metropolitan Tramways Board is extended along portions of declared main roads, such section of road shall cease to be a main road under the provisions of the Country Roads Acts.

The Act also gives power to the Board to plant trees along declared main roads and State highways, the cost to be met from the Country Roads Board Fund.

STORES AND WORKSHOPS.

The Board's central storeyard, established at Montague-street, South Melbourne, and under the control of the Plant Engineer, who is directly responsible to the Chief Engineer, has as its main function the maintenance of the whole of the Board's plant in good working order for use in the field. The value at 30th June last of the plant so maintained was £79,037 10s. As well as plant maintenance, the storeyard carries out a good deal of experimental work in designing or developing and building new types of equipment for roadmaking purposes ; details of such work carried out during the financial year are given in the Chief Engineer's section of this Report. The book values of the major units of plant in operation at 30th June, 1937, are as follows :—

Power graders (30)	£20,810
Motor trucks (52)	£12,895
Rollers—Power (48)	£9,010
Bitumen heaters (140)	£8,677
Bitumen sprayers (16)	£5,950
Horse graders (87)	£3,263
Rotary brooms (37)	£2,585
Tractors (13)	£2,550

To provide for depreciation, the original cost of the plant has been written down from time to time to the above values.

Workshop machinery and general maintenance thereof during the year cost £276. A new workshop crane, bandsaw in the carpenter's shop, and a petrol bowser in the stores section, were the principal items of new plant placed in operation in the storeyard during the year.

The storeyard is also a central depot for the distribution of tools and equipment to day-labour camps and patrol maintenance gangs. Tools and equipment are generally purchased in bulk or under contract, advantage being taken of the better prices thus obtainable.

In order to facilitate stocktaking, and to provide an improved means of handling and storing equipment, new offices for the stores staff and alterations to the stores building were commenced. Alterations to an existing building to make it available for use as a mess-room for the storeyard employees were also put in hand. In the mess-room steel lockers, one to each man, are being provided.

STATEMENT OF ACCOUNTS.

Statement of accounts for the year ended 30th June, 1937, of the Country Roads Board Fund and balances as at that date appear under Appendix "A."

The statement shows that the gross revenue of the fund amounted to £1,588,450, including fines imposed under the Motor Car Act totalling, £21,766, whilst the cost of collection was £108,178, made up as follows :—

Motor Registration Branch—		
Salaries and wages	£29,643	
Number plates, &c.	8,091	
Supply and installation of weighbridge and construction of approaches and yard	2,885	
Rent of offices	1,246	
Miscellaneous	1,244	
		£43,109
Police Patrol—		
Wages and travelling allowances	21,854	
Motor expenses Purchase of motor cars and cycles	8,757	
		30,611
Postage, printing, and stationery		11,296
Registration fees and fines refunded		23,162
Total cost of collection and refunds		£108,178
The net revenue under the Motor Car Act was therefore		£1,480,272
Add amount contributed by municipalities towards maintenance and sundry receipts from other sources		183,360
Leaving a total amount available for meeting interest and sinking fund charges and maintenance of State highways, main and tourists' roads		1,663,632

The following statement sets out the payments made from the Country Roads Board Fund during the financial year ended 30th June, 1937, to meet interest and sinking fund charges including an amount of £197,508 by which country municipalities were relieved in respect of loan expenditure of £11,219,625 on declared main and developmental roads :—

	£ s. d.	£ s. d.	£ s. d.
Main Roads—			
Interest	177,838 1 6		
Sinking fund contribution ..	10,586 9 6		
Exchange	16,685 14 4		
Loan conversion expenditure ..	796 15 6		
Recoup to National Debt sinking fund on London loan conversions	433 18 9		
		206,340 19 7	
Developmental Roads—			
Interest	210,801 12 9		
Sinking fund contribution ..	15,018 11 2		
Exchange	22,565 4 2		
Loan conversion expenditure ..	1,069 1 1		
Recoup to National Debt sinking fund on London loan conversions	582 4 5		
		250,036 13 7	
			456,377 13 2
State Loans Repayment Fund			29,478 1 10
Developmental Railways Account, section 83 of Act 3662 ..			2,379 2 2
Total			488,234 17 2

After meeting these payments and making provision for plant, administration and other expenses, the amount available for maintenance, improvement and restoration of main roads, State highways and tourists' roads was £1,054,228, of which £1,046,320 was expended during the year. The balance (£9,607) represents commitments carried forward to the present year.

In addition, the sum of £155,738 was expended from funds available under the Federal-Aid Roads Agreement for the maintenance and reconstruction of roads, making the total expenditure on maintenance, &c., £1,202,058.

For the maintenance, improvement and restoration of main roads and State highways the estimated requirements totalled £1,712,136 for the year, but as the municipal contribution is governed by the amount expended the expenditure incurred by certain councils on main roads was insufficient to meet requirements. On the basis of the estimates submitted the funds available fell short of requirements by £657,908.

The total amount expended from loan was £76,454, of which £66,465 was spent on declared main roads in the metropolitan area; £2,458 was expended from loan on country main roads, and on developmental roads in rural areas an expenditure of £7,441 was incurred, the balance of the cost of construction having been met either from Federal grant or from unemployment relief funds. The proportion of interest and redemption charges on country roads and roads in the metropolitan area, totalling £547,176, included an amount of £57,942 contributed by municipalities from their municipal funds, which is the last payment required to be made by country municipalities on that account in accordance with the provisions of Act No. 4415. The total amount of relief granted to municipalities on account of interest and sinking fund payments to the 30th June was £197,508.

The municipal liability in the metropolitan area on account of expenditure incurred out of loan on the construction and reconstruction of main roads was £51,626 as at 30th June last, to which they will be required to contribute 6 per cent. per annum, including 4½ per cent. interest, and the balance sinking fund over a term of 31½ years. The total amount expended was £134,296 to the 30th June, 1937.

Statement of expenditure on road construction and maintenance, including expenditure under special appropriations, is set out below in summarized form, from which it will be noted that the total for the year was £1,929,318 12s. 8d.

		Under Board's Supervision.		Under Municipal Supervision.		Total.	
	£ s. d.	£ s. d.		£ s. d.		£ s. d.	
1. State Highways—							
Maintenance and reconditioning ..	.. ..	317,012 8 8		84,324 9 9		401,336 18 5	
2. Main Roads—							
Construction and restoration ..	228,470 7 3	..		..		..	
Maintenance and reconditioning ..	752,628 4 7	209,820 8 7		771,278 8 3		981,098 11 10	
3. Developmental Roads—							
Construction, &c.	268,318 17 4	..		..		..	
Roads for isolated settlers ..	25,850 11 4	40,964 8 7		253,205 0 1		294,169 8 8	
4. State Unemployment Relief Funds—							
Main and Developmental Roads, &c.	.. ..	129,623 3 2		85,754 5 11		215,377 9 1	
5. Tourists' Roads—							
Construction, &c.	4,695 12 7	..		..		..	
Maintenance and reconditioning ..	30,939 12 5	27,977 5 7		7,657 19 5		35,635 5 0	
6. Murray River Bridges and Punts—							
Maintenance	.. ..	1,700 19 8		..		1,700 19 8	
Totals	.. ..	727,098 14 3		1,202,219 18 5		1,929,318 12 8	

Towards the expenditure on the construction, reconstruction, maintenance, &c., of main and developmental roads an amount of £587,536 was expended under the provisions of the *Federal Aid Roads Act* 1931.

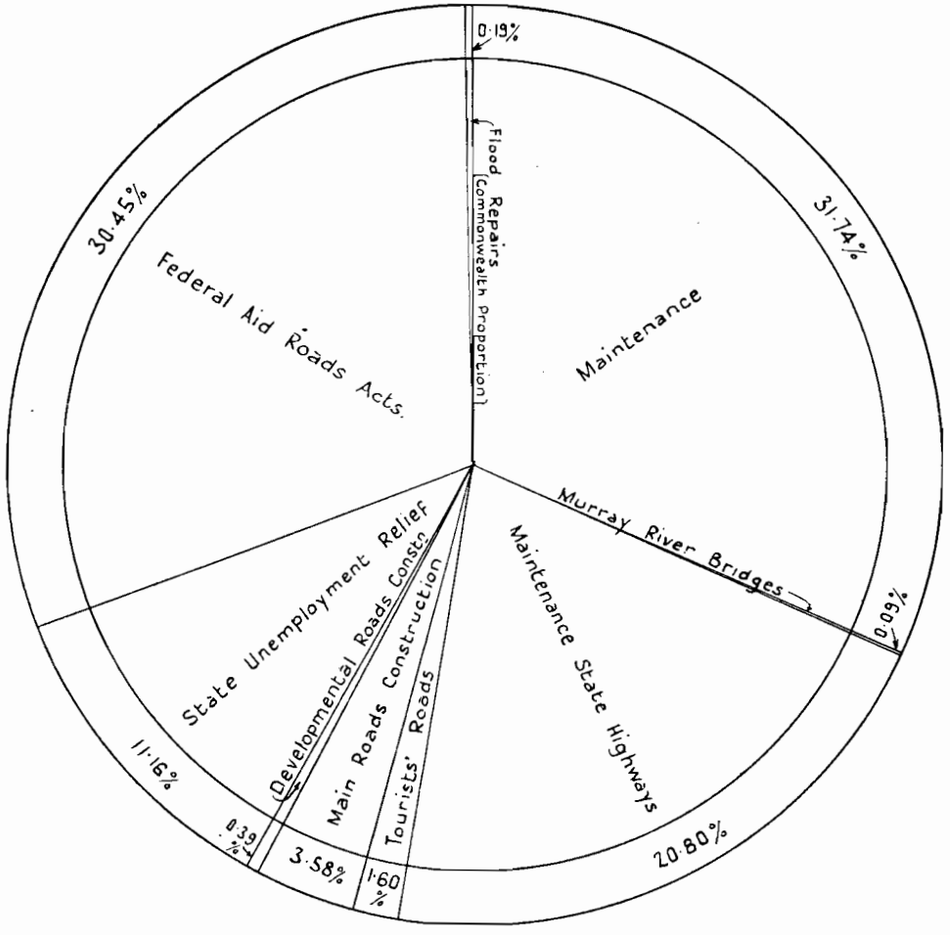
Owing to the fact that grants from unemployment relief funds could be used for labour only, it was necessary for the Board to contribute the sum of £53,555 from the Country Roads Board Fund and from funds provided under the Federal-aid Roads Agreement for the supply of equipment, pipes, making of surveys, &c., in order to make the work effective.

The expenditure by the Board of funds from various sources is indicated by percentages in the diagrams on page 50.

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

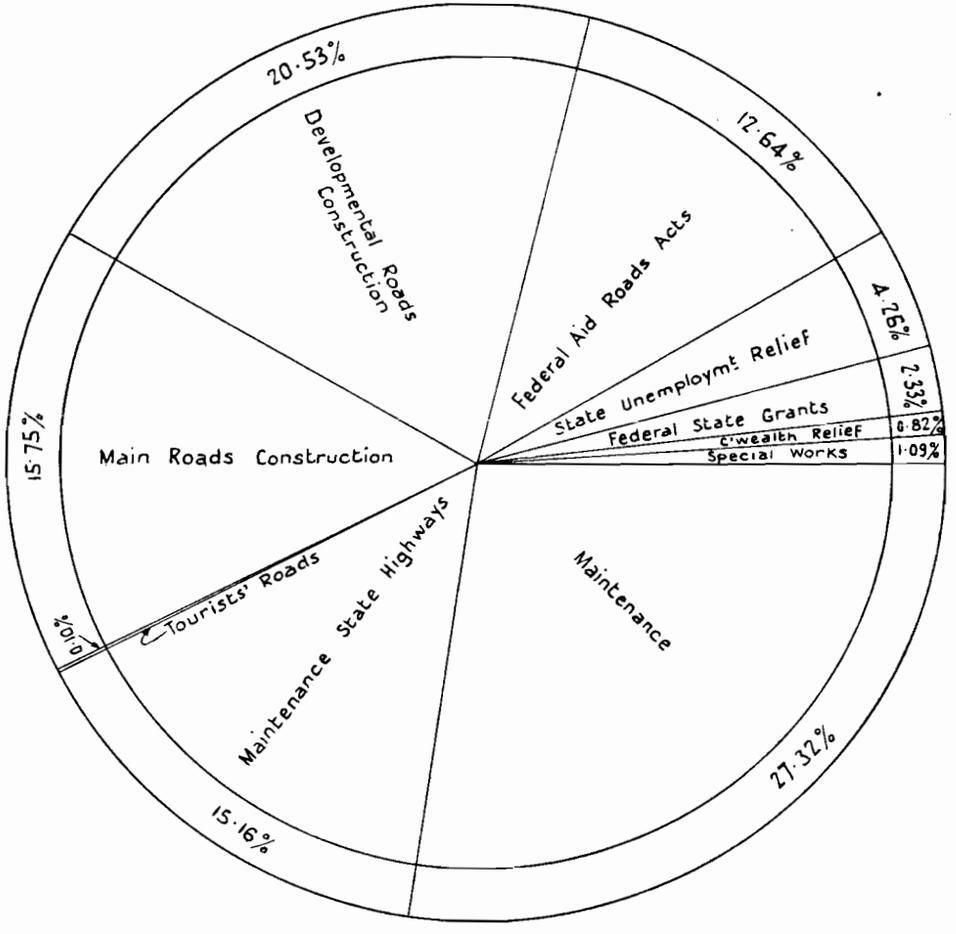
Diagrams showing comparative sectional total Expenditure on Road Works

No 1.



Percentages of
Expenditure for Financial Year 1936-'37

No 2.



Percentages of
Total Expenditure since inception of Board
to 30·6·1937

APPORTIONMENT OF COSTS.

In accordance with the provisions of Section 287 of the *Country Roads Act* 1928, the cost of permanent works and maintenance was apportioned for the year ended 30th June, 1936; £27,899 was apportioned to municipalities in respect of permanent works and £132,950 on account of maintenance.

The only Council now in arrears with its contribution is the Shire of Walpeup.

MOTOR REGISTRATION.

During the year 237,182 motor cars were registered, the following classes of vehicles being included in the total —

Private cars	135,833	
Commercial motor vehicles	31,771	
Primary producers' vehicles	36,904	
Hire cars	2,052	
Licensed under Omnibus Act	350	
Trailers	3,341	
Traction engines, &c.	268	
		210,519
Motor cycles		26,663
Total		237,182

In comparison with the previous year, registrations increased by 14,349, equivalent to 6·4 per cent., as against an increase of 9·54 per cent. during the previous year.

These figures indicate that the number of registered private cars decreased by 5,372, or 3·08 per cent.; commercial vehicles by 5,185, equivalent to 14·03 per cent.; whilst primary producers' vehicles increased by 23,684, or 179·15 per cent. The number of motor cycles increased by 568, equal to 2·18 per cent., and hire cars decreased by 73, or 3·43 per cent.

The large increase in the number of primary producers' vehicles as compared with the previous year's figures is due to the fact that Act No. 4285 passed in July, 1935, made provision for concessional rates of registration fees to be paid in cases where the Chief Commissioner of Police is satisfied by statutory declaration, or such evidence as he requires, that any motor car is owned by one or more primary producers, and the motor car is used solely in connexion with the business of any such primary producers as such, or solely in connexion with such business and for the carriage (otherwise than for hire or reward) of passengers or goods or both passengers and goods.

For this reason a large number of motor cars previously registered as private cars have now been registered as primary producers' cars and recorded separately under the heading of " primary producers' vehicles."

The total amount allowed on account of payment of concessional registration fees on primary producers' vehicles was £65,000 for the year.

The number of trailers used for the carriage of goods increased by 691 during last financial year, or equivalent to 26 per cent. Due to the popularity of the caravan trailer a large increase is noticeable on the roads, but owing to the fact that these vehicles are not required to be registered, there is no record of the number used.

The net revenue from motor registrations during the year was £1,480,272, as compared with £1,409,394 for the previous year.

Under Act No. 4401 an amount of £79,968 received during last year for fees for licences to drive motor cars was paid into consolidated revenue instead of being credited to the Country Roads Board Fund, as was done prior to July, 1932, for use in maintaining main roads and State highways.

With a view to determining the accurate weight of motor vehicles presented for registration, a weighbridge was installed and an office building erected in the vicinity of the Motor Registration Branch at a total cost of £785.

Plate No. 39.—Showing new weighbridge and office erected near Motor Registration Branch.

Since the weighbridge commenced to operate on the 22nd March last the total revenue received to the 30th June was £387, against which a sum of £312 is charged for cost of operating and supervision.

This represents 9½ per cent. of the capital cost, but as the use of the machine is not compulsory a number of vehicles are not weighed on it. It is anticipated, however, that the revenue will increase when it becomes generally known that proper facilities exist at the Motor Registration Branch for weighing motor vehicles.

The revenue is divided into three parts :—

(1) Fees from the 22nd March to 30th June received in respect of vehicles weighed prior to registration in the ordinary course of business.

(2) Fees in respect of vehicles re-weighed by direction of the Police. This refers to vehicles presented for registration but which were suspected of weighing more that the weight shown on the registration certificate. The additional registration fees collected amounted to £70 7s. 3d.

(3) Fees collected from owners in respect of vehicles of which the registration had been cancelled. Had the weighbridge not been in operation it is probable that the vehicles would have been re-registered at the old rate and the old fees paid.

Items Nos. 2 and 3 represent an additional revenue equivalent to £558 per annum. This amount will continue to accrue throughout the life of the vehicles in question and would, in itself, amount to nearly three times the actual cost of the weighbridge, but the revenue from this source will probably decrease to a vanishing point in future, as with the check that is now possible it will be less likely for vehicles to be operated while paying registration fees based on less than their correct weight.

VISIT OF CHAIRMAN OF THE BOARD TO AMERICA.

With the approval of the Government, Mr. W. T. B. McCormack, the Chairman of the Board, left Melbourne on a visit to the United States of America in April last with the object of investigating road problems in that country.

The results of Mr. McCormack's investigations will be embodied in a report which will shortly be submitted to the Government.

APPENDICES.

The following statements appear in the Appendices :—

(*a*) The amount received and expended during the year under the provisions of the Country Roads Act.

(*b*) Apportionment of expenditure in connexion with the construction and maintenance of main roads for the year ended 30th June, 1936.

(*c*) The expenditure on the construction and maintenance of main roads during the year ended 30th June, 1936.

(*d*) Expenditure in connexion with the construction of developmental roads for the same period.

(*e*) Mileage, locality, &c., of main roads constructed and maintained during last year.

(*f*) Mileage, locality, &c., of developmental roads constructed.

(*g*) Mileage, locality, &c., of State highways reconstructed and maintained.

(*h*) Mileage, locality, &c., of tourists' roads reconstructed and maintained.

(*i*) List of unemployment relief works put in hand during the year ended 30th June, 1937.

We have the honour to be, Sir,

Your Obedient Servants,

W. McCORMACK, Chairman.

F. W. FRICKE, Member.

W. L. DALE, Member.

R. JANSEN, Secretary.

CHIEF ENGINEER'S REPORT.

Country Roads Board,
Exhibition Buildings,
CARLTON, N.3.
8th October, 1937.

The Chairman,

Sir,—

I have the honour to submit herewith a discussion on the points of technical interest arising in the work carried out by the Board during the year ended 30th June, 1937.

ADMINISTRATION.

The work required in maintenance and minor reconstruction on Sections 1 of the State Highways, is now fairly limited and is generally of a routine nature. The work on these roads therefore, which was previously under the direct control of the Highways Engineer, has been transferred to the control of the Central District Engineer, and the officers concerned transferred to the Central District staff. The rearrangement should allow the available staff to be used in the most economical manner and will also relieve the Highways Engineer of much routine detail work. It should also allow more consultation between Central District senior staff and Municipal Engineers, particularly in regard to the rapidly changing surface sealing technique.

During the year a considerable improvement was effected to the lighting in the Board's draughting office. Skylights having a total area of 190 square feet for a floor space of 700 square feet were provided in the Bridge Section draughting room, and even on dull days in the winter time, the light is satisfactory and uniform. During bright days light is controlled by a series of light-coloured linen blinds.

The segregation of the bridge design and draughting staff into a relatively quiet office with good lighting has been a great improvement.

MAINTENANCE.

It has been pointed out previously that the drag or light grader is quite inadequate to cope with corrugations and the general surface maintenance of gravel roads subject to fast motor traffic, and the Board has found that power graders, preferably equipped with multi-blade maintainers where the road shape is good, provide the most economical method of carrying out this work. Where raised formations in open country have been used in construction, the power grader driver can, with casual assistance, carry out all necessary maintenance. Where table drains exist and particularly in timbered country, further assistance is required and this is most economically given by a small truck patrol, which can handle quite a large area. This type of maintenance organization is that now generally used by the Board in undulating country, and many Councils have similarly re-organized their maintenance systems, or installed such a maintenance system where no systematic maintenance had previously been attempted, with the result that there is a rapidly-growing improvement in the maintenance of gravelled roads in many parts of the State.

On bituminous-surfaced roads truck patrols are now well established. In some cases these patrols also have a length of unsealed road to maintain, and during the past year the Board had fitted to a Ford V8 patrol truck a multi-blade maintainer, shown in Plates 40 and 41. The maintainer consists of a steel frame to which are bolted seven short cutting blades set at an angle, and a moveable spreading blade at the rear of the cutting blades. This frame is attached to the truck between the cabin and the rear wheels and can be raised or lowered by means of a system of levers operated from the driver's cabin.

The unit is intended for use on isolated sections of sand, gravel, or earth roads where there is not sufficient length to warrant the use of a power grader. The section on which this maintainer has been used consists of 26 miles of sand and gravel pavement, the truck having to maintain an additional length of 44 miles of sealed pavement, and in order that the maintainer should always be available if required during the Patrolman's routine inspection, it is never removed from the truck.

The spreading blade at the rear of cutting blades, is set to give a light coat of loose material and care must be taken by the driver to see that the spreading blade is not allowed to bear on the road surface, due to wear of the cutting blades. At first, a man was used to operate the blades from the cabin, but experience has shown that the driver can manage it by himself after a little practice.

The attachment therefor avoids the necessity for a separate grader and operator, and spreads the loose material in an even coat instead of leaving a windrow in the centre of the road. It is now proposed to equip another truck with a similar maintainer.

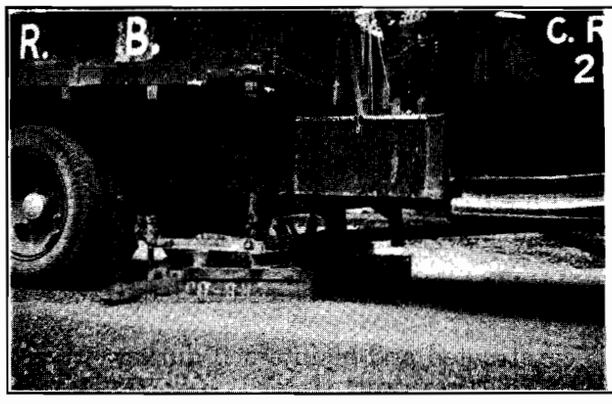


Plate No. 40.—Close-up of a Multi-blade Maintainer Fitted to a Patrol Truck.

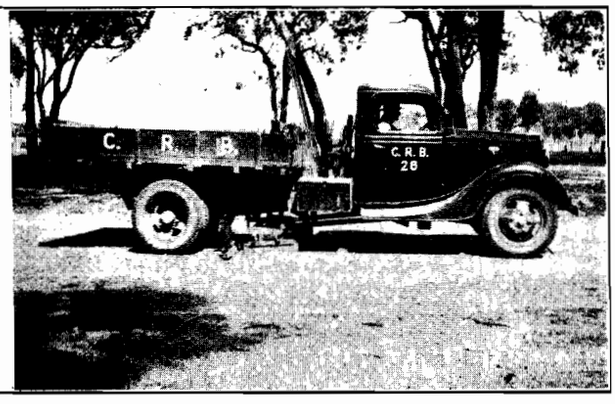


Plate No. 41.—General Arrangement of Multi-blade Maintainer.

The following details may be of interest:—

(*a*) Time taken to change blades is half-hour for one man.

(*b*) Best operating speed is 8-9 miles per hour running in third gear.

(*c*) A set of mild steel blades will last for 80 miles, the blades being ½ inch thick and 6 inches deep (4¾ inches available for cutting 1¼ inch required for bolting to frame).

(*d*) An average day's work is 63 miles of actual blading which is equal to 31½ miles approximately 14 feet wide.

(*e*) Petrol consumption in third gear while operating maintainer is 7 miles per gallon.

SOIL STABILIZATION.

Soil stabilization is usually carried out by the addition to the natural earth of the formation of—

(*a*) Sand, gravel, or on sandy or gravelly formation, clay.

(*b*) Bituminous emulsions, cut-backs or tars.

(*c*) Salt, generally calcium chloride or sodium chloride.

(*d*) Lime or cement.

Lime and cement have been added to the soil without other materials in an endeavour to reduce the plasticity of clay soils, but the work so far done experimentally by the Board is quite unpromising, and the field does not appear to have been widely developed overseas due possibly to the very limited use. Much literature has, however, been promulgated by the suppliers of bituminous emulsions, tars and the salts, and not unnaturally this literature, which is admittedly valuable, generally stresses the use of the particular product concerned, and this has tended to distract attention from what is, in Victoria at least, economically the main essential in the use of these materials; that is the provision of a reasonably stable "sand clay" type of surface by the careful proportioning and mixing of cohesive binder and mineral aggregate in the formation. This takes the place of adding pulverised clay to a sandy or gravelly base deficient in binder, or more generally the addition of sand or clean gravel to a clay soil. This type of work is of course well established in Victoria and elsewhere in Australia, and has been used successfully for many years, either as a pavement itself, or as a base for a surface seal. The addition of the bitumens or salts tends to maintain the stability of the manufactured gravels under heavy traffic or severe weather conditions, and is also applicable to satisfactory natural gravels.

Bituminous Stabilization.

It has been pointed out by McKesson that in bituminous stabilization of clay soils the addition of appropriate amounts of mineral aggregate will frequently reduce the amount of emulsion required by two-thirds, and with Victorian costs this is an essential preliminary towards this type of work.

These stabilized clays, however, with the temperate climate in Victoria, can generally be surface sealed more economically than they can be further stabilized by the use of emulsions. The cost of emulsions is fairly high, and a considerable amount of water must be added, and the road generally must be left for some days before it can be opened to traffic. While certain roads have been satisfactorily and economically constructed by surburban municipalities under favorable conditions for this type of construction, observation of these works, together with laboratory tests and the considerations mentioned above, have indicated that in Victoria generally, other methods of construction are satisfactory and more economical. On the rural road system therefore, this type of construction has not so far been adopted. Work, however, is being continued to examine the possibility of using cold tar in lieu of emulsions, but is as yet only in the laboratory stage.

Salt Stabilization.

Experiments in the use of salts, both sodium chloride and calcium chloride, and also what is known as "mother liquor" from the salt works, the latter containing a large percentage of magnesium salts as well as sodium chloride, have been continued. While calcium chloride is a much better deliquescent agent in areas of low humidity, its cost is five to six times that of common salt in most parts of Victoria, and it is at present doubtful whether its use is economical. The work so far done has also not reached the stage at which the economic limits of salt for reduction of maintenance costs can be stated. Use of sodium chloride has, however, effected an improvement in road surface and a reduction in maintenance costs on limestone pavements in the Mallee and gravelled pavements in parts of the Wimmera, and the extent to which the method will be economical on roads intended to be maintained as unsealed gravelled roads, and the comparative value of the two salts, is now being closely studied.

In these cases, where the road may not be sealed for some years, salt is generally used at the rate of about 2 lb. per square yard for 3 inches loose thickness of gravel. Tests which have been made, indicate that the loss of salt is fairly rapid, and it would appear that at least annual treatments of approximately this amount may be necessary. There is some ground for feeling that the addition of half this quantity every six months would be preferable to the larger annual application.

In the construction of gravelled roads destined to be sealed at an early date, the use of sodium chloride has undoubtedly been found economical, as it reduces watering costs, loss of material and maintenance, and helps considerably to reduce dust nuisance on heavily-trafficked roads. The use of ¾ lb. per square yard has been found to reduce the amount of watering necessary by two-thirds, and also helps considerably to increase the rate of consolidation. A series of laboratory tests, as mentioned later, indicates that common salt is quite effective for this purpose, since, while it does not "pick up" moisture from the atmosphere at low humidity, it does, when the road to which it has been applied is thoroughly moistened, hold the moisture better for the first 24 hours than does calcium chloride. Thereafter it continues to lose moisture where calcium chloride tends to regain moisture at night, or from an atmosphere of even comparatively low humidity. As watering is necessary in dry weather for either salt where traffic is more than, say, 100 vehicles per day, it would seem that for this purpose common salt is the more economical material, its cost being about 28s. per ton, as against £8 per ton for calcium chloride.

GRAVEL SPECIFICATIONS.

Gravel specifications in the past have generally been concerned with the grading of the coarse aggregate and with fixing a minimum and maximum amount of binder, generally defined by an elutriation test, which removes material below about 200 mesh. No stress has been laid on the character of this elutriable material or the other fines in the gravel. The result has been that these specifications rejected many gravels which have since, as a matter of experience, been found to be perfectly satisfactory. A good deal of work has been done in the Board's laboratory in the last three years in order to see whether specifications could be drawn up that would be reasonably inclusive of good gravels as well as exclusive of poor gravels. Apart from the common tests on the hardness and grading of coarser

materials, attention has been given to tests on material passing No. 36 B.S. sieve, the ordinary simplified soil tests being used. It appears that the problem is extremely complex, and that a number of interrelated characteristics affect the quality of the gravel. However, it seems that a good grading curve for the whole sample is of marked importance. For instance, some granite sand from Springhurst, which, unsealed, made excellent road pavement under quite heavy road traffic, in both summer and winter, had plasticity indices up to 25, and lineal shrinkage up to 8.5. On the other hand, equally satisfactory granite sand from Harcourt, carrying the heavy Castlemaine-Bendigo road traffic successfully prior to sealing, had in some cases plasticity indices of zero and zero lineal shrinkage.

It is felt that from the tests results obtained, which cover a very large number of satisfactory and unsatisfactory materials, it is possible in the laboratory, by comparing a series of tests, to assess fairly accurately the value of the gravel. It is, however, very difficult to prepare an understandable specification for a contractor on this basis. It therefore appears that in initial investigation, engineers should obtain and submit samples of the gravels available, and when satisfactory samples have been obtained, it is generally possible, for any type in a particular district, to specify a satisfactory material by a grading specification, together, perhaps, with the plasticity index. In all cases of tenders for gravel, the contractor must submit a sample of the gravel he proposes to supply, and a careful test of this sample before acceptance of the tender protects both the Board and the contractor, while obtaining as wide a competition as is reasonably possible.

PREMIXED PATCHING.

A considerable improvement to riding qualities of many old sealed pavements has been obtained by patching low mis-shapen areas with premixed screenings and cut-back. The materials are mixed in a small 5 c. ft. concrete mixer, spread using strings as a guide, and rolled with a light roller. While these patches detract from the appearance of the road, the improved riding quality, with the better control of the vehicle that these riding qualities give, is undoubtedly worth while, and, as a routine matter on all State Highways work, premixed patching is carried out at least one year before roadmix seals are to be placed on old sections. The larger irregularities having been corrected by the premixed patching, the roadmix seal should correct all irregularities and give a uniform appearance, thus obtaining a high standard of road surface without the necessity for costly re-sheeting.

TRAFFIC LINES AND GUIDE POSTS.

A considerable extension of white lines on sealed surfaces was undertaken during the year. The white lines have been used to indicate curves which are below the general speed value of the section of road, and also on all vertical curves of low visibility. They have also been used effectively on the centre lines of sections of road subject to faulty conditions, as they are considered superior to white posts under these conditions. White guide posts have been erected on practically all sections of sealed roads on State Highways in open country, where the side of the road is not defined by trees or other natural features. It is found on such open sections that at night, and particularly when passing other vehicles, it is often difficult to see exactly where the pavement is, even on straight sections of road, and white posts, say every 500 feet, have been found an excellent safety device, and are widely appreciated by motorists.

ROADMIX SEALS.

Some five years ago, when road mix seals were first tried, the binder content was based on the binder content generally used in the normal type of seal being carried out at that time, as the object was to achieve an improvement in riding surface. The possibilities of achieving a non-skid and anti-glare type of pavement were not at that time appreciated.

These early road mix seals, while achieving the initial objective, were frequently "fat" in parts, and experiments were then carried out to determine what reduction in binder was possible to get a more uniform texture and a non-skid and anti-glare surface. The work being done was largely ½ inch loose thickness only, on old rather "fat" seal coats, in which a very small amount of the applied binder would apparently be used as a tack coat. During the 1936-37 season, when working conditions were particularly unfavorable, a certain amount of ravelling was experienced. From an investigation of a large number of roadmix seals, it is felt that an increase in the amount of binder is desirable and can be safely made without affecting the non-skid surface. This will provide a margin to allow for poor weather conditions, type, condition, or inefficient operation of mixer, or dusty aggregate. In addition, specific instructions will be issued to provide for an increase in the total binder when the kerosene flux is increased under cold conditions, thus retaining the approximately correct proportion of effective binder in the mix. It is felt also that, provided the amount of binder does not cause a "fat" surface, an increase, generally speaking, will tend towards increasing the life of the seal. A comparison has also been made between successful plant mixes using cold cut-backs, and the proposed rates, assuming that approximately .05 gallon per square yard is used as a tack coat, and on this assumption the rates of application given below are in reasonable agreement with the plant mix work, although they have been based originally on the results of the field investigations.

RATES OF APPLICATION.

Cut-back. Bit.	Tar.	Kero.	Loose Thickness of Aggregate. ¼ Inch.	½ Inch.	1 Inch.
100	26	15	0·24	0·29	0·36
100	26	20	0·25	0·30	0·37
100	26	25	0·26	0·31	0·38
100	26	30	0·27	0·32	0·39

In addition, the small roadmix seal machines most commonly used (see Plate 34 of the last Report) are being re-designed. Curved blades with freer movement are being provided, and other detail improvements made.

When the binder is being applied, in every case, 0.10 gallon per square yard will be sprayed on to the pavement before the spreading of the aggregate and the balance sprayed on to the aggregate after it has been spread and levelled with the broom drag.

The standard cut-back for use under average summer conditions will be that used during 1936-37, namely, a cut-back having a viscosity of from 9 to 14 poises at 122 deg. F., the fluxing being 100–26–20 (85/100 penetration bitumen, dehydrated tar and power kerosene).

To meet the prevailing weather conditions, the following variations from this standard material are to be used:—

Very hot weather	100–26–15
Cold summer weather—	
First load for the day	100–26–30
Second and last for the day or for any other intermediate loads as found necessary	100–26–25

THIN CONCRETE RESHEETING.

Some years ago a number of roads, particularly State Highways, which consisted of old waterbound macadam pavements, were being resheeted with a relatively thin course of penetration macadam. This type of construction proved quite satisfactory and economical, as full use was made of the old pavement. At this time the standard practice when constructing a concrete pavement was to remove the old work completely and start afresh on a reformed sub-grade, thus losing any value that the old pavement may have had. It was decided, therefore, in 1933 to attempt to resheet an old road with a thin layer of concrete, and accordingly a number of experimental sections were put down on the Prince's Highway West in the City of Footscray, at one end of a conventional macadam job. Three sections were constructed of plant mixed concrete, while four were built by the Hassam method of grouting the consolidated metal with cement mortar. It was originally intended that two thicknesses be used, 3 inches and 4 inches respectively, the 3-in. being reinforced and half of the 4-in. sections un-reinforced. However, on account of the camber of the old road, the average thicknesses constructed were considerably in excess of these. In one length of the Hassam type the sides were built up with fine crushed rock and the slab constructed of 3.23 inches average thickness. These sections carried traffic from December, 1933, to April, 1937, when they were resheeted with fine crushed rock on account of a change in alignment of the road.

At that date the premixed concrete was still in fair condition, and would probably have carried traffic for a considerable period. The thin section of Hassam pavement and the un-reinforced thicker section at the same time were, however, breaking up badly, and had about reached the end of their useful life. The results of crack surveys in January, 1935, and April, 1937, are given in Figure A.

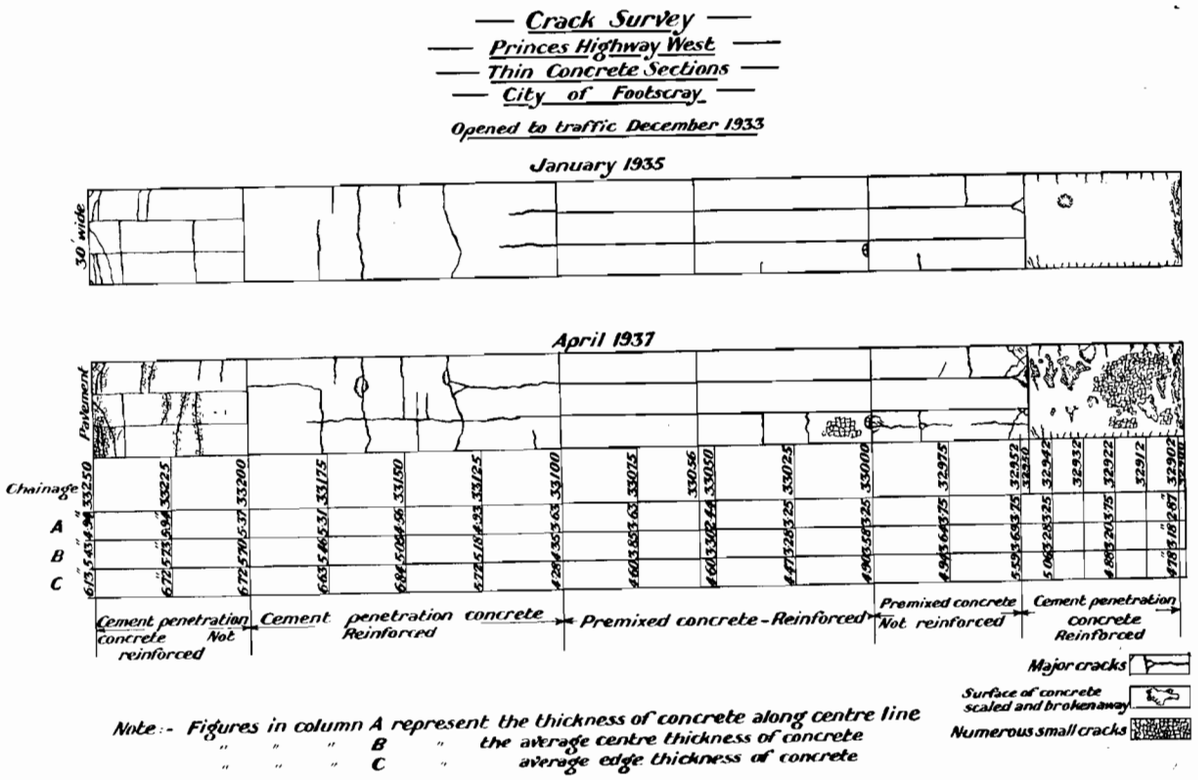


FIGURE A.

NAPIER-STREET EXPERIMENTAL SECTION.

This experimental section, which was described in the 23rd Annual Report, was designed to test various types of bituminous surfacings on a concrete base. It has been kept under close observation since it was laid down in November, 1935, and it is thought that it will be possible to arrive at definite conclusions when the full series of tests have been completed. From general observations, it appears that heavily laden steel-tired vehicles are very destructive to all types of bituminous surfacings, particularly near the sides where the rubber-tired vehicles do not travel. Towards the centre of the roadway, where the steel-tired vehicle is the exception, it would seem that the bituminous surfacings of various types can be put down with the expectation of long life, provided the surface be reasonably waterproof.

DRAG SPREADERS.

The 23rd Annual Report described an experimental investigation into the theory of some of the types of drags that are used for spreading thin bituminous surfacings, and showed that there were considerable advantages in a design in which the spreading blade is supported by, and as close as possible to, wheels running on the freshly spread material. A drag, shown in Plates 42 and 43, was built, and has been in use for over eight months. It has been found entirely satisfactory, not only doing the work better than earlier types, but being easier to handle on the job, more convenient when odd widths have to be spread and more economical as, owing to the directional stability given by the wheels (as compared to skids) a man is not required in normal circumstances to guide the machine by means of the tiller pole. Drags made to this design are being obtained by the municipalities of Box Hill, Caulfield, Heidelberg, and Kew.

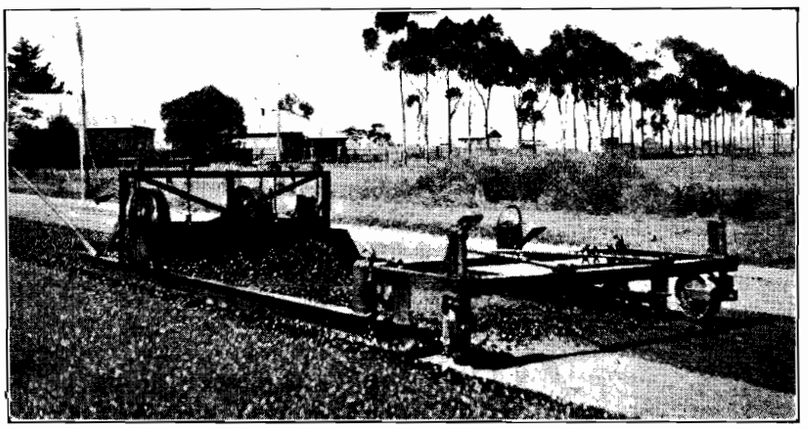


Plate No. 42.—Drag Spreader.

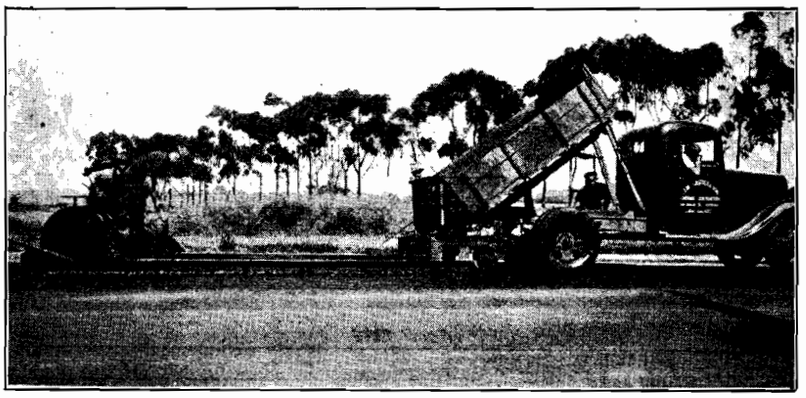


Plate No. 43.—Showing Drag Spreader in Operation.

BITUMINOUS SURFACE TREATMENT.

1. Type of Work Carried Out During the Season 1936-37.

(*a*) FIRST SEALS—

(i) *Primer.*—On pavements where the surface was largely composed of stoney material without any covering of fine particles, no primer was used. This work was limited to sealing the rather clean quartz gravels of Gippsland.

The usual type of primer used on crushed rock or gravel was a crude tar having a viscosity of 0.2 to 0.5 poise at 122 deg. F. and a water content of not more than 5 per cent. The normal rate of application was 0.20 gallons per square yard. Where the pavement was composed of gravel with a deficiency of cohesive binder (e.g., sandy gravels), a heavy primer was employed, consisting of a road oil having a viscosity of 1.5 to 2.0 poises at 122 deg. F. This consistency was obtained by adding 100 parts of asphaltic oil to 100 parts of 85/100 bitumen.

(ii) *Binder.*—85/100 penetration bitumen fluxed with dehydrated tar having a viscosity of 0.5 to 0.75 poise at 122 deg. F. was used as the normal binder. The viscosity of this mixture was 200 to 300 poises at 122 deg. F. The ratio of volume of bitumen to volume of dehydrated tar was 100 to 26.

For use in hot districts with a primer, fluxing is reduced to 100 parts of bitumen and 13.5 parts of dehydrated tar so as to produce a binder having a viscosity of 700 to 1,000 poises, at 122 deg. F.

For first seals without a primer, the viscosity was reduced to 60–90 poises at 122 deg. F. by increasing the amount of dehydrated tar added to 100 parts of bitumen to 40.

(iii) *Rate of Application of Binder.*—When used with one-sized aggregate (No. 1 or No. 2, see Report 1935-36), the rate of application in gallons per square yard provided for filling the voids in the compacted stone to a height of 75 per cent. of the average least dimension. This was equivalent to an application in gallons per square yard equal to the average least dimension of the aggregate in inches multiplied by 0.7. During the latter part of the season, these figures were altered to 64 per cent. and 0.6 per cent. respectively.

With a graded covering material, which provides a carpet more than one stone thick (No. 3 aggregate, see Report 1935-36), the rate of application was 0.25 gallons per square yard.

(iv) *Aggregate.*—Even-sized aggregates (No. 1 or No. 2) were used where this type of material could be obtained at a reasonable cost and on pavements which would not be damaged by rolling. The graded aggregate, No. 3, was used when the supply was from field quarries or where the surface of the pavement was weak.

The rate of application of the even sized aggregates provided for a loose thickness equal to 1.76 times the average least dimension of the aggregate or a consolidated thickness after trafficking equal to the average least dimension, plus 10 per cent. for wastage. The rate of application with the graded aggregate, based upon experience in previous years, was 1 cubic yard to 65 square yards.

(*b*) RESEALING.

All resealing consisted of roadmix seal. The materials and rates of application are set out below:—

Bitumen—85/100 penetration.

Heavy flux oil—Dehydrated tar, viscosity at 122 deg. F. 0.5 to 0.75 poise.

Light oil—Power kerosene.

Normal mix—100–26–20.

Viscosity of mixtures—

Cold weather—6–8.5 poises at 122 deg. F.

Normal weather—9–14 poises at 122 deg. F.

Hot weather—16–25 poises at 122 deg. F.

RATES OF APPLICATION.

Aggregate Loose Depth.	1 Cubic Yard Covers.	Binder Gallons Per Square Yard.	
		1935–36.	1936–37.
½ inch ..	1 to 72 square yards ..	0·2	0·22
¾ inch ..	1 to 48 square yards ..	0·25	0·27
1 inch ..	1 to 36 square yards ..	0·3	0·33

Weather conditions were very bad for this type of work. Some ravelling has occurred on many jobs. Following a general survey, it is considered that the rates of application have been too low to provide sufficient margin to cover lack of uniformity in mixing due to poor weather or faults in the design or operation of the mixer. It is possible that the use of dehydrated tar as a flux has also added to some of the difficulty. As stated previously, it is proposed to increase the quantity of binder and to set out definitely the increase in total application which should be made to provide for additions of light flux. Aggregate (No. 3) graded from 100 per cent. passing ⅝ square openings to 10 per cent. passing No. 8 B.S.I. sieve was used.

2. PLANT DEVELOPMENT.

(*a*) ROTARY ROAD BROOM.

Ten four-wheeled, pneumatic-tired, non-automotive rotary road brooms were built and have given good service.

(*b*) JETS.

Experimental work commenced in 1935-36 was continued and some seventy types of slot jets made and tested. In conjunction with A. E. Copley, Esq., of Malvern, a jet as shown in Plate 44 and Figures B and C was developed, patented by Copley, and adopted by the Board.

The tests covered the discharge from single jets and jets assembled in manifolds. The viscosity of the material sprayed was varied from 0.25 to 0.45 poise, the height of the face of the jet above the collecting boxes varied from 6 inches to 15 inches and the pressure in the manifold from 6 lb. to 25 lb. per square inch.

The layout of the testing pit is shown in Plates 45 and 46.

The discharge from six common types of slot jet is shown together with that from a Copley standard type A jet on Figure D.

On Figure E is shown the discharge from—

A. A series of parallel slot jets used by the Board up to 1935-36.

B. A series of Copley small discharge slot jets with Copley E end jets.

C. A series of Copley standard type A jets with Copley E end jets.

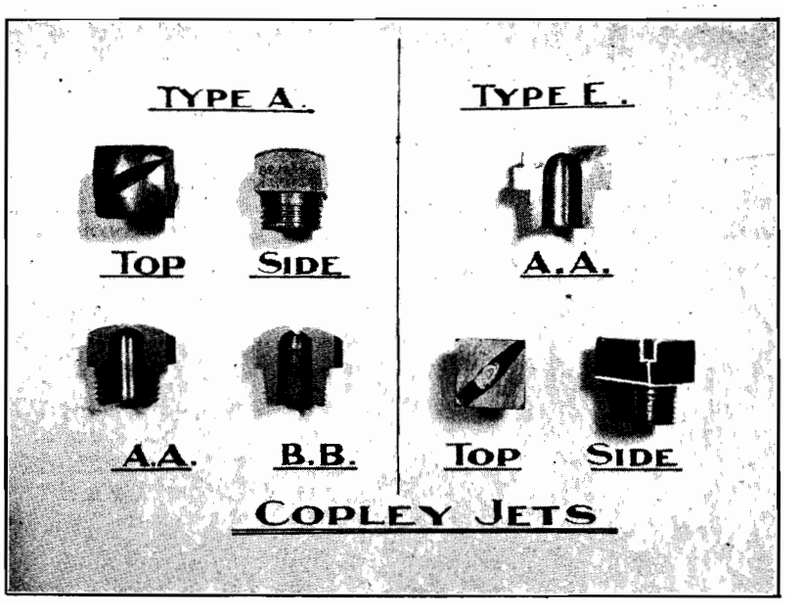
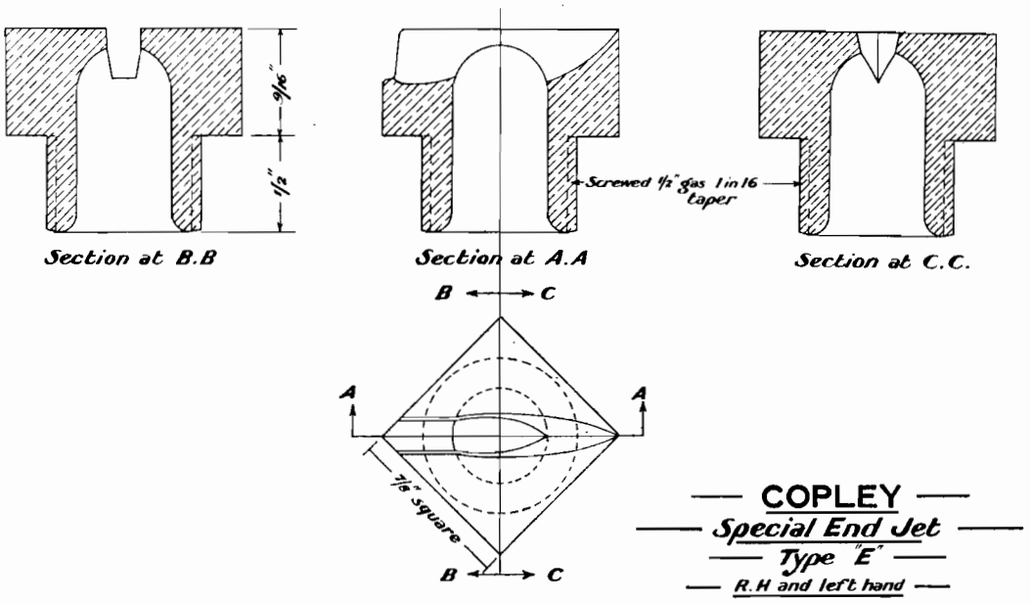
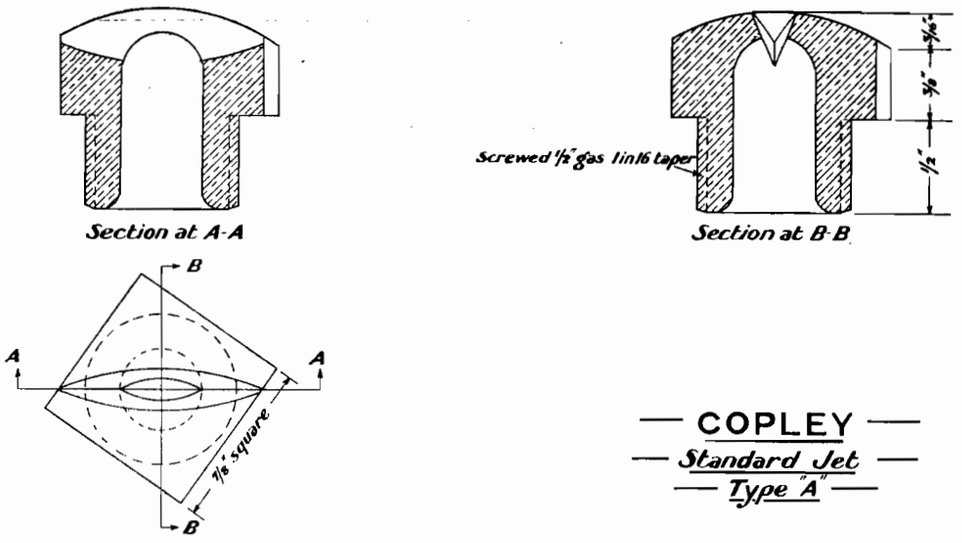


Plate No. 44.



Discharge :- Material, Viscosity 0·25-0·45 poise Pressure 10 lb □" 6 gallons per minute

FIGURE B.



Discharge :- Material , Viscosity 0·25 - 0·45 poise Pressure 10 lb □" 4 gallons per minute

FIGURE C.

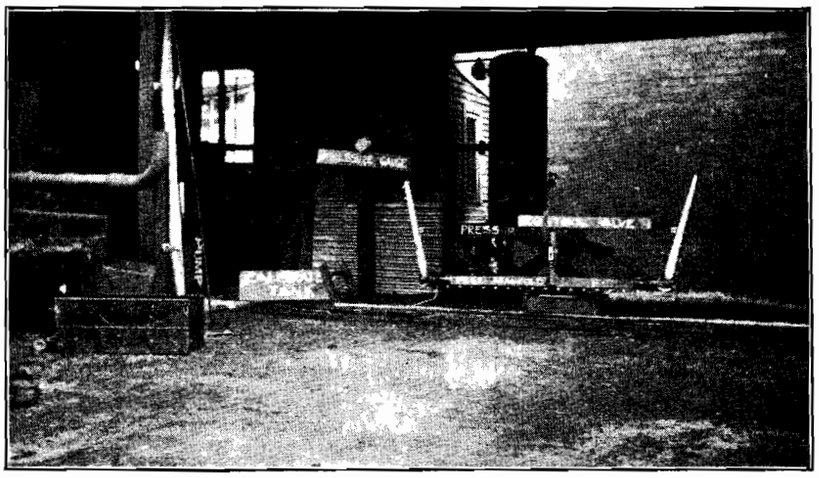


Plate No. 45.—General Layout of Jet Testing Pit.

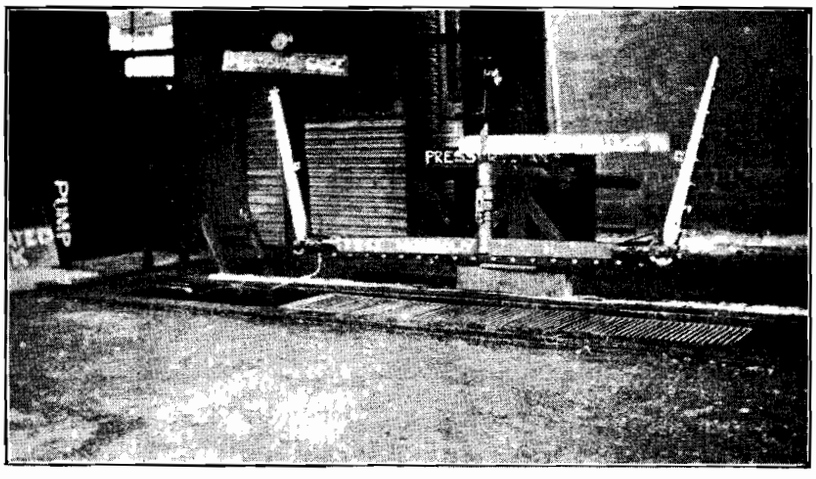
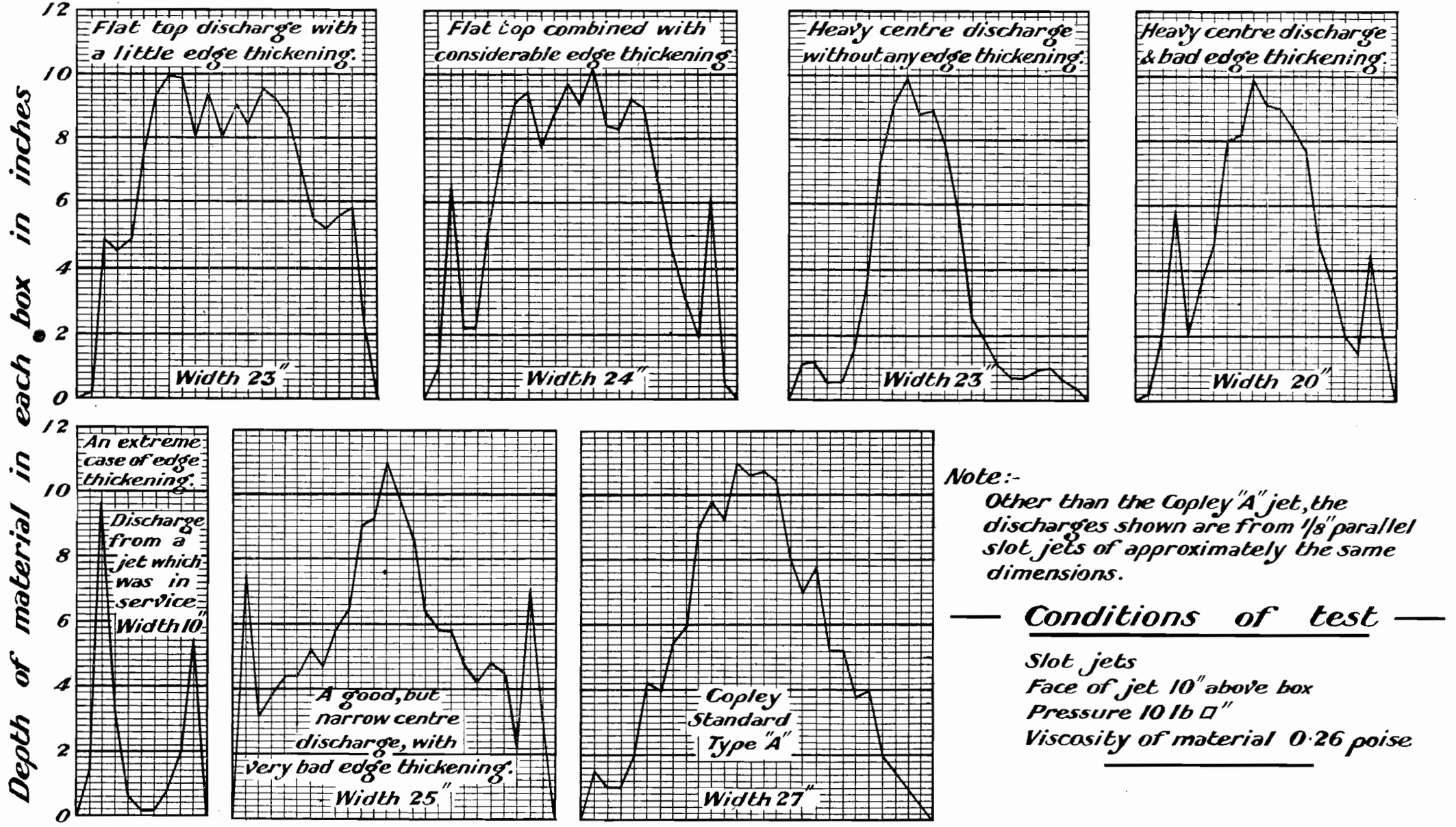


Plate No. 46—Close-up of Jet Testing Pit.

— C. R. B. (Victoria) —
— Jet tests —

Graphs showing the discharge from six typical types of slot jets, and that from a Copley Standard Type A jet.



Note:-
Other than the Copley "A" jet, the discharges shown are from 1/8" parallel slot jets of approximately the same dimensions.

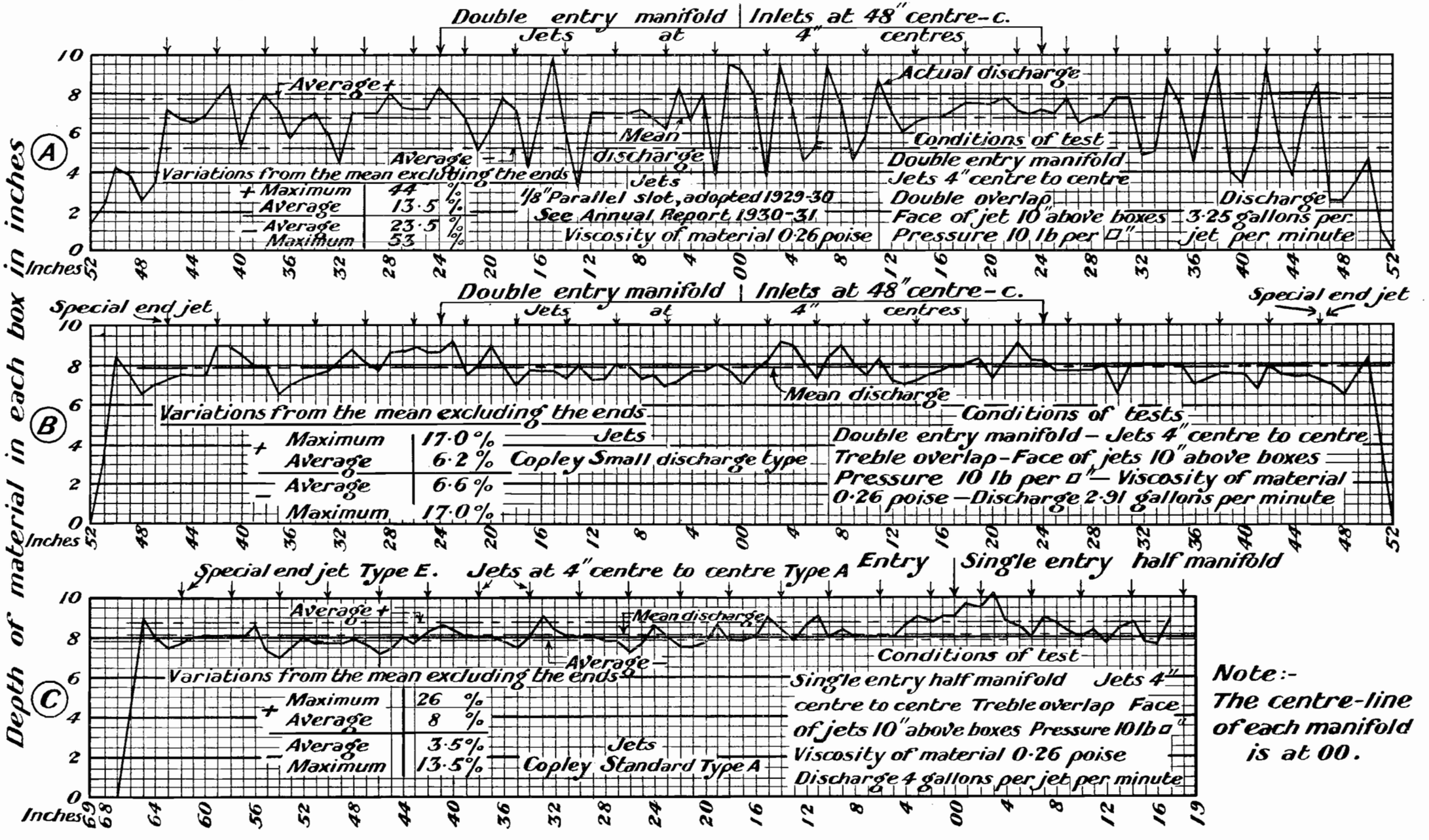
— Conditions of test —

Slot jets
Face of jet 10" above box
Pressure 10 lb □"
Viscosity of material 0·26 poise

FIGURE D

C. R. B. (Victoria)

Graphs showing jet discharge from three types of slot jets in a standard manifold.



Note:-
The centre-line of each manifold is at 00.

FIGURE E.

From this series, it will be seen that the type of jet adopted gives a discharge having maximum and average variations from the mean of about half of those given by any jets previously used. The operating conditions were—

1. Spacing of jets in the manifold, 4 inches, giving a treble overlap.
2. Height of face of jet above the road 10 inches (working tolerance 9 inches to 11 inches).
3. Viscosity of material sprayed—Not greater than 0.5 poise.
4. Pressure—10 lb. per sq. inch (minimum for this type of jet is 9 lb. per sq. inch).

With material having a viscosity of 0.5 poise at 122 deg. F. and with a pressure of 10 lb. per square inch the rates of discharge were—

Type A jets—4 gallons per minute.
Type E jets—6 gallons per minute.

These tests have shown that very small alterations in the dimensions of the jets produce considerable changes in rate of discharge and distribution. In 1931 tests on various types of jets were carried out and the results given in the Board's Annual Report of 1931. Following these, slot jets $\frac{1}{8}$ inch wide were adopted. Small variations in manufacture of which the importance was not realized, led to poor transverse distribution and made necessary the series of tests now reported. It appears to be necessary to check the distribution and rate of discharge of each batch of jets purchased.

It is considered that for satisfactory results these jets must be manufactured within fine tolerances, hand finished with care, mounted in a really good manifold and treated by the sprayer operator with much more care than is usual.

but although superior to a rotating disc, it would only deliver material at a uniform rate under very limited conditions. A modified experimental unit is under test which it is hoped will spread aggregate uniformly up to 9 feet in width and at a rate from 1 cubic yard to 30 square yards to 1 cubic yard to 300 square yards.

(*e*) PORTABLE ROLLER.

A portable roller (see Plate 47) was designed and built during the winter and will be tried during the coming season. In the photo the roller is shown ready for transport. By reversing the tow bar, the roller drum, which may be filled with water, comes on the road and the rubber tires are raised. The weight per lineal inch filled with water is 135 lb.

3. PLANT USED.

The following units were in operation during the season :—

(i) 300-gallon (non-automotive) ..	4
(ii) 400-gallon (old type) ..	4
(iii) 400-gallon (new design) ..	7
Total ..	15

4. WORK EXECUTED.

(*a*) WORK CARRIED OUT BY C.R.B. PLANT.

(i) *Length of work carried out—*

The total length of bituminous surface treatment carried out by C.R.B. plant since 1922-23 season is shown on Figure F. (Page 65.)

For the last five years the total annual mileage and average is as set out below :—

Season.	*Miles.*
1932–33	650
1933–34	835
1934–35	574
1935–36	740
1936–37	793
Total	3,592

Average of five years 718 miles.

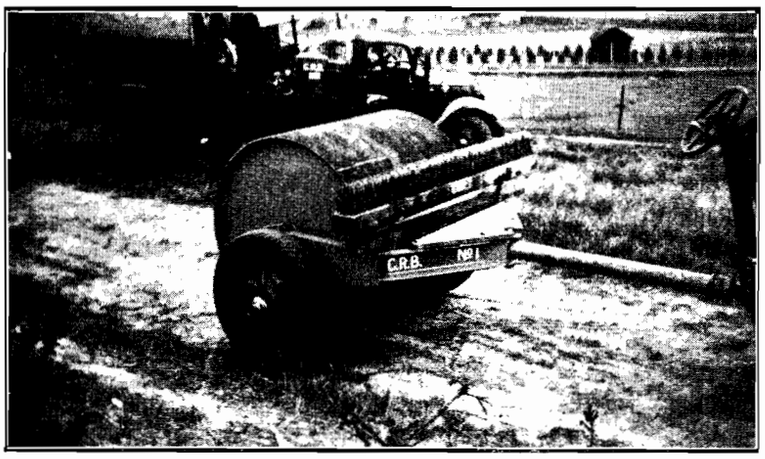


Plate No. 47.—Portable Roller Ready for Transport.

(*c*) AGGREGATE LOADER.

The light portable, pneumatic-tired, bucket-type, mechanical aggregate loader has been experimented with and considerably modified; it is now being reconstructed in the light of experience to load at the rate of one cubic yard per minute.

(*d*) AGGREGATE SPREADER.

The "Buckeye" rotating drum type aggregate spreader imported from America was put into service,

SEASON 1936-37.

All Sprayers.

Mileage—793 miles.
No. of jobs—502.
Longest job—12.5 miles.
Shortest job—0.04 miles.
Average job—1.57 miles.

400 gallon sprayers—

Number of plant set ups—209.

Average work done from each set up—3.3 miles.

(ii) *Nature of work carried out by C.R.B. Sprayers.*

Type of Sprayer.	Miles of Each Class of Work.		
	First Seal.	Reseal.	R.M.S.
400-gallon	443·65	3·06	246·12
300-gallon	53·59	0·48	46·10
Totals	497·24	3·54	292·22

Total—793 miles.
Plant mix seal—6.5 miles.

(*b*) WORK CARRIED OUT BY MUNICIPALITIES' PLANT.

Approximate mileage of each class of work.

First Seal.		R.M.S.	P.M. Seal.
S.S.	D.C.		
5·31	20·39	24·51	17·84
Total ..	25·70	24·51	17·84

Total—68.05 miles.

(*c*) TOTAL MILEAGE, INCLUDING WORK CARRIED OUT BY COUNCILS' PLANTS.

Total mileage for 1936-37 .. 867.5 miles.

5. ANALYSIS OF OPERATION.

The following three tables show for the 400-gallon sprayers proportion of time spent in various operations or in idleness, excluding field storage:—

(*a*) ANALYSIS OF OPERATION OF EACH UNIT.

Operation.	Sprayer Number.											Average.
	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	
Spraying	51·3	39·5	43·1	40·4	44·1	28·5	42·2	40·2	40·1	51·9	42·6	41·9
Moving	16·9	14·7	13·6	9·5	16·8	9·1	8·0	12·7	14·8	19·3	13·1	13·6
Weather	14·0	15·5	16·5	21·0	12·2	35·8	22·8	23·4	18·0	10·8	20·3	19·1
Holidays	8·8	6·9	8·0	8·7	8·5	9·8	10·1	9·0	9·1	9·8	7·2	8·7
Mechanical delays ..	0·3	1·3	1·9	2·6	3·5	4·2	2·7	2·6	1·7	1·0	4·0	2·4
Avoidable delays ..	8·9	22·4	17·3	18·1	15·2	12·7	14·3	12·4	16·6	7·6	12·9	14·6
Totals ..	100·2	100·3	100·4	100·3	100·3	100·1	100·1	100·3	100·3	100·4	100·1	100·3

(*b*) ANALYSIS OF OPERATION OF ALL UNITS 1935-36 AND 1936-37.

Operation.	1935–36.	1936–37.
	%	%
Spraying	39·9	41·9
Moving	13·6	13·6
Weather	14·0	19·1
Holidays	7·6	8·7
Mechanical delays	2·4	2·4
Avoidable delays	24·1	14·6
Totals	101·6	100·3

(*c*) AVOIDABLE DELAYS SET OUT IN (*a*) AND (*b*) ARE GIVEN IN DETAIL BELOW.

Delay.	Sprayer Number.											Average.
	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	
Poor organization ..	0·4	0·4	..	..	..	..	0·6	..	..	..	0·9	0·2
Long leads	0·7	1·8	0·7	0·8	2·7	4·1	2·8	2·1	5·6	0·4	2·3	2·3
Short sections ..	5·2	11·6	8·9	12·3	6·8	3·8	5·6	6·7	8·0	3·1	5·6	7·1
Road not ready ..	0·3	5·3	4·8	2·6	2·6	4·2	..	2·2	2·3	3·5	4·1	3·1
No aggregate ..	0·2	..	2·4	1·1	2·1	..	0·4	0·6	..	0·1	..	0·6
No binder	0·4	0·2	0·5	0·7	0·2	..	1·4	0·2	0·7	..	..	0·4
Special materials ..	0·9	0·2	..	..	..	..	3·5	..	..	..	..	0·3
Labour and plant ..	0·8	2·9	..	0·6	0·8	0·6	..	0·6	..	0·5	..	0·6
Total	8·9	22·4	17·3	18·1	15·2	12·7	14·3	12·4	16·6	7·6	12·9	14·6

6. Costs.

(*a*) AVERAGE COST OF DOUBLE COAT FIRST SEALS.

Area costed—3,750,966 square yards.
Primer—0.2 gallons per square yard.
Binder—0.25 — 0.3 gallons per square yard.

Part of Work.	Cost in Pence Per Square Yard.
Materials	5·49
Labour	1·38
Stores	0·24
Plant charges	0·61
Total	7·72

(*b*) AVERAGE COST OF ROADMIX SEALS ¾-IN. LOOSE THICKNESS.

Area square yards costed—1,302,876 square yards.

Aggregate No. 3—48 square yards per cubic yard.

Binder—0.27 gallons per square yard.

Part of Work.	Cost in Pence Per Square Yard.
Materials	5·96
Labour	1·57
Stores	0·24
Plant charges	0·76
Total	8·53

The average cost of first seals and roadmix seals since 1923-24 is set out on Figure G.

(*c*) AGGREGATE.

Quantity costed—130,250 cubic yards.

Average cost—12s. 3d. per cubic yard.

(*d*) BINDER.

Material.	Supplier.	Contract Number.	Tons.	Basic Price Per Ton Net—Bitumen, f.o.w.; all other *ex* Store.	
				Including Drums.	Excluding Returnable Drums.
				£ s. d.	£ s. d.
Bitumen, 85–100 penetration ..	Shell Company	00/392	7,510	4 1 9	..
,, ,, ,, ..	,, ,, ...	00/398	445	5 5 0	..
,, ,, ,, ..	United Oil Company	00/398	75	4 17 6	..
Duratenax	Duratar Proprietary Limited ..	00/399	278	5 7 6	..
Duratenax flux oil	,, ,, ,, ..	00/345	29	6 1 10	4 15 4
Power kerosene substitute ..	,, ,, ,, ..	00/394A	69	10 5 8	9 5 8
Asphaltic oil	Shell Company	00/397B	256	7 6 6	5 4 3
,, ,, ...	C.O.R.	00/397C	177	7 1 6	4 18 9
Dehydrated tar	Albion Quarrying Company	00/397A	560	5 11 3	4 7 4
,, ,, ...	Brighton Gas Company	00/396	1,050	4 7 6	3 2 10
,, ,, ...	Duratar Proprietary Limited ..	00/397D	346	5 11 3	4 7 4
	Total	..	10,795	..	..

The price of 60/70 or 85/100 penetration bitumen delivered F.O.W. Melbourne since 1923-24 is shown on Figure H.

(*e*) PRIMER.

Material.	Contractor.	Contract Number.	Tons.	Basic Price Per Ton Net—Delivered *ex* Store.	
				Including Drum.	Excluding Returnable Drums.
				£ s. d.	£ s. d.
Cold tar	Albion Quarrying Company	00/393A	578	5 0 0	3 15 9
	Brighton Gas Company	00/393B	1,291	3 17 6	2 13 4
	Metropolitan Gas Company	00/393C	1,616	4 10 6	3 7 3
	Duratar Proprietary Limited ..	00/393D	1,472	4 1 9	2 17 9
	Coates and Company	00/393E	51	4 11 0	3 13 2
	Total	..	5,008	..	..

Average price—£3 4s. 11d. per ton net, excluding drums.

(*f*) TOTAL MATERIALS USED.

Nature of Material.	Tons.		Nature of Material.	Gallons at 60 Degrees Fahr.	
	Petroleum Products.	Tar Products.		Petroleum Products.	Tar Products.
Binder	8,463	2,332	Binder	1,842,730	498,052
Primer	..	5,008	Primer	..	1,072,357
Totals	8,463	7,340	Totals	1,842,730	1,570,409
Total	15,803		Total	3,413,139	

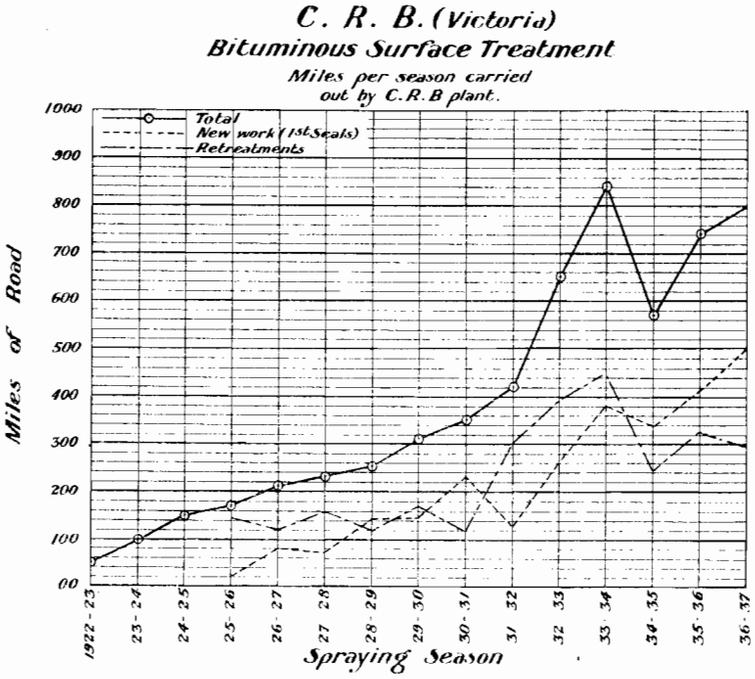


FIGURE F.

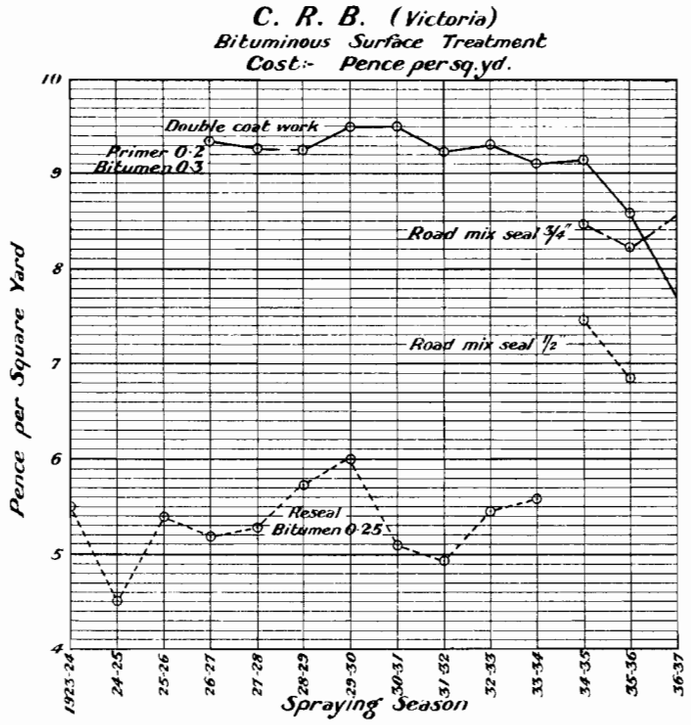


FIGURE G.

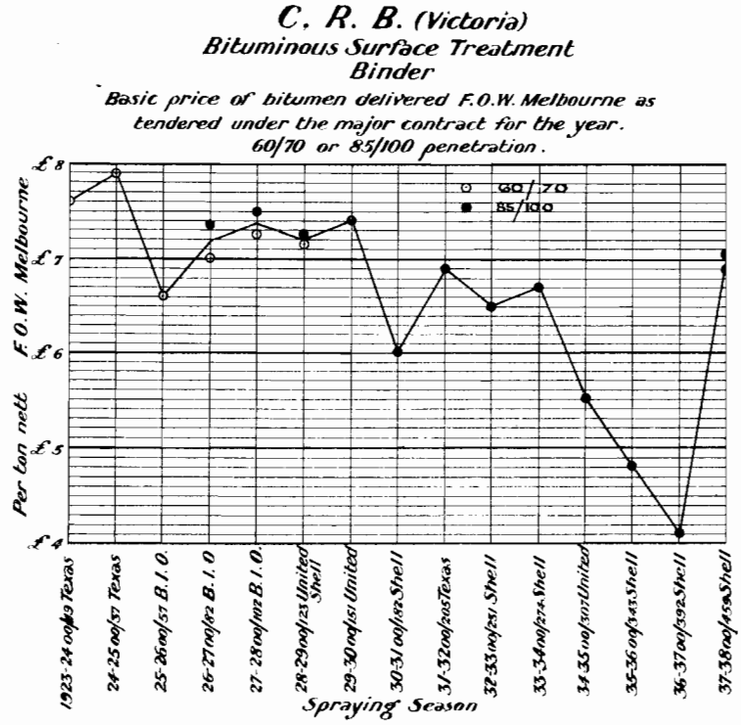


FIGURE H.

LABORATORY.

During the past year simplified soil tests, of the type used by the United States Bureau of Public Roads and the American Society for Testing Materials, which have been described in previous reports, have been carried out on many samples of sub-grade material, granite sands, and gravel binders. For some well-graded non-plastic materials, these tests do not indicate the slight but adequate cohesion which the materials exhibit in certain methods of use, and experiments have been commenced with a test in which briquettes of the form used in cement testing, made from the fine material passing a No. 36 B.S. sieve, are dried at 105 deg. C. and tested for tensile strength. This test may be found to indicate the ability of the materials to retain some binding properties in dry weather, and to examine its worth, several materials of known behaviour are being tested.

In order to determine the relative effect of different hygroscopic salts used in stabilization of gravels, experiments have been carried out with calcium chloride, sodium chloride, and the "mother liquor" obtained in the manufacture of salt from sea-water. Figure J shows the effect of these chemicals in retarding the drying out of dishes of soil. It will be observed that the comparatively cheap common salt is quite reasonably effective in retaining moisture.

TABLE "A."—SETTLEMENT OF NATURAL SURFACE.

Chainage.	Date.	R.L. of Platform.	Subsidence.	R.L. of Fill.	Height of Fill.
A.—616,300	17.3.37	43·11	..	..	..
	16.6.37	42·91	0·20	51·99	9·08
	21.7.37	42·88	0·23	No additional filling	
	30.8.37	42·82	0·29	55·86	13·04
B.—617,500	21.6.37	43·67	..	..	..
	14.7.37	42·68	0·99	50·09	7·41
	5.8.37	42·27	1·40	52·55	10·28
	26.8.37	41·95	1·72	54·67	12·72

Location A is on a wide, relatively high river flat, and little subsidence developed as filling proceeded. Location B is on a low flat.

In order to estimate when the settlement of the foundations of the bank is complete, well points have been installed in the soil under the bank, and at a point some distance from the upstream toe of the bank. The variation in water level has been as shown in Table "B." The weight of the filling causes settlement of the underlying soil largely by forcing water out of it, and the hydrostatic pressure of the water is indicated by the difference in water level in the two wells. When stability is reached, this difference becomes zero. From the results it would appear that, after the date of the last reading (2nd June, 1937), very little further settlement of the natural surface is to be expected.

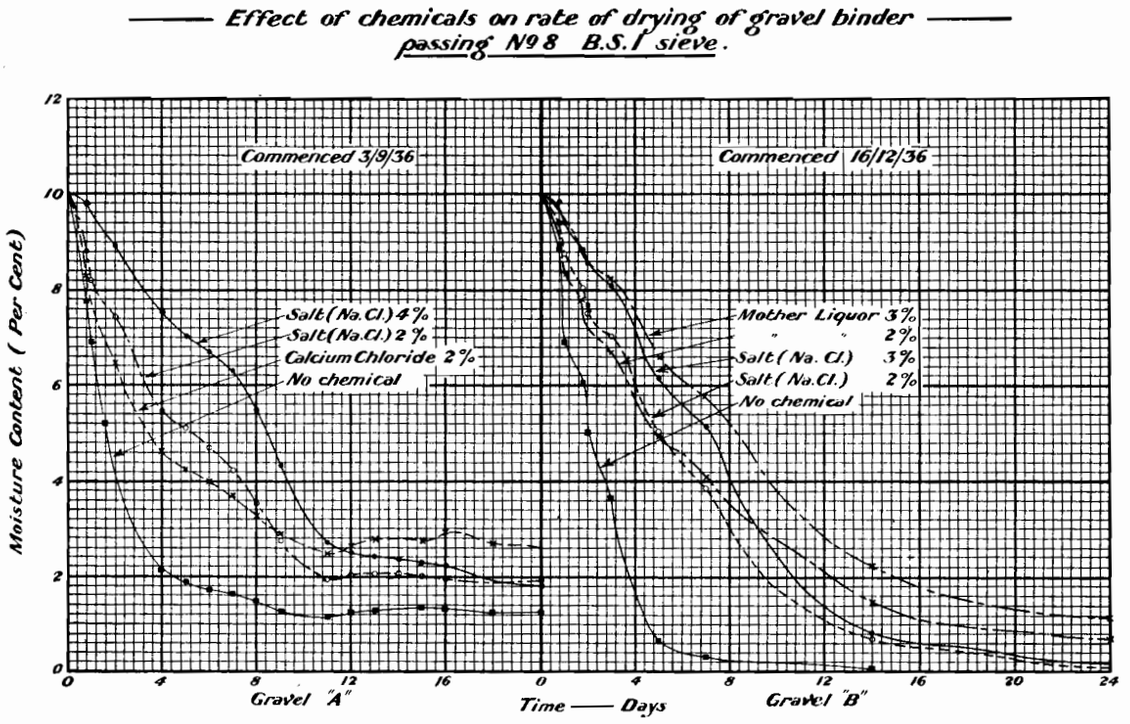


FIGURE J.

Experiments with these materials applied to gravel roads in different localities are also being carried out.

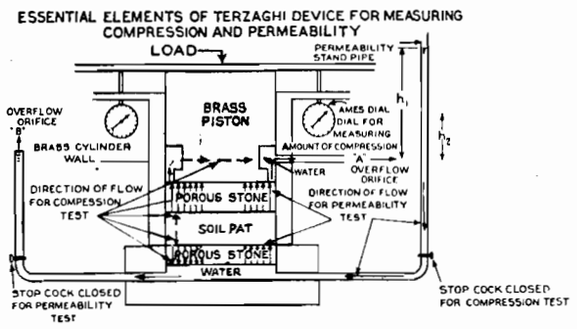
The construction of a large embankment for the approaches to the Rosedale bridge has provided an opportunity to obtain information which will be useful on this and on other banks which it may be necessary to construct in the future.

Platforms were constructed on the natural surface on which the bank is being built. The settlement of these platforms has been determined from time to time by boring through the bank. The results of these measurements for typical platforms in two different portions of the bank are shown in Table "A":—

TABLE "B."—HYDROSTATIC PRESSURE.

Date.	R.L. Bank.	Well Point 10 Feet Left (Under Bank).	Well Point 50 Feet Left.	Difference.
28.4.37 ..	46·00	40·41	37·94	2·47
5.5.37 ..	48·20	39·58	37·84	1·74
13.5.37 ..	49·80	39·12	37·76	1·36
19.5.37 ..	51·40	39·12	37·98	1·14
26.5.37 ..	51·70	38·85	37·94	0·91
2.6.37 ..	52·10	38·71	38·04	0·67

To make laboratory tests of the settlement phenomena of Rosedale and other soils, a soil compression apparatus of the Terzaghi type has been installed in the laboratory (see Fig. K and Plate 48). The sample is compressed by hanging weights, which load the upper of two porous plates between which the sample is confined in a brass ring, and the compression under each load is measured by an Ames dial. Permeability can also be measured by the apparatus, a matter of importance where an embankment is subject to saturation by floods. Apparatus for taking undisturbed samples of soil has also been obtained.



By courtesy of U.S. Bureau of Public Roads.

FIGURE K.

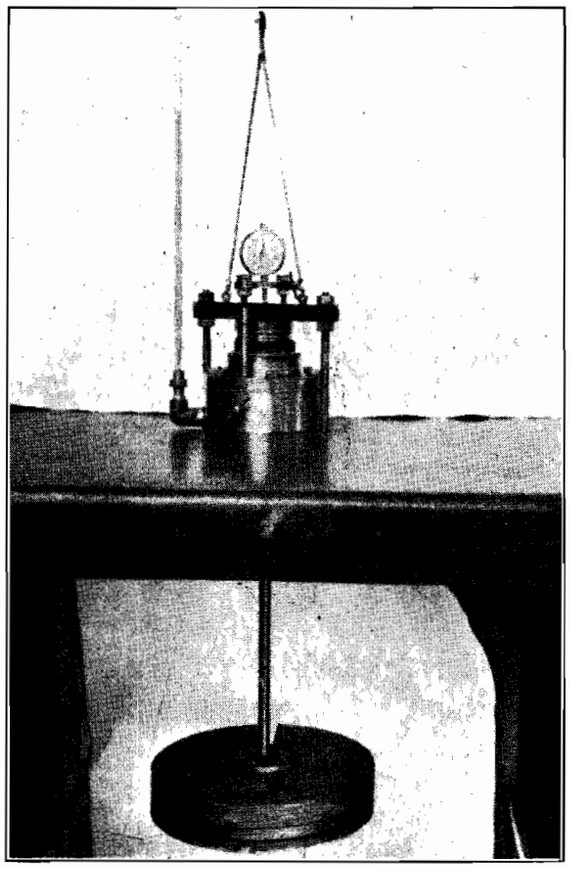


Plate No. 48.—Terzaghi Type Soil Compression Apparatus Set Up for Testing.

In order to control the consolidation of the bank, a Procter soil compaction and penetration apparatus (Plate 49) was obtained. The apparatus is designed to measure the change in density and consistency to which soil may be brought with changing moisture content, and to find the "optimum" moisture content, at which the maximum density is produced by a specific amount of compacting. In laboratory tests a mould (shown on right of Plate 49) is used to hold the specimen during compaction with the rammer in a standard manner. The penetration needle, which has feet of varying size is pushed into the sample at a uniform rate, the force on the handle being simultaneously weighed on a spring balance enclosed in a brass cylinder, the stem of the handle being graduated in pounds. Plate 50 shows the penetration needle in use in the field. The needle was not found very useful at Rosedale owing to the gravelly nature of the fill material. It will probably be more serviceable on banks constructed of more uniform material. However, with the compaction mould, best consolidation of the gravelly material was obtained with 9.7 per cent. of moisture.

In the field the weight per cubic foot of consolidated material was determined by excavating a hole in the filling, weighing the material removed, and filling the hole with sand, the weight per cubic foot of which had been determined. From the weight of sand used, the volume of the hole, and hence the weight per cubic foot of the compacted material is determined. Typical results are as shown in Table C.

TABLE C.—DENSITY MEASUREMENTS.

Material.	Condition.	Density, lb. per Cubic Foot.
Fine, gritty clay ..	(1) In natural condition in hill..	121
	(2) Loaded in trucks (loose) ..	80
	(3) Consolidated in embankment	117
Gravelly material	(1) In natural condition in hill..	134
	(2) Loaded in trucks (loose) ..	88
	(3) Consolidated in embankment	128

Consolidation was effected by placing in 6-in. layers, sprinkling with 10 gallons of water per cubic yard, and trafficking with trucks.

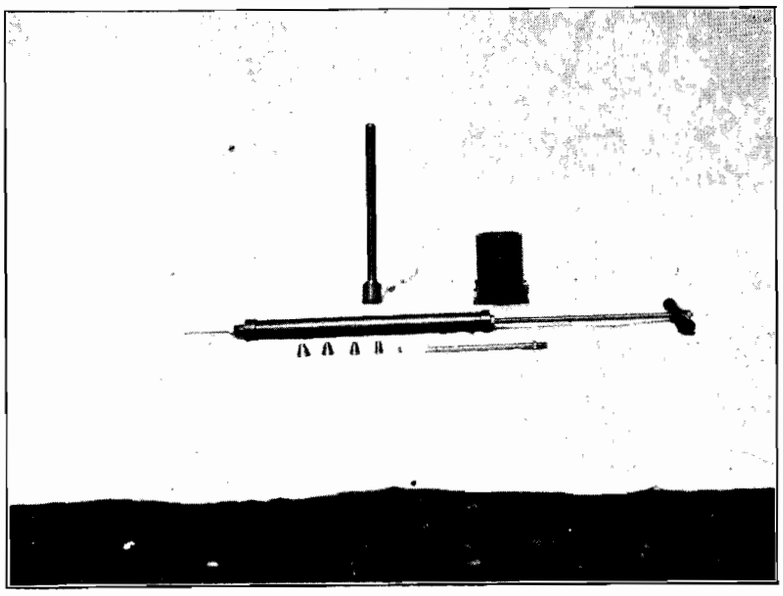


Plate No. 49.—Proctor Penetration Needle, Compaction Mould and Rammer.

Plate No. 50.—Use of Proctor Penetration Needle in the Field.

An important addition to the laboratory equipment has been made in the purchase of a Hveem stabilometer, which has been used in testing the relative stability of bituminous carpets laid in the outer metropolitan area, and in the experimental section at Napier-street, and in designing mixtures for new work.

The instrument consists of a tubular metal body surrounding a flexible rubber cylinder which encloses the cylindrical test specimen. The annular space between the body and the rubber cylinder is partially filled with water, and a pressure gauge connected to this space shows the pressure in the liquid surrounding the specimen. To allow a definite small amount of movement, a measured quantity of air is confined with the water. The pressure is set initially at 5 lb. per square inch in order to ensure proper contact of the rubber with the specimen. The specimen is then compressed axially in a testing machine and the lateral pressure shown by the gauge is a measure of the "stability" of the material.

The apparatus is shown set up in the testing machine in Plate 51, for which the Board is indebted to the Californian Division of Highways, in whose laboratory the device has been developed.

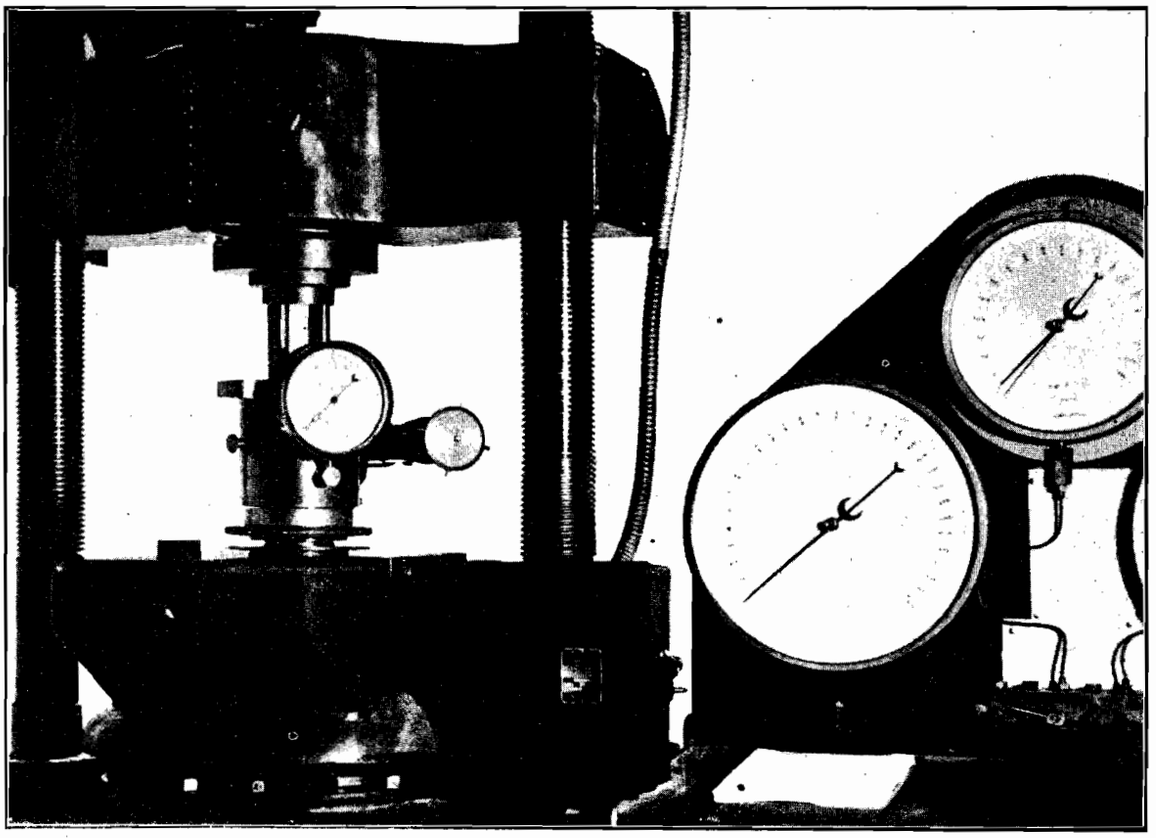


Plate No. 51.—Hveem Stabilometer.

BRIDGES.

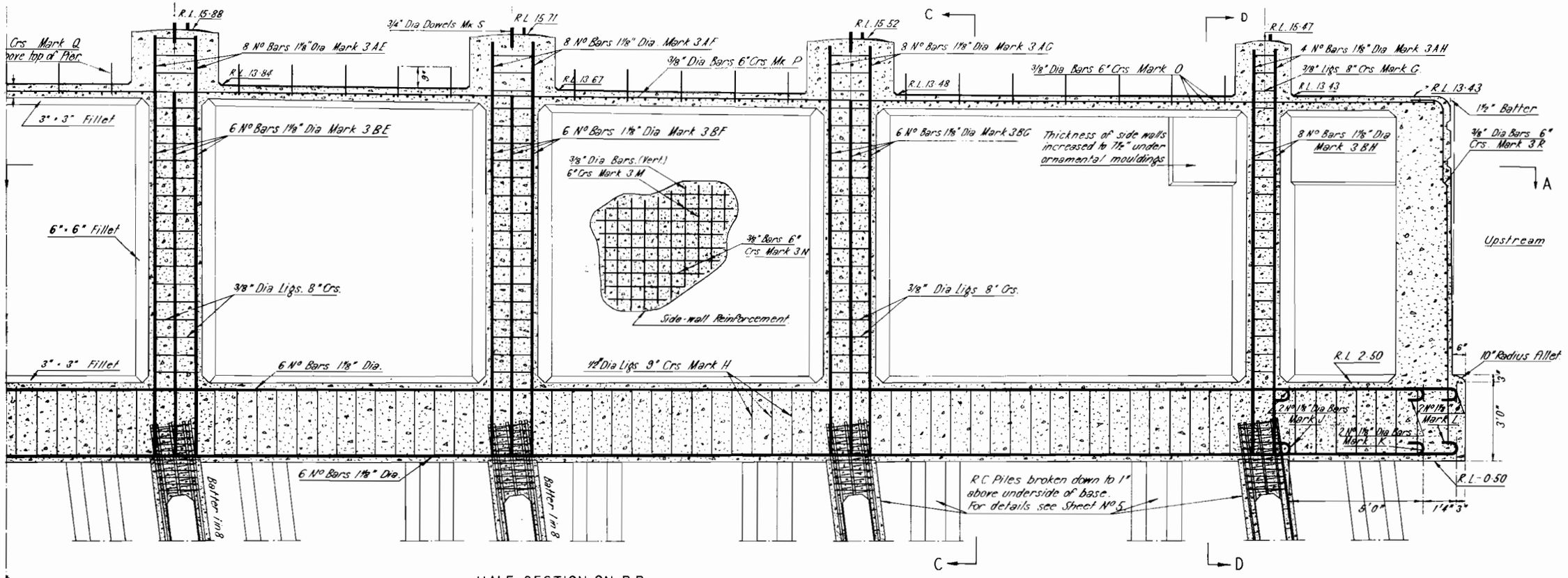
Routine bridge construction work consisting of the construction of normal structures on more or less standardized lines, together with the widening and repairs to sundry bridges have occupied the greater portion of the years' work.

Those structures differing from the general types are described hereafter.

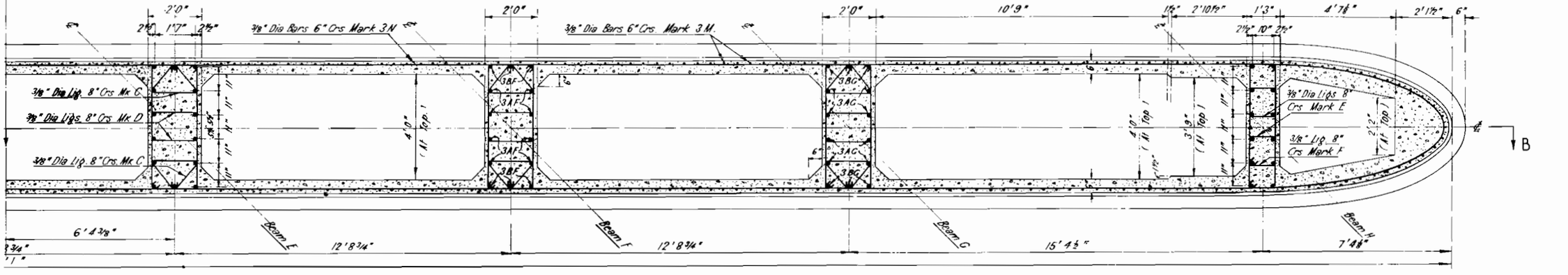
Punt Road Bridge over Yarra River.

In January of this financial year, the construction of a new bridge over the River Yarra was approved. The bridge is on the line of Punt-road, and crosses the river on a skew of 45 degrees.

Extensive bores carried out at the site by the City Engineer of Melbourne, in collaboration with whom the general details of the new structure have been



HALF SECTION ON B-B



HALF SECTION ON A-A

FIGURE M.—Punt-road Bridge—Longitudinal Section through Piers.

determined, show that the silurian rock, which is close to the surface in the South Yarra hill, extends across under the river to the Richmond side at depths of 40 to 60 feet below low water level. The river channel, which is approximately 350 feet on the skew line of the new bridge, has a maximum depth of 15 feet at the centre with a bed of generally parabolic section. Below the bed the material is mainly river silt of varying degrees of hardness, interspersed with a few bands of sand. Immediately overlying the rock a layer of clay is encountered.

The bank level on the northern (Richmond end is at approximately R.L. 10.50, whereas the bank level on the southern (South Yarra) end is at approximately R.L. 21.50, i.e., 11 feet higher. Flood level is R.L. 13.75. Although the river has largely been regarded as the main drain of the metropolis, some pleasure boats, in addition to a barge service and a dredge, use the river, and such uses may perhaps be expected to increase. It was necessary, therefore, to provide a clearance to permit these vessels to pass under the bridge at normal water level, and for the dredge to pass through at low water level. For one span the underside of the superstructure was therefore designed at a level of 19.00.

As it was desirable to keep the regrading of streets on the Richmond side to a minimum, and undesirable to alter the level of Alexandra-avenue on the South Yarra side, it will be seen that the limits placed on the outline of the bridge were very restricted. The final solution provides for a bridge of five spans with a fairly large camber. The end span on the Richmond side, in common with the approaches, was placed on a grade of 1 in 30, and the end span at the South Yarra side on a grade of 1 in 60. Over the three central spans a vertical curve tangential to these grades was provided.

To give the necessary headroom for "shipping," the thickness of the superstructure of necessity had to be small. Advantage was taken of the rock foundations and the bridge was designed as a continuous structure. The end spans were made 65 feet long, and the three central spans each 85 feet long. The width of the bridge is 50 feet square between roadway kerbs, and, in addition, two footways, each 8 feet wide, were provided.

As an early start on the work was desired, after the levels had been worked out throughout, and the superstructure generally designed, plans and specifications were prepared in detail for the substructure, and a contract let for this work separately at the end of April. The substructure design is illustrated in Figs. L and M, and provides for the use of concrete piles from rock level up to 1 foot below low water level. At this level a heavy reinforced concrete block bonds the tops of the driven piles together, and supports a cellular pier, which is carried up to the beam seatings. In all, 240 piles are required, 40 being provided at each pier and at each abutment. The piles are of large octagonal section, 22 inches between parallel faces, and with a circular hollow of 12-in. diameter to reduce weight. The poor lateral support afforded by the silt overlying the rock made it essential to provide a stiff pile, thus necessitating the large overall section.

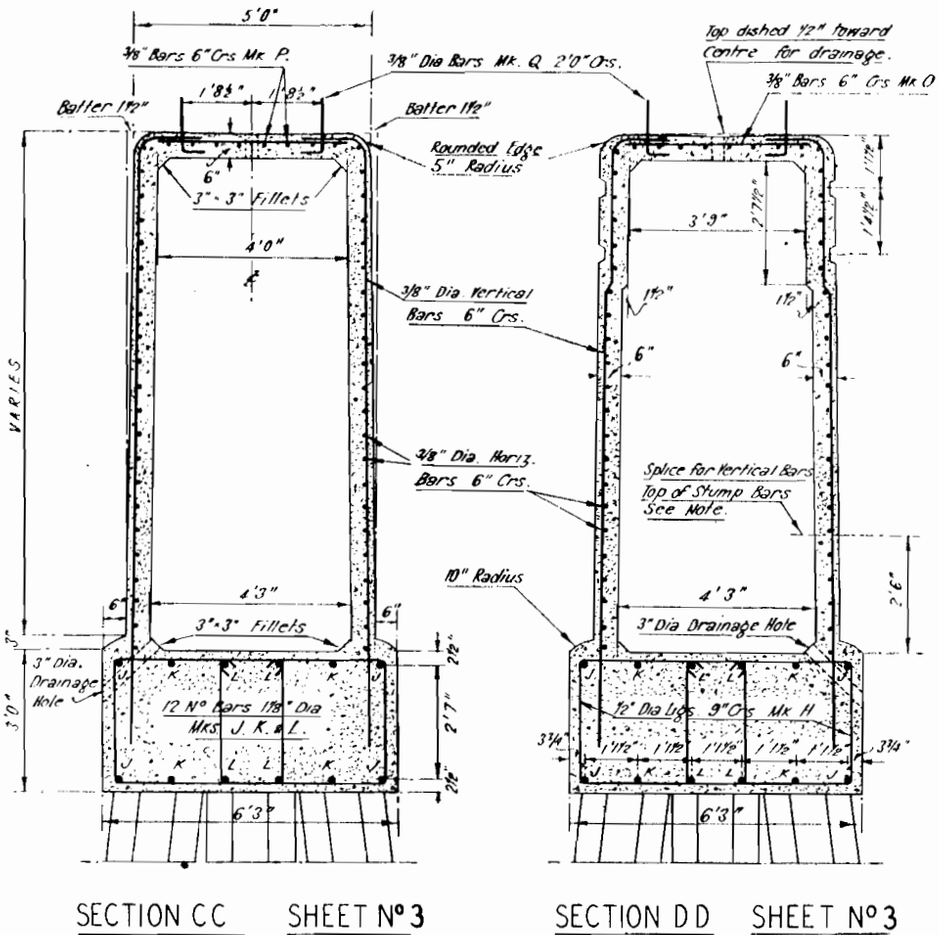


FIGURE L.—Punt Road Bridge—Cross section through Piers.

LATROBE BRIDGES—ROSEDALE.

During the year, owing to difficulties with the contract, it became necessary to commence the superstructure, and to complete the substructure of the new bridges at the Latrobe River at Rosedale, on the Princes Highway East, by day labour. These bridges consist of a series of 50-ft. spans of reinforced concrete Tee beams. The width is 22 feet between kerbs and three beams are provided. The bridge nearer Rosedale over the flooded flats has a length of 1,110 feet, and consists of 22 spans, each 50 feet long. The second bridge, which is over the river channel proper, and over the flats adjacent to it, consists of 11 spans of 50 feet each, and has a length of 550 feet. The two bridges, therefore, have a total length of 1,650 feet. Between the bridges an earthen embankment 450 feet long is provided, and at the two ends further embankments are provided to connect the bridges to the high ground at each end.

Tenders were called for all materials. The large amount of repetition work required allowed considerably better formwork to be provided than might be used for smaller work. All formwork was accurately assembled in complete units of the full depth of the beam sides, and of the full width of the underside of the deck between the beam stems. The units were made as long as could be conveniently handled, and five sections were required for each 50-ft. span. Temporary piles were driven in the centres of each 50-ft. span, and temporary wooden bents were erected on them.

Light steel trusses spanning from the permanent piers to the temporary bents were purchased to carry the formwork. The arrangement is shown in Plate 52.

Plate No. 52.—Showing Arrangement of Light Steel Trusses at Rosedale.

Sufficient trusses were purchased for three complete spans, and sufficient formwork for two spans. The sides of beams and undersides of deckslabs were stripped at seven days. The trusses were left in position for fourteen days, at which time a support was placed under the centre of each beam (by this time the concrete had a strength of 3,000 to 4,000 lb. per square inch).

Each span was cast in one complete operation, and required 65 cubic yards of concrete. It was found possible with a gang of 25 men to cast one complete span per week in favorable weather. Plate No. 53 shows the screeding of the concrete deck.

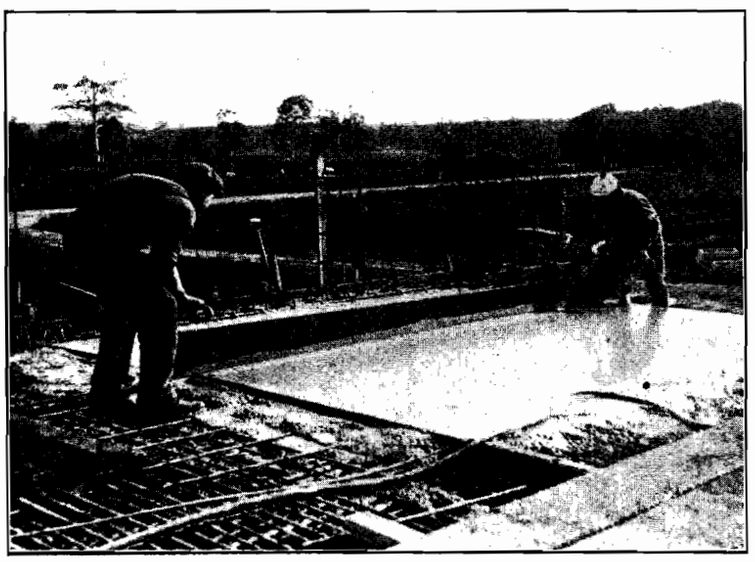


Plate No. 53.—Screeding Concrete Deck at Rosedale.

Use of internal and external concrete vibrators was made for this work, and found to be very satisfactory. The vibrators, which were of a pneumatic type, are shown in operation in Plates 54 and 55. They enabled complete compaction to be made of all concrete at less than one-third the cost of hand work. The concrete stripped free of blemishes, and no trace of bony patches could be found. Particularly where casting is done intermittently—it was done on one day each week at Rosedale—the saving in the large number of men who would only be required when concreting was in progress, is a very satisfactory arrangement for organization.

The forms used throughout were kiln dried, dressed, tongued, and grooved mountain ash. After being used seventeen times, they were in good condition, and were transferred for use in another job. This large number of uses was largely due to the fact that forms were made in sections, and did not have to be pulled to pieces during stripping, and be remade. The timber, however, was found to be very suitable for forms, and when carefully assembled, cleaned, and oiled, remains true to shape and line, and with very little tendency to warp and shrink.

To give a regular texture to the surface, all outside faces were ground with a pneumatic grinding wheel. A very uniform smooth finish was given to beams, kerbs, and parapet at a cost of £15 per 50 feet span of bridge.

The work was well advanced at the end of the financial year, the structure nearer Rosedale having been completed, and a start made with the second bridge.

Plate No. 54.—Concrete Vibrator in Operation.

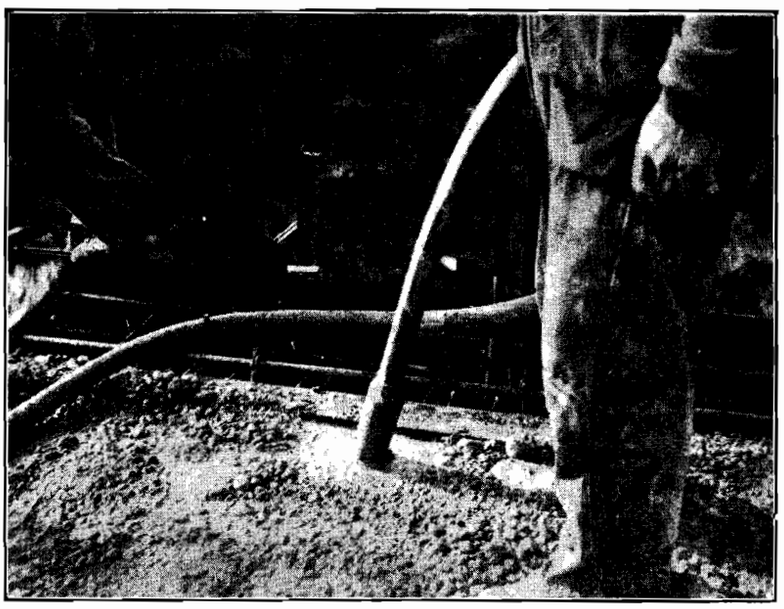


Plate No. 55.—Compaction of Concrete being carried out by means of a Pneumatic Vibrator.

LYNCH'S BRIDGE OVER MARIBYRNONG RIVER.

Considerable progress was made on the construction of this bridge. During the year the whole of the piles and piers were completed. The steel girders were fabricated and erected, and a start made with the casting of the concrete deck. The progress at the end of the financial year is shown in the photograph of the bridge and approaches. (Plate 32.)

The temporary support to the steel girders while the concrete deck was being cast, and before it had hardened sufficiently for the superstructure to function as a composite unit, was provided by light steel trusses supported at the pier bases. The trusses were divided into three panels, and from the third points, the girders were set up approximately half an inch by jacking and wedging from the trusses. The upsetting was controlled by measure from a piano wire kept to a constant tension and sag by a weight passing over a pulley at one end.

While this type of structure gives good service in actual use, results obtained during construction indicate that the knowledge of the shrinkage and effective modulus of elasticity of concrete is not very definite. It is apparent that over the period of setting, during which the composite structure is supported by the temporary truss, an appreciable tension from shrinkage in the concrete is developed. The actual settlement of the composite beams is considerably greater than is calculated from the normally accepted modulus of elasticity. In interpreting the results there are three distinct phenomena involved, namely, the actual concrete shrinkage stress producing a positive bending moment throughout the beam, the creep or non-elastic deformation of concrete when first subjected to beam stress, and finally the variation of the modulus of elasticity over a long period.

These uncertainties do not condemn the system of construction as they are actually less indefinite than the condition where a concrete slab is cast directly into the surface of steel beams, and where no shear connexion is deliberately provided. Even where beams have been painted, considerable adhesion occurs between the concrete and the top of the beam, so that the resulting stress distribution is quite different from that calculated on the presumption that the deck is separate from the beam. At the present time knowledge of the composite type is not definite enough to warrant the use of high working stresses or the delicate adjustments of inter-related stresses consequent to prestressing the beam before concrete is placed.

It has been necessary for the Board to complete the work on this bridge by day labour, due to unexpected difficulties encountered by the contractor in organization. The relatively high cost of temporary trusses precluded more than one set being purchased, and progress has been limited by the time that the trusses have to be left under the composite beams. Approximately five weeks per span is required, because of this cause, and only a relatively small number of men can be employed on the work.

Yours obediently,

L. F. LODER,

Chief Engineer.

APPENDIX A.

COUNTRY ROADS BOARD FUND.

Dr. RECEIPTS. *Cr.*

1936.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
July 1.	To Balance				21,759 15 1
1937.					
June 30.	„ Motor Car Act 3741—				
	Registration Fees	1,566 684 16 9			
	Less Refunds	23.146 14 7			
			1,543,538 2 2		
	Fines	21,766 3 11			
	Less Refunds	15 15 0			
			21,750 8 11		
			1,565,288 11 1		
	Less Cost of Collection		85,016 4 10		
				1,480,272 6 3	
	Motor Omnibus Act 3742—				
	Fines			10 5 0	
	„ Country Roads Board Acts 3662 and 4332—				
	Registration of Traction Engines		540 10 0		
	Fees and Fines		417 1 0		
			957 11 0		
	„ Acts 3741 and 4332—Costs		171 17 5		
				1,129 8 5	
	„ Municipalities' Repayments—				
	Permanent Works				
	Main Roads	13,142 1 10			
	Outer Metropolitan Roads	837 2 6			
	Relief Acts 4140 and 4415	13,979 4 4			
		130,994 1 0			
			144,973 5 4		
	Maintenance		133,400 3 8		
				278,373 9 0	
	Hire of Plant		46,401 4 7		
	Stores and Materials		165,316 4 10		
	Sundries		92,042 16 6		
				303,760 5 11	
					2,063,545 14 7
					2,085,305 9 8

1937.		£ s. d.	£ s. d.	£ s. d.
June 30.	By Maintenance (Appendix)			1,044,620 11 10
	„ Interest and Sinking Fund—			
	Municipalities' Repayments			117.912 7 6
	Interest and Sinking Fund—			
	Great Ocean Road—Act 4395			1,000 0 0
	Recoup to Revenue—Act 3944—			
	Interest—Main Roads	103,383 0 2		
	Developmental Roads	146,666 15 11		
	Sinking Fund Contributions	26,621 3 10		
	Exchange	39,250 18 6		
	Loan Conversion Expenses	1,865 16 7		
			317,787 15 0	
	„ Relief to Municipalities—Acts 4140 and 4415			197,508 0 0
	„ Stores and Materials	162,984 18 8		
	„ Motor Expenses	4,989 8 5		
	„ Plant Purchase and Repairs	53,158 15 2		
	„ Storeyard	27,971 14 11		
	„ Sundry Debtors	32,891 1 3		
	„ Motor Car Acts	3,495 10 0		
	„ Country Roads Acts	1,498 1 5		
	„ Act 4332 (Impounding Cattle)	628 4 3		
	„ Murray River Bridges	1,700 19 8		
	„ General Expenditure (Salaries, &c.)	107,550 15 11		
			396,869 9 8	
	Balance			9,607 5 8
				2,085,305 9 8

RECONCILIATION.

	£ s. d.
Balance as per Treasury Books	11,774 10 6
Add Transfers Outstanding	4,044 15 1
	15,819 5 7
Deduct Accounts in Transit	6,211 19 11
Balance as per Country Roads Board Accounts	9,607 5 8

REVENUE ACCOUNT, 30TH JUNE, 1937.

1937.		£ s. d.	£ s. d.	£ s. d.
June 30.	To Maintenance Works—General		606,813 0 8	
	Mansfield–Woods' Point Road ..	2,081 18 6		
	Walhalla Road	1,176 3 9		
	Wood's Point Road	2,272 18 1		
	State Highways	401,336 18 5		
	Tourists' Roads	30,939 12 5		
			437,807 11 2	
				1,044,620 11 10
	,, Contribution to Sinking Fund		29,478 1 10	
	,, Interest on Loans		88,434 5 8	
				117,912 7 6
	,, Recoup to Revenue—Act No. 3944—			
	Interest—			
	Main Roads	103,383 0 2		
	Developmental Roads ..	146,666 15 11		
			250,049 16 1	
	,, Sinking Fund Contributions		26,621 3 10	
	,, Exchange		39,250 18 6	
	,, Loan Conversion Expenses		1,865 16 7	
				317,787 15 0
	,, Interest and Sinking Fund—Great Ocean Road Act No. 4395		.. ..	1,000 0 0
	,, Relief to Municipalities, Acts 4140 and 4415 ..		.. ..	197,508 0 0
	,, Audit Fee		468 9 9	
	,, Experimental Works		317 6 10	
	,, Insurance of Employees		151 15 10	
	,, Gravel Sites and Metal Investigation		479 11 6	
	,, Instruments		105 2 11	
	,, Motor Expenses		4,991 5 7	
	,, Offices, Exhibition Buildings		722 2 1	
	,, New Storeyard		999 3 0	
	,, Storeyard		1,363 7 4	
	,, Office Expenses		6,021 8 4	
	,, Office Furniture		1,732 9 6	
	,, Patrolmen's Cottages and Engineer's Residences ..		292 2 9	
	,, Plans—Purchase		961 9 0	
	,, Plant Purchase		20,642 19 4	
	,, Postage and Telegrams		1,873 14 4	
	,, Printing and Stationery		2,366 7 5	
	,, Salaries		52,993 19 0	
	,, Storage Sites		724 4 2	
	,, Telephones		1,016 14 2	
	,, Testing Materials		1,502 5 10	
	,, Travelling Expenses		1,513 19 6	
	,, Chairman's Mission to America		470 0 0	
	,, Tree Planting		164 17 9	
	,, Motor Car Acts No. 3741, sections 11–13; No. 3901 sections 24–26		3,495 10 0	
	,, Country Roads Acts		1,498 1 5	
	,, Act 4332 (Impounding of Cattle)		628 4 3	
	,, Investigation Surveys		28 1 5	
	,, Advertising (Government Printer)		315 12 8	
	,, Legal Work—Crown Solicitor (Annual Fee) ..		300 0 0	
	,, Direction Boards and Warning Signs		2,560 17 1	
	,, Traffic Census		230 19 11	
	,, Incidentals		7 14 0	
				110,939 16 8
	,, Murray River Bridges and Punts		.. ..	1,700 19 8
	Balance		.. ..	332,832 7 9
				2,124,301 18 5

1936.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
July 1.	By Balance				321,191 18 7
1937.					
June 30.	,, Motor Car Act 3741—				
	Registration Fees ..	1,566,684 16 9			
	Less Refunds	23,146 14 7			
			1,543,538 2 2		
	Fines ..	21,766 3 11			
	Less Refunds	15 15 0			
			21,750 8 11		
			1,565,288 11 1		
	Less Cost of Collection ..		85,016 4 10		
				1,480,272 6 3	
	,, Motor Omnibus Act No. 3742—				
	Fines			10 5 0	
	,, Country Roads Act No. 3662—				
	Registration of Traction Engines			540 10 0	
	Fees and Fines			417 1 0	
	Costs, Acts Nos. 3741 and 4332			171 17 5	
	Camping Fees			4 10 0	
	Plans, Sale of			60 11 0	
	Plant Earnings	46,165 13 0			
	Deduct Working Costs ..	28,586 15 0			
				17,578 18 0	
	Rents			905 10 1	
	Royalty on Gravel and Metal			665 9 9	
	Sale of Old Roads			82 0 5	
	Timber, &c., Revenue Account			65 12 6	
	,, Maintenance Works—				
	Contributions Payable by Municipalities		156,583 5 2		
	,, Adjustment		202 16 1		
				156,380 9 1	
	,, Permanent Works—				
	Contributions Payable by Municipalities—				
	Outer Metropolitan Roads ..		2,322 2 5		
	Other Main Roads		143,632 16 11		
				145,954 19 4	
					1,803,109 19 10
					2,124,301 18 5

BALANCE-SHEET AT 30TH JUNE, 1937.

LIABILITIES.	£	s.	d.
Contractors' Deposits	10,543	8	11
Sundry Liabilities	6,606	19	8
Revenue Account	332,832	7	9
	349,982	16	4

ASSETS.	£	s.	d.	£	s.	d.
Country Roads Board Fund				9,607	5	8
Maintenance Expenditure—						
Contributions Payable by Municipalities	156,583	5	2			
Contributions Payable by Municipalities (in arrears)	2,360	19	3			
				158,944	4	5
Permanent Works—						
Contributions Payable by Municipalities—						
Outer Metropolitan Roads	2,322	2	5			
Other Main Roads (subject to Relief)	143,632	16	11			
				145,954	19	4
Outstanding Accounts				7,747	2	6
Materials—Stock—						
Storeyard	12,821	7	0			
Branches	4,364	8	6			
				17,185	15	6
Trust Fund				10,543	8	11
				349,982	16	4

COUNTRY ROADS BOARD LOAN ACCOUNT, ACT No. 3662.

RECEIPTS.		£	s.	d.
1936. July 1	To Balance	88	1	8
1937 June 30.	„ State Loans Repayment Fund	69,239	3	10
		69,327	5	6

PAYMENTS.		£	s.	d.
1937. June 30.	By Permanent Works (Appendix)	69,013	7	10
	Balance	313	17	8
		69,327	5	6

RECONCILIATION.

	£	s.	d.
Outstanding Credits	313	17	8
	313	17	8

APPENDIX A—*continued.*

BALANCE-SHEET AT 30TH JUNE, 1937.

LIABILITIES.	£	s.	d.	£	s.	d.
Interest on Permanent Works				33,332	2	10
Loan Securities Issued	4,859,690	5	7			
Less Amount Repaid	80,000	0	0			
	4,779,690	5	7			
Deduct Discount	70,822	9	9			
	4,708,867	15	10			
Less Securities Purchased and Cancelled from National Debt Sinking Fund	196,660	0	6			
				4,512,207	15	4
State Loans Repayment Fund				219,610	14	11
Contributions to National Debt Sinking Funds	215,152	9	8			
Less Net Loss on Repurchase of Securities (including exchange)	11,079	6	8			
				204,073	3	0
Redemption Funds	85,219	1	1			
Main Roads Sinking Fund	285,688	7	7			
Repaid to State Loans Repayment Fund	296,065	16	3			
				666,973	4	11
				5,636,197	1	0

ASSETS.	£	s.	d.
Permanent Works	4,928,164	13	1
Interest capitalized on Permanent Works (Act 3662)	33,332	2	10
Investment Account for Redemption of Loans	666,973	4	11
Country Roads Board Loan Account	313	17	8
National Debt Sinking Fund (cash in hand)	7,413	2	6
	5,636,197	1	0

DEVELOPMENTAL ROADS LOAN ACCOUNT, ACT No. 3662.

RECEIPTS.	£	s.	d.
1936.			
July 1. To Balance	58	10	6
1937.			
June 30. „ State Loans Repayment Fund	7,382	11	6
	7,441	2	0

PAYMENTS.	£	s.	d.
1937.			
June 30. By Expenditure (Appendix)	7,441	2	0
	7,441	2	0

BALANCE-SHEET AT 30TH JUNE, 1937.

LIABILITIES.	£ s. d.	£ s. d.
Loan Securities Issued	6,297,530 14 1	
Deduct Discount	111,669 9 3	
	6,185,861 4 10	
Less Securities Purchased and Cancelled from National Debt Sinking Fund	294,199 5 1	
		5,891,661 19 9
Treasury—Developmental Railways, Act No. 3662 (sec. 83/16)	5,500 0 0	
Consolidated Revenue Act, No. 3662 (sec. 84/17)	19,250 0 0	
		24,750 0 0
Interest, Act No. 3662 (sec. 86/1)	77,251 18 10	
Contributions Postponed	16,656 13 7	
		93,908 12 5
State Loans Repayment Fund		239,896 6 1
Contributions to National Debt Sinking Fund	321,863 11 8	
Less Net Loss on Repurchase of Securities (including Exchange)	16,574 9 0	
		305,289 2 8
Redemption Funds	646,386 7 4	
Developmental Roads Sinking Fund	55,083 0 2	
		701,469 7 6
		7,256,975 8 5

ASSETS.	£ s. d.	£ s. d.
Permanent Works Expenditure		6,425,757 10 11
Contributions Payable by Municipalities, Act No. 3662, sec. 83/16 and sec. 84/17) (subject to Relief)		24,750 0 0
Contributions Payable by Municipalities, Act No. 3662, sec. 86/1 (subject to Relief)		93,908 12 5
Investment Account for Redemption of Loans		701,469 7 6
National Debt Sinking Fund (Cash in Hand)		11,089 17 7
		7,256,975 8 5

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

1937. RECEIPTS.	£ s. d.	£ s. d.
June 30. To Interest Contributed by Municipalities—		
Act No. 3662, sec. 83/16	367 15 8	
84/17	2,251 6 7	
86/1	41,343 6 6	
	43,962 8 9	
Acts Nos. 4140 and 4415—Relief	66,513 19 0	
		110,476 7 9
		110,476 7 9

1937. PAYMENTS.	£ s. d.	£ s. d.
June 30. By Payments to Treasury		110,476 7 9
		110,476 7 9

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,
27th October, 1937.

E. J. HICKS, Accountant,
21st October, 1937.

COUNTRY ROADS BOARD.

SUMMARY OF BOARD'S ASSETS AS AT 30TH JUNE, 1937.

	£ s. d.	£ s. d.
Patrolmen's Cottages	14,024 0 0	
Workshop Fittings, Tools, &c.	2,022 18 11	
Office Furniture and Fittings	7,165 5 9	
Testing Laboratory Equipment	655 1 0	
Furniture, &c.—Motor Registration Branch	4,565 17 6	
Weighbridge	700 0 0	
Works Film	20 0 0	
Survey Instruments	439 16 0	
Pistols	21 17 6	
Motor Cars and Cycles (including Police Motor Cars and Cycles)	6,956 0 0	
Carried forward	36,570 16 8	

	£ s. d.	£ s. d.
Brought forward	36,570 16 8	
Motor Car Accessories	93 0 0	
Loadometers	600 0 0	
Pipe Tester	20 0 0	
Board's Storeyards	4,196 0 0	
	41,479 16 8	
Working Plant	79,037 10 0	
	120,517 6 8	

APPENDIX B.

COUNTRY ROADS BOARD.

STATEMENT OF APPORTIONMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF MAIN ROADS FOR THE YEAR ENDED 30TH JUNE, 1936.

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Alberton Shire ..	88 13 1	0 0 6	1,886 9 8
Alexandra Shire ..	..	..	1,165 8 7
Arapiles Shire ..	489 0 2	3 2 0	636 4 0
Ararat Shire ..	..	..	3,042 11 0
Ararat Town ..	..	..	66 9 5
Avoca Shire ..	124 3 7	4 18 2	519 3 7
Avon Shire ..	..	..	243 7 3
Bacchus Marsh Shire	..	..	1,363 8 8
Bairnsdale Shire	..	..	1,893 10 10
Ballan Shire ..	..	..	556 14 5
Ballarat Shire ..	..	..	898 18 3
Ballaarat City ..	..	..	..
Bannockburn Shire	159 13 0	6 2 4	338 1 10
Barrabool Shire ..	..	..	1,129 5 7
Bass Shire ..	329 3 5	1 2 0	914 5 7
Beechworth Shire	82 13 11	2 18 9	632 13 10
Belfast Shire ..	..	..	180 6 9
Bellarine Shire ..	..	..	934 1 3
Benalla Shire ..	848 14 9	14 14 5	723 0 7
Bendigo City ..	..	..	..
Berwick Shire ..	240 14 7	2 16 2	749 2 1
Bet Bet Shire ..	..	..	338 0 11
Birchip Shire ..	89 11 10	2 9 11	147 2 4
Blackburn and Mitcham Shire	..	..	763 6 2
Borung Shire ..	253 11 10	6 14 8	3,550 18 2
Box Hill City ..	4,249 16 5	36 17 1	862 7 3
Braybrook Shire	..	..	230 3 10
Bright Shire ..	32 0 0	1 4 0	1,016 17 6
Brighton City ..	167 6 4	3 15 0	135 5 11
Broadford Shire ..	..	..	38 4 8
Broadmeadows Shire	..	..	179 14 3
Brunswick City ..	..	..	..
Bulla Shire ..	..	..	601 9 6
Buln Buln Shire	..	..	2,792 6 9
Bungaree Shire ..	..	..	288 18 0
Buninyong Shire	..	..	171 10 8
Camberwell City	..	..	12 4 5
Castlemaine Borough	..	..	366 10 2
Caulfield City ..	..	..	..
Charlton Shire ..	477 8 2	2 5 10	734 4 5
Chelsea City ..	..	..	482 12 6
Chiltern Shire ..	121 10 6	..	240 2 1
Clunes Borough ..	..	..	158 5 6
Coburg City ..	2,200 14 6	7 5 8	..
Cohuna Shire ..	..	..	260 7 5
Colac Shire ..	27 16 8	0 8 5	1,805 2 2
Collingwood City	..	..	0 6 1
Corio Shire ..	..	..	133 6 6
Cranbourne Shire	..	..	1,082 17 4
Creswick Shire ..	..	..	443 7 10
Dandenong Shire	..	..	995 17 3
Daylesford Borough	..	..	557 1 10
Deakin Shire ..	..	..	1,132 11 9
Dimboola Shire ..	362 2 6	1 10 7	1,264 9 6
Donald Shire ..	23 18 6	0 13 11	644 7 2
Doncaster and Templestowe Shire	..	..	351 4 7
Dundas Shire ..	..	..	2,032 15 7
Dunmunkle Shire	..	..	2,168 7 6
Carried forward	10,368 13 9	98 19 5	43,855 10 8

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	10,368 13 9	98 19 5	43,855 10 8
Eaglehawk Borough	..	..	301 5 3
East Loddon Shire	..	..	381 5 7
Echuca Borough	..	..	144 10 3
Eltham Shire ..	..	..	352 2 1
Essendon City ..	..	..	222 19 6
Euroa Shire ..	..	..	1,342 13 1
Ferntree Gully Shire	..	..	1,588 18 10
Fitzroy City ..	..	..	..
Flinders Shire ..	..	..	2,560 10 3
Footscray City ..	3,398 11 6	64 8 0	41 9 2
Frankston and Hastings Shire	..	..	2,105 18 7
Geelong City ..	..	..	29 16 3
Geelong West City	..	..	..
Gisborne Shire ..	..	..	444 6 4
Glenelg Shire ..	..	..	2,065 16 1
Glenlyon Shire ..	..	..	916 18 2
Gordon Shire ..	..	..	..
Goulburn Shire ..	..	..	269 5 5
Grenville Shire ..	..	..	1,375 3 10
Hamilton Town ..	..	..	355 17 3
Hampden Shire ..	..	..	2,999 8 0
Hawthorn City ..	..	..	..
Healesville Shire	..	..	592 12 4
Heidelberg City ..	..	..	966 15 7
Heytesbury Shire	..	..	1,215 1 2
Horsham Town ..	..	..	464 18 9
Huntly Shire ..	..	..	46 15 2
Inglewood Borough	..	..	38 4 10
Kara Kara Shire	14 13 1	0 9 9	819 13 2
Karkarooc Shire	15 0 0	..	1,137 9 8
Keilor Shire ..	..	..	126 10 7
Kerang Shire ..	..	..	4 0 10
Kew City ..	..	..	..
Kilmore Shire ..	302 18 0	7 3 0	170 16 5
Koroit Borough ..	..	..	110 9 8
Korong Shire ..	..	..	238 14 3
Korumburra Shire	871 8 10	11 6 11	2,500 10 10
Kowree Shire ..	..	..	984 11 3
Kyneton Shire ..	..	..	843 4 0
Lawloit Shire ..	..	..	727 11 11
Leigh Shire ..	53 16 6	1 19 7	1,122 5 9
Lexton Shire ..	..	..	481 4 8
Lillydale Shire ..	13 11 2	0 8 0	934 15 5
Lowan Shire ..	413 12 0	8 16 1	917 11 11
Maffra Shire ..	295 4 11	3 15 8	2,444 2 1
Maldon Shire ..	..	..	251 14 1
Malvern City ..	..	..	..
Mansfield Shire ..	830 14 9	11 3 4	1,448 9 9
Marong Shire ..	..	..	437 1 9
Maryborough Borough	..	..	15 17 8
Melbourne City ..	..	..	..
Melton Shire ..	..	..	108 1 5
Metcalfe Shire ..	..	..	118 5 8
Mildura City ..	..	..	..
Mildura Shire ..	10 9 0	0 4 4	534 16 6
Minhamite Shire	472 5 2	3 3 3	758 3 5
Mirboo Shire ..	..	..	820 10 4
Moorabbin City ..	..	..	134 10 2
Mordialloc City ..	12 2 5	0 3 2	90 7 6
Mornington Shire	..	..	279 2 1
Carried forward	17,073 1 1	212 0 6	83,238 15 2

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

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	17,073 1 1	212 0 6	83,238 15 2
Mortlake Shire ..	..	..	1,612 11 2
Morwell Shire ..	218 15 0	2 19 4	1,000 1 0
Mount Rouse Shire	..	..	2,322 14 1
Mulgrave Shire ..	..	..	151 14 4
McIvor Shire ..	120 13 8	3 18 7	461 9 10
Narracan Shire ..	..	..	2,459 10 4
Newham and Woodend Shire	95 8 5	3 17 8	445 0 3
Newstead and Mt. Alexander Shire	..	..	896 8 7
Newtown and Chilwell Town	..	..	16 18 3
Northcote City ..	..	..	..
Numurkah Shire	210 19 1	5 14 1	801 7 7
Oakleigh City ..	..	..	156 15 11
Omeo Shire ..	..	..	510 9 3
Orbost Shire ..	..	..	678 10 0
Otway Shire ..	..	..	170 3 4
Oxley Shire ..	379 10 5	10 4 9	1,118 8 11
Phillip Island Shire	..	..	289 16 5
Port Fairy Borough	..	..	182 0 3
Portland Shire ..	..	..	1,234 1 0
Port Melbourne City	..	..	..
Prahran City ..	..	..	..
Preston City ..	..	..	513 16 10
Pyalong Shire ..	..	..	171 9 5
Queenscliffe Borough	..	..	5 19 9
Richmond City ..	..	..	..
Ringwood Borough	..	..	433 18 8
Ripon Shire ..	..	..	1,136 13 1
Rochester Shire ..	..	..	1,026 14 8
Rodney Shire ..	..	..	1,328 11 3
Romsey Shire ..	18 17 0	0 14 7	719 14 6
Rosedale Shire ..	..	..	892 10 8
Rutherglen Shire	..	..	265 18 7
Sale Town ..	..	..	607 17 10
Sandringham City	6,998 18 7	52 11 2	2,333 6 8
Sebastopol Borough	..	..	60 13 1
Seymour Shire ..	..	..	469 11 1
Shepparton Borough	..	..	96 5 0
Carried forward	25,116 3 3	292 0 8	107,809 16 9

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	25,116 3 3	292 0 8	107,809 16 9
Shepparton Shire	..	..	347 2 3
South Barwon Shire	42 2 10	1 3 6	666 6 6
South Gippsland Shire	..	..	1,341 19 0
South Melbourne City	..	..	..
St. Arnaud Borough	110 0 9	3 13 3	45 15 5
Stawell Borough ..	..	..	151 19 9
Stawell Shire ..	988 19 8	25 0 6	1,151 7 5
St. Kilda City ..	..	..	..
Strathfieldsaye Shire	330 18 5	2 7 0	359 2 2
Swan Hill Shire ..	..	..	659 17 9
Talbot Shire ..	..	..	315 10 6
Tambo Shire ..	..	..	409 1 1
Towong Shire ..	..	..	545 18 11
Traralgon Shire ..	187 9 0	5 8 3	861 13 1
Tullaroop Shire ..	..	..	611 14 1
Tungamah Shire	..	..	565 1 8
Upper Murray Shire	68 19 0	2 8 1	429 11 5
Upper Yarra Shire	..	..	529 3 6
Violet Town ..	348 1 9	7 17 9	264 15 1
Walpeup Shire ..	..	..	142 3 3
Wangaratta Borough	..	..	101 10 1
Wangaratta Shire	..	..	402 8 11
Wannon Shire ..	..	..	1,239 15 4
Waranga Shire ..	..	..	1,238 15 3
Warragul Shire ..	..	..	922 2 11
Warrnambool Shire	230 9 2	6 8 6	843 15 0
Werribee Shire ..	..	..	49 0 8
Whittlesea Shire	..	..	855 13 2
Williamstown City	..	..	..
Wimmera Shire ..	..	..	788 2 8
Winchelsea Shire	20 14 2	0 0 1	1,474 0 7
Wodonga Shire ..	..	..	25 12 7
Wonthaggi Borough	..	..	220 16 5
Woorayl Shire ..	12 3 10	0 4 5	4,537 9 9
Wycheproof Shire	443 11 4	15 4 6	521 6 3
Yackandandah Shire	..	..	1,218 15 2
Yarrawonga Shire	..	..	425 6 7
Yea Shire ..	..	..	877 8 3
Totals ..	27,899 13 2	361 16 6	132,949 19 2

APPENDIX C.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS FOR YEAR ENDING 30th JUNE, 1937.

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	..		563 12 10	
Balook–Yarram Road	..		1,035 0 3	
Boolarra–Welshpool Road	..		Bd. 319 11 9	
Carrajung–Gormandale Road	853 0 0		3,444 4 3	
Foster–Yarram Road	..		1,403 11 6	
Yarram–Boolarra Road	..		2,549 5 10	
Yarram–Port Albert Road	..		2,446 12 1	
Yarram–Won Wron Road	..		2,410 12 3	
		853 0 0		14,172 10 9
ALEXANDRA SHIRE—				
Cathkin–Mansfield Road	..		1,399 17 4	
Healesville–Alexandra Road	..		1,398 3 1	
Terip Terip Road	..		275 1 4	
Upper Goulburn Road	..		2,449 15 6	
Yarck Road	..		155 14 11	
				5,678 12 2
ARAPILES SHIRE—				
Horsham–Hamilton Road	..		1,302 0 9	
Horsham–Natimuk–Edenhope Road	..		854 11 6	
				2,156 12 3
ARAPILES AND WIMMERA SHIRES (Joint Works)—				
Horsham–Hamilton Road	..		1 5 3	
				1 5 3
ARARAT SHIRE—				
Ararat–Elmhurst Road	..		2,049 13 2	
Ararat–Warrnambool Road	..		2,962 15 1	
Ballarat–Hamilton Road	..		3,163 9 8	
Maroona–Glenthompson Road	..		2,057 4 2	
				10,233 2 1
ARARAT TOWN—				
Ballarat–Stawell Road	..		95 13 3	
				95 13 3
AVOCA SHIRE—				
Ararat Road	..		513 18 10	
Ballarat–St. Arnaud Road	..		2,414 10 5	
Bealiba Road	..		119 1 3	
Landsborough Road	..		249 3 11	
Maryborough Road	..		664 0 0	
				3,960 14 5
AVOCA AND KARA KARA SHIRES (Joint Works)—				
Navarre Road	..		264 12 1	
				264 12 1
AVON SHIRE—				
Dargo Road—Sec. A., £292 18s. 11d.; sec. B., £507 1s. 1d.	..		800 0 0	
Maffra–Sale Road	..		35 16 0	
Maffra–Stratford Road	..		19 3 7	
Prince's Highway	..		7 19 10	
				862 19 5
BACCHUS MARSH SHIRE—				
Bacchus Marsh–Balliang Road	..		1,515 12 3	
Geelong–Bacchus Marsh Road	..		902 15 7	
Gisborne Road	..		1,158 14 7	
				3,577 2 5
BACCHUS MARSH AND CORIO SHIRES (Joint Works)—				
Bacchus Marsh–Balliang Road	..		94 4 0	
				94 4 0
BAIRNSDALE SHIRE—				
Bairnsdale–Lindenow Road	..		2,825 17 5	
Bairnsdale–Paynesville Road	..		2,237 5 2	
Bullumwaal–Tabberabbera Road	..		870 16 9	
Prince's Highway	..		362 16 8	
				6,296 16 0
BALLAN SHIRE—				
Ballarat Road	..		Bd. 19 4 5	
Daylesford Road	..		1,323 14 4	
Gordon–Meredith Road	..		1,718 3 10	
Mount Wallace Road	..		609 3 11	
Spargo Creek Road	..		33 10 1	
				3,703 16 7
Carried forward	..	853 0 0	..	51,098 0 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		853 0 0		51,098 0 8
BALLAN AND BUNINYONG SHIRES (Joint Works)—				
Gordon–Meredith Road	..		234 19 1	
				234 19 1
BALLARAT SHIRE—				
Ballarat–Lexton Road	..		2,033 19 3	
Maryborough–Ballarat Road	..		717 9 11	
				2,751 9 2
BALLARAT AND BUNGAREE SHIRES (Joint Works)—				
Ballarat–Creswick Road	..		Bd. 586 16 3	
				586 16 3
BANNOCKBURN SHIRE—				
Gordon–Meredith Road	..		87 18 0	
Inverleigh Road	..		2,529 14 11	
Shelford–Bannockburn Road	..		851 4 5	
				3,468 17 4
BARRABOOL SHIRE—				
Airey's Inlet Road	..		Bd. 79 14 9	
Anglesea Road	..		1,025 19 2	
Anglesea Road	..		Bd. 4,314 17 7	
Hendy Main Road	..		1,103 19 1	
				6,524 10 7
BASS SHIRE—				
Almurta Road	..		400 2 6	
Almurta–Grantville Road	..		445 3 2	
Anderson–Dalyston Road	..		775 16 2	
Dalyston–Glen Forbes Road	..		502 5 4	
Dalyston–Wonthaggi Road	..		105 15 3	
Inverloch–Wonthaggi Road	..		647 13 4	
Korumburra–Wonthaggi Road	..		950 4 4	
Main Coast Road	..		961 3 0	
Wonthaggi–Loch Road	..		765 7 6	
				5,553 10 7
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—				
Loch–Wonthaggi Road	..		40 1 10	
				40 1 10
BEECHWORTH SHIRE—				
Beechworth Road	..		1,262 13 6	
Bright Road	..		589 16 4	
Everton–Myrtleford Road	..		1,059 12 5	
Myrtleford–Yackandandah Road	..		98 8 2	
Stanley Road	..		618 6 1	
				3,628 16 6
BEECHWORTH AND WANGARATTA SHIRES (Joint Works)—				
Beechworth Road	..		7 13 9	
				7 13 9
BELFAST SHIRE—				
Hamilton Road	..		693 7 1	
Penshurst Road	..		488 2 0	
				1,181 9 1
BELLARINE SHIRE—				
Barwon Heads–Ocean Grove Road	..		87 17 9	
Geelong–Portarlington Road	..		480 4 5	
Geelong–Portarlington Road	..		Bd. 1,376 9 7	
Geelong–Queenscliffe Road	..		519 16 5	
Geelong–Queenscliffe Road	..		Bd. 450 6 7	
Portarlington–St. Leonards Road	..		265 13 3	
Portarlington–St. Leonards Road	..		Bd. 1,468 4 4	
				4,648 12 4
BENALLA SHIRE—				
Benalla–Shepparton Road	..		230 3 6	
Goorambat Road	..		377 16 1	
Goorambat–Thoona Road	..		542 0 11	
Greta Road	..		1 17 3	
Kilfeera Road	..		426 12 11	
Lima Road	..		64 13 8	
Sydney Road	..		1,096 18 7	
Tatong–Tolmie Road	..		307 19 10	
				3,048 2 9
BERWICK SHIRE—				
Beaconsfield–Emerald Road	..		1,033 18 5	
Cockatoo–Gembrook Road	..		266 15 6	
Emerald–Cockatoo Road	..		20 6 11	
Gembrook Road	..		782 1 2	
Gembrook–Beenak Road	..		108 3 9	
Hallam–Emerald Road	..		102 5 9	
Koo-wee-rup–Longwarry Road	..		103 0 3	
Nar-Nar-Goon–Longwarry Road	..		510 17 10	
Prince's Highway	..		Bd. 147 4 1	
Woori Yallock–Pakenham–Koo-wee-rup Road	..		945 1 0	
				4,019 14 8
Carried forward		853 0 0		86,792 14 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		853 0 0		86,792 14 7
BET BET SHIRE—				
Avoca–Bealiba Road	..		455 15 8	
Betley Road	..		193 16 4	
Dunolly Road	..		569 11 7	
Dunolly–Eddington Road	..		72 2 11	
Maryborough–Dunolly Road	..		569 2 3	
				1,860 8 9
BET BET AND TULLAROOP SHIRES (Joint Works)—				
Betley Road	..		..	
Dunolly–Eddington Road	..		0 9 6	
Maryborough–Dunolly Road	..		3 16 2	
				4 5 8
BIRCHIP SHIRE—				
Beulah–Birchip–Wycheproof Road	..		257 13 8	
Donald–Birchip–Sealake Road	..		268 16 6	
				526 10 2
BLACKBURN AND MITCHAM SHIRES—				
Burwood Road	..		4,914 6 6	
Main Healesville Road	..		806 15 8	
				5,721 2 2
BORUNG SHIRE—				
Birchip Road	..		2,936 14 3	
Dimboola Road	..		3,015 13 11	
Hopetoun Road	..		4,267 6 7	
Minyip Road	..		3,071 14 3	
Rainbow Road	..		4,082 16 2	
				17,374 5 2
BOX HILL CITY—				
Burwood Road (O.M.)	..		2,242 18 5	
Burwood Road (O.M.)	..		Bd. 1,240 2 5	
Healesville Road (O.M.)	..		547 4 7	
Main Healesville Road (O.M.)	1,829 1 10		..	
		1,829 1 10		4,030 5 5
BRAYBROOK SHIRE—				
Ballarat Road	..		246 8 7	
Princes' Highway	..		Bd. 208 15 7	
				455 4 2
BRIGHT SHIRE—				
Bright Road	..		2,784 1 7	
Harrietville Road	..		1,372 11 5	
Kiewa Valley Road	..		275 7 2	
Myrtleford–Yackandandah Road	..		1,255 18 11	
				5,687 19 1
BRIGHT AND OMEO SHIRES (Joint Works)—				
Bright–Omeo Road	..		251 16 1	
				251 16 1
BROADFORD SHIRE—				
Sydney Road	..		Bd. 4 18 7	
				4 18 7
BROADMEADOWS SHIRE—				
Sydney Road	..		45 17 10	
				45 17 10
BROADMEADOWS AND KEILOR SHIRES (Joint Works)—				
Lancefield Road	..		311 7 8	
				311 7 8
BULLA SHIRE—				
Melbourne–Lancefield Road	..		517 5 6	
Sunbury Road	..		95 14 5	
The Gap Road	..		1,217 7 5	
				1,830 7 4
BULLA AND KEILOR SHIRES (Joint Works)—				
Melbourne–Lancefield Road	..		108 15 0	
				108 15 0
BULN BULN SHIRE—				
Fumina Road	..		210 12 8	
Bloomfield Road	..		50 8 4	
Loch Valley Road	..		31 10 3	
Longwarry–Drouin Road	..		176 4 9	
Main Neerim Road	..		1,714 0 6	
Main South Road	..		2,427 14 5	
Neerim East Road	..		861 9 8	
Neerim North–Noojee Road	..		1,842 8 5	
Prince's Highway	..		856 18 0	
Westernport Road	..		874 2 3	
				9,045 9 3
BULN BULN AND BERWICK SHIRES (Joint Works)—				
Koo-wee-rup–Longwarry Road	..		1,067 4 10	
				1,067 4 10
BULN BULN AND CRANBOURNE SHIRES (Joint Works)—				
Westernport Road	1,101 8 5		..	
		1,101 8 5		
Carried forward	..	3,783 10 3	..	135,118 11 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	..	3,783 10 3	..	135,118 11 9
BUNGAREE SHIRE—				
Daylesford–Ballarat Road	..		916 7 1	
				916 7 1
BUNINYONG SHIRE—				
Ballarat–Rokewood Road	..		560 16 9	
Elaine–Mt. Mercer Road	..		183 16 1	
				744 12 10
CAMBERWELL CITY—				
Doncaster Road (O.M.)	..		1,682 16 2	
Healesville Road (O.M.)	..		201 2 11	
				1,883 19 1
CAMBERWELL CITY AND DONCASTER AND TEMPLESTOWE SHIRES (Joint Works)—				
Doncaster Road (O.M.)	612 2 6			
		612 2 6		
CASTLEMAINE BOROUGH—				
Melbourne–Bendigo Road	..		297 15 1	
				297 15 1
CHARLTON SHIRE—				
Bendigo Road	..		250 14 3	
Donald Road	..		2,608 1 4	
St. Arnaud Road	..		1,392 8 7	
				4,251 4 2
CHELSEA CITY—				
Point Nepean Road	..		Bd. 5,001 9 11	
Point Nepean Road	..		359 13 3	
				5,361 3 2
CHILTERN SHIRE—				
Barnawartha–Howlong Road	..		581 13 1	
Chiltern–Howlong Road	..		401 3 0	
Sydney Road	..		46 19 7	
				1,029 15 8
CLUNES BOROUGH—				
Maryborough–Ballarat Road	..		18 1 9	
				18 1 9
COBURG CITY—				
Sydney Road (O.M.)	6,827 10 8			
		6,827 10 8		
COHUNA SHIRE—				
Cohuna–Leitchville Road	..		208 19 11	
Murray River Valley Road	..		Bd. 158 8 8	
				367 8 7
COLAC SHIRE—				
Colac–Ballarat Road	..		335 2 9	
Colac–Beech Forest Road	..		1,756 7 2	
Colac–Forrest Road	..		867 7 4	
Cororooke Road	..		500 7 8	
Cressy–Inverleigh Road	..		578 15 5	
Prince's Highway	..		315 4 10	
Swan Marsh Road	..		221 6 3	
				4,574 11 5
COLLINGWOOD CITY—				
Heidelberg Road (O.M.)	..		24 5 11	
				24 5 11
COLLINGWOOD AND HEIDELBERG CITIES (Joint Works)—				
Merri Creek Bridge (Heidelberg Road) (O.M.)	12,619 6 9		..	
		12,619 6 9		
CORIO SHIRE—				
Fyansford Road	..		Bd. 75 6 9	
Geelong–Bacchus Marsh Road	..		1,464 19 10	
Prince's Highway	..		Bd. 93 14 0	
				1,634 0 7
CORIO AND NEWTOWN AND CHILWELL TOWN (Joint Works)—				
Fyansford Road	..		Bd. 86 9 11	
				86 9 11
CRANBOURNE SHIRE—				
Cranbourne–Frankston Road	..		410 9 3	
Koo-wee-rup–Longwarry Road	..		262 4 11	
Koo-wee-rup–Pakenham Road	..		1,427 13 1	
Main Coast Road	..		863 4 4	
Westernport Road	..		321 2 2	
				3,284 13 9
CRESWICK SHIRE—				
Castlemaine–Ballarat Road	..		2,582 16 2	
Daylesford–Ballarat Road	..		2,877 13 5	
				5,460 9 7
DANDENONG SHIRE—				
Cheltenham Road	..		232 6 11	
Edithvale–Springvale Road	..		Bd. 3,411 15 2	
Prince's Highway	..		84 19 2	
Springvale Road	..		65 15 9	
				3,794 17 0
Carried forward	..	23,842 10 2	..	168,848 7 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	..	23,842 10 2	..	168,848 7 4
DANDENONG AND CRANBOURNE SHIRES (Joint Works)—				
Dandenong–Frankston Road	..		416 18 10	
				416 18 10
DAYLESFORD BOROUGH—				
Ballan Road	..		830 0 0	
Ballarat Road	..		109 0 7	
Castlemaine Road	..		136 19 1	
Daylesford–Trentham Road	..		338 12 7	
Hepburn–Daylesford Road	..		63 0 6	
Malmsbury–Daylesford Road	..		250 5 2	
				1,727 17 11
DEAKIN SHIRE—				
Echuca–Cornella Road	..		240 0 0	
Echuca–Picola Road	..		98 8 2	
Kyabram–Nathalia Road	..		617 1 0	
Kyabram–Tongala Road	..		993 7 9	
Rochester–Kyabram Road	..		697 6 7	
				2,646 3 6
DEAKIN AND NUMURKAH SHIRES (Joint Works)—				
Echuca–Picola Road	..		48 17 0	
				48 17 0
DEAKIN AND RODNEY SHIRES (Joint Works)—				
Kybram–Tongala Road	..		4 7 7	
Rochester–Kyabram Road	..		375 18 5	
				380 6 0
DEAKIN AND ROCHESTER SHIRES (Joint Works)—				
Timmering	..		..	
DIMBOOLA SHIRE—				
Hopetoun–Rainbow Road	..		5 11 10	
Rainbow Road	..		1,930 3 0	
Rainbow–Beulah–Birchip Road	..		251 3 0	
Rainbow Rises Road	..		371 19 7	
Warracknabeal Road	..		905 5 4	
				3,464 2 9
DIMBOOLA AND KARKAROOC SHIRES (Joint Works)—				
Hopetoun–Rainbow Road	..		394 18 5	
				394 18 5
DONALD SHIRE—				
Donald–Charlton Road	..		787 11 10	
Marnoo–Donald Road	..		944 9 7	
St. Arnaud–Birchip Road	..		777 4 3	
				2,509 5 8
DONCASTER AND TEMPLESTOWE SHIRE—				
Doncaster Road	..		938 2 7	
Heidelberg–Warrandyte Road	..		904 11 7	
Warrandyte–Ringwood Road..	..		430 10 9	
				2,273 4 11
DUNDAS SHIRE—				
Hamilton–Dunkeld Road	..		1,703 16 2	
Hamilton–Horsham Road	..		1,933 15 9	
Hamilton–Mt. Gambier Road	..		831 7 10	
Hamilton–Port Fairy Road	..		2,686 9 1	
Hamilton–Portland Road	..		1,804 5 0	
Hamilton–Warrnambool Road	..		245 19 5	
				9,205 13 3
DUNMUNKLE SHIRE—				
Horsham–Murtoa Road	..		77 9 5	
Marnoo–Donald Road	..		63 6 10	
Marnoo–Rupanyup Road	..		259 4 7	
Minyip–Donald Road	..		88 6 10	
Rupanyup–Murtoa Road	..		1,265 4 1	
Stawell–Warracknabeal Road	..		3,982 12 7	
				5,736 4 4
EAGLEHAWK BOROUGH—				
Mount Korong Road	..		2,753 3 5	
				2,753 3 5
EAST LODDON SHIRE—				
Borung–Prairie Road	..		28 18 11	
Dingee Road	..		369 16 1	
Mitiamo Road	..		126 11 5	
Prairie Road	..		31 2 1	
				556 8 6
ECHUCA BOROUGH—				
Echuca–Cohuna Road	..		Bd. 65 3 5	
				65 3 5
ELTHAM SHIRE—				
Eltham–Yarra Glen Road	..		1,356 7 5	
Hurstbridge–Kinglake Road	..		939 1 8	
Yarra Glen–Glenburn Road	..		372 4 9	
				2,667 13 10
ESSENDON CITY—				
Bendigo Road (O.M.)	546 18 4		2,522 8 4	
		546 18 4		2,522 8 4
Carried forward	..	24,389 8 6	..	206,216 17 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		24,389 8 6		206,216 17 5
EUROA SHIRE—				
Arcadia Road	..		527 8 10	
Avenel–Longwood Road	..		20 1 6	
Euroa–Arcadia Road	..		1,061 1 7	
Euroa–Mansfield Road	..		638 10 2	
Euroa–Strathbogie Road	..		3,235 5 5	
Murchison–Shepparton Road	..		Bd. 1,747 7 1	
Murchison–Violet Town	..		8 8 6	
Sydney Road	..		Bd. 585 14 8	
				7,823 17 9
FERNTREE GULLY SHIRE—				
Beaconsfield–Emerald Road	..		140 4 7	
Belgrave–Emerald	..		2,203 6 2	
Burwood Road	..		2,320 4 9	
Emerald Road	..		960 16 6	
Main Ferntree Gully Road	..		2,897 3 9	
*Monbulk Road	..		1,542 3 9	
Olinda Road	..		724 15 6	
				10,788 15 0
FLINDERS SHIRE—				
Hastings–Flinders Road	..		3,450 11 2	
Mornington–Dromana Road	..		185 5 7	
Mornington–Flinders Road	..		2,354 17 3	
Point Nepean Road	..		2,783 19 8	
Red Hill Road	..		728 19 4	
Rosebud–Flinders Road	..		1,862 19 4	
Stony Point Road	..		64 11 1	
				11,431 3 5
FOOTSCRAY CITY—				
Ballarat Road (O.M.)	6,311 17 8		..	
Napier Street (O.M.)	7 4 0		..	
Prince's Highway	..		Bd. 157 10 11	
Prince's Highway (O.M.)	..		715 6 4	
		6,319 1 8		872 17 3
FOOTSCRAY CITY AND BRAYBROOK SHIRE (Joint Works)—				
Prince's Highway	..		Bd. 5 277 3 0	
				5,277 3 0
FOOTSCRAY AND MELBOURNE CITIES (Joint Works) —				
Ballarat Road (Lynch's Bridge) (O.M.)	22,024 11 4		..	
		22,024 11 4		
FRANKSTON AND HASTINGS SHIRE—				
Cranbourne–Frankston Road	..		224 3 7	
Frankston–Dandenong Road	..		1,210 9 10	
Frankston–Flinders Road	..		2,023 9 6	
Mooroodue Road	..		133 19 2	
Point Nepean Road	..		12,177 6 0	
				15,769 8 1
FRANKSTON AND HASTINGS AND CRANBOURNE SHIRES (Joint Works)—				
Dandenong Road	..		..	
GEELONG CITY AND SOUTH BARWON SHIRE (Joint Works)—				
Prince's Highway	..		227 10 10	
				227 10 10
GISBORNE SHIRE—				
Bacchus Marsh Road	..		1,295 1 5	
Gisborne Station Road	..		5 6 10	
Melbourne–Bendigo Road	..		Bd. 69 18 5	
Mount Macedon Road	..		424 15 6	
				1,795 2 2
GLENELG SHIRE—				
Coleraine–Casterton Road	..		4,339 10 11	
Dergholm Road	..		1,564 15 8	
Mount Gambier Road	..		2,364 4 6	
Portland–Casterton Road			4,848 18 9	
Wando Vale Road	..		1,232 2 6	
				14,349 12 4
GLENLYON SHIRE—				
Ballan Road	..		2,484 6 8	
Ballarat Road	..		228 0 11	
Castlemaine–Daylesford Road	..		321 13 0	
Daylesford–Hepburn Road	..		78 18 0	
Daylesford–Trentham Road	..		360 9 2	
Malmsbury–Daylesford Road	..		1,908 8 11	
				5,381 16 8
GOULBURN SHIRE—				
Avenel–Longwood Road	..		100 0 0	
Goulburn Valley Road	..		Bd. 1,806 8 4	
Murchison–Shepparton Road	..		Bd. 94 5 8	
				2,000 14 0
Carried forward	..	52,733 1 6	..	281,934 17 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	..	52,733 1 6	..	281,934 17 11
GRENVILLE SHIRE—				
Ballarat–Hamilton Road	..		1,885 0 1	
Cressy Road	..		458 15 3	
Lismore Road	..		386 6 10	
Pitfield Road	..		1,239 0 9	
				3,969 2 11
HAMILTON TOWN—				
Ararat Road	..		55 13 6	
Coleraine Road	..		103 13 2	
Hamilton-Warrnambool Road	..		128 18 6	
Port Fairy Road	..		76 13 9	
Portland Road	..		5 0 6	
				369 19 5
HAMPDEN SHIRE—				
Camperdown–Ballarat Road	..		1,789 15 9	
Camperdown–Ballarat Road (between Grenville Shire boundary and Skipton	..		543 9 5	
Camperdown–Cobden Road	..		113 0 6	
Caramut–Lismore Road	..		231 10 8	
Cobden–Terang Road	..		24 4 8	
Lismore–Cressy Road	..		1,510 16 1	
McKinnon's Bridge–Noorat Road	..		296 18 4	
Prince's Highway	..		693 7 9	
Terang–Framlingham Road	..		314 2 1	
Terang–Mortlake Road	..		2,285 2 0	
				7,802 7 3
HEALESVILLE SHIRE—				
Healesville–Alexandra Road	..		1,257 17 3	
Healesville–Alexandra Road	..		Bd. 2,603 12 1	
Healesville–Kinglake Road	..		97 15 11	
Healesville–Woori Yallock Road	..		Bd. 227 4 7	
Marysville Road	..		Bd. 150 15 5	
				4,337 5 3
HEIDELBERG CITY—				
Greensborough–Hurstbridge Road	..		4,080 16 10	
Heidelberg–Warrandyte Road	..		8 17 3	
Main Heidelberg–Eltham Road	..		1,146 1 2	
Main Whittlesea Road	..		9 18 1	
				5,245 13 4
HEYTESBURY SHIRE—				
Camperdown–Cobden Road	..		384 4 9	
Cobden–Port Campbell–Princetown Road	..		2,980 14 1	
Cobden–Terang Road	..		2,369 19 9	
Timboon–Nirranda Road	..		1,231 12 10	
Timboon–Port Campbell Road	..		262 1 2	
Cobden–Scott's Creek Road	..		..	
				7,228 12 7
HORSHAM TOWN—				
Dimboola–Horsham Road	..		159 6 9	
Dooen Road	..		17 3 11	
Hamilton Road	..		15 14 1	
Natimuk Road	..		137 4 10	
Western Highway	..		11 15 8	
				341 5 3
HUNTLY SHIRE—				
Bendigo–Echuca Road	..		Bd. 59 18 1	
Heathcote–Elmore Road	..		136 13 2	
				196 11 3
INGLEWOOD BOROUGH—				
Bendigo–Charlton Road	..		10 18 9	
				10 18 9
KARA KARA SHIRE—				
Avoca–St. Arnaud Road	..		538 13 10	
Charlton Road	..		1,468 1 7	
Marnoo Road	..		38 0 9	
Navarre Road	..		711 15 10	
St. Arnaud–Donald Road	..		1,090 9 1	
				3,847 1 1
KARKAROOC SHIRE—				
Hopetoun–Rainbow Road	..		851 11 7	
Hopetoun–Warracknabeal Road	..		1,157 3 9	
Hopetoun–Woomelang–Sealake Road	..		426 6 11	
Rainbow–Beulah–Birchip Road	..		966 12 6	
				3,401 14 9
KEILOR SHIRE—				
Melbourne–Bendigo Road	..		Bd. 60 14 6	
				60 14 6
KILMORE SHIRE—				
Heathcote Road	..		823 3 8	
Kilmore–Kilmore East Road	..		350 8 2	
Lancefield–Kilmore Road	..		99 17 2	
Sydney Road	..		Bd. 495 9 0	
				1,768 18 0
Carried forward	..	52,733 1 6	..	320,515 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	..	52,733 1 6	..	320,515 2 3
KILMORE AND PYALONG SHIRES (Joint Works)				
Heathcote Road	..		232 6 2	
				232 6 2
KILMORE AND ROMSEY SHIRES (Joint Works)—				
Lancefield–Kilmore Road	..		120 6 10	
				120 6 10
KOROIT BOROUGH—				
Koroit–Warrnambool Road	..		224 7 2	
				224 7 2
KORONG SHIRE—				
Borung–Hurstwood Road	..		359 0 7	
Charlton–Bendigo Road	..		13 13 3	
Serpentine Road	..		560 19 7	
				933 13 5
KORUMBURRA SHIRE—				
Bena–Kongwak Road	..		898 7 1	
Bena–Korumburra Road	..		168 4 2	
Bena–Poowong Road	..		415 9 7	
Fairbank Road	..		126 9 1	
Kongwak–Inverloch Road	..		890 8 5	
Korumburra–Drouin Road	..		503 16 6	
Korumburra–Leongatha Road	..		318 15 3	
Korumburra–Warragul Road	..		3,480 4 2	
Korumburra–Wonthaggi Road	..		1,112 6 5	
Lang Lang–Nyora Road	..		1,043 6 4	
Loch–Nyora Road	..		369 14 9	
Loch–Wonthaggi Road	..		509 10 10	
Nyora–Poowong Road	..		810 18 5	
Poowong–Ranceby Road	..		696 4 3	
				11,343 15 3
KOWREE SHIRE—				
Booroopki Road	..		718 2 1	
Booroopki–Frances Road	..		274 11 5	
Edenhope–Goroke Road	..		1,609 3 4	
Hamilton–Edenhope–Apsley Road	..		1,680 11 9	
Kaniva–Edenhope Road	..		320 2 10	
Wombelano Road	..		73 12 8	
				4,676 4 1
KYNETON SHIRE—				
Daylesford Road	..		3 7 0	
Daylesford–Trentham Road	..		134 4 5	
Melbourne–Bendigo Road	..		22 6 5	
Redesdale Road	..		220 9 8	
Trentham Road	..		962 4 7	
Tylden–Woodend Road	..		282 6 0	
				1,624 18 1
KYNETON AND GLENLYON SHIRES (Joint Works)—				
Daylesford–Trentham Road	..		119 6 6	
				119 6 6
LAWLOIT SHIRE—				
Broughton Road	..		543 3 1	
Kaniva–Edenhope Road	..		595 3 3	
Nhill–Kaniva–Border Road	..		49 6 2	
South Lillimur Road	..		477 17 9	
Yearinga Road	..		551 13 11	
				2,217 4 2
LEIGH SHIRE—				
Ballarat–Rokewood Road	..		129 7 11	
Cressy–Rokewood Road	..		424 0 5	
Inverleigh–Cressy Road	..		664 4 3	
Inverleigh–Shelford Road	..		307 13 11	
Rokewood–Shelford Road	..		299 1 5	
Shelford–Bannockburn Road	..		615 8 11	
Werneth Road	..		88 12 10	
				2,528 9 8
LEIGH AND COLAC SHIRES (Joint Works)—				
Cressy–Inverleigh Road	..		183 19 5	
				183 19 5
LEXTON SHIRE—				
Avoca–Ararat Road	..		210 8 9	
Avoca–Ballarat Road	..		1,089 11 1	
				1,299 19 10
LILLYDALE SHIRE—				
Evelyn–Lilydale Road	..		74 11 8	
Main Healesville Road	..		586 9 2	
Main Healesville Road	..		Bd. 1,596 18 0	
Main Warburton Road	..		Bd. 543 19 8	
Monbulk Road	..		799 13 11	
Mount Dandenong Road	..		1,821 16 1	
Mount Dandenong Road	..		Bd. 53 4 0	
Yarra Glen Road	..		1,026 5 5	
				6,502 17 11
Carried forward	..	52,733 1 6	..	352,522 10 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		52,733 1 6		352,522 10 9
LOWAN SHIRE—				
Dimboola–Kaniva Road	..		352 14 8	
Goroke Road	..		244 6 9	
Lorquon Road	..		215 4 8	
Lorquon West Road	..		499 1 0	
Yanac Road	..		1,036 0 6	
				2,347 7 7
MAFFRA SHIRE—				
Boisdale–Briagolong Road	..		892 6 3	
Briagolong–Dargo Road	..		419 16 2	
Bushy Park–Valencia Creek Road	..		1,065 13 3	
Licola Road	..		3,206 15 11	
Maffra–Newry Road	..		1,013 1 1	
Maffra–Sale Road	..		583 9 0	
Maffra–Stratford Road	..		126 19 0	
Tinamba–Boisdale Road	..		2,205 17 7	
Tinamba–Newry Road	..		125 19 3	
Traralgon–Maffra Road	..		1,223 15 4	
				10,863 12 10
MALDON SHIRE—				
Baringhup Road	..		173 15 7	
Castlemaine–Maldon Road	..		1,180 13 7	
Castlemaine–Maldon Road	..		Bd. 202 18 4	
Castlemaine–Maryborough Road	..		Bd. 52 4 5	
Maldon–Eddington Road	..		691 17 10	
Maldon–Newstead Road	..		424 19 8	
				2,726 9 5
MALDON AND MARONG SHIRES (Joint Works)—				
Maldon–Eddington Road	..		89 10 2	
				89 10 2
MANSFIELD SHIRE—				
Benalla–Mansfield	..		691 18 11	
Euroa–Merton Road	..		86 5 1	
Maindample–Benalla Road	..		196 7 8	
Mansfield Road	..		3,804 3 3	
Mansfield–Tolmie Road	..		466 1 11	
Mansfield–Woodspoint Road	..		1,276 3 9	
Mansfield–Woodspoint Road	..		Bd. 2,081 18 6	
Merton–Strathbogie Road	..		137 12 7	
				8,740 11 8
MARONG SHIRE—				
Bendigo–Bridgewater Road	..		27 15 8	
Bendigo–Eddington Road	..		1,115 18 6	
Bendigo–Serpentine Road	..		64 3 11	
				1,207 18 1
MARYBOROUGH BOROUGH—				
Castlemaine Road	..		1 10 11	
				1 10 11
MELBOURNE CITY—				
Punt Road Bridge (O.M.)	5,832 1 10			
		5,832 1 10		
MELTON SHIRE—				
The Gap	..		18 10 3	
Toolern Road	..		1,046 17 0	
				1,065 7 3
METCALFE SHIRE—				
Kyneton–Redesdale Road	..		889 9 10	
				889 9 10
MILDURA SHIRE—				
Deakin Avenue	..		530 19 0	
Irymple Road	..		588 3 9	
Melbourne Road	..		208 1 10	
Murray Valley Road	..		214 5 11	
Wentworth Road	..		1,717 6 6	
				3,258 17 0
MILDURA CITY—				
Deakin Avenue	..		547 12 1	
Langtree Avenue	..		427 7 4	
Mildura–Tenth Street	..		11 4 10	
Punt Road	..		20 4 4	
				1,006 8 7
MINHAMITE SHIRE—				
Hamilton–Macarthur–Port Fairy Road	..		1,491 4 6	
Warrnambool–Hawkesdale–Penshurst Road	..		1,576 19 9	
Woolsthorpe–Bessiebelle Road	594 3 6		1,967 14 10	
		594 3 6		5,035 19 1
MIRBOO SHIRE—				
Grand Ridge Road	..		614 1 11	
Mardan Road	..		367 4 7	
Mirboo–Leongatha Road	..		380 9 2	
Mirboo Sonth Road	..		831 14 10	
Mirboo–Yarragon Road	..		344 9 8	
Morwell–Mirboo Road	..		581 7 11	
				3,119 8 1
Carried forward	..	59,159 6 10	..	392,875 1 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	..	59,159 6 10	..	392,875 1 3
MOORABBIN CITY—				
Centre Dandenong Road	..		55 3 0	
Point Nepean Road..	..		1,925 19 0	
Warrigal Road (O.M.)	..		Bd. 4,389 1 2	
				6,370 3 2
MORDIALLOC CITY—				
Beach Road (O.M.)	..		231 9 5	
Point Nepean Road..	..		48 18 11	
				280 8 4
MORNINGTON SHIRE—				
Mornington–Dromana Road	..		6,216 18 6	
Point Nepean Road..	..		452 18 0	
				6,669 16 6
MORTLAKE SHIRE—				
Caramut–Lismore Road	..		1,393 11 5	
Mortlake–Ararat Road	..		836 2 2	
Mortlake–Warrnambool Road	..		129 3 9	
Terang–Framlingham Road	..		1,453 0 3	
Terang–Mortlake Road	..		230 0 3	
				4,041 17 10
MORWELL SHIRE—				
Boolarra–Welshpool Road	..		Bd. 293 3 1	
Jeeralang West Road	..		2,235 1 3	
Jumbuk Road	..		1,476 17 5	
Morwell–Mirboo Road	..		731 19 4	
Morwell–Mirboo Road	..		Bd. 370 9 2	
Prince's Highway	..		127 8 11	
				5,234 19 2
MORWELL AND WOORAYL SHIRES (Joint Works)—				
Boolarra–Foster Road	..		Bd. 257 3 3	
				257 3 3
MOUNT ROUSE SHIRE—				
Ballarat–Hamilton Road	..		3,803 0 5	
Hamilton–Dunkeld Road	..		55 3 2	
Hamilton–Penshurst Road	..		922 6 11	
Maroona–Glenthompson	..		563 4 10	
Penshurst–Caramut Road	..		2,584 11 1	
				7,928 6 5
MULGRAVE SHIRE—				
Ferntree Gully Road	..		1,223 7 10	
Springvale Road	..		140 19 9	
				1,364 7 7
McIVOR SHIRE—				
Heathcote–Elmore Road	..		1,359 0 6	
Heathcote–Redesdale Road	..		209 5 7	
Kilmore–Heathcote–Bendigo Road	..		2,561 0 8	
Lancefield–Tooborac Road	..		11 13 1	
Mt. Camel Estate Road	..		231 1 4	
				4,372 1 2
NARRACAN SHIRE—				
Allambee–Childers Road	..		384 8 5	
Childers–Thorpdale Road	..		206 11 3	
Mirboo–Yarragon Road	..		544 2 8	
Moe–Yallourn Road	..		26 9 7	
Prince's Highway	..		113 9 9	
Trafalgar–Thorpdale Road	..		2,028 7 10	
Walhalla Road	..		1,621 11 1	
Walhalla Road	..		Bd. 1,176 3 9	
Willowgrove Road	..		2,161 7 6	
Yarragon–Leongatha Road	..		1,095 1 0	
Yarragon–Shady Creek Road	..		1,001 17 11	
				10,359 10 9
NEWHAM AND WOODEND SHIRE—				
Lancefield Road	..		748 0 7	
Melbourne–Bendigo Road	..		Bd. 59 8 1	
Mount Macedon Road	..		605 9 1	
Tylden Road	..		52 11 8	
				1,465 9 5
NEWHAM AND WOODEND AND KYNETON SHIRE (Joint Works)—				
Tylden Road	..		20 19 2	
				20 19 2
NEWSTEAD AND MT. ALEXANDER SHIRE—				
Castlemaine–Daylesford Road	..		..	
Castlemaine–Maryborough Road	..		Bd. 1,301 7 10	
Creswick Road	..		1,027 9 2	
Maldon Road	..		658 11 10	
				2,987 8 10
NUMURKAH SHIRE				
Echuca–Picola Road	..		574 17 1	
Nathalia–Picola Road	..		186 17 5	
Numurkah–Nathalia Road	..		550 6 0	
Shepparton–Numurkah–Cobram Road	..		1,573 11 9	
Numurkah–Tungamah Road	..		208 10 9	
				3,094 3 0
Carried forward		59,159 6 10		447,321 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. l.	£ s. d.	£ s d.	£ s. d.
Brought forward		59,159 6 10		447,321 15 10
NUMURKAH AND DEAKIN SHIRES (Joint Works)—				
Echuca–Picola Road	..		101 8 0	
				101 8 0
OAKLEIGH AND MOORABBIN CITIES (Joint Works)—				
Warrigal (O.M.)	..		19 6 8	
				19 6 8
OAKLEIGH CITY—				
Ferntree Gully Road	..		56 12 11	
Prince's Highway	..		4,231 0 10	
				4,287 13 9
OMEO SHIRE—				
Benambra Road	..		549 6 0	
Day Avenue	..		541 12 5	
Swift's Creek–Omeo Road	..		943 1 6	
				2,033 19 11
OMEO AND BRIGHT SHIRES (Joint Works)—				
Bright–Omeo Road	..		473 12 1	
				473 12 1
ORBOST SHIRE—				
Cann Valley Road	..		Bd. 1,481 7 0	
Combienbar Road	..		563 14 4	
Genoa–Gipsy Point Road	..		Bd. 91 8 1	
Marlo Road	..		506 7 1	
Prince's Highway	..		627 0 8	
Wangrabelle Road	..		Bd. 93 18 8	
				3,363 15 10
OTWAY SHIRE—				
Beech Forest–Apollo Bay Road	..		1,027 10 5	
Beech Forest–Laver's Hill Road	..		108 18 2	
Beech Forest–Mt. Sabine Road	..		108 18 2	
Cape Patten Road	..		374 14 3	
Carlisle–Gellibrand Road	..		292 4 9	
Colac–Beech Forest Road	..		102 19 2	
Colac–Forrest Road	..		298 7 11	
Forrest–Apollo Bay Road	..		1,310 6 0	
Laver's Hill–Princetown Road	..		156 4 7	
				3,780 3 5
OXLEY SHIRE—				
Bright Road	..		2,547 5 5	
Greta–Glenrowan Road	..		408 9 4	
Kilfeera–Boggy Creek Road	..		300 0 0	
Wangaratta–Whitfield Road	..		2,626 5 11	
				5,882 0 8
PHILLIP ISLAND SHIRE—				
Newhaven Road	..		84 19 3	
Phillip Island Road	..		74 12 8	
Ventnor Road	..		208 4 0	
				367 15 11
PORT FAIRY BOROUGH—				
Hamilton Road	..		66 16 11	
Prince's Highway–Portland Road	..		0 7 0	
Prince's Highway–Warrnambool Road	..		52 17 5	
				120 1 4
PORTLAND SHIRE—				
Bridgewater Road	..		1,489 19 9	
Heath Road	..		913 6 10	
Portland–Casterton Road	..		1,737 11 11	
Portland–Hamilton Road	..		3,583 13 3	
				7,724 11 9
PRESTON CITY—				
Epping Road	..		148 5 10	
Epping Road (O.M.)	507 3 3		2,838 1 0	
Whittlesea Road	..		273 17 5	
		507 3 3		3,260 4 3
PYALONG SHIRE—				
Kilmore–Heathcote–Bendigo Road	..		449 1 3	
Lancefield–Tooborac Road	..		228 15 10	
				677 17 1
PYALONG AND McIVOR SHIRES (Joint Works)—				
Lancefield–Tooborac Road	..		22 12 7	
				22 12 7
QUEENSCLIFFE BOROUGH—				
Geelong Road	..		300 0 0	
Geelong Road	..		Bd. 308 7 6	
Point Lonsdale Road	..		22 4 4	
				630 11 10
RINGWOOD BOROUGH—				
Main Healesville Road	..		2,781 14 6	
Mount Dandenong	..		1,103 9 4	
Ringwood–Warrandyte Road	..		90 2 3	
				3,975 6 1
RINGWOOD BOROUGH AND DONCASTER AND TEMPLESTOWE SHIRE (Joint Works)—				
Ringwood–Warrandyte Road	..		123 10 7	
				123 10 7
Carried forward		59,666 10 1		484,166 7 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		59,666 10 1		484,166 7 7
RIPON SHIRE—				
Ballarat–Ararat Road	..		15 15 6	
Ballarat–Hamilton Road	..		2,157 16 2	
Skipton Road	..		1,680 17 4	
				3,854 9 0
RIPON AND HAMPDEN SHIRES (Joint Works)—				
Ballarat–Hamilton Road	..		1 13 0	
				1 13 0
ROCHESTER SHIRE—				
Bendigo–Echuca Road	..		4 14 8	
Corop Road	..		97 5 11	
Rochester–Bamawm–Prairie Road	..		1,763 18 5	
Timmering Road	..		604 17 9	
				2,470 16 9
RODNEY SHIRE—				
Kyabram–Nathalia Road	..		354 11 0	
Kyabram–Tongala Road	..		194 3 7	
Mooroopna–Undera Road	..		794 13 4	
Shepparton–Tatura Road	..		340 10 6	
Tatura–Byrneside–Kyabram Road	..		3,038 10 9	
Tatura–Murchison Road	..		876 5 1	
				5,598 14 3
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Shepparton–Tatura Road	..		202 13 3	
				202 13 3
ROMSEY SHIRE—				
Lancefield–Kilmore Road	..		487 9 7	
Lancefield–Tooborac Road	..		91 14 6	
Melbourne–Lancefield Road	..		599 14 1	
Woodend–Lancefield Road	..		372 19 10	
				1,551 18 0
ROSEDALE SHIRE—				
Prince's Highway	..		25 8 5	
Seaspray Road	..		493 4 6	
Traralgon–Gormandale Road	..		116 15 8	
Traralgon–Maffra Road	..		1,397 0 7	
Willung Road	..		64 13 4	
				2,097 2 6
ROSEDALE AND ALBERTON SHIRES (Joint Works)				
Carrajung–Gormandale Road	..		7 2 10	
				7 2 10
RUTHERGLEN SHIRE—				
Barnawartha–Howlong Road	..		200 0 7	
Chiltern–Howlong Road	..		320 3 6	
Murray Valley Road	..		25 15 5	
Rutherglen–Wahgunyah Road	..		294 13 6	
Springhurst–Rutherglen Road	..		Bd. 201 1 8	
				1,041 14 8
SALE TOWN—				
Prince's Highway	..		3,728 8 4	
Sale–Longford Road	..		35 7 8	
				3,763 16 0
SANDRINGHAM CITY—				
Beach Road (O.M.)	9,019 9 6		965 11 4	
		9,019 9 6		965 11 4
SANDRINGHAM AND BRIGHTON CITIES (Joint Works)—				
Beach Road (O.M.)	327 8 3			
		327 8 3		
SEBASTOPOL BOROUGH—				
Ballarat–Hamilton Road	..		21 11 4	
Ballarat–Rokewood Road	..		267 2 6	
				288 13 10
SEYMOUR SHIRE—				
Avenel–Longwood Road	..		110 3 10	
Goulburn Valley Road	..		Bd. 1,789 14 7	
Highlands Road	..		471 19 11	
Seymour–Yea Road	..		Bd. 223 17 2	
Sydney Road	..		Bd. 29 4 3	
Upper Goulburn Road	..		487 16 5	
				3,112 16 2
SEYMOUR AND BROADFORD SHIRES (Joint Works)—				
Upper Goulburn Road	..		84 12 4	
				84 12 4
SHEPPARTON SHIRE—				
Dookie–Nalinga Road	..		81 0 0	
Katandra Road	..		349 9 5	
Pine Lodge Road	..	..	159 14 1	
Shepparton–Nagambie Road	..		528 7 4	
Shepparton–Numurkah Road	..		1,277 13 4	
				2,396 4 2
SHEPPARTON SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Shepparton–Nalinga Road	..		12 6 5	
				12 6 5
Carried forward	..	69,013 7 10	..	511,616 12 1

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		69,013 7 10		511,616 12 1
SHEPPARTON BOROUGH—				
Shepparton–Nagambie Road	..		53 2 10	
Shepparton–Nalinga Road	..		17 1 2	
Shepparton–Numurkah Road	..		31 2 10	
				101 6 10
SHEPPARTON BOROUGH AND RODNEY SHIRE (Joint Works)—				
Shepparton–Mooroopna Road	..		2 10 3	
Shepparton–Tatura Road	..		13 9 8	
				15 19 11
SHEPPARTON BOROUGH AND SHEPPARTON SHIRE (Joint Works)—				
Shepparton–Nalinga Road	..		4 12 10	
				4 12 10
SOUTH BARWON SHIRE—				
Barwon Heads Road	..		2,062 6 4	
Prince's Highway	..		145 2 7	
Torquay Road	..		929 12 6	
				3,137 1 5
SOUTH BARWON AND BELLARINE SHIRES (Joint Works)—				
Barwon Heads Road	..		17 19 8	
				17 19 8
SOUTH BARWON AND BARRABOOL SHIRES (Joint Works)—				
Torquay Road	..		940 1 5	
				940 1 5
SOUTH GIPPSLAND SHIRE—				
Albert River–Welshpool Road	..		34 16 10	
Boolarra–Foster Road	..		494 6 0	
Boolarra–Welshpool Road	..		586 0 4	
Falls Road	..		381 5 2	
Foster–Yarram	..		2,442 7 10	
Hazel Park Road	..		121 2 10	
Main South Gippsland Road	..		809 19 0	
Stony Creek–Dollar Road	..		360 0 2	
Toora–Gunyah Road	..		360 6 5	
Toora–Wonyip Road	..		329 9 0	
Turton's Creek Road	..		214 5 3	
				6,133 18 10
SOUTH GIPPSLAND AND WOORAYL SHIRES (Joint Works)—				
Boolarra–Foster Road	..		Bd. 155 1 8	
Dollar–Stony Creek Road	..		139 19 8	
Main South Gippsland Road	..		145 9 1	
				440 10 5
ST. ARNAUD BOROUGH—				
Avoca–St. Arnaud Road	..		41 0 10	
Charlton Road	..		29 13 9	
Navarre Road	..		2 16 0	
St. Arnaud–Donald Road	..		1,144 7 4	
				1,217 17 11
STAWELL SHIRE—				
Horsham–Wal Wal Road	..		1 13 1	
Landsborough Road	..		171 15 1	
Marnoo Road	..		1,345 6 3	
Marnoo–Rupanyup Road	..		231 7 1	
Navarre Road	..		550 1 0	
Stawell–Glenorchy–Horsham Road	..		1,442 18 3	
Stawell–Grampians Road	..		Bd. 336 5 9	
Stawell–Warracknabeal Road	..		1,109 17 0	
				5,189 3 6
STAWELL BOROUGH—				
Ararat–Stawell Road	..		267 9 11	
Glenorchy Road	..		343 13 11	
Stawell–Grampians Road	..		Bd. 526 13 11	
				1,137 17 9
STRATHFIELDSAYE SHIRE—				
Heathcote–Bendigo Road	..		1,011 0 2	
Mandurang Road	..		791 15 8	
Strathfieldsaye Road	..		709 12 6	
				2,512 8 4
SWAN HILL SHIRE—				
Annuello–Wemen Road	..		136 7 10	
Euston Road	..		190 9 11	
Nyah–Ouyen Road	..		339 6 3	
Piangil Station Road	..		27 4 7	
Swan Hill Road	..		132 15 5	
Tooleybuc Road	..		37 16 6	
Ultima Road	..		298 7 6	
Ultima–Sealake Road	..		829 4 4	
				1,991 12 4
TALBOT SHIRE—				
Maryborough–Avoca Road	..		2 2 0	
Maryborough–Ballarat Road	..		1,348 14 2	
				1,350 16 2
Carried forward	..	69,013 7 10	..	535,807 19 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		69,013 7 10		535,807 19 5
TAMBO SHIRE—				
Bairnsdale–Bruthen Road	..		130 10 0	
Basin Road	..		190 15 2	
Bruthen–Omeo Road	..		32 17 11	
Mossiface Road	..		133 6 5	
Nowa Nowa–Buchan–Gelantipy Road	..		902 6 6	
Prince's Highway	..		Bd. 291 16 7	
				1,681 12 7
TOWONG SHIRE—				
Murray Valley Road	..		804 1 3	
Omeo Road	..		528 8 5	
				1,332 9 8
TRARALGON SHIRE—				
Prince's Highway	..		315 4 11	
Traralgon–Balook Road	..		160 8 11	
Traralgon Creek Road	..		628 3 4	
Traralgon–Gormandale Road	..		233 0 6	
Traralgon–Maffra Road	..		1,390 1 9	
Tyers Road	..		1,076 16 11	
				3,803 16 4
TRARALGON AND MORWELL SHIRES (Joint Works)—				
Tyers Road	..		38 18 4	
				38 18 4
TULLAROOP SHIRE—				
Avoca Road	..		218 16 9	
Ballarat Road	..		60 18 7	
Castlemaine–Maryborough Road	..		Bd. 680 17 11	
Dunolly Road	..		18 18 3	
Eddington Road	..		807 19 2	
Maryborough–Dunolly Road	..		86 4 9	
Natte Yallock Road	..		800 13 11	
				2,674 9 4
TUNGAMAH SHIRE—				
Cobram–Katamatite Road	..		417 4 3	
Cobram South Road	..		78 4 6	
Katandra Road	..		226 9 9	
Numurkah–Tungamah–Wilby	..		697 0 7	
St. James Road	..		149 4 0	
Yarrawonga–Cobram Road	..		610 9 3	
				2,178 12 4
UPPER MURRAY SHIRE—				
Corryong Road	..		1,433 8 6	
Tintaldra Road	..		477 16 4	
				1,911 4 10
UPPER YARRA SHIRE—				
Don Road	..		57 19 5	
Little Yarra Road	..		506 5 1	
Warburton Road	..		1,820 1 8	
Woodspoint Road	..		Bd. 2,272 18 1	
				4,657 4 3
VIOLET TOWN SHIRE—				
Murchison–Violet Town Road	..		580 11 5	
Sydney Road	..		Bd. 15 6 11	
Violet Town–Dookie Road	..		357 5 3	
				953 3 7
VIOLET TOWN AND EUROA SHIRES (Joint Works)—				
Murchison–Violet Town Road	..		0 3 7	
				0 3 7
WALPEUP SHIRE—				
Mildura Road	..		111 10 0	
Ouyen–Pinnaroo Road	..		489 14 6	
				601 4 6
WANGARATTA SHIRE—				
Beechworth Road	..		333 8 1	
Beechworth Road	..		Bd. 138 14 2	
Peechelba Road	..		26 14 9	
Springhurst–Rutherglen Road	..		Bd. 115 1 3	
Wangaratta–Myrtleford Road	..		235 8 10	
Yarrawonga Road	..		Bd. 409 10 1	
				1,258 17 2
WANGARATTA AND YARRAWONGA SHIRES (Joint Works)—				
Yarrawonga Road	..		Bd. 7 19 10	
				7 19 10
WANGARATTA BOROUGH—				
Beechworth Road	..		8 3 4	
Sydney Road	..		25 18 7	
Sydney Road	..		Bd. 34 0 11	
				68 2 10
WANNON SHIRE—				
Coleraine–Harrow–Apsley Road	..		2,135 2 3	
Hamilton–Coleraine–Casterton Road	..		1,286 16 5	
Wannon Bridge Road	..		1,169 15 10	
				4,591 14 6
WANNON AND GLENELG SHIRES (Joint Works)—				
Hamilton–Coleraine–Casterton Road	..		642 18 6	
				642 18 6
Carried forward	..	69,013 7 10	..	562,210 11 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	..	69,013 7 10	..	562,210 11 7
WARANGA SHIRE—				
Colbinabbin–Moora Road	..		904 0 9	
Elmore–Colbinabbin Road	..		1,357 7 10	
Heathcote–Elmore Road	..		2,637 9 10	
Murchison–Rushworth Road	..		987 18 6	
Rushworth–Stanhope Road	..		2,030 11 1	
Tatura Road	..		838 3 0	
				8,755 11 0
WARANGA AND GOULBURN SHIRES (Joint Works)—				
Murchison–Rushworth Road	..		1 10 0	
				1 10 0
WARRAGUL SHIRE—				
Bloomfield Road	..		318 3 3	
Brandy Creek Road	..		555 6 0	
Darnum–Allambee Road	..		162 2 3	
Prince's Highway	..		41 18 2	
Warragul–Korumburra Road	..		1,741 11 5	
Warragul–Leongatha Road	..		95 8 10	
				2,914 9 11
WARRNAMBOOL CITY—				
Prince's Highway	..		4 13 2	
				4 13 2
WARRNAMBOOL SHIRE—				
Allansford–Nirranda Road	..		230 13 2	
Caramut–Lismore Road	..		250 0 0	
Framlingham Road	..		119 14 11	
Garvoc–Laang Road	..		103 17 7	
Mortlake Road	..		1,458 4 2	
Peterborough Road	..		160 3 6	
Timboon–Nirranda Road	..		103 2 10	
				2,425 16 2
WERRIBEE SHIRE—				
Geelong–Bacchus Marsh	..		167 2 4	
Prince's Highway	..		Bd. 7 10 11	
				174 13 3
WHITTLESEA SHIRE—				
Epping Road	..		899 4 6	
Main Whittlesea Road	..		2,074 0 3	
Wallan Road	..		1,842 8 10	
Whittlesea–Kinglake Road	..		23 15 5	
				4,839 9 0
WIMMERA SHIRE—				
Dooen Road	..		87 1 11	
Horsham–Murtoa Road	..		494 15 5	
Horsham–Wal Wal Road	..		423 9 7	
Natimuk Road	..		1,334 6 1	
				2,339 13 0
WIMMERA AND ARAPILES SHIRES (Joint Works)—				
Horsham–Hamilton Road	..		246 13 3	
				246 13 3
WINCHELSEA SHIRE—				
Birregurra Road	..		548 13 11	
Birregurra–Dean's Marsh Road	..		1,836 17 3	
Birregurra–Forrest Road	..		1,569 8 9	
Lorne Road	..		23 4 5	
Lorne Road	..		Bd. 1,380 15 9	
Prince's Highway	..		Bd. 12 10 1	
				5,371 10 2
WINCHELSEA AND COLAC SHIRES (Joint Works)—				
Birregurra Road	..		537 12 5	
				537 12 5
WODONGA SHIRE—				
Kiewa–Wodonga Road	..		11 14 0	
Wodonga–Yackandandah Road	..		663 16 11	
Sydney Road	..		14 7 2	
				689 18 1
WONTHAGGI BOROUGH—				
Wonthaggi–Inverloch Road	..		214 10 7	
Wonthaggi–Korumburra Road	..		88 5 4	
Wonthaggi–Loch Road	..		133 9 8	
				436 5 7
WOORAYL SHIRE—				
Farmer's Road	..		951 1 6	
Fairbank Road	..		76 15 0	
Inverloch–Leongatha Road	..		1,072 10 1	
Inverloch–Wonthaggi Road	..		169 19 9	
Kongwak–Inverloch Road	..		82 3 8	
Leongatha–Mirboo Road	..		862 4 2	
Leongatha–Yarragon Road	..		958 14 0	
Lower Tarwin	..		2,046 13 4	
Main South Gippsland Road	..		922 19 9	
Mardan Road	..		2,919 18 4	
Turton's Creek Road	..		188 3 5	
Wild Dog Valley Road	..		1,531 12 1	
				11,782 15 1
Carried forward	..	69,013 7 10	..	602,731 1 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	..	69,013 7 10	..	602,731 1 8
WOORAYL AND MIRBOO SHIRES (Joint Works)—				
Turton's Creek	..		13 8 7	
				13 8 7
WOORAYL AND KORUMBURRA SHIRES (Joint Works)—				
Wild Dog Valley Road	..		11 12 0	
				11 12 0
WYCHEPROOF SHIRE—				
Birchip–Sealake Road	..		376 2 6	
Birchip–Wycheproof Road	..		360 3 6	
Corack Road	..		42 2 9	
Sealake–Ultima Road	..		121 17 4	
Woomelang–Sealake Road	..		256 14 4	
Wycheproof–Sealake Road	..		4 9 6	
				1,161 9 11
YACKANDANDAH SHIRE—				
Dederang Road	..		513 7 6	
Gundowring Road	..		378 12 11	
Kergunyah South Road	..		168 5 7	
Kiewa East Road	..		49 16 8	
Kiewa–Wodonga Road	..		845 7 2	
Myrtleford–Yackandandah Road	..		88 15 2	
Yackandandah–Wodonga Road	..		1,086 4 2	
				3,130 9 2
YARRAWONGA SHIRE—				
Pecchelba Road	..		53 12 3	
Tungamah–Wilby Road	..		20 4 1	
Wangaratta–Yarrawonga Road	..		572 2 10	
				645 19 2
YEA SHIRE—				
Highlands Road	..		99 18 5	
Molesworth–Dropmore Road	..		119 14 8	
Upper Goulburn	..		1,865 17 1	
Whittlesea–Yea Road	..		651 2 2	
Yarra Glen–Glenburn Road	..		497 17 0	
Yea–Glenburn Road	..		1,334 11 11	
				4,569 1 3
YEA AND BROADFORD SHIRES (Joint Works)—				
Upper Goulburn Road	..		80 19 3	
				80 19 3
		69,013 7 10	..	612,344 1 0
STATE HIGHWAYS.				
Prince's Highway West	..		36,530 7 8	
Prince's Highway East	..		100,455 15 7	
Western Highway	..		44,036 7 0	
Calder Highway	..		37,258 1 6	
Northern Highway	..		6,313 1 9	
Hume Highway	..		15,053 14 6	
Omeo Highway	..		30,780 18 1	
Murray Valley Highway	..		73,803 3 0	
South Gippsland Highway	..		34,414 7 8	
Midland Highway	..		14,046 7 5	
Bonang Highway	..		8,644 14 3	
				401,336 18 5
TOURISTS' ROADS.				
Acheron Way	..		1,513 0 5	
Alpine Road	..		3,970 18 5	
Donna Buang Road	..		1,398 3 4	
Gipsy Point Road	..		88 7 9	
Grampians Road	..		2,680 15 7	
Mallacoota Road	..		436 16 1	
Mt. Buffalo Road	..		791 11 10	
Mt. Victory Road	..		750 19 11	
Ocean Road	..		18,747 16 2	
Otway Lighthouse Road	..		173 9 9	
Silverband Track	..		29 15 3	
Sydenham Inlet Road	..		343 17 5	
Wartook Road	..		14 0 6	
				30,939 12 5
TOTAL	..	69,013 7 10	..	1,044,620 11 10

APPENDIX D.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS FOR YEAR ENDED 30TH JUNE, 1937.

Municipality and Road.	Act No. 3662 (3255). Amount.	Act No. 3662 (3255). Total.
	£ s. d.	£ s. d.
ALBERTON SHIRE—		
Carrajung Lower Road ..	343 18 2	
Tarra Valley Road	438 14 11	
Whitelaw's Track	719 2 0	
		1,501 15 1
BAIRNSDALE SHIRE—		
Fernbank–Stockdale Road ..	431 7 7	
		431 7 7
BASS SHIRE—		
Kernot–Krowera Road ..	444 4 8	
		444 4 8
BERWICK SHIRE—		
Nar-nar-goon–Gembrook Road	129 4 9	
		129 4 9
BORUNG SHIRE—		
Donald–Warracknabeal Road	167 13 5	
Brim East Road	88 4 0	
Lah West Road	460 10 3	
Boolite–Sheep Hills Road ..	337 7 3	
		1,053 14 11
BULLA SHIRE—		
Konagaderra Road ..	791 4 9	
		791 4 9
BULN BULN SHIRE—		
Rokeby North–Jindivick Road	108 7 6	
		108 7 6
CHARLTON SHIRE—		
Borung–Charlton Road ..	469 18 4	
Yeungroon Road	750 4 0	
		1,220 2 4
Carried forward ..	..	5,680 1 7

Municipality and Road.	Act No. 3662 (3255). Amount.	Act No. 3662 (3255). Total.
	£ s. d.	£ s. d.
Brought forward ..	..	5,680 1 7
DIMBOOLA SHIRE—		
Glenlee–Joparit Road ..	299 18 3	
		299 18 3
FERNTREE GULLY SHIRE—		
Belgrave–Narre Warren Road	143 14 3	
Emerald–Macclesfield Road ..	68 8 1	
		212 2 4
FLINDERS SHIRE—		
Bittern–Dromana Road ..	449 8 0	
		449 8 0
GOULBURN SHIRE—		
Longwood–Ruffy Road ..	110 6 0	
		110 6 0
MORWELL SHIRE—		
Thorpdale East Road ..	45 12 0	
		45 12 0
NARRACAN SHIRE		
Canal Road	60 11 0	
		60 11 0
NEWSTEAD AND MOUNT ALEXANDER SHIRE—		
Glengower–Joyce's Creek Road	96 15 0	
		96 15 0
WARRNAMBOOL SHIRE—		
Panmure Road	72 18 10	
		72 18 10
WOORAYL SHIRE—		
Dumbalk Road	74 10 0	
Mardan–Dumbalk Road ..	338 19 0	
		413 9 0
TOTAL	..	7,441 2 0

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, 1937.

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	Patrol maintenance throughout	..	8
Balook–Yarram Road	Repairs to bridge over Max Creek	..	—
" " "	Reconditioning and double coat sealing metal road from Carrajung–Gormandale Road to Calrossie Station	..	·65
" " "	Patrol maintenance throughout	..	9
Carrajung–Gormandale Road	Forming, grading, and culverts between Won Wron and Shaw's	2·1	..
" "	Road mix seal from Yarram to Tarra River	..	4
" "	Reconditioning and double coat sealing flood sections at Calrossie	..	·19
" "	Removal of landslide and improvement to curves near Shaw's	..	—
" "	Gravel sheeting at Won Wron	..	·85
" "	Patrol maintenance throughout	..	30
Foster–Yarram Road	Road mix seal from Gelliondale to Alberton	..	3·65
" " "	Patrol maintenance throughout	..	8
Yarram–Boolarra Road	Road mix seal from Mason's Corner to Tooloonook and Jack River to Keating's Corner	..	4·2
" " "	Patrol maintenance throughout	..	15
Yarram–Port Albert Road	Road mix seal from Yarram to Alberton	..	4·75
" "	Flanking pavement with crushed rock and gravel south from Yarram	..	2
" "	Tree planting and guard fencing south from Yarram, 1 mile	..	—
" "	Patrol maintenance throughout	..	9
Yarram–Won Wron Road	Construction of timber bridge and approaches at R. May's	..	·12
" "	Road mix seal from South Gippsland Highway to R. May's bridge	..	2·6
" "	Reconstruction and double coat sealing from Bodman's to Won Wron school	..	1·25
" "	Patrol maintenance throughout	..	5
ALEXANDRA SHIRE—			
Cathkin–Mansfield Road	Forming, gravelling, and culverts	..	·71
" "	Patrol maintenance throughout	..	12
Healesville–Alexandra Road	Forming, gravelling, and culverts	..	·96
" "	Patrol maintenance throughout	..	17
Terip Terip Road	Patrol maintenance throughout	..	9·8
Upper Goulburn Road	Forming, gravelling, and culverts, construction of bridge, and repairing and reconditioning bridge	..	·92
" "	Patrol maintenance throughout	..	27
Yarck Road	Patrol maintenance throughout	..	3·8
ARAPILES SHIRE—			
Horsham–Hamilton Road	Construction of flood section at Cherrypool	..	·08
" "	Widening, regrading, and gravelling at South Wonwondah	..	·91
" "	Double coat bituminous surfacing at McKenzie Creek and South Wonwondah	..	·93
" "	General maintenance throughout	..	25·4
Horsham–Natimuk–Edenhope Road	Redecking timber culvert at Sherwood's Dam	..	—
" " "	General maintenance throughout	..	23·5
ARARAT SHIRE—			
Ararat–Elmhurst Road	Reforming and gravelling	..	2
" " "	Double coat sealing	..	2
" " "	General maintenance throughout	..	23
Ararat–Warrnambool Road	Reforming and gravelling from 22 to 23·5 miles and 20 to 21 miles	..	2·5
" "	Double coat sealing from 32 to 34 miles	..	2
" "	General maintenance throughout	..	34
Ballarat–Hamilton Road	Widening from 11·5 to 13·5 miles	..	2
" " "	Double coat sealing from 12·5 to 13·5 miles	..	1
" " "	Road mix seal from 11·5 to 12·5 miles and 19·75 to 22·5 miles	..	3·75
" " "	General maintenance throughout	..	22·5
Maroona Glenthompson Road	Double coat sealing in sections between 0 and 4·25 miles	..	2·75
" " "	Road mix seal from 6 to 7 miles	..	1
" " "	Construction of culvert at 22 miles	..	—
" " "	General maintenance throughout	..	23
ARARAT TOWN—			
Ballarat–Stawell Road	General maintenance	..	3·5
AVOCA SHIRE—			
Ararat Road	Construction of deviation through Allotments 8 and 9, Town of Avoca	..	·21
" "	Double coat sealing	..	·75
" "	Patrol maintenance throughout	..	7·2
Ballarat–St. Arnaud Road	Scarifying, reshaping, and resheeting including transitioning of curves	..	5
" " "	Double coat sealing	..	2·37
" " "	Realignment of curve at Redbank; construction of 16 reinforced concrete pipe and box culverts	..	—
" " "	Patrol maintenance throughout	..	23·25
Bealiba Road	Patrol maintenance throughout	..	9
Landsborough Road	Patrol maintenance throughout	..	1·8
Maryborough Road	Reconditioning and double coat sealing including transitioning of curves	..	1
" "	Reconstruction and realignment of curve	..	·15
" "	Construction of two reinforced concrete pipe culverts to replace old timber culverts	..	—
" "	Patrol maintenance throughout	..	5
AVOCA AND KARA KARA SHIRES (Joint Works)—			
Navarre Road	Resheeting, shouldering, and double coat sealing throughout	..	·34
	Carried forward	2·1	412·34

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	2·1	412·34
AVON SHIRE—			
Dargo Road	General maintenance throughout	..	45
Maffra–Sale Road	General maintenance throughout	..	2·96
Maffra–Stratford Road	General maintenance throughout	..	2
Prince's Highway	General maintenance throughout	..	·75
BACCHUS MARSH SHIRE—			
Ballarat Road	Patrol maintenance	..	1·2
Balliang Road	Shouldering and gravelling from 9·74 to 10·64 miles	..	·9
" "	Double coat sealing from 3·5 to 5·5 miles	..	2
" "	Patrol maintenance	..	15·21
Geelong–Bacchus Marsh Road ..	Double coat sealing from 3·5 to 5·5 miles	..	2
" " ..	Patrol maintenance	..	7·81
Gisborne Road	Shouldering and gravelling from 9 to 10·2 miles	..	1·2
" "	Double coat sealing from 6·85 to 8·85 miles	..	2
" "	Patrol maintenance	..	10·21
BACCHUS MARSH AND CORIO SHIRES (Joint Works)—			
Balliang Road	Patrol maintenance	..	1·6
BAIRNSDALE SHIRE—			
Bairnsdale–Lindenow Road ..	Reconstruction and sealing	..	2·47
" " " ..	General maintenance	..	9
Bairnsdale–Paynesville Road ..	Reconstruction and sealing	..	1·6
" " " ..	General maintenance	..	10
Buhmwaal–Tabberabbera Road ..	Road mix seal in Bairnsdale township	..	·38
" " " ..	General maintenance	..	16
Prince's Highway	Road mix seal in Bairnsdale township	..	·4
" "	General maintenance	..	2
BALLAN SHIRE—			
Ballarat Road	Patrol maintenance in Ballan township	..	1
Daylesford Road	Double coat bitumen sealing from Spargo Creek to Leonard's Hill	..	3·39
" "	Road mix resealing four sections between 0 and 1·7 miles	..	1·16
" "	Realignment, reconstruction, and double coat sealing curve near 2 miles	..	·12
" "	Patrol maintenance throughout	..	12·7
Mt. Wallace Road	Gravel resurfacing southerly from Beam Wireless Station	..	2
" "	Double coat sealing southerly from Beam Wireless Station	..	2
" "	Patrol maintenance throughout	..	10·7
Gordon–Meredith Road	Reconstruction in crushed rock between Gordon township and railway station ..	..	1·01
" " "	Double coat sealing between Gordon Township and railway station	..	1·01
" " "	Double coat sealing through Egerton township	..	·89
" " "	General maintenance throughout	..	5·1
Spargo Creek Road	General maintenance throughout	..	1·25
BALLAN AND BENINYONG SHIRES (Joint Works)—			
Gordon–Meredith Road	Reconstruction and crushed rock surfacing including realignment near Egerton ..	..	·13
" " "	Double coat sealing throughout	..	·42
" " "	General maintenance throughout	..	·42
BALLARAT SHIRE—			
Ballarat–Lexton Road	Road mix resealing with bitumen from 0 to ·4 miles, 9·6 to 11·25 miles, and 14·85 to 15·3 miles	..	2·5
" " "	Reconstruction and double coat sealing from 7·9 to 8·33 miles, 14·45 to 14·46 miles, 15·3 to 15·58 miles, 15·95 to 16·07 miles, 16·35 to 16·41 miles, and 17 to 17·28 miles	..	1·48
" " "	General maintenance	..	18·2
Maryborough–Ballarat Road ..	Road mix resealing with bitumen from 2·7 to 3·2 miles	..	·5
" " " ..	Reconstruction and double coat sealing from 10·75 to 11·75 miles	..	1
" " " ..	General maintenance	..	12·65
BANNOCKBURN SHIRE—			
Gordon–Meredith Road	Gravel sheeting	..	1·33
" " "	General maintenance throughout	..	3
Inverleigh Road	Reconstruction and gravel sheeting 18 feet wide, and double coat bitumen sealing from Inverleigh to Shire boundary	..	1·41
" "	Double coat bitumen sealing 18 feet wide on gravel at Fyansford	..	·54
" "	Double coat bitumen sealing 18 feet wide on gravel, east of Inverleigh bridge	..	·35
" "	Reconstruction, realignment and double coat bitumen sealing 18 feet wide on gravel west from Burnside road	..	·2
" "	General maintenance throughout	..	16·5
Shelford–Bannockburn Road ..	Double coat bitumen sealing 12 feet wide, west of Bannockburn	..	2
" " " ..	Construction of 30-in. diameter pipe culvert between Bannockburn and Bruce's Creek ..	..	—
" " " ..	General maintenance throughout	..	6·5
BARRABOOL SHIRE—			
Anglesea Road	Gravel reconstruction 20 feet wide at Waurn Ponds	..	·64
" "	Patrol maintenance	..	10·5
Hendy Main Road	Gravel reconstruction 12 feet wide at Mt. Moriac	..	1·87
" " "	General maintenance	..	14
BASS SHIRE—			
Almurta Road	Improving curves between 68 and 69·5 miles	..	·5
" "	Patrol maintenance throughout	..	4·95
Ahnurta–Grantville Road	Patrol maintenance throughout	..	3·81
Anderson–Dalyston Road ..	Road mix seal 12 feet wide near 72·24 miles	..	·26
" " " ..	Construction of transition curve near 70·6 miles and improving curve near Kilcunda at at 72·5 miles	..	·34
" " " ..	Construction of bridge over Bridge Creek, together with approaches	..	·19
" " " ..	Patrol maintenance throughout	..	6·55
Dalyston–Glen Forbes Road ..	Road mix seal 12 feet wide northerly from Dalyston	..	1·2
" " " ..	Patrol maintenance throughout	..	10·34
Dalyston–Wonthaggi Road ..	Patrol maintenance throughout	..	1·93
Inverloch–Wonthaggi Road ..	Reconstruction, widening surfacing to 16 feet, and double coat bitumen sealing near 86 miles	..	·28
" " " ..	Patrol maintenance throughout	..	3·57
Korumburra–Wonthaggi Road ..	Construction of 50-ft. x 20-ft. timber and steel bridge over Powlett River, together with approaches	..	·13
" " " ..	Patrol maintenance throughout	..	7·72
Main Coast Road	Construction of 90 feet of 15-in. diameter and 150 feet of 12-in. diameter pipe culverts in the Parish of Coriuella	..	—
" " " ..	Construction of two spiral transition curves near 64 miles	..	·34
" " " ..	Construction of 48-in. x 15-in. box culverts at 64·1 miles	..	—
" " " ..	Patrol maintenance throughout, painting and fencing approach to Bass River Bridge ..	..	18·66
Loch–Wonthaggi Road	Road mix seal from 75·87 miles	..	1·04
" " " ..	Construction of three-cell reinforced concrete culvert and approaches at 79·66 miles ..	..	·04
" " " ..	Patrol maintenance throughout	..	16·21
	Carried forward	2·1	765·56

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	2·1	765·56
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—			
Loch-Wonthaggi Road	Patrol maintenance throughout	..	·7
BEECHWORTH SHIRE—			
Beechworth Road	Reconditioning, surfacing, and sealing	..	1
,, ,, ...	General maintenance	..	25
Bright Road	Reconstruction, part surfacing and sealing	..	1
,, ,, ...	General maintenance	..	4
Everton-Myrtleford Road ..	Reconditioning, part surfacing, construction of culverts, and sealing	..	1·5
,, ,, ,, ..	General maintenance	..	11
Myrtleford-Yackandandah Road ..	General maintenance	..	2
Stanley Road	General maintenance, reconstruction, part surfacing, and sealing	..	6
BELFAST SHIRE—			
Hamilton Road	General maintenance throughout	..	13·5
Penshurst Road	General maintenance throughout	..	9·5
BELLARINE SHIRE—			
Barwon Heads-Ocean Grove Road ..	Patrol maintenance throughout	..	2
Geelong-Portarlington Road ..	Patrol maintenance throughout	..	17
Geelong-Queenscliffe Road ..	Patrol maintenance throughout	..	15
Portarlington-St. Leonards Road ..	Patrol maintenance throughout	..	6·75
BENALLA SHIRE—			
Benalla Shepparton Road ..	General maintenance throughout, resealing sections	..	·9
Goorambat Road	General maintenance throughout	..	5·6
Goorambat Thoona Road ..	General maintenance throughout	..	11·8
Greta Road	General maintenance throughout	..	·8
Kelfeera Road	General maintenance	..	13·66
Lima Road	General maintenance throughout	..	2·9
Sydney Road	General maintenance throughout, resealing sections	..	2
Tatong-Tolmie Road	General maintenance throughout	..	10
BERWICK SHIRE—			
Beaconsfield Emerald Road ..	Road mix seal	..	3·12
,, ,, ,, ..	Patrol maintenance	..	6·7
Cockatoo Gembrook Road ..	Patrol maintenance	..	4·3
Emerald-Cockatoo Road	Patrol maintenance	..	·2
Gembrook Road	Reconditioning and double coat sealing	..	1·25
,, ,, ...	Patrol maintenance	..	5·5
Gembrook-Beenak Road	Patrol maintenance	..	2
Hallam-Emerald Road	Patrol maintenance	..	4·55
Koo-wee-rup-Longwarry Road ..	Patrol maintenance	..	1·59
Nar-nar-goon-Longwarry Road ..	Patrol maintenance	..	11·61
Woori Yallock-Pakenham-Koo-wee-rup Road	Road mix seal	..	·54
,, ,, ,, ,,	Patrol maintenance	..	23·82
BET BET SHIRE—			
Avoca Bealiba Road	Road mix seal ½ in. x 18 ft. wide in Bealiba township	..	·17
,, ,, ,, ...	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 ..	Double coat sealing 16 feet wide at Dunolly end of road	..	·97
,, ,, ,, ..	General maintenance throughout	..	4·5
BIRCHIP SHIRE—			
Beulah-Birchip Wycheproof Road	Patrol maintenance throughout	..	22
Donald Birchip Sea Lake Road ..	Forming and limestoning south of Morton Plains	..	·34
,, ,, ,, ,, ..	Patrol maintenance throughout	..	26·75
BLACKBURN AND MITCHAM SHIRE—			
Burwood Road	Reconstruction in crushed rock and sealing with bitumen 20 feet wide	..	1·5
,, ,, ...	Patrol maintenance throughout	..	3·8
Main Healesville Road	Reconstruction in modified macadam and superelevation of curve	..	·09
,, ,, ,, ...	Improvement of shoulders	..	2·3
,, ,, ,, ...	Patrol maintenance throughout	..	4.2
BORUNG SHIRE—			
Birchip Road	Crushed rock construction	..	·95
,, ,, ...	General maintenance	..	14
Dimboola Road	Crushed rock resheeting	..	1·76
,, ,, ...	General maintenance	..	7·5
Hopetoun Road	Crushed rock resheeting	..	3·1
,, ,, ...	General maintenance	..	18
Minyip Road	General maintenance	..	13
Rainbow Road	Limestone construction	..	2·13
,, ,, ...	General maintenance	..	18
BOX HILL CITY—			
Burwood Road (O.M.)	Regrading and widening of formation to 30 feet, and resheeting with crushed rock ..	..	1·25
Healesville Road (O.M.)	Plant-mix seal	..	·75
BRAYBROOK SHIRE—			
Ballarat Road	Patrol maintenance	..	3·3
BRIGHT SHIRE—			
Bright Road	Reshaping and sealing near Myrtleford township	..	·52
,, ,, ...	Reshaping and sealing at Porepunkah	..	·85
,, ,, ...	Patrol maintenance	..	18·63
Harrietville Road	Reshaping and sealing from Bright township	..	1
,, ,, ...	Patrol maintenance	..	15
Kiewa Valley Road	Patrol maintenance throughout	..	8
Myrtleford-Yackandandah Road ..	Reshaping and sealing from Myrtleford township	..	1
,, ,, ,, ..	Patrol maintenance	..	9·6
BROADMEADOWS SHIRE—			
Sydney Road	Patrol maintenance throughout	..	2
BROADMEADOWS AND KEILOR SHIRES (Joint Works)—			
Lancefield Road	Patrol maintenance throughout	..	4·5
BULLA SHIRE—			
Melbourne-Lancefield Road ..	Widening and resheeting with crushed rock northerly from 1·5 miles north of Frances Lane	..	2·13
,, ,, ,, ..	General maintenance	..	14·25
Sunbury Road	General maintenance	..	2
The Gap Road	Resheeting with crushed rock westerly from railway crossing	..	1·14
,, ,, ...	Double coat sealing	..	·45
	Carried foward	2·1	1,260·98

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	2·1	1,260·98
BULN BULN SHIRE—			
Bloomfield Road	Patrol maintenance		·9
Fumina Road	Patrol maintenance		9·7
Koo-wee-rup–Longwarry Road	Reshaping road surface and bitumen sealing 12 feet wide		1
" " "	Patrol maintenance and sand sheeting where necessary		6·5
Loch Valley Road	Patrol maintenance		6·4
Longwarry–Drouln Road	Patrol maintenance		5·7
Main Neerim Road	Reshaping, widening, and banking on curves, realigning, crushed rock surfacing where necessary, and bitumen sealing		1·6
" " "	Patrol maintenance		22
Main South Road	Reshaping, widening, and banking on curves, realigning, sand surfacing where necessary, and bituuen sealing		2
" " "	Patrol maintenance		14·75
Neerim East Road	Reshaping, widening, and banking curves, realigning, and bitumen sealing 12 feet wide		1
" " "	Patrol maintenance		4
Neerim North–Noojee Road	Reshaping, widening, and banking on curves, resheeting where necessary, and bitumen sealing 12 feet wide		2
" " " "	Patrol maintenance		3·5
Prince's Highway	Patrol maintenance		1·06
Westernport Road	Bitumen sealing on sand 13 feet wide		4·5
" "	Patrol maintenance, and sand sheeting where necessary		8·25
BUNGAREE SHIRE—			
Daylesford–Ballarat Road	Road-mix seal ¼ in. x 15 ft. wide		2·66
" " "	Patrol maintenance throughout		7·7
BUNINYONG SHIRE—			
Ballarat–Rokewood Road	Patrol maintenance throughout		14
Elaine–Mt. Mercer Road	Patrol maintenance throughout		5
CAMBERWELL CITY—			
Doncaster Road (O.M.)	Levelling crossing at corner of Burke Road and Doncaster Road		—
" " "	Widening metalled roadway to 30 feet with modified macadam from Marwal Avenue to Houghton Street		·26
" " "	Construction of single 30 feet span bridge with rolled steel joists over Koonung Creek		·01
CASTLEMAINE BOROUGH—			
Melbourne–Bendigo Road	Widening from 18 feet to 24 feet		·22
" " "	General maintenance		3·9
CHARLTON SHIRE—			
Bendigo Road	Patrol maintenance, sealing		1·75
Donald Road	Patrol maintenance, sealing		12·55
St. Arnaud Road	Patrol maintenance, sealing, grading earth formations		15·4
CHELSEA CITY—			
Point Nepean Road	Patrol maintenance		5·61
CHILTERN SHIRE—			
Barnawartha–Howlong Road	First seal		·5
" " "	General maintenance		5·9
Chiltern–Howlong Road	Construction of culverts and approaches throughout road	·4	..
" " "	Road mix seal		·2
" " "	General maintenance, reforming, and gravelling throughout		7·1
Sydney Road	General maintenance		1·15
CLUNES BOROUGH—			
Maryborough–Ballarat Road	Patrol maintenance		3
COHUNA SHIRE—			
Cohuna–Leitchville Road	Flanking and surfacing existing macadam surface with fine crushed rock in preparation for bitumen surfacing, from Murray Valley Highway to Leitchville		1
" " "	Flanking and surfacing existing macadam surface with fine crushed rock in preparation for bitumen surfacing from south-eastern end of existing surfacing 1½ miles from Cohuna towards Leitchville		1·29
" " "	Patrol maintenance from Murray Valley Highway to 1·5 miles from Cohuna		9·72
Murray Valley Road	General maintenance in Cohuna township		·25
COLAC SHIRE—			
Colac–Ballarat Road	General maintenance throughout		21·4
Colac–Beech Forest Road	Reconstruction from 2·09 to 2·4 miles		·31
" " "	Double coat sealing from ·76 to 2·4 miles		1·64
" " "	General maintenance throughout		11·25
Colac–Forrest Road	Reconstruction from 3·88 to 4·28 miles		·4
" " "	Double coat sealing from 0 to ·3 mile		·3
" " "	Road mix seal from 1 to 2 miles		1
" " "	General maintenance throughout		16·9
Cororooke Road	Road mix seal from 2·61 to 3·36 miles, and 4·36 to 5·06 miles		1·45
" "	General maintenance throughout		7·25
Cressy–Inverleigh Road	Resheeting with gravel from 0 to 1·06 miles		1·06
" " "	General maintenance throughout		8·7
Prince's Highway	Road mix seal from 1·91 to 2·44 miles		·53
" "	General maintenance throughout		2·44
Swan Marsh Road	General maintenance throughout		5·66
COLLINGWOOD CITY—			
Heidelberg Road (O.M.)	General maintenance between Merri Creek bridge and Clifton Hill railway gates		·5
CORIO SHIRE—			
Geelong–Bacchus Marsh Road	Road mix seal from 8·5 to 8·8 miles		·3
" " " "	Road mix seal from 16·2 to 20·2 miles		4
" " " "	General maintenance throughout		19·2
CORIO AND BACCHUS MARSH SHIRES (Joint Works)—			
Geelong–Bacchus Marsh Road	General maintenance from 19·2 to 20·2 miles		1
CRANBOURNE SHIRE—			
Cranbourne–Frankston Road	General maintenance throughout		7·5
Koo-wee-rup–Longwarry Road	General maintenance throughout		6
Koo-wee-rup–Pakenham Road	Surfacing with crushed rock and sealing between Koo-wee-rup and South Gippsland Highway		·9
" " "	General maintenance throughout		5·5
Main Coast Road	Sealing gravel road at Lang Lang		1·92
" " "	General maintenance throughout		8
Westernport Road	General maintenance throughout		9
	Carried forward	2·5	1,599·12

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	2·5	1,599·12
CRESWICK SHIRE—			
Ballarat–Castlemaine Road ..	Reconstruction, sealing, and minor curve realignments on gravel road from shire boundary to Spring Mount with exception of section in Creswick township	..	4·18
,, ,, ,, ..	Construction of deviation to eliminate sharp curve between 1·41 and 1·71 miles ..	..	·3
,, ,, ,, ..	Laying ten pipe culverts from 12-in. to 48-in. diameter between southern shire boundary and Smeaton	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	23·7
Daylesford–Ballarat Road ..	Scarifying or reforming and surfacing metal road with crushed rock from ·36 to 1·36 miles near Dean	..	1
,, ,, ,, ..	Sealing crushed rock pavement from shire boundary to 1·74 miles	..	1·74
,, ,, ,, ..	Reforming three curves and various pitched sections, minor realignment and construction of culvert between Dean and Newlyn	..	·51
,, ,, ,, ..	Patrol maintenance throughout	..	12·4
DANDENONG SHIRE—			
Cheltenham Road	Patrol maintenance throughout	..	6·4
Prince's Highway	Patrol maintenance throughout	..	1·8
Springvale Road	General maintenance southerly from Princes Highway	..	2
DANDENONG AND CRANBOURNE SHIRES (Joint Works)—			
Dandenong–Frankston Road ..	Patrol maintenance throughout	..	6·1
DAYLESFORD BOROUGH—			
Ballan Road	Reconditioning with crushed rock	..	·38
,, ,, ...	Sealing throughout	..	1·6
Ballarat Road	General maintenance throughout	..	1·05
Castlemaine Road	General maintenance throughout	..	·65
Daylesford–Trentham Road ..	Sealing throughout	..	·9
Hepburn–Daylesford Road ..	General maintenance throughout	..	1·14
Malmsbury–Daylesford Road ..	Resealing from Farmers' Arms corner to Castlemaine Road	..	·62
,, ,, ,, ..	General maintenance throughout	..	1·42
DEAKIN SHIRE—			
Echuca–Cornella Road	Forming and sanding	..	1·5
,, ,, ,, ...	General maintenance	..	6
Echuca–Picola Road	Patrol maintenance	..	5
Kyabram–Nathalia Road	Scarifying and sealing	..	1·5
,, ,, ,, ...	General maintenance	..	5·5
Kyabram–Tongala Road	Scarifying and sealing	..	3
,, ,, ,, ...	Patrol maintenance	..	8
Rochester–Kyabram Road	Scarifying and sealing	..	2
,, ,, ,, ..	Patrol maintenance	..	11
DEAKIN AND NUMURKAH SHIRES (Joint Works)—			
Echuca–Picola Road	Maintenance and provision of caretaker at Stewart's Bridge	..	—
DEAKIN AND RODNEY SHIRES (Joint Works)—			
Kyabram–Tongala Road	Patrol maintenance	..	1
Rochester–Kyabram Road ..	Scarifying and sealing	..	1
,, ,, ,, ..	Patrol maintenance	..	2
DIMBOOLA SHIRE—			
Rainbow Road	Double coat bitumen surfacing on limestone rubble between 2 and 3·51 miles south from Jeparit	..	1·51
,, ,, ...	Rubbling existing loam formations 3 miles north from Dimboola	..	·35
,, ,, ...	Rubbling existing loam formations from approximately 2 to 3 miles south from Jeparit ..	..	1·35
,, ,, ...	Resheeting existing rubble with limestone rubble 6·5 miles north from Jeparit ..	..	·49
,, ,, ...	Loam forming and limestone rubble surfacing 7 miles north from Jeparit	..	·51
,, ,, ...	Loam forming 12 miles north from Jeparit	..	·48
,, ,, ...	Patrol maintenance throughout	..	42
Rainbow–Beulah–Birchip Road ..	Forming and loaming 12 miles from Rainbow	..	·82
,, ,, ,, ,, ..	General maintenance throughout	..	14
Rainbow–Rises Road	Scarifying, reshaping and sheeting existing metal surface with Rainbow metal ·5 mile west from Rainbow	..	1·06
,, ,, ,, ...	Forming and loaming 6 miles from Rainbow	..	·45
,, ,, ,, ...	General maintenance throughout	..	6
Warracknabeal Road	Double coat bitumen surfacing on existing limestone rubble and Great Western gravel between 5 and 7·5 miles from Dimboola	..	1·99
,, ,, ...	Patrol maintenance throughout	..	9·5
DIMBOOLA AND KARKAROOC SHIRES (Joint Works)—			
Hopetoun–Rainbow Road ..	Loam forming and limestone rubble surfacing between 4 and 5 miles north from Rainbow	..	·78
,, ,, ,, ..	General maintenance throughout	..	5
DONALD SHIRE—			
Donald–Charlton Road	Resheeting with granite sand at McConville's Hill	..	·92
,, ,, ,, ...	General maintenance throughout	..	14
Marnoo–Donald Road	Granite sand construction in the Parish of Laen	..	·38
,, ,, ,, ...	Limestone and schist construction south from the Avon River	..	1·08
,, ,, ,, ...	General maintenance throughout	..	12·7
St. Arnaud–Birchip Road ..	General maintenance throughout	..	28·7
DONCASTER AND TEMPLESTOWE SHIRE—			
Doncaster Road	Road mix resealing	..	2
,, ,, ...	Patrol maintenance	..	6·2
Heidelberg–Warrandyte Road ..	Double coat sealing	..	·25
,, ,, ,, ...	General maintenance	..	9·8
Warrandyte–Ringwood Road ..	Construction of deviation and 5-ft. diameter single cell concrete culvert at Pig Tail Hill ..	..	·12
,, ,, ,, ..	Patrol maintenance	..	4·2
DUNDAS SHIRE—			
Hamilton–Dunkeld Road	Road mix seal between 2 and 3·5 miles	..	1·38
,, ,, ,, ...	Modified macadam surfacing between 2·75 and 3·5 miles, and 13·5 and 14·5 miles ..	..	1·7
Hamilton–Horsham Road ..	Road mix seal between approximately 2 and 2·5 miles, 11·25 and 13 miles, and 4·9 and 5·7 miles	..	3·64
,, ,, ,, ...	Double coat sealing from 17·3 to 19·8 miles	..	2·5
Hamilton–Mt. Gambier Road ..	Road mix seal between 5·1 and 6·1 miles	..	·95
Hamilton–Port Fairy Road ..	Road mix seal between 6·8 and 7·5 miles, 9·36 and 10·13 miles, 10·5 and 12·3 miles, 13·6 and 13·91 miles, 14·25 and 15·12 miles, and 17·7 and 18·7 miles	..	5·34
,, ,, ,, ...	Modified macadam surfacing from approximately 11·4 to 12·3 miles and 17·7 to 18·7 miles	..	1·98
Hamilton–Portland Road	Road mix seal between 2·5 and 4 miles and 5 and 6·75 miles	..	1·95
,, ,, ,, ...	Double coat sealing from 6·76 to 9·66 miles	..	2·9
,, ,, ,, ...	Modified macadam surfacing at 5 miles, from 5·8 to 6·1 miles, and from 6·25 to 6·75 miles	..	1·03
	Carried forward	2·5	1,904·52

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	2·5	1,904·52
DUNMUNKLE SHIRE—			
Horsham–Murtoa Road	Patrol maintenance throughout	..	5·33
Marnoo–Donald Road	Patrol maintenance throughout	..	3·5
Marnoo–Rupanyup Road	Patrol maintenance throughout	..	10·2
Minyip–Donald Road	Patrol maintenance throughout	..	3·2
Rupanyup–Murtoa Road	Road mix seal easterly from Murtoa	..	2·5
,, ,, ,, ...	Patrol maintenance throughout	..	9·25
Stawell–Warracknabeal Road ..	Scarifying foundation course, widening, and resheeting with gravel	..	6·36
,, ,, ..	Road mix seal south of Rupanyup	..	1·3
,, ,, ,, ..	Road mix seal north of Rupanyup	..	1
,, ,, ,, ..	Patrol maintenance throughout	..	28·5
EAGLEHAWK BOROUGH—			
Mount Korong Road	Modified macadam surfacing 16 feet wide	..	1·05
,, ,, ,, ...	Patrol maintenance balance of road	..	2·6
EAST LODDON SHIRE—			
Borung–Prairie Road	General maintenance	..	1·5
Dingee Road	General maintenance, reconstruction of floodways at ·05, ·9, 1·61, 1·82, 2·07, 2·24, 3·05 and 3·16 miles, west of railway line, and shouldering where necessary	..	7·16
Mitiamo Road	General maintenance including shouldering where necessary	..	5·05
Prairie Road	General maintenance	..	8
ELTHAM SHIRE—			
Eltham–Yarra Glen Road ..	Road mix seal	..	3·75
,, ,, ..	Patrol maintenance	..	21
Hurstbridge–Kinglake Road ..	Road mix seal	..	1·5
,, ,, ,, ..	Sealing	..	·33
,, ,, ..	Patrol maintenance	..	16
Yarra Glen–Glenburn Road ..	Patrol maintenance	..	10·4
ESSENDON CITY—			
Bendigo Road (O.M.)	Bituminous surfacing of widened sides of road from Birdwood Street to the municipal boundary	..	·17
EUROA SHIRE—			
Arcadia Road	Patrol maintenance throughout	..	5·7
Avenel–Longwood Road	Patrol maintenance throughout	..	2·1
Euroa–Arcadia Road	Priming and sealing from ·7 to 2·5 miles	..	1·8
,, ,, ,, ...	Patrol maintenance throughout	..	17
Euroa–Mansfield Road	Priming and sealing in township area	..	·57
,, ,, ,, ...	Patrol maintenance	..	16·1
Euroa–Strathbogie Road	Surfacing with hill gravel, priming and sealing from Hume Highway	..	2
,, ,, ,, ...	Patrol maintenance throughout	..	19·2
Murchison–Violet Town Road ..	Patrol maintenance throughout	..	16·5
FERNTREE GULLY SHIRE—			
Beaconsfield–Emerald Road ..	Drag seal coat between Emerald township and Nottingham House	..	·5
,, ,, ..	Widening pavement	..	1·25
Belgrave–Emerald Road ..	Drag seal coat	..	1·73
,, ,, ,, ...	Patrol maintenance	..	6·73
Burwood Road	Widening pavement and drag seal coat	..	1·39
,, ,, ..	Patrol maintenance	..	4·5
Emerald Road	Widening pavement	..	·63
,, ,, ...	Patrol maintenance	..	3·25
Main Ferntree Gully Road ..	Widening pavement	..	·7
,, ,, ,, ,, ..	Drag seal coat	..	1·15
,, ,, ,, ..	Patrol maintenance	..	10·8
Monbulk Road	Widening formation and pavement	..	·75
,, ,, ...	Patrol maintenance	..	5
Olinda Road	Drag seal coat	..	1·96
,, ,, ...	Patrol maintenance	..	6·25
FLINDERS SHIRE—			
Hastings–Flinders Road	Relocation of curve at Balnarring	..	·1
,, ,, ,, ...	Widening and reshaping at Merricks	..	·92
,, ,, ,, ...	Widening, sheeting, and sealing between Shoreham and Manton's Creek	..	·85
,, ,, ,, ...	Construction of three cell 8 feet by 6 feet reinforced concrete culvert and approaches at East Creek	..	·11
,, ,, ,, ...	Road mix seal at Kennedy's Corner	..	1·24
,, ,, ,, ...	Road mix seal at Flinders	..	1·69
,, ,, ,, ...	Patrol maintenance throughout	..	17
Mornington–Dromana Road ..	Patrol maintenance throughout	..	2·5
Mornington–Flinders Road ..	Reconstruction and sealing of Wiseman's deviation	..	·71
,, ,, ,, ..	Reconstruction and sealing at Flinders	..	1
,, ,, ,, ..	Patrol maintenance throughout	..	12
Point Nepean Road	Widening, sheeting, and sealing from Dromana to "The Rocks"	..	·64
,, ,, ,, ...	Widening, sheeting, and sealing at Rosebud	..	·79
,, ,, ,, ...	Reconstruction and sealing between Rye and Sorrento	..	·87
,, ,, ,, ...	Reconstruction and sealing at Rye	..	·32
,, ,, ,, ...	Road mix seal at Dromana	..	·44
,, ,, ,, ...	Road mix seal at Dromana West	..	·19
,, ,, ,, ...	Road mix seal at Tootgarook	..	·63
,, ,, ,, ...	Patrol maintenance throughout	..	21·5
Red Hill Road	Widening and sheeting east of Red Hill Station	..	·75
,, ,, ...	Patrol maintenance throughout	..	3·75
Rosebud–Flinders Road	Widening, sheeting, and sealing at Timm's Creek	..	·3
,, ,, ,, ...	Reconstruction and sealing at junction with Brown's Road	..	1
,, ,, ,, ...	Patrol maintenance throughout	..	13·5
Stony Point Road	Patrol maintenance throughout	..	4
FOOTSCRAY CITY—			
Ballarat Road (O.M.)	Plant-mix drag seal from Droop Street to ·49 miles east of Nicholson Street	..	·88
Prince's Highway (O.M.)	Plant-mix drag seal from Barkly Street to bridge over Tottenham Railway near Williamstown Road	..	·44
,, ,, ,, ...	Realignment, reconstruction, and widening from chainage 32925 near Ormond Road to chainage 34400 near Stony Creek	..	·28
FRANKSTON AND HASTINGS SHIRE—			
Cranbourne–Frankston Road ..	Widening opposite Allotment 32A, Parish of Frankston	..	·2
,, ,, ,, ..	General maintenance	..	2·8
Frankston–Dandenong Road ..	Pre-mix seal coat northerly from Frankston	..	·5
,, ,, ,, ..	General maintenance	..	5·5
Frankston–Flinders Road ..	Pre-mix seal coat south-easterly from Yuille Street	..	1·3
,, ,, ,, ..	General maintenance throughout	..	14
Mooroodue Road	General maintenance	..	3
	Carried forward	2·5	2,297·43

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	2·5	2,297·43
FRANKSTON & HASTINGS SHIRE—*contd.*			
Point Nepean Road	Reconstruction with crushed rock, priming and sealing northwards from Mile Bridge ..	..	1·6
,, ,, ,, ...	Priming and sealing Kackeraboite deviation	..	1·5
,, ,, ,, ...	Priming and sealing approaches to Mile Bridge	..	·3
,, ,, ,, ...	Pre-mix seal coat from Frankston to Humphries Road	..	1·9
,, ,, ,, ...	Pre-mix seal coat from Seaford northerly to Shire boundary	..	1·5
,, ,, ,, ...	General maintenance throughout	..	7·5
FRANKSTON AND HASTINGS AND CRANBOURNE SHIRES (Joint Works)—			
Dandenong Road	Reconstruction with crushed rock from Boundary Road to Allotment 55, Parish of Lyndhurst	..	1·5
GISBORNE SHIRE—			
Bacchus Marsh Road	Reforming and gravelling	..	1·02
,, ,, ,, ...	Double coat sealing	..	2·84
,, ,, ,, ...	General maintenance	..	9·7
Gisborne Station Road	General maintenance	..	1·2
Mount Macedon Road	Widening pavement and sealing	..	·94
,, ,, ,, ...	General maintenance	..	6·75
GLENELG SHIRE—			
Coleraine–Casterton Road ..	Double coat sealing between Campbell's Hill and Lodge	..	2
,, ,, ,, ..	Patrol maintenance throughout	..	7
Dergholm Road	Double coat sealing between 3 and 4 miles	..	·89
,, ,, ,, ..	Patrol maintenance throughout	..	22
Mount Gambier Road	Double coat sealing between 25 miles and Ardno	..	·95
,, ,, ,, ..	Sheeting with gravel between 3 and 8 miles	..	4·36
,, ,, ,, ..	Patrol maintenance throughout	..	30
Portland–Casterton Road ..	Double coat sealing near Sandford	..	1·51
,, ,, ,, ..	Scarifying, reforming, and grading, banking curves, and sheeting with gravel between Sandford and Merino	..	5·56
,, ,, ,, ..	Patrol maintenance throughout	..	20
Wando Vale Road	Double coat sealing between Lodge and Bartagunyah Road	..	1·58
,, ,, ,, ..	Reforming and grading and sheeting with gravel between Bartagunyah and Satimer Roads	..	1·55
,, ,, ,, ..	Patrol maintenance throughout	..	6·55
GLENLYON SHIRE—			
Ballan Road	Fine crushed rock construction and double coat sealing at Daylesford end	..	1·96
,, ,, ...	Patrol maintenance throughout	..	4·45
Ballarat Road	Patrol maintenance throughout	..	3·5
Castlemaine–Daylesford Road	Patrol maintenance throughout	..	13
Daylesford–Hepburn Road	Patrol maintenance throughout	..	1
Daylesford–Trentham Road	Regrading and fine crushed rock construction at Daylesford end	..	·28
,, ,, ,,	Patrol maintenance throughout	..	10
Malmsbury–Daylesford Road	Double coat sealing at Coomoora	..	2·26
,, ,, ,,	Patrol maintenance throughout	..	15
GRENVILLE SHIRE—			
Ballarat–Hamilton Road	Road mix seal from 7·6 to 9·1 miles	..	1·5
,, ,, ,, ..	Road mix seal from 20·1 to 21·6 miles	..	1·5
,, ,, ,, ..	Modified macadam surfacing from 15·7 to 15·82 miles	..	·12
,, ,, ,, ..	Patrol maintenance throughout	..	24·1
Cressy Road	Widening and making up water tables from 6·5 to 9 miles	..	2·5
,, ,, ...	Patrol maintenance throughout	..	9·5
Lismore Road	Construction of floodways at 6·3, 6·8, 7·7 and 8·4 miles	..	—
,, ,, ...	Patrol maintenance throughout	..	10
Pitfield Road	Double coat sealing from 5·3 to 8·3 miles	..	3
,, ,, ...	Patrol maintenance throughout	..	12·6
HAMILTON TOWN—			
Ararat Road	Patrol maintenance throughout	..	·91
Coleraine Road	Patrol maintenance throughout	..	1·31
Hamilton Warrnambool Road ..	Road mix seal ⅜ inch	..	·51
,, ,, ,,	Patrol maintenance throughout	..	·51
Port Fairy Road	Road mix seal ⅜ inch	..	·3
,, ,, ...	Patrol maintenance throughout	..	·3
Portland Road	Patrol maintenance throughout	..	·5
HAMPDEN SHIRE—			
Camperdown–Ballarat Road ..	Road mix seal ⅜ in. x 16 ft. wide with scoria aggregate northerly from junction of Princes Highway	..	·39
,, ,, ,, ..	Widening existing pavement from 12 feet to 16 feet, scarifying, reshaping and resheeting with basaltic gravel and double coat sealing from ·39 to 1 mile north of junction with Princes Highway	..	·61
,, ,, ,, ..	Double coat sealing 12 feet wide on section reconstructed with crushed rock through stony rises from 4·3 to 6·74 miles south of Skipton	..	2·44
,, ,, ,, ..	Road-mix seal ⅜ in. x 10 ft. wide with quartz gravel aggregate from 2·95 to 5·65 miles north-east of Skipton	..	2·7
,, ,, ,, ..	Patrol maintenance throughout	..	48·4
Camperdown–Cobden Road ..	Construction between 1·18 and 1·6 miles south of junction with Princes Highway of 24-in. diameter and 15-in. diameter reinforced concrete pipes 44 feet long to replace existing stone culverts with timber decks; and 12-in. diameter reinforced concrete pipe 48 feet long	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	3·34
Caramut–Lismore Road	Patrol maintenance throughout	..	16
Cobden Terang Road	Patrol maintenance throughout	..	2·95
Lismore–Cressy Road	Road mix seal ¾-in. x 16-ft. wide with scoria aggregate from 1·8 to 2·3 miles east of junction with Camperdown–Ballarat Road	..	·5
,, ,, ,, ...	Extending masonry walls of existing culvert from 16 feet to 30 feet and construction of concrete centre wall and deck slab to culvert of 10 feet span at 7·3 miles east of junction with Camperdown–Ballarat Road	..	—
,, ,, ,, ...	Road mix seal ¾-in. x 10-ft. wide with quartz gravel aggregate from 10·6 to 14·7 miles east of junction with Camperdown–Ballarat Road	..	4·1
,, ,, ,, ..	Patrol maintenance throughout	..	18·79
McKinnon's Bridge Noorat Road ..	Road mix seal ¾-in. x 16-ft. wide with scoria aggregate from 0 to 2 miles and 3 to 3·85 miles north-west of junction with Princes Highway	..	2·85
,, ,, ,, ,, ..	Patrol maintenance throughout	..	3·85
Prince's Highway	Widening foundations from 16 feet to 20 feet, scarifying, reshaping and sheeting with basaltic gravel 33 feet wide and double coat sealing on centre 20 feet width in township of Camperdown	..	·24
,, ,, ...	Road mix seal ¾-in. x 20-ft. wide with scoria aggregate in township of Camperdown ..	..	·17
,, ,, ..	Road mix seal ¾-in. x 20-ft. wide with scoria aggregate in township of Terang	..	1·07
,, ,, ...	Patrol maintenance throughout in townships of Terang and Camperdown	..	2·63
Terang–Framlingham Road ..	Double coat sealing 16 feet wide on section sheeted with basaltic gravel in 1935–36 financial year westerly from Terang township boundary	..	·9
,, ,, ,, ..	Patrol maintenance throughout	..	1·6
Terang–Mortlake Road	Scarifying, reshaping, and sheeting with basaltic gravel, including reconstruction and transitioning of curves and double coat sealing northerly from junction with Princes Highway	..	2·73
,, ,, ,, ...	Road mix seal ¾-in. x 16-ft. wide with scoria aggregate from 3·5 to 3·85 miles north of junction with Princes Highway	..	·35
,, ,, ,, ...	Patrol maintenance throughout	..	7
	Carried forward	2·5	2,683·85

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	2·5	2,683·85
HEALESVILLE SHIRE—			
Healesville–Alexandra Road ..	Road mix seal from Shire Hall to Church Street	..	·23
,, ,, ,, ..	Road mix seal easterly from Shire Hall	..	·03
,, ,, ,, ..	Reconstruction and widening in modified macadam from chainage 160 feet east of Shire Hall to east of timber bridge, chainage 760 feet	..	·11
HEIDELBERG CITY—			
Greensborough–Hurstbridge Road ..	Carpeting with pre-mixed bituminous materials	..	4·11
,, ,, ,, ..	Strengthening and redecking of bridge over Diamond Creek	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	9·15
Heidelberg–Warrandyte Road ..	Patrol maintenance throughout	..	·48
Main Heidelberg–Eltham Road ..	Construction of pitched channel, ·32 miles	..	—
,, ,, ,, ,, ..	Construction of footbridge and approaches at Salt Creek	..	—
,, ,, ,, ,, ..	Patrol maintenance throughout	..	7·63
Main Whittlesea Road	Patrol maintenance throughout	..	1·19
HEYTESBURY SHIRE—			
Camperdown–Cobden Road ..	Road mix seal	..	·5
,, ,, ,, ..	Patrol maintenance	..	5
Cobden–Port Campbell–Princetown Road	Double coat sealing	..	3
,, ,, ,,	Reconstruction with crushed rock	..	1
,, ,, ,,	General maintenance	..	20
Cobden–Terang Road	Double coat sealing	..	2·2
,, ,, ,, ...	Gravelling shoulders	..	1
,, ,, ,, ...	Reconstruction with crushed rock	..	2·5
,, ,, ,, ...	General maintenance	..	12
Timboon–Nirranda Road	Reconstruction with gravel	..	1·7
,, ,, ,, ...	Patrol maintenance	..	8
Timboon–Port Campbell Road ..	Patrol maintenance	..	5
HORSHAM TOWN—			
Dimboola–Horsham Road ..	Widening from Natimuk Road to High School from 15 feet to 25 feet	..	·15
,, ,, ,, ..	General maintenance	..	2
Dooen Road	Shouldering metal from Palk Street to boundary	..	1
,, ,, ...	General maintenance	..	2·25
Hamilton Road	General maintenance	..	1·75
Natimuk Road	Modified macadam surfacing from Fechner Avenue to town boundary	..	·5
,, ,, ...	General maintenance	..	1·4
Western Highway	General maintenance	..	·75
INGLEWOOD BOROUGH—			
Bendigo–Charlton Road	General maintenance throughout	..	·57
KARA KARA SHIRE—			
Avoca–St. Arnaud Road	Realignment of section north of Stuart Mill	..	·52
,, ,, ,, ...	Patrol maintenance throughout	..	23
Charlton Road	Construction of reinforced concrete box culvert of two eight feet spans and approaches at Slaty Creek	..	·6
,, ,, ...	Realigning, reshaping, and gravel surfacing of existing metalling southerly from Shire boundary at Coonooer Bridge	..	1·31
,, ,, ...	Patrol maintenance throughout	..	10
Marnoo Road	Patrol maintenance throughout	..	2·1
Navarre Road	Patrol maintenance throughout	..	22
St. Arnaud–Donald Road ..	Road-mix seal on five sections	..	3·51
,, ,, ,, ..	Patrol maintenance throughout	..	17
KARKAROOC SHIRE—			
Hopetoun–Rainbow Road ..	Forming and metalling 12 feet wide with limestone at 4 miles	·58	..
,, ,, ,, ..	Constructing in limestone 700 feet radius curve at 10·5 miles	..	·25
,, ,, ,, ..	Patrol maintenance	..	24
Hopetoun–Warracknabeal Road ..	Resheeting and widening to 16 feet with limestone at 2·75 miles	..	2
,, ,, ,, ..	Resheeting and widening to 16 feet with limestone at 10 miles	..	1·34
,, ,, ,, ..	Double coat sealing at 16 miles, Beulah township	..	·76
,, ,, ,, ..	Patrol maintenance	..	20
Hopetoun – Woomelang – Sea Lake Road	Constructing in limestone metal 700 feet radius curves at 17·5, 19 and 21 miles ..	·77	..
,, ,,	Patrol maintenance	..	24
Rainbow–Beulah–Birchip Road ..	Double coat sealing ½ mile east of Beulah	..	1·27
,, ,, ,, ,, ..	Patrol maintenance	..	24
KILMORE SHIRE—			
Kilmore–Heathcote Road ..	Reforming, regrading and sanding from 2·42 to 3·71 miles	..	1·26
,, ,, ,, ..	Patrol maintenance	..	3·56
Kilmore–Kilmore East Road ..	Resheeting with gravel from George Street to racecourse and in sections between racecourse and Kilmore East railway station	..	·9
Kilmore–Kilmore East Road ..	Double coat sealing from George Street to Racecourse	..	·5
,, ,, ,, ..	General maintenance	..	2·26
Lancefield–Kilmore Road	Patrol maintenance	..	1·29
KILMORE AND PYALONG SHIRES (Joint Works)—			
Kilmore–Heathcote Road ..	Resheeting with granitic sand in sections between Boran's and Moranding Lane ..	..	·62
,, ,, ,, ..	Patrol maintenance	..	1·29
KILMORE AND ROMSEY SHIRES (Joint Works)—			
Lancefield–Kilmore Road ..	Resheeting with gravel in sections between Chapman's and Forbes Junction	..	·56
,, ,, ,, ..	Patrol maintenance	..	2·28
KOROIT BOROUGH—			
Koroit–Warrnambool Road ..	General maintenance throughout	..	6·25
KORONG SHIRE—			
Borung–Hurstwood Road ..	General maintenance throughout	..	7
Charlton–Bendigo Road	General maintenance throughout	..	1
Serpentine Road	General maintenance throughout	..	10·5
KORUMBURRA SHIRE—			
Bena–Kongwak Road	Scarifying, reshaping, and sheeting with fine crushed rock from 5·5 to 11·5 mile ..	..	6
,, ,, ,, ...	Road mix seal surfacing of bitumen surfaced section from 0 to ·76 mile	..	·76
,, ,, ,, ...	General maintenance throughout	..	11·5
Bena–Korumburra Road	Road mix seal surfacing of bitumen surfaced section at Bena	..	·14
,, ,, ,, ...	General maintenance throughout	..	3·2
Bena–Poowong Road	First seal (double seal coat), 4·93 to 5·07 miles	..	·14
,, ,, ,, ...	Road mix seal surfacing of bitumen surfaced section from 0 to 1 mile	..	1
,, ,, ,, ...	General maintenance throughout	..	6·01
Fairbank Road	Surfacing throughout with gravel and fine crushed rock	..	5·4
,, ,, ...	General maintenance throughout	..	5·4
	Carried forward	4·85	3,035·53

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	4·85	3,035·53
KORUMBURRA SHIRE—*continued.*			
Kongwak–Inverloch Road ..	Road mix seal surfacing of bitumen surfaced section from ·62 to 2·14 miles	..	1·52
,, ,, ,, ..	General maintenance throughout	..	6·8
Korumburra–Drouin Road ..	Road mix seal surfacing from 1·8 to 2·26 miles and 3·74 to 4·7 miles	..	1·42
,, ,, ,, ..	General maintenance throughout	..	4·7
Korumburra–Leongatha Road ..	General maintenance throughout	..	4·54
Korumburra–Warragul Road ..	Construction in modified macadam from ·47 to ·6 mile	..	·13
,, ,, ...	Regrading Watertrough Hill from ·62 to ·8 mile	..	·18
,, ,, ...	Reshaping bitumen cross section from ·8 to 1·8 miles and 2 to 2·4 miles	..	1·4
,, ,, ,, ..	Reconstruction in gravel and double seal coat work from 9·03 to 10·42 miles	..	1·39
,, ,, ,, ..	Road mix seal surfacing in three sections from ·33 to ·47 mile, ·6 to ·65 mile, and ·77 to 2·6 miles	..	2·02
,, ,, ,, ..	General maintenance throughout	..	12·23
Korumburra–Wonthaggi Road ..	Road mix seal from 0 to 1·25 miles, 1·52 to 1·88 miles, and 4·8 to 6·37 miles ..	..	3·18
,, ,, ,, ..	Reshaping bitumen cross section from 6·21 to 6·3 miles	..	·09
,, ,, ,, ..	General maintenance throughout	..	12·21
Lang Lang–Nyora Road ..	Road mix seal surfacing of bitumen from 0 to ·48 mile	..	·48
,, ,, ,, ..	Reconstruction in gravel and double coat sealing from ·48 to 1·48 miles	..	1
,, ,, ,, ..	General maintenance throughout	..	1·55
Loch–Nyora Road ..	Road mix seal surfacing of bitumen surfaced section from 0 to 1·04 miles	..	1·04
,, ,, ,, ..	General maintenance throughout	..	5·2
Loch–Wonthaggi Road ..	Double coat sealing on fine crushed rock section between existing bitumen surfaced sections	..	·1
,, ,, ,, ..	Road mix seal surfacing of bitumen surfaced section from 0 to 1 mile	..	1
,, ,, ,, ..	General maintenance throughout	..	4·64
Nyora–Poowong Road ..	Removal of bad foundations	..	1·75
,, ,, ,, ..	Road mix seal surfacing of bitumen from 0 to 1·75 and 5·75 to 6·08 miles	..	2·58
,, ,, ,, ..	General maintenance throughout	..	6·08
Poowong–Ranceby Road ..	Road mix seal surfacing of bitumen from 2·57 to 4·3 miles	..	1·73
,, ,, ,, ..	General maintenance throughout	..	4·3
KOWREE SHIRE—			
Booroopki Road	Forming various sections throughout	..	1·26
,, ,, ...	Gravelling various sections throughout	..	2·20
,, ,, ...	Patrol maintenance throughout	..	13·5
Booroopki–Frances Road ..	Forming sections between Allotment 43, Parish of Booroopki, and eastern end of road ..	..	·69
,, ,, ,, ..	Gravelling sections between Allotment 43, Parish of Booroopki, and eastern end of road ..	..	·28
,, ,, ,, ..	Patrol maintenance throughout	..	18
Edenhope–Goroke Road	Forming and gravelling various sections throughout	..	1·99
,, ,, ,, ..	Patrol maintenance throughout	..	28·5
Hamilton–Edenhope–Apsley Road ..	Forming and gravelling various sections throughout	..	3·55
,, ,, ,, ,, ..	Patrol maintenance throughout	..	41
Kaniva–Edenhope Road	Forming near Allotment 54, Parish of Minimay	..	·84
,, ,, ,, ...	Gravelling near Allotment 54, Parish of Minimay	..	·14
,, ,, ,, ...	Patrol maintenance throughout	..	14·5
Wombelano Road	Forming near Allotments 107 and 132, Parish of Toolongrook	..	1
,, ,, ...	Gravelling near Allotments 107 and 132, Parish of Toolongrook	..	·78
,, ,, ...	Patrol maintenance throughout	..	21
KYNETON SHIRE—			
Daylesford Road	Patrol maintenance throughout	..	·7
Daylesford–Trentham Road ..	Patrol maintenance throughout	..	2·5
Melbourne–Bendigo Road ..	Patrol maintenance throughout	..	1·75
Redesdale Road	Patrol maintenance throughout	..	6·25
Trentham Road	Patrol maintenance throughout	..	17·25
Tylden–Woodend Road ..	Patrol maintenance throughout	..	3·25
LAWLOIT SHIRE—			
Broughton Road	Resheeting with limestone from ·79 to ·89 mile and 1·05 to 1·14 miles	..	·19
,, ,, ...	Patrol maintenance throughout	..	9·9
Kaniva–Edenhope Road	Gravelling from 10·55 to 10·7 miles and 11·5 to 11·9 miles	..	·55
,, ,, ,, ..	Patrol maintenance throughout	..	12·1
Nhill–Kaniva Border Road ..	Patrol maintenance throughout	..	·7
South Lillimur Road	Patrol maintenance throughout	..	6·5
Yearinga Road	Resheeting with limestone from 3·75 to 1·7 miles	..	•·95
,, ,, ...	Patrol maintenance throughout	..	9·7
LEIGH SHIRE—			
Ballarat–Rokewood Road ..	Reconditioning north from Rokewood township	..	1
,, ,, ,, ..	Patrol maintenance	..	8
Cressy–Rokewood Road	Double coat sealing between Rokewood and Werneth railway stations	..	4
,, ,, ,, ..	Reconditioning, including realignment from Rokewood railway stations to township ..	..	3
,, ,, ,, ..	Patrol maintenance	..	11
Inverleigh–Cressy Road ..	Road mix seal easterly from Warrambine Creek Bridge	..	2·25
,, ,, ,, ..	Patrol maintenance	..	11·25
Inverleigh–Shelford Road ..	Patrol maintenance	..	6
Rokewood–Shelford Road ..	Reconditioning through Rokewood Township and redecking bridge	..	·5
,, ,, ,, ..	Patrol maintenance	..	17
Shelford–Bannockburn Road ..	Reconditioning westerly from Shire boundary and redecking Teesdale bridge	..	3·25
,, ,, ...	Patrol maintenance	..	6·75
Werneth Road	Patrol maintenance	..	3
LEIGH AND COLAC SHIRES (Joint Works)—			
Cressy–Inverleigh Road	Double coat sealing from junction with Rokewood Road easterly to Shire boundary ..	..	1
,, ,, ,, ..	Patrol maintenance	..	2·25
LENTON SHIRE—			
Avoca–Ararat Road	Patrol maintenance throughout	..	9·7
,, ,, ,, ..	Reconstruction and gravelling from 0 mile (Shire boundary) to 1·25 miles and 2·42 to 5·21 miles	..	4
,, ,, ,, ...	Patrol maintenance throughout	..	17
LILLYDALE SHIRE—			
Evelyn–Lilydale Road	Patrol maintenance throughout	..	3
Main Healesville Road	Pre-mix sealing in Lilydale township	..	1
Mount Dandenong Road	Reconstruction in crushed rock at Croydon	..	·8
,, ,, ,, ...	Double coat sealing at Croydon	..	1·37
,, ,, ,, ...	Patrol maintenance throughout	..	11·8
Monbulk Road	Double coat sealing gravel surface at Monbulk	..	1·42
,, ,, ...	Pre-mix sealing at Mount Evelyn	..	·8
,, ,, ...	Patrol maintenance throughout	..	8·2
Yarra Glen Road	Double coat sealing	..	·81
,, ,, ,, ...	Patrol maintenance throughout	..	4·6
LOWAN SHIRE—			
Dimboola–Kaniva Road	Patrol maintenance throughout	..	2·2
Goroke Road	Patrol maintenance throughout	..	6·7
Lorquon Road	Patrol maintenance throughout	..	5
Lorquon West Road	Patrol maintenance throughout	..	14
Yanac Road	Patrol maintenance throughout	..	18
	Carried forward	4·85	3,530·55

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	4·85	3,530·55
MAFFRA SHIRE—			
Boisdale–Briagolong Road ..	Forming, gravelling, and bitumen sealing near 2 miles	..	1
,, ,, ,, ..	Patrol maintenance balance of road	..	4
Briagolong Dargo Road	Forming, gravelling, and bitumen sealing near 5 miles	..	·5
,, ,, ,, ...	Patrol maintenance balance of road	..	5·5
Bushy Park–Valencia Creek Road ..	Forming, gravelling, and bitumen sealing near 3 miles	..	·5
,, ,, ,, ,, ..	Patrol maintenance balance of road	..	6·5
Licola Road	Widening from 15 to 17 miles	..	2
,, ,, ...	Forming and gravelling from 2 to 4 miles	..	2
,, ,, ...	Drag seal from 0 to 1·5 miles	..	1·5
,, ,, ...	Single coat sealing from 1·5 to 2·25 miles	..	·75
,, ,, ...	Patrol maintenance balance of road	..	33·75
Maffra–Newry Road	Forming, gravelling, and bitumen sealing near 2 miles	..	1
,, ,, ,, ...	Patrol maintenance balance of road	..	6
Maffra–Sale Road	Drag seal near 3 miles	..	1
,, ,, ,, ...	Patrol maintenance balance of road	..	6
Maffra–Stratford Road	Patrol maintenance	..	3
Tinamba–Boisdale Road	Drag seal near 2 miles	..	1·25
,, ,, ,, ...	Drag seal near 3 miles	..	1·1
,, ,, ,, ...	Construction of bridge at 4 miles	..	—
,, ,, ,, ...	Patrol maintenance balance of road	..	11·65
Tinamba–Newry Road	Patrol maintenance	..	3
Traralgon–Maffra Road	Forming and gravelling from 3 to 5 miles	..	2
,, ,, ...	Patrol maintenance balance of road	..	5
MALDON SHIRE—			
Baringhup Road	Patrol maintenance	..	4·25
Castlemaine–Maldon Road ..	Patrol maintenance	..	8·06
Maldon–Eddington Road	Road mix seal 20 feet wide	..	·62
,, ,, ,, ...	Patrol maintenance	..	15·2
Maldon Newstead Road	Patrol maintenance	..	4·25
MANSFIELD SHIRE—			
Benalla–Mansfield Road	General maintenance throughout	..	9
Euroa–Merton Road	General maintenance throughout	..	4·4
Maindample–Benalla Road ..	General maintenance throughout	..	5·5
Mansfield Road	General maintenance throughout	..	52
Mansfield–Tolmie Road	General maintenance throughout	..	5
Mansfield–Wood's Point Road ..	General maintenance throughout	..	18·5
Merton–Strathbogie Road ..	General maintenance throughout	..	6·6
MARONG SHIRE—			
Bendigo–Eddington Road ..	Reconditioning five floodways at East Shelbourne	..	·11
,, ,, ,, ..	Widening formation at East Shelbourne	..	·5
,, ,, ,, ..	Road mix seal on floodways at West Shelbourne	..	·13
,, ,, ,, ..	Construction of floodway at Kelly's	..	·04
,, ,, ,, ..	Reforming and sanding earth formation	..	·44
,, ,, ,, ..	Patrol maintenance	..	25
,, ,, ,, ..	Patrol maintenance	..	1·24
Bendigo Bridgewater			
MELTON SHIRE—			
Toolern Road	General maintenance, sheeting with crushed rock between Melton and Toolern ..	..	6
The Gap Road	General maintenance, sheeting with gravel between Sunbury and Calder Highway ..	..	·75
METCALFE SHIRE			
Kyneton Redesdale Road ..	Gravelling, repairing bridges, and renewing culverts	..	12
MILDURA CITY—			
Deakin Avenue	Construction of concrete channels and kerbs from 13th Street to 10th Street, ·44 miles	..	—
,, ,, ...	General maintenance from 14th Street to 13th Street	..	·56
,, ,, ...	Bitumen surfacing from 9th Street to Punt Road	..	·28
Langtree Avenue	General maintenance from 10th Street to 9th Street	..	·14
,, ,, ...	General maintenance from Deakin Avenue to Langtree Avenue	..	·08
Mildura–Tenth Street	General maintenance from Langtree Avenue to Cureton Avenue	..	·48
Punt Road			
MILDURA SHIRE—			
Deakin Avenue	General maintenance	..	·81
Irymple Road	Bituminous sealing and general maintenance from Deakin Avenue to Ginquam Avenue	..	4·87
Melbourne Road	General maintenance of bitumen surfaced roadway, and backing up between Main Channel south of Red Cliffs and north railway crossing	..	1
Wentworth Road	General maintenance and road-mix seal between 15th Street and the Abbotsford Bridge over the Murray River	..	15·5
MINHAMITE SHIRE—			
Hamilton–Macarthur–Port Fairy Road	Widening to 15 feet, resheeting with crushed rock, and road-mix seal near Orford ..	..	1
,, ,, ,, ,,	Patrol maintenance throughout	..	17
Warrnambool–Hawkesdale–Penshurst Road	Widening to 15 feet, resheeting with crushed rock, and road-mix seal near Warrong ..	..	1
,, ,, ,, ,,	Patrol maintenance throughout	..	22
Woolsthorpe–Bessiebelle Road ..	Forming and gravelling 15 feet wide tapered section east of Hamilton-Port Fairy Road in Parish of Broadwater	..	5
,, ,, ,, ..	Patrol maintenance throughout	..	29
MIRBOO SHIRE—			
Grand Ridge Road	Reshaping pavement and double coat sealing westerly from township of Mirboo North	..	1·6
,, ,, ...	Patrol maintenance throughout	..	6
Mardan Road	Double coat bitumen sealing through Allotments 34 and 51A, Parish of Mardan ..	..	1
,, ,, ...	Patrol maintenance throughout	..	4·6
Mirboo–Leongatha Road	Double coat bitumen sealing terminating at shire boundary	..	·89
,, ,, ,, ...	Widening of formation from Allotment 13, Parish of Mardan	..	2·1
,, ,, ,, ...	Patrol maintenance throughout	..	4·4
Mirboo South Road	Superelevation of curves with sand and double coat bitumen sealing on same, near Allotments 71 and 71B, Parish of Mirboo	..	·41
,, ,, ,, ...	Road mix seal, near Mirboo North Township	..	·25
,, ,, ,, ...	Road mix seal at summit and foot of Cain's Hill	..	1·24
,, ,, ,, ...	Patrol maintenance throughout, repairs to bridge over Tarwin River at Mirboo Township, benching curves on Cain's Hill	..	9·5
Mirboo–Yarragon Road	Patrol maintenance throughout	..	5·7
Morwell–Mirboo Road	Road mix seal from Mirboo North Township to Allotment 24, Parish of Mirboo ..	..	1·65
,, ,, ...	Patrol maintenance throughout	..	5·5
MOORABBIN CITY—			
Centre Dandenong Road	General maintenance throughout	..	2·9
Point Nepean Road	Reconstruction with crushed rock and widening from 25 feet to 30 feet between Centre Dandenong Road and Latrobe Street	..	·69
,, ,, ,, ...	General maintenance from South Road to Centre Dandenong Road	..	2·55
	Carried forward	4·85	3,958·84

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	4·85	3,958·84
MORDIALLOC CITY—			
Beach Road (O.M.)	Patrol maintenance throughout		3·2
Point Nepean Road	Patrol maintenance throughout		2·9
MORNINGTON SHIRE—			
Mornington–Dromana Road	Realignment, reconstruction with granitic gravel and double coat sealing		3·07
" " "	Patrol maintenance		6·5
Point Nepean Road	Patrol maintenance		9·5
MORTLAKE SHIRE—			
Caramut–Lismore Road	Road mix seal on Mortlake–Darlington section from 11·87 to 12·85 miles from Mortlake		·97
" " "	Road mix seal on Mortlake–Hexham section from ·61 to 5·62 miles from Mortlake		5·01
" " "	Road mix seal on Hexham–Caramut section from ·46 to 1·12 miles from Hexham		·66
" " "	Patrol maintenance throughout		29
Mortlake–Ararat Road	Road mix seal on Woorndoo–Bolac section from Woorndoo to 3·31 miles towards Bolac		3·25
" " "	Patrol maintenance throughout		24
Mortlake–Warrnambool Road	Patrol maintenance throughout		14
Terang–Framlingham Road	Road mix seal from 6 to 11·26 miles from Terang		5·26
" " "	Patrol maintenance throughout		11
Terang–Mortlake Road	Patrol maintenance throughout		7
MORWELL SHIRE—			
Jeeralang–West Road	Reconstruction and sealing		2·55
" " "	General maintenance throughout		23·5
Jumbuk Road	Reconstruction and sealing		1·2
" " "	General maintenance throughout		12·5
Morwell–Mirboo Road	Construction of bridge over Eel Hole Creek together with approaches		·46
" " "	General maintenance		9·14
Prince's Highway	General maintenance throughout		1·5
MOUNT ROUSE SHIRE—			
Ballarat–Hamilton Road	Scarifying, reforming, and double coat sealing on waterbound macadam between Dunkeld and Glenthompson		·94
" " "	Road mix seal between Dunkeld and 8·93 miles to Glenthompson		3·12
" " "	Gravelling between ·15 and 9·3 miles from Glenthompson to Wickliffe		4·6
" " "	Construction of timber superstructure to culvert at 6 miles from Glenthompson to Wickliffe		—
" " "	Patrol maintenance throughout		21
Hamilton–Dunkeld Road	Patrol maintenance throughout		4
Hamilton–Penshurst Road	Road mix seal between 2·14 and 7·84 miles from Penshurst to Hamilton		2·07
" " "	Patrol maintenance throughout		14
Maroona–Glenthompson Road	Gravelling 16 feet wide between 0 and ·68 mile from Glenthompson		·68
" " "	Patrol maintenance throughout		1
Penshurst–Caramut Road	Modified macadam surfacing between 8·75 and 12·04 miles from Penshurst to Caramut		2·07
" " "	Road mix seal between 8·5 and 13·91 miles		1·91
" " "	Patrol maintenance throughout		15
MULGRAVE SHIRE—			
Ferntree Gully Road	Scarifying and surfacing with crushed rock from 0 to 1 mile and 2 to 2·5 miles		1·5
" " "	Patrol maintenance throughout		5·75
Springvale Road	Patrol maintenance throughout		5
NARRACAN SHIRE—			
Allambee–Childers Road	Patrol maintenance and removal of landslips		8·5
Childers–Thorpdale Road	Patrol maintenance		1·5
Mirboo–Yarragon Road	Patrol maintenance, removal of landslips, and curve improvement		6·5
Moe–Yallourn Road	Patrol maintenance		2
Princes Highway	Patrol maintenance		1·5
Trafalgar–Thorpdale Road	Realigning, resurfacing with sand where necessary, and widening and banking on curves, and bitumen sealing 16 feet wide		1·22
" " "	Patrol maintenance		9
Walhalla Road	Sand sheeting and bitumen surfacing 16 feet wide, and banking and widening on curves		1
" " "	Patrol maintenance and resheeting where necessary		32
Willowgrove Road	Sand sheeting and bitumen sealing 16 feet wide		2
" " "	Patrol maintenance and sand and loam sheeting		22
Yarragon–Leongatha Road	Realigning and resheeting where necessary, widening and banking on curves, and bitumen sealing 12 feet wide		1
" " "	Patrol maintenance		9
Yarragon–Shady Creek Road	Sand sheeting and bitumen sealing 12 feet wide		1
" " "	Patrol maintenance		6
NEWHAM AND WOODEND SHIRE—			
Lancefield Road	General maintenance throughout		9·25
Mount Macedon Road	Sealing 1 mile easterly from Woodend		1
" " "	General maintenance throughout		5·25
Tylden Road	General maintenance throughout		3·2
NEWHAM AND WOODEND AND KYNETON SHIRES (Joint Works)—			
Tylden Road	General maintenance throughout		1·2
NEWSTEAD AND MOUNT ALEXANDER SHIRE—			
Castlemaine–Daylesford Road	Reforming, gravelling, &c., and bitumen surfacing		1·44
" " "	Patrol maintenance		7·3
Creswick Road	Reforming, gravelling, &c., and bitumen surfacing		2
" " "	Patrol maintenance		10
Maldon Road	Reforming, gravelling, &c., and bitumen surfacing		1
" " "	Patrol maintenance		4
NUMURKAH SHIRE—			
Echuca–Picola Road	Forming and loaming easterly from 4 miles		·78
" " "	Forming and loaming easterly from 5 miles		·72
" " "	Forming and loaming northerly from 10 miles		·54
" " "	Forming and loaming northerly from 9 miles		·71
" " "	Patrol maintenance from 0 to 5 miles		5
" " "	General maintenance		17·2
Nathalia–Picola Road	Patrol maintenance throughout		7·8
Numurkah–Nathalia Road	Patrol maintenance throughout		15·9
Numurkah–Tungamah Road	Patrol maintenance throughout		5
Shepparton–Numurkah–Cobram Road	Double coat sealing in Melville Street, Numurkah		·43
" " "	Patrol maintenance throughout		20·6
OAKLEIGH CITY—			
Ferntree Gully Road	General maintenance		·48
Prince's Highway	Reconstruction between Atkinson Street and Ferntree Gully Road		·31
" "	General maintenance		1·12
OAKLEIGH AND MOORABBIN CITIES (Joint Works)—			
Warrigal Road (O.M.)	General maintenance		1
	Carried forward	4·85	4,445·1

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	4·85	4,445·1
OMEO SHIRE—			
Benambra Road	Patrol maintenance, gravel sheeting and benching and superelevating on curves between 0 and 6 miles	..	13
Day Avenue	Benching, superelevating and realigning from 1·4 to 1·55 miles	..	·15
,, ,, ...	Reconstruction of foundations of concrete bridge over Livingstone Creek at 1·55 miles ..	..	—
,, ,, ...	Patrol maintenance including gravel sheeting	..	1·75
Swift's Creek–Omeo Road ..	Benching, superelevating and realigning from 6·3 to 6·5 miles	..	·2
,, ,, ,, ,, ..	Construction of 20 ft. span timber bridge and approaches from 11·33 to 11·6 miles ..	..	·27
,, ,, ,, ,, ..	Forming and gravelling from 15·55 to 15·8 miles	..	·25
,, ,, ,, ,, ..	Patrol maintenance and construction of reinforced concrete pipe culverts in lieu of open crossings	..	20
OMEO AND BRIGHT SHIRES (Joint Works)—			
Bright–Omeo Road	Widening, benching, and superelevating on curves between Omeo and Mountain Creek	..	·25
,, ,, ,, ...	Patrol maintenance throughout	..	33
ORBOST SHIRE—			
Combienbar Road	Patrol maintenance, reconditioning of bridges	..	8·5
Marlo Road	Road mix seal, 13 feet wide between Snowy River Bridge and Gilbert's Gulch ..	..	·65
,, ...	General maintenance	..	10·2
Prince's Highway	Road mix seal, 18 feet wide in Salisbury Street	..	·2
,, ,, ...	Resheeting, widening, and sealing in Nicholson Street	..	·35
,, ,, ...	General maintenance	..	1·32
OTWAY SHIRE—			
Beech Forest–Apollo Bay Road ..	Scarifying and resheeting with crushed rock and double coat sealing from chainage 6,000 feet to 13,500 feet at Barham Forks	..	1·4
,, ,, ,, ,, ,, ..	Patrol maintenance from Apollo Bay towards Beech Forest	..	7
Cape Patten Road	Widening, superelevating curves and resheeting with fine crushed rock from Petticoat Creek to existing bitumen surfaced section near Sugarloaf Creek	..	4·45
,, ,, ,, ...	General maintenance from Wild Dog Creek to J. Wood's	..	8
Carlisle–Gellibrand Road	Patrol maintenance throughout	..	11
Colac–Beech Forest Road ..	Patrol maintenance throughout	..	4
Colac–Forrest Road	Double coat sealing on existing fine crushed rock surface from chainage 59,400 feet to 71,000 feet	..	2·2
,, ,, ,, ...	Road mix seal from chainage 55,400 feet to 59,400 feet	..	·76
,, ,, ,, ...	Patrol maintenance from shire boundary to Forrest	..	3·8
Forrest–Apollo Bay Road ..	Double coat sealing near Barramunga from chainage 23,000 feet to 29,000 feet ..	..	1·14
,, ,, ,, ,, ..	Widening, scarifying, and resheeting with crushed rock from chainage 29,000 feet to 35,000 feet	..	1·42
,, ,, ,, ..	Patrol maintenance throughout	..	25
Laver's Hill–Princetown Road ..	Patrol maintenance	..	23
Mount Sabine–Laver's Hill Road ..	Patrol maintenance throughout	..	25
OXLEY SHIRE—			
Bright Road	General maintenance, forming, gravelling and reconstruction of three timber bridges ..	..	25
Greta–Glenrowan Road	General maintenance	..	6
Kelfeera–Boggy Creek Road ..	Reconstruction and gravelling	..	2·5
Wangaratta–Whitfield Road ..	Reconstruction	..	4
,, ,, ,, ..	Sealing	..	1·5
,, ,, ,, ..	General maintenance	..	28
PHILLIP ISLAND SHIRE—			
Newhaven Road	General maintenance throughout	..	7·75
Phillip Island Road	General maintenance throughout	..	1·25
Ventnor Road	General maintenance throughout	..	5·75
PORT FAIRY BOROUGH—			
Hamilton Road	General maintenance throughout	..	1·4
PORTLAND SHIRE—			
Bridgewater Road	Patrol maintenance throughout	..	10·5
Heath Road	Patrol maintenance throughout	..	10·8
Portland–Casterton Road	Sheeting and reforming north of Drumborg	..	2·5
,, ,, ,, ...	Patrol maintenance throughout	..	20·85
Portland–Hamilton Road	Sheeting, reforming and bituminous surfacing at Bolwarra	..	1·44
,, ,, ,, ...	Patrol maintenance throughout	..	28·8
PRESTON CITY—			
Epping Road	Construction of box culvert at Keon Park	..	—
Epping Road (O.M.)	Widening shoulders between Murray Road and Edgar Street	..	·6
,, ,, ...	Duplicating water mains between Murray Road and Edgar Street, ·6 miles	..	—
Whittlesea Road	Widening between Ethel Grove and Darebin Creek Bridge	..	1·3
PYALONG SHIRE—			
Kilmore–Heathcote–Bendigo Road ..	Resheeting with granitic sand from shire boundary to High Camp Railway Station ..	..	·5
,, ,, ,, ,, ..	Patrol maintenance	..	11·34
Lancefield–Tooborac Road ..	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	General maintenance throughout	..	·78
RINGWOOD BOROUGH—			
Main Healesville Road	Reconstruction and widening to 30 feet	..	·6
,, ,, ,, ...	General maintenance	..	3·24
Mount Dandenong Road	Realignment and widening to 20 feet	..	·5
,, ,, ,, ...	General maintenance	..	1·75
Ringwood–Warrandyte Road ..	Widening from 16 feet to 20 feet	..	·4
,, ,, ,, ..	Patrol maintenance	..	1
RIPON SHIRE—			
Ballarat–Ararat Road	General maintenance throughout	..	1·4
Ballarat–Hamilton Road	Widening to 16 feet, and ⅛ in. road mix seal from ·79 to 1·77 miles, and 13·65 to 16·26 miles	..	3·59
,, ,, ,, ...	Patrol maintenance throughout	..	16·26
Skipton Road	Realignment from ·66 to 1·02 miles	..	·36
,, ,, ...	Road mix seal, ⅛ in., from 4·52 to 6·15 miles	..	1·63
,, ,, ...	Double coat sealing, from 2·74 to 3·74 miles, 12 feet to 14 feet wide	..	1
,, ,, ...	Double coat sealing, from 12·53 to 13·61 miles, 12 feet wide	..	1·08
,, ,, ...	Patrol maintenance throughout	..	18·67
	Carried forward	4·85	4,893·74

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	4·85	4,893·74
ROCHESTER SHIRE—			
Bendigo–Echuca Road	General maintenance	..	·88
Corop Road	Patrol maintenance throughout	..	5·5
Rochester–Bamawm Prairie Road ..	Sealing between Rochester and Lockington	..	2·72
,, ,, ,, ,, ..	Patrol maintenance throughout	..	27·5
Timmering Road	Sealing near eastern shire boundary	..	1·04
,, ,, ...	Patrol maintenance throughout	..	4·5
RODNEY SHIRE—			
Kyabram–Nathalia Road	Gravel widening of existing bitumen pavement north of Kyabram	..	·84
,, ,, ,, ...	General maintenance throughout	..	1
Kyabram–Tongala Road	Double coat sealing through Kyabram Township	..	·63
,, ,, ,, ...	General maintenance throughout	..	1
Mooroopna–Undera Road	Modified macadam reconstruction 3 miles north of Mooroopna	..	·51
,, ,, ,, ...	Reshouldering of existing bitumen pavement northerly from Mooroopna	..	2·98
,, ,, ,, ...	General maintenance throughout	..	8
Shepparton–Tatura Road	Gravel widening of existing bitumen pavement through Mooroopna Township ..	..	·72
,, ,, ,, ...	Gravel widening of existing bitumen pavement, 2·5 miles west of Mooroopna ..	..	1
,, ,, ,, ...	General maintenance throughout	..	10
Tatura Byrneside–Kyabram Road ..	Modified macadam reconstruction south of Merrigum	..	1·62
,, ,, ,, ,, ..	Gravel widening of existing bitumen pavement east of Kyabram	..	1
,, ,, ,, ,, ..	Road mix seal, 1 in., near Byrneside	..	·25
,, ,, ,, ,, ..	Reshouldering of existing pavement north of Merrigum	..	2·25
,, ,, ,, ,, ..	General maintenance throughout	..	16·5
Tatura Murchison Road	Road mix seal, ½ in., northerly from Murchison	..	3
,, ,, ,, ...	Reshouldering of existing pavement south of Tatura	..	2
,, ,, ,, ...	General maintenance throughout	..	13
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—			
Shepparton–Tatura Road ..	General maintenance throughout, painting handrails on bridges	..	1·8
ROMSEY SHIRE—			
Lancefield–Kilmore Road ..	Regrading and gravelling at Mount William	..	·16
,, ,, ,, ..	Reconditioning with gravel at Forbes	..	·33
,, ,, ,, ..	Patrol maintenance	..	9·71
Lancefield–Tooborac Road ..	Patrol maintenance	..	4·31
Melbourne–Lancefield Road ..	Sealing southerly from Lancefield	..	2·54
,, ,, ,, ..	General maintenance	..	15·75
Woodend–Lancefield Road ..	Patrol maintenance	..	5·62
ROSEDALE SHIRE—			
Prince's Highway	General maintenance throughout	..	·9
Seaspray Road	Patrol maintenance throughout	..	15·75
Traralgon–Gormandale Road ..	Patrol maintenance throughout	..	4·53
Traralgon–Maffra Road	Double coat sealing at Glengarry	..	·75
,, ,, ,, ...	Double coat sealing at Cowwarr	..	·75
,, ,, ,, ...	Patrol maintenance throughout	..	21
Willung Road	Patrol maintenance throughout	..	8
ROSEDALE AND ALBERTON SHIRES (Joint Works)—			
Carrajung–Gormandale Road ..	Patrol maintenance throughout	..	·75
RUTHERGLEN SHIRE—			
Barnawartha–Howlong Road ..	Resheeting westerly from Shire boundary	..	·66
,, ,, ,, ..	Patrol maintenance throughout	..	1·6
Chiltern–Howlong Road	Resheeting near Murray River	..	1·75
,, ,, ,, ...	Patrol maintenance throughout	..	4·6
Murray Valley Road	Patrol maintenance throughout	..	·79
Rutherglen–Wahgunyah Road ..	Patrol maintenance throughout	..	5·9
SALE TOWN—			
Prince's Highway	Double coat sealing on York Street section	..	1
,, ,, ...	Road mix seal from Post Office to York Street, and from Raglan Street to north boundary of town	..	·45
,, ,, ...	Patrol maintenance throughout	..	1·94
SANDRINGHAM CITY—			
Beach Road (O.M.)	Construction of bituminous surface from ·59 to 2·11 miles, and 3·38 to 3·9 miles ..	2·04	..
,, ,, ,, ...	Resheeting old macadam with drag spread bituminous surface from ·31 to 3·38 miles ..	..	·28
,, ,, ,, ...	Reconstruction of footpaths from ·32 to ·76 miles, ·96 to 1·23 miles, 1·46 to 2·11 miles, and 3·38 to 3·74 miles, a total length of 1·59 miles	—	..
,, ,, ,, ...	Reconstruction of 5·5 miles of fencing	..	—
,, ,, ,, ...	Patrol maintenance throughout	..	5·84
SEBASTOPOL BOROUGH—			
Ballarat–Hamilton Road	Patrol maintenance throughout	..	·84
Ballarat–Rokewood Road ..	Road mix seal from Rubicon Street to George Street	..	·3
,, ,, ,, ..	Grading of watertables, constructing collecting wells and drainage under tram track, 1·64 miles	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	2·35
SEYMOUR SHIRE—			
Avenel–Longwood Road	General maintenance	..	5·5
Highlands Road	General maintenance	..	16
Seymour–Yea Road	General maintenance	..	7
Upper Goulburn Road	General maintenance	..	11·4
SHEPPARTON SHIRE—			
Dookie–Nalinga Road	General maintenance	..	7·75
Dookie–Violet Town Road ..	General maintenance	..	·1
Katandra Road	General maintenance	..	7·77
Pine Lodge Road	General maintenance	..	3·57
Shepparton–Nagambie Road ..	General maintenance	..	9·38
Shepparton–Nalinga Road ..	General maintenance	..	·4
Shepparton–Numurkah Road ..	General maintenance	..	·12
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 ..	Road mix seal southerly from Borough boundary	..	1·86
,, ,, ,, ..	Patrol maintenance throughout	..	2·5
	Carried forward	5·89	5,200·58

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	5·89	5,200·58
SOUTH BARWON SHIRE—			
Barwon Heads Road	Road mix seal, ¾-in., from Princes Highway junction to Bayley Street		·5
" " "	Road mix seal, 1-in., from Boundary Road towards Geelong		·87
" " "	Road mix seal, 1-in., 1 mile from Barwon Heads towards Geelong		2·5
" " "	Patrol maintenance on road and Barwon Heads bridge and approach		12
Prince's Highway	Reconditioning and pre-mix surfacing Barwon bridge approach		·34
" "	Patrol maintenance		1
Torquay Road	Road mix seal, ¾-in., from Grovedale railway crossing to Boundary Road		·5
" "	Construction of 4 feet concrete channel and 12 inch kerb on west side of road, ·19 miles		—
" "	Road mix seal, ¾-in., from Princes Highway to Waurn Ponds bridge		1·25
" "	Patrol maintenance		3·5
SOUTH BARWON AND BARRABOOL SHIRES (Joint Works)—			
Torquay Road	Road mix seal, ¾-in., between 6 and 8 miles		1·5
" "	Road mix seal, ¾-in., between 9 and 12 miles		2·25
" "	General patrol maintenance, drainage and fencing deviation between 11 and 12 miles		8·5
SOUTH GIPPSLAND SHIRE—			
Albert River–Welshpool Road	General maintenance throughout		1·7
Boolarra–Foster Road	General maintenance throughout		8
Boolarra–Welshpool Road	General maintenance throughout		11·8
Falls Road	General maintenance throughout		5
Foster–Yarram Road	General maintenance throughout		18
Hazel Park Road	General maintenance throughout		4·89
Main South Gippsland Road	General maintenance throughout		13·25
Stony Creek–Dollar Road	General maintenance throughout		6·84
Toora–Gunyah Road	General maintenance throughout		12
Toora–Wonyip Road	General maintenance throughout		5
Turton's Creek Road	General maintenance throughout		5
SOUTH GIPPSLAND AND WOORAYL SHIRE (Joint Works)—			
Dollar–Stony Creek Road	General maintenance throughout		2
Main South Gippsland Road	General maintenance throughout		·74
STAWELL BOROUGH—			
Ararat–Stawell Road	Road mix seal		·6
" " "	General maintenance		1·5
Glenorchy Road	Road mix seal		6
" "	General maintenance		·75
STAWELL SHIRE—			
Horsham–Wal Wal Road	General maintenance		2·5
Landsborough Road	General maintenance		5
Marnoo Road	Permanent construction	·17	—
" "	General maintenance		35
Marnoo–Rupanyup Road	General maintenance		5
Navarre Road	Permanent construction	2·3	—
" "	General maintenance		21
Stawell–Glenorchy–Horsham Road	General maintenance		21
Stawell–Warracknabeal Road	General maintenance		7
STRATHFIELDSAYE SHIRE—			
Heathcote–Bendigo Road	Gravelling 16 feet wide and double coat sealing 1 mile east of Bendigo City boundary		1
" " "	Patrol maintenance		11
Mandurang Road	Patrol maintenance throughout		8
Strathfieldsaye Road	Gravelling 16 feet wide 6 miles east of Bendigo City boundary		·75
" "	Patrol maintenance throughout		8
SWAN HILL SHIRE—			
Annuello–Wemen Road	Patrol maintenance		16
Euston Road	Road mix seal		·7
" "	Patrol maintenance		3
Nyah–Onyen Road	Patrol maintenance		49
Piangil Station Road	General maintenance		1·02
Swan Hill Road	Patrol maintenance		1·25
Tooleybuc Road	General maintenance		2
Ultima Road	Patrol maintenance		20
Ultima–Scalake Road	Patrol maintenance		16
TALBOT SHIRE—			
Maryborough–Avoca Road	General maintenance throughout		·82
Maryborough–Ballarat Road	General maintenance throughout		17·6
TAMBO SHIRE—			
Bairnsdale–Bruthen Road	Double coat sealing in Bruthen township		·3
" " "	General maintenance		·6
Basin Road	Patrol maintenance		10·2
Bruthen–Omeo Road	Patrol maintenance		·8
Mossiface Road	Construction of junction with Omeo Highway		·07
" "	Patrol maintenance		2
Nowa Nowa–Buchan–Gelantipy Road	Realignment of curves		·3
" " "	Resheeting		1
" " "	General maintenance		33
TOWONG SHIRE—			
Murray Valley Road	Patrol maintenance		20·3
Omeo Road	Repairing flood damages and sealing west of Tallangatta		·82
" "	Road mix seal, Tallangatta Main Street		·49
" "	Patrol maintenance		1·35
TRARALGON SHIRE—			
Princes Highway	Widening pavement to 18 feet and double coat sealing		·4
" "	Patrol maintenance throughout		1·05
Traralgon–Balook Road	Patrol maintenance throughout		12·25
Traralgon Creek Road	Widening pavement to 16 feet and double coat sealing		·2
" " "	Patrol maintenance throughout, painting handrails of three bridges		16
Traralgon–Gormandale Road	Patrol maintenance throughout		6·9
Traralgon–Maffra Road	Completion of Scarne Bridge over Latrobe River and painting handrials of two bridges		—
" " "	Road mix seal on floodway 18 feet wide		·15
" " "	Patrol maintenance throughout		3
Tyers Road	Double coat sealing on gravel 13 feet and 16 feet wide		1·3
" "	Patrol maintenance throughout, provision of running board on Bluff Causeway and painting handrails of three bridges		7·75
TULLAROOP SHIRE—			
Avoca Road	Provision of running boards on timber bridge, widening narrow cutting and embankment		·2
" "	Patrol maintenance throughout		9·2
Ballarat Road	Patrol maintenance throughout		3·1
Dunolly Road	Patrol maintenance throughout		·8
	Carried forward	8·36	5,719·13

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	8·36	5,719·13
TULLAROOP SHIRE—*continued.*			
Eddington Road	Double coat sealing 16 feet wide	..	2
" "	Patrol maintenance throughout	..	13·9
Maryborough–Dunolly Road ..	Patrol maintenance throughout	..	3·4
Natte Yallock Road	Reconstruction with gravel pavement, transitioning curves and construction of three reinforced concrete pipe and box culverts	..	4·2
" "	Patrol maintenance throughout	..	7·25
TUNGAMAH SHIRE—			
Cobram–Katamatite Road ..	Patrol maintenance	..	1·02
Cobram South Road	Patrol maintenance	..	4·36
Numurkah–Tungamah–Wilby Road	Patrol maintenance	..	30·7
St. James Road	Patrol maintenance	..	8·98
UPPER MURRAY SHIRE—			
Corryong Road	Road mix seal from Cudgewa to Colac Colac Bridge	..	3·9
" "	Priming and sealing between Colac Colac Bridge and Colac Colac School	..	1·53
" "	Road mix seal in the town of Corryong	..	1·08
" "	Patrol maintenance throughout	..	13·5
Tintaldra Road	Priming and sealing in township of Cudgewa	..	·09
" "	Patrol maintenance throughout	..	14·25
UPPER YARRA SHIRE—			
Don Road	General maintenance throughout	..	1·15
Little Yarra Road	General maintenance throughout	..	10·2
Warburton Road	Bitumen resealing by road mix seal from Woori Yallock Creek to western railway crossing at Launching Place	..	5·29
" "	Reconstruction with crushed rock and bitumen sealing near river east of Millgrove township	..	·1
" "	Reconstruction with crushed rock and bitumen sealing at Warburton between Brisbane's Bridge and La La railway crossing	..	·16
" "	General maintenance from Shire boundary at Woori Yallock Creek to Pocknee's Corner at Warburton	..	1
VIOLET TOWN SHIRE—			
Murchison–Violet Town Road ..	Priming and sealing in township of Violet Town	..	·55
" " " ..	Patrol maintenance	..	6·6
Violet Town–Dookie Road ..	Patrol maintenance	..	16·35
WALPEUP SHIRE—			
Mildura Road	Scarifying, reshaping and resheeting through Ouyen township	..	·63
Ouyen–Pinnaroo Road	Scarifying, reshaping and consolidation sections between Ouyen and Tutye	..	5·55
WANGARATTA BOROUGH—			
Beechworth Road	General maintenance	..	1
Sydney Road	General maintenance	..	2·73
WANGARATTA SHIRE—			
Beechworth Road	Patrol maintenance throughout	..	11
Peechelba Road	Patrol maintenance throughout	..	1·5
Wangaratta–Myrtleford Road ..	Patrol maintenance throughout	..	6·5
WANNON SHIRE—			
Coleraine–Harrow Apsley Road ..	Gravel sheeting from 4·5 to 8 miles	..	3·6
" " " " ..	Patrol maintenance throughout	..	35
Hamilton–Coleraine–Casterton Road	Gravel sheeting from 8 to 9 miles	..	·84
" " " "	Patrol maintenance throughout	..	16
Wannon Bridge Road	Gravel sheeting from H. Williams's to McLean's bridge	..	2·6
" " "	Double coat bitumen surfacing from McLean's bridge to Wannon River	..	1·28
" " "	Patrol maintenance throughout	..	6
WANNON AND GLENELG SHIRES (Joint Works)—			
Hamilton–Coleraine–Casterton Road	Double coat bitumen surfacing throughout	..	2·12
" " " "	General maintenance throughout	..	2·12
WARANGA SHIRE—			
Colbinabbin–Moora Road ..	Sheeting and flanking at Wanalta	..	2·16
" " " ..	Sheeting and flanking west of Moora	..	1·27
" " " ..	General maintenance	..	8
Elmore–Colbinabbin Road ..	Forming and gravelling at Colbinabbin West	..	2·11
" " " ..	Forming and gravelling near 6 cross roads at Runnymede	..	1·56
" " " ..	Double coat sealing at Colbinabbin West	..	2·37
" " " ..	General maintenance	..	11
Heathcote–Elmore Road	Sheeting and flanking south of Myola	..	1·27
" " "	Forming and gravelling near Runnymede	..	1·18
" " "	Forming and gravelling south of Myola	..	1·88
" " "	Forming and gravelling south of Toolleen	..	·85
" " "	Double coat sealing on above section	..	7·6
" " "	Patrol maintenance	..	20
Murchison–Rushworth Road ..	Reforming and gravelling at Rushworth	..	1·5
" " " ..	Double coat sealing at Rushworth	..	1·5
" " " ..	General maintenance	..	16
Rushworth–Stanhope Road ..	Sheeting, flanking and double coat sealing at Rushworth	..	3
" " " ..	General maintenance	..	12
Tatura Road	Forming and gravelling at Murchison	..	1·09
" "	Double coat sealing	..	1·05
" "	Patrol maintenance	..	1·09
WARRAGUL SHIRE—			
Bloomfield Road	Road mix seal ¼-in. x 16-ft. wide from 3·5 to 4 miles	..	·5
" "	Patrol maintenance throughout	..	8
Brandy Creek Road	Road mix seal ¼-in. x 16-ft. wide between 2 and 3 miles	..	·75
" "	Road mix seal ½-in. x 12-ft. wide between 6 and 8 miles	..	1
" "	Patrol maintenance throughout	..	8·2
Darnum–Allambee Road	Patrol maintenance throughout	..	8
Prince's Highway	Patrol maintenance throughout, construction of guard fencing ·11 miles	..	1·05
Warragul–Korumburra Road ..	Road mix seal ½-in. x 15-ft. wide between approximately 7·5 and 8·5 miles	..	2
" " " ..	Road mix seal ½-in. x 16-ft. wide between ·5 and 1·5 miles	..	1
" " " ..	Sealing 12 feet wide between 12 and 14·5 miles	..	2·5
" " " ..	Reshaping, superelevating and resheeting with sand between 12 and 14·5 miles	..	2·5
" " " ..	Patrol maintenance throughout	..	14·5
Warragul–Leongatha Road ..	Patrol maintenance throughout	..	4
WARRNAMBOOL CITY—			
Prince's Highway	Patrol maintenance	..	2·39
WARRNAMBOOL SHIRE—			
Allansford–Nirranda Road ..	Patrol maintenance throughout	..	17
Caramut–Lismore Road	Patrol maintenance throughout	..	6
Framlingham Road	Patrol maintenance throughout	..	4·5
Garvoc–Laang Road	Patrol maintenance throughout	..	6·88
	Carried forward	8·36	6,158·41

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	8·36	6,158·41
WARRNAMBOOL SHIRE—*continued.*			
Mortlake Road	Road mix seal ¼-in. over section previously double coat sealed	..	2
,, ,, ...	Patrol maintenance throughout	..	16
Peterborough Road	Patrol maintenance throughout	..	9
Timboon–Nirranda Road	Patrol maintenance throughout	..	5·5
WERRIBEE SHIRE—			
Geelong–Bacchus Marsh Road ..	Patrol maintenance, sheeting with crushedrock	..	2·25
WHITTLESEA SHIRE—			
Epping Road	Crushed rock reconstruction at Epping from 12·25 to 13·45 miles	..	1·2
,, ,, ...	Patrol maintenance from 8·5 to 12·25 miles and 13·5 to 18·5 miles	..	8·75
Main Whittlesea Road	Double coat sealing at Mernda and Whittlesea from 19·5 to 20 miles and 22 to 24·25 miles respectively	..	2·75
,, ,, ,, ...	Crushed rock reconstruction at Mernda from 18·5 to 19·5 miles	..	1
,, ,, ,, ...	Patrol maintenance from 10 to 18·5 miles	..	8·5
Wallan Road	Double coat sealing near Whittlesea from ·6 to 1·7 miles	..	1·1
,, ,, ...	Crushed rock reconstruction from 1·7 to 2·7 mile	..	1
,, ,, ...	Patrol maintenance from 0 to ·6 mile and 2·7 to 6 miles	..	3·9
Whittlesea–Kinglake Road ..	Patrol maintenance	..	4·6
WIMMERA SHIRE—			
Dooen Road	Constructing side track from 1·25 to 3 miles	..	1·75
,, ,, ...	Patrol maintenance throughout	..	3·1
Horsham–Murtoa Road	Relocation, construction and double coat bituminous surfacing from 0 to ·41 mile ..	..	·41
,, ,, ,, ...	Reforming, widening side track from ·43 to 1·63 miles	..	1·2
,, ,, ,, ...	General maintenance throughout	..	8·29
Horsham–Wal Wal Road	Loam and gravel construction from 7·18 to 8·2 miles	..	1·02
,, ,, ,, ...	General maintenance throughout	..	8·2
Natimuk Road	Reconstruction and double coat bituminous surfacing from 0 to 1·15 miles	..	1·15
,, ,, ...	General maintenance throughout	..	9·4
WIMMERA AND ARAPILES SHIRES (Joint Works)—			
Horsham–Hamilton Road ..	Double coat bituminous surfacing from 2·6 to 2·98 miles	..	·38
,, ,, ,, ..	General maintenance throughout	..	2·98
WIMMERA AND ARAPILES SHIRES, AND HORSHAM TOWN (Joint Works)—			
Horsham–Hamilton Road ..	General maintenance throughout	..	·18
WINCHELSEA SHIRE—			
Birregurra Road	Construction of curve at junction with Prince's Highway	..	·2
,, ,, ...	Double coat sealing southerly from Prince's Highway	..	·74
Birregurra–Dean's Marsh Road ..	Construction of three-span bridge 80 feet long over Pennyroyal Creek	..	·01
,, ,, ,, ..	Realignment, resheeting, &c., near Whoorel	..	1·2
,, ,, ,, ..	Widening and resheeting, &c., near Dean's Marsh railway station	..	·45
,, ,, ,, ..	Sealing between Whoorel and Dean's Marsh	..	2·6
,, ,, ,, ..	Patrol maintenance	..	7·5
Birregurra–Forrest Road	Construction of bridge over Matthews Creek at Studbrook, together with approaches ..	..	·3
,, ,, ,, ...	Sealing	..	·79
,, ,, ,, ...	Patrol maintenance	..	10
WINCHELSEA AND COLAC SHIRES (Joint Works)—			
Birregurra Road	Widening, resheeting, regrading, &c., near Birregurra railway station	..	·61
,, ,, ...	Sealing near Birregurra railway station	..	·61
,, ,, ...	Patrol maintenance	..	1·5
WODONGA SHIRE—			
Klewa–Wodonga Road	Patrol maintenance	..	1·5
Sydney Road	Patrol maintenance	..	2
Tallangatta Road	Patrol maintenance	..	1
Wodonga–Yackandandah Road ..	Sealing	..	·51
,, ,, ,, ..	Patrol maintenance	..	3
WONTHAGGI BOROUGH—			
Wonthaggi–Inverloch Road ..	Patrol maintenance throughout	..	2·32
Wonthaggi–Korumburra Road ..	Patrol maintenance throughout	..	·75
Wonthaggi–Loch Road	Patrol maintenance throughout	..	·81
WOORAYL SHIRE—			
Fairbank Road	General maintenance throughout	..	2·08
Farmer's Road	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	Patrol maintenance	..	17
Birchip–Wycheproof Road ..	Patrol maintenance	..	16
Corack Road	Patrol maintenance	..	2
Sea Lake–Ultima Road	Patrol maintenance	..	7
Woomelang–Sea Lake Road ..	Grubbing, clearing, forming and limestoning	..	·25
,, ,, ,, ..	Patrol maintenance	..	9
Wycheproof–Sea Lake Road ..	Patrol maintenance	..	1·1
YACKANDANDAH SHIRE—			
Dederang Road	Patrol maintenance throughout	..	28
Gundowring Road	Patrol maintenance throughout	..	20·08
Kergunyah South Road	Patrol maintenance throughout	..	11·2
Kiewa East Road	Patrol maintenance throughout	..	3·2
Kiewa–Wodonga Road	Double coat sealing	..	1·14
,, ,, ,, ...	Patrol maintenance throughout	..	6·5
Myrtleford–Yackandandah Road ..	Patrol maintenance throughout	..	5·4
Yackandandah–Wodonga Road ..	Double coat sealing	..	·57
,, ,, ,, ..	Road mix sealing	..	·3
,, ,, ,, ..	Patrol maintenance throughout	..	15·75
	Carried forward	8·36	6,558·45

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	8.36	6,558·45
YARRAWONGA SHIRE—			
Peechelba Road	General maintenance	..	1
Tungamah–Wilby Road	General maintenance	..	1·25
Wangaratta–Yarrawonga Road ..	General maintenance	..	9
YEA SHIRE—			
Highlands Road	General maintenance	..	2·5
Molesworth–Dropmore Road ..	General maintenance	..	10
Upper Goulburn Road	Construction of 15 ft. span timber culvert, realigning, reforming and gravelling at Bumanto	..	·5
,, ,, ,, ...	Realigning, reforming and gravelling at foot of Avenue	..	·05
,, ,, ,, ...	Widening curves east and west of Molesworth	..	·06
,, ,, ,, ...	Splicing 25 defective piles of Molesworth bridge	..	—
,, ,, ,, ...	Trimming and resheeting with gravel	..	4
,, ,, ,, ...	Widening and superelevating curves, building up shoulders in preparation for bitumen surfacing	..	6
,, ,, ,, ...	Construction of 120 feet of reinforced concrete box culverts to replace decayed timber culverts	..	—
,, ,, ,, ...	General maintenance, reshaping with power grader	..	21·
Whittlesea–Yea Road	Trimming and resheeting with gravel	..	·3
,, ,, ,, ...	General maintenance, reshaping with power grader	..	31
Yarra Glen–Glenburn Road ..	Trimming and resheeting with gravel	..	·3
,, ,, ,, ..	Top dressing with 1 inch thickness of crushed rock	..	4
,, ,, ,, ..	General maintenance	..	10
Yea–Glenburn Road	Construction of reinforced concrete box culvert and embankment to replace pitched crossing	..	·05
,, ,, ,, ...	Trimming and resheeting with gravel	..	2·5
,, ,, ,, ...	Widening and superelevating curves, building up shoulders in preparation for bitumen surfacing	..	5
,, ,, ,, ...	Construction of 108 feet of reinforced concrete box culverts to replace decayed timber culverts	..	—
,, ,, ,, ...	General maintenance, reshaping with power grader	..	18
YEA AND BROADFORD SHIRES (Joint Works)—			
Upper Goulburn Road	General maintenance	..	1·75
	Total	8·36	6,686·71
	UNDER DIRECT SUPERVISION OF THE BOARD.		
ALBERTON SHIRE—			
Boolarra–Welshpool Road ..	General maintenance—Grand Ridge Road to South Gippsland Shire boundary ..	..	8·5
ALEXANDRA SHIRE—			
Healesville–Alexandra Road ..	Trenching and cleaning drains—day labour	..	34
BALLAN SHIRE—			
Ballarat Road	General maintenance at Ballan	..	1·02
BALLARAT SHIRE—			
Ballarat–Creswick Road	General maintenance	..	5·75
,, ,, ,, ...	Scarifying, widening and resheeting between Mt. Rowan and Bald Hills turn-off—day labour	..	·75
,, ,, ,, ...	Double coat sealing floodways near Mt. Rowan post office—day labour	..	·25
,, ,, ,, ...	General maintenance at Mt. Rowan	..	6
,, ,, ,, ...	Widening, resheeting and gravelling at Mt. Rowan—day labour	..	·75
BARRABOOL SHIRE—			
Anglesea Road	Double coat sealing between Merrijig Creek and Jan Juc—day labour	..	3·3
BELLARINE SHIRE—			
Geelong–Portarlington Road ..	Reforming and resheeting with crushed rock over loam, from Geelong City boundary towards Portarlington—day labour	..	1·04
,, ,, ,, ..	Double coat sealing near Bellarine State School—day labour	..	·5
Geelong–Queenscliffe Road ..	Resheeting with crushed rock and double coat sealing near Geelong City boundary—day labour	..	·45
,, ,, ,, ...	Road mix sealing near Geelong City boundary—day labour	..	·55
Portarlington–St. Leonards Road ..	Double coat sealing in three sections near Portarlington township—day labour ..	..	1·6
,, ,, ,, ..	Construction of a single cell reinforced concrete box culvert—day labour	..	·01
,, ,, ,, ..	Reforming and resheeting with buckshot gravel between Portarlington and Webber's Corner—day labour	..	2·28
BERWICK SHIRE—			
Prince's Highway	Road mix sealing in Berwick township—day labour	..	·33
BRAYBROOK SHIRE—			
Prince's Highway	General maintenance at Brooklea	..	1·46
BROADFORD SHIRE—			
Sydney Road	General maintenance at Broadford	..	1·45
CHELSEA CITY—			
Point Nepean Road	Widening, resheeting and double coat sealing from Mordialloc to Carrum—day labour ..	..	4·5
COBURG CITY—			
Sydney Road (O.M.)	Bituminous surfacing on concrete base—day labour	·57	..
COLLINGWOOD AND HEIDELBERG CITIES (Joint Works)—			
Heidelberg Road	Modified macadam surfacing of approaches to bridge over Merri Creek—day labour ..	·34	..
,, ,, ...	Construction of approaches to bridge over the Merri Creek	·02	..
COHUNA SHIRE—			
Murray River Valley Road ..	General maintenance in Cohuna township—day labour	..	·5
CORIO SHIRE—			
Fyansford Road	General maintenance	..	1·3
,, ,, ...	Road mix sealing near cement works—day labour	..	·2
Prince's Highway	General maintenance at North Geelong—day labour	..	1·97
DANDENONG SHIRE—			
Springvale Road	Reconstruction in sand northerly from Chelsea City boundary—day labour	..	2·3
ECHUCA BOROUGH—			
Echuca–Cohuna Road	General maintenance in Echuca Borough	..	1·18
	Carried forward	·93	81·94

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

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Reconstruction and maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	·93	81·94
EUROA SHIRE—			
Murchison–Shepparton Road ..	Construction of nine span reinforced concrete bridge over Castle Creek, together with the construction of approaches	..	·02
,, ,, ,, ..	Reforming and gravelling near Arcadia—day labour	..	1·2
,, ,, ,, ..	General maintenance between Murchison East and Shepparton Shire boundary—day labour	..	10·8
Sydney Road	General maintenance in Euroa township	..	1·8
,, ,, ...	Construction of a footwalk on Seven Creeks bridge in Euroa township—day labour ..	..	·06
,, ,, ...	Road mix sealing in Euroa township—day labour	..	1·82
FOOTSCRAY CITY—			
Prince's Highway ..	General maintenance at Brooklea	..	1·46
,, ,, ...	Resheeting and double coat sealing at Brooklea—day labour	..	·27
,, ,, ...	General maintenance, Brooklea to Footscray	..	1·69
FOOTSCRAY AND MELBOURNE CITIES (Joint Works)—			
Ballarat Road (O.M.)	Supply, delivery and erection of 30 mild steel girders for bridge over Maribyrnong River	·02	..
,, ,, ,, ...	Construction of reinforced concrete piers on piled foundations for bridge over the Maribyrnong River	·02	..
GOULBURN SHIRE—			
Goulburn Valley Road	General maintenance from Hume Highway to Murchison	..	30
,, ,, ,, ...	Resheeting and shouldering between Murchison East and Wahring—day labour ..	..	3·86
,, ,, ,, ...	Resheeting and shouldering between Murchison East and Murchison—day labour ..	..	1·09
HEALESVILLE ROAD—			
Healesville–Alexandra Road ..	General maintenance from Yarra River to Buxton	..	20
,, ,, ,, ..	Reconstruction from Dairy Road to Healesville township—day labour	..	·78
Healesville–Woori Yallock Road ..	General maintenance	..	7·97
Marysville Road	General maintenance from St. Fillan to Marysville	..	6·5
HUNTLY SHIRE—			
Bendigo–Echuca Road	General maintenance at Epsom and Elmore	..	2·15
KILMORE SHIRE—			
Sydney Road	General maintenance at Kilmore	..	1·58
,, ,, ...	Road mix sealing at Kilmore—day labour	..	1·27
LILLYDALE SHIRE—			
Main Healesville Road	Shouldering and resheeting with crushed rock and double coat sealing at top of Melbourne Hill—day labour	..	·3
,, ,, ,, ...	Shouldering, resheeting and sealing at Coombe Cottage—day labour	..	·2
,, ,, ,, ...	Shouldering, resheeting and sealing at Yeringberg post office—day labour	..	·15
,, ,, ,, ...	General maintenance—Lilydale to Yarra River bridge	..	11·05
,, ,, ,, ...	General maintenance—Ringwood Borough to Lilydale	..	6
Main Warburton Road	Road mix sealing at Killara Hill—day labour	..	1·4
,, ,, ,, ...	General maintenance	..	9·9
MALDON SHIRE—			
Castlemaine–Maldon Road ..	Realigning, reshaping and resheeting easterly from Maldon—day labour	..	3·5
MANSFIELD SHIRE—			
Mansfield–Woods Point Road ..	General maintenance—Jamieson to Matlock	..	38
MORWELL SHIRE—			
Boolarra–Foster Road	General maintenance—Boolarra to Boolarra South	..	6
Boolarra–Welshpool Road ..	General maintenance—Morwell–Mirboo Road to English's Corner	..	9
Morwell–Mirboo Road	General maintenance—Morwell–Mirboo Shire boundary to Whitelaw's Track	..	7
MOORABBIN CITY—			
Warrigal Road (O.M.)	Widening and resheeting with fine crushed rock, priming and sealing between Centre Road and Oak Grove—day labour	..	3·57
NARRACAN SHIRE—			
Walhalla Road	General maintenance	..	40
NEWSTEAD AND MT. ALEXANDER SHIRE—			
Castlemaine–Maryborough Road ..	Construction of a reinforced concrete bridge near Newstead	..	·02
,, ,, ,, ..	Construction of a reinforced concrete culvert and approaches at Newstead—day labour ..	..	·02
,, ,, ,, ..	General maintenance—Castlemaine to Joyce's Creek—day labour	..	11·03
,, ,, ,, ..	Construction of a reinforced concrete bridge near Muckleford Creek	..	·02
,, ,, ,, ..	General maintenance near Castlemaine	..	1·37
ORBOST SHIRE—			
Cann Valley Road	General maintenance—Cann River to New South Wales border	..	28
RUTHERGLEN SHIRE—			
Springhurst–Rutherglen Road ..	General maintenance between Springhurst and Rutherglen	..	10·3
SEYMOUR SHIRE—			
Goulburn Valley Road	Replacing timber deck and construction of approaches to bridge over Goulburn River at Murchison—day labour	..	·22
,, ,, ,, ...	Resheeting and shouldering between Hume Highway and Hughes's Creek—day labour ..	..	5·73
,, ,, ,, ...	Priming and sealing between Hume Highway and Hughes's Creek—day labour ..	..	8·16
Seymour–Yea Road	Reshaping and shouldering near Seymour—day labour	..	·23
Sydney Road	General maintenance at Seymour	..	1·57
SOUTH GIPPSLAND SHIRE—			
Boolarra–Foster Road	General maintenance—Gunyah Junction to Mount Square Top	..	8·5
TAMBO SHIRE—			
Prince's Highway	General maintenance at Lakes Entrance township	..	1·36
TULLAROOP SHIRE—			
Castlemaine–Maryborough Road ..	Realigning, regrading and sheeting with gravel west of Joyce's Creek—day labour ..	..	·64
,, ,, ,, ..	General maintenance—Joyce's Creek to Maryborough	..	13·13
UPPER YARRA SHIRE—			
Woods Point Road	General maintenance—McVeigh's to Matlock	..	34
VIOLET TOWN SHIRE—			
Sydney Road	General maintenance—Violet Town township	..	·8
WALPEUP SHIRE—			
Mildura Road	Scarifying and reshaping pavement in Ouyen township—day labour	..	·76
	Carried forward..	·97	438·19

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

Name of Highway and Section.	Nature and Locality of Works.	Works Re-Constructed.	Reconstruction and maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	·97	438·19
WANGARATTA SHIRE—			
Beechworth Road	General maintenance of Avenue section near Wangaratta	..	·9
,, ,, ...	Resheeting and shouldering 3 miles from Wangaratta—day labour	..	·25
Yarrawonga Road	General maintenance between Wangaratta and Yarrawonga Shire boundary—day labour	..	11·6
,, ,, ...	Resheeting and shouldering and construction of a new curve between Wangaratta and Killawarra—day labour	..	·75
,, ,, ...	Resheeting and shouldering near Wangaratta day labour	..	·26
WANGARATTA BOROUGH—			
Sydney Road	General maintenance—Wangaratta township	..	2·4
WERRIBEE SHIRE—			
Prince's Highway	General maintenance at Werribee	..	·85
WINCHELSEA SHIRE—			
Lorne Road	General maintenance	..	16
,, ,, ...	Road mix sealing between 6 and 9 mile posts and between 12 and 14 mile posts—day labour	..	3·9
,, ,, ...	Widening, surfacing and channelling near Lorne township—day labour	..	·1
,, ,, ...	Realigning at Swayne's Corner day labour	..	·1
	Total	·97	475·3

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, 1937.

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
UNDER MUNICIPALITIES.		
ALBERTON SHIRE—		
Carrajung Lower Road	Forming and gravelling from T. Jeff's towards Blackwarri	1·43
Tarra Valley Road	Forming and gravelling from Fisher's Gully to T. Sutton's	1
BASS SHIRE—		
Kernot–Krowera Road	Construction of two timber bridges over Telfer's Creek, with appraoches	·11
BORUNG SHIRE—		
Boolite–Sheep Hills Road	Crushed rock construction east of Sheep Hills Road	·51
Donald–Warracknabeal Road	Crushed ironstone construction east of Warracknabeal	·85
Lah West Road	Crushed rock construction west of Hopetoun Road	1·02
BULLA SHIRE—		
Konagaderra Road	Reshceting with gravel from Manya Gate to Craigieburn Lane	1·65
DIMBOOLA SHIRE—		
Glenlee–Jeparit Road	Forming and limestone rubbling deviation through Allotment 26, Parish of Tullyvea	·86
FERNTREE GULLY SHIRE—		
Belgrave–Narre Warren Road	Forming, grading, and sanding near Narre Warren East	·7
NEWSTEAD AND MT. ALEXANDER SHIRE—		
Glengower–Joyce's Creek Road	Forming, grading, and gravelling, &c.	·3
	Total	8·43

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, 1937.

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
UNDER DIRECT SUPERVISION OF THE BOARD.			
PRINCE'S HIGHWAY (WEST)—			
Section 1	Resheeting with gravel at Mount Moriac—day labour	1·5	..
,,	Road mix sealing between Mount Moriac and Buckley—day labour	3·4	..
,,	Improving shoulders between Belmont and Winchelsea—day labour	7	..
,,	Realigning, regrading and resheeting the Melbourne approach to the Werribee River bridge—day labour	·1	..
,,	Road mix sealing at Bacchus Marsh turnoff—day labour	·11	..
,,	Road mix sealing near Laverton—day labour	1·62	..
,,	Road mix sealing over experimental work near Little River—day labour	·5	..
,,	Pre-mix regulating patching on concrete pavement near Bacchus Marsh turnoff—day labour	·41	..
,,	General maintenance	..	52
Section 2	Road mix sealing, Colac to Pirron Yallock—day labour	7·84	..
,,	Road mix sealing east of Camperdown—day labour	2·2	..
,,	Double coat sealing west of Winchelsea—day labour	3·5	..
,,	Double coat sealing at Armytage Bridge—day labour	·3	..
,,	General maintenance	..	48·81
Section 3	Sealing sections reconstructed in crushed rock between Cudgee and Allansford—day labour	1·1	..
,,	Construction of new concrete superstructure to bridge over Hopkins River at Allansford—day labour	·02	..
,,	Sealing Warrnambool approach to Hopkins River bridge, recently constructed in scoria—day labour	·19	..
,,	Sealing curve recently constructed in scoria near Warrnambool—day labour	·13	..
,,	Realigning, reconstruction in scoria and sealing at Illowa—day labour	·44	..
,,	General maintenance	..	52·38
Section 4	Sealing section realigned and reconstructed in crushed rock at Goose Lagoon 4 miles west of Port Fairy—day labour	·3	..
,,	Realigning and reconstructing in buckshot gravel, including regrading of Caledonian Hill between Allestree and Bolwarra—day labour	2·39	..
,,	Sealing section reconstructed in buckshot gravel between Bolwarra and Heathmere—day labour	2·39	..
,,	Forming, grading, trimming and surfacing with fine crushed rock near Goose Lagoon	·29	..
,,	General maintenance	..	49·8
Section 5	Reconstruction of footway on railway bridge at Dartmoor—day labour	·02	..
,,	General maintenance	..	44·62
PRINCE'S HIGHWAY (EAST)—			
Section 1	Surfacing shoulders with fine crushed rock between Oakleigh and Hallam—day labour	12	..
,,	Road mix sealing between Springvale and Hallam—day labour	7·28	..
,,	Road mix sealing between Beaconsfield and Officer—day labour	1·5	..
,,	Construction of culvert and improvement to approach to Shire road at Nar-Nar-Goon—day labour	·01	..
,,	Resheeting with sand between Ararat Creek and Tynong—day labour	1·1	..
,,	Repairs to road surface with sand at Tynong—day labour	·3	..
,,	Resheeting with sand at 45-mile post—day labour	·3	..
,,	Regrading east of Drouin—day labour	·6	..
,,	Double coat sealing in Berwick township—day labour	·2	..
,,	Sheeting and double coat sealing east of Officer—day labour	·6	..
,,	Construction of bridge and approaches and double coat sealing at Back Creek—day labour	·1	..
,,	Double coat sealing west of Drouin—day labour	·37	..
,,	Superelevating curves and double coat sealing west of Berwick—day labour	·35	..
,,	Resheeting and double coat sealing west of Berwick—day labour	·2	..
,,	Non-skid treatment between Drouin and Warragul—day labour	·5	..
,,	Construction of a new bridge over Hazel Creek near Warragul—day labour	·01	..
,,	Construction of a reinforced concrete bridge over Sheepwash Creek—Traralgon Shire	·02	..
,,	Construction of a four-cell reinforced concrete culvert over Back Creek—Berwick Shire	·01	..
,,	General maintenance	..	49·93
Section 2	Resealing roughened surface east of Yarragon—day labour	·5	..
,,	Resheeting with gravel and sealing east of Morwell—day labour	·12	..
,,	Earthworks and gravelling in Traralgon Shire—day labour	·14	..
,,	Forming, grading, trimming, draining, and gravelling in Rosedale Shire	·24	..
,,	Construction of a reinforced concrete bridge at Rosedale	·02	..
,,	General maintenance	..	66·76
Section 3	Widening two culverts over water channels between Sale and Nuntin Creek—day labour	·02	..
,,	Single coat sealing existing bituminous surface between Sale and the Reservoir—day labour	2	..
,,	Road mix sealing between Bairnsdale and Gould-street—day labour	2·32	..
,,	General maintenance	..	38·1
Section 4	Improvement of curve by realigning and gravelling at Filmer's Corner—day labour	·2	..
,,	Realigning, reconditioning, reshaping, and gravelling between Merrangbar and Toorloo Arm—day labour	5·37	..
,,	Widening narrow bridge at Broadlands—day labour	·01	..
,,	Repairing slips and application of bituminous surface at Jemmy's Point—day labour	·27	..
,,	Reconditioning, realigning, gravelling, and double coat sealing between Nowa Nowa Hill and Nowa Nowa—day labour	·8	..
,,	Double coat sealing between Merrangbar and Toorloo Arm—day labour	5·37	..
,,	Road mix sealing on bad sections and double coat sealing approaches to Wombat, Simpson's, and W.R. bridges—day labour	·85	..
,,	Road mix sealing irregular sections from overhead railway bridge to Snowy bridge—day labour	·77	..
,,	Erection of a three-span timber bridge over Simpson's Creek—day labour	·02	..
,,	Erection of a single-span timber bridge over W.R. Creek—day labour	·01	..
,,	General maintenance	..	58·83
Section 5	Realigning, reconditioning, regrading, reshaping and gravelling between Orbost and Brodribb River—day labour	2·38	..
,,	Double coat sealing at Cann River flats—day labour	·77	..
,,	Construction of a four-cell box culvert at Jone's Creek flats—day labour	·01	..
,,	Construction of approaches to new bridge over Jungle Creek—day labour	·11	..
,,	Realigning, grubbing, clearing, forming, and draining at Newton's Creek—day labour	4·16	..
,,	Realigning, widening, gravelling, and draining from Bellbird to Cadwalladers—day labour	1·09	..
,,	Construction of two timber bridges over Newton's Creek—day labour	·02	..
,,	Construction of a four-span timber bridge over Cabbage Tree Creek—day labour	·02	..
,,	Grubbing, clearing, forming, gravelling, and construction of a two-span timber bridge—Orbost Shire	·76	..
,,	General maintenance	..	54·18
Section 6	Widening, straightening, superelevating, and top-dressing from Tracey's to Wingan—day labour	1·61	..
,,	General maintenance	..	41·49
	Carried forward	91·16	556·9

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS 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 THE BOARD—*continued.*		
	Brought forward	91·16	556·9
WESTERN HIGHWAY—			
Section 1	Realigning, regrading, resheeting, and double coat sealing at Woodman's Hill—day labour	1·55	..
,,	Road mix sealing from Deer Park to Bacchus Marsh—day labour	1·7	..
,,	Road mix sealing westerly from Bolwarrah Road—day labour	1·75	..
,,	Road mix sealing from Pyke's Creek to Lerderderg River—day labour	·7	..
,,	Widening road reserve between Bacchus Marsh and Korkuperrimul Creek—day labour	1·69	..
,,	Realigning, regrading, and resheeting curve west of Lerderderg River—day labour	·21	..
,,	Realigning, regrading, resheeting, and double coat sealing west of Werribee River—day labour	·14	..
,,	Resheeting and double coat sealing at Paddock Creek—day labour	·21	..
,,	Regulating, resheeting, and double coat sealing between Paddock Creek and Gordon—day labour	·25	..
,,	Realigning, regrading, and resheeting curve at Gordon—day labour	·13	..
,,	Widening Moorabool River bridge, near Gordon—day labour	·01	..
,,	Construction of stock bridge near Ballan—day labour	·01	..
,,	General maintenance	..	55·21
Section 2	Road mix sealing and superelevating curves between 85 and 91 mile posts—day labour	4·55	..
,,	Reconstruction and double coat sealing in two sections near Mount Mistake and easterly from Dobies—day labour	4·46	..
,,	Construction of a reinforced concrete box culvert west of railway crossing at Beaufort—day labour	·01	..
,,	Reconstruction and widening existing bridge over Hopkins River at Dobies—day labour	·02	..
,,	General maintenance	..	53·08
Section 3	Double coat sealing curve at overhead bridge, Armstrong—day labour	·09	..
,,	Widening pavement in gravel and sealing near Lambert's Bridge—day labour	·4	..
,,	Concrete protection to outfall of culvert near Ararat Borough boundary—day labour	·01	..
,,	Construction of a three-cell reinforced concrete culvert at Bass's Bridge, Great Western—day labour	·01	..
,,	Construction of a three-cell culvert at 150 mile post, west of Stawell—day labour	·01	..
,,	Construction of a single-cell reinforced concrete culvert at Potter's Creek—day labour	·01	..
,,	General maintenance	..	50·36
Section 4	Road mix sealing from east of Dahlen to Pimpinio—day labour	3·88	..
,,	Superelevating and double coat sealing of curves at Dahlen—day labour	·52	..
,,	Realignment of curve and double coat sealing at Pimpinio—day labour	·2	..
,,	Resheeting with Great Western gravel and double coat sealing at 223·75 miles—day labour	·17	..
,,	General maintenance	..	38·7
CALDER HIGHWAY—			
Section 1	Road mix sealing—Diggers Rest to Adney's Hill—day labour	6·9	..
,,	Road mix sealing at Carlsruhe—day labour	1·4	..
,,	Pre-mix regulating from Campaspe Bridge to Boggy Creek—day labour	1·2	..
,,	Sealing gravel south of Gisborne—day labour	1·2	..
,,	Construction of reinforced concrete bridge and approaches south of Chewton—day labour	·18	..
,,	General maintenance	..	58
Section 2	Sealing curves between Big Hill and Kangaroo Flat—day labour	·5	..
,,	Widening and surfacing shoulders at Specimen Hill—day labour	1·35	..
,,	General maintenance	..	43·07
Section 3	Regrading flood crossings near Glenalbyn—day labour	·15	..
,,	Widening timber bridge near Glenalbyn—day labour	·01	..
,,	Construction of reinforced concrete bridge near Glenalbyn—day labour	·01	..
,,	Construction of reinforced concrete bridge and approaches near Wedderburn—day labour	·05	..
,,	General maintenance	..	52·23
Section 4	Grubbing, clearing, forming, and surfacing with limestone north of Nullawil and at Berriwillock	3·77	..
Section 5	Scarifying, reshaping, and resheeting south of Mittyack—day labour	3·3	..
,,	Reforming and sheeting between Mittyack and Nunga—day labour	3·95	..
,,	General maintenance	..	44·81
Section 6	General maintenance	..	40·13
NORTHERN HIGHWAY—			
Section 1	Improving curves and road mix sealing southerly from Echuca—day labour	8·25	..
,,	General maintenance	..	48·38
HUME HIGHWAY—			
Section 1	Road mix sealing at Somerton—day labour	·73	..
,,	Road mix sealing from Mount Ridley to Kal Kallo—day labour	2·65	..
,,	Resheeting and double coat sealing at Bylands—day labour	·75	..
,,	Road mix sealing at Tallarook—day labour	·2	..
,,	Realigning, regrading, and resheeting curves at the Springs, south of Wallan—day labour	·32	..
,,	Widening highway reserve and stock route south of Seymour—day labour	1	..
,,	General maintenance	..	48·32
Section 2	Sealing approaches to bridge over One Mile Creek at Violet Town—day labour	·15	..
,,	Construction of footbridge on Hughe's Creek Bridge at Avenel—day labour	·05	..
,,	Road mix sealing in Avenel township—day labour	·72	..
,,	Pre-mix patching between Seymour and Benalla—day labour	·01	..
,,	Construction of a reinforced concrete culvert north of Euroa—day labour	·01	..
,,	Repairs to drains and scours between Seymour and Benalla—day labour	·02	..
,,	General maintenance	..	55·66
Section 3	Construction of a reinforced concrete culvert between Benalla and Winton—day labour	·01	..
,,	Road mix sealing experimental section, half width, north of Benalla—day labour	·5	..
,,	Resheeting and sealing open crossing between Bowser and Springhurst—day labour	·17	..
,,	Repairs to drains, scours, and culverts between Benalla and Wodonga—day labour	·02	..
,,	General maintenance	..	60·18
OMEO HIGHWAY—			
Section 1	Reconditioning, realigning, gravelling, draining, and double coat sealing from Sandhill to Sarsfield—day labour	3	..
,,	Road mix sealing in Lucknow township—day labour	1·09	..
,,	Reconditioning, gravelling, and double coat sealing between two railway bridges over Bruthen Flats—day labour	·8	..
,,	Widening, realigning, superelevating, draining, and construction of a single-span bridge near Wild Dog Creek—day labour	·88	..
,,	General maintenance	..	16·53
Section 2	Realigning, by grubbing, clearing, forming, grading, draining, and surfacing near Tucker Box Hill—day labour	·37	..
Section 3	Widening existing side cutting between Granite Flat and Lightning Creek—day labour	·36	..
MURRAY VALLEY HIGHWAY—			
Section 1	Priming and sealing, near Tallangatta—day labour	5·71	..
,,	Construction of reinforced concrete bridge over Kiewa River, 5 miles from Wodonga—day labour	·02	..
,,	General maintenance	..	88·58
Section 2	Priming and sealing open crossing near Yarrawonga—day labour	·05	..
,,	Resheeting and shouldering between Brown's Plains and Rutherglen—day labour	1	..
,,	Construction of new curve at Kotupna—day labour	·2	..
,,	Construction of new curves at Brown's Plains between Hume Highway and Rutherglen—day labour	1	..
,,	Resheeting and shouldering west of Rutherglen—day labour	6·63	..
,,	Forming and sanding through sand hills west of Rutherglen—day labour	·2	..
	Carried forward	174·69	1310·14

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS RECONSTRUCTED, 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	174·69	1310·14
MURRAY VALLEY HIGHWAY—*continued.*			
Section 2	Reshaping and sealing waterbound macadam at Strathmerton—day labour	1·3	..
,, ...	Reshaping and sealing waterbound macadam at Nathalia—day labour	·42	..
,, ...	Surfacing approaches to new reinforced concrete bridge over Ovens River at Parolos—day labour	·97	..
,, ...	Priming and sealing between Hume Highway and Rutherglen—day labour	12·5	..
,, ...	Resheeting and shouldering west of Rutherglen—day labour	1	..
,, ...	Widening shoulders easterly from High Street, Echuca	·9	..
,, ...	Grubbing, clearing, forming, grading, and trimming east of new Ovens River Bridge ..	·58	..
,, ...	Grubbing, clearing, forming, grading, and trimming west of new Ovens River Bridge ..	·66	..
,, ...	Construction of a fifteen span reinforced concrete bridge at Parolos, Shires of Rutherglen and Yarrawonga	·02	..
,, ...	Construction of a ten span reinforced concrete bridge over Broken Creek in Nathalia township	·02	..
,, ...	General maintenance	..	140·5
Section 3	Resheeting with limestone near Fish Point turnoff—day labour	·45	..
,, ...	Road mix sealing westerly from Echuca—day labour	1·82	..
,, ...	Sealing approaches to bridge over Nine Mile Creek and Loddon River—day labour ..	·88	..
,, ...	Widening formation west and south of Kerang—day labour	1·84	..
,, ...	Superelevating nine curves between Lake Charm and Lake Boga—day labour	1·22	..
,, ...	Reconditioning and sealing between Lake Charm and Lake Boga—day labour	12·33	..
,, ...	Reconditioning and sealing between Kerang and Lake Charm—day labour	1·46	..
,, ...	Construction of a reinforced concrete culvert west of Echuca—day labour	·01	..
,, ...	Construction of a reinforced concrete bridge and approaches at Patho—day labour ..	·04	..
,, ...	Construction of a reinforced concrete bridge and approaches at Turrumberry—day labour	·04	..
,, ...	Construction of a reinforced concrete bridge and approaches over Pyramid Creek—day labour	·02	..
,, ...	Construction of a reinforced concrete bridge and approaches over Piccaninny Creek—day labour	·02	..
,, ...	Construction of a reinforced concrete culvert near Turrumberry—day labour	·01	..
,, ...	Widening culverts between Leitchville and Kerang—day labour	·02	..
,, ...	General maintenance	..	85·19
Section 4	Clearing and forming between Boundary Bend and Lake Powell—day labour	7·58	..
,, ...	General maintenance	..	54·7
SOUTH GIPPSLAND HIGHWAY—			
Section 1	Construction of a reinforced concrete bridge over Emmemmering Creek, Cranbourne Shire	·02	..
,, ...	Double coat sealing west of Emmemmering Creek—day labour	·25	..
,, ...	Double coat sealing north of Hampton Park—day labour	·18	..
,, ...	Reconstruction in fine crushed rock between Five Ways and Tooradin—day labour ..	1·9	..
,, ...	Double coat sealing between Tooradin and Koo-wee-rup—day labour	5·1	..
,, ...	Reconstruction with sand west of Lang Lang River—day labour	1	..
,, ...	Resheeting with sand east of Lang Lang River—day labour	1	..
,, ...	Reconstruction in sand between Lang Lang and Main Coast Road turnoff—day labour ..	1·75	..
,, ...	Construction of bridge and approaches over new State Rivers culvert at 41·2 miles—day labour	·4	..
,, ...	Resheeting with sand west of Loch turnoff—day labour	3	..
,, ...	Construction of a new culvert near the 35 mile post—day labour	·01	..
,, ...	General maintenance	..	38·8
Section 3	Reshaping, realigning and gravelling from survey bridge towards Longford—day labour	·43	..
,, ...	Partial construction of a reinforced concrete bridge at Longford Lagoon—day labour ..	·01	..
,, ...	General maintenance	..	16·45
MIDLAND HIGHWAY—			
Section 1	Realigning, regrading and resheeting curve north of Elaine—day labour	·28	..
,, ...	Excavating and resheeting areas that had failed and double coat sealing between 21·5 and 24·5 miles—day labour	2	..
,, ...	Redecking culvert approximately 2 miles from Geelong—day labour	·01	..
,, ...	Widening Williamson's Creek bridge at the 38 mile post—day labour	·01	..
,, ...	General maintenance	..	49·59
Section 4	Road mix sealing east of Shepparton—day labour	3·06	..
,, ...	Road mix sealing between Opie's bridge and Pine Lodge—day labour	7·31	..
,, ...	Pre-mix patching between Shepparton and Nalinga—day labour	·01	..
,, ...	General maintenance	..	36·32
Section 5	Shouldering and shaping south of Swanpool—day labour	4·5	..
,, ...	Construction of deviation and approaches to new bridge near Swanpool—day labour ..	·49	..
,, ...	Resheeting and sealing at Swanpool—day labour	·21	..
,, ...	Improving superelevation of curve south of Swanpool—day labour	·1	..
,, ...	Grubbing, clearing, forming, grading, trimming, and consolidating south of Swanpool ..	·6	..
,, ...	Demolition of existing culvert and construction of a three cell reinforced concrete culvert about 4½ miles from Karn railway station	·01	..
,, ...	Construction of an eight span reinforced concrete bridge at Swanpool	·02	..
,, ...	General maintenance	..	28·6
BONANG HIGHWAY—			
Section 1	Construction of a new timber bridge between 61 and 62-mile posts—day labour ..	·01	..
,, ...	Construction of a single span timber bridge north of Goongerrah—day labour	·01	..
,, ...	Reconditioning, realigning, superelevating, gravelling, and double coat sealing from Orbost to Show Grounds—day labour	·97	..
,, ...	Reshaping, widening, and surfacing from Martin's Creek to Goongerrah—day labour ..	17·17	..
,, ...	Reshaping, widening, and surfacing from Goongerrah to Little Bill Gap—day labour ..	10·5	..
,, ...	Superelevating, benching, widening, and surfacing, Little Bill Gap to Dellicknora turnoff—day labour	13·04	..
,, ...	General maintenance	..	72·04
	Total	295·56	1832·33
	UNDER MUNICIPALITIES.		
ALBERTON SHIRE—			
South Gippsland Highway—			
Section 3	Regrading, shouldering, and gravelling between Sheild's and Nightingale's from 21·25 to 24·1 miles	85	..
,, ...	Regrading, shouldering, and gravelling southerly from Woodside, 32·85 to 34·2 miles ..	1·35	..
,, ...	Regrading, shouldering, and gravelling northerly from Hubert's Corner, 35·35 to 37·1 miles	1·75	..
,, ...	Double coat sealing from Woodside to Hubert's Corner, 32·8 to 37·1 miles	4·3	..
,, ...	Road mix seal from Buckley's Corner to Yarram, 41 to 44·35 miles	3·35	..
,, ...	Patrol maintenance from Monkey Creek to Yarram, 16·8 to 44·35 miles	..	27·55
LAWLOIT SHIRE—			
Western Highway—			
Section 5	Resheeting gravel from 245·17 to 247·1 miles and 247·58 to 248·05 miles	2·4	..
,, ...	Resheeting gravel from 265·4 to 266 miles	·6	..
,, ...	Reshaping and regrading limestone from 264·37 to 264·87 miles	·5	..
,, ...	Resealing from 262·12 to 262·69 miles	·57	..
,, ...	Double coat sealing from 264·37 to 267·14 miles	2·77	..
,, ...	Double coat sealing from 247·1 to 251·57 miles	4·5	..
,, ...	Patrol maintenance and grading side tracks throughout	..	29·2
	Carried forward	24·94	56·75

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

Name of Highway and Section.	Nature and Locality of Work.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	24·94	56·75
LOWAN SHIRE—			
Western Highway—			
Section 4	Patrol maintenance throughout	..	3·4
Section 5	Alteration to curves and realignment of roadway between Allotments 70 and 76, and Allotments 74 and 73, Parish of Kinimakatka	2·6	..
,, ...	Road mix seal between Allotments 81 and 75, Parish of Tarrangimnic	·48	..
,, ...	Double coat sealing from between Allotments 60A and 59, Parish of Tarrangimnic, to between Allotments "A" and "B," Parish of Kinimakatka	4	..
,, ...	Patrol maintenance throughout	..	9·98
MILDURA SHIRE—			
Calder Highway—			
Section 6	General maintenance, regrading, reforming, and road mix seal from Nowingi to Irymple	..	21·13
Murray Valley Highway—			
Section 5	General maintenance, regrading, reforming track, improvement and construction between Merbein Irrigation Settlement and the South Australian border	21	61·09
OMEO SHIRE—			
Omeo Highway—			
Section 1	Widening, shouldering, and benching near Jews Pinch from 48·41 to 48·75 miles ..	·34	..
,, ...	Shouldering, superelevating, benching and surfacing from Red Knob to Double bridges, 55 to 59·2 miles	4·2	..
,, ...	Patrol maintenance, including repairs to bridges and culverts, and erection of guard posts	..	17
Section 2	Realignment by grubbing, clearing, forming, grading, draining, and surfacing near the Tucker Box, from 45·12 to 45·49 miles	·37	..
,, ...	Shouldering and surfacing near Swift's Creek, from 19·03 to 20·03 miles	1	..
,, ...	Patrol maintenance, including repairs to bridges and culverts, and erection of guard posts	..	46
Section 3	Widening and benching on the Bingo Cutting, from 6·9 to 7·3 miles	·4	..
,, ...	Patrol maintenance, including repairs to bridges and culverts, and erection of guard posts	..	55
SWAN HILL SHIRE—			
Murray Valley Highway—			
Section 3	Widening, reconstruction of pavement, double coat sealing southerly from Swan Hill, 92·33 to 94·35 miles	2·02	..
,, ...	Patrol maintenance from Lake Boga to Swan Hill 85·76 to 94·35 miles	..	8·59
Section 4	Reconditioning, priming, and sealing northerly from Swan Hill, 0·81 to 1·94 miles, and 2·87 to 4·26 miles	1·52	..
,, ...	Realignment of curve northerly from Swan Hill, 4·75 to 4·95 miles	·2	..
,, ...	Reshaping and widening pavement at Piambie, 29 to 38·75 miles	9·75	..
,, ...	Clearing and forming at Hayesdale, 46·13 to 47·62 miles	1·49	..
,, ...	Forming and gravelling at Wood Wood and Piangil, 22·37 to 23·31 miles, and 26·21 to 26·65 miles	1·38	..
,, ...	Patrol maintenance from Swan Hill to Boundary Bend, 1·81 to 56·17 miles	..	54·36
TOWONG SHIRE—			
Murray Valley Highway—			
Section 1	Construction of reinforced concrete culvert near Huon at 16·08 miles	—	..
,, ...	Realignment of formation and sanding near Granya, from 44·77 to 45·43 miles ..	·66	..
,, ...	Forming and sanding two sections near Thologolong, from 54·54 to 55·32 miles, and 56·29 to 56·84 miles	1·33	..
Omeo Highway—			
Section 3	Patrol maintenance from Lightning Creek to Eskdale, 54·89 to 80·24 miles	..	25·35
Section 4	Raising low sections of road on flats, ·57 miles, and sealing from 91·55 to 94·55 miles at Noorongong	3	..
,, ...	Patrol maintenance from Eskdale to Tallangatta, 80·24 to 104·6 miles	..	24·12
UPPER MURRAY SHIRE—			
Murray Valley Highway—			
Section 1	Forming, grading, and gravelling at Jeremal Hill between 102·11 and 102·91 miles ..	·77	..
,, ...	Forming, grading, and gravelling at Miller's Hill from 108·69 to 109·24 miles	·55	..
,, ...	Regrading approaches to bridges from 97·5 to 97·8 miles	·3	..
,, ...	Priming and sealing 8 feet wide from 105·3 to 108·69 miles, and 109·24 to 110 miles ..	4·15	..
,, ...	Priming and sealing 20 feet wide on Cudgewa Creek floodway from 97·25 to 97·45 miles	·2	..
,, ...	Erection of guide posts between 92 and 110 miles	..	..
,, ...	Patrol maintenance throughout, from 90·8 to 111·92 miles	..	21·12
WYCHEPROOF SHIRE—			
Calder Highway—			
Section 4	Reconditioning and sealing between Nullawil and Warne, from 201·2 to 203·5 miles ..	2·3	..
,, ...	Scarifying, reshaping, and addition of limestone between Nullawil and Sea Lake, from 201·2 to 217·22 miles, and 218·95 to 229·44 miles	26·51	..
,, ...	Construction of deviations at Nullawil and Berriwillock from 189·9 to 201·2 miles, and 217·22 to 218·95 miles	4·03	..
,, ...	Reconditioning, priming, and sealing at Dumosa, from 191·35 to 191·52 miles ..	·17	..
,, ...	Patrol maintenance from 182·28 to 229·44 miles	..	47·16
Section 5	Realignment near Sea Lake from 231·08 to 231·31 miles	·23	..
,, ...	Patrol maintenance from 230·02 to 241·52 miles	..	17·5
	Total	119·89	468·55

APPENDIX H.

COUNTRY ROADS BOARD.

TOURISTS' ROADS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF TOURISTS' ROADS RECONSTRUCTED AND MAINTAINED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928 DURING THE YEAR ENDED 30TH JUNE, 1937.

Name of Road.	Nature and Locality of Work.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles
Acheron Way	Widening formation and construction of a turntable in crushed rock near Cement Creek—day labour	·57	..
,, ,, ...	General maintenance—Warburton to Narbethong—day labour	..	23
Alpine Road	Widening and regrading between St. Bernard and Hotham—day labour	·62	..
,, ,, ...	General maintenance—Harrietville to Mount Hotham—day labour	..	19·5
Donna Buang Roads	Widening formation and resheeting with crushed rock from Healesville to "Le Chateau"—day labour	3·28	..
,, ,, ,, ...	General maintenance—Cement Creek to Panton's Gap—day labour	..	14·4
,, ,, ...	General maintenance—Panton's Gap to Healesville—day labour	..	6·8
Gipsy Point Road	General maintenance—Genoa to Gipsy Point—day labour	..	2
Grampians Road	Construction of a four-span steel and timber bridge over Fyan's Creek—day labour ..	·02	..
,, ,, ...	Forming in short sections between Borough Huts and Jimmy's Creek—day labour ..	·75	..
,, ,, ...	General maintenance—Western Highway to Dunkeld Road—day labour	..	44·1
Mallacoota Road	General maintenance—Gipsy Point junction to Mallacoota Inlet—day labour	..	15
Mount Buffalo Road	General maintenance throughout—day labour	..	18
Mount Victory Road	Widening curves, extending, enlarging, and installing pipe culverts between Hall's Gap and Mount Victory—day labour	1	..
,, ,, ,, ...	General maintenance—Grampians Road at Hall's Gap to Rosebrook—day labour ..	..	19·25
Ocean Road	Light resheeting with buckshot gravel from Sherbrooke River to Port Campbell—day labour	4·5	..
,, ,, ...	Gravelling and double coat sealing between Jan Juc and Anglesea—day labour ..	4·9	..
,, ,, ...	Reforming and gravelling between Anglesea and Airey's Inlet—day labour	4	..
,, ,, ...	Reforming and resheeting with crushed rock between Big Hill and Stony Creek—day labour	1·5	..
,, ,, ...	Reforming and gravelling between Torquay and Jan Juc—day labour	3	..
,, ,, ...	General maintenance—Otway–Heytesbury Shire boundary to Peterborough—day labour	..	15·8
,, ,, ...	General maintenance—Torquay to Lorne—day labour	..	28·6
,, ,, ...	General maintenance—Lorne to Apollo Bay—day labour	..	26·6
Otway Lighthouse Road	General maintenance throughout—day labour	..	8
Silverband Road	General maintenance between Grampians Road at Myrtlebank and Mount Victory Road at Turret Falls—day labour	..	5·66
Sydenham Inlet Road	General maintenance—Prince's Highway to Bemm River—day labour	..	9
Wartook Road	General maintenance throughout—day labour	..	2·25
	Total	24·14	257·96

UNDER MUNICIPALITIES.

OMEO AND BRIGHT SHIRES (Joint Works)—			
Alpine Road	Reforming and gravelling at Sharpe's racecourse at 17 miles	·5	..
,, ,, ...	Reforming from 25 to 28 miles	3	..
,, ,, ...	Improvement of crossings at Mountain Creek and Jim and Jack Creek	—	..
,, ,, ...	Patrol maintenance throughout, gravel sheeting and provision of culverts	..	31
OTWAY SHIRE—			
Ocean Road	Double coat sealing from 1·51 to 3·41 miles	1·9	..
,, ,, ...	Sheeting with gravel from 7·58 to 8·53 miles	·95	..
,, ,, ...	Construction of stone wall along batter north of Ford River, ·1 mile	—	..
,, ,, ...	Realignment of curves from 4·71 to 4·91 miles	·2	..
,, ,, ...	Superelevating curves and resheeting waterbound macadam road with crushed rock from 0 to 1·4 miles	1·4	..
,, ,, ...	Patrol maintenance throughout	..	57·1
	Total	7·95	88·1

APPENDIX I.

COUNTRY ROADS BOARD.

UNEMPLOYMENT RELIEF ACT, No. 4097.

STATEMENT SHOWING DETAILS OF UNEMPLOYMENT RELIEF WORKS PUT IN HAND DURING THE YEAR ENDING 30TH JUNE, 1937.

Municipality and Road.	Particulars of Work.	Grant.	Expenditure.
		£	£ s. d.
ALBERTON SHIRE—			
Madalya–Hiawatha Road	Clearing, forming, and surfacing	2,600	2,144 10 4
ALEXANDRA SHIRE—			
Taggerty–Thornton Road	Realignment and gravelling	2,000	1,970 1 7
Devils River Road	Forming and sidecutting	1,900	1,851 19 8
Maintongoon Road	Forming	2,400	2,369 4 0
AVON AND BAIRNSDALE SHIRES—			
Lindenow–Cobbanah Road	Clearing and forming	2,000	2,000 0 0
BALLAN SHIRE—			
Ballan–Daylesford Road	Forming and surfacing	2,000	2,000 0 0
BALLARAT, TALBOT, AND CRESWICK SHIRES—			
Clunes–Creswick Road	Resheeting with crushed gravel	1,000	693 18 11
BORUNG SHIRE—			
Warracknabeal–Birchip Road	Reforming and surfacing with crushed rock ..	2,500	2,382 14 9
BOX HILL CITY—			
Burwood Road	Reforming and surfacing with crushed rock ..	2,500	2,500 0 0
BRIGHT SHIRE—			
Bright–Omeo Road	Widening curves	2,000	318 8 1
BUNINYONG SHIRE—			
Old Melbourne Road	Reforming and surfacing with crushed rock ..	1,900	1,900 0 0
CHARLTON SHIRE—			
Lake Marmal Road	Clearing, forming, and gravelling	3,000	2,942 13 10
DANDENONG SHIRE—			
Edithvale–Spring Vale Road	Reforming and gravelling	3,000	3,000 0 0
GLENLYON SHIRE—			
Castlemaine–Daylesford Road	Forming and gravelling	1,500	1,412 12 4
GORDON SHIRE—			
Boort–Wycheproof Road	Clearing and forming	2,000	2,000 0 0
HEYTESBURY SHIRE—			
Brucknell Drainage Scheme	Construction of drains to improve drainage ..	1,550	1,550 0 0
HEYTESBURY AND OTWAY SHIRES—			
Kennedy's Creek Road	Clearing and forming	1,500	805 19 1
HEYTESBURY SHIRE—			
Heytesbury Settlement Road	Clearing, forming, and gravelling	2,000	1,951 8 11
KORUMBURRA SHIRE—			
Loch–Bena Road	Forming	2,000	2,000 0 0
LILLYDALE SHIRE—			
Mount Dandenong Road	Widening and metalling	3,000	3,000 0 0
LOWAN SHIRE—			
Murrayville–Nhill Road	Clearing, forming, and sanding	1,210	928 3 10
MAFFRA SHIRE—			
Licola Road	Widening	2,000	2,000 0 0
MANSFIELD SHIRE—			
Mansfield Road	Clearing, reforming, and gravelling	4,000	3,265 19 1
Eildon Weir–Jamieson Road	Clearing and forming	3,000	2,974 13 3
Woods Point Road	Widening	4,000	4,000 0 0
MILDURA SHIRE—			
Meridian Road	Clearing and forming	400	251 6 2
MORDIALLOC AND MOORABBIN CITIES—			
Warrigal Road	Reforming and surfacing with crushed rock ..	3,000	3,000 0 0
	Carried forward ..	59,960	55,213 13 10

STATEMENT SHOWING DETAILS OF UNEMPLOYMENT RELIEF WORKS, ETC.—*continued.*

Municipality and Road.	Particulars of Work.	Grant.	Expenditure.
		£	£ s. d.
	Brought forward ..	59,960	55,213 13 10
MULGRAVE SHIRE—			
North Road	Reforming and surfacing with crushed rock ..	2,000	2,000 0 0
OMEO SHIRE—			
Benambra–Limestone Road	Clearing and forming deviation	3,345	2,874 3 3
Omeo Highway	Widening and removing dangerous curves ..	6,155	6,151 13 7
ORBOST SHIRE—			
Orbost–Bendoc Road	Clearing and forming	5,000	1,652 1 3
Combienbar–Buldah Road	Clearing and forming	1,000	580 3 2
OTWAY SHIRE—			
Carlisle–Colac Road	Clearing and forming	1,500	845 10 10
Barramunga–Gellibrand Road	Clearing and forming	3,500	3,101 14 11
OXLEY SHIRE—			
Upper Rose River Road	Clearing and forming	1,100	1,059 8 9
ROSEDALE SHIRE—			
Willung South Road	Clearing and forming	2,000	312 9 9
SHEPPARTON SHIRE—			
Fruitgrowers' Outlet Roads	Reforming and gravelling	3,000	1,804 8 0
SOUTH GIPPSLAND SHIRE—			
Darby River Road	Clearing, forming, and surfacing	5,750	4,646 10 10
STAWELL SHIRE—			
Fyan's Creek Road	Clearing and forming	600	245 6 3
TAMBO SHIRE—			
Wulgulmerang–Snowy River Road	Realignment and widening	2,500	1,136 10 0
Buchan–Ensay Road (Timbarra Section) ..	Clearing and forming	2,000	1,970 19 10
Orbost–Buchan Road	Clearing and forming	2,300	2,300 0 0
Bonang–Gelantipy Road	Clearing and forming	2,000	1,986 9 0
TOWONG SHIRE—			
Omeo Highway	Widening dangerous curves	3,900	3,900 0 0
WALPEUP SHIRE—			
Murrayville–Ouyen Road	Reforming and surfacing with limestone ..	10,000	7,363 15 7
Various Roads	Removal of sand drifts and forming and metalling	2,300	2,300 0 0
WARANGA SHIRE—			
Stanhope Estate Roads	Reforming and gravelling	2,500	2,500 0 0
WERRIBEE SHIRE—			
Truganina Explosives Reserve Road	Forming and surfacing with crushed rock ..	3,100	99 12 4
VARIOUS SHIRES—			
Roads for Isolated Settlers	.. ..	20,000	8,167 6 9
Forest Roads	.. ..	38,750	6,730 10 9
		184,260	118,942 8 8

By Authority : H. J. GREEN, Government Printer, Melbourne.