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PUBLIC WORKS DEPARTMENT

ADMINISTRATION REPORT
OF THE
HIGHWAYS DEPARTMENT

1950-51

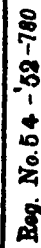
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ADMINISTRATION REPORT OF THE HIGHWAYS DEPARTMENT, 1950-51.

CHAPTER I.

SUMMARY.

1. Accomplishments.

Roads in the State are divided into groups coming under different authorities—the Union Government for National Highways, State Government for Provincial Highways and a majority of Major District Roads, the District Boards for Other District Roads, Village Roads and the balance of Major District Roads. The Highway Department has been executing works on all these roads ensuring uniformity in methods, standards and quality. The main considerations of the department had all along been to add to the existing mileage of roads and at the same time to develop and maintain the existing roads. The most common type of all weather surfacing that the department has been adopting is the water bound macadam on account of its initial low cost irrespective of traffic intensities. Water bound macadam requires frequent renewal. With the limited finances and shortage of critical materials like steel, cement, equipment and plants it has not been possible to take up improved surfacings to a large extent and minimize recurring expenditure on maintenance of water bound macadam.

It has been the policy of Government that all National Highways, Provincial Highways and Major District Roads be taken over by Government from the local bodies so as to relieve them of the responsibilities of maintaining these classes of roads. Accordingly 52 miles of roads were taken over during the year under review, bringing up the total of Government roads to 15,560 miles. Details of the roads taken over are given in Appendix 7.

The following figures of expenditure might be considered as a rough index of the increasing volume of work of the department :—

Year.					Expenditure (Government works; District Board Roads and Non-Road works).
					RS. IN LAKHS.
1946-47	..	..	..	..	375
1947-48	..	..	..	..	437
1948-49	..	..	..	..	627
1949-50	..	..	..	..	751
1950-51	..	..	..	..	838

A brief summary of accomplishments of the department in 1950-51 is given below :—

Government roads.—Ninety miles of roads were cement concreted; 372 miles were black-topped and 60 bridges and culverts were constructed. Besides, special repairs were carried out to the extent of Rs. 15 lakhs covering 101 works.

District Board Roads.—Eight hundred and seven miles of new roads were formed and 145 bridges and culverts were constructed, besides carrying out special repairs to the extent of Rs. 13·8 lakhs covering 251 works.

Division-war details of works completed during the year are given in Appendices 22 (ii) and 23 (ii). The Division-war particulars of lengths of roads newly formed or provided with cement-concrete and black-top surfaces by different authorities are given in the statement in Appendix 6.

Other activities.—A 16 m.m. picture on “Stabilized Soil for Road Making” was produced at a cost of about Rs. 18,400 debiting the cost to the Central Road Fund (Reserve).

A statistical account of the activities and accomplishments was brought out in the form of an illustrated brochure at a cost of Rs. 2,950.

2. Expenditure.

The particulars of final grant and actual expenditure incurred during the year 1950-51 in respect of Government and District Board works and a comparison with the previous years' figures are given below :—

Nature of works.	Final grant for 1950-51.	Expenditure, 1950-51.		Expenditure, 1949-50.	
		Amount.	Percentage of final grant.	Amount.	Percentage of final grant.
		RS. LAKHS.		RS. LAKHS.	
(1)	(2)	(3)	(4)	(5)	(6)
<i>Government Roads—</i>					
Capital works including Post-War Road Development.	168·42	163·21	97	145·34	96
Maintenance	372·64	387·74	104	337·91	106
Total, Government Roads ..	541·06	550·95	101	483·25	103
<i>District Board Works—</i>					
Capital works on roads including Post-War Road Development.	122·62	112·86	92	100·97	94
Maintenance	144·75	134·79	93	129·86	97
Non-road works	57·31	39·16	68	36·76	76
Total, District Board works.	324·68	286·81	88	267·59	93
Grand Total	865·74	837·76	96	750·84	99

The overall expenditure on maintenance and new construction of roads and on non-road works has been on the increase. There have been slight lapses in the final grant for original works on Government roads and on District Board roads and a fairly large lapse on District Board non-road works. This lapse on non-road works is attributed to the difficulties which the department continued to experience in the matter of critical materials like steel and cement.

HIGHWAYS DEPARTMENT, 1950-51

The expenditure on Government and District Board Road works classified under different categories of roads is given below :—

		Expenditure in rupees.	
		New construction.	Maintenance.
		RS.	RS.
<i>Government Roads—</i>			
National Highways		49,31,806	68,98,993
Provincial Highways		39,95,285	83,33,599
Major District Roads		73,51,542	2,28,20,386
Other District Roads		42,493	7,20,770
Total		1,63,21,126	3,87,73,748
<i>District Board Roads—</i>			
Major District Roads		29,34,195	53,37,419
Other District Roads		23,93,022	43,93,658
Village Roads		59,58,774	36,32,362
Avenues		..	1,15,917
Total		1,12,85,991	1,34,79,356

The following statement shows the cost of establishment as percentage of the expenditure on works during the year 1950-51 with the corresponding figures for the previous years for comparison :—

Year.	Expenditure on works inclusive of T. & P.	Expenditure on establishment.	Percentage cost of establishment to working expenditure.
	RS. IN LAKHS.	RS. IN LAKHS.	
(1)	(2)	(3)	(4)
1946-47	351·71	36·10	10·3
1947-48	467·33	46·50	9·9
1948-49	670·21	46·55	6·9
1949-50	835·56	50·64	6·1
1950-51	958·84	49·94	5·2

Column (4) of the statement shows that the downward trend in the cost of establishment in relation to expenditure on works was maintained. Out of the total establishment charges of Rs. 49,93,915, a sum of about Rs. 11,83,000 was recoverable from the Union Government (towards charges for the works executed by the Department on National Highways) and a sum of Rs. 16,48,838 was provisionally marked for being recovered from the District Boards in proportion to the expenditure incurred on District Board works.

3. Upkeep.

A general review concerning the upkeep of Government and District Board roads in the State is given below :—

Government roads.—The maintenance grant for Government roads for 1950-51 was only two-thirds of the minimum allotment required for their proper maintenance. Even so, the maintenance of various categories of Government roads was generally satisfactory, this being rendered possible by a careful distribution of available funds.

From an analysis of maintenance expenditure in relation to traffic intensity, it is seen that there are about 3,500 miles of roads with intensities of traffic ranging from 1,000 tons to 2,500 tons per day and about 900 miles of roads with over 2,500 tons per day, and that a very large portion of the maintenance allotment is spent on such reaches. Experience has shown that improved surfacing is desirable if traffic exceeds 500 tons per day, and quite essential if it exceeds 1,000 tons per day. In order to meet this situation and to raise the standard of service rendered by the roads, surface dressing with pre-coated chips was extensively done under maintenance.

District Board roads.—The unsatisfactory financial condition of some of the District Boards was telling seriously upon the maintenance of the roads left in their charge. The District Boards were able to spend only about 120 lakhs on the maintenance of these roads against an estimated minimum requirement of about 300 lakhs of rupees at current rates. Nevertheless, the department was doing its best to maintain the roads in a satisfactory condition by proper utilization of available funds.

The Post-war Road Development programme contemplates the formation of 18,000 miles of new roads of which 10,600 miles are proposed in the re-cast five-year programme. Out of this about 9,000 miles will come under the administrative control of the District Boards. The resulting increase in the mileage of District Board roads would mean additional burden for the District Boards who are unable to meet even current maintenance needs satisfactorily. For these reasons Government were requested in the regional conferences held in 1950 to take urgent action to improve the financial position of the District Boards. Government in their Memorandum No. 52043-50/1-C & D, dated 23rd February 1951, stated that the question would be considered by a committee to be set up for the purpose of suggesting measures for the reorganization of the District Boards.

Some facts concerning upkeep.—Certain outstanding facts concerning upkeep which give an insight into the efficiency of maintenance and a general idea of the problems facing some regions are described below :—

Visakhapatnam, East Godavari, West Godavari and Guntur Districts.—The roads were maintained in a satisfactory condition and there were no remarks worth mentioning.

Krishna District.—The section of Masulipatnam-Hyderabad Road (NH 43) between Vijayavada and Nandigama was not able to withstand the heavy intensity of traffic and it was proposed to cement-concrete the stretch.

Anantapur District.—The Madras-Bombay road as also the Benares-stretch North of Anantapur was considered to require up-grading.

Bellary Division.—With the extensive black-topping done, the Madras-Bombay road M. 321 to 338 was in a very good condition. The Hospet-Mysore Frontier road was also in a good condition. The Hospet-Kampili road M. 348 to M. 364 (15 miles); Adoni-Yemmiganur road and Guntakal-Tungabhadra road between Alur and Adoni were giving room for complaints, on account of heavy traffic. Intensive repairs to these stretches were taken up.

Chittoor.—The Government roads in this district were maintained in an excellent condition but the District Board roads could not be kept up to the same standard owing to the inadequacy of funds.

Cuddapah.—Water was not available in all seasons in many parts of the district to maintain the water bound macadam roads in a good condition. The only solution is to black top at least the Provincial Highways and Major District Roads in the district.

Chingleput and Kurnool.—The roads were maintained in a fairly good condition to the satisfaction of the public.

Nellore.—The standard of maintenance of roads was not quite satisfactory.

North Arcot.—The entire stretch of the Madras-Chittoor-Bangalore road was in an excellent condition. Ranipet-Krishnagiri road M. 70—78 (except 74/6 to 76/2) and M. 100 to 128/6 were of water bound macadam surface. Due to heavy traffic, it was impossible to maintain the water bound macadam surface satisfactorily.

South Arcot.—Maintenance works on Government roads in Cuddalore and Chidambaram taluks with road stone quarries located in far off areas requiring road materials to be transported by rail, suffered shortage of waggons for transport. The maintenance expenditure on District Board roads was very low. A large mileage of roads was continued as earth roads lacking culverts and bridges lamentably and generally bad and unfit for traffic during wet weather. The programme for the improvement of the District Board roads has been under the consideration of the District Board.

Tiruchirappalli.—Roads in Tiruchirappalli Division were maintained in an appreciably good condition.

Pier No. 16 of Cauvery bridge at M. 194/8 developed cracks and the bed block slipped, as a result of which speed and load restrictions were imposed over the bridge. The pier was strengthened and bed blocks and bearings were relaid to standard requirements.

Roads in the Pudukkottai State merged in the Madras State were below the standards prevailing in the other parts of the district and special attention was being paid to the upgrading of these roads.

Madurai.—It was observed that water bound macadam did not last for over three months on Madurai-Tiruppattur road, Madurai-Tiruchirappalli section of Great Southern Trunk road, Periyakulam-Kuruvanthur road and Dindigul-Palni road as traffic was too heavy and still increasing.

Short stretches of roads in built up areas were black topped under maintenance and these stretches would be extended considerably in about three years.

Periyakulam-Kuruvanthur road had a narrow metalled width and this was being widened.

The Benares-Cape Comorin road was cement concreted from Somayatham to Madurai for serving heavy traffic satisfactorily.

Tirunelveli.—To suit the nature and volume of traffic, improved type of surfacing was found necessary for roads in and around Tuticorin, Palayamkottai and Tirunelveli Municipal areas.

Coimbatore Circle.—In the Coimbatore Circle, the following lengths of roads in the respective divisions were giving room for complaints and improved surfacings of these stretches were under consideration :—

Salem.—Madras-Kozhikode road in Salem town limits and up to Ariyanur.

Erode.—

(1) Erode-Saty road.

(2) Bhavani-Erode road.

Coimbatore—

- (1) Pollachi-Meenkarai road.
- (2) Tiruchirappalli-Coimbatore road from Sular to Singanallur.

Malabar North—

- (1) Road from Kozhikode to Cannanore.
- (2) Kozhikode-Vythiri road within Kozhikode town limits.
- (3) Madras-Kozhikode road from Feroke to Kallaye.

Malabar South—

- (1) Madras-Kozhikode road from Feroke to Kondotty.
- (2) Palghat-Parali road.
- (3) Madras-Kozhikode road from Chulli Madai to Palghat and Palghat to Olavakode.

South Kanara—

- (1) Road from Mangalore to Jodurotga.
- (2) Road from Mangalore to Guruppur.

CHAPTER II.

ORGANIZATION.

1. *The Department.*

The Highways Department which entered its fifth year during 1950-51 after its organization on 1st April 1946 as a separate department continued to function with a Chief Engineer in charge of the department. The strength of the various administrative and executive posts as on 31st March 1951 is given below :—

Post.	Permanent strength.	Temporary strength.	Total strength.
Superintending Engineers	4	1	5
Divisional Engineers	28	13	41
Assistant Engineers	98	59	157
Supervisors	385	203	588

The service rules concerning the State and the Subordinate Services for the department were under the consideration of the Government. The service rules concerning the latter, the Madras Highways Engineering Subordinate Service were issued in G.O. No 736, P.W., dated 21st February 1951.

The working of the department after its reorganization in 1947 was reviewed by the Government in the light of the experience gained and the criticism of the district boards that the department was neglecting district board works. A detailed examination showed that the Highways Department had in no way neglected the district board works in preference to works on Government roads, and the Government decided that there was no need to alter the existing set up of the Highways Department. However, in G.O. No 372, P.W., dated 25th January 1951, the Presidents of district boards were granted certain powers of control over the engineering staff so far as the execution of district board works was concerned.

2. *The Chief Engineer and his office.*

Sri M. S. Thirumale Ayyangar, B.E., M.I.E. (Ind.), I.S.E., continued as the Chief Engineer (Highways) during the year under report.

Sri K. A. Nanjundeswara Chetti, B.E., A.M.I.E. (Ind.), continued as Deputy Chief Engineer (Highways) till 29th May 1950 when he was succeeded by Sri K. Ramaswamy Reddy, B.E., A.M.A.M.SOC. C.E., who continued till the end of the year.

Sri M. C. Krishna Ayyar, B.A. (Hons.), continued as Accounts Officer (Highways) till 14th August 1950, when he was succeeded by Sri N. Sambamoorthy, B.A., who continued till the end of the year.

Sri D. G. Bhagat continued as Engineer Liaison Officer during the year under report.

Sri P. Srikrishna Patrule, B.Sc., B.E., continued as Technical Assistant to the Chief Engineer (Highways) up to 1st May 1950.

Sri P. V. Raju, B.E., Technical Assistant to the Chief Engineer (Highways), continued from 5th June 1950 till 31st March 1951.

Sri P. G. Nambiar, B.E., continued as Technical Assistant to the Chief Engineer (Highways) till the end of the year.

Sri A. N. Damodaram Naidu, B.E., Technical Assistant to the Chief Engineer (Highways), also continued till the end of the year.

3. *Superintending Engineers.*

I Circle, Kakinada.—Janab N. Durrani, B.Sc., B.E., M.I.E. (Ind.), was in charge of the circle from 1st April 1950 to 31st March 1951.

II Circle, Madras.—Sri K. K. Nambiar, B.E., M.I.E. (Ind.), was in charge of the circle from 1st April 1950 to 31st March 1951.

III Circle, Tiruchirappalli.—Sri S. C. Nayak, M.I.E. (Ind.), continued to be in charge of the circle from 1st April 1950 to 31st March 1951.

IV Circle, Coimbatore.—Sri T. Sekharan was in charge from 1st to 25th April 1950 when he was succeeded by Sri P. T. Narayanan Nair, B.E., who continued till the end of the year.

Bridges Circle.—The Bridges Circle continued to function throughout the year with Bridges South Division at Madras and the Godavari Bridge Investigation Division at Kakinada. After the abolition of the Bridges North Division, the work relating to that division was allocated between the Bridges South Division and the Godavari Bridge Investigation Division as shown below :—

(1) The work relating to the II Circle except Nellore Division was transferred to the Divisional Engineer (Bridges), South.

(2) The work relating to the I Circle and Nellore Division was transferred to the Divisional Engineer, Godavari Bridge Investigation Division.

Government did not agree to the proposal of the Chief Engineer to convert the Bridges Circle into an execution circle and so the post of Superintending Engineer and the Circle office were abolished at the end of the year.

Sri B. N. Shenoy, B.E., held charge from 1st to 8th April 1950 when he retired.

He was succeeded by Sri M. N. Kamath, B.E., M.I.E. (Ind.), on 8th April 1950.

Sri M. N. Kamath held charge of the circle till the end of the year.

4. Divisional Engineers.

The following list shows the divisional charges during the year :—

1. Visakhapatnam North, Srikakulam.

Sri P. L. Subramaniam, from 1st April 1950 to 27th November 1950.

Sri B. Krishnamoorthy, B.A., B.E., from 27th November 1950 to 31st March 1951.

2. Visakhapatnam South, Visakhapatnam.

Janab Basheer Ahmed, from 1st Apr. 1950 to 31st March 1951.

3. East Godavari, Kakinada.

Sri K. Venkiah Choudary, B.Sc., (Edin.), from 1st April 1950 to 18th March 1951.

Janab N. Durrani, Superintending Engineer (additional charge), from 19th to 24th March 1951.

Sri P. R. Golikere, B.E., from 24th to 31st March 1951.

4. Agency Division, Rajahmundry.

Sri N. Seshagiri Rao, B.E., from 1st April 1950 to 31st March 1951.

5. West Godavari Division, Eluru.

Sri C. Krishna Reddi, from 1st April 1950 to 31st March 1951.

6. Krishna Division, Masulipatnam.

Sri H. R. Sayoji Rao, B.Sc. (Lond.), from 1st April 1950 to 5th June 1950.

Sri A. Narasimha Reddi, from 5th June 1950 to 15th December 1950.

Janab N. Durrani, Superintending Engineer (additional charge), from 15th December 1950 to 3rd January 1951.

Sri P. R. Golikere, B.E., from 3rd January 1951 to 16th March 1951.

Sri N. T. Gnanaprakasam, from 16th to 31st March 1951.

7. Guntur North, Guntur.

Sri A. Narasimha Reddi, from 1st April 1950 to 27th May 1950, *a.n.*

Sri P. Veeraiyah, B.E. (additional charge), from 27th May 1950 to 12th June 1950.

Sri H. R. Sayoji Rao, B.Sc. (Lond.), from 12th June 1950 to 31st March 1951.

8. Nellore Division, Nellore.

Sri P. Radhakrishnaiah Nayudu, B.E., from 1st November 1950 to 31st March 1951.

9. Kurnool Division, Kurnool.

Sri B. Narayanamoorthy, B.A., B.E., from 1st April 1950 to 9th December 1950.

Sri P. Sivarama Reddi, B.E., from 9th December 1950 to 31st March 1951.

10. Bellary Division, Bellary.

Sri M. Srikanta Srouti, B.E., from 1st April 1950 to 31st March 1951.

11. Anantapur Division, Anantapur.

Sri N. Dharmarao Nayudu, B.E., from 1st April 1950 to 11th May 1950.

Sri M. Ramachandra Rao, B.E., from 11th May 1950 to 31st March 1951.

12. Cuddapah Division, Cuddapah.

Janab Md. Shar Ali, from 1st April 1950 to 1st May 1950.

Sri B. Narayanamoorthy, B.A., B.E. (additional charge), from 1st to 8th May 1950.

Sri Ch. Madhava Rao, B.E., from 8th May 1950 to 16th September 1950.

Sri P. Sivarama Reddi, B.E., from 16th September 1950 to 17th October 1950.
Sri Ch. Madhava Rao, B.E., from 17th October 1950 to 31st March 1951.

13. Chingleput Division, Saidapet.

Sri A. R. Sivaswami Ayyar, from 1st April 1950 to 29th June 1950.

Sri K. A. Nanjundeswara Chetti, B.E., M.I.E. (Ind.), from 29th June 1950 to 31st March 1951.

14. Chittoor Division, Chittoor.

Sri N. T. Gnanaprakasam, from 1st April 1950 to 6th May 1950.

Janab Md. Share Ali, from 6th May 1950 to 31st March 1951.

15. North Arcot Division, Vellore.

Sri A. S. Anantanarayanan, B.E., from 1st April 1950 to 22nd May 1950.

Sri A. S. Anantanarayanan, B.E. (Additional charge), from 22nd May to 7th July 1950.

Sri A. R. Sivaswami, from 7th July 1950 to 1st November 1950.

Sri K. K. Nambiar, Superintending Engineer (Additional charge), from 1st to 13th November 1950.

Sri A. R. Sivaswami, from 13th November 1950 to 20th December 1950.

Sri K. A. Nanjundeswara Chetti, B.E., M.I.E. (Ind.) (Additional charge), from 20th to 30th December 1950.

Sri A. R. Sivaswami, from 30th December 1950 to 31st March 1951.

16. South Arcot Division, Cuddalore.

Sri K. Ramaswami Reddi, B.E., from 1st April 1950 to 22nd May 1950.

Sri A. S. Anantanarayanan, B.E., from 22nd May 1950 to 31st March 1951.

17. Salem South Division, Salem.

Sri O. Sivasankara Mudaliar, B.E., from 1st April 1950 to 31st March 1951.

18. Salem North Division, Krishnagiri.

Sri P. S. Sivaprakasam, B.E., A.M.I.E., from 1st April 1950 to 31st March 1951.

19. Tiruchirappalli Division.

Sri G. S. Gnanaprakasam, B.E., from 1st April 1950 to 31st March 1951.

20. Tanjore East Division, Nagapattinam.

Sri S. R. Nayudu, B.E., A.M.I. STRUCT. E., from 1st to 24th April 1950.

Sri M. Balasubramaniam, B.E., from 24th April 1950 to 31st March 1951.

21. Tanjore West Division, Tanjore.

Sri G. S. Ganapathi, from 1st April 1950 to 31st March 1951.

22. Tirunelveli Division, Tirunelveli.

Sri S. Kalyanarama Ayyar, from 1st April 1950 to 31st March 1951.

23. Ramanathapuram Division, Sivaganga.

Sri T. S. Kethara Mudaliar, from 1st April 1950 to 31st March 1951.

24. Madurai Division, Madurai.

Sri V. S. Rangaswami, B.E., from 1st April 1950 to 14th June 1950.

Sri H. Nataraja Sastrigal, from 14th June 1950 to 13th November 1950.

Sri T. M. Veeraraghavan, B.E., A.M.I.E. (Ind.), from 13th November 1950 to 31st March 1951.

25. Coimbatore North Division, Erode.

Sri P. Narayanan, B.E., from 1st April 1950 to 31st March 1951.

26. Coimbatore South Division, Coimbatore.

Janab P. Sirajuddin, B.E., from 1st April 1950 to 24th May 1950.

Sri K. S. Krishnan, B.E., A.M.I.E. (Additional charge), from 24th May 1950 to 12th June 1950.

Sri S. R. Nayudu, B.E., A.M.I. STRUCT. E., from 12th June 1950 to 31st March 1951.

27. The Nilgiris Division, Ootacamund.

Sri K. S. Krishnan, B.E., A.M.I.E. (Additional charge), from 1st to 10th April 1950.

Sri K. S. Krishnan, B.E., A.M.I.E. (Additional charge), from 10th April 1950 to 19th September 1950.

Sri S. R. Nayudu (Additional charge), from 19th September 1950 to 11th October 1950.

Sri K. S. Krishnan, from 11th October 1950 to 31st March 1951.

28. Malabar North Division, Kozhikode.

Sri P. T. Narayanan Nair, B.E., from 1st to 22nd April 1950.

Sri N. J. John (Additional charge), from 22nd April 1950 to 2nd June 1950.

Sri N. J. John, from 2nd June 1950 to 31st March 1951.

29. Malabar South Division, Palghat.

Sri N. J. John, from 1st April 1950 to 2nd June 1950.

Sri C. N. Tirupuvanam (Additional charge), from 2nd June 1950 to 6th September 1950.

Sri T. M. Veeraraghavan, B.E., from 6th September 1950 to 10th November 1950.

Sri T. A. Gopala Menon, B.A., from 10th November 1950 to 31st March 1951.

30. South Kanara Division, Mangalore.

Sri M. N. Kamath, B.E., M.I.E., from 1st to 5th April 1950.

Sri M. U. Samitha, from 5th April 1950 to 31st March 1951.

31. Guntur South Division, Ongole.

Sri P. Veeriah, B.E., from 1st April 1950 to 31st March 1951.

32. Transport and Machinery Division, Madras.

Sri G. Srirangachari, B.E., M.I.E., from 1st April 1950 to 31st March 1951.

Special Divisions for special works.

1. Bridges South, Madras.

Sri Ch. Madhava Rao, B.E., from 1st to 29th April 1950.

Sri M. N. Kamath, B.E., M.I.E. (Additional charge), from 29th April 1950 to 28th June 1950.

Sri K. Srinivasan, B.E., A.M.I.E., from 28th June 1950 to 31st March 1951.

2. Araku Division, Vizianagaram.

Sri M. L. Narayana, B.E., from 1st April 1950 to 31st March 1951.

3. Bharatapuzha Bridge Division.

Sri C. N. Tirupuvanam, from 1st April 1950 to 3rd February 1951.

Sri P. Rangaraja Ayyangar (Additional charge), from 3rd to 28th February 1951.

Sri C. N. Tirupuvanam, from 1st to 31st March 1951.

4. Pugalur Bridge Division, Velur.

Sri K. Namasivayam, B.E., from 1st April 1950 to 31st March 1951.

5. Chirakkal Division, Cannanore.

Sri P. Rangaraja Ayyangar, from 1st April 1950 to 31st March 1951.

6. Godavari Bridge Division, Kakinada.

Sri R. Ramamohana Rao, B.E., from 1st April 1950 to 31st March 1951.

7. Coleroon Bridge Division, Sirkali.

Sri K. Srinivasan, B.E., A.M.I.E., from 1st April 1950 to 19th June 1950.

Sri V. S. Rangaswamy, B.E., from 19th June 1950 to 31st August 1950.

Janab P. Sirajuddin, from 31st August 1950 to 31st March 1951.

8. Pennar Bridge Division, Nellore.

Sri B. Satyanarayana, B.A., B.E., M.I.E. (Ind.), from 1st April 1950 to 31st March 1951.

9. Minimalur Ghat Road Division.

Sri M. Ramachandra Rao, B.E., from 1st April 1950 to 1st May 1950.

Janab Basheer Ahmad (Additional charge), from 1st to 22nd May 1950.

Sri N. Dharmarao Nayudu, B.E., from 22nd May 1950 to 31st October 1950 (closed).

10. Special Division, cement-concreting Coimbatore-Mettupalayam road.

Sri K. S. Krishnan, B.E., A.M.I.E., from 1st to 10th April 1950 (closed).

No special divisions were formed during the year 1950-51.

The following divisions temporarily formed during the previous years were closed on the dates noted against each :—

Special Division for the work connected with 10th April 1950.
cement-concreting Coimbatore-Mettu-
palayam road.

Special Chirakkal Division 31st March 1951.

Minimalur Ghat Division 31st October 1950.

5. Subdivisions.

The 98 permanent subdivisions and the following special subdivisions formed during the previous years were continued throughout the year or till such dates as noted against them :—

Serial number and name of subdivision.	Headquarters.	Date of formation.	Remarks.
1 Godavari Bridge Investigation sub-division No. I, now called as the Bridge Investigation sub-division.	Kakinada	14th Feb. 1949, a.n.	The balance of the works relating to the defunct Bridge Investigation subdivision at Kakinada was attached to this subdivision and this was under the control of the Superintending Engineer, I Circle.
2 Godavari Bridge Investigation sub-division.	Alamuru	25th Aug. 1948, f.n.	The headquarters was shifted from Kakinada to Alamuru on 2nd Feb. 1951, a.n.
3 Pugalur Bridge subdivision at Velur.	Velur	11th July 1948, f.n.	Closed on 6th Jan. 1951, a.n.
4 C. C. Special subdivision, Mettupalayam road, No. I.	Coimbatore	7th Mar. 1947, a.n.	Closed on 30th Sep. 1950, a.n.
5 Do. No. II	Perianaikanpalayam.	1st Mar. 1947, f.n.	This was attached to Ootacamund Division from 11th April 1950, f.n.
6 Improvements to roads in Chirakkal taluk (Malabar), No. I.	Taliparamba	8th May 1948, f.n.	This is attached to the Malabar North Division from 31st March 1951, a.n.
7 Improvements to roads in Chirakkal taluk (Malabar), No. II.	Do.	9th Aug. 1948, f.n.	This was attached to the Bharatapuzha Division from 31st March 1951, a.n.
8 Araku Special subdivision No. I ..	Srungavarapukota ..	5th Mar. 1948, f.n.	
9 Do. No. II.	Araku	16th June 1948, f.n.	
10 Improvements to border roads in Tiruvur and Nandigama taluks.	Nandigama	27th May 1948, f.n.	

Serial number and name of subdivision.	Headquarters.	Date of formation.	Remarks.
11 Minamalur ghat road works sub-division No. I.	Madugole ..	1st July 1948, <i>f.n.</i>	
12 C.C. Chidambaram-Bhuvanagiri road.	Chidambaram ..	26th Sep. 1948, <i>f.n.</i>	
13 C.C. Masulipatnam-Vijayavada road.	Vijayavada ..	15th Oct. 1948, <i>a.n.</i>	Closed on 14th January 1951, <i>a.n.</i>
14 Construction of a bridge across Coleroon at Anaikaranchatram.	Sirkali ..	8th Nov. 1948, <i>f.n.</i>	Closed on 11th Mar. 1951, <i>a.n.</i>
15 C.C. Anakapalle-Madugole road	Anakapalle ..	20th Dec. 1948, <i>f.n.</i>	
16 C.C. Nellore-Bombay road, M. 7/0-13/0.	Nellore ..	16th June 1949, <i>a.n.</i>	Closed on 31st Jan. 1951, <i>a.n.</i>
17 C.C. Madras-Tiruchirappalli-Dindigul road.	Srirangam ..	17th Jan. 1949.	Closed on 30th June 1950.
18 Grant-in-aid works, Guntur District Board.	Repalle ..	19th Mar. 1949, <i>f.n.</i>	
19 C.C. Chittoor-Kurnool road, M. 101-107.	Cuddapah ..	18th Mar. 1949.	Closed on 30th June 1950.
20 C.C. roads within Madurai Municipal limits.	Madurai ..	7th July 1949, <i>f.n.</i>	Closed on 30th Nov. 1950, <i>a.n.</i>
21 C.C. works—Sankari-Tiruchengode road.	Sankari ..	19th Apr. 1949.	Closed on 30th June 1950.
22 C.C. Cuddalore-Chittoor road	Cuddalore ..	29th July 1949, <i>a.n.</i>	
23 Construction of a bridge at 41/8 of Salem-Cuddalore road.	Attur ..	2nd Aug. 1949, <i>f.n.</i>	Closed on 31st Mar. 1951, <i>f.n.</i>
24 Improvements to Dornal pass road.	Atmakur ..	9th Aug. 1949, <i>f.n.</i>	
25 C.C. Nellore-Bombay road at M. 325/3 to 327/4.	Bellary ..	13th Aug. 1949, <i>f.n.</i>	Closed on 1st Oct. 1950, <i>f.n.</i>
26 C.C. surfacing Guntur-Bapatla-Chinnaganjam road.	Guntur ..	5th Sep. 1949, <i>f.n.</i>	Closed on 1st Apr. 1951, <i>f.n.</i>
27 C.C. Koderu-Nallajerla road No. II.	Tadepalligudem ..	21st Sep. 1949, <i>f.n.</i>	
28 Construction of a bridge across Pennar.	Nellore ..	1st Dec. 1949, <i>f.n.</i>	
29 Forming a road from Chinnaganjam to Ongole, M. 53/0-71/5.	Ongole ..	8th July 1949, <i>f.n.</i>	
30 C.C. Surfacing Benares-Cape Comorin road.	Salem ..	25th Jan. 1950, <i>f.n.</i>	
31 C.C. Madras-Calcutta road, M. 247/1-4 plus 250/3-267/0.	Mangalagiri ..	21st Jan. 1950, <i>a.n.</i>	
32 Construction of a bridge across Payaswami river.	Kasaragod ..	11th Feb. 1950, <i>a.n.</i>	
33 Forming a road from Ramanathapuram to Mandapam.	Ramanathapuram ..	17th Feb. 1950, <i>f.n.</i>	

The following subdivisions were formed during the year :—

Serial number and name of subdivision.	Headquarters.	Date of formation.	Remarks.
34 Improvements to roads in Pudukkottai.	Pudukkottai ..	1st April 1950, <i>f.n.</i>	
35 C.C. Kancheepuram-Chingleput road, M. 37/7-40/0-122.	Kancheepuram ..	8th Apr. 1950.	Closed on 14th Dec. 1950, <i>a.n.</i>
36 Strengthening and widening Kaveripattinam bridge at M. 166/4 of Benares-Cape Comorin road.	Kaveripattinam ..	10th Apr. 1950, <i>f.n.</i>	
37 Metalling Nidadavole-Yernagudem road, M. 0/0-14/0.	Nidadavole ..	19th Apr. 1950, <i>f.n.</i>	
38 C.C. Madras-Calcutta road, M. 4/6-12/0.	Madras ..	27th Apr. 1950, <i>f.n.</i>	
39 C.C. Rajahmundry-Kakinada road.	Dwarapudi ..	20th Apr. 1950, <i>a.n.</i>	
40 Forming a road from Dornal to Sreesallam investigation and preparation of plans (Kurnool district).	Dornal ..	4th May 1950, <i>a.n.</i>	Closed on 25th Oct. 1950, <i>a.n.</i>
41 C.C. Benares-Cape Comorin road, M. 219/0-223/0, Salem district.	Omair ..	26th June 1950, <i>f.n.</i>	
42 Construction of a causeway across Pennar, M. 6/8-7/3 at Sidhout.	Sidhout ..	1st July 1950, <i>f.n.</i>	
43 Construction of a bridge over Gurpur river near Kulur.	Mangalore ..	8th July 1950, <i>f.n.</i>	
44 Forming a road from Rampa Chodavaram to Addatigala (Rajahmundry).	Addatigala ..	5th Aug. 1950, <i>f.n.</i>	
45 Construction of a bridge over Upputeru (West Godavari district).	Akivedu ..	14th Sep. 1950, <i>f.n.</i>	
46 C.C. Ranipet-Krishnagiri road, M. 87,2-90/0 and 90/0-100/0.	Vellore ..	28th Sep. 1950, <i>f.n.</i>	
47 Forming roads in Coimbatore Municipality to be executed by the Highways department.	Coimbatore ..	1st October 1950, <i>f.n.</i>	
48 Forming a road from Tuticorin-Tiruchendur road.	Tuticorin ..	24th Nov. 1950, <i>a.n.</i>	
49 C.C. Madras-Calcutta road, M. 424/2 to 443/0 (Visakhapatnam district).	Payakaraopet ..	12th Jan. 1951, <i>a.n.</i>	
50 Constructing a bridge over Champavathi (Visakhapatnam district).	Vizianagaram ..	24th Jan. 1951, <i>f.n.</i>	
51 Constructing a bridge across Palar (Chingleput district).	Chingleput ..	15th Mar. 1951, <i>f.n.</i>	

6. Supervisors.

For the normal maintenance work of the department, 480 posts of supervisors were considered as the minimum necessary, but during the year 1950-51 there was sanction of Government only for 385 posts for such work.

The scarcity of qualified supervisors that was felt during the previous years had somewhat eased, yet, the position on 1st April 1950 was that out of a total of 672 permanent and temporary posts sanctioned, 126 posts of supervisors were either vacant or managed by additional charge arrangement. Due to curtailment of works consequent on a drive for economy and due to completion of certain special works, the temporary strength was greatly reduced during the year. The position as on 31st March 1951 is given below :—

(1) Total number of supervisors required	683
(2) Number of sanctioned posts of supervisors including temporary posts for specific works but excluding supervisors in the drawing branches.	588
(3) Number of persons actually employed against the posts mentioned in (2) above including 22 persons who were on leave.	584
(4) Out of the number noted against (3) above—	
Number of qualified persons holding the posts of supervisors.	508
Number of retired men re-employed and unqualified men exempted.	18
Number of overseers employed against the posts of the supervisors.	58

During the year under review, 98 sections were newly formed, 14 of which were closed before the end of the year. The remaining 84 sections were continued throughout the year. Sixty-one special sections formed during the previous years were closed during the year.

The following are the particulars of the sections formed during the year :—

Name of work for which the section was formed or other particulars.	Date of formation.
(1)	(2)
1 Conphalt surfacing Visakhapatnam-Araku road—M. 2/0 to 3/0.	3rd July 1950.
2 Nathavalasa bridge work—Visakhapatnam South ..	18th November 1950.
3 Champavathi bridge work—Vizianagaram ..	30th December 1950.
4 Cement concreting—M. 424/2 to M. 443/0 of Madras-Calcutta road—Payakaraopeta I.	14th November 1950.
5 Cement concreting—M. 424/2 to M. 443/0 of Madras-Calcutta road—Payakaraopet II.	26th November 1950.
6 Cement concreting work on Rajahmundry-Kakinada road at Dowlaiswaram.	15th April 1950.
7 Cement concreting work on K.M.F. Road, Section II—Kakinada.	1st June 1950.
8 Rampa-Addatigala road—Addatigala ..	27th August 1950
9 Forming dustless surfacing G.N.T. Road—M. 363/1 to M. 3—Rajahmundry.	6th July 1950 (abolished on 23rd December 1950).
10 Annavaram Special section for Pampa bridge work ..	29th December 1950.
11 Metalling Nidadavole-Yernagudem road ..	2nd June 1950.
12 Metalling Dommeru-Tanuku road ..	7th July 1950.
13 Upputeru Bridge works ..	1st September 1950.
14 Post-war Road Development works—Chintalapudi I ..	19th February 1951.
15 do. Jeelugumilli II ..	4th March 1951.
16 Bridges—Chinavogirala and Pedavogirala bridges (Krishna Division).	30th April 1950.

Name of work for which the section was formed or other particulars. (1)	Date of formation. (2)
17 Vuntur Bridge works	6th May 1950 (post abolished on 11th June 1950).
18 Panchayat works—Gudivada	14th December 1950.
19 Panchayat works—Tenali	28th June 1950.
20 Cement concreting works—G.N.T. Road III—Mangalagiri	11th April 1950.
21 Forming and metalling a bye-pass at Karamchedu village	22nd June 1950. (abolished on 6th November 1950).
22 Forming a road from Darsi to Chinnakurthi (Ongole)	19th May 1950.
23 Bridge on Amaravathi-Guntur road	10th June 1950 (abolished on 31st March 1951).
24 Cement concrete works across Hagari-Adoni-Siruguppa road	9th April 1950.
25 Sandur Section	1st October 1950.
26 Bridge at Hala Harvi-Goschen Bridge road	29th December 1950.
27 Special Investigation Section I—Sreesailam road	25th April 1950 (closed on 25th October 1950).
28 Constructing a bridge at M. 45/7 of K.G. road—Kurnool	16th July 1950.
29 Special Investigation Section II—Srisailam road	25th May 1950 (closed on 25th October 1950).
30 Special section for Koilkuntla road palem-Bridge work	2nd July 1950 (closed on 1st January 1951).
31 Sidhout causeway—Cuddapah	1st June 1950.
32 Causeway at M. 7/8 of Khajepet-Kamalapuram road	7th December 1950.
33 Kushavathi and Jayamangali causeway	14th June 1950.
34 Hindupur, Faringi and Madakasira firkas	21st December 1950 (closed on 31st March 1951).
35 Rural Development Works—Venkatachallam	1st May 1950.
36 Post-war Road Development Works—Gudur III	10th June 1950.
37 Post-war Road Development Works—Kandukur IV	Do.
38 Post-war Road Development Works—Nellore II	Do.
39 Kanigiri-Badvel Road—Nellore	14th June 1950 (closed on 31st August 1950).
40 Buchiredipalem special buildings for a Board High school	28th December 1950.
41 Kanigiri-Dasaipeta road	19th September 1950.
42 Pennar Bridge—Section III	21st April 1950.
43 Pennar Bridge—Section IV	12th April 1950.
44 Cement concrete work—G.N.T. Road—M. 4/6 to M. 12/0—Madras	20th April 1950.
45 Kancheepuram Special Section	17th April 1950.
46 G.N.T. Special Section, Saidapet	8th April 1950.
47 Sriperumbudur Famine works	2nd August 1950.
48 Famine relief works—Acharapakkam	25th August 1950.
49 Post-war Road Development Works, Saidapet	27th May 1950.
50 Famine Works, Chingleput	21st July 1950.
51 Cement concrete work, R.K. Road, Vellore	30th October 1950.
52 Cement concrete work, Pallikonda	2nd October 1950.
53 Santhapet Bridge Section—Chittoor	19th July 1950.
54 Madanapalle to Madanapalle Railway Station Road	27th June 1950.
55 Bridge across Nandiyar-Tiruchirappalli-Jayamkondam Road	8th July 1950.
56 F.D. works—Musiri and Thathiengarpettai	4th August 1950.
57 Pudukkottai I	16th April 1950.
58 Kiranur (Pudukkottai)	1st April 1950.
59 Annavasal (Pudukkottai)	Do.
60 Perungalur (Pudukkottai)	Do.
61 Thirumayam	Do.
62 Karaiyur	Do.
63 Panchayat works—Ariyalur	25th April 1950.
64 Improvements to causeway across Vaigai in Madurai municipal limits	6th May 1950. 8th July 1950 (closed on 27th January 1951).
65 F.D. works—Madurai—Thiruvananthapuram	28th August 1950.
66 Dindigal-Aravankurichi road, M. 6/2	29th March 1951.
67 Post-war Road Development Works—District Board, Sivagange	3rd April 1950 (closed on 18th January 1951).

Name of work for which the section was formed or other Particulars. (1)	Date of formation. (2)
18 Post-war Road Development Works—Sathur	24th April 1950.
19 Special section—Salaigramam for Rajasingamangalam-Elayangudi road	21st August 1950.
20 Special section—Narikudi to Pulvoikarai I and II	3rd April 1950 (closed on 18th January 1951).
71 Construction of High School buildings, Kaumudi	8th November 1950.
72 Ramanathapuram-Mandapam road I	15th May 1950.
73 Do. II	9th January 1951.
74 Constructing a bridge at M. 4/8 of Nanguneri-Thirukarangudi road (Eruvadi)	15th June 1950.
75 Forming a road from Tiruchendur to Tuticorin	8th September 1950.
76 Post-war Road Development Works—Srivaikuntam	15th September 1950.
77 Special asphaltic work, Tanjore municipal limit	10th June 1950 (closed on 1st January 1951).
78 F.D. works, Vedaranyam	14th July 1950.
79 Cement concrete works—Tiruvannur Municipal limits	2nd October 1950.
80 F.D. works—Vellakoil and Kangayam	1st February 1951.
81 Special work of Board High School, Kollegal	23rd December 1950.
82 Post-war Road Development Works—Section II, Coimbatore South, Kumaramangalam	22nd April 1950.
83 Cement concrete works—Coimbatore	1st August 1950.
84 Municipal works—Coimbatore	1st October 1950.
85 Special Municipal works—Coimbatore	Do.
86 Municipal works—Coimbatore	31st March 1951.
87 Saradka and Kamblapettah Bridge Works	9th April 1950.
88 Post-war Road Development Works, Palghat	8th July 1950 (closed on 8th January 1951).
89 Panthava Bridge works	12th October 1950.
90 Providing dustless surfacing—Mangalore-Byndur road—M. 0/0 to M. 2/1 and M. 2/1-3/4	1st April 1950.
91 Sirur Bridge works—South Kanara	15th May 1950.
92 Kulur Bridge on Gurpur river, South Kanara	19th July 1950.
93 Improvements to Agumbe Ghat Road	16th September 1950.
94 Yakkar Bridge works—South Kanara	1st December 1950.
95 Cement concrete works in Omalur subdivision	29th July 1950.
96 Do.	1st June 1950.
97 Cement concreting—Tiruchirappalli-Salem road (certain improvements to bridges)	23rd May 1950.
98 Improvements to Yercaud Ghat road	25th July 1950.

The following are the special sections formed during the previous years wound up during the year on the dates noted against each :—

Special section.	Date on which wound up.
1 Special section for the Post-war Road Development Works—Tekkali-Visakhapatnam North Division	10th December 1950.
2 Post-war Road Development Works—Visakhapatnam South Division	25th November 1950.
3 Post-war Road Development Works—East Godavari	22nd May 1950.
4 Cement concrete work—Rajahmundry-Dowlaishwaram road	21st December 1950.
5 Special section, Madugolu I	31st October 1950.
6 F.D. works, Polavaram	31st March 1951.
7 Cement concrete works—Koderu-Nallajarla Road I—Tadepalligudem	19th October 1950.
8 Cement concrete works—Koderu—Nallajarla Road IV—Tadepalligudem	16th November 1950.
9 Metalling Ilur-Nidumolu-Kowtaram road	31st March 1951.
10 Cement concreting works—Vijayavada I	14th January 1951.
11 Do. II	31st March 1951.
12 District Board grants-in-aid works—Pedapalem	28th February 1951.
13 Tenali Panchayat Board half-grant works	1st April 1950, f.n.
14 Metalling Tirumalle-Chandolu road	31st March 1951, a.n.
15 Conphalt surfacing G.A. Road	4th November 1950.
16 Providing B.T. surface to Nellore-Bombay road—M. 327/4-300 to M. 332/0	19th November 1950.
17 Post-war Road Development Investigation Section, Bellary	15th November 1950.
18 Cement concrete work—Nellore-Bombay Road—M. 323/5 to M. 325/2	20th November 1950.

Special section.	Date on which wound up.
19 Post-war Road Development Works—Adoni subdivision ..	26th December 1950.
20 B.T. surfacing—Chittoor-Kurnool Road I ..	31st August 1950.
21 Do. II ..	Do.
22 Cement concrete work—Yarraguntla-Proddatur road ..	7th December 1950.
23 Cement concrete work—Nellore-Bombay road—M. 2/0 to M. 13/0.	31st January 1951.
24 Walajabad special section—Building for a Board High School.	6th June 1950.
25 Post-war Road Development Works—Tiruvannamalai ..	31st December 1950.
26 Dustless surfacing—Puttur-Naidupet road ..	12th February 1951.
27 Cement concrete work—Chittoor-Kurnool road ..	28th January 1951.
28 Conphalt Section V, Chingleput district ..	31st May 1950.
29 Extension of Sankaraparani Bridge work ..	2nd December 1950.
30 Cement concrete—Madurai-Tiruchirappalli-Dindigul road—M. 189 to M. 192/5.	30th June 1950.
31 Cement concrete work—Tiruchirappalli-Visalamalai road ..	1st April 1950.
32 Cement concrete work—Tiruchirappalli-Pudukkottai road ..	Do.
33 Special section for Post-war Road Development Work—G.O. No. 2367, P.W., dated 2nd July 1948.	14th April 1950.
34 Cement concrete works—Benares-Cape Comorin road ..	1st December 1950.
35 Special Post-war Road Development Works—Ramanathapuram.	22nd June 1950.
36 Special section II for cement concrete work—Tirunelveli ..	31st May 1950.
37 Special section for Solasseri works ..	31st March 1951.
38 Pudukkottai Bridge work ..	12th June 1950.
39 Vilathikulam-Vembar road ..	22nd January 1951.
40 Post-war Road Development (District Board works)—Tanjore West.	3rd May 1950.
41 Non-Post-war Road Development Works—Orathanad ..	Do.
42 Special asphalt concrete works—Tanjore-Tiruvadi section ..	5th November 1950.
43 Special non-Post-war Road Development Works—Nagapattinam.	14th June 1950.
44 Cement concrete works, Kumbakonam-Sirkali road in Mayuram municipal limits.	21st April 1950.
45 Cement concrete works—Section II, Chidambaram-Bhuvana-giri road.	16th January 1951.
46 F.D. works, Vellakoil ..	1st April 1950.
47 Panchayat Board works, Erode ..	31st March 1951.
48 Famine works, Dharapuram ..	9th June 1950.
49 Post-war Road Development Works—District Board, Section I, Coimbatore South.	31st October 1950.
50 Coimbatore Special Division, Section I ..	30th September 1950.
51 Coimbatore Special Division, Section II ..	Do.
52 Special Section V, Coimbatore South ..	31st December 1950.
53 Special Section VIII ..	30th September 1950.
54 Dustless surfacing—Palladam-Dharapuram road ..	29th March 1951.
55 Cement concrete works—Madras-Kozhikode road in Malabar North.	30th June 1950.
56 Post-war Road Development Works—Salem North ..	22nd May 1950.
57 Construction of a causeway at M. 47/5 of Salem-Tiruchirappalli road.	31st March 1951.
58 Remodelling the girder bridge—Salem-Cuddalore road, Athur.	18th July 1950.
59 Cement concrete works—Sankari-Tiruchengode road, Section I.	30th June 1950.
60 Cement concrete works—Sankari-Tiruchengode road, Section II.	Do.
61 Special Section at Mathamangalam ..	10th January 1951.

CHAPTER III.

WORKS.

1. General.

At the beginning of the year, i.e., on 1 April 1950, there were 15,460 miles of Government roads and 22,587 miles of district board roads in charge of the department. Besides maintaining the above roads, 90 miles of roads were cement concreted, 379 miles provided with black top, 726 miles metalled

and 807 miles of new road formed during the year 1950-51. Fifty-two miles of roads were taken over from local bodies during the year. Details regarding roads newly formed or improved and taken over from local bodies are given in Appendices 6 and 7 respectively. The position as on 31st March 1951 is indicated below :—

	Government.	District board.
	MILES.	MILES.
C.C. roads ..	228	..
B.T. roads ..	1,025	11
Metalled roads ..	13,904	12,079
Unmetalled roads ..	403	11,321
Total ..	15,560	23,411

2. Maintenance.

The expenditure on maintenance of Government and of district board roads compared with four preceding years is given below :—

Year.	Government roads.	District board roads.
	RS.	RS.
1946-47 ..	1,75,22,582	79,96,937
1947-48 ..	2,62,03,053	91,54,213
1948-49 ..	3,50,15,182	1,15,83,288
1949-50 ..	3,37,91,000	1,29,85,735
1950-51 ..	3,87,73,748	1,33,63,439

The divisionwise details of expenditure on the maintenance of Government and District Board roads during 1950-51 are given in Statements (i) and (ii) Appendix 11.

Cost per mile.—The average cost of maintenance per mile without regard to type of road surface for the past years is furnished in Appendix 2. The average cost of maintenance which was Rs. 609 per mile in 1946-47, the first year of the Highways Department, rose to Rs. 1,229 in 1949-50 and Rs. 1,338 in 1950-51. Though the increasing cost might be partly attributed to the higher cost of labour, transport and materials, yet it is clearly indicative of the increasing volume of maintenance work resulting from the increasing complexity of traffic—larger number and variety of vehicles, higher speeds and heavier loads. However the available funds are not presently adequate and the cost of maintenance each year cuts deeper into the highway budget, and allotments for badly needed improvements are curtailed.

The divisionwise classification of maintenance expenditure according to categories of roads is given in Appendix 13 and an abstract for the State worked out in Appendix 3. The average cost of maintenance per mile of various categories of roads without regard to the type of surface is given below :—

	RS.
National Highways ..	3,488
Provincial Highways ..	2,659
Major District Roads (Government) ..	2,242
Major District Roads (District Board) ..	932
Other District Roads (Government) ..	2,670
Other District Roads (District Board) ..	595
Village Roads ..	353

These figures give a broad indication of the relative standards of the different categories of roads.

National Highways.—In the case of maintenance of National Highways for which allotments are being made by Government of India the actual expenditure is to be restricted to the actual grants sanctioned by them. The provision required is indicated in the State budget which for 1950-51 was given as 54 lakhs. Government of India sanctioned a sum of Rs. 31,00,500 as a first instalment in May 1950 and a sum of Rs. 20.90 lakhs in September 1950 and Rs. 2,15,000 in March 1951, bringing up the total to Rs. 54,05,500 were also sanctioned as further allotments for ordinary maintenance.

An amount of Rs. 11 lakhs under special repairs was also applied for and the amount was also sanctioned by the Government of India. On the whole the final allotment sanctioned by Government of India for maintenance and special repairs of National Highways during 1950-51 was Rs. 65,05,500. The expenditure was even greater than this amount as the condition of the National Highways needed much greater attention and was actually Rs. 69,59,293. The excess amount of Rs. 4,53,793 was met from the State Funds as the Government of India who were moved to sanction additional funds to this extent did not comply with the request.

Cost per ton-mile.—The cost of maintenance per ton-mile of traffic for a few roads taken at random is given below:—

District, class of road, name of road and reach.	Maximum traffic intensity in tons.	Maintenance expenditure.	Maintenance cost per ton-mile.
(1)	(2)	(3)	(4)
		RS.	RS. A. P.
North Arcot—			
1. Cement concrete Provincial Highway Cuddalore-Chittoor road, M. 119 to 122.	6,253	9,718	0 8 3
2. Black top. National Highway Madras-Chittoor-Bangalore road M. 62 to 71.	2,164	26,256	1 5 6
3. Black top. Major District Road. Arkonam-Conjeevaram road (9 miles.)	1,639	28,898	1 15 4
4. Water Bound Macadam. District Board Road. Sholingar-Kaveripak road M. 0/7 to 19/7.	424	19,583	2 6 11
Kurnool—			
5. Water Bound Macadam. Provincial Highway Kurnool-Bellary road M. 23 to 49/8.	2,189	31,736	0 9 0
Salem—			
6. Cement concrete. Provincial Highway Salem-Cuddalore road M. 2/2 to 5/2.	2,871	751	0 1 4
7. Water Bound Macadam. National Highway Madras-Calicut road M. 257/0 to 266/0.	3,031	25,356	0 14 10
8. Water Bound Macadam. Provincial Highway Salem-Junction to Salem Bypass road.	3,079	6,921	0 10 3
9. Water Bound Macadam. Major District Road Masakalipatty-Namagiripeta road M. 0/0 to 9/0.	2,181	17,376	0 14 2
Coimbatore—			
10. Water Bound Macadam. Erode-Satty road M. 2/1 to 7/0.	4,459	25,068	1 2 0
11. Black top. Providing wearing coat at 0/0 to 1/5 of Calicut-Cannanore road.	3,082	21,348	4 4 0
Malabar—			
12. Water Bound Macadam Calicut-Vayithiri-Gudalur road M. 0/0 to 3/3.	5,102	25,129	1 7 0

Though these few cases do not point to any definite conclusions, they indicate clearly the possible savings that may result from cement concreting roads.

Black topping in builtup areas.—One of the noteworthy features in respect of maintenance of roads during the year was, that in several divisions roads radiating from town limits and those in heavy traffic reaches, mostly in built up areas, were surfaced with precoated chips out of the maintenance allotment thus ensuring a better and more serviceable road surface.

3. Capital works.

The bulk of all the work of improvements to roads such as providing improved surfacing to suit traffic needs, forming new roads, and constructing or reconstructing bridges and culverts, is done under the Post-War Road Development Programme. The rest of such work is done mostly under the Central Road Fund schemes and grants-in-aid to local bodies under Ex-Post-war Roads. A brief survey of the progress of these schemes is rendered below.

(a) Post-War Road Development Plan.

The Post-War Plan for Road Development was conceived at the conference of the Chief Engineers held at Nagpur in 1943. A comprehensive plan on the lines recommended by them was drawn up for the State at a cost of Rs. 67.84 crores. This would have to be achieved in stages, and the first phase known as the first five-year programme of Post-War Road Development was sanctioned by Government at an estimated cost of Rs. 12.06 crores. This programme was initiated in April 1947. However, the programmed expenditure for the first quinquennium commencing 1947-48 was limited to Rs. 8.5 crores, of which Rs. 3.36 crores was for Government roads and the rest for District Board roads. The expenditure incurred to end of 1950-51, the penultimate year of the first phase was Rs. 2.99 crores on government works and Rs. 1.97 crores on District Board roads, the expenditure during the year on Government and District Board roads being Rs. 93.94 lakhs and Rs. 65.80 lakhs respectively. During the year Government sanctioned half grants to District Boards for executing Post-War Road Development works; two-thirds grant was sanctioned to Ramanathapuram and full grants were sanctioned to the following ten districts on account of their poor financial condition:—

Nellore.	North Arcot.
Anantapur.	South Kanara.
Kurnool.	Malabar.
Cuddapah.	Chingleput.
Nilgiris.	Chittoor.

From April 1947, the Government of India took over the responsibility for financing the National Highways. A separate five-year plan for National Highways was drawn up but has not been approved by the Government of India. However works were being selected from the proposed list and executed after obtaining the approval of the Government of India to each work. An expenditure of Rs. 88.02 lakhs was incurred up to end of 1950-51, the expenditure during 1950-51 being Rs. 53.67 lakhs.

A divisionwise review of the progress of the plan is given in Appendices (ii) (iii), (iv) and (v)

(b) Central Road Fund Schemes.

The Central Road Fund was constituted with receipts under the petrol tax. The fund is allocated to the States for utilisation on approved Road Development Schemes. Before the World War II a number of schemes were approved for execution from these allocations from time to time. But

during the war the progress of these works had to be slowed down so as to concentrate the available resources on the execution of essential works connected with defence and other inescapable works. Due to the scarcity of materials like steel and cement, some of the Road Development Fund works declared inescapable could not be started and certain others in progress had to be stopped after bringing them to safe stage.

With the cessation of hostilities, the Road Development Fund works were resumed. Each work is got approved by the Government before commencement. The approval of the Government of India for a list of new works at an estimated cost of nearly Rs. 40 lakhs was communicated in Public Works Department Memorandum No. 4393-Q/47-28, dated 3rd June 1950 and No. 4393-Q/47-30, dated 20th June 1950. Detailed estimates were being prepared for these works.

District Board works are taken up under this scheme by means of grants sanctioned from the State allocations of the Central Road Fund. These are generally full grant works.

The progressive total of allocations to this State to the end of 1949-50 from the commencement of the scheme is Rs. 354.04 lakhs, taking into account the provisional allocation of Rs. 15 lakhs during 1949-50. No allocation either provisional or final has been made for 1950-51.

The progressive expenditure up to end of 1950-51 is Rs. 256.92 lakhs leaving a balance of Rs. 97.12 lakhs. These figures are subject to correction on receipt of final figures of allocation.

A statement showing the expenditure incurred during the three years 1948-51 is given below :—

Year.	Expenditure on Government works.	Expenditure on District Board works.	Total expenditure.
	RS.	RS.	RS.
1948-49	2,66,247	1,26,351	3,92,628
1949-50	13,28,516	1,75,859	15,04,176
1950-51	16,65,665	5,88,866	22,54,531

(c) Grants-in-aid to local bodies under Ex-Post-war Reconstruction.

The bulk of original works under District Boards is done under Post-War Road Development grants-in-aid; but to enable small works which do not come under the scope of the Post-War and which are considered essential for local needs to be taken up, Government have been sanctioning grants under Ex-Post-war reconstruction under the sub-heads: (1) Village communications other than Post-War Reconstruction, (2) roads and bridges other than village communications, (3) improved surfacing of roads and (4) flood damage to roads. The Government have also been sanctioning grants for unemployment relief works necessitated by adverse seasonal conditions based on the recommendations of the Collector of the District concerned.

The statement given below shows the amounts sanctioned under various sub-heads :—

Sub-head.	Actuals, 1949-50.	Revised estimate, 1950-51.
	RS.	RS.
(1) Village Communications other than Post-war Reconstruction.	5,04,337	4,80,000
(2) Roads and bridges other than village communications.	7,73,765	1,82,600
(3) Improved surfacing of roads	5,98,799	10,50,000
(4) Flood damage repairs to roads.	5,788	1,00,300
(5) Special grant for road works to relieve unemployment due to failure of rains.	3,791	11,78,500

Capital Expenditure.

The total expenditure on all capital works during the year and the preceding four years is given below :—

Year.	Expenditure on Government roads.	Expenditure on District Board roads.
	RS.	RS.
1946-47	45,66,518	14,58,197
1947-48	33,49,405	60,22,963
1948-49	48,33,513	88,56,910
1949-50	1,45,34,000	1,00,97,570
1950-51	1,63,21,126	1,12,85,991

Division-wise details of expenditure are given in Appendices 11 (i) and (ii). Divisionwise expenditure classified according to categories of roads may be seen in Appendix 13.

Works completed.

A summary of new constructions and improvements completed during the year is given below :—

(a) Government Works.

Upgrading.—Thirty works at a total cost of about Rs. 28,23,000 were completed during the year by which 90 miles of roads were cement concreted and 372 miles of roads were provided with black top surfacing.

New formations.—Nine works to a total cost of about Rs. 80,000 were completed during the year.

Bridges and culverts.—One major bridge at mile 150/4 of the road from the South Arcot district frontier to Tanjore via Lower Anicut costing Rs. 1,28,000 was completed.

Fifty-nine minor bridges and culverts costing Rs. 3,94,000 were also completed during the year.

Improvements and special repairs.—One hundred and one works costing Rs. 15,00,000 were completed during the year.

(b) District Board Works.

Upgrading.—Three works to a total cost of Rs. 11,000 involving the black topping of 7 miles of roads were completed during the year.

New formations.—One hundred and one works to a total cost of Rs. 8,86,000 were completed during the year involving the formation of 807 miles of new roads.

Bridges and culverts.—One hundred and forty-five works costing Rs. 4,66,000 were completed during the year.

Improvements and special repairs.—One work costing Rs. 3,24,046 and 250 works costing Rs. 10,54,000 were completed during the year.

Works in Progress.

An abstract of the number and estimated cost of works that were under execution by the Department during the year is shown below :—

(a) Government Roads.

Nature of work.	Number.	Cost. RS.
Works costing over Rs. one lakh each—		
Cement concrete and black top works ..	36	1,49,91,000
Bridges and culverts	26	1,68,42,000
New formations	9	38,88,000
Improvements and special repairs ..	29	98,40,000
Works costing less than Rs. one lakh each—		
Cement concrete and black top	96	34,68,000
Bridges and culverts	281	42,98,000
New formations	23	4,59,000
Improvements and special repairs ..	264	45,65,000

(b) District Board Roads.

Nature of work.	Number.	Cost. RS.
Works costing over Rs. one lakh each—		
Cement concrete and black top	4	10,20,000
Bridges and culverts	9	18,11,000
New formations	24	55,00,000
Improvements and special repairs ..		
Works costing less than Rs. one lakh each—		
Cement concrete and black top	29	7,52,000
Bridges and culverts	183	48,47,000
New formations	643	1,18,08,000
Improvements and special repairs ..	499	93,45,000

A detailed review of works costing over Rs. one lakh each is given in Appendix 22 (i). Divisionwise figures of works costing less than Rs. one lakh each are given in Appendix 23 (i).

A BRIEF SUMMARY OF THE IMPORTANT WORKS UNDER EXECUTION.

With the inception of the Post-war Road Development Programme, a large number of important projects like the construction of major bridges and improvements to roads were taken up on all categories of roads. Many of these were under execution during the year and some of these were completed. Many new works were also taken up during the year. A brief survey concerning the progress of a few very important works is given below :—

The Cauvery Bridge at Pugalur.—The Cauvery bridge at Pugalur on Benares-Cape Comorin road (N.H. 7) sanctioned by the Government of India for Rs. 26 lakhs was in rapid progress and nearing completion. An expenditure of Rs. 12 lakhs was incurred on this work during 1950-51 bringing the total expenditure to nearly 20 lakhs. The decking was completed for 18 spans and the approaches were also formed on both sides. The bridge connects Salem and Tiruchirappalli districts besides being an important line on National Highway 7.

Pennar Bridge near Nellore.—A bridge across the Pennar river near Nellore on Madras-Calcutta road (N.H. 5) estimated to cost Rs. 23 lakhs was also in progress. The expenditure during the year was Rs. 6 lakhs and the total expenditure Rs. 8.20 lakhs. The Bridge will consist of 23 spans of 71 feet clear and 10 spans of 61 feet clear waterway. During the year under report the two abutments with wings and ten piers of open foundations on the northern side were completed up to the bearing level.

For the remaining piers for which well foundations have been adopted, well sinking was done for a total depth aggregating to about 1,215 feet out of the total estimated depth of 2,612 feet.

Bridge across river Champavathi.—A bridge across the river Champavathi near Nathavallasa on Madras-Calcutta road at a cost of Rs. 12 lakhs was also taken up for execution.

Bridge across Palar.—Another bridge on the river Palar, near Chingleput on Madras-Tiruchy-Dindigul road was also taken up for execution. The Palar bridge will be of 23 spans of 90 feet each and when constructed it will be the first prestressed concrete highway bridge in India and will also be the longest prestressed concrete bridge in the world.

Bridge across the Coleroon river.—Another bridge work of importance was under construction across the Coleroon river at Anaikaranchatram. It is estimated to cost Rs. 28 lakhs. This bridge is at an important inter district road connecting the two districts of South Arcot and Tiruchirappalli. This bridge is proposed to be of reinforced concrete bow string girder type with 14 spans of 150 feet each. An expenditure of Rs. 3 lakhs was incurred on this work during the current year bringing the total expenditure to Rs. 5 lakhs. During the year wells to carry the piers had been sunk to various depths.

Other bridging schemes.—A number of major bridging schemes were also under execution in the West Coast districts of the State. The most important of them are the bridge across the Bharathapuzha river at mile 18/2 of Kuttipuram-Angadipuram-Cochin Frontier road (estimated Rs. 12 lakhs) and the bridge across the Payaswami river at M. 52/8 of Kalladka-Kanhangad road (estimated Rs. 10.10 lakhs). Other bridges across the Swarnanathi at Puttige, across Gurgur river near Kulur and across the Yekkar river on Mangalore-Kinnigoli road were also in progress.

Asphaltic concrete and cement concrete works.—Many important roads were provided with improved surfacing with asphaltic concrete and cement concrete and a large mileage was metalled. More than 50 works of cement concreting of roads were in progress of which about 90 miles were completed in 1950-51. The work of the cement concreting the whole road from Coimbatore to Mettupalayam is worth mentioning here. This work (estimated to cost Rs. 19.14 lakhs) was completed during 1950-51. Other works completed were cement concreting M. 189/0—192/5 of Madras-Tiruchy-Dindigul road in Tiruchirappalli district and cement-concreting M. 290/0 to 295/3 of Benares-Cape Comorin road in Madurai district. A number of smaller schemes of cement concreting were also completed in Madurai district.

New formations.—In addition to the above works of bridging and improvement to the existing roads, many works of new formation of roads were also in progress. The majority of these roads were under the grant-in-aid programmes of the District Boards and consisted of mainly village roads and other District Roads. A few roads for through transport were

also under execution. Several roads in the Agency areas of the Godavari and Visakhapatnam districts were taken up, among which are the Minimalaur Ghat road, road from Chodavaram to Rampa Addatigala, road from Anakapalle to Madugole and road from Peddavalasa to Katregedda.

A road was under formation from Ramnad to Mandapam as a National Highway Scheme. About 21 miles long, this road leads to the pilgrim centre at Rameswaram and is also of strategic importance. Another important road under formation was from Tuticorin to Tiruchendur; Estimated to cost about four lakhs of rupees, this road connects the two important coastal towns of Tuticorin (a marketing centre and growing port) with the sacred shrine of Tiruchendur.

In the construction of these two roads and also in certain other cases road-making machinery such as graders, bulldozers and tractors and methods of soil stabilisation were used extensively.

Photographs of a few of the works in progress or completed are shown in figures III (a) to (g).

CHAPTER IV.

RURAL DEVELOPMENT SCHEMES.

(a) *Firka Development.*

Government selected 27 firkas and seven centres in the whole State for rural reconstruction work during 194-50. In the year under review Government selected 50 more firkas in the whole State (vide list enclosed). A sum of Rs. 50,000 was allotted to each firka and centre from the development of village communications. Besides, a sum of Rs. 50,000 was allotted under the scheme for each firka and centre for water supply. Voluntary contributions of not less than 25 per cent of the estimated cost of the work either in cash, land or labour were to be collected from the villagers by the Collector of the District concerned.

The Firka Development Committee selects works in each district in consultation with the Collector. Works which are not specially included in the recast five-year programme of Post-war Road Development alone are taken up under Firka Development funds. Those that are specifically included in the five-year programme are taken up under Post-war Road Development but with highest priority.

The execution of works is being entrusted to the villagers themselves and to Grama Seva Sangams, wherever in existence in preference to professional contractors. The contributions to be collected from the villagers are realised and the works executed through the respective Firka Development Officers.

On completion, the works are handed over to the respective District Boards for their future maintenance.

During the year under review, the firka development officers were also given a short training in the preparation of estimates and check-measurement of works after completion in the Grama Sevak Vidyalayam at Koilpatti in Tirunelveli district and Gopannapalem in West Godavari district.

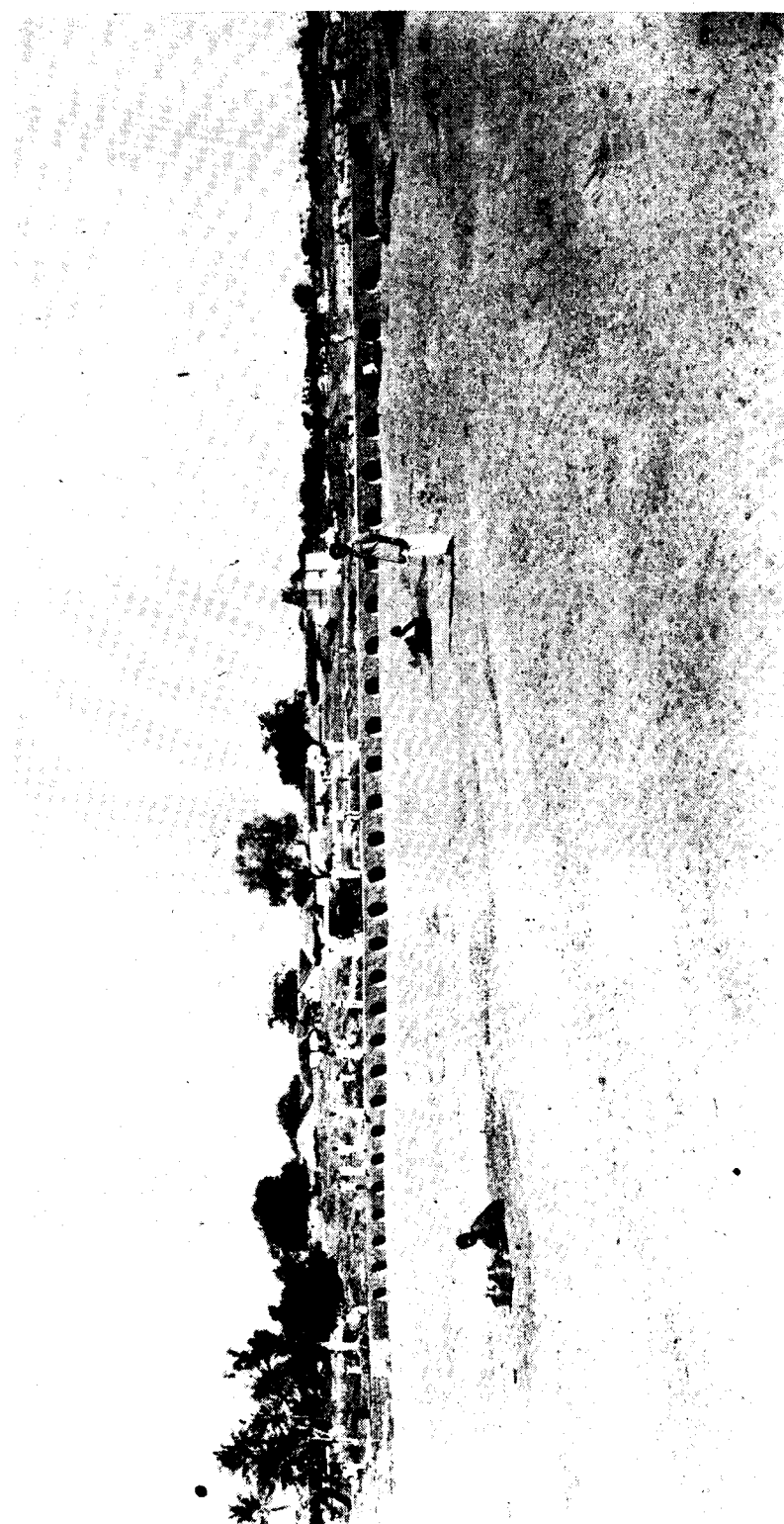


FIG. III (a).—CAUSEWAY AT MILE 0/1 OF ARAVAKURCHI-PUNGAMBADI ROAD.

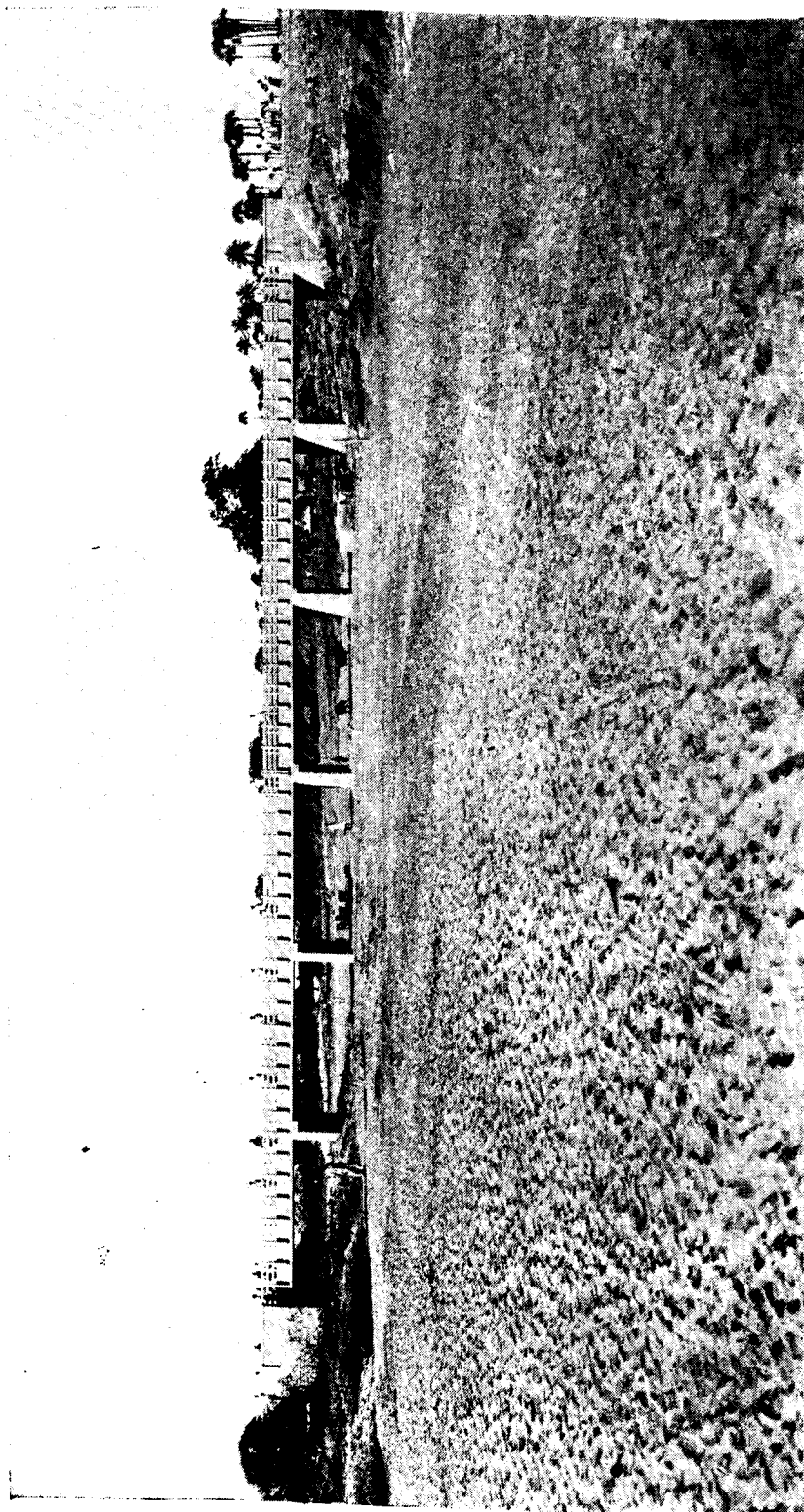


FIG. III (b).—BRIDGE AT 0/1 OF PALLAPATTY-ESUNATHAM ROAD.

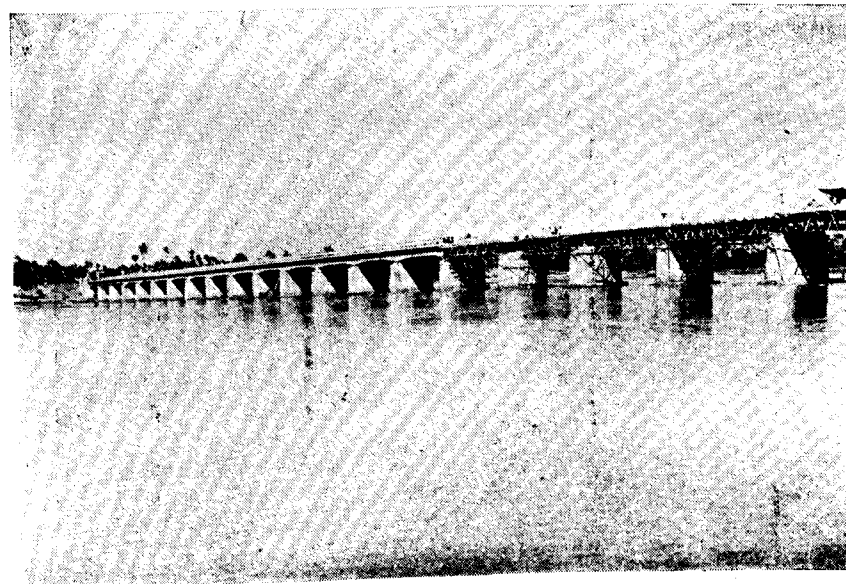


FIG. III (c).—BRIDGE OVER THE RIVER CAUVERY AT PUGALUR ON THE BENARES-CAPECOMORIN ROAD UNDER CONSTRUCTION



FIG. III (d).—LAYING OF FOUNDATION STONE FOR THE BRIDGE OVER THE RIVER PENNAR NEAR NELLORE ON 20TH AUGUST 1950 BY HON'BLE SRI M. BHAKTAVATSALAM, MINISTER FOR PUBLIC WORKS.



Fig. III (e).—CEMENT CONCRETING KARAUKUDI-DEVAKOTTAH ROAD,
M. 52/0—57/0.



Fig. III (f).—CONPHALT WORK IN 7/5—12/0 OF G.S.T. ROAD.

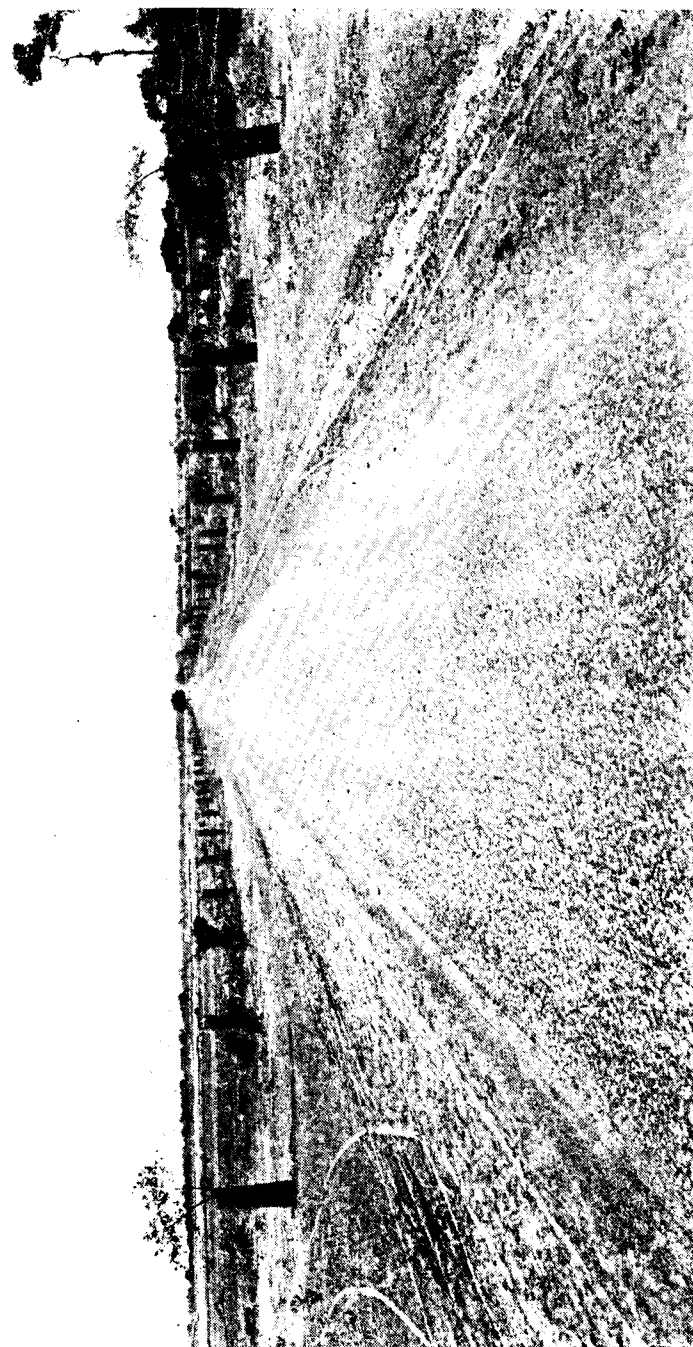


Fig. III (g).—VIKARAVANDY LOWER ANICUT ROAD. PHOTO SHOWING THE ROW OF PLANTS AND THEIR GROWTH
IS TAKEN AT M. 139/3. THESE WERE PLANTED IN JULY 1949.

The special supervisors appointed for the supervision of these works continued to be under the administrative control of the respective District Collectors and under the technical control of the Divisional Engineers (Highways).

(b) *Pilot experiments.*

On the suggestion of Sri R. K. Patil, member of the Planning Commission, it was decided to launch an intensive programme for doubling the production and promoting the economic prosperity of the villagers and to conduct pilot experiments in the following four firkas of this State :—

- (1) Tirumangalam Firka (Madurai district).
- (2) Dondulur Firka (West Godavari district).
- (3) Payanur *cum* Nileswar centre of Malabar *cum* South Kanara districts.
- (4) Proddatur Firka (Cuddapah district.)

Government wanted a co-ordinated plan for each of these firkas to be drawn up by all heads of departments.

Tirumangalam firka was taken up first. So far as roads are concerned the works to be done by the department had been completed already and the position was quite satisfactory.

(c) *Rural welfare exhibition.*

A rural welfare exhibition was held in Kadampuliyur in South Arcot district. This department took up a stall in the exhibition and displayed posters and models of road making and avenue plantations. The stall attracted large crowds and Tamil printed pamphlets which were distributed to the villagers at that time were very much appreciated by the villagers. The pamphlets achieved our object of promoting a sense of road mindedness among the rural populations in that area.

(d) *Panchayat works.*

A total grant of rupees four lakhs was sanctioned to several panchayat boards in the State for the improvement or new formation of panchayat roads.

List of Firkas and Centres selected for Intensive Rural Reconstruction work to end of 1950-51.

Name of district.	Name of firka and centre.	Name of district.	Name of firka and centre.
1 Anantapur ..	1 Hindupur.	6 Chittoor ..	17 Nagari.
	2 Parigi.		18 Narayanavaram.
	3 Madakasira.		19 Arungolam.
2 North Arcot ..	4 Kalasapakkam.	7 Coimbatore ..	20 Avinashi Centre.
	5 Kada'adi.		21 Palladam.
	6 Thurunjiपुरam.		22 Tiruppur.
3 South Arcot ..	7 Kadampuliyur.		23 Vellakoil Centre.
	8 Chinnasalem Centre.		24 Kangay. m.
	9 Tirunavalur.	8 Cuddapah ..	25 Proddatur.
	10 Vadakkanandal area.		26 Chapad.
4 Bellary ..	11 Alur.	9 East Godavari ..	27 Arkatavemula.
	12 Chippagiri.		28 Rajahmundry.
	13 Holagundi.	10 West Godavari ..	29 B rugupondy.
5 Chingleput ..	14 Tiruvallur.		30 Raghudevapuram.
	15 Pandur.		31 Dondulur.
	16 Mappedu.		32 Dharmajigudem.
			33 Kamavarapukota.
			34 Polavaram.

Name of district.	Name of firka and centre.	Name of district.	Name of firka and centre.
11 Guntur	35 Ongole. 36 Guruvareddipalem Centre.	18 Nilgiris	59 Kundah. 60 Gudalur.
12 South Kanara ..	37 Ammanabrolu. 38 Doddavaram. 39 Kumbha. 40 Manjeshwar. 41 Mulki. 42 Tiruvur. 43 Vissanapet. 44 Nuzvid. 45 Kurnool. 46 Yerragondapalem Centre.	19 Ramanathapuram.	61 Pandalur. 62 Malli. 63 Nathampatty. 64 Edirkottai. 65 Veerapandi. 66 Veeraganur. 67 Talaiwasal. 68 Musiri. 69 Valikandapuram and Vengalam.
13 Krishna	47 Nandikotkur. 48 Tripurantakam. 49 Tirumangalam. 50 Kallugudi. 51 Pennikundu. 52 Tellicherry. 53 Payyanur cum Nileshtar Centre. 54 Kuthuparamba. 55 Mattanur. 56 Kanupur. 57 Sarvepalli. 58 Podalakur.	20 Salem	70 Tathiangarpet. 71 Saliangalam. 72 Vedaranyam. 73 Talayanayar. 74 Nilidanallur. 75 Tiruvengadam. 76 Pazhamcottai. 77 Pendurti. 78 Kotaur tla Centre. 79 Sabbava am. 80 Jailur. 81 Araku Valley. 82 Gara. 83 Srikakulam. 84 Amudalavaasa.
14 Kurnool		21 Tiruchirappalli ..	
15 Madurai		22 Tanjore	
16 Malabar		23 Tirunelveli	
17 Nellore		24 Visakhapatnam ..	
		25 Srikakulam	

CHAPTER V.

INSPECTIONS.

(a) Inspection of division offices by the Superintending Engineers (Highways).

As per the standing orders Superintending Engineers have been inspecting the division offices once in a year. A brief summary of the inspections of division offices done by the Superintending Engineers during the year 1950-51 is given below:—

I Circle—Kakinada.

1. *East Godavari*.—The Superintending Engineer (Highways), I Circle, Kakinada, inspected the division office on 26th March 1951. There was no delay in the date of inspection.

2. *Rajahmundry*.—The division was inspected by the Superintending Engineer in time on 26th April 1950. Chief Engineer's (Highways) orders on the Inspection notes were communicated to the Divisional Engineer.

3. *West Godavari*.—This inspection was also done in time on 8th March 1951.

4. *Krishna*.—The inspection of this division office which was due on or before 28th December 1950 was actually done on 7th March 1951, due to the change in the personnel of the Divisional Engineer (Highways), Krishna, in December 1950.

5. *Guntur South*.—The division formed in January 1950 was inspected by the Superintending Engineer on 9th December 1950.

6. *Guntur North*.—The division office was inspected in time on 14th December 1950.

7. *Vizianagaram Special*.—The division office was inspected on 17th November 1950.

8. *Visakhapatnam*.—The division office was inspected on 11th November 1950 and the notes were under correspondence.

9. *Srikakulam*.—The division office was inspected on 9th February 1951 and the notes were under correspondence. No major defects were brought to the notice of the Chief Engineer (Highways).

II Circle—Madras.

1. *Anantapur*.—The Superintending Engineer, II Circle, Madras, inspected the division office, in time on 19th December 1950.

2. *Bellary*.—The inspection due in June 1950 was actually done on 15th August 1950.

3. *Chingleput*.—The inspection due in January 1950, was postponed to 27th November 1950.

4. *Chittoor*.—The inspection due in February 1951 was not done during the year 1950-51, due to the change of personnel in the Divisional Engineer (Highways)-Manager, Head Clerk and Head Draughtsman.

5. *Cuddapah*.—The inspection was done in time on 17th March 1951.

6. *Kurnool*.—The inspection due in January 1951 was done on 20th March 1951.

7. *Nellore*.—The office was inspected by the Superintending Engineer on 3rd February 1951.

8. *North Arcot*.—The inspection due in December 1950 was done on 19th January 1951.

9. *Pennar Bridge Division*.—The inspection due in August 1950 was done on 14th December 1950.

10. *Transport and Machinery Division*.—The office was due for inspection in December 1949 but the Superintending Engineer inspected it on 9th August 1950.

III Circle—Tiruchirappalli.

1. *South Arcot*.—The inspection due on 6th January 1952 was done on 13th and 14th March 1951 by the Superintending Engineer (Highways), Tiruchirappalli.

2. *Tanjore East*.—The division office was due for inspection on 21st September 1950. The inspection was actually conducted on 31st October 1950 and 1st November 1950.

3. *Tanjore West*.—The division office was inspected on 13th October 1950. It was due for inspection before 13th September 1950.

4. *Tiruchirappalli*.—The inspection was done on the due date on 30th June 1950.

5. *Madurai*.—The division office was inspected on 30th December 1950.

6. *Ramanathapuram*.—The office was inspected on 28th July 1950.

7. *Tirunelveli*.—The division office was inspected on 25th and 26th October 1950.

8. *Coleroon Bridge Division*.—The inspection was made on 15th June 1950.

9. *Pugalur Bridge Division*.—The division office which was due for inspection on 17th November 1950, was inspected on 27th December 1950.

IV Circle—Coimbatore.

1. *Malabar North*.—The division office was inspected by the Superintending Engineer on 6th November 1950. The inspection was due on or about 12th September 1950.

2. *Bharathapuzha*.—The division office was inspected on 13th June 1950.

3. *Coimbatore North*.—The inspection was done on 14th August 1950.

4. *Malabar South*.—The inspection due on 30th November 1950 was done on 31st December 1950. There were too many changes in the divisional charge during the year.

5. *Coimbatore South*.—The division office was inspected by the Superintending Engineer on 26th June 1951. There was a delay of three months in conducting the inspection. It was due on 7th March 1951. There were 142 references pending for over one year, 207 Highway deposits and 134 district board deposits for over two years. The major 7-F accounts were not brought up to date. Strict instructions were issued to pay special attention to the above.

6. *Salem South*.—The division office was inspected on 15th January 1951.

7. *Salem North*.—Inspection was done on 19th November 1950.

8. *Cannanore*.—The division office was inspected on 19th February 1951.

9. *South Kanara*.—The inspection due on 20th February 1951 was not done before 31st March 1951. Some of the defects pointed out during the previous inspection were not rectified and necessary instructions were therefore issued.

10. *The Nilgiris*.—The division office was inspected on 11th April 1950. Arrears mounted up in the division office. Accumulation was attributed to the inadequacy of staff. Some of the defects pointed out in the previous years were not rectified. The personal registers were not maintained properly. Preparation of monthly schedule of expenditure for district board works was in arrears. Necessary instructions were issued to bestow personal attention and clear off arrears.

(b) Inspection of circle offices by the Chief Engineer (Highways).

The circle offices have to be inspected by the Chief Engineer (Highways) once in two years. Accordingly the office of the Superintending Engineer (Highways), II Circle, Madras, was due for inspection in September 1950. Owing to other engagements the inspection could not be done on the due date. The Chief Engineer (Highways) inspected the circle office on the 10th, 12th and 13th of October 1950.

The III Circle office, Tiruchirappalli, and the IV Circle office, Coimbatore, were due for inspection in February and March 1951. Owing to administrative necessities the inspections were postponed to a later date in 1951-52.

CHAPTER VI.

STATISTICS.

A. Tests, Experiments and Research.

The following experiments were conducted :—

1. *Burnt stone and Blasted stone*.—Samples of burnt stone and of blasted stone obtained from the same quarry were tested with a view to investigating whether the process of burning had any detrimental effects on the stone. It was found that the burnt stone had lower compressive strength and french co-efficient of wear and greater absorption than the blasted samples indicating that probably the process of quarrying by burning damaged the internal structure of the stone. Further experiments are to be conducted.

2. *Broad and narrow gauge metal stacks*.—There are two standard gauges for stacking road metal, one having a cross-section of 10 square feet and the other 5 square feet. It was observed as a result of box measurements of the material that the smaller gauge yielded more metal than the large gauge. This was being examined further.

3. *Wet stone process in bitumen premix—Work on a selected stretch on Chittoor-Bangalore road, M. 35-40/0*.—This process takes advantage of the ability of a combination of slaked lime and certain fatty acids to form calcium compounds which impart hydrophobic properties to the aggregate. Wet aggregates coming in contact with these calcium compounds in the presence of bitumen throw off their water film and attract the bitumen binder in its place. About 1 per cent of lime is thoroughly mixed with the wet aggregate prior to applying bitumen. The process enables surfacing work to be carried out in wet weather and with wet aggregates. The binder used was Sidelmac D, a proprietary cut-back containing a small percentage of a fatty acid.

4. Bitumen-coated sand was used as binder instead of gravel in macadam consolidation on certain stretches of roads in Madurai Division. The experiment was under observation.

5. *Checcol-grouted surface in M. 5/4 of Madras-Ennore road*.—Checcol, a patented product, is added to cement mortar to produce grout which is poured over graded aggregate placed in position. It is claimed that by the use of this product, cement concrete roads can be made more economically than by the conventional method, and that the life of such roads will be about 25 years.

6. *Colcreting*.—This process was tried on Coimbatore-Mettupalayam road in Coimbatore Division near Tiruvottiyur in Chingleput Division and in M. 8/4 of Cuddalore-Chittoor road in South Arcot Division. The cement grout is prepared in a special colcrete mixer and poured over aggregate placed in position as in the case of Checcol-grouted process. The advantages of the Checcol process are claimed in this case also.

7. *Soil stabilization*.—The work of forming a road from Ramanathapuram to Mandapam, M. 0/0 to M. 21/4, with stabilized soil was being done departmentally with special mechanical equipment like seamen mixers, bulldozers and graders. Work was completed up to 8th mile and an expenditure of Rs. 90,100 was incurred in 1950-51. An experimental stretch of 1/2 furlong of bituminous wearing surface was also laid. It was proposed to provide wearing surface for this stabilized road at a cost of Rs. 11 lakhs.

8. Experiments on laying base course with stabilized soil for metalling Bapatla-Pedanandipadu road in Guntur district were being continued. The

work of laying of stabilised soil base course on Tuticorin-Tiruchendur road in Tirunelveli Division, and on Dommenu-Tanuku road were also under execution.

B. Investigation of Roads.

During the year under review 116 investigations on Government roads and 428 investigations on District Board roads were conducted by the department. The number of investigations since 1946-47 are given in the Statement (i) in Appendix 21.

Division war details of investigations done in 1950-51 are given in the Statement (ii) in Appendix 21.

A brief commentary on the investigations done in some of the divisions is given below :—

Visakhapatnam South.—A major road scheme of “forming a road from Pedavalasa to Katragadda” in the Agency areas was under investigation. A special staff of two supervisors was engaged on the work.

Bellary.—The most important of the road works investigated during the year were—

(1) Forming a road from Halvi to Kuppagal—Estimate Rs. 1,44,000.

(2) Forming a road from H.M.F. road to Holagundi—Estimate Rs. 1,11,000.

(3) Forming a road from Kudligi to Hagari Bomanahalli—Estimate Rs. 2,25,000.

Kurnool.—The road from Dornal to Sree Sailam to a length of 22½ miles was investigated.

Madurai.—Investigation of Bodikarungani road to Bodi Mettur was taken up. The investigation charges were met out of contribution by Planters and Hill Produce Growers' Association. The investigation of 5 out of 13 miles was completed. It was considered advantageous to cut and form bridle-paths even while investigation of ghat schemes was taken up.

A bye-pass estimate for the Benares-Cape Comorin road (National Highway) within the Madurai Municipal limits was completed and was pending approval of the Government of India.

Bye-pass schemes were under investigation in Rajapalayam, Srivilliputtur and Karur Municipal limits also and all of them were receiving due consideration.

Tanjore East.—Twenty district board road works under the Five-year programme and Fifteen Post-War Road Development works were investigated during the year. In several cases, land acquisition stood as bottleneck for taking up the works for execution.

Tanjore West.—Investigation of one Government work, “Cement concreting Tanjore-Tiruvadi road 3/1 to 5/0” was completed and the work was put in progress.

Investigation of eleven district board roads under Post-War Road Development programme was completed and proposals were sent up.

South Arcot.—Eight road works were investigated, out of which seven were taken up for execution and detailed plans and estimates were prepared for them. Land acquisition was being delayed.

Nilgiris.—The work of realigning the Ooty-Mysore road via Sigur was investigated. Alternative alignments were proposed and an approximate estimate for Rs. 4.5 lakhs was sent in connexion with the Post-War Road Development Programme but the scheme was subsequently dropped by Government.

Ooty-Avalanche road beyond M. 0/5.—There was a proposal for taking up the Kundah Hydro-Electric Scheme as a result of which the road beyond 6/5 would be submerged. An alternate alignment along the existing MacIver bund road was proposed at a cost of Rs. 4.23 lakhs.

Krishnagiri.—Twelve works under the District Board were investigated during the year. Out of the twelve works, six were bridge works and the remaining six related to the formation of new roads under Post-War Road Development Programme.

C. Investigation of Bridge Works.

The investigation of bridge works was being done by the Superintending Engineer (Bridges) during the year. The Special Divisional Engineer with two Assistant Engineers were investigating the works of construction of a bridge across river Godavari at Alamuru. Another Divisional Engineer designed as Divisional Engineer (Bridges), South, with four Assistant Engineers (Bridges) was conducting the investigation of other bridges and culverts.

I Circle.—The existing bridge in M. 243/5 of Great Northern Tank road which was damaged by cyclone in October 1949 was examined. The damage was found to be due to undermining watervents. An estimate for reconstructing the bridge with 2 vents of 30 feet each was sanctioned and the work was commenced in 1950-51.

Ramanathapuram.—The following three District Board works were investigated :—

(1) constructing a causeway at M. 0/2 of Partibanur-Narikudy road,

(2) constructing a causeway at M. 0/5 of Pattamangalam-Chockanathapuram road, and

(3) bridge across Vaigai at M. 25/4 of Elayangudi-Paramakudi road was under investigation during the year.

D. Costs of Labour and Materials.

There was no appreciable change in the costs of labour and materials during the year from what it was in the previous year. In the regions surrounding project works, such as, Tungabhadra Project and Lower Bhavani Project the prices of materials and labour were much higher than those in the other areas due to keen competition. As a result 25 per cent extra rates had to be added to the schedule of rates in the regions near project works. The rates of labour and prices of materials in the ghat and Agency areas continued to be high as labour had to be imported to these places from plains. No doubt there was slight fall in the prices of materials in a few places but this did not affect the contractors in quoting high rates for works. This necessitated the continuance of the temporary powers delegated to the several classes of officers of the department.

The conditions of labour and material in the different divisions and how they influenced the works of department are dealt with below :—

Visakhapatnam North.—Labour was diverted to jute fibre-removal operations, as lucrative prices attracted labour. Contractors could not proceed

with works as the schedule of rates, and tender rates were lower than the estimate rates. They could not adhere to the programme in the agreements and consequently fines were levied in several cases.

Visakhapatnam South.—There was scarcity of labour in the Agency area and due to the consequent rise in the cost of labour, works were considerably delayed.

East Godavari, Kakinada Division.—Due to the increase in the cost of Labour, schedule of rates was suitably revised.

East Godavari, Rajahmundry Division.—Labour continued to be scarce in the Agency area, resulting in slow progress of work to some extent. Tenders above estimate rates were received in most of the cases on account of high cost of living.

West Godavari.—There was heavy rise in the cost of labour and materials during transplantation and harvest seasons. Labour was scarce in the upland area and there was not much competition among the contractors.

Krishna.—Both skilled and unskilled labour were generally immobile. There were very few quarries in the district. Consequently, there was undue rush at the quarries.

Guntur.—On account of the growing cost of foodstuffs and the increasing scarcity of foodgrains, cost of labour rose by 25 per cent over the previous years' rates. There was undue rush at the quarries which were not under the control of this department. The cost of materials also showed an upward trend owing to the huge programme of Government and district board works.

Ongole.—Due to failure of monsoon and consequent loss of crops there was scarcity of labour and the schedule of rates could not be enforced.

Anantapur.—The cost of labour was continuously on the increase. This condition added to the uncertain deliveries of cement, was holding up the progress on works.

Bellary.—Scarcity of labour continued to be felt during this year also on account of continuance of project works resulting in increased costs of labour and material, particularly in the taluks of Hospet, Bellary, Alur, Adoni and Siruguppa. The roads in and around the Tungabhadra Project area, within a radius of 6 miles were particularly suffering for want of contractors to execute repair works in time.

Chingleput.—The conditions of labour and material were fair and there was no scarcity of labour.

Chittoor.—There was no appreciable change in the cost of materials. Labour was slightly costlier due to meagre rations and prevailing famine conditions.

Cuddapah.—The position of labour and material remained the same as in the previous years.

Kurnool.—It was highly difficult to procure labour in the district. Much competition was felt due to the establishment of several factories all over the district and due to heavy demand of labour for agricultural operations.

As regards materials, difficulty was being felt only for controlled commodities, viz., cement and steel.

Nellore.—The cost of labour continued to be high.

North Arcot.—Labour charges were considerably on the increase throughout the district, particularly in Tiruvannamalai and Gudiyattam taluks. Some unskilled labour had to be imported from Salem district. Hence the works in Tiruvannamalai, Tiruppattur and Gudiyattam taluks were carried out, by inviting competitive tenders and selecting agents.

South Arcot.—Labour was generally available but wages were high and outturn not commensurate with it. Prevailing famine conditions in no way served as an inducement to labour becoming available in plenty.

Skilled labour for Tirukkoyilur and Kallakurchi taluks had to be imported from Salem. This was a great handicap to South Arcot division.

Tanjore East.—Labour problem was very acute and outturn was not worth the amount payable. The cost of materials also had considerably risen up.

Tanjore West.—Prohibitive costs, very dear labour and difficulty to procure materials contributed to delay in the execution of works.

Tiruchirappalli.—Labour continued to be costly. Food problem affected free utilisation of labour.

Madurai.—In Periyakulam and Tirumangalam taluks labour was scarce during the harvesting season. In other areas little difficulty was felt for labour and materials.

Ramanathapuram.—Procurement of labour was difficult due to adverse conditions like famine, etc., yet the general trend in tenders both for road and masonry works were below the average of the schedule of rates of 1948-49 except in few cases in Ramanathapuram taluk where materials had to be brought by rail from Tirupparankundram in Madurai district. On account of unemployment due to failure of monsoons, large number of relief works had to be provided by taking road formation works on a large scale.

Tirunelveli.—Scarcity of labour and conveyances prevailed throughout the year as a result of abnormal rise in the prices of food stuffs and other commodities and failure of timely rains in the consecutive years. Labour had to be imported at a very heavy cost from distant non-agricultural localities.

Road metal of some variety or other was available at short leads except in parts of Tiruchendur and Srivaikuntam taluks.

Coleroon Bridge Division.—There was no difficulty in getting labour or materials. Granite metal required for roads was imported by rail from Mylam Quarry and due to this difficulty there was slight increase up to five per cent in the cost of supply of granite metal.

Pugalur Bridge Division.—Labour was available in plenty.

Coimbatore North and South.—Owing to adverse seasonal conditions and famine in Dharapuram, Palladam and Udumalpet taluks which are dry taluks there had been migration of villagers in search of labour. Labour was available cheaper than current schedule of rates in Palladam and Udumalpet but in Erode, Bhavani and Gobichettipalayam there was difficulty in securing labour owing to the execution of major works connected with the Lower Bhavani Project.

Salem North and South.—Cost of labour and materials was on the increase in Salem South Division, but yet the progress of works did not suffer by the prevailing conditions. In Salem North Division consequent on the execution of irrigation scheme at Badathalave, labour became scarce even in Krishnagiri taluk, with the result that premium tenders only were received for some reaches of roads and no tenders were received for certain works.

Malabar.—There was increase in the cost of labour and materials.

Nilgiris.—There was no appreciable variation in the cost of labour and materials.

South Kanara.—There was acute scarcity of labour especially of semi-skilled labour. On account of acute labour conditions, experienced and enterprising contractors were not forthcoming to take up works at reasonable rates.

E. Traffic census.

During the year under review census was recorded for a week in all the divisions on all the State roads and on all the important district board and municipal roads during the month of September, and also during the peak load periods which were severally fixed by the Superintending Engineers (Highways).

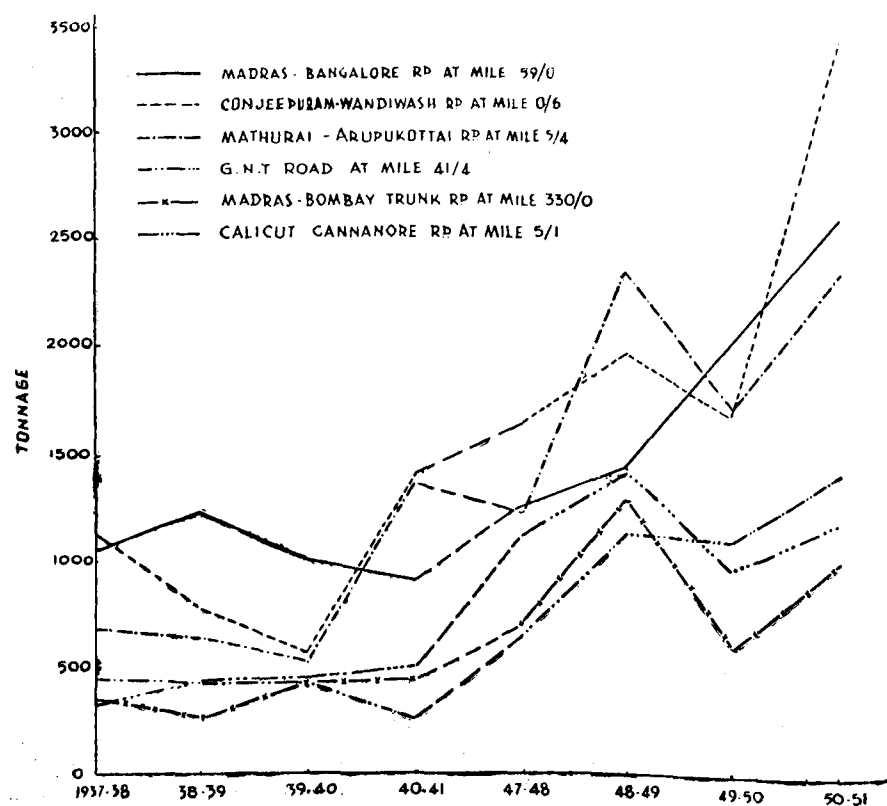


FIG. 1

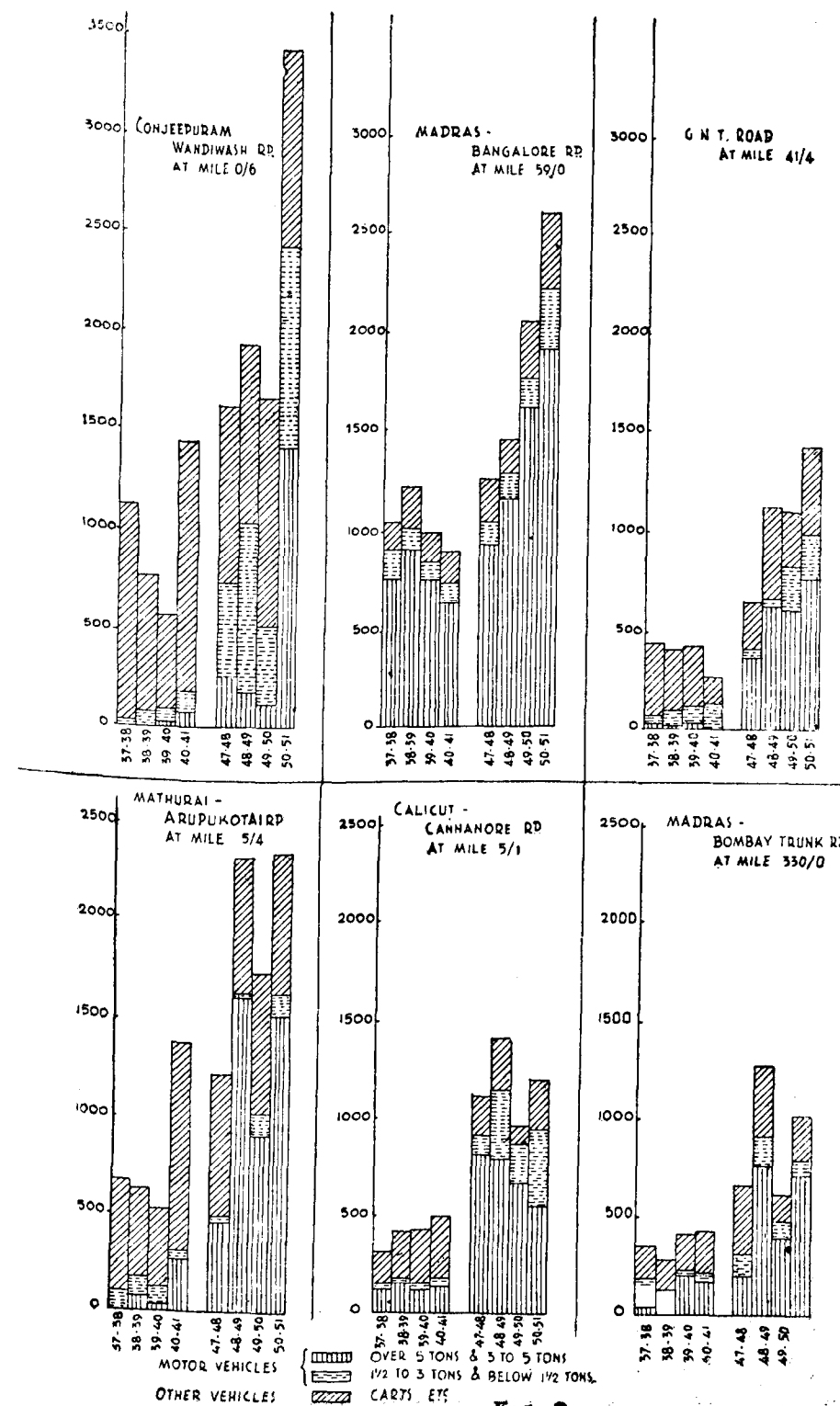


FIG. 2

Studies in total traffic trend on a few roads selected at random are shown in Figure 1. The charts show the average daily traffic recorded at specific points on the selected roads during the years 1937-40 and 1947-51. The higher of the two figures of each year have been taken for this purpose. When the charts for the several census points which have been selected on a random sampling basis are considered in mass, they point to the following broad conclusions:—

(1) The volume of traffic during the year 1947-51 is much more than the volume during the pre-war years.

(2) On many roads the intensity of traffic during 1950-51 was the heaviest ever recorded.

(3) The post-war increase in traffic is very largely due to increase in motor traffic, especially trucks.

A series of charts showing the composition of traffic on certain roads to illustrate the broad conclusions cited above are shown in Figure 2.

A statement showing the numbers of motor vehicles and of bullock-carts in the State during various years is given below:—

Year.	Number of motor vehicles.	Number of bullock-carts.
1940-41	20,673	12,41,400
1941-42	19,239	..
1942-43	17,685	..
1943-44	17,320	..
1944-45	18,080	..
1945-46	18,653	11,95,000
1946-47	21,560	..
1947-48	31,690	..
1948-49	33,924	..

NOTE.—Figures for subsequent years are not available. In the year 1848 it is gathered that there were 90,000 bullock-carts.

F. Transport and Machinery Division.

In G.O. No. 906, P.W., dated 12th March 1949, Government approved the five-year programme for the purchase of the minimum requirement of machinery at a total cost of Rs. 332 lakhs. Plant and Machinery costing Rs. 226.30 lakhs were purchased to end of 1950-51 under this five-year programme. The units of plant and machinery available with this department as on 31st March 1951 are listed in Annexure 25.

The important activities of the Transport and Machinery Division were—

- Urgent and Major repairs to plant and machinery.
- Maintenance of central stores.
- Inspection and acquisition of approved equipment from Military surplus and purchase of sanctioned items of plant and machinery.
- Distribution of stores.

Repairs and Manufacture.—The repair yards of the Transport and Machinery Division which started functioning regularly from March 1949

were mainly attending to major and minor repairs to such plants. During the year under review the repair yards were expanded and strengthened. Major repairs to 19 rollers and 27 lorries were completed.

In addition to major and minor repairs to plant, the repair yards continued the manufacture of diving sets, asphalt mixers, trailer carts, soil testing apparatus, gang carts, etc., and the items manufactured during the year are detailed below:—

Serial number and description.	Number manufactured.
1 Trailer carts	44
2 Gang carts	33
3 Barrow mixers	60
4 Drag spreaders	2
5 Water carts	11
6 Diving sets (assembling)	4 (sets.)
7 Well curbs	8 "
8 Liquid Limit apparatus	4
9 Proctor Density apparatus	3
10 Sand density bottles	3
11 Cone penetrometer	1

Besides, the manufacture and supply of road metal by departmental crushing at Thiruvarambur was undertaken by Transport and Machinery Division, during 1950-51.

General stores.—Spare parts for rollers and 30 other types of machinery worth about 3.5 lakhs were stocked in the Transport and Machinery Division and arranged in steel racks to facilitate quick despatch as and when required by Divisional Engineers. Besides, steel required for the various bridges and the items manufactured in the Transport and Machinery repair yard were also stocked there and despatched to various divisions.

Proposals for the establishment of a central workshop were held in abeyance. Instead, the question of strengthening repair yards and service stations with a view to taking up the work in stages was considered.

Other activities.—This department participated in the exhibition conducted by the Indian Roads Congress held at Calcutta in the month of February 1951.

The dearth of drivers for steam rollers continued during the year. To meet this situation separate classes were conducted for training drivers for steam and Diesel road rollers. Four batches of steam road roller drivers and five batches of Diesel road roller drivers were trained during the year.

Attention was continued to be paid to the preventive aspects of plant maintenance. Importance of proper plant operation and maintenance of machinery was being propagated among supervisory staff and crew by means of special classes, bulletins, circulars, etc. Newly recruited supervisors were given necessary training in the Madras repair yard.

Revenue.—The average number of days each class of tools and plant such as road rollers, lorries, concrete mixers, tar boilers and sprayers, pump sets,

crushers, etc., had been used and hire charges earned during the year are shown below :—

Serial number and name of plant.	Number available.	Average days worked.	Hire charges earned. RS.
1 Road Rollers	599	98	16,10,811
2 Transport Lorries	225	130	7,91,159
3 Water Lorries	11	68	
4 Tar Boilers	52	59	6,934
5 Concrete Mixers	77	82	34,290

G. Contracts.

Statistics showing contracts awarded for Government and District Board works during 1950-51, under different classifications are given below :—

Classification.	Government roads.		District board roads.	
	Number.	Cost. RS.	Number.	Cost. RS.
All maintenance works	3,888	3,18,93,090	5,338	1,49,00,947
All surfacing works	405	79,42,106	237	34,43,615
All bridges, culverts and causeways.	514	52,12,011	332	35,01,012

Comparative figures for the previous years are given in the Statement (i) in Appendix 20.

Divisionwar particulars are given in the Statement (ii) in Appendix 20.

H. Claims and Disputes.

There were no major claims and disputes worth mentioning during the year. The claims put up by Sri T. V. Krishna Iyer previously in respect of Pattambi-Perintalmanna road work in Malabar (a strategic work) for higher rates, etc., and which were under arbitration were not settled during the previous year. The award was finally passed by the arbitrator on 31st January 1951 for an amount of Rs. 8,129.

I. Accidents.

During the year under reference there were fatal accidents and a few cases of injuries. The victims were coolies employed on road works and it involved payment of compensation to the extent of Rs. 3,060. The details of the accidents are given in Table VI-I.

J. Floods and Monsoon Damages.

There were heavy rains and cyclonic weather during the year in the districts of South Kanara, Salem, Krishna, Ramanathapuram, Kurnool and Nellore. There were some cases of interruption to traffic. All the interruptions occurred in the above districts due to heavy rains and floods. Prompt action was taken and traffic was restored as early as possible in all these cases.

Details of the roads affected and the nature of damages caused are given in Table VI-J.

K. Avenues.

During the year under review 140,018 plants on Government roads and 58,600 plants on district board roads were newly planted. Of these 27,762 on Government roads and 14,388 on District Board roads perished. Due to failure of monsoon, better progress could not be shown in the matter of new plantations during the year.

Divisionwar particulars of number of trees newly planted, number survived, expenditure incurred and revenue derived are shown in the statement in Appendix 26. The expenditure on the maintenance of avenues on Government roads was Rs. 4,92,248 and on District Board roads Rs. 1,15,917. The income (revenue realized) during the year on Government avenues was Rs. 6,24,420 and district board avenues Rs. 3,03,499. The concessions in regard to the leasing of the right to collect the usufruct of the avenue trees on the basis of the average rental for the preceding five years, was extended for a further period of three years from 1951-52.

Analysis of the figures given in Appendix 26 shows that there are only 74 trees per mile of Government roads and 26 trees per mile of District Board roads. Since the number of trees required per mile is about 300, these figures stress home the need to undertake extensive plantations.

L. Ferries.

During the year under report 89 ferries were maintained by the department and a sum of Rs. 3,60,427 was realized towards Revenue. Divisionwar details are given in Appendix 28.

M. Inspection Bungalows.

Sixty Inspection bungalows were in charge of the department. An expenditure of Rs. 25,874 was incurred and a revenue of Rs. 2,018 realised on these bungalows during the year. Details are given in the Appendix 29 (ii). One Inspection Bungalow was taken over during the year—vide Appendix 29 (i).

N. Travellers Bungalows.

During the year under review 259 travellers bungalows were maintained by the department. An expenditure of Rs. 1,53,769 was incurred on their maintenance and a sum of Rs. 77,224 was realized towards rents.

Details are given in Appendix 29 (iv).

One travellers Bungalow and one rest-house were taken over during the year from the East Godavari District Board—vide Appendix 29 (iii).

P. Encroachments.

Type designs for R.C.C. Box stalls as approved by the Consulting Architect to the Government of Madras in his No. C.A. No. 33 of 1951 were issued to the Collectors of districts, Presidents, District Boards, and Commissioners of Municipalities so as to prevent unsightly bunkshops cropping up on road margins.

Government roads.—13,877 encroachments were detected during the year, 7,460 Nos. were licensed and 4,404 Nos. were evicted and 10,325 objectionable encroachments and 16,906 unobjectionable encroachments were pending at the end of the year.

Districtwar details for municipal and non-municipal areas are given in Appendix 27 (i).

District Board Roads.—Two thousand nine hundred and fifty-nine encroachments on district board roads were detected during the year; 1,772 cases were licensed and 895 evicted. One thousand two hundred and thirty-two objectionable and 1,123 unobjectionable encroachments were pending at the end of the year. For Divisionwar details please see Appendix 27 (ii).

Q. Works approved by Government under Post-war Road Development Programme.

During the year 1950-51, 139 works to a total cost of Rs. 2,13,80,362 on Government roads and 755 works to a total cost of Rs. 1,43,50,224 on District Board roads were approved by Government. Divisionwar details showing the works approved to end of the year also are given in Appendix 15.

R. Work done in the Offices of the Superintending Engineers and Divisional Engineers (Highways).

Divisionwar particulars of technical sanctions accorded to the estimates, tenders and agreements by the Superintending Engineer and Divisional Engineers (Highways) are given in the statements in the Appendices 16, 17 and 18.

S. Work done in the Office of the Chief Engineer (Highways).

Details of technical sanctions to estimates, tenders dealt with and contracts approved are furnished in Appendix 19.

Table VI—I.

Serial number and name of district.	Date and nature of accident.	Name of victims and brief note of the accident.	Award of compensation.	Loss of property.
(1)	(2)	(3)	(4)	(5)
1 Anantapur ..	4th May 1950. Fatal.	Kollamma. She was collecting road metal for Bellary, Cuddapah road. While she was digging metal by making excavation, suddenly the top layer fell down on the head of the coolie as a result of which he died.	Rs. 810.	Nil.
2 Guntur ..	11th November 1950. Fatal.	G. Punnaiah. While working on Great Northern Trunk Road he was knocked down by a private motor car and died on the spot.	Rs. 200	Nil.
3 Kurnool ..	2nd February 1951. Fatal.	Venkatasubbanna. While digging the earth in the abutment pit at mile 7/1 of Kolluntla-Nezzam road the earth slipped over the workman and the man collapsed immediately.	1,050	Nil.

TABLE VI—J.

Serial number and name of district.	Name of road.	Month of occurrence.	Remarks.
(1)	(2)	(3)	(4)
1 South Kanara ..	Manimangarabad Ghat Road M. 41/1 (MDR).	July 1950	Diversion completed.
2 Salem ..	M. 47/5 of Salem Tiruppattur road (MDR).	August 1950	Unfordable.
3 Do. ..	Salem-Cuddalore road M. 42 (P.H.)	Do.	Unfordable. Vasishtanadhi in flood.

TABLE VI—J.—cont.

Serial number and name of district.	Name of road.	Month of occurrence.	Remarks.
(1)	(2)	(3)	(4)
4 Salem ..	Benares-Cape Comerin road M. 16/4.	August 1950	Floods in Ponnaiar.
5 Krishna ..	N.H. Masulipatnam-Hyderabad Road (M. 51/3 to 56/1).	Do.	Krishna in floods.
6 Do. ..	P.H. Masulipatnam-Hyderabad road M. 69/2 to 69/5.	September 1950	Floods in Mundiaru.
7 Do. ..	Challapalli Avanigadda road between M. 4 and 5.	Do.	Floods in Krishna.
8 Ramanathapuram.	Mudukulattur Peraiyur-Kamuthy road 4 & 6 MDR.	August 1950	Floods.
9 Do.	Madurai-Aruppukottai road 20.8 MDR.	October 1950	Culvert damaged.
10 Kurnool ..	Kurnool-Bellary road M. 22/7 (PH).	August 1950	Due to rain.
11 Nellore ..	N.H. 5 Madras-Calcutta road M. 88.	October 1950	Floods in Kandaleru river.
12 Do. ..	N.H. 5 Madras-Calcutta road M. 92.6.	Do.	Culvert collapsed due to heavy rains.
13 Do. ..	Oolanipalem Vemulapad road M. 33. (MDR).	December 1950	Due to heavy rains.

CHAPTER VII.

ACCOUNTS AND AUDIT.

The special scheme of accounting and audit sanctioned by the Government and the Controller and Auditor-General of India for the department continued to function during the year under report. The divisional accounts were rendered monthly to the Accounts Officer by the Divisional Engineers. The accounts were checked and compiled by the Accounts Officer into a monthly account for the Highways Department for submission to the Accountant-General without paid vouchers, detailed audit of vouchers being conducted by the Accounts Officer and the accounts with vouchers filed in the Chief Engineer's office. A percentage test audit of the accounts and local inspection of divisional offices were arranged for by the Accountant-General's usual. These were supplemented by inspection of divisions by the Accounts Officer.

The benefits anticipated are being realized as detailed below :—

1. The majority of divisional accountants has been given training in Public Works Accounts and Procedure and training for the remaining personnel is arranged for in batches. So far 8 out of 53 Divisional Accountants have passed the Divisional Test Examination conducted by the Accountant-General.

2. The Executive Officers are getting more familiar with Public Works procedure being helped by detailed audit notes issued monthly and instructions issued by the Accounts Officer and Accountant-General's Inspection staff.

3. The following additional advantages which might not have otherwise been possible are also achieved :—

(a) Prompt and full reconciliation between departmental accounts and compiled accounts and treasury accounts.

(b) More accurate accounting of expenditure on National Highways and Public Highways Road Development works and prompt adjustment against central funds.

(c) Effective control of expenditure, better budgeting and compilation of statistical returns.

(d) Advance scrutiny of financial sanction, avoiding post-audit objections.

(e) Enforcement of audit objections with the authority of the Chief Engineer.

(f) More effective control of rush of expenditure during the last days of the month including March.

Government having decided that training in accounts of the clerks of the department should be arranged to be given by the Accounts Officer and the special staff working under him, the first batch of five clerks was given the training on the lines of programme approved in G.O. No. 1250, Finance, dated 30th December 1948. The primary object of the training is to achieve efficiency in proper accounting and submission of bills and account returns, etc., correctly.

The following is the analysis of items of objections outstanding on 31st March 1951 :—

	Items over three years.		Items over one year.		Items less than one year.	
	Number.	Amount. RS.	Number.	Amount. RS.	Number.	Amount. RS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) Want of estimate ..	42	2,44,260	171	15,95,571	811	16,49,298
(b) Excess over estimate ..	41	1,56,385	186	21,88,658	509	13,15,902
(c) Want of appropriation.	..	..	5	19,557	39	2,51,494
(d) Excess over appropriation.	..	..	8	26,044	86	9,55,720
(e) Want of vouchers ..	8	2,771	107	64,279	231	3,48,699
(f) Miscellaneous irregularities	53	97,516	303	1,71,70,323	864	25,14,682
Total ..	144		786		2,540	

There is an increase in the number of outstanding objections as compared with last year. They are being got cleared by instructions given in person and by letters.

CHAPTER VIII.

COMMITTEES AND CONFERENCES.

A. The Board of Communications.

There was one meeting of the Board of Communications in the year 1950-51 which was held on 31st August 1950.

The subjects discussed and the decisions arrived at the meeting are detailed below :—

1. The Board agreed that copies of the Recast Five-year Programme should be supplied to all members and then accepted the Review of progress in 1949-50.

2. Constitution of Rural Communications and Transport Development Co-operative Societies :—

The Board decided to recommend the proposal in its broad outlines to the Government for further consideration.

3. *Finances of Local Bodies—Improvement.*—It was decided, to recommend to Government that the question of giving grants in advance and giving higher grants to particular district boards might be considered in consultation with the Local Administration Department.

4. List of Government works costing over Rs. 10,000 proposed to be taken up in 1950-51 was approved by the Board.

5. The Board approved the Chief Engineer's (Highways) recommendations of Post-war Standards—land widths, etc., for adoption.

6. The Board approved the scheme of “Forming a road from Mannarghat to Chinnathadagam” meeting the cost of execution from Provincial allocation of Central Road Fund.

7. The Board also approved a list of further roads proposed for transfer from the Central of local bodies to Government.

8. The Board after discussion decided that the special schemes of cement and asphaltic concreting to be taken up on ‘Loan Amortization Scheme’ might be placed on the Agenda of the next meeting of the Board.

B. Central Annual Conference.

The second Central Annual Conference was held at Hospet on 3rd and 4th May 1950 and attended by the Chief Engineer (Highways), the Superintending Engineers (Highways) I, II, and III Circles, the Deputy Chief Engineer (Highways), Divisional Engineer, Transport and Machinery Division and the Accounts Officer, Highways.

The following subjects were discussed :—

1. Bottlenecks in the rapid execution of works—ways and means of expediting progress in works causes of chronic delays in the several stages, such as sanction of estimates, revised estimates or deviation statements, agreements, disposal of tenders, etc.,

2. Difficulties experienced in the execution of big works in progress, etc.

3. Improving the efficiency in subordinate organization. The present handicaps of Supervisors, Assistant Engineers, Divisional Engineers, Superintending Engineers—ways and means of remedying the position.

4. Need for planned execution of the maintenance programme, essential charts and exhibits to be displayed in section subdivisions and circle offices.

5. Review of progress in implementing the decisions of the last conference.

6. (a) Staff position.

(b) Petty Supervision Establishment.

(c) Utilization of services of crew of rollers and lorries in off season.

(d) Distribution of plant and machinery *pro forma* accounts for lorries.

(e) Code for transmitting messages by telegrams—Evolving a system.

(f) Economic method of attending to road work.

(g) Handicaps in the execution of village-road formation works.

Detailed recommendations to Government were made wherever necessary and further action taken to implement the decisions.

C. Regional Conferences.

1. During the year under report the regional conferences were held at the following places and on the dates noted against each :—

Circle.	Place of Conference.	Date.
I Circle, Kakinada ..	Kakinada ..	3rd August 1950.
II Circle, Madras ..	Chittoor ..	10th July 1950.
III Circle, Tiruchirappalli ..	Kodaikanal ..	12th June 1950.
IV Circle, Coimbatore ..	Coimbatore ..	30th June 1950.

2. The conferences in the four circles which were presided over by the Chief Engineer (Highways) were attended by the following officers :—

I Circle, Kakinada.—Presidents of the District Boards of East Godavari, West Godavari, Krishna and Guntur and the Personal Assistants to the Special Officers of the North and South Visakhapatnam District Boards and the Personal Assistant to the Inspector of Local Boards, Madras, besides the Divisional Engineers (Highways) in the I Circle area, the Superintending Engineer (Bridges) and the Deputy Chief Engineer (Highways).

II Circle, Madras.—Presidents, District Boards of Chingleput, Nellore, Chittoor, Cuddapah, Kurnool, Bellary and Anantapur and Personal Assistant to the Inspector of Local Boards besides the Divisional Engineers in II Circle area and the Superintending Engineer (Highways), North Arcot District Board was represented by the Secretary of the District Board.

III Circle, Tiruchirappalli.—Representatives of the District Boards, Tanjore, Tiruchirappalli, Ramanathapuram and Madurai besides the Divisional Engineers (Highways) and the Superintending Engineer (Highways) of the area. The Personal Assistant of the Inspector of Local Boards represented the Inspector.

IV Circle, Coimbatore.—Presidents, District Boards of Coimbatore, Malabar and South Kanara, the Vice-President of the Nilgiris District Board, the Deputy Inspector of Local Boards, West Range, besides the Divisional Engineers (Highways), Coimbatore, Erode, Salem, Krishnagiri, Nilgiris, Palghat, Kozhikote and Mangalore and the Superintending Engineer (Highways), IV Circle, Coimbatore.

The following subjects were discussed in all the meetings :—

(1) Review of progress in the implementation of the resolutions of the last conference.

(2) Review of progress in the Five-year programme of Post-war Road Development and special steps to be taken to expedite progress.

(3) Financial resources of local bodies need to improve the position for the satisfactory maintenance of roads and buildings.

(4) Reiteration of the suggestions to increase efficiency of Supervisors and Assistant Engineers.

(5) Separate staff for district board works.

(6) Levy of certage charges for scrutiny and preparation of estimates for district board and panchayat works.

(7) Constitution of rural communications and transport-development co-operative societies.

The following two subjects were discussed at the Chittoor Conference, besides the above :—

(1) Sales—Avenues—Markets, ferries and miscellaneous annual sales and leases.

(2) Tenders for district board works.

Detailed recommendations were made to Government on the above and on many of the items their orders have been received.

D. Monthly Conferences.

During the year 1950-51 four conferences were held as indicated below :—

First Conference	26th June 1950.
Second Conference	11th September 1950.
Third Conference	5th December 1950.
Fourth Conference	5th March 1951.

The subjects discussed are detailed below :—

First Conference held on 26th June 1950.

(1) Service Rules for the Supervisors.

(2) Attaching executive divisions to the Bridges Circle.

(3) Recommendations of the Central Conference with the Superintending Engineers.

(4) Annual contribution to the Indian Roads Congress.

(5) Acquisition of land for road works—Suggestions for expediting acquisition.

Second Conference held on 11th September 1950—

(1) Bridge across Godavari at Alamur, proposals to expedite construction—question of finance.

(2) Cement concreting part of Hospet-Kampli road (Bellary district).

(3) Pensionary system for a certain category of Highways Department officers who have put in more than 10 years of service in all, i.e., District Board and Government.

Third Conference held on 5th December 1950—

(1) Special staff for the Divisional Engineer (Highways), Transport and Machinery Division, for soil stabilization work.

(2) Training of roller drivers—Issue of competency certificates.

(3) Extension of revised scheme of Pension-cum-Provident Fund to the Officers of the Highways Department, who have put in more than ten years of service.

(4) Execution of district board works—Slow progress.

(5) Increasing the allotment in the current year under the head

50. b. Original Works—Communications—Post-war Reconstruction—
d. Repairs—Maintenance of communications.

Fourth Conference held on 5th March 1951—

(1) Post-war economic development and social service programme for the next five years—progress reports—Revised *Pro forma*.

(2) Indian Roads Congress—Annual contribution—Increase.

(3) Sanction for printing of quarterly "Highways Bulletin".

(4) Post-war Development Works—Progress Report for 1949-50—
Slow progress.

(5) Delegation of powers to the Presidents of District Boards over Highways Engineering staff—G.O. No. 372, Public Works, dated 25th January 1951—Clarification of the points raised by the Chief Engineer (Highways).

E. Meeting of the Soil Research Committee at Ramanathapuram.

A meeting of the Soil Research Committee of the Indian Research Council was held at Ramanathapuram on 1st and 2nd February 1951.

The following subjects were considered :—

(1) Confirmation of minutes of the last meeting of the Committee held at Bombay on 17th January 1950.

(2) Consideration of Dr. H. L. Uppal's proposal regarding collection of information on the physical and chemical properties of various types of soils in India.

(3) Consideration of letter from the Indian Research Council regarding "Inclusion of soil science in the syllabus of Engineering College".

(4) Discussion of the soil stabilization work on the Ramanathapuram-Mandapam road.

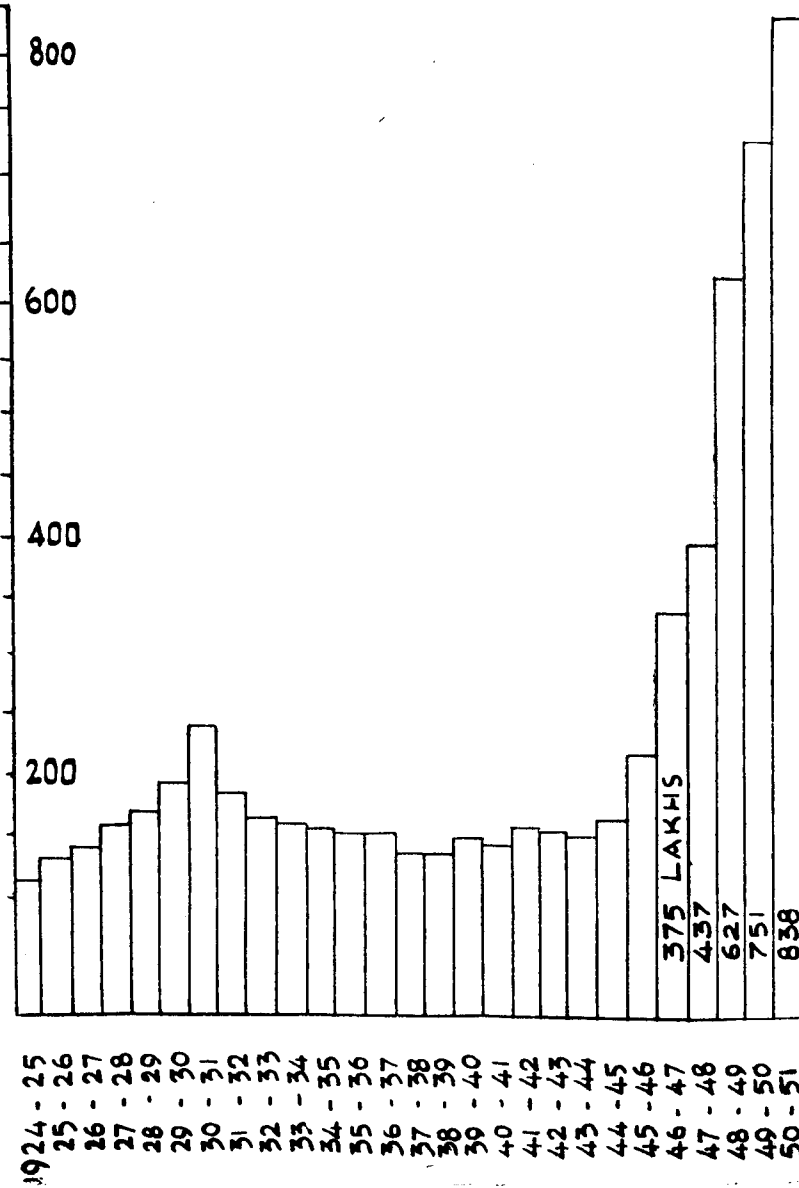
(5) Consideration of the progress report on the work done on the Road Test Track, Majerhat (Calcutta).

The members of the Committee inspected the soil stabilization work on the Ramanathapuram-Mandapam road which is being executed departmentally by mechanical equipment including bull-dozer, pulvimixers, etc.

GROWTH OF ROADS IN THE STATE.

1846	3,100 MILES
1880 - 81	19,500
85 - 86	19,650
90 - 91	21,600
95 - 96	21,600
1900 - 01	23,800
05 - 06	25,100
10 - 11	26,000
15 - 16	26,500
20 - 21	26,500
25 - 26	28,700
30 - 31	32,700
35 - 36	36,000
40 - 41	37,900
45 - 46	37,900
46 - 47	37,900
47 - 48	37,900
48 - 49	37,974
49 - 50	38,047
50 - 51	38,971

EXPENDITURE IN LAKHS



TOTAL ANNUAL EXPENDITURE

APPENDIX 1.

(1) Statement showing Mileage of and Expenditure on Extra-Municipal Roads maintained by public authorities for the year ending 31st March 1950.

("Extra-municipal" means outside the area of jurisdiction of a Municipality, a City/Improvement/Port Trust or Corporation or like Urban Body).

Type of road.	Maintained by Public Works Department or other Government Department (see Note 1).						Maintained by local bodies (see Note 2).						Unbridged mileage (See Note 3).	Remarks (see Note 4).
	Mileage.			Expenditure (Rs. lakhs).			Mileage.			Expenditure (Rs. lakhs).				
	As on 31st March 1949.	Change since last report plus or minus on Col. 2.	Total as on 31st March 1950 (Col. 4) 2 plus 3.	New construction.	Maintenance.	Total (Col. 5 plus 6).	As on 31st March 1949.	Change since last report plus or minus on Col. 3.	Total as on 31st March 1950 (Col. 10) 8 plus 9.	New construction.	Maintenance.	Total (Col. 11 plus 12).		
(1) Bituminous—														
(a). Surface dressed with tar bitumen or asphalt hot or in form of Cut-backs or emulsion.	586	+ 104	670	90.8	19.25	28.33	2	+	3	5	35	01	36	28.69
(b). Grouted, sheet asphalt or any base, asphaltic concrete or macadam, t.p., Concrete or macadam including Carpet's one inch thick or more.	29	..	29	1.45	44	1.89	..	..	..	..	..	..	..	1.89
(c). Cement concrete	95	24	119	32.57	70	33.27	1	..	1	..	..	01	01	33.28
(d). Cement bound macadam	5	..	5	2.47	05	2.52	..	..	..	..	..	..	..	2.52
(e). Broken rock metal	12,419	(—) 391	12,028	90.63	279.77	370.40	5,318	+ 1,041	6,359	43.15	65.95	109.10	18,387	479.50
(f). Kankar, laterite or brick metal	1,876	..	1,876	3.31	25.94	29.45	5,015	95	5,920	12.85	27.18	39.53	6,796	68.98
(g). Lower types—														
(a). Using artificially admixed granular material, gravel, moorum, etc., on the natural soil.	267	+ 416	683	0.01	1.63	1.64	4,423	(+) 294	4,722	13.10	26.09	39.19	5,405	40.83
(b). Natural soil, motorable in fair weather.	637	36	673	1.00	3.33	4.33	3,426	(+) 659	4,085	10.80	7.66	18.46	4,758	22.79
(c). Natural soil, unmotorable	630	497	1,127	2.58	22	2.80	4,010	1,515	2,495	6.66	7.16	13.82	2,628	16.02
Total (all types)	16,524	(—) 308	16,216	143.30	331.33	474.63	22,200	387	22,587	86.41	134.06	220.47	38,803	695.10

NOTE.—1. Name the Departments, other than Public Works Department or Highways Departments, here.

2. The figures in (Cols. 2 to 7) may include roads in municipal areas maintained by the Public Works Department only if the data for such roads cannot be separated easily. To indicate where such data are not included in this statement, please cut-out one or the other of the words:—YES, NO.

3. "NOT FULLY BRIDGED" (Col. 16) means there are interruptions to traffic for periods each exceeding twelve hours on more than six occasions in the year. The mileage of the entire section affected between two important stations (and not merely the part of the section affected) should be included in the figures in Col. 16.

4. Where trackways are included in the figures given (against any of the types) in the main statement, please give the mileage of these TRACKWAYS in the remarks column against the relevant entries in the statement.

(ii) *Expenditure incurred on Extra Municipal Roads maintained by public authorities during year ending 31st March 1950.*

("Extra-municipal" means outside the area of jurisdiction of a Municipality, Town/City Corporation or like Urban Body.)

STATE.

(Figures to be rounded off to the nearest thousand rupees.)

Class of expenditure.	Expenditure.		
	State.	Local body.	Total.
1 Maintenance, Repairs and Minor improvements.	33,133	13,406	46,539
2 New Constructions and Improvements Debited to Original works—(includes improvements of surfaces except surface painting with tar or bitumen-first and subsequent treatment).	14,330	8,641	22,971
3 Administration and other expenses—			
(a) Establishment	3,359	1,712	5,071
(b) Tools and Plant	8,465	135	8,600
(c) Others	..	..	..
Total (excluding loan charges) ..	59,287	23,894	83,181
4 Loan charges—			
Interest :			
(R repayments : Principal or sinking fund)			
Total (including loan charges) ..	59,287	23,894	83,181
5 Outstanding Highway Debit at the end of the financial year—			
6. The amount of Grants from State revenues to Local Bodies for Roads. (This amount is not included in column 2 as expenditure but expenditure out of the grants is included in column.)	..	8,016	..

(iii) *Sources of Expenditure incurred on Road Works for the year ending 31st March 1950.*

STATE.

(Figures to be rounded off to the nearest thousand rupees.)

Source of expenditure.	Expenditure.		
	State.	Local body.	Total.
1 Central road fund	1,335	211	1,546
2 State revenues	49,833	8,016	57,849
3 Local funds	299	15,667	15,966
4 Loans	..	..	..
5 Any other source to be specified here Government of India.	7,820	..	7,820
Total ..	59,287	23,894	83,181

APPENDIX 2.

Statement showing the cost of maintenance of roads since 1946-47.

Year.	Total mileage Government and District Board.	Total expenditure Government and District Board.	Cost per mile.
	MILES.	RS.	RS.
1946-47	14,958	1,75,22,582	..
	22,076	79,96,937	..
	37,034	2,55,19,519	609
1947-48	15,024	2,62,03,053	..
	22,025	91,54,213	..
	37,049	3,53,57,266	954
1948-49	15,780	3,50,15,182	..
	22,194	1,15,83,288	..
	37,974	4,65,98,470	1,227
1949-50	15,460	3,37,91,000	..
	22,587	1,29,85,735	..
	38,047	4,67,76,735	1,229
1950-51	15,560	3,87,73,748	..
	23,411	1,33,63,439	..
	38,971	5,21,37,187	1,338

APPENDIX 3.

Classified cost of maintenance for the year 1950-51.

Classification.	Government Roads.			District Board Roads.		
	Mileage.	Maintenance expenditure.	Cost per mile.	Mileage.	Maintenance expenditure.	Cost per mile.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	MILES.	RS.	RS.	MILES.	RS.	RS.
National Highways ..	1,978	68,98,993	2,488	..	..	..
Provincial Highways ..	3,134	83,33,599	2,659	..	..	..
Major District Roads ..	10,178	2,28,20,386	2,242	5,725	53,37,419	932
Other District Roads ..	270	7,20,770	2,670	7,384	43,93,658	595
Village Roads	..	..	..	10,302	36,32,362	353
Total ..	15,560	3,87,73,748	2,492	23,411	1,33,63,439	571

R

D411.211 x NS0

NS2

Statement showing the length of roads maintained during 1950-51 as on 31st March 1951.

* Includes 152 miles of Bridle paths.
† Includes 9 miles of Provincial Highway.

Serial number and district.

[illegible]

1950-51.

Classification.	Cement concrete roads.		Black top roads.		Metalled roads.		Unmetalled roads.		Total.	
	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
National Highways ..	42	54	122	249	53	1,458	..	..	217	1,761
Provincial Highways ..	12	64	49	257	61	2,679	..	12	122	3,012
Major District Roads ..	6	50	131	209	618	14,020	..	869	755	15,148
Other District Roads ..	..	..	4	12	187	4,819	..	2,632	191	7,463
Village Roads ..	..	..	..	3	61	2,027	..	8,211	61	10,241
Total ..	60	168	306	730	980	25,003	..	11,724	1,346	37,825

APPENDIX 9.

Statement showing abstract in appropriation and expenditure in 1950-51—Highways only.

Finance heads.	Original appropriation.	Final appropriation.	Actual expenditure.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	RS.
50. Civil works—Union—			
Works and Repairs	31,00,500	65,05,500	65,05,500
Buildings and Roads	..	..	..
50. Civil Works—State—			
Works and repairs scheduled areas—			
Highways State—			
Excluding Post-war Reconstruction	7,75,600	6,48,800	6,25,788
Post-war Reconstruction	8,10,000	6,99,200	7,56,758
Ordinary Areas—			
Excluding Post-war Reconstruction	3,25,79,800	3,31,86,200	3,41,90,266
Post-war Reconstruction	97,23,000	88,65,400	87,42,081
Total, Civil Works, etc. ..	..	..	4,43,14,893
Ordinary Establishment—			
50. Civil Works—State—			
Highways—			
Scheduled areas	1,32,000	2,02,400	1,38,582
Ordinary Areas	1,07,47,800	1,16,79,100	48,55,333
Charges in England	..	..	..
Total, Establishment ..	..	..	49,93,915
Tools and Plant—			
50. Civil Works—State—			
Scheduled areas	65,200	57,000	42,023
Ordinary Areas	64,98,000	1,18,12,200	1,20,66,531
Total, Tools and Plant ..	..	..	1,21,08,554
Supense	12,000	— 70,22,100	17,35,796
81. Capital Outlay—Union Works	34,50,000	54,00,000	54,42,811
Grand total—Highways—State and Union ..	..	..	7,51,01,469

RECONCILIATION SHEET.

	RS.
1 Total expenditure on works as per the Accountant-General's figure in the statement	4,43,14,893
Works expenditure debited to the Union Government	1,07,79,981
Total gross expenditure	5,50,94,874
for which divisionwar details under various categories of roads are given in the statement—Vide Appendix 11 (i).	
2 Amount debited to the Union Government as per the Accountant-General's figures in the statement—	
50. C.W.—Repairs	65,05,500
81. Capital outlay	54,42,811
Total	119,48,311
Details—	
Works expenditure of the year 1950-51	107,79,981
Agency charges debited to the Union—Ordinary areas	10,25,535
Do. Scheduled areas	1,997
Charges of 1949-50 adjusted in 1950-51	1,30,798
Total	119,48,311

APPENDIX 10.

Statement showing the appropriation and the outlay during 1950-51 under all heads of Civil Works—Highways only.

Service heads.	Original works.		Repairs.		Total.	
(1)	Appropriation.	Outlay.	Appropriation.	Outlay.	Appropriation.	Outlay.
(2)	(3)	(4)	(5)	(6)	(7)	(8)
RS.	RS.	RS.	RS.	RS.	RS.	RS.
Union—						
50. Civil Works—						
Communications	..	..	65,05,500	65,05,500	65,05,500	65,05,500
State—						
50. Civil Works—						
Scheduled areas excluding						
Post-War Reconstruction—						
Communications	47,600	29,210	6,01,200	5,96,578	3,48,800	6,25,788
Post-War Reconstruction—						
Communications	6,99,200	7,56,758	..	..	6,99,200	7,56,758
Establishment	..	..	..	..	2,02,400	1,38,582
Tools and Plant	..	..	..	..	57,000	42,023
Total—50. Civil Works—Scheduled Areas	..	..	..	..	..	15,63,151
Ordinary Areas—						
Excluding Post-War Reconstruc-						
tion—						
Communications	22,68,300	19,89,581	3,09,17,900	3,22,00,685	3,31,86,200	3,41,90,266
Post-War Reconstruction—						
Communications	88,40,409	86,79,685	25,000	32,396	88,65,400	87,42,081
Establishment	..	..	..	..	1,16,79,100	48,55,333
Charges in England	..	..	..	..	..	..
Tools and Plant	..	..	..	..	1,18,12,200	1,20,66,531
Suspense	..	..	..	..	— 70,22,100	17,35,796
Total—50. Civil Works—Ordinary Areas	..	..	..	..	..	6,15,90,007
Total—50. Civil Works—Highways State	..	..	..	..	..	6,31,53,158
81. Civil Works—						
Union—						
Communications	48,50,000	54,42,811	..	..	54,00,000	54,42,811
Grand total	..	..	..	..	..	7,51,01,469

APPENDIX II.

Name of division.	Ex-P.W.R.					P.W.R.					Ex-P.W.R.					P.W.R.					Grand total.
	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	P.H.				
																		RS.	RS.	RS.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)			
Visakhapatnam, North	1,326		1,257	— 362	1,07,164	1,950	81,319		3,26,960	85,946	4,73,453	8,315		RS.				8,97,519			
Visakhapatnam, South			16,663				1,51,399		5,55,949		8,01,541							15,63,962			
East Godavari ..		8,077	2,982			1,50,931	1,51,399		2,17,170	1,42,544	7,76,916	4,190						14,46,559			
West Godavari ..		92	1,62,768				33,544	1,999	4,98,347	1,43,370	19,83,865	10,537						37,86,252			
Agency			12,547				2,51,392		39,489	1,023	7,19,232							11,90,490			
Godavari special							2,659		3,85,828	4,39,800	9,80,844	35,539	82,396					4,15,695			
Krishna	18,477		1,92,051				69,280		1,12,032	90,626	8,40,231							23,27,395			
Guntur, North ..			2,59,911				2,50,426		1,12,032	90,626	8,40,231							19,92,624			
Guntur, South ..			3,41,078				77,972		3,41,842	1,53,252	7,73,907	4,470						16,99,598			
Vizianagaram special							6,38,366				89,103							7,27,467			
Vizianagaram							47,680				5,912							53,258			
Vellore							33,524		3,97,656	1,90,926	6,48,343	10,136						16,87,840			
Kurnool		235	42,147				41,601		3,97,656	1,90,926	6,48,343	10,136						16,87,840			
Bellary		82,303	4,393				23,399		1,43,485	6,83,725	4,93,242	1,182						16,34,207			
Anantpur		10,293	90,393				1,230		1,76,737	8,88,406	2,92,911							12,91,739			
Cuddapah			18,515				87,744		1,76,737	8,88,406	2,92,911							17,77,671			
Chingleput							63,744		4,21,921	4,21,921	5,76,650							19,19,642			
Galticut							299,775		5,42,054	5,42,054	6,18,573	2,30,163						21,08,632			
North Arcot		550	6,080	— 66			1,45,140	30,547	1,08,102	1,98,084	6,72,611	1,18,011						1,95,018			
Pennar special		1,340	1,72,862				1,63,339		2,57,868	1,37,968	7,81,264	5,270						1,74,392			
Transport and machinery																		6,00,920			
Bridges, South																		1,13,343			
South Arcot																		14,905			
Tiruchirappalli ..	173	22,715	1,04,010				35,437		1,95,397	1,69,911	8,34,580	23,735						15,97,235			
Tanjore, East ..			80,668				48,155		8,72,950	8,72,950	10,01,214	46,289						27,92,118			
Tanjore, West ..			641			49,246	62,245		85,421	7,44,459	8,35,334	7,432						8,35,334			
Madurai			1,303			50,068	13,511		2,35,704	8,7,865	94,087							12,32,538			
Ramanathapuram			73,683			2,38,439	6,375	2,03,504	4,00,550	1,57,876	10,14,408	23,111						21,17,946			
Trinavel			5,331			3,900	91,689		6,42,993	1,65,235	8,34,671							18,24,678			
Pugalar Bridge ..		1,564				2,462	71,967		2,02,312	2,11,714	5,32,433	799						11,13,750			
Coleroon Bridge ..			1,915			12,05,087			1,259									12,06,346			
Salem, North ..			84,094			4,91,563	6,30,200		2,34,695		14,830							6,46,915			
Salem, South ..	1,919		7,220			4,77,156	1,91,072		4,95,250		4,95,250	5,663						14,04,296			
Coimbatore, North ..			3,540			1,45,258	1,87,958		2,31,987	1,46,779	4,46,965	17,074						16,62,997			
Coimbatore, South ..	809	12,530	36,004			33,535	33,259		36,021	1,31,897	9,49,025	3,960						12,52,547			
Nilgiris		9,052	14,899	9,620		4,43,470	59,655		1,48,763	5,22,938	8,89,665	9,712						21,20,200			
Malabar North ..		17,366				3,63,449	1,77,780		1,48,763	2,86,421	2,86,421	23,649						11,43,431			
Malabar South ..		47,343				45,913	53,988		7,60,978	3,76,498	20,834							13,55,554			
South Kanara ..	319	44,587	48,492			18,472	20,045		1,64,300	9,27,435	9,27,435	13,129						16,74,176			
Bharatpuzha ..		40,850	26,795			76,147	2,67,956		2,66,397	4,33,486	5,22,657	26,707						4,39,850			
Chikalpuzha ..						2,39,876	1,94,453											18,58,295			
Chikalpuzha special		690																2,40,565			
Total ..	28,227	3,13,654	16,72,717	9,192	49,08,579	36,81,631	56,78,825	33,301	68,98,993	82,71,293	2,28,20,386	7,20,770	62,396					5,50,94,874			

(2) *Statement showing the Divisionwar Expenditure on District Board road and non-road works, 1950-51.*

Serial number and division.	Road Works.										Total.
	Original Works.				Maintenance.				Avenue.	Non-road works.	
	Major district roads.	Other district roads.	Village roads.		Major district roads.	Other district roads.	Village roads.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.		
I Circle.											
1 Visakhapatnam, North ..	18,019	1,60,538	1,52,844	92,247	1,13,986	28,676	..	80,856	4,89,322		
2 Visakhapatnam, South ..	..	33,743	1,56,324	1,00,173	1,19,090	1,66,981	..	5,479	6,28,861		
3 Kakinada ..	40,000	1,27,556	1,05,630	27,191	73,908	1,56,724	1,258	79,626	6,62,587		
4 Balahundry ..	..	6,165	1,05,630	61,956	1,32,818	23,091	1,121	82,451	3,41,032		
5 Eluru ..	98,254	2,00,944	97,271	1,10,513	97,707	1,21,461	808	82,151	8,09,492		
6 Krishna ..	4,28,908	1,45,501	5,84,268	2,57,558	1,77,434	3,36,124	13,465	3,19,662	22,66,918		
7 Guntur ..	3,76,913	90,501	6,40,894	1,46,594	29,196	1,28,120	3,317	6,76,213	14,91,708		
8 Ongole ..	1,28,969	1,76,611	1,00,982	2,22,489	60,976	24,493	..	49,208	7,63,738		
II Circle.											
9 Anantapur ..	41,320	56,365	33,608	{ 463 *	36,236	53,367	3,946	1,71,380	4,85,334		
10 Bellary ..	42,152	49,070	5,854	83,599	70,578	..	..	27,904	2,69,522		
11 Chingleput ..	1,37,077	53,619	6,13,245	78,964	1,69,167	1,08,873	6,217	1,87,651	13,37,463		
12 Chittoor ..	13,971	1,28,238	4,44,796	99,337	58,519	1,80,020	12,979	82,188	10,19,998		
13 Cuddapah ..	1,71,886	30,664	32,180	{ 2,34,122	1,03,887	9,900	..	38,288	6,22,028		
14 Kurnool ..	1,11,612	1,08,992	8,975	1,15,622	1,93,655	3,245	..	59,397	6,01,498		
15 Nellore ..	..	..	2,40,813	2,01,354	1,76,369	74,862	3,077	1,00,783	8,16,208		
16 North Arcot ..	23,764	47,345	1,23,718	76,252	2,35,111	1,14,334	4,487	1,89,027	8,14,038		
III Circle.											
17 South Arcot ..	35,050	1,43,829	1,05,303	3,16,263	1,96,108	1,20,229	9,703	1,10,521	10,37,006		
18 Tanjore, East ..	91,515	60,034	1,46,798	2,05,276	1,26,343	1,35,637	3,214	1,67,314	9,86,131		
19 Tanjore, West ..	2,45,415	..	..	3,09,377	1,20,033	1,80,033	..	2,60,982	10,65,835		
20 Tiruchirappalli ..	48,185	48,185	2,96,216	2,05,447	4,53,631	3,65,917	6,551	2,34,859	16,10,806		
21 Madurai ..	37,439	77,181	2,97,364	3,51,702	93,761	2,71,311	96	1,68,805	12,57,459		
22 Ramana-thapuram ..	1,44,176	87,589	1,96,320	3,13,526	1,80,490	1,00,968	14,370	64,802	11,02,411		
23 Tirunelveli ..	5,12,977	61,757	2,11,161	4,36,098	66,950	15,000	7,310	1,37,938	14,49,691		
IV Circle.											
24 Coimbatore, South ..	90,649	8,816	2,81,484	2,07,482	2,03,869	2,27,593	3,363	2,65,129	13,00,345		
25 Coimbatore, North ..	26,977	44,775	2,52,682	2,86,609	1,54,552	2,94,142	1,714	3,29,007	13,39,538		
26 Salem, South ..	..	..	2,52,682	1,58,435	2,16,834	1,29,435	2,182	80,401	7,83,937		
27 Salem, North ..	41,007	49,035	1,58,868	2,52,723	2,16,167	53,145	3,972	8,48,046	8,48,046		
28 Ootacamund ..	1,098	81,096	2,23,805	57,139	96,355	37,181	..	12,490	4,88,709		
29 Mangalore ..	21,472	10,276	94,027	{ 124,139 *	96,342	79,396	..	56,583	4,20,617		
30 Palghat ..	15,411	1,09,546	1,30,332	{ 1,30,332	1,40,282	..	..	2,40,571	6,48,042		
31 Kozhikode ..	18,380	50,167	92,476	1,48,839	1,33,530	96,594	2,702	94,382	6,60,046		
32 Cannanore ..	10,823	41,371	2,09,726	3,936	..	..	..	793	2,92,632		
Grand total ..	29,34,195	23,93,032	59,58,774	53,37,419	43,93,658	36,32,362	1,15,917	39,15,761	2,36,81,108		

* The expenditure of Rs. 483 in Anantaapur represents the expenditure on the maintenance of Provincial Highways.
 † The expenditure of Rs. 1,081 in Cuddapah Division represents expenditure on the maintenance of Provincial Highways.
 ‡ The expenditure of Rs. 12,129 in South Kanara represents expenditure on the maintenance of Provincial Highways met from District Board Funds.

(3) Progress in respect of Post-War Road Development Works—Roads other than National Highways—To end of the year 1950-51.

Serial number and name of division.	Government roads.				District board roads.				Total—Government and district board roads.			
	District share of allotment as per the five-year programme.		Expenditure during 1950-51.		District board share in the five-year programme.		Expenditure during 1950-51.		District share of allotment as per the five-year programme.		Expenditure during 1950-51.	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.
1 Visakhapatnam, North	..	0.02	0.92	19.97	1.51	11.23	60.61	1.53	28.42	..	..	..
2 Visakhapatnam, South	..	0.70	3.33	20.10	2.10	..	..	2.80	..	..	..	..
3 Chodavaram	..	1.05	1.52	..	..	..	..	1.05	..	..	..	..
4 Vizianagaram special	..	5.99	11.42	..	..	..	..	5.99	..	..	..	..
5 East Godavari	..	3.00	6.71	20.41	1.68	7.33	61.92	4.68	14.04	..	..	..
6 Rajahmundry	..	4.50	6.22	28.50	0.84	1.76	50.78	5.34	7.98	..	..	..
7 West Godavari	..	8.05	17.50	32.18	2.64	13.87	48.76	10.69	31.37	..	..	..
8 Krishna	..	3.43	13.74	49.14	7.74	14.09	68.46	11.17	27.83	..	..	..
9 Guntur	..	2.51	15.20	38.57	7.20	27.72	52.27	9.71	42.92	..	..	..
10 Ongole	..	0.82	10.19	34.31	3.62	6.26	51.55	4.44	16.45	..	..	..
11 Nellore	..	3.85	6.63	29.22	2.59	5.11	48.01	6.44	11.74	..	..	..
12 Kurnool	..	2.69	4.14	23.51	2.33	1.28	33.29	5.02	8.28	..	..	..
13 Bellary	..	1.11	2.97	31.01	0.81	5.31	47.43	1.92	5.42	..	..	..
14 Anantapur	..	0.83	8.85	27.82	0.71	2.40	33.30	2.63	11.25	..	..	..
15 Cuddapah	..	2.20	6.24	21.90	1.79	8.18	56.31	3.99	14.42	..	..	..
16 Chittoor	..	1.92	9.87	36.22	1.74	5.14	40.72	4.75	15.01	..	..	..
17 Chingleput	..	3.01	6.39	30.34	1.52	6.19	76.29	3.56	12.58	..	..	..
18 North Arcot	..	2.46	7.34	7.87	2.08	9.73	40.72	4.54	17.11	..	..	..
19 South Arcot	..	2.68	7.87	30.34	2.96	8.46	1.90	5.64	16.33	..	..	..
20 Tiruchirappalli	..	0.60	6.60	30.20	1.30	5.66	76.29	1.90	27.01	..	..	..
21 Tanjore, East	..	0.58	4.97	30.20	0.90	..	..	1.48	27.01	..	..	..
22 Tanjore, West	..	6.09	9.78	30.85	2.24	10.30	50.21	6.09	22.07	..	..	..
23 Coimbatore	..	2.13	11.77	31.06	2.56	8.06	41.10	4.37	17.12	..	..	..
24 Madurai	..	1.27	7.02	31.76	3.18	8.05	45.56	3.83	15.07	..	..	..
25 Ramanathapuram	..	1.36	3.59	35.99	1.18	7.57	50.82	4.54	22.15	..	..	..
26 Tirunelveli	..	0.91	10.99	34.01	1.39	9.06	63.99	2.09	30.16	..	..	..
27 Salem, North	..	3.25	2.96	..	1.01	..	..	4.64	..	..	..	..
28 Salem, South	..	0.66	8.12	..	1.85	..	..	1.67	..	..	..	..
29 Coimbatore, North	..	5.02	10.02	5.94	1.00	1.83	15.99	6.87	13.29	..	..	..
30 Coimbatore, South	..	..	..	..	..	..	..	..	..	..	..	..
31 Coimbatore special	..	..	..	..	..	..	..	..	..	..	..	..
32 Nilgiris, The	..	9.75	11.46	..	..	..	..	6.27	..	..	..	..
33 Malabar, North	..	1.08	5.62	..	..	..	..	2.00	..	..	..	..
34 Malabar, South	..	0.38	8.48	..	..	..	..	1.47	..	..	..	..
35 Chirakkal	..	2.40	5.05	..	..	..	..	3.26	..	..	..	..
36 Bharatapuzha	..	2.14	7.42	..	..	..	..	2.14	..	..	..	..
37 South Kanara	..	3.33	9.37	..	..	..	..	4.42	..	..	..	..
Total	..	89.33	279.37	722.48	65.78	197.31	1,204.23	155.11	476.68	..	..	..

(4) Progress report in respect of Post-War Road Development Works—Roads other than National Highways—Target of development—Progress report for the year 1950-51—Target achieved during 1950-51.

Serial number and name of Division.	Group I Roads (Provincial Highways and Major District Roads).										Group II Roads (O.D. Rs. and Village Roads).									
	Cement concreting.		Black top surfacing.		New formation.		Metalling.		Major bridges.		Miscellaneous works like minor bridges, culverts, road drains, widening and other improvements.		New formation.		Metalling.		Major and minor bridges, culverts, drains, etc.		Other improvements like widening, etc.	
	Length.	Cost.	Length.	Cost.	Length.	Cost.	Length.	Cost.	Cost.	Cost.	Cost.	Cost.	Length.	Cost.	Length.	Cost.	Cost.	Cost.	Cost.	Cost.
	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1 Visakhapatnam, North	3 3	0.65	..	..	..	0.02	..	..	..	0.58	15 4	0.28	8 0	0.43	0.14	..	..	..	..	..
2 Visakhapatnam, South	5 5	2.98	..	..	2 4	2.84	..	0.51	..	1.27	15 4	0.30	10 6	1.15	..	..	..	..	..	..
3 East Godavari	2 2	1.35	..	..	5 0	1.01	..	0.69	..	1.27	2 0	0.19	..	0.11	..	..	..	..	..	..
4 Rajahmundry	2 2	2.75	..	..	..	..	8 2	0.69	1.13	2.00	9 0	0.56	24 3	1.03	0.31	..	..	..	..	..
5 West Godavari	1 1	2.76	..	..	0.5	0.04	9 2	0.16	0.71	2.00	1 4	0.20	6 2	0.63	0.37	..	..	..	..	..
6 Krishna	..	..	..	..	..	..	3 2	0.46	0.83	0.23	37 0	1.14	9 4	1.03	0.63	..	..	..	..	..
7 Guntur	..	..	..	..	1 7	0.24	..	0.04	0.44	2.76	31 0	1.27	4 2	1.37	0.21	..	..	..	..	..
8 Ongole	..	..	..	..	6 6*	0.73	..	0.29	0.28	1.33	7 4	0.15	13 0	0.81	..	..	..	..	..	..
9 Vizianagaram special	4 4	3.32	..	..	8 0	0.40	22 6	0.25	0.56	1.03	7 4	0.01	4 2	0.37	..	..	..	..	..	..
10 Nellore	..	..	..	..	..	..	..	0.11	0.41	1.41	..	0.80	..	0.01	..	..	..	..	..	..
11 Kurnool	..	..	..	..	..	..	..	0.43	0.48	0.93	6 6	0.31	5 1	0.30	0.01	..	..	..	..	..
12 Bellary	..	..	..	..	..	..	..	0.55	..	0.90	13 0	1.81	14 0	0.30	0.72	..	..	..	..	..
13 Anantapur	2 1	1.36	1 5	0.55	..	..	2 2	0.85	..	0.30	13 0	0.28	10 0	1.32	0.28	..	..	..	..	..
14 Chittoor	0 3	0.32	0 5	2.45	..	..	25 2	0.92	0.96	0.77	15 0	0.79	3 4	0.32	0.04	..	..	..	..	..
15 Chingleput	0 3	0.41	0 2	0.10	..	..	19 7	0.22	0.16	0.97	13 7	1.08	50 4	1.02	0.09	..	..	..	..	..
16 Chittoor	2 5	2.00	0 6	0.09	..	..	6 5	0.03	1.71	2.07	43 4	1.08	10 0	0.24	0.05	..	..	..	..	..
17 North Arcot	..	..	..	..	..	..	..	0.86	..	..	18 2	0.58	1 4	0.24	0.01	..	..	..	..	..
18 South Arcot	..	..	..	..	..	..	..	..	..	..	22 0	0.44	10 0	0.93	0.01	..	..	..	..	..
19 Tiruchirappalli	..	..	..	..	..	..	..	..	..	..	22 6	1.43	52 4	0.93	1.63	..	..	..	..	..
20 Tanjore, East	0 4	0.31	2 6	0.23	..	..	4 3	0.18	1.96	0.25	22 6	0.70	13 0	0.63	0.24	..	..	..	..	..
21 Tanjore, West	..	..	..	..	..	..	..	0.01	..	0.59	19 1	0.70	13 0	0.63	0.24	..	..	..	..	..
22 Madurai	..	..	..	..	..	..	..	0.32	5.67	0.01	46 0	1.03	10 0	0.30	0.01	..	..	..	..	..
23 Ramanaipattanam	0 4	1.26	0 1	1.13	8 0	0.36	10 0	0.33	0.78	0.95	16 0	0.62	..	..	..	..	..	..	..	..
24 Tirunelveli	3 1	0.23	0 1	0.05	..	..	5 3	0.24	0.85	1.25	5 5	0.25	..	0.15	..	..	..	..	..	..
25 Coimbatore, North	..	..	..	..	..	..	..	..	..	1.95	..	..	..	0.63	0.31	..	..	..	..	..
26 Salem, North	..	..	..	..	..	..	..	..	..	2.03	..	..	..	0.17	0.01	..	..	..	..	..
27 Salem, South	..	..	..	..	..	..	..	..	..	1.11	..	..	..	0.12	0.01	..	..	..	..	..
28 Coimbatore, South	..	..	..	..	..	..	..	..	..	0.77	..	..	..	0.52	0.03	..	..	..	..	..
29 Coimbatore, North	5 4	9.69	6 3	1.03	6 3	0.43	6 4	0.26	..	0.01	25 0	0.13	57 0	0.52	0.03	..	..	..	..	..
30 The Nilgiris	4 6	3.53	..	..	..	..	..	0.15	0.01	1.14	19 4	0.59	5 0	0.10	0.10	..	..	..	..	..
31 Malabar, North	0 5	0.48	..	..	..	..	..	0.31	3.12	0.56	..	..	..	0.21	..	..	..	..	..	..
32 Malabar, South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33 South Kanara	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34 Bhadrachalam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
35 Chitral	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	41 0	38.21	25 6	10.13	47 3	9.41	134 1	22.56	25.79	27.27	772 2	18.34	377 2	25.62	9.45	1.69	..	..	..	..

(5) Progress report in respect of Post War Road Development Works—Roads other than National Highways—Target of development—Progress report for the year 1950-51—Target achieved to end of 1950-51.

Serial number and name of division.	Group I Roads (Provincial Highways and Major District Roads).										Group II Roads (O.D. Rs. and Village Roads).									
	Cement concreting.		Black top surfacing.		New formation.		Metalling.		Major bridges.		Miscellaneous works like minor bridges, culverts, road drains, widening and other improvements.		New formation.		Metalling.		Major and minor bridges, culverts, drains, etc.		Other improvements like widening, etc.	
	Length.	Cost.	Length.	Cost.	Length.	Cost.	Length.	Cost.	Cost.	Cost.	Cost.	Cost.	Length.	Cost.	Length.	Cost.	Cost.	Cost.	Cost.	Cost.
	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	M. F.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.	RS. IN LAKHS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1 Visakhapatnam, North	..	..	..	..	..	..	..	..	..	0.79	2 0	0.23	22 0	3.27	0.17	..	..	..	..	..
2 Visakhapatnam, South	3 3	1.33	..	..	..	0.06	..	..	..	0.54	34 2	1.66	57 3	4.94	..	..	..	..	..	..
3 East Godavari	6 1	3.79	..	..	..	4.35	5 0	1.27	..	4.09	11 0	0.97	17 0	0.95	0.39	..	..	..	..	..
4 Rajahmundry	2 2	2.14	..	..	6 0	1.07	5 0	1.17	..	0.08	5 0	0.37	4 0	0.32	..	..	..	..	..	..
5 West Godavari	..	..	..	..	..	0.08	13 4	7.76	..	3.80	16 2	0.91	56 5	9.26	0.99	0.31	..	..	..	..
6 Krishna	3 1	4.65	..	..	8 1	0.44	7 2	2.51	0.83	0.30	8 0	0.50	12 2	8.95	1.42	..	..	..	..	..
7 Guntur	..	..	..	..	24 1	1.13	7 4	17.50	1.60	4.97	4 5	1.74	16 6	10.66	1.33	..	..	..	..	..
8 Ongole	..	..	..	..	9 0	0.35	12 0	2.54	0.69	..	40 0	1.31	..	1.30	0.08	..	..	..	..	..
9 Vizianagaram special	..	..	..	..	6 6*	1.73	4 5	1.14	6.55	4.69	..	..	..	..	..	..	..	..	..	..
10 Nellore	8 5	5.27	..	..	12 6	0.43	14 6	0.66	0.71	1.55	60 0	2.11	20 0	2.84	0.29	..	..	..	..	..
11 Kurnool	..	..	..	..	9 4	0.80	26 0	3.60	0.99	1.59	16 2	0.68	26 5	2.58	..	..	..	..	..	..
12 Bellary	0 4	0.49	4 4	1.74	..	0.06	2 6	0.54	0.06	1.98	1 4	0.103	4 2	0.66	0.05	..	..	..	..	..
13 Anantapur	..	..	..	..	1 0	0.13	18 3	0.30	0.77	2.59	74 0	2.56	16 4	0.80	0.08	0.29	..	..	..	..
14 Chittoor	9 2	4.86	4 4	1.57	..	..	..	..	..	0.48	15 0	0.81	21 0	1.42	0.10	0.29	..	..	..	..
15 Chingleput	2 4	1.54	4 4	3.74	..	..	17 3	2.16	..	0.99	150 0	3.01	77 0	3.52	1.05	0.35	..	..	..	..
16 Chittoor	0 4	0.58	1 4	2.75	..	..	25 2	0.40	..	0.73	52 4	1.32	66 6	2.42	0.66	0.04	..	..	..	..
17 North Arcot	0 3	0.49	0 2	0.13	..	..	26 5	1.53	1.59	2.97	13 7	0.90	50 4	5.26	0.62	..	..	..	..	..
18 South Arcot	2 5	3.60	1 3	0.41	5 0	0.22	19 7	1.24	0.39	2.59	74 0	2.56	16 4	0.80	0.08	0.29	..	..	..	..
19 Tiruchirappalli	3 1	1.83	1 2	0.21	38 0	1.43	15 0	0.21	2.46	3.58	74 0	2.56	16 4	0.80	0.08	0.29	..	..	..	..
20 Tanjore, East	1 7	1.24	..	..	..	..	15 4	2.66	..	1.89	20 2	0.69	10 0	1.44	0.52	..	..	..	..	..
21 Tanjore, West	4 0	1.95	3 7	0.47	..	..	14 3	1.48	0.15†	2.05	24 0	0.59	23 0	2.60	0.17	..	..	..	..	..
22 Madurai	10 7	4.61	12 0	1.18	..	..	22 4	1.00	2.67	3.53	280 0	1.98	90 0	3.35	2.98	0.82	..	..	..	..

(5) Progress report in respect of Post-War Road Development Works—Roads other than National Highways—Target of development—
Progress report for the year 1950-51—Target achieved to end of 1950-51—cont.

Serial number and name of division.	Group I Roads (Provincial Highways and Major District Roads).										Group II Roads (O.D. Rs. and Village Roads).																						
	Cement concreting.			Block top surfacing.			New formation.			Metalling.			Major Bridges.			Miscellaneous works like minor bridges, culverts, road drains, improvements.			New formation.			Metalling.			Major and minor road drains, culverts, etc.			Other improvements like widening, etc.					
	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.	Length.		Co-t.			
	M. F.	RS. IN LAKHS.	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	RS. IN LAKHS.	(11)	(12)	(13)	(14)	(15)	(16)	(17)	RS. IN LAKHS.	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)			
(1)																																	
23 Ramanathapuram	5	2'84	5	2	1'45	10	6	0'36	15	0	2'07	0'11	4'16	77	3	2'64	26	6	1'51	0'88	..	..	..	..	..	..	..	..	..	..	..		
24 Tirunelveli	9	4'44	..	..	..	40	0	0'87	36	0	1'32	1'51	0'74	85	8	2'51	14	0	0'51	0'64	0'01	..	..	..	..	..	..	..	..	..	..		
25 Coimbatore	4	5'55	0	1	0'05	..	..	..	..	..	0'12	8'82	0'06	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
26 Salem, North	..	..	4	0	0'49	2	0	0'03	13	6	0'57	..	1'85	50	6	1'08	64	3	1'54	0'17	..	..	..	..	..	..	..	..	..	..	..	..	
27 Salem, South	..	..	2	4	1'27	..	..	0'04	..	..	..	1'03	1'64	12	3	0'66	51	2	1'78	0'33	0'06	..	..	..	..	..	..	..	..	..	..	..	
28 Coimbatore, North	..	..	..	..	0'07	..	..	..	2	2	0'09	..	3'72	20	0	0'64	61	0	2'44	0'77	0'01	..	..	..	..	..	..	..	..	..	..	..	
29 Coimbatore, South	5	4	9'69	6	3	1'33	7	1	1'30	19	3	0'51	..	4'34	3	0	0'79	37	3	1'13	0'19	0'12	..	..	..	..	..	..	..	..	..	..	
30 The Nilgiris	20	08	21'668	15	4	2'06	..	..	..	..	1'31	..	4'14	..	..	..	..	6	3	0'44	1'11	0'35	..	..	..	..	..	..	..	..	..	..	
31 Malabar, North	1	7	1'88	2	7	0'62	..	..	..	2	6	0'11	0'13	2'39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
32 Malabar, South	..	..	..	..	..	..	..	..	..	4	7	0'48	0'16	4'51	23	0	0'36	64	0	2'41	1'23	0'06	..	..	..	..	..	..	..	..	..	..	
33 South Kanara	..	..	..	6	0	0'87	..	..	..	10	0	0'72	3'74	4'57	27	0	0'82	35	0	0'95	0'35	0'30	..	..	..	..	..	..	..	..	..	..	
34 Bharatapuzha	..	..	..	..	..	..	..	..	..	..	..	..	8'50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
35 Chikhal	..	..	..	..	..	..	5	5	1'40	8	7	0'77	1'65	0'85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Grand total	116	5	96'83	76	3	21'91	196	2	16'526	386	1	59'04	46'76	78'50	1,243	1	36'223	1,113	6	88'59	13'85	4'43	..	..	..	..	..	..	..	..	..	..	..

* Only earth work formation has been done for this length.
 † The achievement to end of 31st March 1951 is less than the achievements to end of 31st March 1950 due to transfer of materials to other division.
 ‡ The achievement to end of 31st March 1951 is less than the achievements to end of 31st March 1950 due to withdrawal of cost of steel from the work which was dropped.
 § This is the work "Cement concreting Coimbatore Metropolitan road" transferred from Coimbatore Special Division. This includes the achievements of 15 M. 2 F. costing 1 8'13 lakhs to end of 31st March 1950 attained in the Special Division, Coimbatore.

APPENDIX 12.

Statement showing the figures under "XXXIX—Civil Works—Rents and Miscellaneous, 1950-51—Highways only".

Head of accounts.	Actuals.
XXXIX. Civil Works—State—Rents	8,852
Miscellaneous Contribution towards leave salary of officers lent to foreign serv.ce.	10,916
Other receipts	2,95,894
Total ..	3,15,662

N.B.—The figures include treasury transactions also.

APPENDIX 13.

Statement of expenditure on roads classified according to categories of roads.

Division/category.	Government roads.				District board roads.		
	Capital works.		Repairs.	Total.	Capital works.	Repairs.	Total.
	Ex-P.W.R.	P.W.R.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1 Visakhapatnam North—							
National Highways	..	..	3,26,960	3,26,960	..	..	..
Provincial Highways	..	1,950	85,946	87,896	..	..	..
Major District Roads	..	1,257	4,73,453	4,74,710	18,019	92,247	1,10,266
Other District Roads	..	(—) 362	8,315	7,953	1,60,538	1,13,936	2,74,524
Village Roads	..	..	..	..	..	23,676	23,676
Total ..	895	1,950	8,94,674	8,97,519	1,78,557	2,29,909	4,08,466
2 Visakhapatnam South—							
National Highways	..	1326	1,07,164	5,55,949	6,64,439	..	..
Provincial Highways	..	..	..	..	..	..	..
Major District Roads	..	16,663	81,319	8,01,541	8,99,523	1,00,173	1,00,173
Other District Roads	..	..	..	..	33,743	1,19,090	1,52,833
Village Roads	..	..	..	..	1,52,844	1,66,681	3,19,525
Total ..	17,089	1,88,483	13,57,400	15,63,962	1,86,587	3,85,944	5,72,531
3 East Godavari—							
National Highways	..	..	2,17,170	2,17,170	..	..	..
Provincial Highways	..	8,077	1,50,631	1,42,544	3,01,252	..	..
Major District Roads	..	2,982	1,51,399	7,76,916	9,31,297	40,000	27,191
Other District Roads	..	..	(—) 4,160	(—) 4,160	1,27,556	73,908	2,01,464
Village Roads	..	..	..	..	1,56,324	1,56,724	3,13,048
Total ..	11,059	3,02,030	11,32,470	14,45,559	3,23,880	2,57,823	5,81,703
4 West Godavari—							
National Highways	..	..	4,98,347	4,98,347	..	..	..
Provincial Highways	..	62	1,43,670	1,43,670	..	..	..
Major District Roads	..	1,62,768	9,35,544	19,83,365	98,254	1,10,513	2,08,767
Other District Roads	..	..	1,999	10,537	2,00,944	97,707	2,98,651
Village Roads	..	..	..	..	97,271	1,21,461	2,18,732
Total ..	1,62,860	9,37,543	26,35,819	37,36,222	3,96,469	3,29,681	7,26,150
5 Agoney Division—							
National Highways	..	..	36,103	39,489	75,592	..	..
Provincial Highways	..	..	1,30,704	1,023	1,31,727	..	..
Major District Roads	..	12,547	2,51,392	7,19,232	9,83,171	61,956	61,956
Other District Roads	..	..	..	..	1,05,680	1,32,816	2,38,496
Village Roads	..	..	..	..	6,165	23,091	29,256
Total ..	12,547	4,18,199	7,59,744	11,90,490	1,11,845	2,17,868	3,29,708

ADMINISTRATION REPORT OF THE

Division/category.	Government roads.				District board roads.		
	Capital works.]		Repairs.	Total.	Capital works.	Repairs.	Total.
	Ex-P.W.R.	P.W.R.					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.
6 Godavari Special—							
National Highways ..	..	4,13,036	..	4,13,036	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	2,659	..	2,659	..	..	..
Other District Roads ..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	4,15,695	..	4,15,695	..	..	..
7 Krishna—							
National Highways ..	..	18,477	3,85,828	4,24,521	..	..	..
Provincial Highways ..	..	2,82,964	62,396	7,85,160	..	..	..
Major District Roads ..	..	1,32,051	69,280	11,82,175	4,28,908	2,57,558	6,86,466
Other District Roads ..	..	..	35,539	35,539	1,49,501	1,77,434	3,26,935
Village Roads ..	..	..	..	..	5,84,206	3,36,124	9,20,390
Total ..	..	1,50,528	3,72,460	19,04,407	11,62,675	7,71,116	19,33,791
8 Guntur, North—							
National Highways ..	..	..	4,37,368	1,12,032	..	..	..
Provincial Highways ..	..	..	..	90,626	..	..	..
Major District Roads ..	..	2,59,911	2,50,426	8,42,261	3,76,963	1,46,594	5,23,557
Other District Roads ..	..	..	..	..	90,501	29,196	1,19,697
Village Roads ..	..	..	..	..	6,40,894	1,28,120	7,69,014
Total ..	..	2,59,911	6,87,794	10,44,919	11,08,358	3,03,910	14,12,268
9 Guntur South—							
National Highways ..	..	..	..	3,41,842	..	..	..
Provincial Highways ..	..	..	7,047	1,53,232	..	..	..
Major District Roads ..	..	3,41,078	77,972	7,73,907	2,28,969	2,22,489	3,51,458
Other District Roads ..	..	..	..	4,470	1,76,811	6,1976	2,37,587
Village Roads ..	..	..	..	..	1,00,992	24,493	1,25,485
Total ..	..	3,41,078	85,019	12,73,501	4,06,572	3,07,958	7,14,530
10 Vizianagaram Special—							
National Highways ..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	6,38,366	89,101	7,27,467	..	..	..
Other District Roads ..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	6,38,366	89,101	7,27,467	..	..	..
11 Chodavaram—							
National Highways ..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	..	47,680	5,612	..	..	..
Other District Roads ..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	..	47,680	5,612	..	..	..
12 Nellore—							
National Highways ..	..	..	33,524	3,97,656	..	..	..
Provincial Highways ..	..	..	3,56,252	1,99,926	..	..	..
Major District Roads ..	..	..	41,601	6,48,745	..	2,01,354	2,01,354
Other District Roads ..	..	..	..	10,136	..	1,76,369	1,76,369
Village Roads ..	..	..	..	..	2,59,813	74,862	3,34,675
Total ..	..	..	4,31,377	12,56,463	2,59,813	4,52,585	7,12,396
13 Kurnool—							
National Highways ..	..	..	34,370	1,48,485	..	..	..
Provincial Highways ..	..	..	235	2,37,595	..	..	..
Major District Roads ..	..	..	42,147	28,399	1,11,612	1,15,622	2,27,234
Other District Roads ..	..	..	..	4,94,924	1,08,992	1,93,655	3,02,647
Village Roads ..	..	..	..	..	8,975	3,245	12,220
Total ..	..	42,382	3,00,364	12,91,461	2,29,579	3,12,522	5,42,101
14 Bellary—							
National Highways ..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	27,965	1,12,228	11,59,546	97,076	1,44,542	2,41,618

HIGHWAYS DEPARTMENT, 1950-51

Division/category.	Government roads.				District board roads.		
	Capital works.		Repairs.	Total.	Capital works.	Repairs.	Total.
	Ex-P.W.R.	P.W.R.					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.
15 Anantapur—							
National Highways ..	..	..	1,76,737	1,76,737	..	..	..
Provincial Highways ..	..	10,293	45,097	55,390	..	468	468
Major District Roads ..	..	20,394	37,744	58,138	41,320	83,599	1,24,919
Other District Roads ..	..	..	..	..	56,365	36,286	92,651
Village Roads ..	..	..	..	..	38,608	53,867	92,475
Total ..	..	30,637	82,811	9,71,671	1,36,293	1,73,715	3,10,008
16 Cuddapah—							
National Highways ..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	1,25,815	4,91,921	1,71,886	2,34,122	4,06,008
Major District Roads ..	..	18,515	69,741	88,256	30,664	1,03,887	1,34,551
Other District Roads ..	..	..	..	..	32,160	9,990	42,150
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	18,515	1,95,556	9,98,571	2,34,710	3,49,030	5,83,740
17 Chingleput—							
National Highways ..	..	..	5,08,462	5,42,054	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	..	2,99,775	6,18,573	1,37,077	61,614	1,98,691
Other District Roads ..	..	..	..	2,30,163	63,619	1,69,187	2,32,806
Village Roads ..	..	..	..	..	6,13,245	1,08,573	7,22,118
Total ..	..	..	848	8,08,237	13,90,790	21,98,179	35,88,969
18 Chittoor—							
National Highways ..	..	..	..	1,08,102	..	..	..
Provincial Highways ..	..	..	64,617	62,002	1,95,084	3,24,733	5,19,817
Major District Roads ..	..	..	6,080	1,45,940	6,72,611	8,24,631	14,97,242
Other District Roads ..	..	..	..	30,517	1,18,011	1,48,492	2,66,503
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	70,661	2,38,489	10,96,808	14,05,958	5,87,005	19,92,963
19 North Arcot—							
National Highways ..	..	..	550	1,85,175	2,57,868	4,43,593	7,06,636
Provincial Highways ..	..	..	1,340	89,574	1,77,998	1,78,914	3,66,912
Major District Roads ..	..	..	1,72,632	1,62,339	7,81,264	11,16,465	18,97,763
Other District Roads ..	..	..	..	..	5,270	5,170	10,440
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	1,74,752	3,87,090	11,82,400	17,44,242	19,48,227	36,92,469
20 Pennar Special—							
National Highways ..	..	..	..	6,00,920	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	..	..	6,00,920	..	..	..
21 Transport and Machinery—							
National Highways ..	..	..	..	89,424	..	..	..
Provincial Highways ..	..	..	..	23,924	..	..	..
Total ..	..	..	..	1,13,348	..	..	..
22 Bridges South—							
National Highways ..	..	..	..	20,532	..	..	..
Major District Roads ..	..	..	..	35,437	..	..	..
Total ..	..	..	..	14,905	..	..	..
23 South Arcot—							
National Highways ..	..	..	..	1,95,397	1,95,224	..	..
Provincial Highways ..	..	..	..	2,03,895	1,69,911	3,96,521	5,69,337
Major District Roads ..	..	..	..	1,04,010	43,155	8,34,580	9,81,745
Other District Roads ..	..	..	..	..	23,735	1,43,329	1,67,064
Village Roads ..	..	..	..	..	..	1,05,303	1,20,229
Total ..	..	1,26,552	2,47,050	12,23,623	15,97,225	2,84,182	18,81,407
24 Tiruchirappalli—							
National Highways ..	..	..	..	44,610	4,82,197	5,26,807	10,09,017
Provincial Highways ..	..	..	..	49,246	8,72,950	9,22,196	18,44,392
Major District Roads ..	..	..	..	80,668	2,14,914	10,01,244	12,96,826
Other District Roads ..	..	..	..	..	46,289	46,289	92,578
Village Roads ..	..	..	..	..	..	..	..
Total ..	..	80,668	3,08,770	24,02,630	27,92,118	3,44,401	31,36,539

Division/category.	Government roads.				District board roads.		
	Capital works.		Repairs.	Total.	Capital works.	Repairs.	Total.
	Ex-P.W.R.	P.W.R.					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Tanjore East—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	85,421	85,421	..	..	..
Major District Roads	..	641	62,245	7,44,459	91,515	2,05,276	2,96,791
Other District Roads	..	..	..	7,432	60,034	1,26,343	1,86,377
Village Roads	..	..	..	..	1,46,798	1,85,037	3,32,435
Total	641	62,245	8,22,448	8,85,334	2,98,347	5,17,256	8,15,603
26 Tanjore West—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	50,068	2,35,704	..	..	..
Major District Roads	..	1,303	13,511	8,37,865	2,45,415	3,09,377	5,54,792
Other District Roads	..	..	..	94,087	..	1,20,928	1,20,928
Village Roads	..	..	..	..	..	1,30,033	1,30,033
Total	1,303	63,579	11,67,656	12,32,538	2,45,415	5,60,338	8,05,753
27 Madurai—							
National Highways	..	..	2,38,430	4,00,550	..	..	..
Provincial Highways	..	..	6,375	1,57,876	..	..	..
Major District Roads	..	73,683	2,03,504	10,14,408	37,439	3,51,702	3,89,141
Other District Roads	..	..	..	23,111	77,181	93,761	1,70,942
Village Roads	..	..	..	..	2,57,364	2,71,311	5,28,675
Total	73,683	4,48,318	15,95,945	21,17,946	3,71,984	7,16,774	10,88,758
28 Ramanathapuram—							
National Highways	..	..	3,900	6,42,993	..	..	..
Provincial Highways	..	..	91,689	1,65,235	..	..	..
Major District Roads	..	5,381	36,379	8,78,671	1,44,176	3,13,526	4,57,702
Other District Roads	..	..	..	..	87,589	1,30,460	2,68,049
Village Roads	..	..	..	..	1,96,520	1,00,968	2,97,488
Total	5,381	1,31,968	16,86,899	18,24,248	4,28,285	5,94,954	10,23,239
29 Tirunelveli—							
National Highways	..	..	2,462	2,07,312	..	..	..
Provincial Highways	..	1,564	71,967	2,11,714	..	..	..
Major District Roads	..	..	70,499	5,52,433	5,12,977	4,36,098	9,49,075
Other District Roads	..	..	..	799	61,757	66,950	1,28,707
Village Roads	..	..	..	..	2,11,161	15,000	2,26,161
Total	1,564	1,44,928	9,87,258	11,13,750	7,85,895	5,18,048	13,03,943
30 Pongalur Bridge—							
National Highways	..	..	12,05,087	1,259	..	..	..
Provincial Highways	..	..	..	..	..	..	..
Major District Roads	..	..	..	..	..	..	..
Other District Roads	..	..	..	..	..	..	..
Village Roads	..	..	..	..	..	..	..
Total	..	12,05,087	1,259	12,06,346	..	..	..
31 Coleroon bridge—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	..	..	..	..	..
Major District Roads	..	1,915	6,30,200	14,830	6,46,945	..	..
Other District Roads	..	..	..	..	..	..	..
Village Roads	..	..	..	..	..	..	..
Total	1,915	6,30,200	14,830	6,46,945	..	..	..
32 Salem North—							
National Highways	..	..	1,019	4,91,563	2,34,695	7,28,177	..
Provincial Highways	..	..	..	..	..	..	..
Major District Roads	..	84,094	91,072	4,95,290	6,70,456	41,007	2,23,523
Other District Roads	..	..	..	5,663	5,663	49,035	2,66,678
Village Roads	..	..	..	..	..	1,23,868	58,915
Total	86,013	5,82,635	7,35,648	14,04,296	2,18,910	5,44,116	7,63,026
33 Salem South—							
National Highways	..	..	..	4,77,156	2,31,987	7,09,143	..
Provincial Highways	..	..	..	1,48,258	1,46,779	2,95,037	..
Major District Roads	..	7,220	1,87,958	4,46,565	6,41,743	..	1,28,425
Other District Roads	..	..	..	17,074	17,074	..	2,15,884
Village Roads	..	..	..	..	..	2,27,660	1,29,485
Total	7,220	8,13,372	8,42,405	16,62,997	2,27,660	4,73,694	7,01,854

Division category.	Government Roads.				District Board Roads.		
	Capital works.		Repairs.	Total.	Capital works.	Repairs.	Total.
	Ex-P.W.R.	P.W.R.					
	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.
34 Coimbatore, North—							
National Highways	..	..	..	85,021	85,021	..	..
Provincial Highways	..	..	12,530	33,855	1,81,367	1,77,752	..
Major District Roads	..	..	3,540	33,259	9,49,025	9,85,324	2,66,609
Other District Roads	..	..	..	..	3,950	44,775	1,54,859
Village Roads	..	..	..	..	..	2,22,462	2,94,142
Total	16,070	67,114	11,69,363	12,52,547	2,94,214	7,14,603	10,08,817
35 Coimbatore, South—							
National Highways	..	..	809	832	1,49,763	1,50,704	..
Provincial Highways	..	..	9,052	4,42,470	5,22,938	9,74,460	..
Major District Roads	..	..	26,004	59,655	8,89,665	9,85,324	2,07,462
Other District Roads	..	..	..	..	9,712	8,16	2,03,869
Village Roads	..	..	..	..	..	2,84,464	2,27,593
Total	45,865	5,02,267	16,72,978	21,20,200	3,92,929	6,88,924	10,81,853
36 The Nilgiris—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	17,366	3,63,449	2,56,421	6,37,236	..
Major District Roads	..	..	14,899	1,77,790	2,85,287	4,77,976	1,098
Other District Roads	..	..	9,620	..	23,649	33,269	81,094
Village Roads	..	..	..	..	..	..	2,23,805
Total	41,885	5,41,339	5,65,357	11,48,431	3,05,997	1,70,222	4,76,219
37 Malabar, North—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	47,343	45,913	7,60,978	8,54,234	..
Major District Roads	..	..	..	53,983	3,76,438	4,30,476	18,289
Other District Roads	..	..	..	..	20,334	20,334	50,167
Village Roads	..	..	..	..	..	..	92,476
Total	47,343	99,901	11,58,300	13,05,544	1,60,932	3,95,083	5,56,015
38 Malabar, South—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	319	18,472	4,37,428	5,00,486	..
Major District Roads	..	..	48,492	20,045	9,27,405	9,85,912	15,411
Other District Roads	..	..	..	..	13,129	13,129	1,09,546
Village Roads	..	..	..	..	..	..	..
Total	93,398	88,517	15,42,260	16,74,175	1,24,967	2,79,12	4,04,769
39 South Kanara—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	40,820	76,147	4,38,486	5,50,453	12,129
Major District Roads	..	..	26,798	2,57,955	5,22,627	8,07,380	50,892
Other District Roads	..	..	..	755	26,707	27,462	10,276
Village Roads	..	..	..	..	..	..	94,027
Total	67,618	3,34,857	9,82,820	13,85,295	1,25,775	2,33,259	3,64,084
40 Bharathapuzha—							
National Highways	..	..	..	2,65,397	..	2,65,397	..
Provincial Highways	..	..	..	1,94,453	..	1,94,453	..
Major District Roads	..	..	..	..	..	..	..
Total	..	4,59,850	..	4,59,850	..	..	..
41 Chirakkal—							
National Highways	..	..	..	..	..	..	..
Provincial Highways	..	..	690	2,39,875	..	2,40,565	..
Major District Roads	..	..	..	..	..	..	..
Other District Roads	..	..	..	..	..	10,825	3,936
Village Roads	..	..	..	..	..	41,371	14,761
Total	690	2,39,875	..	2,40,565	2,57,921	3,936	2,05,725

APPENDIX 14.

Financial Statement of all disbursements, 1950-51.

Serial number and name of division.	(1)	Total expenditure—Government and District Board.	(2)	Tools and Plant—New Supply and Repairs.	(3)	Pay of Establishment.		(5)	Contingencies.		(7)	(8)	(9)	(10)
						Eng. netting.	Masteral, etc.		Repts.	Other items.				
		RS.		RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1 I Circle Office ..	..	..	..	..	18,010	29,080	..	..	..	5,823	..	..	..	58,633
2 Visakhapatnam, North ..	..	13,36,541	29,088	38,460	28,310	20,269	20,269	2,791	2,791	347	..	..	..	15,06,106
3 Visakhapatnam, South ..	..	21,92,823	70,557	51,315	45,587	20,451	20,451	2,325	2,325	9,345	..	..	..	23,92,403
4 East Godavari ..	..	21,08,146	27,742	44,474	29,865	18,325	18,325	..	..	15,976	..	..	..	22,44,528
5 West Godavari ..	..	45,45,714	13,931	26,958	1,24,550	29,557	29,557	..	..	16,345	..	..	..	48,57,055
6 Agency Division ..	..	15,31,522	66,104	49,963	28,974	30,360	30,360	4,275	4,275	8,457	..	..	..	17,19,655
7 Godavari Special Division ..	..	4,15,695	20,483	27,691	19,500	12,460	12,460	1,395	1,395	2,234	..	..	..	4,99,458
8 Krishna ..	..	46,94,313	1,34,157	65,286	43,653	27,479	27,479	5,017	5,017	9,709	..	..	..	49,79,614
9 Guntur, North ..	..	34,44,422	43,269	59,793	57,797	22,603	22,603	..	..	13,258	..	..	..	36,81,142
10 Guntur, South ..	..	24,63,336	44,505	56,326	42,483	18,103	18,103	2,430	2,430	6,559	..	..	..	26,33,742
11 Vizianagaram ..	..	7,27,167	36,610	27,052	16,742	16,516	16,516	1,555	1,555	4,701	..	..	..	8,30,943
12 Cholvaram ..	..	53,292	551	..	..	..	..	..	..	..	..	..	..	53,843
13 II Circle Office ..	..	..	..	18,974	37,055	7,051	7,051	3,437	3,437	6,023	..	..	..	72,540
14 Nellore ..	..	25,04,048	43,668	61,251	37,037	20,356	20,356	3,628	3,628	8,566	..	..	..	26,78,554
15 Kurnool ..	..	22,35,705	85,273	52,713	31,832	26,782	26,782	3,230	3,230	5,016	..	..	..	24,40,551
16 Bellary ..	..	15,60,261	45,545	46,722	26,966	16,535	16,535	3,825	3,825	32,394	..	..	..	17,32,248
17 Anantapur ..	..	14,57,005	59,160	47,847	27,153	18,198	18,198	5,037	5,037	6,412	..	..	..	16,20,812
18 Uddapah ..	..	18,34,670	50,133	31,781	27,814	18,480	18,480	3,674	3,674	18,485	..	..	..	19,85,037
19 Ching'eput ..	..	35,35,642	69,604	26,844	72,825	27,340	27,340	1,973	1,973	4,398	..	..	..	37,38,626
20 Chittoor ..	..	24,25,956	49,933	50,392	45,438	20,827	20,827	17,704*	17,704*	..	..	..	..	26,10,250
21 North Arcot ..	..	25,58,280	47,800	57,909	38,727	19,807	19,807	3,723	3,723	11,560	..	..	..	27,37,806
22 Pennar Special ..	..	6,00,920	— 4,765	8,036	7,264	2,327	2,327	69	69	1,589	..	..	..	6,15,440
23 Transport and Machinery ..	..	1,13,348	98,38,736	92,300	25,500	23,000	23,000	3,600	3,600	1,300	..	..	..	1,00,97,784
24 Bridges South Dn. ..	..	14,905†	..	22,424	36,703	26,519	26,519	1,380	1,380	..	..	..	..	1,01,931

25 III Circle Office ..	..	..	..	19,843	37,658	7,470	7,470	..	..	4,858	..	..	..	69,829
26 South Arcot ..	..	26,34,231	53,031	66,336	84,300	30,753	30,753	5,570	5,570	11,134	..	..	..	28,85,355
27 Tiruchirappalli ..	..	41,02,924	1,45,452	64,001	74,215	26,927	26,927	4,951	4,951	11,575	..	..	..	47,30,045
28 Tanjore, East ..	..	18,71,465	29,840	55,106	47,761	19,596	19,596	2,554	2,554	8,983	..	..	..	20,35,305
29 Tanjore, West ..	..	22,98,373	55,198	43,164	61,880	20,474	20,474	7,235	7,235	3,633	..	..	..	24,89,957
30 Madurai ..	..	33,75,405	1,25,261	65,387	81,681	26,848	26,848	4,819	4,819	7,818	..	..	..	36,87,219
31 Ramanathapuram ..	..	29,26,659	1,27,621	47,913	58,137	25,329	25,329	5,827	5,827	15,240	..	..	..	32,06,726
32 Tirunelveli ..	..	25,63,441	42,220	49,910	60,945	21,561	21,561	2,469	2,469	11,150	..	..	..	27,51,696
33 Pugalur ..	..	12,06,346	2,242	18,836	14,167	1,606	1,606	1,002	1,002	2,134	..	..	..	12,46,333
34 Coleroon ..	..	6,46,945	944	24,875	17,113	4,468	4,468	849	849	2,476	..	..	..	6,98,270
35 IV Circle Office ..	..	..	..	15,513	28,229	19,907†	19,907†	2,395	2,395	4,484	..	..	..	70,528
36 Salem, North ..	..	22,52,342	48,206	40,874	50,855	24,947	24,947	4,841	4,841	8,142	..	..	..	24,30,207
37 Salem, South ..	..	24,46,934	60,903	50,733	29,898	25,767	25,767	3,895	3,895	5,772	..	..	..	26,23,902
38 Coimbatore North ..	..	25,92,085	83,098	49,862	33,733	25,353	25,353	5,468	5,468	9,849	..	..	..	27,99,448
39 Nilgiris ..	..	34,20,545	1,82,113	59,447	33,399	15,741	15,741	5,731	5,731	9,196	..	..	..	37,26,172
40 Coimbatore, South ..	..	16,37,190	72,943	38,335	36,933	16,225	16,225	401	401	3,538	..	..	..	18,05,566
41 Malabar, North ..	..	19,65,590	54,840	38,251	38,086	15,789	15,789	8,783	8,783	5,737	..	..	..	21,27,076
42 Malabar, South ..	..	23,22,217	83,594	36,686	27,118	16,153	16,153	3,621	3,621	8,638	..	..	..	24,98,027
43 South Kanara ..	..	18,05,912	56,201	54,391	34,969	50,768	50,768	2,183	2,183	12,181	..	..	..	20,16,605
44 Bharatapuzha ..	..	4,59,850	1,653	8,908	14,756	4,326	4,326	740	740	1,056	..	..	..	4,91,289
45 Chirakkal Special..	..	5,03,217	11,110	23,773	11,756	20,252	20,252	1,463	1,463	3,287	..	..	..	5,74,858
46 Chief Engineer \$..	..	..	..	51,949	1,72,742 ||	88,731¶	88,731¶	..	..	24,653	..	..	..	3,38,075
Total ..	..	3,37,75,982	1,21,08,554	19,06,614	19,31,786	9,58,056	9,58,056	1,45,865	1,45,865	3,64,031	..	..	..	10,11,90,888

* Rs. 17,704 includes other items under contingencies.
† Figures not available in respect of defunct bridges Circle Office.
‡ Include, Rs. 13,762 toward other allowance.
§ Figure in respect of Chief Engineer Office are taken from the Appropriation Accounts for 1950-51.
|| The figure does not include a sum of Rs. 2,981 toward charges payable to the Union Government.
¶ Figure includes "Other allowances".

APPENDIX 15.

Statement showing the works approved by Government under Post-War Road Development programme during and to end of the year 1950-51.

Serial number and name of division or circle.	Government Roads.				District Board Roads.			
	During the year.		To end of the year.		During the year.		To end of the year.	
	Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)		RS.		RS.		RS.		RS.
I Circle.								
1 Bridges	1	4,80,000	1	4,80,000	..	..	..	..
2 Vizianagaram	..	..	3	31,02,000	..	..	..	..
3 Visakhapatnam, North	..	..	1	8,00,000	..	..	138	16,82,000
4 Visakhapatnam, South	..	..	27	46,07,860	26	3,04,475	144	8,01,905
5 Kakinada	..	..	22	12,70,000	..	..	16	6,95,000
6 Rajahmundry	11	68,97,900	11	68,97,000	13	4,90,000	13	4,90,000
7 Eluru	2	5,20,000	37	30,65,000	26	15,83,590	82	24,53,590
8 Krishna	1	63,000	12	10,99,120	33	4,61,400	76	26,15,670
9 Guntur	1	1,46,500	35	25,65,900	21	5,40,150	82	46,70,125
10 Ongole	..	1,46,000	8	4,99,000	43	10,68,900	79	36,12,900
II Circle.								
11 Anantapur	2	56,570	2	56,570	14	3,66,830	14	3,66,830
12 Bellary	..	..	15	17,35,000	1	50,000	28	17,23,000
13 Chingleput	..	..	28	50,09,200	..	..	38	7,27,500
14 Chittoor	..	..	28	14,41,600	..	..	58	11,77,700
15 Cuddapah	..	..	9	11,30,800	53	6,82,200	70	9,71,450
16 Kurnool	..	..	20	15,68,080	17	7,68,800	17	7,68,800
17 Nellore	..	..	30	12,22,310	..	..	60	13,38,470
18 North Arcot	22	22,43,225	34	41,57,875	57	8,54,150	78	11,43,550
19 Pennar Bridge	1	23,00,000	1	23,00,000	..	..	..	..
III Circle.								
20 South Arcot	..	..	45	18,65,501	1	75,000	75	17,86,760
21 Tanjore, East	..	..	8	4,01,000	15	2,64,300	23	4,09,950
22 Tanjore, West	12	36,80,182	12	36,80,182	46	9,37,770	46	9,37,770
23 Tiruchirappalli	8	1,98,000	53	10,82,285	15	3,26,052	103	9,85,150
24 Madurai	7	1,70,500	76	14,47,700	90	11,18,400	114	17,38,940
25 Ramanathapuram	8	18,800	84	18,18,200	72	8,51,750	105	21,01,750
26 Tirunelveli	..	..	17	10,76,000	53	21,04,000	53	21,04,000
27 Coleroon Bridge	1	44,000	5	35,45,750	..	..	..	..
28 Pugalur	..	..	1	26,00,000	..	..	..	..
IV Circle.								
29 Calicut	4	1,92,500	18	11,30,700	9	1,63,000	35	5,81,930
30 Bharatapuzha	..	..	..	..	..	..	..	..
31 Erode	42	5,43,435	42	5,43,435	50	4,18,690	69	4,78,715
32 Palghat	..	..	18	6,79,820	..	..	29	8,34,041
33 Coimbatore	3	45,600	31	16,65,680	25	2,08,500	63	8,09,110
34 Salem	3	24,70,500	26	47,22,100	32	1,71,300	76	8,85,210
35 Krishnagiri	9	11,05,150	25	16,94,710	24	2,14,217	52	5,68,060
36 Cannanore	..	..	..	..	..	..	9	4,28,970
37 Mangalore	1	59,000	64	49,19,755	7	93,800	44	5,89,670
38 Ootacamund	..	..	13	27,29,060	12	2,23,150	23	3,89,050
Total ..	139	2,13,80,362	867	7,76,08,693	755	1,43,50,224	1,912	4,07,67,566

APPENDIX 16.

(1) Statement showing the technical sanctions to estimates during 1950-51—1. For Government Works.

Serial number and name of Circle or Division.	Original works.			Repairs.			T. & P. S. & Repairs.			Avenues.		
	Number of works for which estimate were sanctioned.			Number.			Number.			Number.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	Total	
		RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	Number.	Cost.
I Circle.												
1 Circle Office	..	..	..	..	..	..	..	..	..	..	..	..
2 Ongole	3	2,10,280	..	19,26,420	14	93,750	15	75,400	4	2,19,700	100	20,85,570
3 Guntur	..	..	..	16,22,110	16	1,08,200	13	15,010	113	17,85,320	113	17,85,320
4 Krishna	..	..	..	34,23,135	38	2,51,077	67	1,16,050	245	38,89,462	245	38,89,462
5 Rajahmundry	..	..	..	33,61,040	36	1,73,355	18	15,110	861	35,69,505	861	35,69,505
6 Kakinada	..	..	..	16,51,411	18	55,792	12	11,810	178	17,75,013	178	17,75,013
7 Visakhapatnam, South	..	..	..	21,37,000	20	62,551	17	19,645	141	22,19,296	141	22,19,296
8 Visakhapatnam, North	..	..	..	24,36,025	23	1,14,930	21	11,750	82	25,62,705	82	25,62,705
9 Vizianagaram	..	..	..	20,10,230	20	80,700	12	4,800	154	21,21,730	154	21,21,730
10 V. anagaram	..	..	..	1,75,160	32	1,35,615	..	..	43	3,10,775	43	3,10,775
11 Bridges Gollavari	..	..	..	..	4	7,500	..	..	..	50,500	..	..
II Circle.												
12 Circle Office	..	..	..	..	..	..	..	..	..	..	..	..
13 Anantapur	8	4,18,875	..	27,450	13	2,59,610	..	..	32	7,05,935	32	7,05,935
14 Bellary	..	..	..	19,05,495	19	57,195	..	..	179	19,70,940	179	19,70,940
15 Chingleput	2	46,500	..	24,73,585	59	1,87,780	15	8,550	262	2,17,147	262	2,17,147
16 Chittoor	3	1,85,700	..	22,02,370	53	2,34,724	32	4,500	276	26,68,284	276	26,68,284
17 Cuddapah	2	6,800	..	15,26,200	19	1,09,600	41	88,500	196	17,02,590	196	17,02,590
18 Kurnool	29	95,700	..	18,76,910	5	1,09,600	6	2,980	217	18,32,430	217	18,32,430
19 Nellore	69	15,16,335	..	18,76,910	1	12,300	40	37,855	104	19,30,058	104	19,30,058
20 Arcot, North	43	41,175	..	5,47,732	38	94,573	7	3,450	267	20,67,338	267	20,67,338
21 Pennar Bridge	..	..	..	16,93,517	2	11,800	..	..	2	11,800	..	..
22 Transport and Machinery	..	..	..	..	19	2,735	..	..	19	2,735	..	..
III Circle.												
23 Arcot, South	..	..	..	17,23,690	37	55,270	..	..	170	1,16,675	170	1,16,675
24 Tanjore, East	2	4,250	..	10,39,360	2	1,500	..	..	125	10,64,930	125	10,64,930
25 Tanjore, West	9	4,82,000	..	14,19,775	6	3,585	..	..	177	19,11,340	177	19,11,340
26 Tiruchirappalli	23	1,83,000	..	45,80,630	52	2,69,260	48	5,402	408	60,87,012	408	60,87,012
27 Coimbatore	20	1,31,020	..	35,84,770	52	2,68,490	5	3,995	315	39,88,275	315	39,88,275
28 Madurai	23	3,21,875	..	24,27,760	21	1,67,000	19	73,200	187	29,59,535	187	29,59,535
29 Ramanathapuram	4	43,275	..	15,47,240	30	51,640	10	5,680	191	16,97,835	191	16,97,835
30 Tirunelveli	14	66,000	..	20,400	23	60,030	2	1,350	41	1,47,870	41	1,47,870
31 Coleroon	2	2,550	..	950	4	4,450	1	990	8	8,940	8	8,940
32 Pugalur	..	..	..	..	10	19,050	..	..	18	4,43,150	18	4,43,150
IV Circle.												
33 Kozhikode	..	..	..	12,23,747	23	22,835	..	..	122	12,64,582	122	12,64,582
34 Bharatapuzha	3	10,600	..	1,000	3	1,39,865	..	..	157	14,39,130	157	14,39,130
35 Erode	2	57,770	..	12,35,090	22	1,50,000	..	..	309	36,77,670	309	36,77,670
36 Palghat	122	2,83,265	..	22,61,470	29	1,50,000	12	7,580	32	30,54,848	32	30,54,848
37 Coimbatore	..	..	..	28,70,318	66	1,76,800	..	..	187	13,60,916	187	13,60,916
38 Salem	..	..	..	11,61,105	31	1,00,861	..	..	165	13,92,165	165	13,92,165
39 Krishnagiri	..	..	..	12,53,445	25	69,520	..	..	3	2,25,000	3	2,25,000
40 Cannanore	..	..	..	18,30,000	15	85,000	..	..	194	32,28,970	194	32,28,970
41 Mangalore	..	..	..	7,79,136	28	27,678	..	..	78	8,62,000	78	8,62,000
42 Ootacamund	..	..	..	..	15	43,100	..	..	29	6,56,960	29	6,56,960
43 Circle Office	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	461	76,52,927	4,379	6,12,80,831	963	87,86,546	549	8,33,809	6,357	73,44,163	6,357	73,44,163

(2) Statement showing the technical sanctions to estimates for District Board works accorded by the Superintending Engineers and Divisional Engineers (Highways) during 1950-51.

Serial number and name of Circle or Division.	Original works.			Repairs.		T & P. N.S. and Repairs.		Avenues.		Non-Road Works.		Total Number.	Total cost. (13) RS.
	(1)	Number of works for which estimates were sanctioned.		(4)	Cost. RS.	(6)	Cost. RS.	(8)	Cost. RS.	(10)	Cost. RS.		
		(2)	(3)										
I Circle.													
1 Circle Office	..	7	4,18,250	83	4,28,640	..	..	3	2,150	13	7,72,000	20	11,90,250
2 Ongole	..	26	7,82,058	115	3,39,700	..	..	2	1,400	26	38,800	138	1,51,648
3 Guntur	..	22	7,91,340	440	11,14,070	..	..	27	27,000	19	2,77,420	158	14,09,20
4 Krishna	..	40	1,40,020	440	11,14,070	..	..	27	27,000	187	2,05,970	694	29,87,060
5 Eluru	..	71	21,62,778	97	3,75,661	..	..	3	1,550	35	3,88,245	256	31,75,136
6 Rajahmundry	..	4	5,000	130	3,69,070	..	..	1	300	32	26,872	167	4,47,242
7 Kakinda	..	33	13,00,000	557	7,90,000	..	..	2	1,300	61	1,05,525	590	20,00,000
8 Visakhapatnam, South	..	29	2,85,700	305	7,35,135	..	..	2	1,15,000	397	11,28,669	397	11,28,669
9 Visakhapatnam, North	..	25	6,05,410	174	5,53,710	..	..	2	1,15,000	201	13,4,120	201	13,4,120
10 Vizianagaram	..	..	..	..	..	..	..	..	..	..	..	..	..
11 Bridges	..	..	..	..	..	..	..	..	..	..	..	..	..
II Circle.													
12 Anantapur	..	1	25,000	172	5,06,596	..	..	1	1,500	36	1,02,230	210	6,35,376
13 Bellary	..	4	1,11,000	119	4,20,310	..	..	12	11,020	88	1,87,282	123	5,31,310
14 Chingleput	..	134	12,45,365	239	4,97,889	..	..	20	24,300	126	3,5,993	473	19,41,556
15 Chittoor	..	171	19,77,763	241	7,75,104	..	..	12	9,300	61	2,20,775	395	30,43,250
16 Cuddapah	..	61	1,03,020	228	10,8,845	..	..	5	5,200	61	89,320	164	14,22,840
17 Kurnool	..	408	1,13,763	97	1,34,203	..	..	11	3,890	262	8,73,963	778	23,27,789
18 Nellore	..	121	10,71,565	323	8,95,610	..	..	6	4,420	151	2,89,755	606	22,61,350
19 Arcot, North	..	..	..	..	..	..	..	..	..	..	..	..	..
20 Pennar Bridge	..	8	3,98,750	..	..	..	..	..	..	7	5,21,660	15	9,20,410
21 Transport and Machinery	..	..	..	..	..	..	..	..	..	..	..	..	..
22 Circle Office	..	..	..	..	..	..	..	..	..	..	..	..	..
III Circle.													
23 Arcot, South	..	23	8,00,520	790	10,40,041	..	..	28	21,760	136	1,47,982	977	20,19,303
24 Tanjore, East	..	25	1,96,910	691	10,21,045	..	..	21	14,650	105	1,44,960	842	13,76,565
25 Tanjore, West	..	66	7,36,890	527	7,42,475	..	..	8	4,010	196	2,55,208	797	17,38,583
26 Tiruchirappalli	..	84	4,49,380	555	18,53,600	..	..	43	52,860	131	2,56,200	813	26,37,100
27 Madurai	..	60	5,42,540	473	16,66,725	..	..	5	2,300	172	6,56,620	711	23,77,085
28 Ramanathapuram	..	183	9,45,050	197	26,61,400	..	..	11	7,500	132	1,90,180	533	38,04,130
29 Tirunelveli	..	69	13,03,000	195	9,90,000	..	..	11	10,320	140	2,31,000	415	25,39,320
30 Circle Office	..	8	4,41,000	..	..	..	..	..	..	..	..	8	4,44,000
IV Circle.													
31 Kozhikode	..	8	32,700	180	4,79,378	..	..	1	600	53	36,587	242	5,49,265
32 Bharatapuzha	..	31	4,1,002	285	8,23,115	..	..	4	7,550	229	4,78,300	517	17,23,967
33 Erode	..	12	74,340	79	1,04,884	..	..	3	1,820	272	2,19,260	272	4,00,404
34 Palhat	..	84	3,14,480	367	5,62,297	..	..	4	4,20	157	2,18,349	563	11,10,846
35 Coimbatore	..	67	2,48,010	240	9,01,766	..	..	5	15,660	139	1,85,265	425	13,52,891
36 Salem	..	38	5,56,870	324	11,92,445	..	..	2	875	108	1,46,150	507	19,08,460
37 Krishnagiri	..	35	2,06,005	250	3,00,600	..	..	..	..	44	2,00,100	329	7,06,705
38 Bangalore	..	11	4,47,925	128	2,00,150	..	..	..	..	38	19,500	275	6,67,925
39 Ootacamund	..	13	7,87,500	..	..	..	..	..	..	8	2,77,300	21	10,41,800
40 Circle Office	..	2,040	2,35,99,864	8,702	2,44,44,828	14	37,810	240	9,15,355	3,234	81,24,131	14,230	5,65,51,598
Total	..	..	..	..	..	..	..	..	..	..	..	..	..

(3) Statement showing the technical sanctions to estimates for Municipal and Panchayat works accorded by the Divisional Engineers and Superintending Engineers during 1950-51.

Serial number and name of Division.					Municipal Works.		Panchayat Works.	
					Number. (2)	Total cost. (3) RS.	Number. (4)	Total cost. (5) RS.
(1)								
I Circle.								
1	Circle Office	..	..	..	17	6,98,100	..	..
2	Vizianagaram	..	..	..	..	..	..	..
3	Visakhapatnam, North	..	..	..	1	61,100	36	22,630
4	Visakhapatnam, South	..	..	..	..	..	..	..
5	Kakinada	..	..	..	6	15,500	33	2,67,000
6	Rajahmundry	..	..	..	4	4,400	9	65,600
7	Eluru	..	..	..	..	..	222	30,12,690
8	Krishna	..	..	..	..	..	133	4,28,320
9	Guntur	..	..	..	4	27,350	61	2,47,115
10	Ongole	..	..	..	38	70,330	19	36,850
II Circle.								
11	Anantapur	..	..	..	21	90,235	11	20,195
12	Bellary	..	..	..	31	79,125	..	..
13	Chingleput	..	..	..	55	1,01,130	8	1,10,380
14	Chittoor	..	..	..	44	1,16,380	14	25,280
15	Cuddapah	..	..	..	12	70,660	..	..
16	Kurnool	..	..	..	21	48,075	..	..
17	Nellore	..	..	..	14	75,500	..	..
18	Arcot, North	..	..	..	84	2,57,777	..	..
19	Circle Office	..	..	..	15	5,19,665	2	59,000
III Circle.								
20	Arcot, South	..	..	..	40	82,220	19	51,330
21	Tanjore, East	..	..	..	33	1,35,240	12	25,640
22	Tanjore, West	..	..	..	15	33,230	..	..
23	Tiruchirappalli	..	..	..	..	..	32	99,140
24	Madurai	..	..	..	8	8,870	38	1,45,125
25	Ramanathapuram	..	..	..	152	1,35,130	100	1,38,591
26	Tirunelveli	..	..	..	6	13,720	23	80,000
27	Circle Office	..	..	..	14	4,62,600	..	..
IV Circle.								
28	Kozhikode	..	..	..	31	78,126	13	36,200
29	Bharatapuzha	..	..	..	..	..	..	..
30	Erode	..	..	..	..	..	83	96,450
31	Palghat	..	..	..	18	26,685	2	13,400
32	Coimbatore	..	..	..	44	1,12,016	115	3,47,705
33	Salem	..	..	..	6	67,230	27	95,230
34	Krishnagiri	..	..	..	..	..	22	66,710
35	Cannanore	..	..	..	..	..	..	..
36	angalore	..	..	..	4	14,770	22	59,990
37	Ootacamund	..	..	..	..	..	11	74,050
38	Circle Office	..	..	..	22	5,53,365	1	36,700
Total					760	39,58,599	1,068	56,61,321

APPENDIX 17.

Statement showing the number of tender cases approved by the Superintending Engineers and Divisional Engineers.

Serial number and name of Division.	Government Roads.			District Board Works.			Municipal Works.		Grand total.
	by Divisional Engineer.	by Superintending Engineer.	Number sent up to Chief Engineer.	by Divisional Engineer.	by Superintending Engineer.	Number sent up to Chief Engineer.	by Divisional Engineer.	by Superintending Engineer.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>I Circle.</i>									
1 Bridges	..	..	2	..	..	..	..	..	2
2 Vizianagaram	4	..	..	..	..	..	..	..	4
3 Visakhapatnam, North ..	72	5	..	97	5	..	..	..	176
4 Visakhapatnam, South ..	67	7	..	175	7	..	..	..	256
5 Kakinada	30	33	..	79	8	..	..	..	150
6 Rajahmundry	50	19	5	6	12	..	..	..	92
7 Eluru	134	20	3	36	13	3	..	..	209
8 Krishna	127	120	..	113	44	1	..	..	405
9 Guntur	36	20	1	57	24	..	..	..	138
10 Ongole	22	43	..	86	..	..	..	..	151
<i>II Circle.</i>									
11 Anantapur	77	1	..	124	3	..	..	..	205
12 Bellary	89	20	18	66	21	3	..	..	217
13 Chingleput	162	6	..	235	..	..	..	..	403
14 Chittoor	102	2	..	192	..	..	..	..	296
15 Cuddapah	105	6	4	131	17	..	..	..	263
16 Kurnool	27	71	..	97	13	..	..	..	208
17 Nellore	270	4	..	261	13	..	..	..	548
18 Arcot, North	125	13	3	340	3	..	..	..	484
19 Pennar Bridge	6	1	..	..	..	..	..	..	7
20 T & M Division	1	..	..	..	..	..	..	..	1
<i>III Circle.</i>									
21 Arcot, South	59	16	3	308	31	..	..	..	417
22 Tanjore, East	145	..	..	223	4	..	..	..	372
23 Tanjore, West	53	6	..	295	29	..	..	1	384
24 Tiruchirappalli	246	20	1	581	12	..	..	2	862
25 Madurai	125	25	..	332	15	..	..	3	500
26 Ramanathapuram	73	22	..	267	34	..	..	..	396
27 Tirunelveli	111	..	..	288	12	1	..	..	412
28 Coleroon	6	3	..	..	..	..	..	..	9
29 Pugalur	2	2	..	..	..	..	..	..	4
<i>IV Circle.</i>									
30 Kozhikode	47	23	..	146	7	..	..	..	223
31 Bharatapuzha	..	..	..	..	..	..	..	..	..
32 Erode	49	4	..	171	..	..	..	..	224
33 Palghat	92	27	2	312	34	2	..	..	469
34 Coimbatore	120	4	..	157	14	1	2	..	298
35 Salem	94	18	3	273	3	2	..	..	393
36 Krishnagiri	107	11	..	202	19	3	..	..	342
37 Cannanore	..	..	..	2	11	..	..	..	13
38 Mangalore	74	36	8	163	22	1	..	2	306
39 Ootacamund	27	10	3	109	12	1	..	..	162
Total ..	2,936	618	56	5,924	442	18	2	8	10,004

APPENDIX 18.

(i) Statement showing the number of agreements accepted by the Superintending Engineers and Divisional Engineers for Government Works.

Serial number and name of Division.	Accepted by Divisional Engineer.		Accepted by Superintending Engineer.		Total.	
	Number.	Amount. RS.	Number.	Amount. RS.	Number.	Amount. RS.
<i>I Circle.</i>						
1 Bridges	14	19,140	2	4,81,765	16	5,00,905
2 Vizianagaram	220	7,23,741	2	1,13,000	222	8,36,741
3 Srikakulam	150	8,63,240	..	..	150	8,63,240
4 Visakhapatnam	74	6,47,509	5	13,01,030	79	19,48,539
5 Kakinada	80	10,64,000	..	..	80	10,64,000
6 Rajahmundry	172	8,01,539	5	8,77,398	177	16,78,937
7 Eluru	229	15,00,000	12	25,48,000	241	40,48,000
8 Krishna	98	13,00,000	37	8,53,729	135	21,53,729
9 Guntur	125	8,41,259	10	3,62,400	135	12,03,659
10 Ongole	51	4,89,229	11	3,10,159	62	7,99,388
<i>II Circle.</i>						
11 Anantapur	241	8,90,374	..	..	241	8,90,374
12 Bellary	94	6,21,085	2	2,93,822	96	9,14,907
13 Chingleput	134	7,76,500	4	6,10,000	138	13,86,500
14 Chittoor	167	6,99,251	6	3,62,422	173	10,61,673
15 Cuddapah	132	6,79,130	..	..	132	6,79,130
16 Kurnool	230	1,10,956	2	1,35,147	232	11,46,103
17 Nellore	227	12,71,893	..	..	227	12,71,893
18 Arcot, North	335	11,93,999	6	1,61,413	341	13,55,412
19 Pennar Bridge	37	1,86,380	4	12,23,030	41	14,09,380
20 T & M Division	..	..	..	..	..	..
<i>III Circle.</i>						
21 Arcot, South	167	10,07,483	3	5,17,429	170	15,24,912
22 Tanjore, East	145	7,54,923	..	..	145	7,56,923
23 Tanjore, West	105	7,77,555	7	2,19,160	112	9,96,715
24 Tiruchirappalli	557	23,11,721	9	2,13,113	566	25,24,834
25 Madurai	289	12,89,290	7	4,15,527	296	17,04,817
26 Ramanathapuram	108	15,66,816	7	2,62,754	115	18,29,569
27 Tirunelveli	120	6,65,221	1	80,250	121	7,45,471
28 Pugalur	1	17,037	2	9,030	3	26,067
29 Coleroon	20	72,955	7	2,58,683	27	3,31,638
<i>IV Circle.</i>						
30 Kozhikode	77	3,07,126	18	3,71,427	95	6,78,553
31 Bharatapuzha	..	..	..	..	..	..
32 Erode	241	9,09,007	..	..	241	9,09,007
33 Palghat	209	9,25,949	18	1,70,751	222	10,96,700
34 Coimbatore	272	14,27,384	4	1,21,205	276	15,48,589
35 Salem	160	7,43,126	13	7,77,658	173	15,20,784
36 Krishnagiri	116	5,73,243	14	5,14,046	130	10,87,289
37 Cannanore	..	..	..	..	..	..
38 Mangalore	196	10,09,550	11	11,63,649	207	21,73,199
39 Ootacamund	106	4,64,306	6	1,08,076	112	5,72,382
Total ..	5,699	3,04,03,916	230	1,48,36,043	5,929	4,52,44,959

(ii) Statement showing the number of agreements accepted by the Superintending Engineers and Divisional Engineers for District Board Works.

Serial number and name of Division.	Accepted by Divisional Engineer.		Accepted by Superintending Engineer.		Total.	
	Number.	Amount. RS.	Number.	Amount.	Number.	Amount. RS.
<i>I Circle.</i>						
1 Srikakulam	132	4,09,978	..	..	132	4,09,978
2 Visakhapatnam	182	5,28,363	..	..	182	5,28,363
3 Kakinada	83	2,31,266	..	..	83	2,31,266
4 Rajahmundry	108	3,76,493	..	..	108	3,76,493
5 Eluru	189	6,80,517	..	..	189	6,80,517
6 Krishna	71	8,67,265	..	..	71	8,67,265
7 Guntur	123	14,96,922	..	..	123	14,96,922
8 Ongole	86	7,89,070	..	..	86	7,89,070
<i>II Circle.</i>						
9 Anantapur	150	7,29,161	..	..	150	7,29,161
10 Bellary	76	2,94,642	..	..	76	2,94,642
11 Chingleput	227	7,73,580	..	..	227	7,73,580
12 Chittoor	309	4,23,486	..	..	309	4,23,486
13 Cuddapah	124	3,92,141	..	..	124	3,92,141
14 Kurnool	126	5,68,074	..	..	126	5,68,074
15 Nellore	145	4,82,396	..	..	145	4,82,396
16 Arcot, North	306	6,85,311	..	..	306	6,85,311
<i>III Circle.</i>						
17 Arcot, South	333	7,19,203	..	..	333	7,19,203
18 Tanjore, East	229	2,95,051	..	..	229	2,95,051
19 Tanjore, West	225	4,33,616	..	..	225	4,33,616
20 Tiruchirappalli	488	11,94,139	..	..	488	11,94,139
21 Madurai	267	11,41,276	..	..	267	11,41,276
22 Ramnathapuram	252	10,85,600	..	..	252	10,85,600
23 Tirunelveli	295	10,02,809	..	..	295	10,02,809
<i>IV Circle.</i>						
24 Kozhikode	101	2,99,307	..	..	101	2,99,307
25 Bharatapuzha	..	..	..	..	..	..
26 Erode	463	8,50,000	..	..	463	8,50,000
27 Palghat	223	4,23,812	..	..	223	4,23,812
28 Coimbatore	388	5,00,154	..	..	388	5,00,154
29 Salem	342	6,52,644	..	..	342	6,52,644
30 Krishnagiri	237	8,21,796	..	..	237	8,21,796
31 Cannanore	11	1,40,670	..	..	11	1,40,670
32 Mangalore	186	3,26,800	..	..	186	3,26,800
Ootacamund	194	4,80,357	..	..	194	4,80,357
Total ..	6,676	2,00,95,899	..	..	6,676	2,00,95,899

APPENDIX 19.

Work done in the office of the Chief Engineer (Highways).

1. (i) Statement showing cost of works, etc., for which tender proposals were either approved by Chief Engineer (Highways) or recommended to Government—Government road works during 1950-51.

	RS.
1 Total cost of works for which proposals were approved by Chief Engineer.	23,04,580
2 Total cost of works for which proposals were approved by Chief Engineer recommended to Government and approved by them.	10,22,600*
Grand total ..	33,27,180

* This includes an amount of Rs. 83,250 for two municipal works.

Number of tender cases approved by the Chief Engineer (Highways).	67
Number of tender cases approved by Government	10
Total ..	77

(ii) District Board Works—

	RS.
1 Total cost of works for which proposals were approved by Chief Engineer (Highways).	8,56,900
2 Total cost of works for which proposals were approved by Government.	6,71,950
Total ..	15,28,850

Number of tender cases approved by Chief Engineer (Highways).	13
Number of tender cases approved by Government	14
Total ..	27

2. *Estimates.*—One hundred and one estimates to a total cost of Rs. 414.5 lakhs were dealt with during the year against 76 estimates totalling Rs. 253.89 lakhs in 1949-50.

	Number of works.	Amount. RS.
I Road works	37	88,26,101
II Bridges and culverts	56	2,72,95,390
III Other works	3	4,76,000
IV Tools and plant	5	48,84,000
Total ..	101	4,14,81,491

The details of the estimates are given below :—

Serial number and date.	Description of work.	Estimate cost at
	<i>Road works.</i>	
		RS.
1 April 1950	Cement-concreting N.H. road in miles 39/5-1, 35/4, 41/0 and 115 at Vijayavada Municipal limits.	1,22,000
2 Do.	Conphalt surfacing Guntur-Amravathi road in mile 0/0 to 0/1 and 0 4 to 1/0 at Guntur district.	1,90,000
3 Do.	Cement-concreting miles 424/2 to 443/0 of Madras-Calcutta road (N.H. 5).	10,67,000
4 Do.	Improvements to Pravada-Anakapalle road from Pandaradatta road junction to Todada village.	2,39,000
5 Do.	Forming a road from Pravada to Chipurapalli	3,06,000
6 Do.	Widening and improving the Kurly ghat road in mile 44/4 to 47/8 of Cuddapah-Velpula road (M.D.B.)	1,65,000
7 Do.	Providing dustless surfacing mile 0/1 to 7/5 of Madanapalle to Madanapalle Railway Station Road.	1,53,000

Serial number and date.	Description of work.	Estimate cost at
	Road works—cont.	Rs.
8 May 1950 ..	Metalling the road from Duggirala to Peddavadlapudi in mile 7/0 to 12/1.	1,41,300
9 Do. ..	Forming and metalling the road and construction of bridges and culverts from Polugonda to Putlacheruvur Railway Station.	3,22,000
10 June 1950 ..	Man'mangarabad road construction at South Kanara district and bridge at mile 1/4 of the road.	43,000
11 Do. ..	Widening the Standard width of Rajampet-Villigalem road at Cuddapah between mile 8/0 to 14/0.	44,000
12 Do. ..	Widening a ghat road on Kondalur-Hosanagudi from mile 0/0 to 11/0 and from 11/1 to 20/1.	41,900
13 Do. ..	Cement-concreting the Chidambaram-Bhuvanagiri road (South Arcot district.)	6,40,000
14 July 1950 ..	Forming approach roads to the railway bridge over Ballpatam river on Pappiniseri and Azhikal Ides.	1,21,000
15 Do. ..	Formation of a road from Talavil to Padivetchal-Pulingonur road via Timiri.	44,000
16 Do. ..	Providing retaining walls of side drains and footpaths of Coimbatore-Mettupalayam road.	1,56,000
17 September 1950 ..	Metalling Pudukotta-Tiruchirappalli road at mile 1/7 to 22/6 (M.D.R.)	1,42,000
18 Do. ..	Forming an earthen road from Atchampetta Madipadu ..	1,26,000
19 Do. ..	Widening Brode-Sathy road in mile 14/0 to 38/0 ..	3,850
20 October 1950 ..	Extending the road from the Cauvery bank to Melarasangudi ..	10,000
21 Do. ..	Relocation of submerged portion of Mysore Frontier road via Ho-pet.	9,07,000
22 Do. ..	Providing cement-concrete surfacing with 3" thick in mile 0/1-4 of Chittoor-Kurnool road.	65,800
23 Do. ..	Cement-concreting Sankari-Namakkal road via Tiruchengodu in miles 1 7 to 7/1.	3,06,000
24 November 1950 ..	Metalling Avanigedda-Koderu road ..	2,90,000
25 Do. ..	Forming and metalling the road from Pedavedlapudi bridge to Vallabhapuram lock.	1,70,000
26 Do. ..	Formation of a road from Tuticorin to Tiruchendur ..	4,00,000
27 December 1950 ..	Providing 2" thick A phaltic-concrete surfacing to the stretch miles 41/3 to 43/4 of Kozhikode-Cannanore road (P.H.) within Tellicherry Municipal limits.	1,45,000
28 January 1951 ..	Cement-concreting Tanjore-Tiruvadi road ..	1,14,000
29 Do. ..	Widening of road to standard width and improvement to culvert on the section of N.H. 5 in Nellore and Chingleput.	1,47,000
30 Do. ..	Providing black top surfacing in mile 87/0 to 90/2 of Chittoor-Kurnool road (P.H.)	1,16,000
31 February 1951 ..	Metalling of Ujjini-Sovinahalli road at miles 0/0 to 13/0 at Bellary district.	52,800
32 Do. ..	Improvements to G.S.T. Road between miles 7 5 to 16/2 ..	15,00,000
33 March 1951 ..	Cement-concreting Yeraguntla-Proddatur at road miles 0/4 to 4/0.	2,35,000
34 Do. ..	Cement-concreting miles 87/2 to 90/0 of Ranipet-Krishnagiri road (N.H. 46).	2,45,000
35 Do. ..	Formation of a new road from Sorakulatur village to join Cuddalore-Chittoor road.	15,000
36 Do. ..	Asphaltic-concreting the hairpin bends in mile 53/4-5 and 53/6 of Coimbatore-Hasanur road.	4,200
37 Do. ..	Formation of an approach road in the Ex-servicemen colony in Manivilandan (Salem district).	36,251

Bridges and culverts.

1 April 1950 ..	Constructing a causeway across the Chinna-Hagari at mile 15/8 of Bellary-Kalyandrug road (M.D.R.)	1,76,000
2 Do. ..	Constructing a causeway across the river Hagari at mile 32/2 of Bellary-Kalyandrug road (M.D.R.)	1,80,000
3 Do. ..	Constructing a causeway across the river Cheyyar at mile 13 7-8 of Rajampet-Kadiri road (M.D.R.)	1,65,000
4 Do. ..	Constructing a causeway across the Hazari river at mile 20/3-4 of Adoni-Siruguppa road.	2,30,000
5 May 1950 ..	Bridge over Pachmugar river at mile 5/5 of Mudubidri-Bundeval road.	4,20,000
6 Do. ..	Constructing a bridge at mile 71/4 of V.A.A. road ..	92,600
Do. ..	Constructing a bridge at mile 75/4 of V.A.A. road ..	56,700
Do. ..	Constructing a bridge at mile 75/8 of V.A.A. road ..	1,04,000
7 Do. ..	Strengthening the culverts in Salem-Tirupattur road at miles 5/4, 8/5, 9/6, 10/8, 10/5, 12/2, 14/5 and 14/6.	16,600

Serial number and date.	Description of work.	Estimate cost at
	Bridges and culverts—cont.	Rs.
8 June 1950 ..	Constructing a bridge over Coleroon river at Anikaran Chatram in Chidambaram-Sirkali road.	1,00,000
9 Do. ..	Constructing bridges at miles 41/8, 42/4, 44/4, 45/2, 52/4, 66/5, 70/4, 72/8, 78/4 and 79/2 of Visakhapatnam-Ananthagiri-Araku road.	5,97,000
10 Do. ..	Constructing a submersible bridge across Nagavalli river at mile 41/2-3 of Vizianagaram-Palakonda road.	5,70,000
11 Do. ..	Constructing a bridge at mile 110/4 of Vikravandi Lower Anicut road (M.D.R.)	1,85,000
12 Do. ..	Constructing a bridge across Agavalam river at mile 13/2 of Arakonam-Acheri road.	1,90,000
13 Do. ..	Constructing a bridge over Champavathi at mile 520/3-6 on Madras-Calcutta road (N.H. 5.)	8,47,000
14 Do. ..	Reconstructing the flood damaged causeway in mile 18/6 of Arakonam-Renigunta road.	34,000
15 Do. ..	Decking of the Railway bridge between Azhikal-Taliperamba at Malabar district.	5,96,774
16 July 1950 ..	Constructing a bridge at mile 2/5 of Kalyanacholapuram village road.	89,000
17 Do. ..	Providing additional protection to the Narudayur bridge at mile 96/0-8 of Arilalur-Tirumunur road.	13,700
18 Do. ..	Reconstructing a culvert at mile 13/4 of Rajanagaram-Peddapuram road.	12,000
19 Do. ..	Constructing a causeway at mile 3/3 of Puttur-Nagalapuram road.	21,700
20 Do. ..	Constructing a bridge at mile 71/5 of Visakhapatnam-Ananthagiri-Araku road.	1,05,000
21 Do. ..	Constructing a bridge at mile 75/4 of Visakhapatnam-Ananthagiri-Araku road.	67,000
22 Do. ..	Constructing a bridge over Palar river at mile 38/3-5 of Madras-Dindugal road near Chingleput (N.H. 45.)	19,00,000
23 Do. ..	Providing foot paths to Vaigai bridge at Madurai ..	1,67,000
24 Do. ..	Constructing a bridge at mile 36/5-6 of Nellore-Bombay road (N.H.)	3,42,000
25 Do. ..	Providing marginal rivetment of constructing a bridge across Godavari and diverting (N.H.)	4,80,000
26 Do. ..	Construction of a bridge across Palar at Ranipet on Ranipet-Krishnagiri road (N.H. 46.)	24,00,000
27 August 1950 ..	Constructing a bridge across Cauvery near Pugalur on Benares-Cape Comorin road (N.H. 7.)	26,00,000
28 Do. ..	Constructing a bridge across Noyyal at mile 27/1-6 of Erode-Kurur road (M.D.R.)	3,00,000
29 Do. ..	Construction of B-rathipuzha bridge ..	21,20,000
30 Do. ..	Construction of a bridge over the Coleroon at Tirumarur on Perambalur-Madamadurai road.	38,00,000
31 Do. ..	Constructing a bridge across Yenamadurai drain at mile 51/3 of Palicote-Panamaram road.	2,25,000
32 September 1950 ..	Constructing a bridge at mile 1/2 of Dindugal-Arayakuruchi road.	1,55,000
33 Do. ..	Construction of a causeway at mile 153/2 of Benares-Cape Comorin road (N.H. 7.)	50,000
34 Do. ..	Construction of a proposed bypass near Madurai on N.H. 7 of G.S.T. road.	11,43,000
35 Do. ..	Constructing a bridge at mile 6/5 of Vellari-Perambara road ..	1,70,000
36 October 1950 ..	Constructing a bridge with T-beam cum slab deck of 12 spans of 38'-0" clear each across the Pennar near Kalavapalli village at mile 19/8 of Ananthapur-Kalyandrug road.	2,25,000
37 Do. ..	Reconstructing the bridge over Eluru near Yeravaram in mile 391/1-3 of G.N.T. road.	1,20,000
38 Do. ..	Constructing a bridge over Champavathi in mile 12/6-7 of Vizianagaram-Central Province road (N.H. 46.)	1,00,000
39 November 1950 ..	Construction of a submersible bridge over Aganjar river at mile 6/4 of Pattukottai-Aranthangi road.	4,10,000
40 Do. ..	Improvements to Vaigai Causeway ..	2,02,000
41 Do. ..	Construction of a causeway across Pennar in mile 10/4 to 11/2 of Maddur-Jammalamadugu road.	2,15,000
42 December 1950 ..	Construction of a bridge over Pennar river at Nellore on N.H. 5.	23,00,000
43 Do. ..	Constructing a bridge across Gostani in mile 6/3-5 of Vizianagaram-Kothavalasa road.	4,10,000
44 Do. ..	Remodelling bridge at mile 11/2 of Ambajipet-Ganjikothapet road (East Godavari district.)	33,000
45 January 1951 ..	Constructing a causeway across the Kortalar at mile 4/7-8 of, Tiruvethiyur-Paneru Panjetti road.	1,26,000

(ii) Statement showing contracts awarded during 1950-51.

(i) *Statement showing the contracts awarded since 1946-47.*

Government roads.

Serial number and name of division.

Divisionwar particulars for 1950-51 are given in the Statement (ii).

Serial number and name of division.	Government roads.						District Board Roads.						Total number.	Total cost.						
	Maintenance.			Surfacings.			Bridges culverts and causeways.			Maintenance.					Surfacings.			Bridges culverts and causeways.		
	Num-ber.	Cost.	RS.	Num-ber.	Cost.	RS.	Num-ber.	Cost.	RS.	Num-ber.	Cost.	RS.			Num-ber.	Cost.	RS.	Num-ber.	Cost.	RS.
(1)																				
1 Bridges division	9	72,645	RS.	2	4,81,765	RS.	2	4,81,765	RS.	2	4,81,765	RS.	2	4,81,765	RS.	2	4,81,765	RS.	2	
2 Vizianagaram	139	7,28,458		213	7,64,036		213	7,64,036		213	7,64,036		213	7,64,036		213	7,64,036		213	
3 Visakhapatnam, North	67	5,96,371		1	2,09,281		1	2,09,281		1	2,09,281		1	2,09,281		1	2,09,281		1	
4 Visakhapatnam, South	136	11,01,000		1	2,09,281		1	2,09,281		1	2,09,281		1	2,09,281		1	2,09,281		1	
5 Kakinda	157	12,31,315		12	2,16,236		12	2,16,236		12	2,16,236		12	2,16,236		12	2,16,236		12	
6 Rajahmundry	124	15,10,870		16	3,45,330		16	3,45,330		16	3,45,330		16	3,45,330		16	3,45,330		16	
7 Eluru	77	20,65,061		1	2,800		1	2,800		1	2,800		1	2,800		1	2,800		1	
8 Kri-hna	92	6,67,950		21	1,58,530		21	1,58,530		21	1,58,530		21	1,58,530		21	1,58,530		21	
9 Guntur	62	7,99,388		1	2,803		1	2,803		1	2,803		1	2,803		1	2,803		1	
10 Ongole	127	7,91,600		1	2,803		1	2,803		1	2,803		1	2,803		1	2,803		1	
11 Anantapur	127	7,91,600		1	2,803		1	2,803		1	2,803		1	2,803		1	2,803		1	
12 Bellary	131	7,91,600		1	2,803		1	2,803		1	2,803		1	2,803		1	2,803		1	
13 Chittoor	148	8,99,251		10	7,69,900		10	7,69,900		10	7,69,900		10	7,69,900		10	7,69,900		10	
14 Chittoor	112	14,85,200		1	75,000		1	75,000		1	75,000		1	75,000		1	75,000		1	
15 Cuddapah	222	8,64,295		7	1,16,283		7	1,16,283		7	1,16,283		7	1,16,283		7	1,16,283		7	
16 Ku-nool	103	16,15,116		3	9,93,700		3	9,93,700		3	9,93,700		3	9,93,700		3	9,93,700		3	
17 Nellore	109	10,15,960		16	9,93,700		16	9,93,700		16	9,93,700		16	9,93,700		16	9,93,700		16	
18 Arcot, North	138	10,75,151		6	4,98,818		6	4,98,818		6	4,98,818		6	4,98,818		6	4,98,818		6	
19 Pennar, bridge	133	7,72,990		6	1,86,380		6	1,86,380		6	1,86,380		6	1,86,380		6	1,86,380		6	
20 A'cot, South	110	8,54,649		1	3,500		1	3,500		1	3,500		1	3,500		1	3,500		1	
21 Tanjore, E. t	227	17,75,500		35	6,43,372		35	6,43,372		35	6,43,372		35	6,43,372		35	6,43,372		35	
22 Tanjore, W. t	266	12,75,464		19	21,490		19	21,490		19	21,490		19	21,490		19	21,490		19	
23 Tiruchirappalli	24	12,75,464		4	4,03,000		4	4,03,000		4	4,03,000		4	4,03,000		4	4,03,000		4	
24 Madurai	85	15,25,000		7	4,03,000		7	4,03,000		7	4,03,000		7	4,03,000		7	4,03,000		7	
25 Ramanathapuram	51	4,01,130		17	80,825		17	80,825		17	80,825		17	80,825		17	80,825		17	
26 Tirunelveli	1	19,387		5	39,398		5	39,398		5	39,398		5	39,398		5	39,398		5	
27 Culeorin	1	544		4	1,42,282		4	1,42,282		4	1,42,282		4	1,42,282		4	1,42,282		4	
28 Pugalur	78	5,39,309		5	22,997		5	22,997		5	22,997		5	22,997		5	22,997		5	
29 Kozhikode	113	23,09,550		59	6,57,570		59	6,57,570		59	6,57,570		59	6,57,570		59	6,57,570		59	
30 Bherathapuzha	130	9,19,912		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	
31 Krodie	32	8,37,360		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	
32 Palgati	295	8,37,360		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	9,95,061		24	
33 Ootacamund	113	8,74,073		3	7,47,602		3	7,47,602		3	7,47,602		3	7,47,602		3	7,47,602		3	
34 Salem	112	7,05,430		17	1,33,900		17	1,33,900		17	1,33,900		17	1,33,900		17	1,33,900		17	
35 Kri-nagiri	92	12,40,695		63	80,305		63	80,305		63	80,305		63	80,305		63	80,305		63	
36 Carnarao	25	3,59,750		8	2,92,098		8	2,92,098		8	2,92,098		8	2,92,098		8	2,92,098		8	
37 Mangalore	338	3,18,93,090		405	79,42,106		405	79,42,106		405	79,42,106		405	79,42,106		405	79,42,106		405	
38 Ootacamund	338	3,18,93,090		405	79,42,106		405	79,42,106		405	79,42,106		405	79,42,106		405	79,42,106		405	
Total	10,714	6,68,92,781		332	35,01,012		332	35,01,012		332	35,01,012		332	35,01,012		332	35,01,012		332	

APPENDIX 21.

(i) Statement showing the number of investigations since 1946-47.

Year.	Number of investigations.		
	Government.	District Board.	Total.
1946-47	61	60	121
1947-48	179	489	668
1948-49	262	288	550
1949-50	263	399	662
1950-51	116	428	544
Total	881	1,664	2,545

Divisionwar particulars for 1950-51 are given in the Statement (ii).

(ii) Statement showing the number of investigations in 1950-51.

Serial number and name of division.	Number of investigations.		
	Government.	District Boards.	Total.
1 Vizianagaram	..	..	..
2 Visakhapatnam North	..	15	15
3 Visakhapatnam South	1	3	4
4 Kakinada	..	5	5
5 Rajahmundry	2	..	2
6 Krishna	25	53	78
7 Guntur	33	48	81
8 Anantapur	1	18	19
9 Bellary	..	5	5
10 Chingleput	..	..	..
11 Chittoor	7	10	17
12 Cuddapah	2	1	3
13 Kurnool	..	6	6
14 Nellore	..	20	20
15 North Arcot	..	69	69
16 T. and M. Division	3	..	3
17 South Arcot	16	25	41
18 Tanjore East	..	11	11
19 Tanjore West	1	11	12
20 Tiruchirappalli	1	15	16
21 Madurai	20	37	57
22 Ramanathapuram	..	3	3
23 Tirunelveli	..	20	20
24 Coleroon Division	..	..	..
25 Pugalur	..	..	..
26 Kozhikode	..	..	..
27 Bharathapuzha	..	..	..
28 Erode	..	18	18
29 Palghat	..	2	2
30 Coimbatore	..	..	..
31 Salem	..	..	..
32 Krishnagiri	..	12	12
33 Cannanore	..	..	..
34 Mangalore	..	..	..
35 Ootacamund	2	11	13
36 Ongole	2	1	3
37 Eluru	..	9	9
Total	116	428	544

APPENDIX 22.

(i) Review of Major works costing over one lakh of rupees in progress.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
	RS.	RS.	
A. GOVERNMENT WORKS.			
I. Bridges and culverts.			
1 Constructing a bridge across Budameru M. 28/4 of Vijayavada-Nuzvid road (Estimate Rs. 1,36,000) (P.W.R.D. Krishna division).	41,527	63,320	There was a proposal to change the design and other factors and hence the work was not in good progress.
2 Reconstructing the bridge in M. 391/1-3 of G.N.T. Road (Estimate Rs. 1,20,000) (P.W.R.D. Krishna division).	7,535	7,535	
3 Constructing a bridge over Champavat near Nathavala-a 520/3-6 (Estimate Rs. 9,35,000) (P.W.R.D. Krishna division.)	65,253	65,253	Formation of piers was in progress.
4 Constructing a bridge over Nakkala drain at 6/4 of Palacole-Achanta road (Estimate Rs. 1,30,000) (P.W.R.D. West Godavari).	50,568	1,04,725	The work was almost completed.
5 Constructing a bridge across Upputeru on Gudivada-Bhimavaram road (Estimate Rs. 3,55,000) (P.W.R.D. West Godavari).	56,374	56,374	The work was in progress.
6 Constructing a bridge near Kalavapalli at M. 19/8 of A.R. Road (Estimate Rs. 2,70,000) (E.D.F. Anantapur).	299	70,128	Design was changed and tenders called for.
7 Constructing a causeway at 13/6 of Pennukonda - Madakasira road (Estimate Rs. 1,12,000) Ex-P.W.R. Anantapur.	126	16,758	Revised estimate was awaiting sanction.
8 Constructing a bridge at 38/5-6 of G.S.T. Road (Estimate Rs. 19,00,000) P.W.R. (Chinglepet).	52,405	52,405	The work was in progress.
9 Constructing a causeway at 10/4 to 11/2 of Muddanur-Jammala Madugu road (Estimate Rs. 1,62,000) R.D.F. (Cuddapah).	13,948	39,661	Do.
10 Constructing a bridge at 7/1 of Kolikuntla - Nossam road (Estimate Rs. 1,50,000) (Kurnool).	11,486	28,478	Do.
11 Constructing a bridge across the river Pennar at Nellore (Estimate Rs. 25,00,000) (P.W.R.D. Nellore).	6,00,318	8,20,036	Do.
12 Constructing a bridge at 34/1-2 of Kan g. r. Badvel road (Estimate Rs. 1,95,000) P.W.R.D. (Nellore).	15,776	15,776	Do.
13 Constructing a bridge across Cauvery at Pugalur JOB: 188 MD. 7 (Estimate Rs. 28,00,000) (P.W.R.D.) III Circle.	12,04,680	19,54,459	Eighteen vents were slabbed up to end of the year. New approach roads on the northern and southern sides of the bridge across the Cauvery under construction were formed along with a bye-pass road to avoid the Velur road.
14 Widening the Cauveryapatnam bridge JOB 281-MD 7 (Estimate Rs. 2,05,000) (P.W.R.D.) III Circle.	79,381	..	The work was subsequently transferred to the IV Circle.
15 Constructing a bridge at M. 6/2 of Dindigul-Aravakurichi road JOB 338 MD. 7 (Estimate Rs. 1,55,000) (P.W.R.D. Madurai).	17,161	17,259	The work was commenced late and was in progress.
16 Improvements to the causeway across the Vaigai in Mathurai Municipal limits (Estimate Rs. 1,62,000) (P.W.R.D. Mathurai).	97,857	1,37,237	Construction of a causeway proper was completed. Apron work on both sides of the causeway was in progress.
17 Constructing a bridge over Coleroon at Anakaran chatram on Chidambaram-Sirkali road (P.W.R.D. Coleroon bridge special division) (Estimate Rs. 28,50,000)	3,02,618	4,99,437	Contracts for the main work were settled by the middle of May and well sinking was in progress. The expenditure in the denominator column represents the share of the District Board.
	2,59,386	4,28,087	
18 Constructing a bridge across Nandiar at M 18/4-5 of Tiruchy-Jayankondam Chidambaram road (Estimate Rs. 2,20,000) (P.W.R.D.) III Circle.	1,28,127	1,31,981	The work was in progress and expected to be completed in 1951-52.
19 Reconstructing the weak bridge at M. 4/8 of Calicut-Baluseery road (Estimate Rs. 1,96,000) (P.W.R.D. Kozhikode.)	1,383	12,965	The expenditure incurred for the diversion bridge was transferred to this work. Tenders for the work were not called for during the year.

ADMINISTRATION REPORT OF THE

Serial number, name of work and estimate cost classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
I. Bridges and culverts—cont.			
20 Constructing a bridge across Bharathapuzha river at M. 18/2 of Kuttipuram - Angadipuram - Cochin Frontier road (Estimate Rs. 12,00,000) P.W.R.D. Bharatapuzha special division)	1,79,979	7,09,039	
21 Construction of a bridge across Payaswamy River in Thekkil at M. 52/8 of Kalladka-Kanhangad road (Estimate Rs. 10,10,000. P.W.R.D. (Bharatapuzha Special Division).	2,14,245	2,14,245	
22 Remodelling the girder bridge at M. 41/8 of Salem-Cuddalore road (Estimate Rs. 1,25,000) P.W.R.D. (Salem)	86,462	1,04,884	The work was nearing completion.
23 Widening and strengthening the bridge at M. 166/4 of Benares-Cape Comorin road across a river Pennar (Estimate Rs. 2,45,000) P.W.R.D. (Krishnagiri).	1,43,056	1,53,068	This work was in charge of the Divisional Engineer Pugalur till 31 January 1951 and was transferred to the Krishnagiri division with effect from 1st February 1951. The masonry works were in progress. The Superstructure of the bridge was dismantled and additional piers to the existing piers were constructed and the R.C. deck of the bridge was to be taken up. The work was in good progress.
24 Bridge across the Swarnanadi at Puttige at M. 13 of Malpe-Hebri Agumbe-Shimoga road (Estimate Rs. 4,00,000 P.W.R.D. (Mangalore).	9,671	9,671	The work was in progress.
25 Constructing a bridge at M. 4/7-8 of Mangalore-Baindur road over Gurpur near Kulur (Estimate Rs. 5,90,000 P.W.R.D. (Mangalore).	1,26,359	1,90,737	Do.
26 Constructing a bridge over Yekkar river in M. 14/6 of Mangalore-Kinnigoli road (Estimate Rs. 1,25,000 P.W.R.D. (Mangalore).	21,213	21,213	Do.

II. Cement concrete and black-top works.

1 Laying Cement concrete surface to G.N.T. road 271/3-101 to 276 3-104 (Estimate Rs. 3,43,000 R.D.F. (Krishna).	17,236	2,99,294	The work was expected to be completed during 1951-52.
2 Providing cement concrete surface in M. 0/7-574 to 6/3 of G.B.C. road (Estimate Rs. 4,25,000 R.D.F. (Guntur).	2,55,966	2,92,936	A length of M. 5/3 was cement concreted during the year.
3 Cement concreting 34/0 to 39/5-354 of Mulipatnam - Vijayawada road (Estimate Rs. 6,34,000) P.W.R.D. (Krishna).	2,75,609	4,82,193	The work was almost completed.
4 Cement concreting Koderu-Nallajerla road 24/3 to 34/0 (Estimate Rs. 11,04,000) P.W.R.D. (West Godavari).	2,77,333	6,49,887	The work was in progress.
5 Cement concreting Anakapalli-Madugole road 0/7 to 7/5 (Estimate Rs. 5,53,000) P.W.R.D. (Vizianagaram).	86,580	1,45,530	Sub-grade work was in progress.
6 Conphalting Visakhapatnam-Ananthagiri Araku road 2/0 to 3/3 (Estimate Rs. 1,25,000) P.W.R.D. (Vizianagaram).	47,823	47,823	Widening and sub-grade work was completed. Cement concrete slab was laid in M. 2/0 to 2/1-8 and 3/1-2. The remaining work was in progress.
7 Cement concreting G.N.T. road 424/2 to 443 0 (Estimate Rs. 10,67,000) P.W.R.D.	41,911	41,911	....
8 Cement concreting G.N.T. road 247/1-4 to 250/3 to 267/3 P.W.R.D. (Estimate Rs. 10,50,500).	3,85,085	4,75,270	A length of M. 7-1 was cement concreted and the balance stretch of 10 miles was in progress.
9 Cement concreting Guntur-Amaravathi road 0/0 to 1/0 (Estimate Rs. 1,07,400) P.W.R.D.	1,233	10,978	The work could not be pushed through vigorously as the allotment for the work was cut down.
10 Providing c.c. surface in M 1/1 to 3/3 of Dowlaihwaram-Rajahmundry road (Estimate Rs. 1,96,000) P.W.R.D.	1,30,704	2,04,331	The work was in progress.

Serial number and name of work and estimate cost (Classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement-concrete and black-top works—cont.			
11 Providing improved surfacing between M. 361/3 to 363/1 of G.N.T. road in Rajahmundry Municipal limits (Estimate Rs. 1,36,000) P.W.R.D.	41,018	76,476	The work was in progress.
12 Providing B.T. surface to M. 327/4 to 332/0 of Madras-Bombay road (Estimate Rs. 1,60,000) P.W.R.D. (Bellary).	44,922	1,74,150	Do.
13 Cement concreting M. 325/3 to 327/5 of Madras-Bombay road (Estimate Rs. 2,30,000) P.W.R.D. (Bellary).	47,332	47,434	Do.
14 Cement concreting M. 4/9 to 12/0 of G.N.T. road (Estimate Rs. 5,50,000) P.W.R.D. (Chingleput).	3,73,875	3,75,219	The work was nearing completion.
15 Providing asphaltic concrete surfacing to M. 38 to 40 of Sadras-Surappam road (Estimate Rs. 1,75,000) P.W.R.D. (Chingleput).	72,412	1,24,812	The work was in progress.
16 Providing asphaltic concrete surfacing to M. 40 to 42 (Estimate Rs. 1,87,500) P.W.R.D. (Chingleput).	58,835	88,258	Do.
17 Cement concreting Chittoor-Kurnool road M. 102/6 to 108 6 (Estimate Rs. 3,62,000) P.W.R.D. (Cuddapah).	63,339	3,50,371	Do.
18 Cement concreting Yarragunta-Proddatur road M. 0/5 to 4/0 (Estimate Rs. 2,35,000) P.W.R.D. (Cuddapah).	55,441	1,35,191	Do.
19 Black topping M. 87 to 90/2 of Chittoor-Kurnool road (Estimate Rs. 1,10,000) P.W.R.D. (Cuddapah).	8,998	95,012	Do.
20 Cement concreting Nellore-Bombay road 2/6 to 7/6 (Estimate Rs. 2,10,000) P.W.R.D. (Nellore).	2,35,857	2,85,360	Do.
21 Cement concreting Nellore-Bombay road M. 7/6 to 13/0 (Estimate Rs. 3,00,000) P.W.R.D. (Nellore).	98,388	2,43,888	Do.
22 Cement concreting M. 290 to 295/4 of N.H. 7 Job 227 M.D. 7 (Estimate Rs. 5,22,500) P.W.R.D. (Madurai).	2,21,278	4,83,924	The work was completed and traffic allowed but final payment was not made.
23 Cement concreting Cuddalore-Chittoor road M. 1/8-261 to 10/0 excluding 6/3-430-660-370 (Estimate Rs. 7,15,000 P.W.R.D. (South Arcot).	2,01,452	3,27,767	The work was in progress.
24 Cement concreting 8 miles of Tuticorin-Palayamkottai road (Estimate Rs. 3,72,000) P.W.R.D. (Tirunelveli).	57,960	3,48,477	The work was almost completed except for certain culverts which had to be widened.
25 Providing thick asphaltic concrete surfacing to Calicut-Cannanore road M. 41/3 to 43/4 (Estimate Rs. 1,45,000) P.W.R.D. (Cannanore).	1,000	7,484	The work was in progress.
26 Cement concreting the Tiruchirappalli-Coimbatore road M. 120/0 to 124 5. (Estimate Rs. 8,38,000) P.W.R.D. (Coimbatore).	3,42,745	8,45,417	The work was nearing completion.
27 Providing dustless surfacing M. 2/1 to 3/0 of Coimbatore-Pollachi road in Tank bund (Estimate Rs. 1,15,000) P.W.R.D. Coimbatore).	39,104	61,848	The work was in progress.
28 Providing dustless surfacing to Palladam-Dharapuram road M. 6/0 to 11/4 (Estimate Rs. 1,24,000) P.W.R.D. (Coimbatore).	41,225	71,225	Do.
29 Improving and providing cement concrete surface to Tiruchirappalli-Salem road M. 70/0 to 81/4 (Estimate Rs. 9,57,000) P.W.R.D. (Salem).	4,75,966	5,35,764	The work was in progress and nearing completion.
30 Providing improved surfacing to Madras-Bangalore road M. 145 3-59 6 (Estimate Rs. 2,69,000) P.W.R.D. (Krishnagiri).	6,225	68,065	
31 Cement concreting Benares-Cape Comorin road M. 219-223 (Estimate Rs. 6,21,000) P.W.R.D. (Krishnagiri).	3,30,264	3,35,140	Cement concrete pavement to a length of 5 miles was laid during the year.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement-concrete and black-top works—cont.			
32 Providing dustless surfacing to Mangalore-Balndur coast road (Estimate Rs. 1,08,000). P.W.R.D. (Mangalore).	34,473	42,775	The work was in progress.
33 Cement concreting Coimbatore Mettupalayam road M. 0/3-653 to 22/6 P.W.R.D. (Ootacamund).	..	..	..
Providing asphaltic concrete 2½" thick (Estimate Rs. 3,00,000.)	19,804	3,10,458	The work was completed.
34 Cement concreting at M. 2/4 to 9/0 (Estimate Rs. 7,35,000.)	49,802	7,23,243	The work was nearing completion.
35 Cement concreting at M. 9/0 to 16/0 (Estimate Rs. 4,19,000.)	6,550	6,31,836	The work was completed.
36 Cement concreting at M. 16/0 to 22/6 (Estimate Rs. 4,60,000.)	2,76,458	4,94,800	The work was in progress.

III. New Formations.

1 Forming a road from Chinaganjam to Ongole M. 53/0 to 71/5 (Estimate Rs. 4,40,000). R.D.F. (Ongole).	1,49,970	2,06,305	The work was in progress.
2 Forming a road from Pedavalasa to Katragadda—P.W.R.D.	2,020	5,564	Do.
3 Forming a road from Anakapalli to Madugole from M. 20/1 (Estimate Rs. 2,57,000). P.W.R.D.	65,606	1,15,706	Do.
4 Forming a road from the foot of Minimallur ghat to Paderu 6/2 to 23/0. (Estimate Rs. 14,35,000). P.W.R.D.	53,035	60,444	Do.
5 Forming a road Chodavaram to Rampa Addatigala Cheruvupalli. (Estimate Rs. 7,48,000). P.W.R.D.	1,07,546	1,08,607	Do.
6 Forming Chitvel-Rapur Road (Estimate Rs. 2,45,000). R.D.F. (Cuddapah).	711	711	Do.
7 Forming Banganapalli-Gollagutta road. (Estimate Rs. 2,43,000 (Kurnool).	39,081	39,081	Do.
8 Forming 21 miles of Ramnad-Pamban road (Estimate Rs. 1,80,000). P.W.R.D. III Circle.	90,100	..	The work was in charge of the D.E.T and M. Division.
9 Forming a road from Taliparamba-Kanhirangad Chapparapadavu-Naduvil (Estimate Rs. 2,40,000). P.W.R.D. (Cannanoor).	41,371	1,63,479	

IV. Improvements and special repairs.

1 Widening and revetting the canal slopes of narrow portions of Narasapur-Prakkilanka road from 14/0 to 23/3 (Estimate Rs. 2,25,000). R.D.F. (West Godavari).	1,81,249	1,81,249	The work was in progress.
2 Metalling and constructing 2 bridges and 10 culverts in B.M. road from 47/0 to 49/2 (Estimate Rs. 1,74,600). R.D.F. Agency.	12,409	1,45,253	The work was almost completed.
3 Metalling Bapatla - Pedannandipadu road. (Estimate Rs. 3,15,000). R.D.F. (Ongole Division).	1,52,975	2,13,163	The work was in progress.
4 Improvements to Velegapalli-Kamavarapukota near road 3/0 to 8/4 by metalling. (Estimate Rs. 1,15,000). (Revised Estimate Rs. 1,75,000). R.D.F. (West Godavari).	32,934	1,47,000	Do.
5 Metalling - Macherla - Nagarjunakonda road. (Estimate Rs. 2,05,000). P.W.R.D. (Guntur).	41,307	1,37,238	
6 Metalling Repalle-Nizampatnam road M. 5/0 to 15/7 (Estimate Rs. 3,48,000). P.W.R.D.	89,673	3,30,808	The work was almost completed.
7 Metalling - Turumella - Tandole road (Estimate Rs. 1,60,000). P.W.R.D.	70,012	1,15,560	Do.
8 Metalling Tenali-Ananthavaram road from M. 1/1 to 8/7. (Estimate Rs. 2,40,000). P.W.R.D.	88,204	1,25,188	The work was nearly completed.

Serial number name of work, and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
IV. Improvements and special repairs—cont.			
9 Metalling the road from Duggirala to Pedavadi-pudi on Tenali-Pedavadi-lapudi road M. 7/0 to 12/1. (Estimate Rs. 1,46,000). P.W.R.D.	100	100	The work was commenced in March 1951 only.
10 Metalling Avanigadda-Koderu road. (Estimate Rs. 2,90,000). P.W.R.D.	100	100	The work was commenced.
11 Metalling Iylur-Nidumolu-Kowtaram road M. 14/7 to 18/3. (Estimate Rs. 1,04,600). P.W.R.D.	15,726	82,598	The work was almost completed.
12 Widening Narasapur-Prakkilanka road from M. 7/0 to 14/0. (Estimate Rs. 2,25,000). P.W.R.D.	38,720	92,219	The work is nearing completion.
13 Metalling the road from Nidadavole to Yeragudem 0/0 to 14/0. (Estimate Rs. 4,50,000). P.W.R.D.	1,79,812	2,54,740	The work was in progress.
14 Metalling the road from Devulapalli to Dubacherla. (Estimate Rs. 5,47,000). P.W.R.D.	52,782	1,03,393	Do.
15 Widening and metalling the Godavari flood bank track from Kovur to Tallapudi. (Estimate Rs. 4,66,000). P.W.R.D.	2,51,415	2,65,797	Do.
16 Improvements to Visakhapatnam-Anantagiri-Araku road. (Estimate Rs. 15,10,000). P.W.R.D.	5,70,197	12,02,764	Do.
17 Improvements and special repairs to strategic road from Uravakonda to Thungabhadra Railway bridge via Alur and Adoni. (Estimate Rs. 8,06,900). Ex-P.W.R.D. (Anantapur).	261	2,55,453	The question of payment of certain rates was under correspondence.
18 Metalling Kalyandrug-Kudurpi-Malanur road. (Estimate Rs. 1,05,000). Ex-P.W.R.D. (Anantapur).	38,777	38,777	The work was in progress.
19 Improvements to G.S.F. road M. 7/5 to 16/2. (Estimate Rs. 15,00,000). P.W.R.D. (Chingleput).	71,263	14,69,743	The work was almost completed except for portion in M. 7/7-8 which could not be done pending acquisition of land.
20 Widening and improving Kulihat road. (Estimate Rs. 1,65,000). R.D.F. (Cuddapah).	385	385	The work was in progress.
21 Improving Dornal pass road. (Estimate Rs. 3,38,000). (Kurnool).	1,45,518	2,17,339	Do.
22 Metalling Koliguntala-Erragudi road. (Estimate Rs. 1,70,000). (Kurnool).	23,118	23,118	Do.
23 Widening Benares Cape Comorin road. (Estimate Rs. 1,08,680). (Kurnool).	84,370	85,829	Do.
24 Metalling the gravelly portion of Vikravandi Lower Ancient road M. 135 to 142 R.D.F. (Estimate Rs. 1,65,000). III Circle.	98,251	1,08,222	Do.
25 Widening the metalled width of Periakulam Kuruvanathu road M. 0/3 to 34/4. (Estimate Rs. 2,30,000). R.D.F. III Circle.	56,931	56,931	The collection of materials was in progress.
26 Widening the standard width and improving the bridge and culverts in Madurai, Danushkodi road. P.W.R.D. III Circle. (Estimate Rs. 1,51,965).	3,900	1,10,990	The work was almost completed except for an R.C. slab culvert for which design for decking was pending decision.
27 Metalling the Tiruchirappalli-Pudukottai road. (Estimate Rs. 1,42,000). P.W.R.D. (Tiruchirappalli).	67,930	67,930	The work was commenced during the year.
28 Additional special repairs to Madurai-Ramanathapuram road M. 6/5 to 30/0 (Estimate Rs. 1,22,000). Ex-P.W.R.D. (Ramanathapuram division).	1,52,276	1,52,276	This is one of the four special repairs work on National Highway for which special grant was sanctioned.
29 Improvements to Yercaud ghat road from M. 6/2 to 19/1. (Estimate Rs. 1,64,000). (Salem).	96,263	1,42,050	The work was nearing completion.

Serial number name of work and estimated cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	

B. DISTRICT BOARD WORKS.

I. Bridges and culverts.

1. Constructing a bridge across Bandar Canal at M. 19/4 near Vurutur Ramp. (Rys d Estimate Rs. 1,30,000). R.D.F. (Krishna).	41,465	41,465	The expenditure was partly met from Government fund, partly from District Board funds and contribution from villagers.
2. Constructing a causeway across Panna near Sidhout. (Estimate Rs. 4,00,00 Cuddapah).	1,57,572	1,97,141	The work was in progress.
3. Constructing a bridge across Kodamuruttu at M. 1/1 of Vullikadai road. (Estimate Rs. 1,40,000). P.W.R.D. (Tanjore West).	2,778	2,778	
4. Constructing a bridge at M. 2/4 of Ambasudram, Alangulum road. (Estimate Rs. 3,50,000). P.W.R.D. (Tirunelveli).	24,106	24,106	

II. Cement concreting and black-top works.

Nil.

III. New formations.

1. Forming a well weather road from Malapalli to Medietivarigudem. Estimate Rs. 1,50,000 R.D.F. West Godavari.	133	133	The work was started late in the year and jungle clearance only was done in March 1951.
2. Forming and metalling the road from Pennacalanu to Kovigerla via Vutukur. Estimate Rs. 1,50,000 P.W.R.D. Krishna.	61,141	61,141	The work was in progress.
3. Forming Kanigiri Darsigunta road via Mygallur and Chandrasekaram. Estimate Rs. 1,22,000—Nellore.	10,293	10,709	Do.
4. Forming a road from Elayirampaud Guhanparai. Estimate Rs. 1,22,000 P.W.R.D. III Circle.	13,343	33,261	Formation was in progress. Investigation of bridges and culverts was being done by a special supervisor.
5. Forming a road from Uttara Kosa Mangal to Sikkal. Estimate Rs. 1,17,000 III Circle, P.W.R.D.	2,997	35,097	Forming was completed. Investigation of bridges and culverts was also completed and works had to be taken up.
6. Forming and gravelling a road from Tuticorin to Tiruchendur. Estimate Rs. 4,03,000 (Tirunelveli) P.W.R.D.	22,806	22,806	....
7. Forming a road from Elayangudi to Rajasinga Mangalam. Estimate Rs. 2,40,000 R.D.F. Tirunelveli—P.W.R.D.	49,586	49,586	Formation was in progress. Investigation of bridges and culverts was also in progress.
8. Forming a road from Chappara-padavu to connect road No. 3 at Kuttur. Estimate Rs. 2,39,000 Cannanore.	14,225	88,357	The work was in progress.
9. Forming a road from Cannanore to Irikkur and Mazhikayaram. Estimate Rs. 2,63,000, Cannanore.	47,384	61,480	Do.

IV. Improvements and special repairs.

1. Metalling the unmetalled portion of Narasapur-Bhavanavaram Road, 11/2 to 13/7. Estimate Rs. 1,51,000 R.D.F. West Godavari.	46,721	46,721	Collection of materials was in progress.
2. Metalling Thulur-Thadikonda road. Estimate Rs. 2,45,000 R.D.F. Guntur.	13,318	13,318	The work was in progress.
3. Metalling Emani-Vallabhapuram road. Estimate Rs. 1,64,000 P.W.R.D. Guntur.	5,040	1,54,314	The work was almost completed.
4. Metalling the road from Pedavada-pudi crossing to Pedapalem crossing. Estimate Rs. 1,70,000 P.W.R.D. Guntur.	..	3,044	No expenditure was incurred in 1950-51.
5. Metalling Adavala-Deevi village road including construction of a bridge. Estimate Rs. 3,50,000 P.W.R.D. Guntur.	50,962	1,85,557	There was not much progress in 1950-51.

Serial number and name of work and estimate cost classification and division.	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	

B. DISTRICT BOARD WORKS—cont.

IV. Improvements and special repairs—cont.

6. Metalling the road from Repalle to Thumella. Estimate Rs. 4,00,000 P.W.R.D. Guntur.	18,066	1,53,213	Forty per cent of the work was completed.
7. Metalling the road from Arepalli to Pudivada. Estimate Rs. 1,14,000 P.W.R.D., Guntur.	7,883	24,141	Twenty-five per cent of the work was completed.
8. Metalling the road from M. 19/6 of G.H. Road to Vallabhapuram. Estimate Rs. 2,40,000 P.W.R.D. Guntur.	..	299	The work was in progress.
9. Metalling 6/2 to 12/3 of Repalle-Pittalavaripalem road. Estimate Rs. 3,18,000 P.W.R.D. Guntur.	77,000	1,50,879	Do.
10. Metalling the road from Amritalur to Panchavaram. Estimate Rs. 1,14,000 P.W.R.D. Guntur.	13,485	96,084	Ninety per cent of the work was completed.
11. Metalling Ponnuru-Pandrapadu road. Estimate Rs. 3,30,000 P.W.R.D. Guntur.	75,244	75,500	The work was in progress.
12. Metalling the road from Pudivada to Pittalavaripalem at Khajipalem. Estimate Rs. 1,00,000 P.W.R.D. Guntur.	45,066	45,762	Do.
13. Metalling the road from Pedapudi to Bhittiprolu. Estimate Rs. 4,56,000 P.W.R.D. Guntur.	62,104	65,501	Do.
14. Metalling Kodali-Ghantaala road. Estimate Rs. 2,43,000 P.W.R.D. Krishna.	89,091	1,99,234	The work was nearing completion.
15. Metalling Gudivada-Polukonda road. Estimate Rs. 1,63,500. Revised Estimate Rs. 1,84,000. P.W.R.D., Krishna.	75,357	1,13,592	Do.
16. Metalling Jonnapadu-Kudaravalli road. Estimate Rs. 3,50,000 P.W.R.D. Krishna.	87,693	1,10,264	The work was in full progress.
17. Metalling Dondapadu village road. Estimate Rs. 1,44,000, P.W.R.D. Krishna.	38,191	1,31,773	The work was nearing completion.
18. Metalling Vayyuru-Telaprolu road via Indupalli M. 30 to 64. Estimate Rs. 1,20,000 P.W.R.D. Krishna.	1,09,827	1,30,449	Do.
19. Metalling the road from Rajavaram to Gannavaram via Kottanga Podagailapalli Ithakota. Estimate Rs. 2,01,000, P.W.R.D. Rajahmundry.	55,911	55,911	The work was in progress.
20. Metalling the road from Kovvalli to Joggannapalem (via) Pandururu Bridge and in M. 7/7 of Eluru Jangareddigudem road. Estimate Rs. 1,37,000, P.W.R.D. West Godavari.	17,404	84,894	Do.
21. Metalling Pannaru-Lankalakoderu road. Estimate Rs. 55,100 P.W.R.D. West Godavari.	66,012	3,67,804	Soil Stabilization work was in progress.
22. Metalling Kalvagadivemula road. Estimate Rs. 1,00,000 Kurnool.	40,269	45,369	The work was in progress.
23. Metalling Kovulur Gannavaram Road. Estimate Rs. 2,10,000 Kurnool.	32,346	58,711	Do.
24. New metalling Road No. 50. Thogur to Ayyampet M. 05-7/0. Estimate Rs. 1,07,700, P.W.R.D. Tanjore East.	7,497	7,497	....

(ii) Review of works costing over Rs. 1 lakh each completed during the year.

A. GOVERNMENT WORKS.

I. Original works on bridges and culverts.

1. Constructing a bridge at M. 150/4 of the road from South Arcot District Frontier to Tanjore via Lower Anicut. (Estimate Rs. 56,200) (Rs. 1,28,234) (R.D.F.).	27,657	1,28,234	The work was completed and final bill paid in 1950-51.
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Serial number name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement concreting and black-top works.			
1 Cement concreting Thirumashi-Satyavedu road M. 27/7 to 28/4 (Estimate Rs. 1,70,000) (P.W.R.D., Chingleput).	..	1,40,000	The work was completed. Final bill was not paid pending settlement of rates to be paid.
2 Cement concreting Madurai, Tiruchirappalli-Dindigul road M. 188 to 192/5-4-6, (P.W. R.D. Tiruchirappalli) (Estimate Rs. 3,63,00,00).	44,610	3,14,842	The work was finally completed during the year and completion report sent to Government of India.
3 Cement concreting M. 15.0 to 22.0 of Dindigul-Palni road (Estimate Rs. 2,20,000) (P.W.R.D., Madurai).	7,742	2,22,064	The work was completed.
4 Cement concreting Chidambaram-Bhuvanagiri road M. 0/6 to 3.5 and 5/2 to 26.0 (Estimate Rs. 6,10,000) (P.W.R.D.).	3,14,774	5,54,546	Cement concrete was completed except for one furlong for want of acquisition of lands and the special subdivision was closed.
5 Cement concreting Karaikudi-Devakottai road M. 52.1 to 57.5 (Estimate Rs. 3,51,600) (P.W.R.D.).	— 5,068	2,83,002	Final adjustments were made during 1950-51 and the account closed.
6 Cement concreting Mayuram-Kumbakonam-Sirkali-Anaikaranchatram in Mayuram Municipal limits (Estimate Rs. 1,30,000) (P.W.R.D.).	— 2,611	90,113	The accounts were finally closed during the year.
7 Cement concreting Madras-Calicut road M. 443/0 to 444/7 (Estimate Rs. 2,500) (Rs. 1,88,388) (Kozhikode).	35,534	1,88,388	The work was completed and final payment made.
8 Cement concreting M. 2/5 to 5/2 of Salem - Cuddalore road (Estimate Rs. 2,97,200) (Salem).	15,147	2,60,306	....
9 Cement concreting the road Sankari-Namakal via Tiruchengode M. 1/0 to 7/1 (Estimate Rs. 2,78,000) (Salem).	48,871	2,98,000	....

III. New formations.

Nil.

IV. Improvements and special repairs.

1 Metalling Iylur Nidumole Kowtaram road (Estimate Rs. 1,04,600) (P.W., R.D.) (Krishna).	15,726	82,598	The work was completed during the year.
2 Providing improved surfacing to Madras-Bangalore road M. 169 to 178.3 (Estimate Rs. 1,85,000) (Krishnagiri).	23,491	2,29,920	Metalling shoulders to protect the edges of B.T. surface from Monsoon damages were carried out. The work was completed in all respects.
3 Improvements to Coonoor-Kotagiri road (Estimate Rs. 1,60,000) Ooty.	— 1,284	1,66,431	....
4 Widening Kotagiri-Mettupalayam road M. 0/0 to 10.6 to standard width (Estimate Rs. 62,000).	1,01,271	1,67,900	....
5 Widening Ooty-Avalanche road M. 0/3 to 13.0 (Estimate Rs. 1,25,900).	49,656	1,24,748	....
6 Widening Ooty-Kolakambai road (Estimate Rs. 1,30,880).	26,244	81,849	....

B. DISTRICT BOARD WORKS.**I. Bridges and culverts.**

Nil.

II. Cement concreting and black-top works.

Nil.

III. New formations.

1 Extending Thadagam-Managiri road to Anaikattu road (Estimate Rs. 1,14,000) (Coimbatore).	38,774	1,16,929	The work was completed.
2 Forming a road from Padlotchal Pulingome (Estimate Rs. 1,54,000) (Cannanore).	10,825	11,238	Do.

IV. Improvements and special repairs.

1 Metalling Bolupadu-Pennugolanu road, (Estimate Rs. 3,25,000) (Ex-P.W.R.D.) (Krishna).	94,869	3,24,046	The work was completed.
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APPENDIX 23.

(i) Review of works in progress during 1950-51 costing less than Rs. 1 lakh each—Government and District Board Roads.

Serial number and name of division.	Government roads.			District Board roads.		
	Total number of works.	Total cost.	Remarks.	Total number of works.	Total expenditure.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Original works on bridges, culverts and causeways.						
1 Visakhapatnam, North	2	8,200	3,743	3	92,900	85,024
2 East Godavari, South	7	1,01,000	11,986	..	..	..
3 East Godavari, Kakinada	7	12,000	12,000	..	..	..
4 Rajahmundry ..	1	51,000	50,483	..	..	..
5 Eluru ..	4	272,100	1,46,008	13	8,05,080	17,130
6 Krishna ..	22	1,01,000	96,430	23	3,25,000	1,83,632
7 Guntur ..	4	1,01,500	70,977	14	1,76,120	1,84,881
8 Onole ..	4	2,46,600	40,151	3	1,86,300	16,886
9 Arantapur ..	1	72,000	39,150	1	1,87,000	42,156
10 Bellary ..	7	2,05,400	1,16,093	1	1,03,000	78,800
11 Chingleput ..	11	2,83,200	1,23,803	24	24,000	19,480
12 Giddalur ..	5	24,050	14,509	1	1,71,000	28,300
13 Kurunool ..	2	1,62,000	40,264	2	1,73,000	25,711
14 North Arcot ..	3	1,07,000	1,09,178	3	1,12,600	14,604
15 North Arcot ..	3	2,63,450	1,50,007	5	2,75,750	28,554
16 Tanjore, East	8	1,47,000	23,020	20	1,52,700	88,978
17 Tiruchirappalli ..	4	1,26,400	63,547	6	1,22,700	78,574
18 Madurai ..	1	64,000	34,859	8	30,700	14,670
19 Ramanathapuram ..	5	2,00,500	94,572	4	51,100	28,293
20 Tiruchelvi ..	6	3,15,900	50,413	9	6,73,950	1,25,604
21 Erode ..	25	56,700	59,028	1	77,535	31,346
22 Palakot ..	83	1,20,000	1,10,019	12	2,52,300	92,905
23 Coimbatore ..	34	3,46,780	1,15,504	1	49,700	30,501
24 Salem ..	2	4,500	8,299	4	45,000	2,538
25 Kanchipuram ..	10	3,70,700	2,08,628	15	4,48,900	71,537
26 Cannanore ..	12	8,09,175	1,19,301	1	29,000	25,073
27 Ootacamund ..	3	27,500	2,675	4	83,000	6,367
Total	281	42,97,745	18,62,041	183	48,47,325	15,15,865
II. Cement concrete and black-top works.						
1 Visakhapatnam, North	11	3,85,000	1,00,402	1	88,000	880
2 Kakinada ..	..	..	..	..	..	..
3 Rajahmundry ..	11	3,50,000	2,36,478	..	..	..
4 Eluru ..	..	..	..	..	..	..
5 Guntur ..	..	..	..	..	..	..

j) *Revised of works in progress during 1950-51 costing less than Rs. 1 lakh each—Government and District Board Roads—cont.*

Serial number and name of division.	Government roads.			District Board roads.		
	Total number of works.	Total cost.	Total expenditure.	Total number of works.	Total cost.	Total expenditure.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		RS.	RS.		RS.	RS.
<i>II. Cement concrete and black-top works—cont.</i>						
8 Chingleput ..	14	12,66,400	7,00,949	..	..	..
9 Chittoor ..	21	6,48,900	1,03,038	..	..	..
10 Cuddapah ..	1	97,500	44,572	24	5,70,750	1,82,139
11 Kurnool ..	2	90,200	38,134	..	..	..
12 Nellore ..	..	..	..	1	8,500	2,970
13 North Arcot ..	..	..	..	..	..	..
14 Tanjore, East ..	..	..	..	..	..	..
15 Do, West ..	..	..	..	..	..	..
16 Tiruchirappalli ..	..	..	..	..	..	..
17 Ramanathapuram ..	3	91,800	71,399	..	..	..
18 Tirunelveli ..	39,611	39,611	39,611	..	..	..
19 Erode ..	26	8,45,400	1,74,506	..	..	..
20 Palghat ..	..	..	..	..	..	..
21 Coimbatore ..	..	..	..	..	..	..
22 Salem ..	1	51,000	8,892	..	..	..
23 Krishnagiri ..	4	51,150	49,704	1	15,000	16,728
24 Mangalore ..	1	52,000	39,389	..	..	..
25 Ootacamund ..	..	..	..	2	70,000	1,954
Total ..	96	34,68,350	16,06,729	29	7,52,250	2,04,671

III. New formations.

1 Visakhapatnam, North ..	..	..	..	6	1,88,500	57,484
2 Rajahmundry ..	..	..	..	4	73,200	16,022
3 Eluru ..	..	..	..	21	1,10,012	1,10,012
4 Krishna ..	13	60,150	31,492	18	3,04,700	45,145
5 Guntur ..	..	..	..	21	8,95,500	1,11,757
6 Ongole ..	..	..	..	25	12,07,300	1,92,852
7 Anantapur ..	2	81,000	62,047	18	3,74,000	1,77,714
8 Bellary ..	..	..	..	3	2,800	6,778
9 Chingleput ..	..	..	..	101	12,45,365	7,29,716
10 Chittoor ..	2	20,500	7,240	3	24,000	5,913
11 Cuddapah ..	..	..	..	14	2,63,400	77,340
12 Kurnool ..	5	2,52,000	83,064	9	4,45,500	2,37,501
13 Nellore ..	..	..	..	28	4,8,000	2,35,909
14 North Arcot ..	1	48,000	7,050	35	2,89,700	68,640
15 South Arcot ..	..	..	..	33	6,05,900	32,220
16 Tanjore, East ..	..	..	..	23	1,34,110	23,589
17 Do, West ..	..	..	..	34	2,45,415	3,212
18 Tiruchirappalli ..	..	..	..	10	2,67,800	1,40,200

19 Madurai ..	..	..	..	48	4,69,500	2,96,200
20 Ramanathapuram ..	..	..	..	51	8,08,830	90,806
21 Tirunelveli ..	..	..	..	33	15,77,550	8,60,148
22 Karaikal ..	..	..	..	3	3,000	17,002
23 Palghat ..	..	..	..	2	1,04,200	21,251
24 Coimbatore ..	..	..	..	47	4,44,400	3,72,602
25 Salem ..	..	..	..	3	29,800	18,98
26 Krishnagiri ..	..	..	..	83	2,54,200	94,528
27 Cannanore ..	..	..	..	13	8,44,000	3,47,315
28 Mangalore ..	..	..	..	9	1,11,900	53,064
Total ..	23	4,58,650	1,90,893	643	1,18,08,250	39,76,039

IV. Improvements and special repairs.

1 Visakhapatnam, North ..	..	19,800	8,304	13	5,83,300	3,32,455
2 Do, South ..	1	12,400	..	60	7,31,300	2,25,018
3 Kakinda ..	..	..	..	4	1,48,000	10,000
4 Rajahmundry ..	..	..	..	2	1,48,000	1,454
5 Eluru ..	12	64,700	9,318	29	1,53,800	7,06,352
6 Krishna ..	48	2,72,500	2,62,501	77	12,82,000	6,13,436
7 Guntur ..	..	10,45,600	5,35,986	32	13,47,375	4,13,138
8 Ongole ..	..	..	..	..	..	..
9 Anantapur ..	..	50,800	20,515	1	9,950	8,694
10 Bellary ..	..	..	..	2	72,500	40,125
11 Cuddapah ..	..	1,40,800	47,928	6	1,22,500	81,499
12 Kurnool ..	..	33,000	19,244	6	1,22,500	85,518
13 Chingleput ..	32	5,86,500	2,78,844	23	2,82,300	1,54,258
14 Chittoor ..	1	18,800	1,280	18	2,63,800	2,96,489
15 Nellore ..	..	86,650	48,196	19	5,41,800	2,91,658
16 North Arcot ..	5	1,51,575	1,14,843	19	5,41,800	2,91,379
17 South Arcot ..	..	..	..	12	4,78,800	1,76,956
18 Tanjore, East ..	..	..	..	23	1,40,705	1,23,931
19 Do, West ..	..	..	..	36	1,40,000	1,16,957
20 Tiruchirappalli ..	..	2,71,650	1,74,928	3	61,200	27,846
21 Madurai ..	..	53,500	39,452	14	90,200	10,420
22 Ramanathapuram ..	..	44,000	11,580	..	3,15,560	1,44,366
23 Coimbatore ..	..	2,88,200	54,93	..	..	..
24 Karaikal ..	..	10,00,450	8,39,205	..	..	..
25 Palghat ..	..	..	..	..	..	..
26 Coimbatore ..	..	41,000	11,901	..	..	..
27 Salem ..	..	10,700	1,181	..	..	..
28 Krishnagiri ..	..	1,15,300	1,03,802	..	..	..
29 Mangalore ..	..	2,52,00	36,747	..	..	..
Total ..	264	45,65,025	26,20,548	499	93,44,996	44,48,562

APPENDIX 23—cont.

(ii) Review of works costing less than Rs. 1 lakh each completed during the year 1950-51.

Serial number and name of division,	Government roads.				District Board roads.			
	Total number.	Total cost.	Total expenditure.	Remarks.	Total number.	Total cost.	Total expenditure.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		RS.	RS.			RS.	RS.	
<i>I. Original works on bridges, culverts and causeways.</i>								
1 Kakinada	2	16,000	16,000	....	1	80,000	62,600	....
2 Eluru	1	90,000	88,245	....	3	57,900	49,000	....
3 Krishna	7	62,000	40,832	....	..	..	..	....
4 Anantapur	2	15,870	14,904	....	..	..	..	....
5 Nellore	3	8,350	7,918	....	3	9,800	9,172	....
6 North Arcot	6	1,46,150	55,610	....	5	38,000	17,314	....
7 Cuddapah	2	21,510	19,936	....	..	..	..	....
8 Kurnool	1	26,300	29,780	....	..	..	..	....
9 Chingleput	1	9,700	9,700	....	..	..	..	....
10 South Arcot .. .. .	..	..	..	....	12	1,21,370	17,840	....
11 Tanjore East .. .. .	..	..	..	....	27	31,725	25,953	....
12 Tanjore West .. .. .	..	..	..	....	2	33,250	19,769	....
13 Madurai .. .. .	..	..	..	....	20	23,000	21,380	....
14 Ramanathapuram	17	28,700	24,784	....	18	44,325	18,140	....
15 Tirunelveli	9	62,300	40,331	....	4	80,000	74,255	....
16 Tiruchirappalli	4	47,900	34,856	....	30	90,044	45,369	....
17 Kozhikode	2	11,140	10,052	....	2	20,000	16,761	....
18 Salem	2	3,650	1,031	....	..	..	..	....
19 Mangalore .. .. .	..	..	..	....	10	31,300	5,000	....
20 Ootacamund .. .. .	..	..	..	....	8	1,39,550	83,642	....
	59	5,40,460	3,93,929	....	145	8,08,274	4,66,095	....
<i>II. Cement concreting and black-top works.</i>								
1 Nellore	1	1,700	1,978	....	..	..	..	....
2 North Arcot	1	56,500	48,408	....	..	..	..	....
3 South Arcot	..	10,000	2,242	....	1	4,400	2,512	....
4 Tanjore East .. .. .	..	..	..	....	..	..	..	....
5 Tiruchirappalli	2	1,88,000	98,715	....	..	..	..	....
6 Do. West	2	19,030	17,892	....	..	..	..	....
7 Tiruchirappalli	3	15,800	10,688	....	..	..	..	....
8 Madurai	1	1,00,000	1,02,913	....	1	6,500	6,505	....
9 Ramanathapuram	1	63,000	61,367	....	1	2,050	1,883	....
10 Tirunelveli	1	5,000	5,347	....	..	..	..	....
11 Cuddapah	3	69,800	53,071	....	..	..	..	....
12 Salem	4	68,400	68,400	....	..	..	..	....
13 Chingleput	21	6,9350	4,71,257	....	3	12,950	10,900	....
<i>III. New formations.</i>								
1 Kakinada	..	..	15,553	....	4	1,30,000	18,711	....
2 Krishna	..	20,450	..	....	1	10,000	9,385	....
3 Eluru	..	..	13,469	....	3	26,250	23,580	....
4 Anantapur	..	51,300	52,515	....	4	1,00,000	86,394	....
5 Kurnool .. .. .	..	..	..	....	5	1,00,000	1,00,000	....
6 Chingleput .. .. .	..	..	..	....	12	95,480	90,809	....
7 North Arcot	..	620	..	....	11	11,700	11,403	....
8 South Arcot .. .. .	..	..	..	....	4	20,400	4,780	....
9 Tanjore East .. .. .	..	..	..	....	13	2,95,000	1,63,800	....
10 Madurai .. .. .	..	..	..	....	23	2,22,710	1,56,355	....
11 Tirunelveli .. .. .	..	..	..	....	19	1,40,050	48,800	....
12 Tiruchirappalli .. .. .	..	..	..	....	1	16,950	6,183	....
13 Ramanathapuram .. .. .	..	..	..	....	9	25,000	10,000	....
14 Mangalore	9	91,370	79,644	....	99	11,82,490	7,58,169	....
<i>IV. Improvements and special repairs.</i>								
1 Kakinada	1	8,000	1,838	....	4	2,45,000	36,400	....
2 Eluru	11	1,53,050	1,48,232	....	16	2,35,000	1,84,978	....
3 Krishna	20	2,36,400	1,43,430	....	..	..	..	....
4 Anantapur	4	66,400	28,205	....	1	5,800	4,996	....
5 Bellary .. .. .	..	..	..	....	1	10,500	7,544	....
6 Nellore	14	1,59,500	1,33,667	....	3	86,000	83,916	....
7 Kurnool	1	25,000	22,785	....	3	91,000	91,000	....
8 Chingleput	1	9,800	9,800	....	10	2,30,800	40,439	....
9 North Arcot	7	86,750	11,508	....	11	2,21,800	86,600	....
10 South Arcot	3	32,500	22,715	....	63	1,23,516	88,085	....
11 Tanjore East .. .. .	..	..	..	....	7	62,700	56,580	....
12 Madurai .. .. .	..	..	..	....	..	..	..	....
13 Coimbatore Bridge division	1	21,000	18,818	....	2	20,500	4,112	....
14 Tiruchirappalli .. .. .	..	..	..	....	26	2,40,570	76,330	....
15 Ramanathapuram .. .. .	..	..	..	....	4	1,54,700	98,735	....
16 Kozhikode	3	44,300	34,220	....	..	..	..	....
17 Salem	9	4,43,915	13,701	....	3	7,500	5,690	....
18 Mangalore	11	2,03,730	1,21,885	....	96	3,53,900	2,21,406	....
19 Ootacamund .. .. .	..	..	..	....	250	21,01,386	10,59,849	....
	95	14,91,245	6,47,212	....				....

APPENDIX 24.

Statement showing the quantities of cement and steel utilized during 1950-51.

Serial number and name of division.	Cement utilized.		Steel utilized.		Total cement.	Total steel.
	Government work.	District board work.	Government work.	District board work.		
	(2)	(3)	(4)	(5)	(6)	(7)
	TONS.	TONS.	TONS.	TONS.	TONS.	TONS.
1 Bridges Division ..	7-0000	..	..	..	7-0000	..
2 Vizianagaram ..	904-0000	..	88-0000	..	900-0000	88-0000
3 Visakhapatnam, North ..	..	..	..	..	..	..
4 Do. South ..	658-7600	7-8900	58-0000	..	666-6500	58-0000
5 Kakinada ..	2,028-6000	21-0000	20-4100	..	2,049-6000	20-4100
6 Rajahmundry ..	773-3000	..	2-7500	..	770-3000	2-7500
7 Eluru ..	2,033-0000	482-0000	97-0000	15-0000	2,520-0000	112-0000
8 Krishna ..	1,362-8700	482-5900	9-0000	17-4850	1,845-4800	26-4850
9 Guntur ..	2,942-0000	285-0-00	7-0000	139-0000	3,227-0000	146-0000
10 Ongole ..	163-5000	31-2000	..	0-33-0	194-7000	0-3300
11 Anantapur ..	129-0000	..	21-5800	..	129-0000	21-5800
12 Bellary ..	93-0500	5-3000	..	242-2900	103-3500	242-2000
13 Chingleput ..	2,546-0000	134-4000	10-7-00	67-0500	2,680-4000	77-7500
14 Chittoor ..	411-3000	110-10-0	14-5000	..	521-4000	14-5000
15 Cuddapah ..	333-0000	447-0000	3-6000	0-4000	780-0-00	4-0000
16 Kurnool ..	284-8000	1-5000	12-4100	..	286-3000	12-4100
17 Nellore ..	1,625-0000	231-5000	4-5000	12-0000	1,856-5000	16-5000
18 North Arcot ..	658-9000	70-9-00	45-7500	0-3000	729-3000	46-0500
19 Pennar Bridge Division ..	1,291-2000	..	51-0-00	..	1,291-2000	51-0000
20 South Arcot ..	930-4500	71-7-00	..	..	1,002-1500	..
21 Tanjore, East ..	69-6700	286-2500	1-4500	0-3500	355-9500	1-8000
22 Do. West ..	125-0000	179-0000	..	..	299-0000	..
23 Tiruchirappalli ..	711-0000	655-0000	110-1600	3-6700	1366-0000	113-8300
24 Madurai ..	2,030-0000	81-0000	0-18-00	..	2,111-0000	0-1800
25 Ramanathapuram ..	93-0000	260-0000	..	..	359-0000	..
26 Tirunelveli ..	359-6000	48-8000	..	7-7000	408-4000	7-7000
27 Coleroon ..	1,885-9000	..	49-2100	..	1,885-9000	49-2100
28 Pugalur ..	1,237-3485	..	292-3672	..	1,237-3485	292-3672
29 Kozhikode ..	212-90-0	64-7500	14-93-0	0-0600	277-6500	14-9900
30 Barathapuzha ..	491-7300	..	88-05-00	..	491-7300	88-0500
31 Erode ..	125-0000	110-0000	..	..	235-0000	..
32 Palghat ..	153-5750	165-55-0	1-7700	3-2300	319-1250	5-0300
33 Coimbatore ..	1,203-0000	603-0000	70-0000	30-0000	1800-0-00	100-0-00
34 Salem ..	2,004-4000	31-4200	66-7500	..	2035-8200	66-78-0
35 Krishnagiri ..	1,422-1800	97-1200	19-1200	..	1,519-3000	19-1200
36 Mangalore ..	446-8300	65-3300	23-6500	1-5000	512-2100	5-1500
37 Ootacamund ..	1,153-0000	150-0000	1-8000	3-3500	1,300-0000	4-9500
Total ..	3,2897-8635	5,176-3800	1,185-4672	543-6550	3,8974-2435	1,729-1222

APPENDIX 25.

Inventory of Plant and Machinery as on 31st March 1951.

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
I CIRCLE.			
1. Visakhapatnam, North.			
1 Power rollers ..	10	4 Laboratory van ..	1
2 Transport lorries ..	1	5 Stone crushers ..	1
3 Jeeps ..	1	6 Double nissen sheds ..	1
4 Pick up vans ..	1	7 Tar boilers ..	5
5 Tar boilers ..	1	8 Pegson cold mixing plant ..	1
6 Barrow mixers ..	2	9 Millers asphalt mixers ..	1
7 Water tanks ..	1	10 Hand-operated mixing drums ..	6
		11 Concrete mixers ..	1
		12 Water tanks ..	6
2. Visakhapatnam, South.			
1 Power rollers ..	12	6. Krishna—cont.	
2 Transport lorries ..	6	1 Laboratory van ..	1
3 Tar boilers ..	3	2 Transport lorries ..	8
4 Barrow mixers ..	2	3 Jeeps ..	1
5 Concrete mixers ..	3	4 Concrete mixers ..	4
6 Water tanks ..	2	5 Pumps (petrol driven) ..	1
3. East Godavari-Kakinada.			
1 Power rollers ..	8	7. Guntur.	
2 Jeeps ..	1	1 Power rollers ..	11
3 Single nissen sheds ..	1	2 Transport lorries ..	8
4 Heat masters ..	2	3 Jeeps ..	1
5 Millers asphalt mixers ..	1	4 Concrete mixers ..	4
6 Concrete mixers ..	2	5 Pumps (petrol driven) ..	1
4. Rajahmundry.			
1 Power rollers ..	15	8. Ongole.	
2 Transport lorries ..	4	1 Power rollers ..	9
3 Jeeps ..	2	2 Transport lorries ..	4
4 Heat masters ..	1	3 Water lorries ..	2
5 Barrow mixers ..	6	4 Jeeps ..	2
6 Concrete mixers ..	1	5 Tar boilers ..	1
		6 Barrow mixers ..	2
		7 Diesel engine pumps ..	1
		8 Water tanks ..	1
		9 Water carts ..	1
		10 Trailer waggons ..	1
5. West Godavari-Eluru.			
1 Power rollers ..	16	9. Visakhapatnam Special.	
2 Transport lorries ..	5	1 Power rollers ..	1
3 Jeeps ..	2	2 Transport lorries ..	10
4 Land rovers ..	2	3 Jeeps ..	2
5 Pick-up vans ..	1	4 Pick-up vans ..	1
6 Tar boilers ..	3	5 Drill sharp ners ..	2
7 Hand-operated mixing drums ..	2	6 Double nissen sheds ..	1
8 Barrow mixers ..	2	7 Air compressors ..	2
9 Concrete mixers ..	2	8 Concrete mixers ..	5
10 Diesel engine pumps ..	3	9 Diesel engine pumps ..	4
11 Water tanks ..	3	10. Godavari, Special.	
12 Trailer waggons ..	4	1 Transport lorries ..	3
		2 Tram lines ..	3
		3 Tipping trucks ..	11
			(incomplete)
		4 Double nissen sheds ..	1
		5 Sheet steel piles ..	50
		6 pontoons ..	420
		7 Rowing boats (cutters) ..	6
		8 Angle irons ..	360
6. Krishna.			
1 Power rollers ..	18	II CIRCLE.	
2 Transport lorries ..	10	11. Nellore.	
3 Jeeps ..	1	1 Power rollers ..	16
		2 Transport lorries ..	9
		3 Land rovers ..	1
		4 C.C. road channel forms ..	810
			(r.ft.)
		5 Tar boilers ..	3
		6 Heat masters ..	1
		7 Barrow mixers ..	2
		8 Concrete mixers ..	3
		9 Petrol-driven pumps ..	1
		10 Hand pumps ..	2
		11 Water tanks ..	2
		12. Kurnool.	
		1 Power rollers ..	9
		2 Transport lorries ..	7
		3 Jeeps ..	1
		4 Land rovers ..	1
		5 Heat masters ..	1
		6 Hand-operated mixing drums ..	7
		7 Concrete mixers ..	1
		8 Petrol-driven pumps ..	2
		9 Water tanks ..	4
		10 Water carts ..	24

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
II CIRCLE—cont.		21. Chittoor—cont.	
21. Chittoor.		6 Tar boilers	4
1 Power rollers	12	7 Hand operated mixing drums.	26
2 Transport lorries	3	8 Concrete mixers	2
3 Water lorries	1	9 Water carts	21
4 Jeeps	2		
5 Single nissen sheds	1		
III CIRCLE.		25. Tanjore—cont.	
22. South Arcot.		9 Concrete mixers	1
1 Graders	1	10 Hand pumps	2
2 Power rollers	21	11 Pontoons	5
3 Transport lorries	6		
4 Jeeps	1	26. Madurai.	
5 Single nissen sheds	1	1 Power rollers	25
6 Stone crushers	1	2 Transport lorries	8
7 Pulley blocks	1	3 Dodge tippers	1
8 Vibrators (Rapier)	2	4 Jeeps	2
9 C.C. road channel forms	324	5 Double nissen sheds	1
	r.ft.	6 Tar boilers	1
10 Tar boilers	3	7 Heat masters	2
11 Hand-operated mixing drums.	4	8 Barrow mixers	6
12 Concrete mixers	3	9 Concrete mixers	4
13 Petrol-driven pumps	3	10 Diesel engine pumps	3
14 Diesel engine pumps	1	11 Hand pumps	5
15 Hand pumps	2	12 Pontoons	5
16 Water tanks	5		
17 Pontoons	5	27. Ramanathapuram.	
18 Water carts	5	1 Power rollers	24
19 Trailer waggons	8	2 Transport lorries	12
20 Ramped cargo lighters	1	3 Jeeps	1
23. Tiruchirappalli.		4 Double nissen sheds	1
1 Power rollers	19	5 Pulley blocks	3
2 Transport lorries	10	6 C.C. road channel forms	54
3 Jeeps	1	7 Sheet steel piles	4
4 Double nissen sheds	1	8 Tar boilers	2
5 C.C. road channel forms	660	9 Heat masters	2
	r.ft.	10 Barrow mixers	2
6 Tar boilers	1	11 Concrete mixers	3
7 Heat masters	2	12 Petrol-driven pumps	2
8 Hand-operated mixing drums	56	13 Diesel engine pumps	3
9 Barrow mixers	6	14 Hand pumps	5
10 Concrete mixers	2	15 Water tanks	1
11 Diesel engine pumps	2	16 Pontons	5
12 Hand pumps	2	17 Trailor waggons	18
13 Water tanks	6		
14 Trailer waggons	12	28. Tirunelveli.	
24. Nagapattinam.		1 Grader	1
1 Power rollers	8	2 Bull dozer	1
2 Transport lorries	2	3 Power rollers	12
3 Jeeps	1	4 Transport lorries	4
4 Tar boilers	1	5 Double nissen sheds	1
5 Hand-operated mixing drums	6	6 Tar boilers	1
6 Concrete mixers	1	7 Concrete mixers	1
7 Petrol-driven pumps	1	8 Diesel engine pumps	3
8 Hand pumps	2	9 Hand pumps	4
9 Water tanks	4	10 Water tanks	3
10 Pontoons	2	11 Pontoons	6
25. Tanjore.		12 Water carts	2
1 Power rollers	10	29. Pugalur Bridge Division.	
2 Transport lorries	4	1 Double nissen sheds	1
3 Double nissen sheds	1	2 Concrete mixers	1
4 Tar boilers	2	3 Pontoons	10
5 Heat masters	1	4 Ramped cargo lighters	1
6 Millers asphalt mixers	1	30. Coleroon Bridge Division.	
7 Hand-operated mixing drums	40	1 Tractors	1
8 Barrow mixers	1	2 Power rollers	1

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
III CIRCLE—cont.			
30. Coleroon Bridge Division—cont.		34. Erode.	
3 Transport lorries	1	1 Power rollers	14
4 Water lorries	1	2 Transport lorries	7
5 Tram lines	2,376	3 Jeeps	1
	(about $\frac{1}{4}$ mile).	4 Double nissen sheds	1
6 Double nissen sheds	1	5 Heat masters	2
7 Air compressors	1	6 Water carts	15
8 Diving sets	5		
9 Grabs	6	35. Nilgiris.	
10 Winches	6	1 Power rollers	9
11 Pulley blocks	6	2 Transport lorries	3
12 Vibrators (Rapiers)	2	3 Jeeps	3
13 C.C. road channel forms	810 r.ft.	4 Tar boilers	1
14 Sheet steel piles	30	5 Heat masters	2
15 Concrete mixers	5	6 Concrete mixers	1
16 Diesel engine pumps	3		
17 Pontoons	20	36. Palghat.	
18 Ramped cargo lighters	1	1 Power rollers	13
19 Sump pumps	2	2 Transport lorries	7
		3 Jeeps	1
31. Krishnagiri.		4 Tar boilers	1
1 Power rollers	11	5 Heat masters	2
2 Transport lorries	1	6 Water tanks	4
3 Water lorries	3		
4 Jeeps	1	37. Kozhikode.	
5 Pile-driving sets	1	1 Power rollers	11
6 Tar boilers	2	2 Transport lorries	5
7 Concrete mixers	5	3 Jeeps	1
8 Petrol-driven pumps	2	4 Tar boilers	2
9 Water tanks	3	5 Heat masters	1
10 Water carts	13	6 Concrete mixtures	2
		7 Water tanks	1
32. Salem.		8 Living vans	3
1 Power rollers	15		
2 Transport lorries	5	38. Mangalore.	
3 Jeeps	1	1 Power rollers	10
4 C.C. road channels forms	810 r.ft.	2 Transport lorries	4
5 Tar boilers	2	3 Jeeps	2
6 Heat masters	1	4 Double nissen sheds	1
7 Barrow mixers	3	5 Air compressors	1
8 Concrete mixers	3	6 Diving sets	1
9 Petrol-driven pumps	3	7 Grabs	3
10 Hand pumps	1	8 Winches	1
11 Water carts	41	9 Tar oilers	1
		10 Heat masters	2
33. Coimbatore.		11 Hand-operated mixing drums	6
1 Power rollers	18	12 Water tanks	1
2 Transport lorries	15	13 Trailer waggons	5
3 Jeeps	2		
4 Grabs	1	39. Barathpuzha Bridge Division.	
5 Vibrators (Rapiers)	1	1 Jeeps	1
6 Tar boilers	3	2 Double nissen sheds	1
7 Heat masters	2	3 Pontoons	10
8 Concrete mixers	2	4 Water carts	1
9 Petrol-driven pumps	1		
10 Water tanks	7		
11 Water carts	12		

Abstract of inventory of Plant and Machinery in charge of the Highways
Department as on 31st March 1951.

1 Graders	7	6 Transport lorries	225*
2 Bull dozers	2	7 Water lorries	11
3 Tractors	6	8 Diesel Motor lorries	1
4 Power rollers	599	9 Workshop lorries	1
5 Sheep foot rollers	2	10 Break down lorries	3

* This excludes 5 numbers transferred to the Tungabhadra Project.

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
Dodge tippers	3	38 Welding sets	10
Jeeps	40	39 Tar oilers	52
Land rovers	4	40 Heat masters	31
Pick up vans	4	41 Pegson cold-mixing plant	2
Tram lines	4 $\frac{1}{2}$ miles.	42 Mulers asphalt mixers	3
		43 Hand-operated mixing drums	159
Tipping trucks	17	44 Barrow mixers	42
Rippers	1	45 Concrete mixers	77
Pavement breakers	1	46 Concrete mixers	1
Laboratory van	2	47 Seamen mixers	1
Cinema trucks	6	48 Pumps (petrol-driven)	21
Ford trailers	5	49 Pumps (diesel engine)	32
Stone crushers	7	50 Hand pumps	54
Drill sharpeners	2	51 Water tanks	77
Double nissen sheds	27	52 Pontoons	627
Single nissen sheds	3	53 Water carts	163
Cranes	3	54 Trailer waggons	59
Air compressors	12	55 Ramped cargo lighters	3
Diving sets	6	56 Rowing boats (cutters)	7
Grabs	10	57 Double boats	..
Winches	9	58 Other items (angle irons)	360
Pulley blocks	12	59 Diesel driven air compressors with helmets	1
Carly core drills	2	60 Trailer cart for rollers	2
Vibrators (Rapiers)	8	61 Petrol engine truck tractor	2
Chain saws	1	62 Heat rays	1
C. C. road channel forms	4,313 r.ft. and 1 set.	63 Printing press	..
Sheet steel piles	97	64 Sump pumps	2
Pile driving sets	3	65 Living vans	3

APPENDIX 26.

Statement of Avenues.

Serial number and name of division.	Government roads.					
	Total mileage.	Number of avenues.	Number newly planted during the year.	Number of new plantations that have survived.	Expenditure.	Income.
	(2)	(3)	(4)	(5)	(6)	(7)
(1)					RS.	RS.
I CIRCLE.						
1 Visakhapatnam, North ..	528	46,365	6,013	4,913	4,804	2,464
2 Visakhapatnam, South ..	490	93,399	3,383	2,788	14,620	4,923
3 East Godavari	259	13,563	1,348	1,275	7,386	3,247
4 West Godavari	499	6,318	5,509	4,131	9,923	5,318
5 Rajahmundry Division..	435	45,117	932	747	2,925	5,648
6 Krishna	436	34,192	13,842	10,486	63,022	9,479
7 Guntur, North	281	37,496	1,265	1,172	12,348	15,995
8 Guntur, South	379	38,461	3,717	3,747	33,237	7,428
9 Vizianagaram	64	..	..	..	..	..
II CIRCLE.						
10 Nellore	604	82,111	7,260	7,260	5,891	2,258
11 Kurnool	662	7,818	5,773	1,443	23,514	5,858
12 Bellary	593	19,207	6,224	6,224	4,814	2,340
13 Anantapur	569	24,952	2,000	1,000	6,300	11,862
14 Cuddapah	424	19,895	3,138	1,645	1,613	1,886
15 Chingleput	633	57,842	14,887	14,887	22,751	4,252
16 Chittoor	735	46,290	9,268	5,531	61,679	28,129
17 North Arcot	660	32,807	13,241	12,026	18,145	84,734
III CIRCLE.						
18 South Arcot	556	85,404	8,204	5,965	30,176	25,361
19 Tiruchirappalli	774	97,789	2,516	2,216	29,557	74,033
20 Tanjore, East	271	35,951	4,981	2,032	12,240	15,948
21 Tanjore, West	395	30,852	3,139	3,139	4,618	21,082
22 Madurai	657	49,519	1,065	1,065	3,140	20,586
23 Ramanathapuram	459	50,006	1,260	1,260	12,618	15,193
24 Tirunelveli	459	12,832	2,307	1,798	10,286	22,159
25 Pugalur	..	304	1,140	173	755	259
26 Coleroon	9	448	106	20	797	424
IV CIRCLE.						
27 Salem, North (Krishna- giri).	422	54,012	4,790	4,414	28,068	1,56,697
28 Salem, South (Salem) ..	390	30,006	7,489	6,600	46,817	43,211
29 Coimbatore, North	497	21,495	664	664	4,382	4,458
30 Coimbatore, South	537	10,940	1,338	640	2,842	19,723
31 The Nilgiris	221	..	183	63	95	..
32 Malabar, North (Kozhi- kode).	337	17,173	532	532	5,846	4,669
33 Malabar, South (Palghat).	608	500	400	400	5,267	..
34 South Kanara	717	41,643	2,074	2,000	1,767	4,796
35 Cannanore	..	..	..	..	..	..
Total ..	15,560	11,44,712	1,40,018	1,12,256	4,92,248	6,24,420

APPENDIX 26—cont.

Statement of Avenues—cont.

	District Board Roads.					
	Total mileage.	Number of avenues.	Number newly planted during the year.	Number of new plantations that have survived.	Expenditure.	Income.
	(8)	(9)	(10)	(11)	(12)	(13)
					RS.	RS.
I CIRCLE.						
1 Visakhapatnam, North ..	394	7,868	1,630	1,474	..	588
2 Visakhapatnam, South ..	404	18,436	733	733	851	1,738
3 East Godavari	579	10,097	137	130	1,288	1,452
4 West Godavari	531	1,753	1,586	1,119	891	977
5 Rajahmundry Division..	352	8,535	169	120	103	881
6 Krishna	839	12,220	3,263	2,698	13,465	10,712
7 Guntur, North	481	1,056	188*	..	3,317*	..
8 Guntur, South	354	17,008	50	50	..	..
9 Vizianagaram	..	..	..	..	..	..
II CIRCLE.						
10 Nellore	754	54,979	2,240	2,240	3,077	3,032
11 Kurnool	586	2,576	1,631	408	..	1,164
12 Bellary	581	2,934	316	305	..	703
13 Anantapur	691	12,072	6,702	3,350	3,946	5,925
14 Cuddapah	557	3,302	1,285	1,078	..	470
15 Chingleput	950	22,366	3,484	3,484	6,217	2,339
16 Chittoor	950	12,034	3,460	2,000	12,979	2,248
17 North Arcot	902	49,909	4,621	3,806	4,487	42,423
III CIRCLE.						
18 South Arcot	1,459	57,725	5,927	4,548	9,703	7,889
19 Tiruchirappalli	1,269	38,335	2,000	1,796	6,551	30,654
20 Tanjore, East	1,086	34,965	2,844	1,089	3,214	5,061
21 Tanjore, West	943	27,011	3,854	3,557	..	23,174
22 Madurai	894	14,595	860	860	96	7,469
23 Ramanathapuram	707	30,511	1,262	1,262	14,370	3,019
24 Tirunelveli	912	7,756	1,410	779	7,810	6,877
25 Pugalur	..	..	..	..	..	..
26 Coleroon	..	..	..	..	..	..
IV CIRCLE.						
27 Salem, North (Krishna- giri).	810	45,761	730	730	3,972	1,03,635
28 Salem, South (Salem) ..	790	23,806	4,570	3,520	2,182	9,887
29 Coimbatore, North	1,337	16,406	500	500	1,714	4,958
30 Coimbatore, South	1,007	6,035	539	300	3,363	9,812
31 The Nilgiris	379	..	69	69	..	..
32 Malabar, North (Kozhi- kode).	510	30,338	763	763	9,649	9,871
33 Malabar, South (Palghat).	501	26,025	970	647	2,702	5,599
34 South Kanara	778	18,349	807	797	..	942
35 Cannanore	94	..	..	..	..	..
Total ..	23,411	6,14,762	58,600	44,212	1,15,917	3,03,499

* Particulars are not available.

APPENDIX 27 (i).

Statement showing the particulars of encroachments detected and disposed of during 1950-51.

(1) GOVERNMENT ROADS.

Serial number and name of district.	Number of encroachments pending disposal at the commencement of the year.		Number of encroachments detected during the year.		Number of objectionable encroachments licensed during the year.		Number of objectionable encroachments evicted during the year.		Number of encroachments pending disposal at the end of the year.	
	(2)		(3)		(4)		(5)		(6)	
	Municipal area.	Non-municipal area.	Municipal area.	Non-municipal area.	Municipal area.	Non-municipal area.	Municipal area.	Non-municipal area.	Municipal area.	Non-municipal area.
(1)										
1 Anantapur ..	152	79	218	18	176	70	23	27	13	148
2 Arcot, North ..	1,348	3,360	791	494	590	1,204	138	66	767	644
3 Arcot, South ..	427	80	289	334	163	38	136	44	10	316
4 Bellary ..	465	130	171	1,139	..	23	24	67	25	283
5 Chingleput ..	21	13	26	18	18	104	8	..	2	134
6 Cuddapah ..	..	..	..	..	..	..	..	..	..	..
7 Godavari, East ..	..	..	..	..	..	..	..	..	..	..
8 Godavari, West ..	..	..	..	..	..	..	..	..	..	..
9 Guntur ..	874	1,784	181	215	4	14	52	396	1	156
10 Kanara, South ..	74	1,569	45	88	23	17	38	79	200	1,142
11 Krihna ..	1,461	704	912	466	1,476	4	243	86	56	124
12 Kurnool ..	90	182	12	555	..	45	283	96	12	428
13 Madurai ..	..	..	..	..	..	..	..	..	..	..
14 Malabar ..	864	543	93	209	66	53	36	30	15	500
15 Mellore ..	46	40	75	777	93	60	6	6	9	15
16 Nilgiris ..	2,331	265	1,377	77	1,517	38	801	319	188	59
17 Salem ..	1,606	263	1,576	156	1,517	38	77	11	332	601
18 Ramanathapuram ..	238	608	1,067	338	625	34	367	5	109	931
19 Tanjore ..	30	1,290	7	33	91	25	16	7	10	32
20 Tirunelveli ..	2,256	104	851	148	..	13	789	44	2,205	214
21 Tiruchirappalli ..	..	50	..	..	..	..	..	..	..	..
22 Tiruchirappalli ..	..	..	..	..	..	..	..	..	..	..
23 V. akhapatnam ..	..	..	..	..	..	..	..	..	..	..
24 Sreeakulam ..	..	..	..	..	..	..	..	..	..	..
Total ..	12,809	12,409	7,999	5,878	5,565	1,895	3,020	1,384	4,069	6,256
										8,164
										8,742

NOTE.—The particulars of encroachments in respect of Coimbatore district were not furnished by the Collector.

(ii) Statement showing the particulars of encroachments detected and disposed of during 1950-51.

(2) DISTRICT BOARD ROADS.

Serial number and name of division.	Number of encroachments pending disposal at the commencement of the year.		Number detected during the year.		Number of objectionable encroachments licensed during the year.		Number of objectionable encroachments evicted.		Number of objectionable encroachments pending disposal at the end of the year.	
	(2)		(4)		(5)		(6)		(7)	
	Municipal.	Non-municipal.	Municipal.	Non-municipal.	Municipal.	Non-municipal.	Municipal.	Non-municipal.	Municipal.	Non-municipal.
(1)										
1 Visakhapatnam, North ..	16	16	13	13	..	..	16	16	13	13
2 V. akhapatnam, South ..	60	60	34	73	..	..	60	68	34	34
3 East Godavari ..	414	2	73	2	..	..	..	..	..	..
4 Rajahmundry ..	..	..	..	..	..	..	..	..	..	..
5 West Godavari ..	..	..	..	..	..	..	..	..	..	..
6 Krihna ..	..	..	..	..	..	..	..	..	..	..
7 Guntur ..	..	..	..	..	..	..	..	..	..	..
8 Ongole ..	..	..	..	..	..	..	..	..	..	..
9 Anantapur ..	..	..	..	..	..	..	..	..	..	..
10 Bellary ..	..	..	..	..	..	..	..	..	..	..
11 Cuddapah ..	..	..	..	..	..	..	..	..	..	..
12 Chingleput ..	..	..	..	..	..	..	..	..	..	..
13 Chittoor ..	..	..	..	..	..	..	..	..	..	..
14 Kurnool ..	..	..	..	..	..	..	..	..	..	..
15 Arcot, North ..	..	..	..	..	..	..	..	..	..	..
16 Nellore ..	..	..	..	..	..	..	..	..	..	..
17 Arcot, South ..	..	..	..	..	..	..	..	..	..	..
18 Tanjore, East ..	..	..	..	..	..	..	..	..	..	..
19 Tanjore, West ..	..	..	..	..	..	..	..	..	..	..
20 Tiruchirappalli ..	..	..	..	..	..	..	..	..	..	..
21 Madurai ..	..	..	..	..	..	..	..	..	..	..
22 Ramanathapuram ..	..	..	..	..	..	..	..	..	..	..
23 Tirunelveli ..	..	..	..	..	..	..	..	..	..	..
24 Nilgiris ..	..	..	..	..	..	..	..	..	..	..
25 Coimbatore ..	..	..	..	..	..	..	..	..	..	..
26 Salem ..	..	..	..	..	..	..	..	..	..	..
27 Erode ..	..	..	..	..	..	..	..	..	..	..
28 Krishnagiri ..	..	..	..	..	..	..	..	..	..	..
29 Palghat ..	..	..	..	..	..	..	..	..	..	..
30 Kozhikode ..	..	..	..	..	..	..	..	..	..	..
31 Mangalore ..	..	..	..	..	..	..	..	..	..	..
Total ..	67	1,996	101	2,858	1	1,767	894	162	1,070	1,123

* Particulars in respect of Eluru, Guntur and Ongole Divisions were not available.

APPENDIX 28.

Statement of Ferries maintained by the department.

Name of Division.	Serial number and name of ferry.	Boats available.	Revenue (lease amount)
			RS.
Visakhapatnam, North.	1. Sankili	1 Paddle boat	4,025*
	2. Calingapatnam	Do.	250*
	3. Nenagam	Do.	80*
East Godavari	4. Kotipalli	12 Country boats	26,300*
	5. Kapileswarapuram	4 Do.	6,000*
	6. Yedurilanka	2 Do.	4,000*
	7. Bodasakurru	8 Do.	17,000*
	8. Pasuvullanka	2 Do.	4,828*
Agency Division	9. Rajahmundry (Bobbarilanka).	Steamer "Hellen"	22,500
	10. Devipatnam	Nil	1,355
	11. Sabari (Kunavaram)	Iron punt with wooden deck 27' 6" x 15' 0" x 13' 0".	2,545
	12. Taliparu	No Government boats	50
	13. Palemvagu	Bandy crossing ballacut 24' 0" x 10' x 2' 6".	No tolls.
West Godavari	14. Madhavayapalem	No Departmental boats.	20,431
	15. Doddipatla	Do.	1,732
	16. Koderu	Do.	8,339
	17. Prakkilanka	Do.	7,650
Krishna	18. Ilur	One "A" class ballacut	1,095
	19. Someswararam	Do.	2,004
	20. Lingala	1 Paddle boat	700
Guntur	21. Kollur	No departmental boats	250
	22. Dharanikota	Do.	.. †
Ongole	23. Pandugula	Do.	3,549†
Nellore	24. Ferry across Pennar .. ..	.. ..	2,315
Cuddapah	25. Ferry across River Pennar at M. 108/7 to 109/1 of Chittoor-Kurnool road.	Nil	170
	26. Ferry across River Pennar at M. 10/4 to 11/2 of Muddanur-Jammalamadugu road.	.. ..	52
	27. Ferry on Yerraguntla-Prodatur road.	.. ..	3,665
South Arcot	28. Ferry at M.1/1 of Markanam-Tindivanam road.	Ramped cargo lighter	16
Madurai	29. Narikalpatty	1 boat of 7' x 5' x 1' 6"	12
	30. Perichipalayam	1 boat of 7' x 5' x 1' 5"	15
	31. Manurghat	1 boat of 7' x 5' x 1' 6"	101
Tanjore, West	32. Sundaperumal Koil across Cauvery	1 circular boat of 10' and 3' diameter.	38
	33. Parthikudi	1 circular boat of 12' x 4' x 3'.	410
Tanjore, East	34. Gopalasamudram	Do.	25
	35. Elangudi	Do.	56
	36. Engan	Do.	255
Ramanathapuram	37. Kothagudi .. .. .	.. ..	5,505
Tiruchirappalli	38. Kamma Naickenpalayam	4 of 12' diameter	17,000
	39. Velur, (Pugalur)	6 Do.	3,600
	40. Manapalli, (Nanniyur)	3 Do.	11,005
	41. Kulbalai, (Musiri)	8 Do.	8,670
	42. Tirumanur, (Vilangudi)	6 Do.	3,620
	43. Thirumalavadi, Vythinathanpatti.	4 Do.	45
Tirunelveli	44. Vilathikulam	1 of 32' x 4½' x 1' 8"	42,982
Kozhikode	45. Ballapatam	3 boats and 2 jangadams (25' x 4½' x 2½').	..
	46. Kuppam	1 jangadam of 25' x 4½' x 2½'.	..
	47. Kutticole	1 jangadam and 2 boats.	..
	48. Panamaram and Cherupuza.	1 jangadam and 1 boat of 30' x 4½' x 2½'.	..
	49. Chalizam	2 boats (25' x 4½' x 2½').	..
	50. Perumbai	1 jangadam of 25' x 4½' x 2½'.	..
Palghat	51. Chunangad Kadavu	1 boat of 20' x 3' 6" x 1' 9".	..
	52. Karimpuzha Kadavu	2 Nos. of 20' x 3' 6" x 1' 9".	..
	53. Nhangattiri Kadavu	Do.	24,075
	54. Thethala Varanda Kuttu Kadavu.	Do.	..
	55. Mallen Alias Chattampara Kadavu.	Do.	..
	56. Chamravattam Kadavu	Do.	..
Krishnagiri	57. Erunathu .. .. .	.. ..	13
	58. Hanumatheertham .. .. .	.. ..	..

* The boat belonged to the lessee only.

† This ferry service was suspended since 1949 owing to the communist troubles.

‡ The right of running the ferry is being auctioned year after year.

Name of Divisions.	Serial number and name of ferry.	Boats available.	Revenue (lease amount.)
			RS.
Cannanore	59. Perumbayi .. .. .	.. ..	..
	60. Kottur .. .. .	.. ..	..
	61. Pazhayangadi .. .. .	.. ..	..
South Kanara	62. Bolar	6 of 27' x 2½' x 2'	..
	63. Kulur	8 of 27' x 2½' x 2'	..
	64. Pavanje	Do.	..
	65. Mulky	Do.	..
	66. Chaudragiri	5 of 27' x 2½' x 2'	..
	67. Shiri	Do.	..
	68. Kariangot	2 of 27' x 2½' x 2'	..
	69. Chittar	Do.	..
	70. Mogral	Do.	..
	71. Kanipura	Do.	..
	72. Uppala	Do.	..
	73. Bakal	Do.	..
	74. Kallatkere	Do.	..
	75. Thekkil	2 of 24' x 2' x 1½'	..
	76. Hosmat	2 of 27' x 2½' x 2'	..
	77. Mabukal	10 of 27' x 2½' x 2'	1,02,249
	78. Badaliri (Kalyanpur)	Do.	..
	79. Udayavar	Do.	..
		(Plus one motor boat to be provided.)	..
	80. Puttige	2 of 27' x 2½' x 2'	..
	81. Halady	Do.	..
	82. Gangolly	7 of 27' x 2½' x 2'	..
	83. Hangarhole	2 of 27' x 2½' x 2'	..
	84. Kandlur	Do.	..
	85. Wandse	Do.	..
	86. Jakkal	1 of 24' x 2' x 1½'	..
	87. Poocha Mogar	2 of 24' x 2' x 1½'	..
	88. Malpe	Do.	..
	89. Sonda	2 of 27' x 2½' x 2'	..
		Total	3,60,427

APPENDIX 29.

(i) Statement showing the names of Inspection Bungalows taken over during the year.

I Circle, Kakinada	Nil.
II Circle, Madras	Nil.
III Circle, Tiruchirappalli .. ..	.. ..

Salem district.—Channel bungalow at Velur was transferred from the control of the Revenue Department and taken over by the Divisional Engineer (Highways), Pugalur Division.

IV Circle, Coimbatore	Nil.
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(ii) Statement showing the Inspection Bungalows maintained by the department during 1950-51.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
1 Visakhapatnam, North.	..	1	..	..	39	..
2 Visakhapatnam, South.	..	..	..	..	..	..
3 Kakinada	..	..	..	..	..	..
4 Rajahmundry	..	5	..	2	88	12,225
5 Eluru	..	5	..	..	49	3,639
6 Krishna	..	..	..	..	..	..
7 Guntur	..	..	..	..	..	..
8 Ongole	..	..	..	..	..	..
9 Vizianagaram	..	2	..	..	286	750
10 Anantapur	..	..	..	..	..	..

(ii) Statement showing the Inspection Bungalows maintained by the department during 1950-51—cont.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
11 Bellary	..	..	..	..	..	..
12 Cuddapah	..	..	..	..	..	..
13 Chingleput	..	..	..	..	..	..
14 Chittoor	..	1	..	..	13	1,016
15 Kurnool	..	4	..	..	..	..
16 North Arcot	..	..	..	..	..	..
17 Nellore	..	..	..	..	..	..
18 South Arcot	..	..	..	..	..	..
19 Tanjore, East	..	..	..	..	..	..
20 Tanjore, West	..	..	..	..	..	..
21 Tiruchirappalli	..	..	..	..	..	..
22 Madurai	..	1	..	..	21	360
23 Ramanathapuram	..	..	..	..	..	..
24 Tirunelveli	..	..	..	..	..	..
25 Pugalur Bridge Division.	..	1	..	..	100	504
26 Nilgiris	..	1	..	..	12	418
27 Salem, North	..	..	..	..	..	..
28 Salem, South	..	1	..	..	105	266
29 Coimbatore, North	..	..	..	..	..	..
30 Coimbatore, South	..	2	..	..	103	918
31 Malabar, North	1	6	..	..	530	3,085
32 Malabar, South	..	2	..	..	672	33
33 South Kanara	..	25	..	..	..	2,660
Total	1	57	..	2	2,018	25,874

* The expenditure and revenue are included in Statement (IV) against Kurnool.

(iv) Statement showing the Travellers Bungalows maintained by the department during 1950-51—cont.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
10 Bellary	..	5	..	..	215	2,617
11 Cuddapah	..	3	..	..	43	1,225
12 Chingleput	2	2	..	2	312	3,774
13 Chittoor	..	..	..	..	..	..
14 Kurnool	..	4	..	..	912	16,150
15 North Arcot	..	5†	..	..	410	2,197†
16 Nellore	..	..	..	..	..	..
17 South Arcot	2	6	..	5	2,696	3,291
18 Tanjore, East	..	1	2	2	821	3,183
19 Tanjore, West	..	2	..	8	738	6,165
20 Tiruchirappalli	..	2	5	9	1,908	4,796
21 Madurai	2	6	..	8	3,189	5,109
22 Ramanathapuram	..	..	14†	2	..	6,691†
23 Tirunelveli	..	7	..	4	5,480	1,853
24 The Nilgiris	..	..	..	..	..	..
25 Salem, North	1	11	..	3	..	12,988
26 Salem, South	..	9	..	..	..	5,242
27 Coimbatore, North	3	5	..	8	..	7,294
28 Coimbatore, South	..	9	..	9	3,067	9,242
29 Malabar, North	..	14	..	5	14,995	29,551
30 Malabar, South	..	24	..	2	41,699	2,298
31 South Kanara	7	10	15	..	..	26,285
Total	17	139	36	..	..	..

* Not available.

† Two of these travellers' bungalows were transferred to the District Board in December 1950.

† Classification of travellers' bungalows into classes I and II was under consideration.

APPENDIX 30.

Intensity Statistics.

Serial number and District.	Area.	Population as per 1951 census.	Number of Vehicles.	Miles of Road.	Expenditure on Roads.	Revenue.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
1 Visakhapatnam, North	9,107	41,77,518	52,961	94	20,86,744	42,26,647
2 Visakhapatnam, South	..	..	2,196	894	21,97,514	..
3 East Godavari	6,322	24,05,352	91,669	1,625	39,64,516	77,99,848
4 West Godavari	2,434	16,97,892	66,574	1,060	44,63,263	48,19,170
5 Krishna	3,469	17,79,760	11,354	1,275	43,74,651	50,48,135
6 Guntur	5,795	25,42,244	55,317	1,495	63,22,337	78,53,781
7 Nellore	7,942	17,93,774	†	1,358	30,04,237	38,97,134
8 Kurnool	7,893	12,64,154	66,765	1,248	21,78,398	30,59,897
9 Bellary	5,872	12,40,988	1,046	1,174	15,32,357	27,88,451
10 Anantapur	6,734	13,60,727	†	1,260	12,85,625	22,36,972
11 Cuddapah	5,923	11,61,713	571	941	17,06,382	22,95,412
12 Chingleput	3,104	32,69,881	†	1,583	33,47,991	25,69,216
13 Chittoor	5,951	18,08,725	†	1,685	23,43,818	25,27,799
14 North Arcot	4,671	28,2,155	48,532	1,562	33,69,253	34,55,946
15 South Arcot	4,201	27,66,468	92,279	2,015	31,70,655	56,30,455
16 Salem	7,073	33,74,284	62,682	2,412	45,37,827	42,46,809
17 Tiruchirappalli	5,514	29,4,225	†	2,043	53,74,411	58,06,728
18 Tanjore,	3,738	29,79,754	98,000	2,695	37,42,442	1,10,07,849
19 Madurai	4,883	28,84,994	40,377	1,551	32,06,800	36,36,833
20 Ramanathapuram	4,851	20,78,750	37,455	1,166	28,61,957	9,31,162
21 Tirunelveli	4,342	24,47,949	†	1,371	24,25,503	34,68,414
22 Coimbatore	7,121	32,94,849	34,317	3,378	54,18,494	45,05,505
23 Nilgiris	989	3,12,172	3,189	600	16,24,700	2,58,570
24 Malabar	5,790	47,58,886	50,917	2,050	49,15,126	60,16,289
25 South Kanara	4,045	17,16,118	†	1,495	17,49,329	36,12,517
26 Bridge South and Transport and Machinery Division	..	..	..	..	1,23,253	..
Total	1,27,764	5,69,52,332	8,16,701	38,971	7,98,60,221	10,14,99,539

* Roads in charge of Coleroon Bridge Division and expenditure thereon are included under South Arcot District.

† The Number of vehicles in Nellore, Anantapur, Chingleput, Chittoor, Tiruchirappalli, Tirunelveli and South Kanara are not available.

NOTE.—Figures in Columns 2, 3 and 7 have been adopted from the statistics furnished by the Board of Revenue.

Figures in Column 4 are based on the reports from the Superintending Engineers (Highways). Columns 5 and 6:—The mileage and expenditure figures indicate the total (as on 31st March 1951) of Highways and District Board Roads only.

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(iii) Statement showing the names of Travellers Bungalows taken over during the year.

I Circle, Kakinada—	
Rajahmundry Division	Travellers Bungalow at Gannavaram from East Godavari District Board.
Kakinada Division	Rest House at Mummudivaram from East Godavari District Board.
II Circle, Madras	..
III Circle, Tiruchirappalli	Nil.
IV Circle, Coimbatore	..

(iv) Statement showing the Travellers Bungalows maintained by the department during 1950-51.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
1 Visakhapatnam, North	..	..	..	..	..	..
2 Visakhapatnam, South	..	..	..	..	..	..
3 Kakinada	..	1	..	..	51	152
4 Rajahmundry	..	1	..	..	..	..
5 Eluru	..	..	..	..	..	..
6 Krishna	..	..	..	..	..	..
7 Guntur	..	..	..	..	..	..
8 Ongole	..	10	..	..	433	603
9 Anantapur	..	2	..	..	255	3,063

* Not available.