Town Schemes.—The number of town schemes approved during the year shows approximately 100-per-cent. increase over the past two years, 148 being approved, about 46 per cent. of which were in the Auckland and North Auckland Districts. Analysis of the schemes show that 749 acres outside the boundaries of boroughs and town districts were subdivided into residential lots, and of this area new roads accounted for 83 acres, recreation and other reserves 51 acres, leaving a balance of 615 acres subdivided into lots available for sale.

Draughtsmen's and Computers' Examination.—The annual examination was held in September, 1934, when 34 candidates presented themselves for examination. The results were as follow—Draughting: 22 candidates, of whom 7 obtained first-grade passes (Miss M. Pirrit, Messrs. W. A. Fraser, P. R. Malthus, K. P. Potete, W. Rogel, N. R. Stanton, and A. J. Stewart) and 7 obtained second-grade passes (Messrs. W. S. Boyes, L. S. Leslie, M. R. Magrath, A. E. Moore, E. N. Muir, H. F. Tomlinson, and R. B. Witten). Computing: 12 candidates, of whom 5 obtained second-grade passes (Messrs. A. L. Cullington, L. A. Graham, D. W. E. Hayward, K. V. Kennedy, and C. R. Lane).

Standard of Length.—During the year 147 bands were compared with the standard, the total length being 326 chains. Of these, 93 were steel bands of a length of 159 chains and 52 were invar bands of a length of 167 chains.

Maps, &c.—During the year the drawing of the 4-mile series of maps was completed and good progress made with the standard maps on the 1 mile to 1 in. scale. The preparation of tracings still continues in connection with the Hawke's Bay re-establishment. A road map of the North Island for the Wellington Automobile Association was completed and printed during the year.

The preparation of an up-to-date topographical map of the Tararuas suitable for trampers is well under way; also a motorist's map of Wellington District.

IMPERIAL STANDARD BANDS.

REPORT BY CHIEF DRAUGHTSMAN.

In 1903 twelve steel standard bands were obtained from Messrs. Chesterman and Co., Birmingham. These bands, which were each ¼ in. wide and slightly over 100 ft. in length, were compared with the Imperial Standard by the Standard Branch of the Board of Trade, London (see Records of Survey, Vols. 1 and 3). In 1915 Nos. 1 and 3 were forwarded to England for retesting, and the results are given in Records of Survey, Vol. 3, page 19. Nearly twenty years having elapsed, Standard Band No. 1 was again forwarded to England in June, 1934, for retesting, and was returned in January, 1935. The various tests at 62° F. under a tension of 15 lb. give the lengths of the No. 1 band as follows—

Board of Trade	1903	100·0000
National Physical Laboratory	1915	99·9981
National Physical Laboratory	1934	99·9990

There is no satisfactory explanation of the shortage of 0·0019 between 1903 and 1915, and it is possible that the Board of Trade test in 1903 was not too reliable. As the marks on these standard bands had corroded to some extent since 1903 it was decided to order two new bands ¼ in. wide and slightly over 100 links in length from Messrs. Chesterman and Co., and these bands, Nos. 13 and 14, were received in January, 1935. The comparison by the National Physical Laboratory show the lengths of both bands to be correct at a temperature of 15° C. (59° F.) with a tension of 20 lb. Of the original bands obtained in 1903 nine are still in use, and the opportunity was taken of comparing these with the new bands, Nos. 13 and 14 (correct at 59° F. with a tension of 20 lb.). With the old bands a tension of 15 lb. was applied, and the lengths at a temperature of 62° F. were as follows:—

No. 1 ..	99·9989	National Physical Laboratory test January, 1935, 99·9990
3 ..	99·9984	
4 ..	99·9987	
6 ..	99·9982	
7 ..	99·9979	
8 ..	99·9980	
10 ..	99·9993	
11 ..	99·9967	
12 ..	99·9979	

The method adopted was to lay out Nos. 13 and 14 with the band to be compared (say, No. 1) on the testing-band, which is fitted with microscope micrometers at each end for reading. No. 13 was then set accurately on the board and replaced by No. 1, the micrometer difference in the length being noted, six comparisons alternately being observed and the mean of the readings adopted. The same practice was then carried out in comparing the length of No. 1 with No. 14. This method was carried out on two separate days, and the final mean of the four results adopted as the length of the standard band.

Temperature readings were taken at the beginning and occasionally while testing, but at no time during the test was there any notable variation in the temperature. A comparison of the two new bands, Nos. 13 and 14, and the mean of the results of the comparisons with the old standard bands show that No. 13 was 0·00015 links longer than No. 14.