

## APPENDIX.

## CHIEF SURVEYORS' ANNUAL REPORTS.

## AUCKLAND AND NORTH AUCKLAND DISTRICTS.

(R. L. INNIS, Chief Surveyor.)

## FIELD OPERATIONS.

The present field staff consists of nine surveyors, while Mr. J. W. Webster, Registered Engineer, has carried out some engineering surveys for the Housing Department.

During the year Mr. A. C. Haase was promoted to the position of Chief Surveyor, Blenheim, Mr. W. S. M. Organ was transferred on loan to the Samoan Administration, and Mr. A. M. Linton was transferred to development work in the Bay of Plenty. Mr. N. J. Till, formerly Acting Field Inspector, North Auckland, resumed duty as a surveyor. Mr. F. W. Bailey was appointed to the staff, and is now working in the North Auckland district, where previously Mr. Organ was stationed.

Of the staff surveyors, Mr. H. Gavin is engaged principally on development work in the Hauraki Plains and little of his work is included in the survey returns.

*Triangulation.*—The permanent signals built at many stations in the district during the past few years are proving very helpful. It was hoped to carry out further second- and third-order triangulation during the year, but unfortunately, owing to pressure of other work, this could not be done. Only two small areas of triangulation were completed for the control of standard and road-deviation surveys. In the coming year it is hoped to extend the triangulation and to control all extensive road-deviation surveys in terms of the new trig. work.

*Topographical Surveys.*—One area of approximately 19,000 acres is returned under this heading, but cannot be classed as topographical survey proper, being more in the nature of sketch plan of an area under offer to the Crown for consideration of possible development. Approximately 360 acres of contour survey and spot levels for the Housing Construction Department have been executed by staff and contract surveyors.

*Standard Surveys.*—Mr. A. C. Haase completed 16 miles of rural standard surveys along the Auckland-Hamilton Main Highway. Unfortunately, at the date of his transfer the ground marking of approximately a further 15 miles had been carried out, and this remains unsurveyed owing to lack of staff to undertake the work. It is hoped to finish this work during the coming year.

Mr. H. M. Kensington completed the Auckland City standard survey during the year. Practically the whole of the Auckland City is now covered by a standard survey, and future work in this area will be of a maintenance and revision nature. It appears to me that some revision of the city work should be carried out periodically, as disturbance of the street necessary for repair and maintenance of gas, water, and other services apparently causes more disturbance of standard marks than can be tolerated. Mr. Kensington now has in hand the standard survey of Mount Eden Borough, and it is anticipated that this will be completed early in the coming year.

In deviation surveys of main highways it is thought to be advisable to carry out the survey to a standard of accuracy approaching that of rural standard traverse, while ground marks of a permanent nature have been used.

I am of opinion that consideration should be given to the extension of standard surveys both town and rural as soon as possible, as it would appear that a very large percentage of the older survey marks have disappeared. It is very desirable that surveys to preserve the positions of remaining marks should be carried out with the least possible delay. The policy of referencing important survey positions along highways which were to be surfaced or deviated has proved invaluable during the past year, as in many cases, though the actual survey marks have disappeared during road improvements, reference marks are readily picked up.

*Rural Surveys.*—Little special comment is required under this head on the work returned. Little large subdivision was carried out, the work consisting mostly of a rearrangement of boundaries of existing sections and a resurvey for title purposes of defective original surveys. As mentioned above, loss of survey marks has proved costly in a large percentage of the work carried out by staff surveyors.

*Town and Suburban.*—Only one town subdivision of any size was carried out during the year. This is the Town of Muriwhenua, on the Ninety-mile Beach, North Auckland, to provide sites for summer residences, for which a demand exists.

*Native-land Surveys.*—Little work under this head was carried out by the staff during the year, but approximately 6,500 acres was surveyed by contract surveyors. Of this area, arrangements for survey of a little over 1,000 acres were made through this Department, and for the balance arrangements were made for survey costs between the surveyor and the interested parties. It is anticipated that during the coming year the staff will be called upon to carry out a larger percentage of the Native surveys, as surveys of development areas are difficult to arrange at contract rates.

*Housing Surveys.*—The staff was able to undertake a large percentage of the housing surveys in the earlier months of the year, but during the last few months practically the whole of the housing surveys has had to be let by contract owing to pressure of other work on the staff.