

DEFENCE WORKS

Restoration work has been completed at a number of camp-sites in city and rural areas, and the properties have been handed back to their owners.

Maintenance of camps and establishments belonging to the Armed Services has been continued.

Construction work has been confined again almost solely to the Devonport Naval Base, where all major works except the fire-fighting installation are complete.

The first two bulk-fuel-oil tunnels have been handed over to the Navy, and all reservoirs have been in continuous use throughout the year without sign of leakage. All equipment has been installed and it is functioning satisfactorily.

Except for the final seal coat over a small area, roading in the south yard is complete. A small area has still to be sealed in the north yard. During the year 1,630 square yards of heavy base course, 6,251 square yards of 1½ in. penetration, and 2,433 square yards of seal coat have been laid.

The new Stanley Bay entrance has been completed, including sea wall, fencing, guard-hut, and street lights. The new ferry wharf was brought into use in August.

Fire-fighting facilities are well in hand. The sprinkler system has been installed in the administration building and in the clothing and victualling store. Cable work for the automatic-alarm system is 75 per cent. complete. The salt-water mains have been laid in the north yard.

The remainder of the fixed boom defence has been demolished and the materials salvaged handed over to the War Assets Realization Board for disposal.

The fixed boom defence in Wellington Harbour is being dismantled.

DESIGN OFFICE

The principal work undertaken in the Chief Designing Engineer's Office has been the design and preparation of plans for bridges for the Main Highways Board, hydro-electric works, and the State Forest Service. The longest bridge is the Kokatahi River Bridge, in Westland, 1,015 ft. long. Plans of several steel bridges of different types have been completed, and tenders for the fabrication of two of these have been invited in the United Kingdom.

An interesting structure for which plans have been completed is a reinforced-concrete arch bridge, with a main span of 225 ft., for the Maraetai hydro-electric development. The bridge will be built down-stream from the dam to give access to the power-house, and it has been designed for specially heavy loading.

Other bridges designed include the Rangitaiki River Bridge, at Edgecumbe, 600 ft. long, in reinforced concrete, with provision for raising the spans and lengthening the bridge at some future date when the Rangitaiki River flood-control scheme is developed; the Mohakatino River Bridge, 280 ft. long, to be renewed in timber with concrete deck; Lake Pukaki Spillway Bridge, a series of reinforced-concrete arch spans over the spillway control-gate structure; and the new railway bridge for the Hutt Valley railway extension crossing over the Hutt River at Taita.

Many bridge proposals have been received from district offices, County Councils, and consulting engineers for examination and approval. Numerous proposals have been examined and checked for the Local Government Loans Board. These include water-supply, sewer drainage, storm-water drainage, bridge, and street proposals.

A series of standard plans of cableways and foot-bridges have been completed for current meter gauging stations for the Soil Conservation and Rivers Control Council.

Specifications for the Wellington water-supply pipe-line (34 miles of 30 in. and 36 in. steel pipe) were completed and tenders were invited in January in New Zealand and overseas for its fabrication and erection. A study was undertaken of a design suitable for the intake weir and other structures for the waterworks.