

# The Canadian Engineer

*A weekly paper for Canadian civil engineers and contractors*

## CONSTRUCTION OF CANADA'S BIGGEST MILITARY CAMP

REVIEW OF METHODS FOLLOWED IN TRANSFORMING PINE PLAINS INTO CAMP BORDEN WITHIN TWO MONTHS—CONSTRUCTION OF MILES OF SEWERS, WATER MAINS, TARGETS, ETC.—MANY PERMANENT BUILDINGS ERÉCTED AND CAMP MADE ACCESSIBLE BY ROADS AND RAILWAYS.

By W. A. YOUNG,

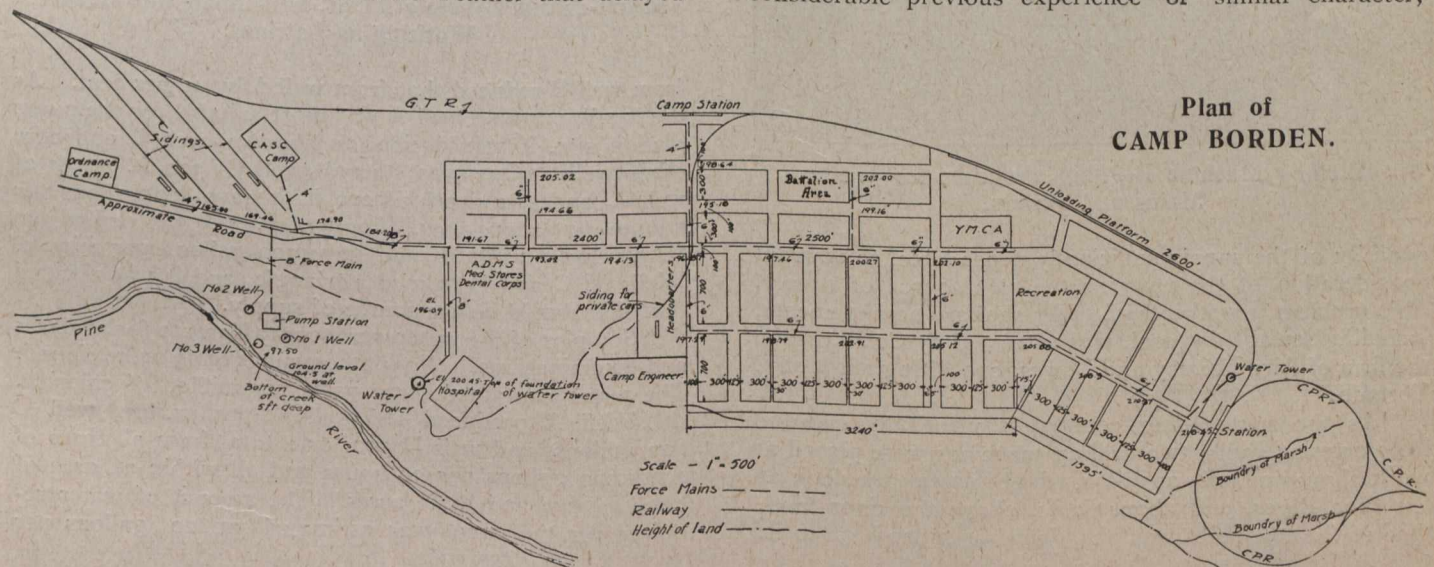
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**T**WO months ago Pine Plains, in Simcoe County, Ontario, was a 20,000-acre tract of sandy, arid waste covered with pine stumps abandoned by lumbermen twenty years ago. To-day Pine Plains is Camp Borden, probably the greatest permanent military concentration camp on the American continent.

With the aid of most modern machinery and materials, and despite rain and unseasonable weather that delayed

concrete mixers, stumping machines, back fillers, pumps, motors, cement, food and the scores of other articles needed for work of this description.

Col. Robert Lowe, general manager of the firm of Bate, McMahon & Co., contractors, of Ottawa, Ont., was appointed by General Hughes as the general contractor in charge of the entire construction. Col. Lowe had had considerable previous experience of similar character,



the work at least a week, energetic engineers and contractors have transformed this large area of rough, wild land into a finished military camp within comparatively few weeks. Many permanent buildings have been erected, streets have been laid out, thousands of tents pitched, miles of watermains and sewers laid, two miles of targets erected and trenched—in fact, a white city has been built—a city of tents and concrete where but shortly before there was not even a furrow.

Camp Borden is on high, very dry, sandy land,  $3\frac{1}{2}$  miles northwest of the G.T.R. Angus station. There are 36 battalion areas, practically all of which are now occupied, and the camp is capable of housing a population of 50,000 troops and attendants.

On May 10th, 1916, General Sir Sam Hughes, Minister of Militia and Defence, finally decided upon Pine Plains as the site of the new camp. Orders were immediately placed for surveying instruments, mapping outfits, heavy timber, wagons, steam rollers, carloads of horses, scrapers, motor cars, large motor trucks, saw mills, ditching machines, sewer pipe, valves, water pipe,

having constructed Valcartier Camp, Camp Hughes at Sewell, Man.; Sarcee Camp, Calgary; the Connaught Rifle Ranges, Ottawa; and the new Halifax Barracks.

Col. Lowe commenced work with a gang of 300 men, but soon had over fourteen hundred on the job day and night. Many of these were Bulgarians from the internment camps.

A road leading into the camp from the Angus station was the first work that required attention, as it was found impossible to make rapid progress through the sand. Planks 16 ft. long, 6 ins. thick, were immediately laid on all grades and wherever the sand was very loose, and within a day many cars of material had been transported to the camp, and some tents pitched. Meanwhile the Royal Canadian Engineers, under command of Capt. David Barry, who designed Valcartier Camp, were out in parties surveying and mapping a 36-square-mile area within which could be located battalion areas, roads, buildings, etc.

Clearing of the site demanded first attention, and over a million stumps were pulled up or blown up and burned, the men working day and night, in two shifts. Enough