

Archaeological Site Report	SiteNo	9/2/018/0034/002/18
	Site Name	Time Ball Tower, Portwood Ridge, Victoria and
	Date	Alfred Waterfront, Cape Town
	Project	
	CaseNID	
	Coords	-33.905888, 18.419239

Page No: 1 **SiteAutoID:** 29291

Site Category: Building

SiteComments:

Archive Import History: This tower, which was erected in 1883, was used as a repeater-station for harbour signals between the Observatory and Signal Hill. In 1895 the tower was raised from 17 feet to 34 feet. The ball, which was hand-operated at first, was electrified in 1903 and was replaced in 1934 by radio signals. The Time Ball Tower in Table Bay Harbour is so closely connected with the Observatory that it is of interest to note that the first Astronomer appointed to the Cape, The Rev. Pearson Fallows (1820 - 1831) was instructed to select a site for the new Observatory which had to meet three conditions. It had to be in sight of Table Bay so that visual time signals could be passed to the ships anchored there; it had to be sufficiently far east of Table Mountain to have unobstructed meridian and it had to be on Government owned land. It was therefore obvious that it was of paramount importance to the Masters of deep sea vessels that a standard time could be obtained, as the determination of Longitude depended on the rate of a Chronometer, last set at his home port; It was therefore a relief to these Mariners when the new built Royal Observatory inaugurated a reliable time signal service (1833). As the area surrounding the observatory was a waste of barren earth, there were no obstructions to a clear view from Table Bay and a plan was devised whereby a visual signal was transmitted, at a predetermined time by means of the firing of a charge of black powder from a specially designed, large mouthed pistol. The resultant flash was sufficiently bright to be easily visible at night. This systems however, was discontinued about the middle of the last century in favour of a visual day light signal, the method employed being the lowering at 1.00 p.m. of a large black cube from a suitable apparatus erected in the grounds of the Observatory in full view of a repeater station on Signal Hill. In 1883 a new Time Ball Tower was erected in Table Bay Harbour on its present site on the hill, in front of the office of the Harbour Engineer. In 1895 it became necessary to raise the height of the Tower from 17 ft. to 34 ft. 6 ins. due no doubt to obstructions erected in direct line between the Observatory and the Tower. At first the ball was manually operated by an observer and accuracy was thus dependent on three factors, namely the astronomer, the personal error of the operator and the officer on the ship who received the signal. In 1903 with the introduction of Standard Greenwich Time and the advent of the telegraph system, the Ball was dropped by means of an electrical impulse. In January 1934 the Time Ball was phased out of service when an accurate radio signal system was introduced. The building belongs to the State, and resorts under the South African Railways and was declared a national monument in August 1982. Visual Description: Colours: Site Features: Condition: Construction Date: 1883 Materials: Catalogue: Rennie, Vol 3, No: 094.01, Significance Category:

Damage Types: