

(New South Wales)

THE ILLAWARRA LINENew South Wales Railways

IV

C. C. S.

2. HURSTVILLE - WATERFALL

As mentioned in the introduction to this series, the contractors Messrs. C. & E. Millar had their contract for the construction of the railway from Illawarra Junction to Waterfall altered to terminate at Como while further consideration was given to a proposed deviation from Mr. Whitton's route via Bottle Forest (Heathcote) to traverse the deep and rocky gorge of Port Hacking River which would avoid the tunnels south of Waterfall, thus reverting to the original survey from which Mr. Whitton had departed. A careful comparison was made of the two routes and the Bottle Forest location was found to be cheaper and more suitable for subsequent duplication which was seen to be imperative at a comparatively early date, owing to the rich coal measures to be tapped in the Illawarra District. The Minister for Public Works decided in favour of the high level route and Messrs. Millar were asked to proceed with their original contract, which however they refused to do, and were paid off with £20,000 compensation.

A new contract was prepared for the construction between Como and Waterfall, the successful tenderers being Messrs. Rowe and Smith. The section between Hurstville and Sutherland was opened on 26th December, 1885 and the remainder to Waterfall, including the mile-long branch to the military area at Loftus, later National Park, was opened on 9th March, 1886.

Duplications

Opened as a single line with an intermediate crossing place at Sutherland, it was soon found that one line was insufficient to handle the traffic, especially in view of the time occupied to handle non-air goods trains down the heavy grades each side of Georges River. Mr. Eddy authorised duplication to Waterfall as an early work on taking over control, and the sections were opened in the following order:-

Hurstville - Oatley	4th, April, 1890.
Sutherland - Loftus Junction..	4th, April, 1890.
Oatley.... - Georges River Jct.	9th, November, 1890.
Loftus Jun.- Heathcote	9th, November 1890.
Heathcote.- Waterfall.....	12th, December 1890.
Como..... - Sutherland.....	22nd, March, 1891.

The remaining section Georges River Junction - Como over Georges River Bridge remained as single line until 26th February, 1894, when, as the Down Main line was gauntleted over the bridge, Georges River Junction was closed, and Block working Oatley to Como substituted.

Description of Line at Date of Opening

The first section to Como is dealt with in detail as most of it has been relocated. Leaving Hurstville yard by a 30 chain l.h. curve the line, then single, passed under Belmore Road overbridge, and descended at a grade of 1 in 60 for half-a-mile, passed over Laycocks Road level crossing with PENSHURST platform on the Nowra side, thence turning l.h. through a long 50 chain curve and crossing over a road on the level which later became known as Mortdale level crossing. The grades eased for nearly $\frac{1}{2}$ mile to the site of the original OATLEY platform which was on the up side of the line. Turning through a 60 chain r.h. curve the grade of 1 in 80 steepened to 1 in 60 falling to the Georges River Bridge through a rock cutting turning another 60 chain r.h. curve before entering the structure.

COMO platform was on the up side of the line immediately on the Nowra side of the bridge on an ascending grade of 1 in 60, and at first, like the other two platforms mentioned, had no sidings. From this point to Waterfall, with the exception of minor adjustments to suit duplication, the grades and curves remain unaltered. For those unacquainted with the line it should be mentioned that the climb from Como, 44 feet elevation, to Sutherland, 355 feet, a distance of 3 miles the grades rise at 1 in 44, 1 in 51, 1 in 42 and 1 in 44.

SUTHERLAND station had a brick building on a single platform on

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the up side of the main line with a crossing loop opposite, with a rural background mostly consisting of trees.

The short spur line to LOFTUS left the main line at LOFTUS JUNCTION and originally served the military manoeuvres area on the adjacent hilly country between the railway and the sea, which shortly afterwards became declared a National Park and the branch changed to a purely tourist line. The actual layout at what is now THE NATIONAL PARK has never been altered beyond the removal of crossovers at the dead ends which became superfluous with electrification.

The main line continued to rise for a mile of 1 in 40 followed by two short rises of 1 in 50 passing under the South Coast Road at three places, reduced, however to one overbridge only in later years by the diversion of the road in question. Immediately before passing under the Bottle Forest Road HEATHCOTE WATER TANK was reached, situated on the down side, followed by HEATHCOTE platform, the present up building being the original structure. A further climb of 1 in 75, 1 in 60, and 1 in 75 brought the line to its greatest elevation throughout its full length, being 771 feet above Mean Sea Level, situated at about 1 mile short of Waterfall. The original WATERFALL platform was on the up side of the line immediately south of the second overbridge, and over $\frac{1}{2}$ mile south of the present or third site.

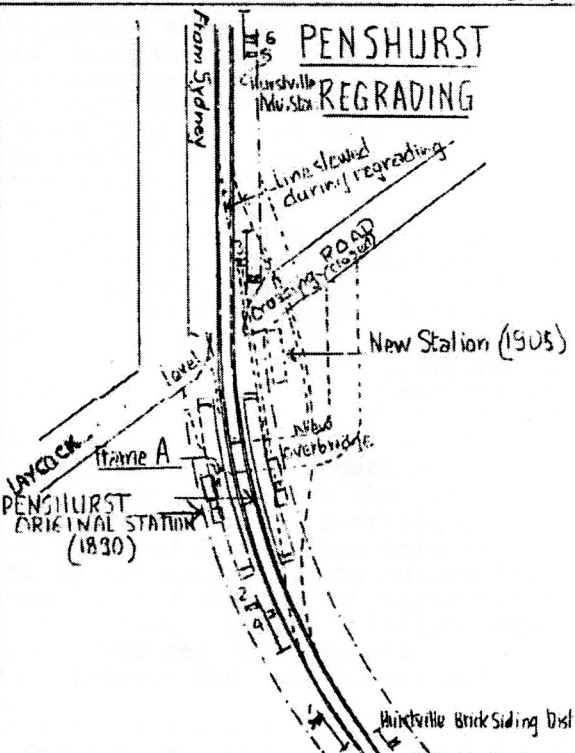
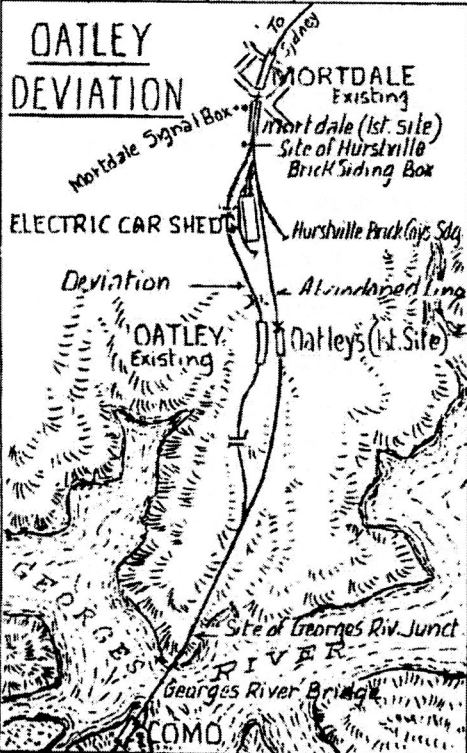
It is notable in this, as well as other locations of Mr. Whitten's, that by keeping to the water parting, bridges and culverts of any size were avoided, as between Como and Waterfall not a single stream of any sort is crossed. As is usual on the Hawkesbury Sandstones surrounding Sydney, the soil is non productive of anything beyond native wildflowers in the spring, what little timber growing being very poor in size and quality.

Oatley Deviation

The expanding coal traffic from the Illawarra District for Sydney, a large proportion being for Eveleigh Loco., grew to such an extent that it became imperative to reduce the number of goods trains, particularly between Waterfall and Sydney. It was found quite practicable to obtain a grade of 1 in 80 rising from Georges River Bridge to Hurstville in lieu of the original 1 in 60 ruling grade. This work increased a single D-50 class goods load on the up journey between Como and Hurstville from 387 to 540 tons, and this, with the provision of a new assembly yard at Waterfall, made it possible to build up trains of 540 tons at Waterfall to be run through to Eveleigh Up Marshalling Yard, opened in 1902.

The section between Hurstville and Mortdale was regraded on the original centre line except for a slight diversion at Penshurst to permit of the new station being erected before the old one was closed. The old platform walls could be seen right up to the electrification. This work was carried out by the expedient of single line working on one line while the other was put out of use and raised or lowered, as the case may be. Two temporary signal-boxes were opened specially for this work, Hurstville South and Mortdale, to control the junction of double and single lines, remaining open from 4th, January, 1905 to 12th, April, 1905, at which latter date the new location was completed for both lines, being about 1 mile in length.

The Oatley Deviation proper left the original line at Hurstville Brick Siding Signal-box, which stood near the present site of Mortdale Signal-box, and using 20 chain curves to accompany the contours, rejoined the main line 1 mile 18 $\frac{1}{2}$ chains further south about $\frac{1}{2}$ mile above Georges River Bridge, a new station being provided at Oatley on a lower level than the original one. The whole work was opened for traffic on 7th, July, 1905. The construction entailed regrading of the original line near the bridge, and to enable this to be done, single line working was resorted to between old Oatley and Georges River Bridge, at which latter place a temporary signal-box was opened from 20th, March, 1905 to 7th, July, 1905. During the construction of the above works the level crossings at Penshurst and Oatley were replaced by overbridges leaving Mortdale level crossing to be closed as late as 1922 when, with the provision of a new island platform, a new road subway was constructed under the new station. To-day there are no level crossings on the Sydney side of Georges River, a distance of 13 miles. Oatley Deviation is the only example of a deviation of some length in the Sydney Metropolitan area. (Electrification



C.C.S.

Electrification

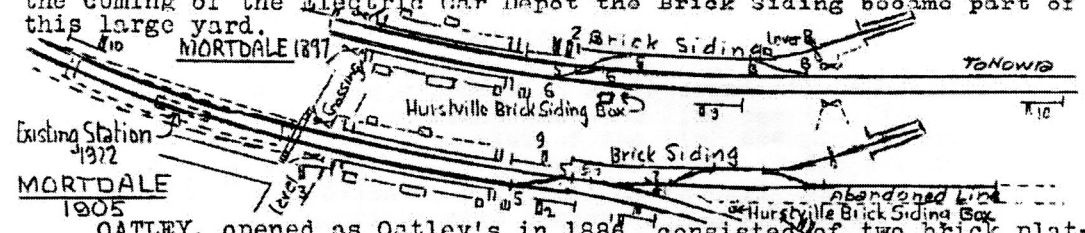
In connection with the Electrification of the Illawarra Suburban Line, a skeleton service of electric trains commenced to run between Hurstville and Sutherland on 16th, August, 1926 and this was built up until on 24th, October, 1926 a full electric service was installed, with a week end service to National Park. With the opening of the Cronulla line from Sutherland on 16th, December, 1939, the electric service was taken on from Sutherland to that new terminus.

Stations and Sidings

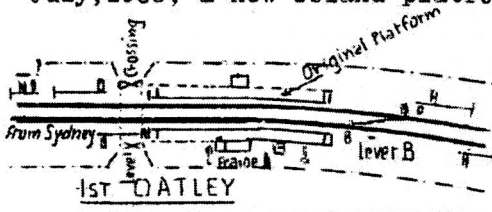
PENSHURST was opened as an unattended platform in 1886, two brick platforms being provided with the duplication of 1890. These latter were situated immediately on the Nowra side of Laycock Road level crossing, but were replaced on 4th, April, 1905 by the present island platform with timber building and the level crossing was replaced by the present overbridge, the arrangements being as shown on the sketch plan on page 52.

MORTDALE was opened as an unattended platform in March, 1897, two timber faced platforms being provided immediately on the Sydney side of Morts Road level crossing. It was replaced by a new island platform with brick building on 14th, September, 1922. The Electric Car Sheds were brought into use for the electrification in 1926.

HURSTVILLE BRICK SIDING, opened in 1886 for the Steam Brick and Investment Company, was situated immediately on the Nowra side of the first Mortdale station. With the duplication the dead end siding was altered to connect with a loop siding on the down side with trailing connections to down and up roads, altered, however, for the Oatley Deviation into a short spur facing off the down main, in 1905. With the coming of the Electric Car Depot the Brick Siding became part of this large yard.



OATLEY, opened as Oatley's in 1886, consisted of two brick platforms when duplicated with a level crossing at the Sydney end and a main crossover at the Nowra end. When the line was abandoned on 7th July, 1905, a new island platform was provided on the deviation on a lower level opposite the original site.



Facilities were provided for the first time here for terminating local trains, including an engine run-round siding and signalling for the departure of up trains from the down side platform. The Goods Siding was closed on 2nd, December, 1940.

COMO was opened with the line, and originally consisted of a single platform on the up side of the then single line. With the duplication from Oatley on 9th, March, 1890, the rails were gaugled across the bridge and separated again through the station, a new down platform being provided. In 1892 a crossover was provided at the Sydney end to permit of local trains being terminated, the engine run round and, if necessary, the train depart from the down platform for Sydney. Como soon became a favourite week end resort for fishermen and water lovers while regular excursions were run to Parkesvale pleasure grounds by the paddle steamer "Telephone".

JANNALI is quite a modern station having been opened on 7th, February, 1931 after the inception of electric trains, so the presence of a station on the Como Bank caused no trouble in the starting of trains.

COMO SIDING, situated between Como and Jannali was laid in on 8th, June, 1891 but for what purpose is not clear. It was subsequently removed, but crops up again as Como Goods Siding on 5th, September, 1919 off the down main line, and was closed to the public on 2nd, December, 1940, though the siding still remains for per way purposes.

The signal-boxes on Como Bank between Como and Sutherland are dealt with under separate heading.

(Sutherland)