

Track Planning Services

Progress on Construction of the Loop Line and Big Hill Cutting

Construction of a place to call home for my layout completed in April 2021. A plan of the rail lines in and around my new home was created. Layout construction commenced almost immediately on the main southern line from Maldon to Bundanoon, but particularly the Loop Line from Picton to Mittagong.

The Loop Line is the original single track line between Picton and Mittagong. From the 1860's the line operated as the main southern line to Goulburn then to Melbourne. There were changes and relocation of the line between Thirlmere and Mittagong up to 1909, to decrease the overpowering grades of the original construction.

A new double track line from Picton to Mittagong commenced operation to the east of the original line from 1919. Grades on the double track main were significantly less than the 3% (1 in 30) grades of the original line.

After opening of the double track main, the original line became a commuter line known as the "Loop Line". After cessation of regular traffic in the 1970's the Loop Line became a tourist railway, operating from the rail

transport museum at Thirlmere.

At about 700m, Hill Top was the highest point on the early line. Almost all trains travelling in both directions from either Picton or Mittagong required assistance up the grade to the high point at Hill Top.

The Loop Line was constructed through rugged country of many gorges, creeks and sharply rising hills. There are significant embankments and cuttings along the line between Thirlmere and Colo Vale. About 5km north of Hill Top is one of the deepest rail cuttings in Australia. The cutting of 23.4m was made instead of constructing a tunnel. One belief for the reason of the cutting over boring a tunnel was the need for rubble and land fill to construct and stabilise the many embankments across the deep gorges of the district. The original name given to the cutting was "Big Hill".

The cutting and a featured embankment have now been completed on the layout. The queen post bridge spanning the cutting was scratch built from the original plans of 1868.

Graeme BARNES



Big Hill cutting ca 1870 about 5km north of Hill Top station in the Southern Highlands.

The original timber queen post bridge survived for about 100 years. The bridge is part of Wilson Drive, on the bypass to the west of the Old Hume Highway between Picton and Mittagong.

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The timber bridge over the cutting looking north from Hill Top. This pic is taken from a similar position to the prototype pic above

The landscaping represents the steep and rugged nature of the region. Trees are conifers and gymnosperm types, typical of more European species because of elevation and cool/cold climate. Trees in and around the cutting were destroyed in the bushfires of 2019/2020.



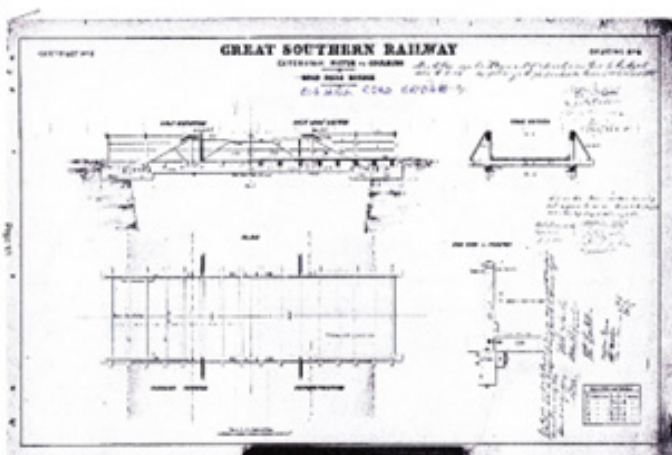
Deep in the cutting on the Loop Line. The rock walls are almost vertical for the length of the cutting.

The bridge in this pic is the replacement double lane concrete bridge.

Recently the NSW government announced a \$multimillion injection of funds to continue the tourist railway from Thirlmere to Colo Vale.

At present, the tourist train operates between Thirlmere and Buxton.

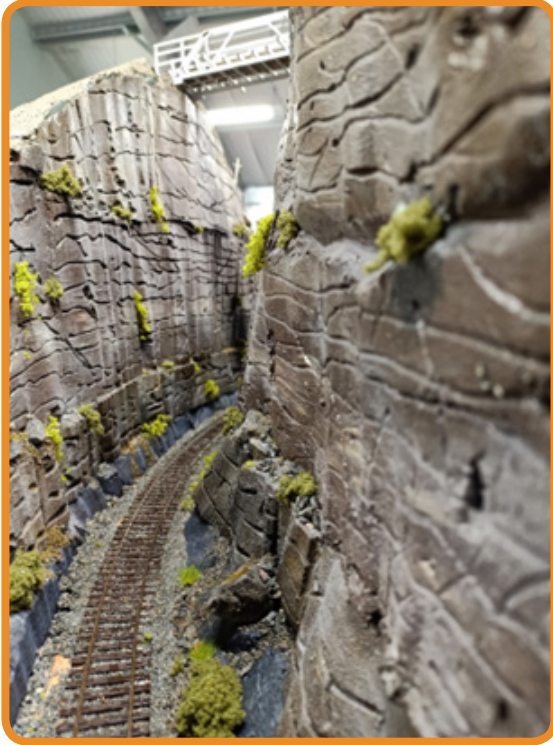
Laying of new rail has commenced at Buxton. Newly laid rail will eventually pass through Balmoral, Hill Top and terminate at Colo Vale.



Original plans for the bridge over Big Hill cutting. The original description on the plans read:

**Great Southern Railway
extension Picton to Goulburn
Colo Road Bridge
Contract No 8
Drawing no 6**

Names of towns, roads and locations in the region have changed many times since the line was proposed in the 1860's.



The deep rail cutting about 15km south from Thirlmere. This part of the layout is in the same area as Pic #3 looking south towards Hill Top.

Ballasting of track in the cutting was the final part of landscaping



The queen post bridge on the bench. The bridge is scratch built using the original plans from 1868. Timbers in the bridge are true to original dimensions. The largest timbers in the bridge were 12" x 14". The bearers were 12" x 12".



The queen post bridge spanning the cutting. The bridge is part of Wilson Drive, stretching from Thirlmere to Colo Vale. Wilson was an early explorer of the area.

The original station at Colo Vale is preserved and functional as a destination for the extended tourist rail.



The area around the northern parts of the Southern Highlands were once covered by orchards.

The area in front of the packing shed, towards Big Hill cutting is an orange orchard. Lemons are growing across the tracks from the packing shed.



The deep cutting on the Loop Line in the Southern Highlands. Spanning the cutting is the original queen post bridge from the 1870's. In the foreground a typical rock embankment on the line.

These embankments appear as basalt boulders probably from rubble created along the line. Rubble transported by horse drawn drays on the preliminary rail bed, was tipped over embankments to provide stability.

The embankments are fully visible after fires, but are usually covered with small trees and shrubs growing between the rocks.