



## Overview

The loco cum maintenance depot is an integral part of the tramway system to cater for the daily running and maintenance of the fleet. The depot is generally situated close to the mill; sheds can be terminal or run-through, or a combination of both, depending on the mill layout and operations. Moreton Mill, for example, has two terminal loco roads with a third continuous track for bin maintenance (title image).

Larger sheds are equipped to carry out major repair work and overhauls as well as routine servicing. Typical facilities include inspection pits, an overhead gantry and large maintenance machinery. Workbenches and smaller items of machinery, welding gear and metal working equipment will be found in or adjacent to any shed. Bin and miscellaneous wagon repairs may be carried out adjacent to the loco facility or in a separate area. There could also be provision to serve the mill's road vehicles, saving duplication of workshop facilities.

Apart from the central facility, out-depots could be found at locations remote from the mill. Such installations played a particularly important role in the days of steam, when locos working some distance from the mill required watering and fueling facilities, and maybe overnight stabling. Currently, with the greater endurance of internal combustion traction, the importance of these remote facilities has declined. For modelling purposes however, smaller sheds independent of the mill complex may provide the most appropriate subject.

Historically a loco shed would have been a comparatively basic structure, maybe of 'timber and tin' construction with a packed earth floor. Over time the plethora of small local sugar enterprises were replaced by fewer and larger, more efficient, central mills. This led to extensions of the tramway systems and upgrading of locomotives and rolling stock. Substantial timber or steel sheds with concrete floors and suitable pits became an integral feature of the mill complex.

Adaptation and improvisation were always features of the narrow gauge tradition. Maintenance buildings would inevitably undergo modifications to accommodate changing mill requirements, and engineering and functional needs took precedence over architectural aesthetics. Records of additions and alterations, however, are difficult to trace (if they

exist at all) and representation of structures relies almost totally on photographs, contemporary written material, and/or personal observation.

The material in this series, therefore, is based on photographs and the enthusiast's lore rather than on construction drawings or on-site measurement. References to materials and building techniques follow conventional practice and not established data. Accurate data would require a comprehensive research study based around a particular mill.

## Construction

Many older sheds would have consisted of a basic structure featuring 'in-the-round' timber posts with complementary rough sawn wall frames, roofed over with a simple rafter and tie-beam system in small sheds, or timber trusses over larger spans. Earth floors were not unknown, and corrugated iron was arguably the material most utilised for roof and walls.

Later and more sophisticated structures would have been of sawn timber construction, sometimes complemented by a roof system of light steel trusses. Steel columns were probably used when the budget permitted. Concrete floors were provided, at least in the vicinity of the loco servicing areas.

The invention of asbestos-cement provided a useful alternative to corrugated iron, one advantage being its resistance to the corrosive atmosphere that existed around steam sheds in humid tropical and sub-tropical environments. With the development of steel portal frames, roofs spanning three or more tracks could be economically provided.

Most of the character of these sheds was generated by the surrounding infrastructure. Around steam sheds watering facilities (tanks and columns), a coaling stage and sand bins would be a prerequisite. As diesels entered the scene elevated oil tanks, supported on a variety of stands, were in evidence. Fuel delivery could be carried out via commercial bowsers standing in the yard or located inside the shed. Some steam locos, such as those at Macknade Mill, were oil fired, and this was supplied from a separate tank (painted black).

## The Models

None of the models in this series pretends to be an exact representation of the prototype. Lack of detailed information (and lack of time for compre-

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hensive research) has resulted in drawings and models that are based on dimensions derived (guesstimated) from photographs and discussions with enthusiasts who have a more intimate knowledge of cane tramway workings than I have.

Loading gauge is one issue to be considered. The openings for some sheds designed during the steam era were too low for their diesel successors, and surgery was required to allow entry. My experience suggests that an absolute minimum clearance scale height should be 12' 0". Some models will require more and an extra scale foot or so will make modelling operations less stressful.

The cane loco sheds that are the focus of this series are all fairly simple structures that can be readily assembled by the average scratch-builder. What gives them their particular character is the detailing of the site, both inside and outside the building. It is essential to add those extra details to the model, irrespective of size and location, to achieve the maximum visual impact.

The models shown were all built 1:87 scale with 9 mm track. Even if your modelling preferences have not narrowed down to Queensland's cane tramways or HO the approaches and techniques discussed will hopefully be of interest.

For gluing I prefer PVA (white woodworking glue) for wood, including balsa, and acrylic contact (eg Selleys) or five minute epoxy for joining dissimilar materials (wood metal and plastics). The various craft glues are fine provided they are tested on scrap materials before commitment to the actual model. Superglue is okay, but it needs to be treated with due caution considering its great affinity for human skin!

[Editor's note: Superglue also needs to be painted over as uncovered joints (ie exposed to the air) have a reputation for coming unstuck over time.]

### Cattle Creek Loco Shed

The mill shed at Cattle Creek (next page) and the out-depot west of Koumala (*Modelling Loco Depots 3: The Out-Depot*) present typical images of the 'timber and tin' tradition, exemplifying the pioneering ethos of earlier structures. Bush carpentry skills are evident in both, using substantial but unsophisticated raw materials.

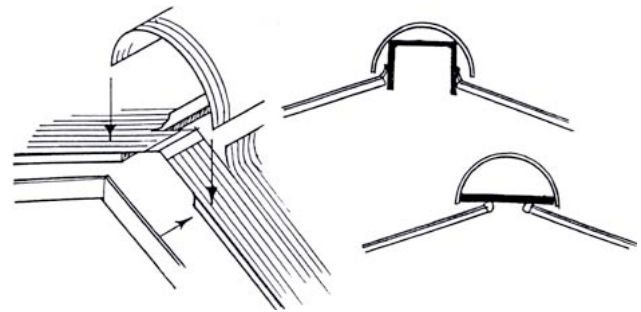
The single track Cattle Creek shed was capable of holding three locomotives under its roof, which would have made it at least 50' 0" (15.2 m) long. The main poles were of squared timber, and the photograph shows very visible roof framing.

The model was assembled as simply as possible on a plywood base with no pit facility. Large matchsticks (Redhead extra long) provided the main supports. These are about 1/8" (3.2 mm) square and their rough finish is in sympathy with the prototype structure in HO. Similar matches were used to support the skillion extension.

The open nature of this shed makes the roof structure very evident, so instead of cheating with solid triangles the trusses were fabricated using scale 6" x 6" and 4" x 4" stripwood. A simple jig guaranteed that the trusses are all the same profile. Glue the posts and trusses together, again using a simple jig, so that everything lines up properly when erected on the base.

The roof structure of the model used 1.6 mm balsa, although scale purlins (say 6" x 3") could be run across the trusses at about 10 mm centres for greater authenticity.

The curved vented ridge was a common feature of many sheds. To reproduce this it is useful to cut a trial shape from stiff paper before attempting the final component. The curve can be achieved by rolling the aluminium sheet around a piece of dowel or tube that is a little smaller in diameter than the final profile. Do this slowly and carefully to avoid kinks, because once the sheet is distorted it is difficult to retrieve the desired shape.



For weather protection the main roof is curved up under the ridge vent. Fixing the ridge in place calls for some ingenuity or improvisation. The sketches above are indicative only and the use of a gap filling adhesive, eg 5 minute epoxy, is recommended.

The 'transparency' of this model is an inducement to fill it with lots of spare materials, supplies, machinery and obsolete equipment (junk) to maintain or enhance its character.

### Acknowledgments

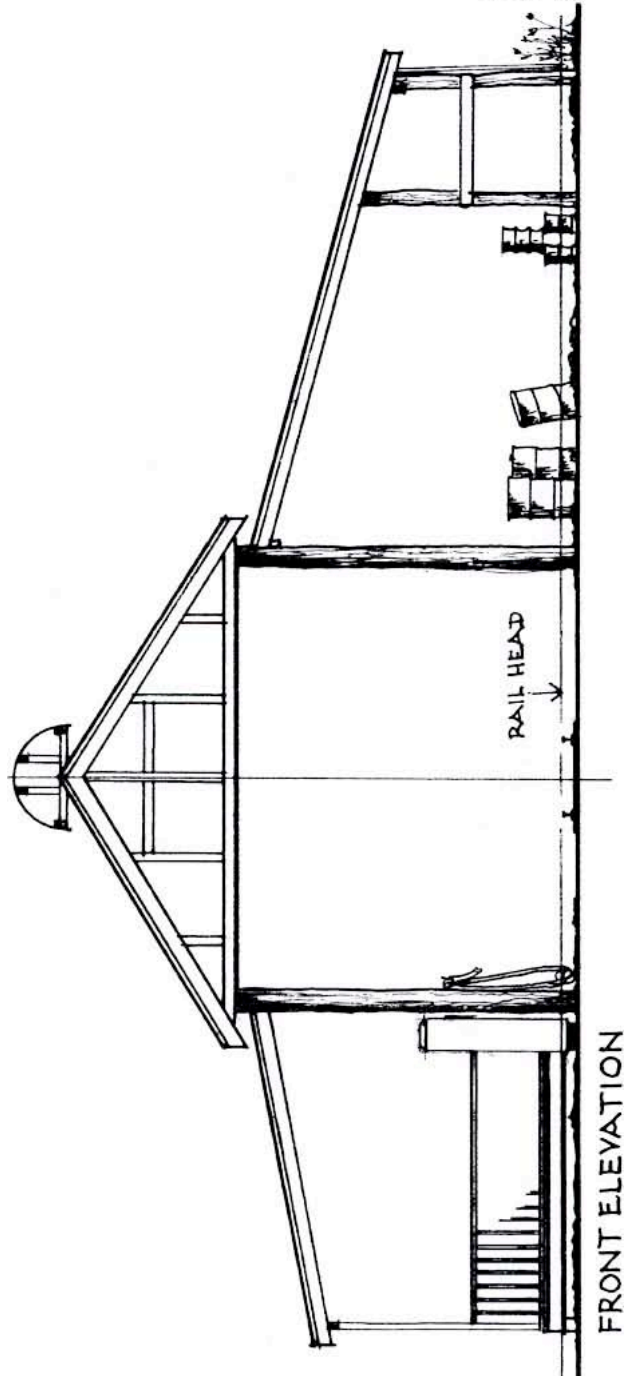
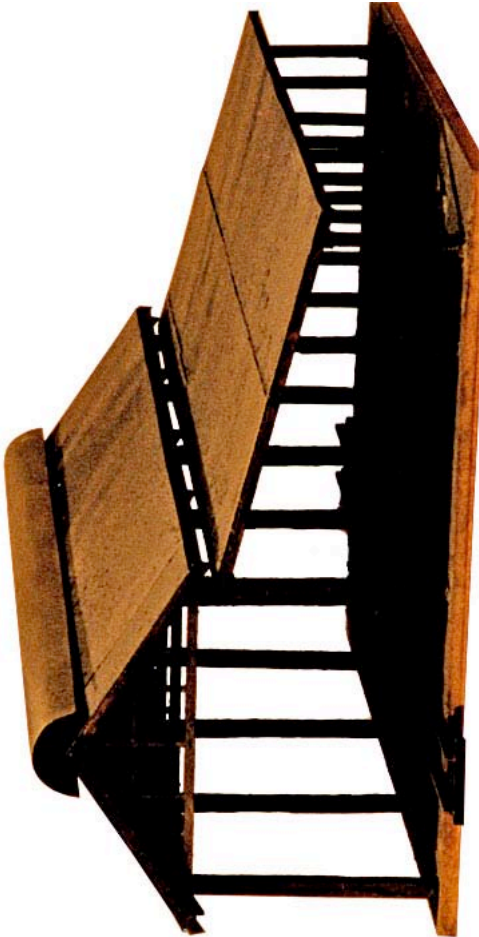
Without the generous assistance of Greg Stephenson and David Mewes, both of whom provided great photographs and personal information, this series and the presentations on which it is based would never have happened. I am also indebted to George Hadley, Cane Railway Supervisor at Moreton Mill, Nambour, for providing access to the mill's locomotive facilities.

These notes have been edited, with permission, by CaneSIG Coordinator Lynn Zelmer. The source is Jim Hutchinson's presentation notes for *Modelling the Railways of Queensland Convention 2000*. Future excerpts from Jim's Convention notes will feature additional loco depots, including Koumala's out-depot shed (*Modelling Loco Depots 3: The Out-Depot*).

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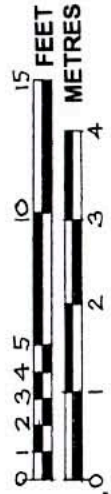


David Mewes



DRAWING AND MODEL BASED ON  
CATTLE CREEK LOCO SHED  
DATE: 1980s

SCALE - HO 1:87



FRONT ELEVATION

## CaneSIG: Modelling Loco Depots



Many sheds are open on one or more sides, affording views of the interior. These photos of Isis Mill (top) and Moreton mill (centre and bottom) give some indication of typical equipment and facilities. A bench with heavy tools, water and air hoses, oil drums, oxy-acetylene bottles and various cables, containers, etc., can be useful accessories to include in a model. Greg Stephenson photo1992 (top); Jim Hutchison photos1988 (centre and bottom).