

QUEENSLAND RAILWAY STATIONS

Introduction by Don Warn



As Jim is showing you what went where on the outside of Q.R. station buildings I hope to give you an idea of what was inside its purpose. Q.R. stations were classified to grades from gate accounts to special C. The lowest station grading was 5th class then 4th, 3rd, 2nd, 1st, special A, B, and C.

The classifications were decided by tonnages sent and received and revenue from all other sources such as passengers, etc. Another consideration was whether the station was a Loco depot and how many crews were based there. Gates were stations with limited accounting procedures and were usually manned by a Station Mistress or Porter in charge, in some cases during special seasonal traffic a Station Master would be in charge.

Station buildings often had no bearing on the amount of work that was conducted in them. I have worked at some stations that were pretty basic but you were very busy and others that were the opposite. At the higher graded stations the S.M. or C.S.M. had an office to themselves. Mostly there was a table or desk for the S.M. and the A.S.Ms, also the Porters. All stations had a safe which was bolted to the floor and wall and if passenger numbers warranted it a ticket cabinet and date press was provided. Parcel scales, circuit and control phones and up to the late sixties a Morse code instrument [what fun]. Secure cupboards had to be provided for ticket stocks, COD parcels and station stores [forms by the 100s]. Depending on the train safe working system used a two way cupboard was provided usually on the front wall for staff and ticket boxes - this allowed access to the staff boxes when the station was unattended. Depending where the signal cabin or frame was situated the electric staff instruments were sometimes in the office which was convenient for hearing the bells. On double track lines where the Tyer block instruments were used these were in the cabin above the signal frame with repeating bells in the office. At some stations the goods shed was worked by an A.S.M. or porter or if you were lucky a goods clerk.

In the sixties some stations had lino on the floors, others just the bare boards so in the winter it was very cold and even a red hot stove was flat out warming the space. There were no screen doors so imagine working at Rodds Bay or Toolooa with sand flies and mossies so bad the staff used to burn drums of manure to keep them away. A lot of stations had stable doors and these were ok if the gap between the halves was not too large so that it let in the cold winds. Signal frames were another source of cold winds. Stanthorpe was the only station I worked at that had an open fire place. The local ganger used to keep us provided with old sleepers for fuel. Generally the ladies toilets were in the main building but the gents was way out the back or down the other end of the platform. Another feature building was the lamp room which at a lot of stations was attached to the gents toilet so that at least you did not have far to carry the phenyle to clean the ECs.

I hope I have given you some ideas of what uses were made of QR stations and as stated earlier even similar buildings on the outside could be different on the inside.

Happy modelling.

2

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STATION DESIGN - Jim Hutchinson

By the 1930's, some seven decades after the opening of the first line between Ipswich and Grandchester, Queensland Railways had become responsible for over seven thousand miles of track. Of the numerous stations located throughout the system most were constructed to one of the many 'standard' designs then available, the exceptions generally being passenger facilities provided to serve some larger urban areas.

As with other structures the original fabric was often altered to accommodate the physical and operational needs of a particular location. These changes may have been as simple as the conversion of a door or window through to major structural additions. If one is modelling a specific station it is advisable to study photographs of the building(s) to identify any such variations. Also some buildings were re-sited as the need arose, sometimes being moved on to two or three different locations during their lifespan.

Each station building had its own characteristics, often determined by its geographical location, proximity and accessibility to the local town or village, and its position within the yard layout. Over the years very few station buildings would have remained unaltered in some way or other.

FLOOR PLAN

Generally the plan layout of a station building was straightforward. Basic waiting sheds excluded, the simplest operational station comprised an office and waiting area. A more upmarket version also included a separate Ladies Room complete with EC or (later) WC. Gentlemen's needs were typically catered for in a separate shed, remote from the main building and often incorporated as part of the Lamp Room.

Larger stations may have included a separate store-room (or rooms) and other ancillary spaces. Signal cabins and refreshment rooms may also have been found at the more important installations, either as an extension of the main structure or erected as separate buildings.

CONSTRUCTION

The majority of 'standard' stations were constructed of *timber*, a material that was easily accessible in many areas and easy to transport to places that were less well endowed. Timber floors and weatherboard or chamfer-board walls were the norm, with other features, structural and/or decorative, also derived from local hardwoods.

An alternative system using modular *pre-cast concrete* elements was adopted for a number of locations around the state, based on a 4'0" (1220mm) module for both floor and walls. It required a greater number of underfloor 'stumps' and the whole structure would have been considerably heavier than an equivalent sized timber structure. Advantages would have been resistance to termite attack and possibly speed of erection (although the latter is conjecture). Another advantage lies in the fact that the wall and floor elements embodied both 'structure' and 'finish' in the one unit and would therefore have required fewer trades to produce a completed building.

ROOF SHAPES

Leaving aside those stations that were provided with a vaulted canopy covering the tracks (and which are beyond the scope of this paper) arguably the most distinctive feature of a station is its roof and awning. Skillion, gable and hip-roofs, and their variations, have all been employed at some stage, with awnings that were either an extension of the main roof or an appendage requiring separate support. Some of these differences can be seen in the following pages.

PLATFORMS

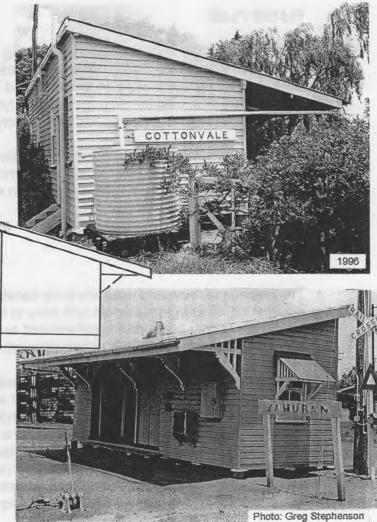
Trackside platforms were provided at the more important stations, standard heights above rail being 12" (305 mm) and 2'3" (686 mm) above top of rail. Some stations (eg. Esk) had a short section of platform elevated higher to facilitate the unloading and loading of goods, while many had virtually no platform at all.

TYPICAL EXAMPLES

The simplest station structure comprised a forward-sloping skillion roof that was extended to form the platform awning. Cottonvale station is a typical example of this type of building. Note the tank, which was a feature of probably every station that existed away from a town supply, and which is an important 'accessory' for any model of a QR station.

Wamuran Station, on the former Kilcoy branch, was another example designed with this type of roof. The awning supports were one of several different designs, as seen in later photos.

Window hoods on the end (and rear) walls were also a feature of many stations. They too were available in a range of styles, some being framed with timber, as seen here, and some fashioned from flat galvanised iron.



For stations with a reversed skillion (fall towards the back wall) the platform awning was either contiguous with the main roof, with a ridge formed above the front wall (thus forming pseudo-gable ends), or it was a separate structure starting below the skillion's top fascia. These variations are shown in the photos below.

The awning at Bowenville station (left) was supported by a system of simple plain timber brackets. Goomeri's awning (centre left) incorporated scalloped angle-braces with a spandrel infill of vertical jointed boarding at each end, and the awning at Malu (below) was a fully cantilevered extension of the main roof with no brackets at all.



UOTER

Examples of stations with separate lower awning structures included Lowood (left) and Applethorpe and Ballandean (next page). Of note are the different types of bracket support for each building.

*Note: 'Front Wall' refers to the trackside or platform elevation.



One of the more common station types incorporated a conventional gable roof that was extended on one or both sides to form the platform awning, depending on whether the station was situated on a single or an island platform.

Toogoolawah station, which was still in place early in 2004 (albeit without a railway line attached) was typical of many station buildings throughout the state. For the modeller details like the tank, waiting area, seat, hoses and wallmounted cabinets are worthy of note. The SM's house in the distance is also a feature that can well be incorporated into a layout.

Imbil, not quite the terminus of the Mary Valley branch (but certainly the current limit of the Mary Valley Rattler) is a smaller and slightly more ornate version of this style.

Linville, an important stopping place for trains en route to Yarraman on the Brisbane Valley branch, was one of the smaller examples of this type of building. Of modelling interest is the provision of scalloped roof brackets on both the front and rear of the building.

6

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Suburban Windsor is a typical island platform station with awnings extended symmetrically on each side. The building is one of the many throughout the state that were designed using pre-cast concrete components.

This system was based on a 4'0" (1220 mm) plan module for both floor slabs and wall units. The wall panels were 14" (356 mm) deep and were held in place by sliding into 6" (152 mm) square rebated uprights.



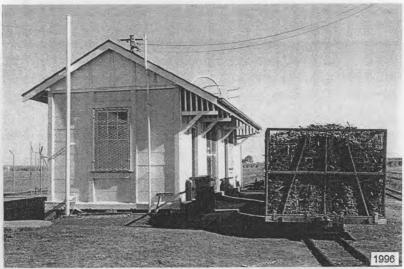
Specially modified units were designed to accommodate doors and windows, and conversely the dimensions of door and window modules were modified to fit within the constraints of the module. 'Concrete' stations could be found throughout the state, from Kuranda in the north to Kagaru (on the 'standard' interstate line) in the south and to various locations west.

For modellers the system is readily represented by scribing plain styrene sheet to represent the horizontal joints and overlaying 6" scale strip vertically to represent the uprights.

Wallaville station (right) was one of many small country stations constructed utilising the concrete system. When the QR branch closed in the mid 1960's the line was sold to Gin Gin Central sugar mill and the track was converted to 610 mm. The station building was retained, albeit with a truncated awning!

Where the span of the awning was too wide to be supported solely by wall brackets, supporting posts were erected from platform level.

At Nobby (right) between Toowoomba and Warwick, the square timber posts were simple and plain, but a few kilometres further south at Clifton (next page) decorative capitals and brackets were additional features.







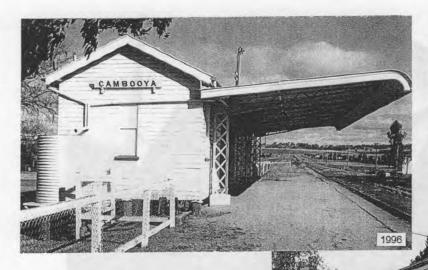
The awning posts and timber brackets at Clifton (above and right) were somewhat different to those at most other stations, suggesting that it may not have been based on a 'standard' design, at least as far as the architectural detailing is concerned



Stanthorpe is another example of a station that was provided with posts and curved brackets that were more elegant than those generally found. Possibly this level of embellishment reflected its anticipated importance for the community at the time of its opening in 1881.

Modelling stations such as Stanthorpe requires a lot more time and patience than producing the simpler standard models. If one were to consider such a project, however, the infrastructure associated with the station (yard layout, goods shed, produce sheds and sidings, etc.) could provide the basis for an interesting layout.

1006



Cambooya station (also on the Southern line) boasts a generously wide awning that does not require intermediate supports, as seen in the photo to the left. It relies on substantial cantilevered trusses anchored just in front of the building to provide a clear platform area.

Yet another roof profile can be seen at Landsborough (right) – a simple gable roof with a separate lower platform awning. Photographic evidence (of other station buildings) suggests that this arrangement was possibly less common than other designs.

There was, however, another awning shape that could be found in conjunction with various station building forms, and was used throughout the state from North Queensland down to the former South Coast branch. This was the vaulted roof, and it remains a feature of several existing stations – the closest to today's venue would be the canopy over Platform 1 at South Brisbane.

2001

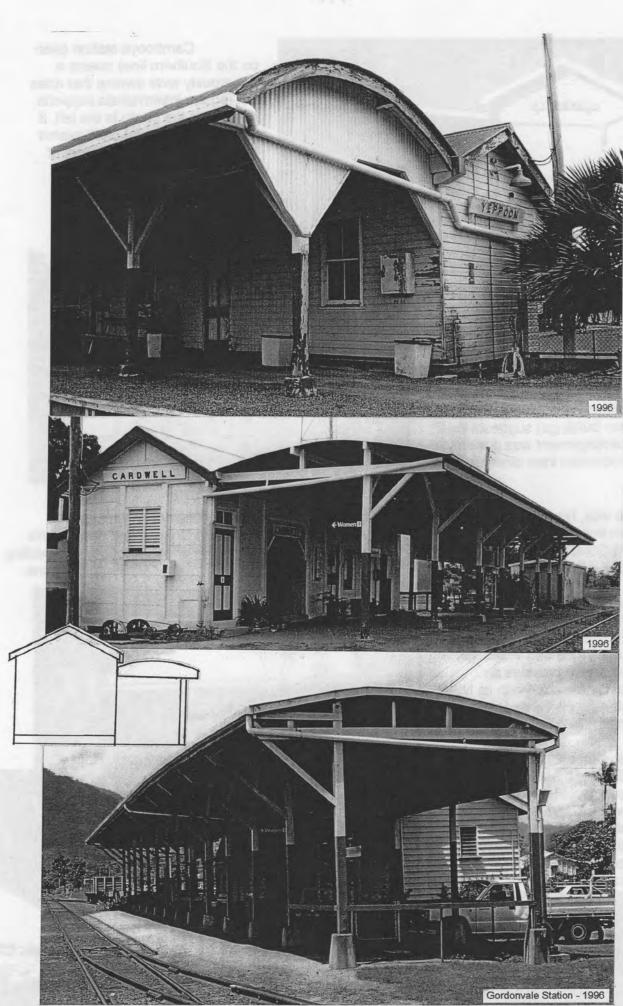
Away from the capital arguably the best known examples would be at Emerald (listed by the National Trust) and Wallangarra, whose profile provides an interesting contrast with its NSW counterpart on the opposite platform.

Replication of the cast iron detailing for these stations, however would be too daunting for most modellers, but there are other locations where the structure is less sophisticated and could be more easily replicated in miniature.



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The three stations shown on the previous page illustrate how variation of construction and materials can give a station its own identity.

Yeppoon (top photo) is readily identified by the corrugated iron sheeting applied at each end, covering the awning spandrel and knee bracing. The curvature of the awning is also greater than that usually seen on other similar stations.

Cardwell (centre) is a standard concrete building with a generous awning, provided doubtless to give some additional protection from the copious amount of summer rain experienced in the tropical north. The absence of any covering at the ends provides the modeller with a good insight into its construction, which should then be able to be readily interpreted for modelling purposes.

Gordonvale (bottom photo) could probably be best described as a trackside awning with a station attached. Just visible at the far end of the building are some cane bins, a reminder that this is indeed well into the sugar-cane country of North Queensland.

Protection from sun and rain was usually an important consideration in station design. One series of stations (of various plan sizes) was designed with a gabled-hip roof with generous eaves overhangs all around. The trackside overhang served as a platform canopy, and was usually supported off the wall by brackets, while the ends and rear overhang were provided with 4"x4" timber posts.

These large roof extensions provided a convenient shady place for the tank, or tanks, to keep the water cooler. Unofficially they could also provide a useful car parking area for the station's staff.

A louvred ceiling vent was built into the gables, which were an extension of the end walls.

Glenmorgan (right) is an example of a 34'x12' station, (with a room added later under the eaves at one end).

A drawing of this station type is included at the end of this paper.



The most ornate of the standard buildings was the 44'-0" x 16'-0" 'Pagoda Roof' station, identified by its hipped-gable roof (also known as a Kentish gable) and dominant roof ventilator. According to original drawings the design incorporated a double platform awning, but photos of known locations indicate that an awning was provided on one (the platform) side only. Stations built to this design included Cooyar, Dirranbandi, Home Hill, Kilcoy, Meandarra and Yarraman. The Kilcoy and Cooyar buildings were removed after the closure of their respective branches.

Yarraman (top right) remained in situ for a few years after the demise of the Brisbane Valley line, and fortunately it has now been relocated and restored at the Yarraman Historic Museum. This building is a good example of the original design, the main alteration being the enclosure of the waiting area during its last few years of operation.

Dirranbandi (upper centre right) similarly had no waiting area. It also lacked the decorative detailing in the gable end, and no louvres are evident in the ridge vent structure.

Meandarra (lower centre right) still retained its open waiting area in 1996, but there was no sign of the ridge vent tower.

The original structure of Home Hill station (bottom right) is almost unrecognisable behind the platform awning.

Elements of the 'Pagoda' style were occasionally incorporated into a nonstandard building. Visitors toSandgate, for instance, will find an adaptation of the hipped-gable at each end of the main building (No 1 platform) although the whole structure appears to be a 'one-off' design.





Dirranbandi station - 1996





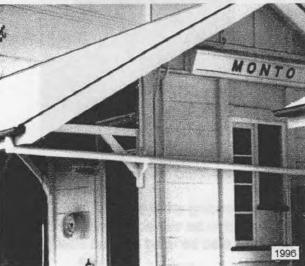
DETAILS

Apart from roof forms, the distinguishing features of station designs comprised details of elements such as supporting brackets, gable infill patterns, waiting area joinery and window hoods. On some of the more prestigious buildings ornamental (lacework) cast iron was used, but for the majority of stations timber was the traditional medium.

Brackets: The simplest platform awning and eaves brackets were fabricated from plain timber sections. Sometimes the angled brackets were embellished with a scalloped pattern on the underside (a number of different profiles were devised over time, possibly as a bit of architectural whimsy!). Another popular shape was the curved bracket. A few typical examples are illustrated below.

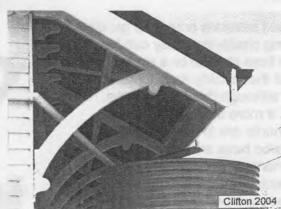
For the modeller the plain member assembly should be the most straightforward to reproduce. Component sizes were typically 3", 4" and 5" x 2" (or 3") – scantling sizes. Occasionally different configurations could be found on the same building (as seen in the end elevation of Biggenden below).

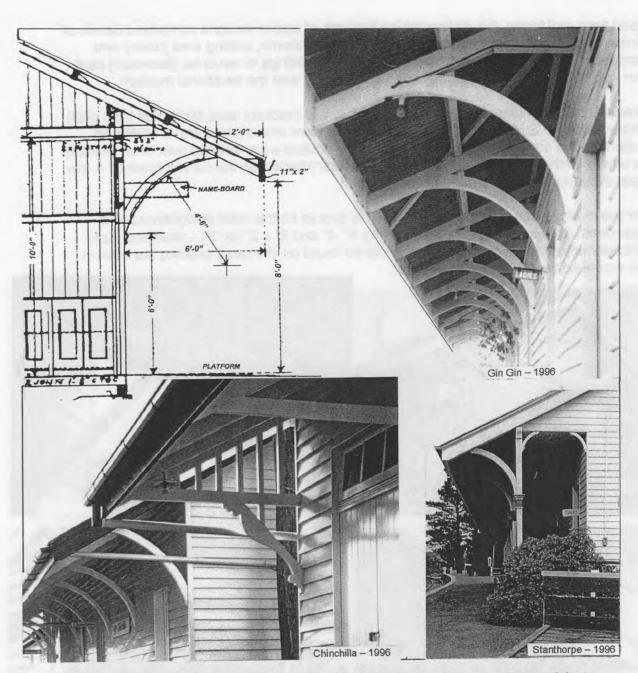




Curved brackets were a characteristic feature of many station roofs. They were generally fashioned from timber planks between 2" and 3" thick, although occasionally small iron sections (angles) were used in lieu. They were sometimes used additionally as eaves supports on the roadside wall (photo right).







It would not be unusual to find a mixture of bracket types on adjacent buildings (photo lower left), on buildings on opposite platforms, or occasionally even on the same building!

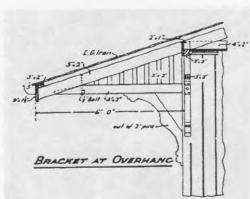
For modelling purposes curved supports can be formed by bending small square brass sections around a former of suitable radius. If the model is not to be subjected to close scrutiny, particularly in the smaller scales, ordinary wire may also be used to good effect.

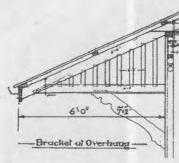
Scalloped brackets present a greater modelling challenge. They can be shaped from styrene or a similar material that is fairly easy to cut to shape, although this can become tedious if more than just a few components are to be prepared. Those who have skills in casting components in resin, or alternatively in producing brass etchings, may find that these are better alternatives.



14

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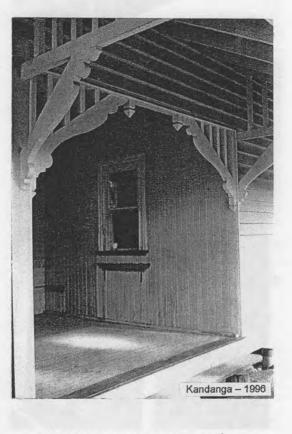
Roondiwindi - 1996

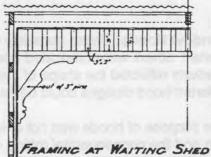
Subtle differences in bracket detailing can be seen in the illustrations above.

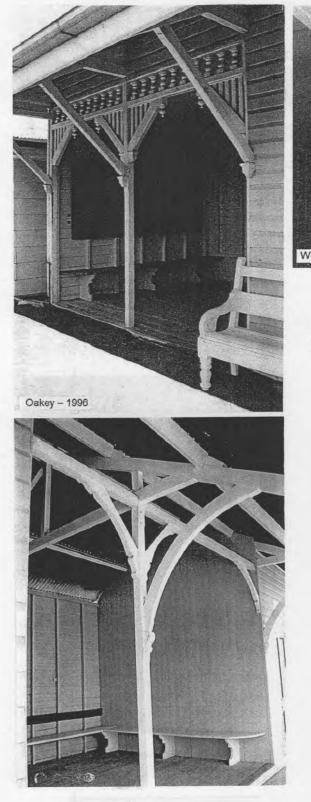
Arches: The waiting room and similar 'public' areas were sometimes finished with overhead joinery that defined and visually enhanced those spaces. The simplest form comprised two brackets that were fixed between the posts and the ceiling support timbers (photo right). The brackets in this case were similar (but not identical) to those used under the platform awning, while at Toogoolawah (below) the arch was formed from curved members matching those of the awning.

The term 'arch' when used in this sense refers to the position of the feature rather than its shape. Many 'arches' were rectangular in outline, similar to those typically found in traditional house interiors.



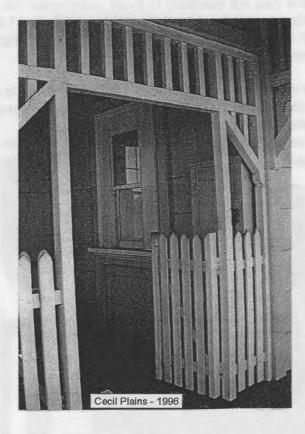






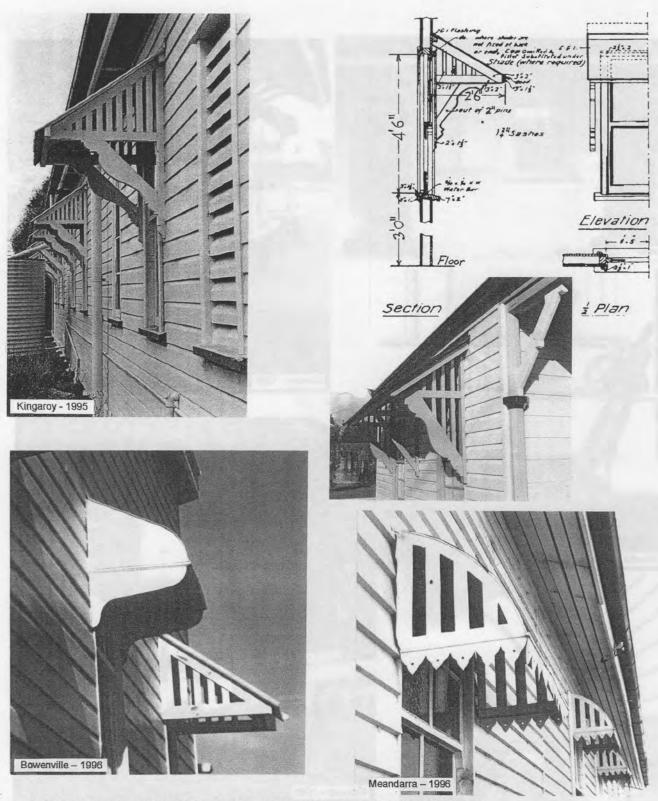


A mixture of bracket shapes for awnings and arches on the same building was not uncommon.



Window Hoods: These generally were similar to those found on houses; some were timber framed, others were fabricated from sheet-metal (galvanized iron). Often the hood support brackets reflected the shape of the platform awning or waiting area arch brackets. Sometimes different hood designs could be found side by side on the same wall.

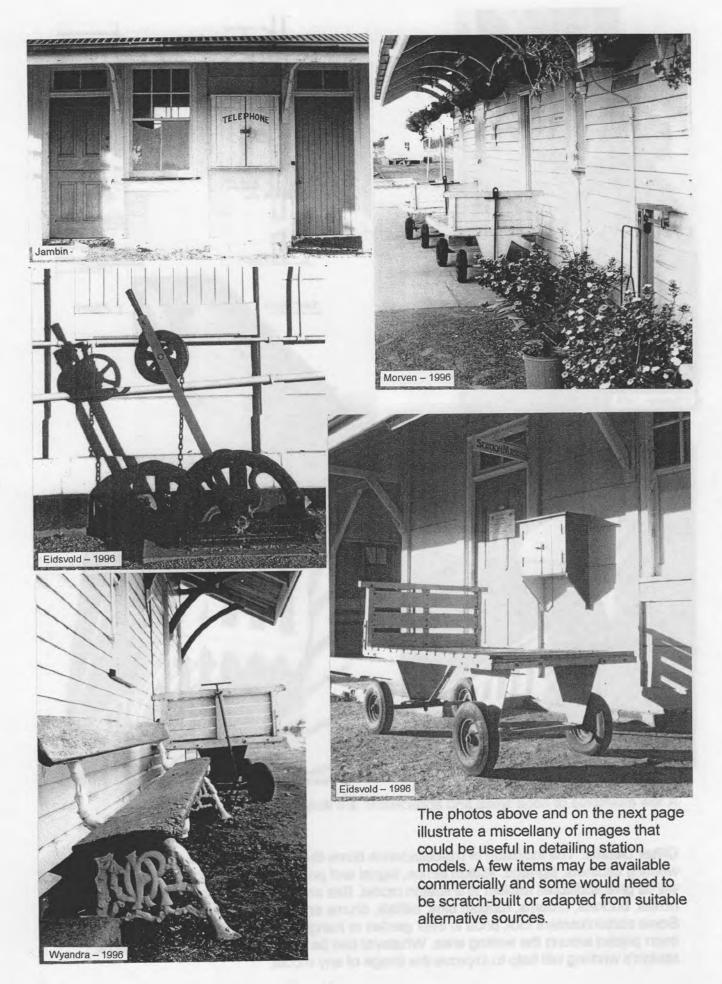
The purpose of hoods was not only to provide sun-shading but also to afford protection from rain and the consequential rotting of window frames, sills and sashes; they could therefore be found on walls facing any aspect.



A few examples of hood types and applications are illustrated above.

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Other Details: The inclusion of miscellaneous items like wall-mounted telephone and safeworking cabinets, signage, station lamps, signal and points levers, fencing, seats, trolleys, etc. will all give additional realism to a station model. Bits and pieces left lying around, such as hoses, buckets, brooms, rubbish bins, pallets, drums and other paraphernalia add interest. Some stationmasters took pride in their garden or hanging baskets. Wall posters may have been placed around the waiting area. Whatever can be found (or made) that reflected a station's working will help to improve the image of any model.



18



MODELLING TECHNIQUES: Being fairly simple structures, modelling a standard QR station requires no special modelling skills. Styrene, strip-wood, balsa and card should all produce acceptable results, using normal modelling techniques.

Walls: Prototype weatherboards were typically spaced about 5½" apart, although this could vary according to the location and the builder. In HO, clapboard profile 0.060" (1/16") spacing styrene or strip-wood) is fairly close (a little undersize). For S scalers 0.080" spacing is the closest, and in O scale 0.125" would be the way to go! For chamfer-boards scribed sheets of the same spacing will suit.

Pre-cast concrete construction is easily simulated with flat sheets scribed horizontally to represent the slab joints, with 6" (150 mm) strips to represent the vertical members.

Roof Sheeting: Corrugated iron was the most commonly used roof covering, with corrugations at 3" centres. In HO there is a variety of sources in styrene. aluminium and wood profiles. For the S scale modeller Evergreen 0.050" metal siding or AMRI AA620 corrugated sheet is acceptable, as well as BGB corrugated sheet, which although being promoted as HO, seems to

be spot on for 1/64 scale. O-scalers will find 0.060" styrene the closest material, although there may be alternatives in the AMRI architectural range.

Windows & Doors: It is not easy to find off-the-shelf components that represent the sizes and patterns of QR joinery items. A few Grandt Line and Campbell's styrene components may be suitably adapted, but much of the range of these items seems to have been in short supply over the last couple of years. The modeller seeking an accurate representation of the prototype will most likely need to scratch build the necessary items. For S scale it is worth trying local suppliers such as Southern Cross Narrow Gauge Models (07 3264 6968) to see if there is stock that suits your needs.

NOBBY STATION - an example of the modelling process.

Nobby station was a simple building with no elaborate details or finishes, and modelling it (HO scale) was a reasonably straightforward exercise. The modelling sequences described here could be applied to most railway buildings, although those with more elaborate detailing (eg awning brackets, etc.) would require some additional work – and patience!

Although styrene is my preferred medium for modelling buildings, the discovery of a couple of scribed basswood sheets ('North-eastern' clapboard – 1/16" profile) prompted an urge to try this material for a change (isn't it wonderful to plough through a box of accumulated 'stuff' and find long forgotten treasures from the distant past). The wall material equates to about 5.5" weatherboard in HO.

The resulting model ended up as a potpourri of wood, styrene and aluminium - read on.

Step 1: Cut out the four walls, making allowance for the corners to be partly mitred and joined as shown in Detail 1.

2

Step 2: Cut the window, door and waiting area openings. For basswood this requires a very sharp knife and several passes along each cut to ensure a clean edge – the styrene technique of score and snap doesn't apply!

Step 3: Assemble the sides and ends.

Step 4: Cut the floor from 3.2 mm ply (or balsa, etc.) so that fits neatly inside the walls, and glue into place.

Step 5: Fabricate the waiting area side walls (with ticket window, doors, etc) and glue into position. Because I had some to hand, I used scribed styrene

(Evergreen #4037) to represent the vertical T & G boards, but any sheet scribed at 3" to 4" spacing is suitable.

Step 6: Cut a piece of weatherboard sheet to fit along the back wall of the waiting area between the side walls. *Invert* it and glue it inside the waiting area. This represents the inside (exposed) profile of the weatherboards (Detail 2). Glue 3"x2" studs to this inner wall at 18"centres.

Step 7: Paint the floor and walls inside and out.

Step 8: Fix the doors and windows into their respective openings. For the windows I used Campbell's No 905. The sash pattern is not prototypical but the overall dimensions are reasonably close. Doors were cut from the same scribed material as used for the waiting area walls and painted before installation. All styrene parts were fixed with acrylic contact (eg. Simply Glues Rapi-bond).

Step 9: Position the shell over the ground base (I used 1.6 mm ply, but any suitable sheet material could be employed) and trace an outline of the floor on to this. Then mark out the positions of the stumps on the base. Drill right through each position with a drill bit the same diameter as the stumps(refer to Detail 2). It is prudent to paint the base some sort of 'ground' colour at this stage.

Step 10: Cut the stumps to length, using dowel or bamboo skewers about 3 mm in diameter.

Step 11: Insert and glue the four corner stumps into the base, making sure that the tops are level with each other. Glue on stump

caps cut from thin card with a 4 mm leather punch.

Step 12: Position and glue the building shell on these stumps.

Step 13: Push the remaining stumps up from under the base. Add stump caps to the external stumps as their tops emerge above the base. Put a spot of glue on top of each cap as well as a smear at the bottom of the stump where it protrudes below the base and then push each one up to the underside of the building. Don't worry about stump caps for the internal stumps as their tops are not visible. This all sounds a bit complex but in fact it makes the exercise easier because you don't have the bother of cutting each stump exactly to the same length. Long ends can be trimmed off later, and short ones don't fully penetrate the hole.

Step 14: Add additional detail such as seating, signage, etc. to the station's interior, as well as completing any unfinished painting.

Step 15: Cut the main sub-roof from 2.4 mm balsa and glue into place.

Step 16: Cut the awning sub-roof to size from similar material.

Step 17: Mark the positions of the awning posts on the base, and drill through with a 1.6 mm (1/16") drill.

*Note that this size hole should neatly accommodate 4"X4" stripwood columns. If using Evergreen styrene the nominal 4"x4" strip is actually smaller, being 1.09 mm (HO scale 3.74") square, and a 1.4 mm drill is needed for a snug fit.

Step 18: Using a piece of scrap material position the awning sub-roof as shown in Detail 3, so that it sits at the same angle as it will in its final location (attached to the main roof). Using the holes in the base as a template drill vertically upwards through the base and into the edge of the awning (it doesn't matter if the drill goes right through as the roof sheeting will cover everything). This should ensure correct locations for the awning posts in the final assembly.

Step 19: Cut the awning posts to length. Insert each *end* post into the base, then glue the awning sub-roof into place aligning it with the main roof and sliding the holes in the outer corners into the post tops.

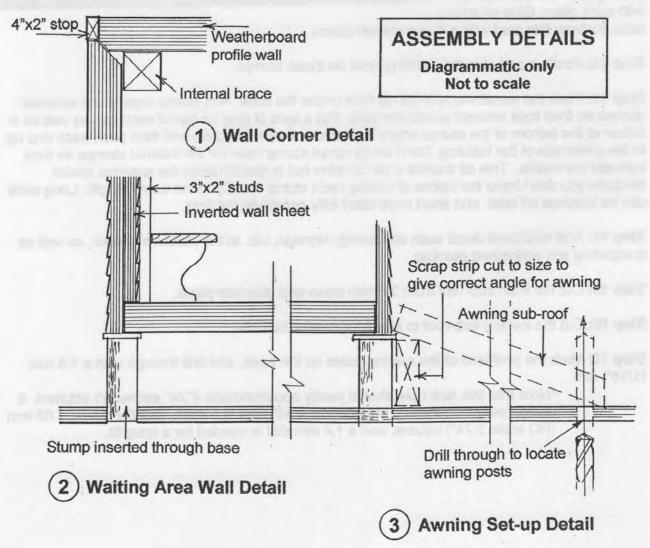
Step 20: Slide the remaining awning posts into place, gluing them top and bottom.

Step 21: Glue pieces of scrap material around each post base to simulate the concrete footing.

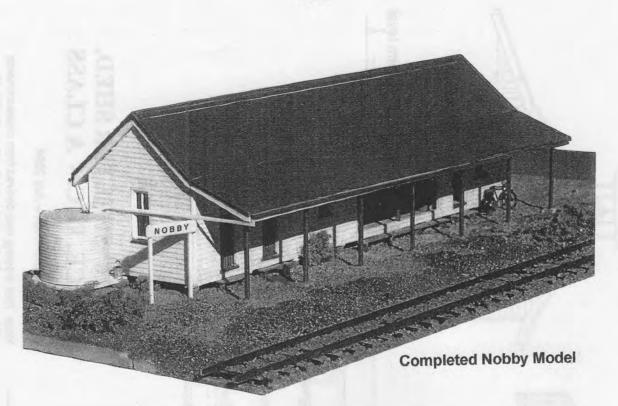
Step 22: Fix 8"x1" barges & fascias. Roof guttering can be 1.5 or 2.0 mm channel.

Step 23: AR corrugated aluminium is then attached to the sub-roof using contact glue. The ridge cap may be fabricated from styrene rod with 6"x1" strips each side (or alternatively wire and metal strips).

Step 24: Finally add downpipes (1.0 or 1.2 mm rod or wire), tank(s) and anything else that will improve the realism of the model. Incorporation of small (and often trivial) details will always help to consolidate the character of any building or other structure.



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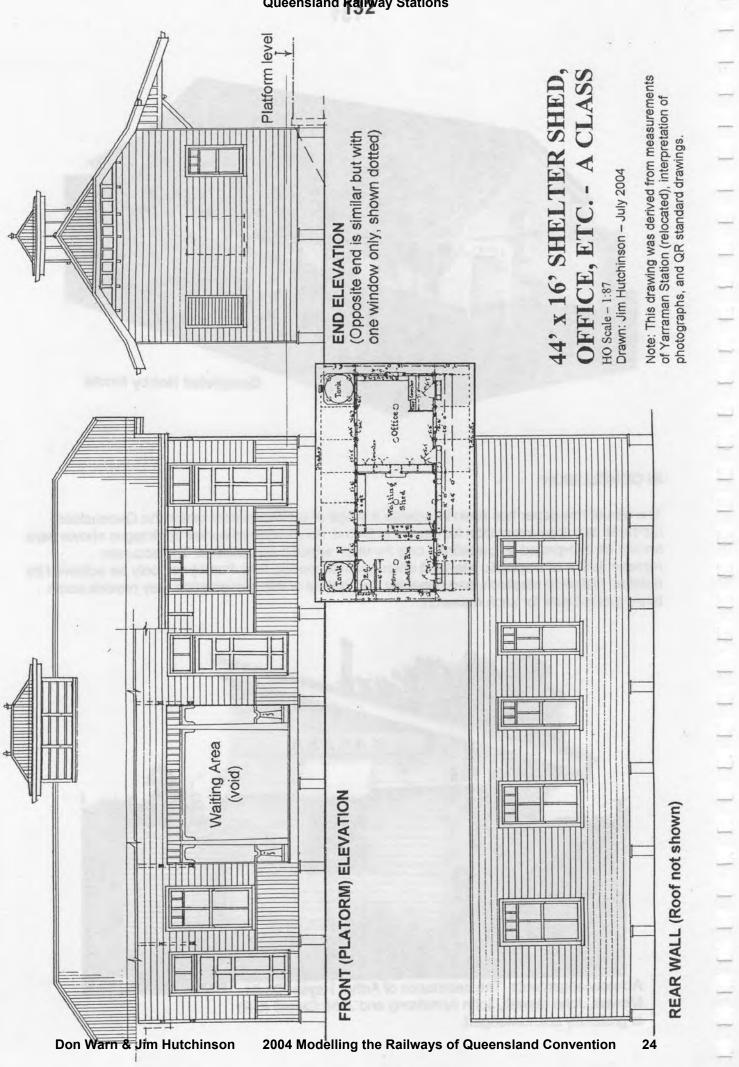


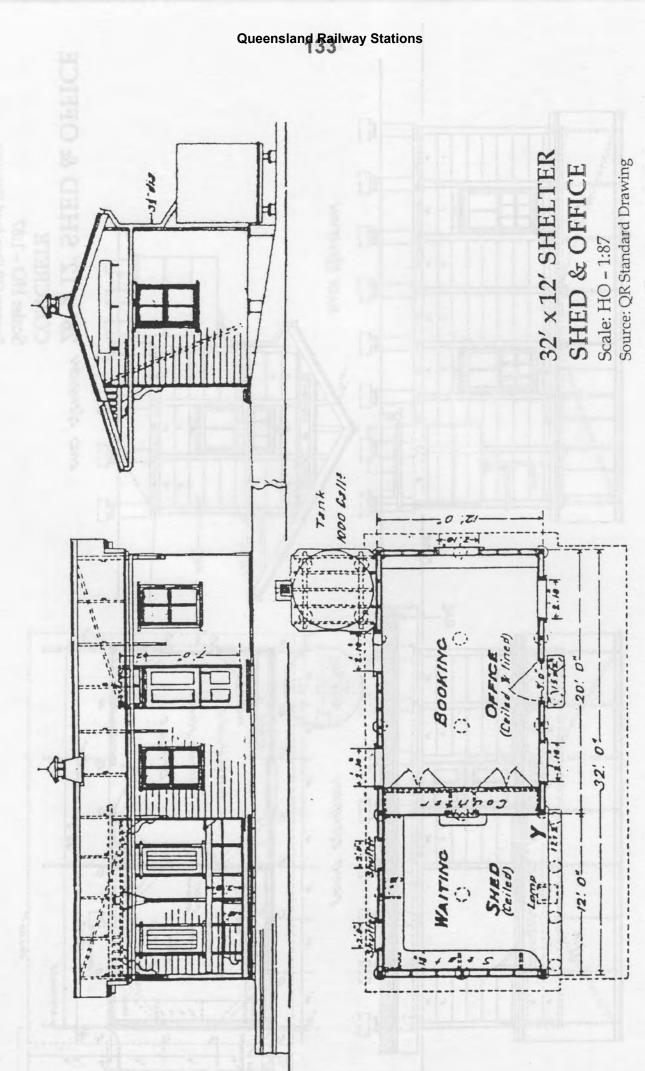
IN CONCLUSION

The aim of this paper has been to provide a range of examples from which the Queensland modeller can draw inspiration for his or her layout. As mentioned earlier the images shown here should be interpreted as guidelines only for more specific applications. The accurate representation of a specific site (and often within a specific time-frame) can only be achieved by detailed historical research, and hopefully the content of this presentation may provide some basic groundwork for such research.



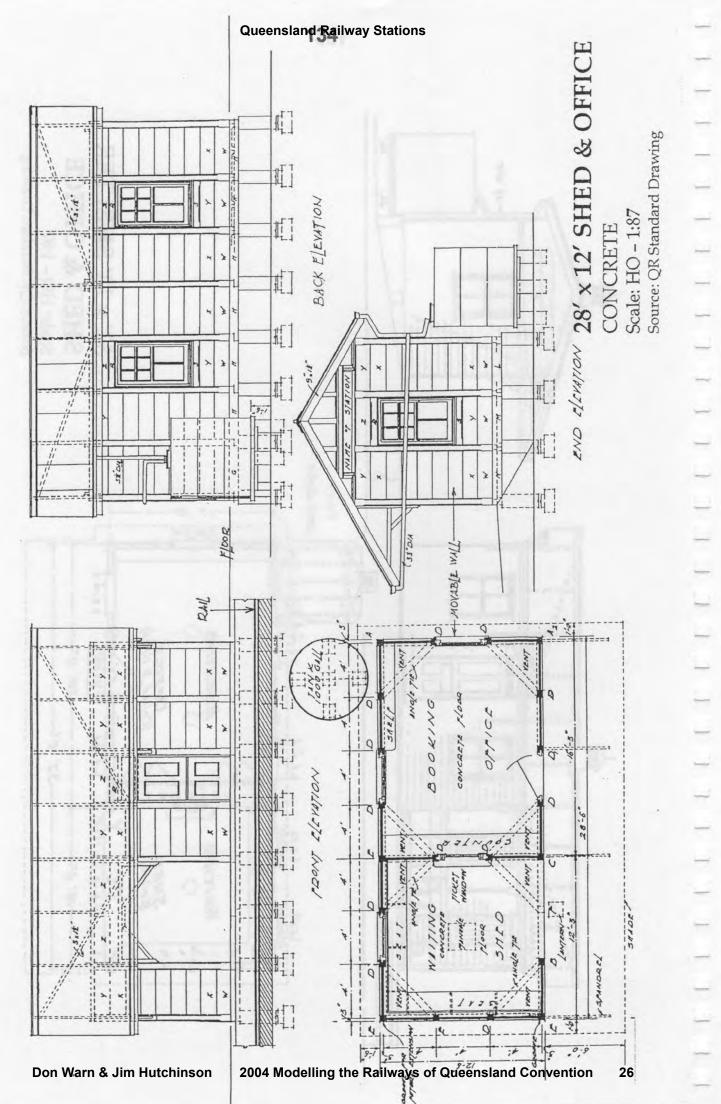
Acknowledgements: The assistance of Arthur Hayes, David Mewes, John Newell, John Armstrong and John Carroll (QR) is gratefully acknowledged.



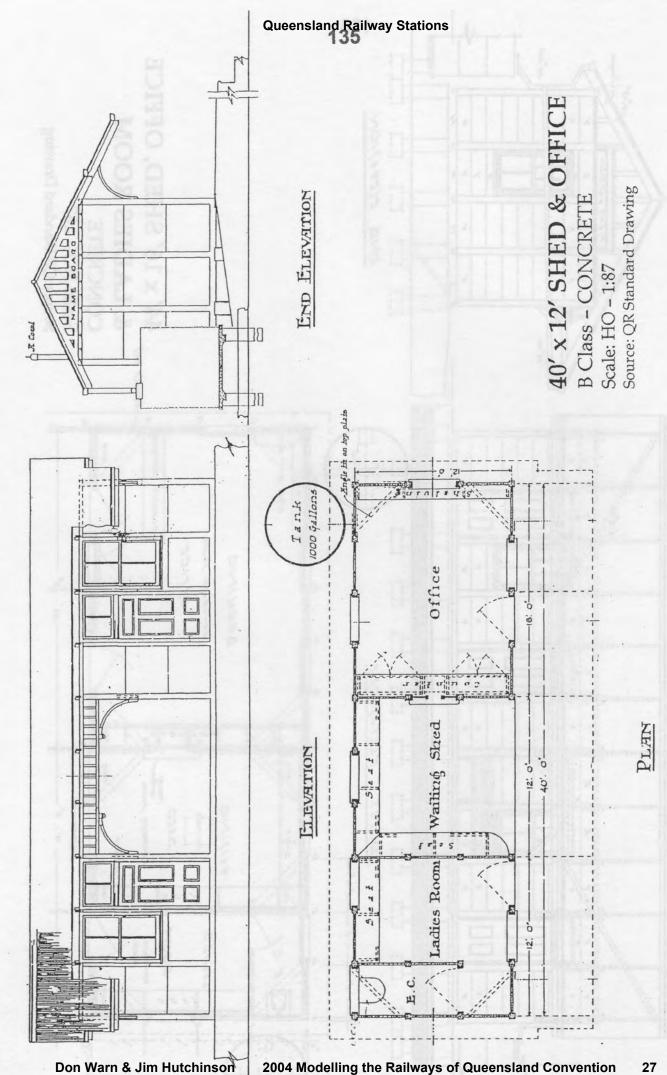


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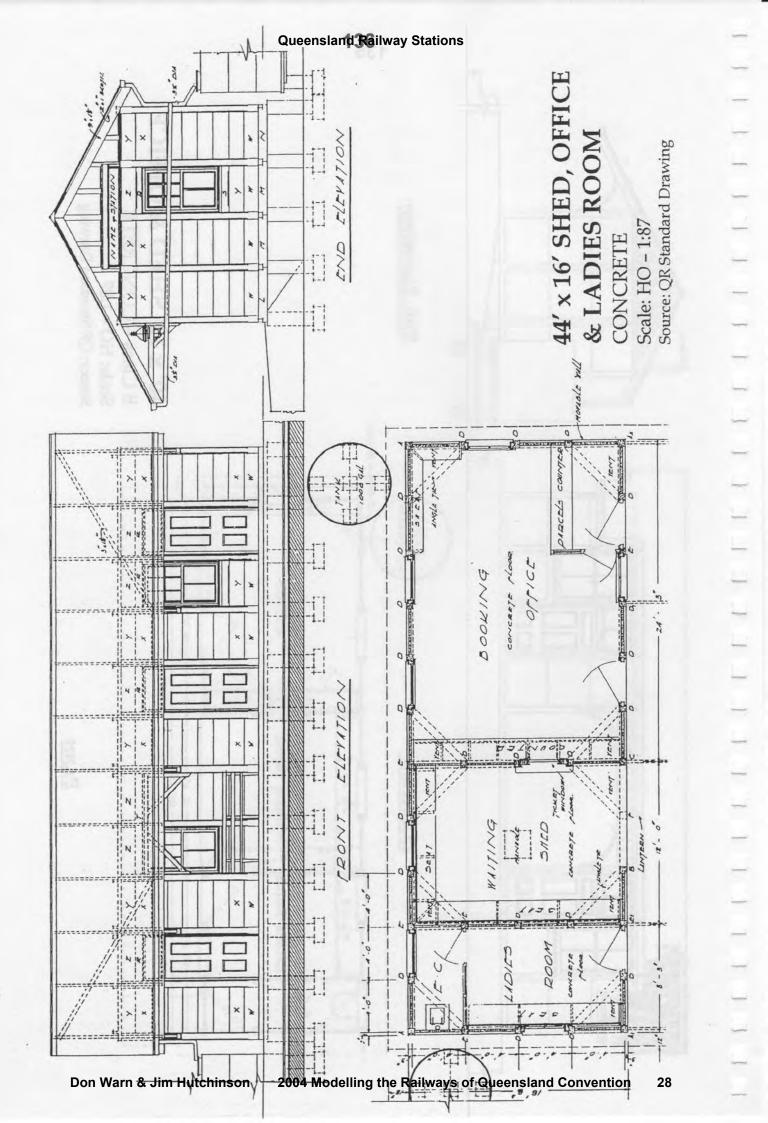
PISTFORM

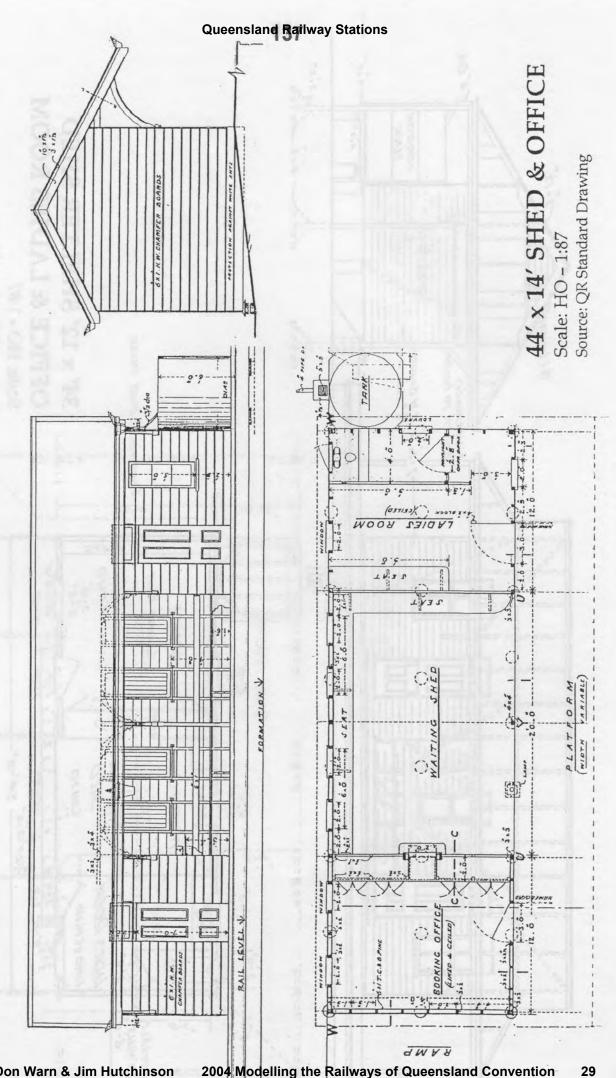


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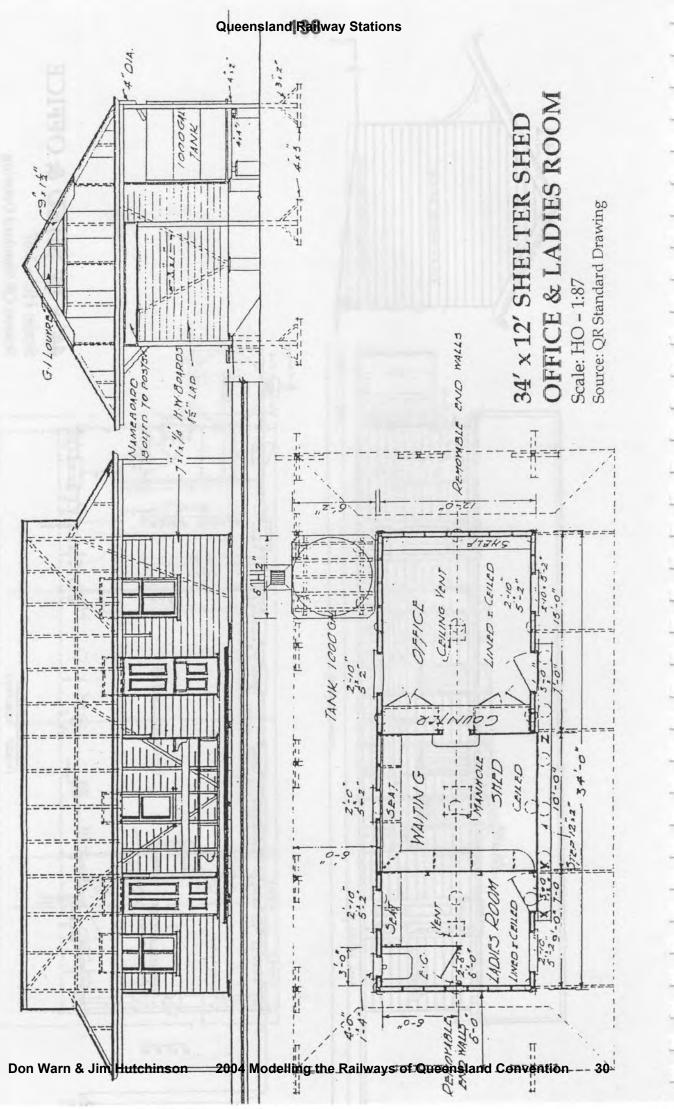
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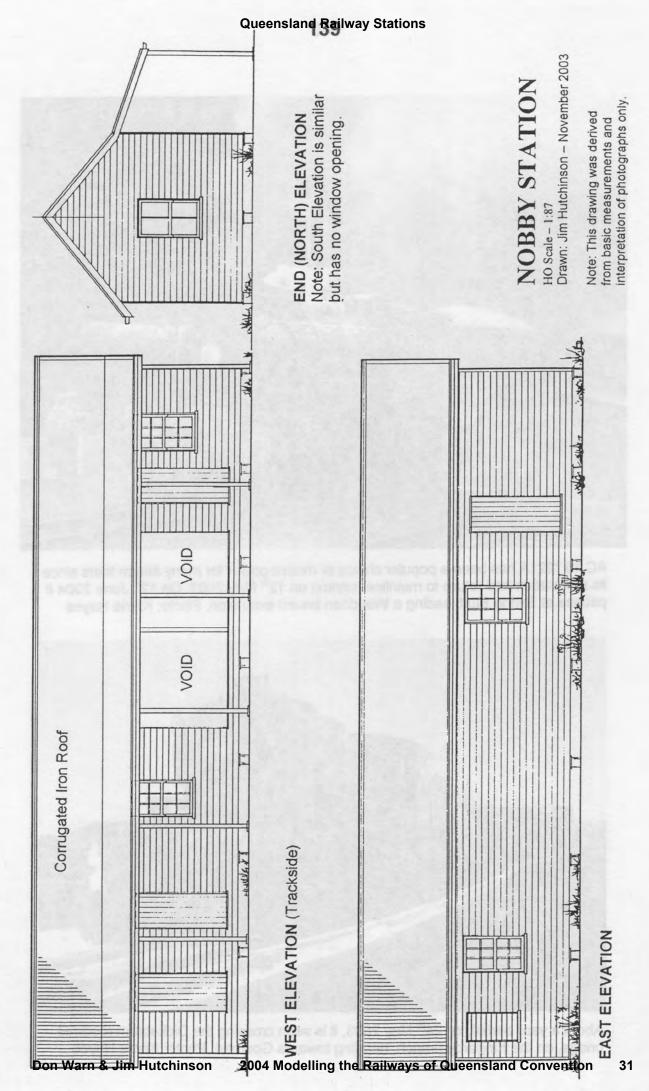




Don Warn & Jim Hutchinson

2004 Modelling the Railways of Queensland Convention





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