



## Frequently asked Questions - Woombye

### *Concept design information and community feedback for detail design consideration*

#### **What design stages are required to commence construction of the Woombye stabling facility in January 2016?**

The design process involves extensive analysis and local area investigations to develop detailed drawings that the construction team can build. Main construction will commence in January 2016 once detailed designs are finalised. Enabling works (such as tree planting) have already commenced.

Key phases include:

**Reference design** – Throughout 2014 and early 2015, Queensland Rail and the Department of Transport and Main Roads received feedback from the Woombye community about the reference design which was included and addressed in the scope of works which was issued to the market as part of the competitive tender process.

**Concept design** – In April 2014, Expressions of Interest were called from suitably qualified contractors for the design and construction of the four stabling facilities. After a shortlisting process, a Request for Proposal was issued to qualified proponents in August 2014. As part of this process, each contractor submitted a concept (preliminary) design which addressed Queensland Rail specifications and enhanced or modified the original reference design. In May 2015, Leighton Contractors was awarded the design and construction contract.

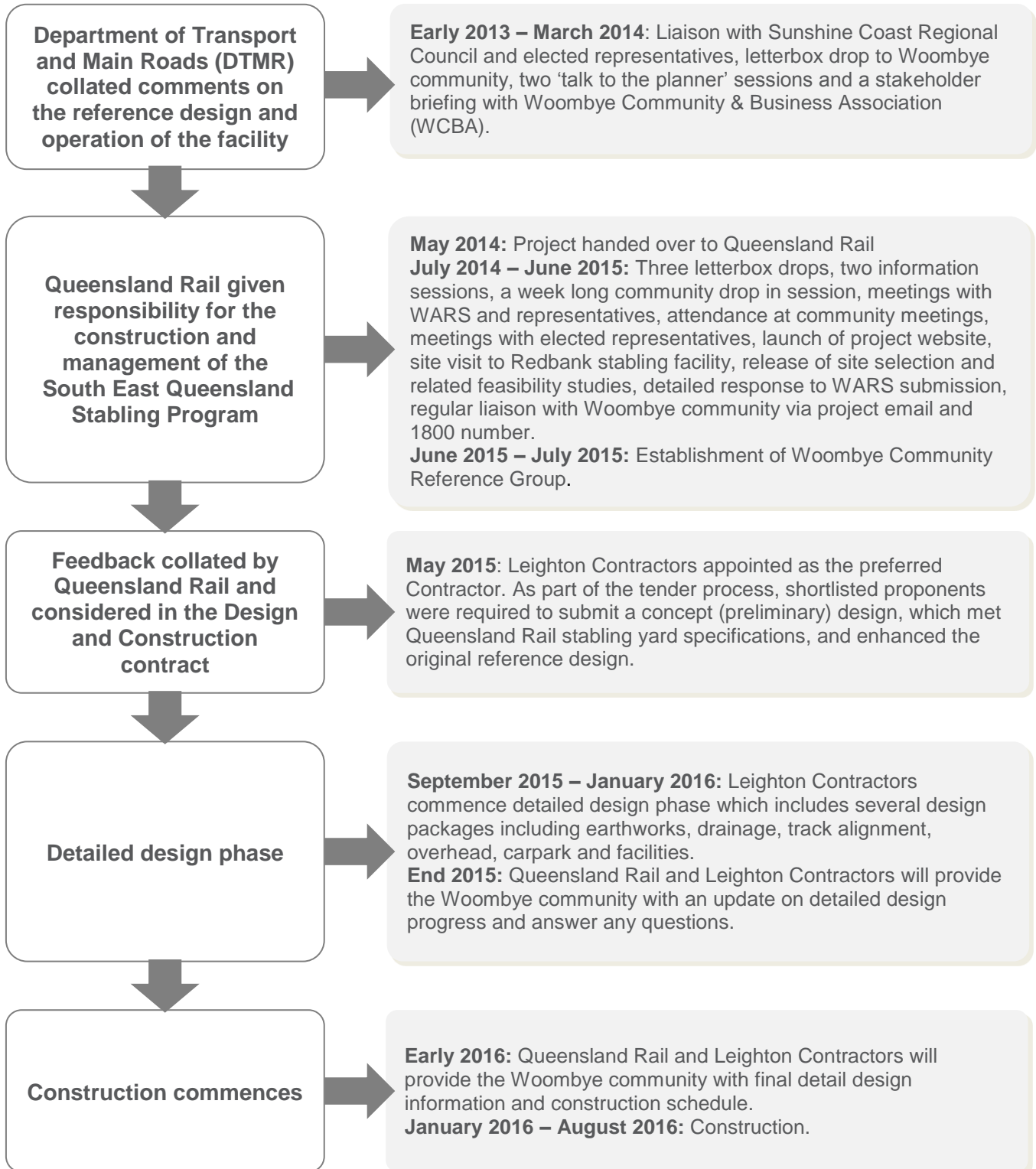
**Detailed design** – Once the concept design is developed, refined and approved, the detailed design of the Woombye stabling facility begins. It will be broken up into appropriate multi-disciplinary packages. It provides a high level of detail on all features of the site such as drainage, fencing, lighting and facility buildings. This is used for construction of the project.

A summary of this process is outlined on the following page.

# For your information



## Design Development Summary





## **What will the stabling facility look like?**

A typical stabling facility is a fenced open-air site with usual rail infrastructure including train tracks, connection to the main line, overhead power supply, signaling and communications systems, CCTV and lighting. Additional infrastructure and buildings are required to support stabling operations. This includes train crew facilities consisting of offices and staff amenities (toilet and shower facilities), staff carparks, roads and walkways.

## **What additional information is contained in the concept design that will provide a better understanding of the stabling facility?**

### ***Stabling facility operations***

- A maximum of four six-car trains (24 carriages) will be parked in the stabling facility
- The length of the stabling facility is approximately 200 metres and when combined with the driveway 500 metres
- Mainline works will be required for the stabling exit and entry roads
- New train crew facility building and amenities required for up to 25 personnel
- 17 car parks for train crew facility
- The train crew facility building will comprise of offices, staff amenities (including toilet and shower facilities and storage rooms).

### ***Roads and access***

- The driveway will be constructed to allow safe access to the train crew facility at the corner of Old Palmwoods Road and Back Woombye Road
- A pedestrian path will connect to the existing Woombye Station to the new train crew facility.

### ***Storm water management***

- Sewer and water connections will be made into existing council utilities.

### ***Vegetation buffer screens***

- A vegetation screen approximately 180 metres long by an average of 20 metres wide, utilising 2,000 selected plants, was planted in May 2015 to provide an improved landscape buffer zone around the site
- Further landscape planting will be undertaken following the construction phase to provide additional screening.



## **Lighting**

It can be confirmed that lighting will be used in the following way:

- Generally, pole mounted lighting will be limited to 10 metres in height across the stabling facility
- LED lighting will be targeted and pointed directly at the ground
- Lighting will also be fixed to decanting structures, train crew facilities and other similar items
- Some lighting fixtures will be integrated into structures such as access platforms and will allow for suitable maintenance access.

## **Prior to the completion of detailed design, what information can be provided regarding the construction schedule?**

Construction of the Woombye stabling facility will be completed over six major stages which include:

### **Stage 1 – Site preparation**

The ground is excavated down or built up to the level that will form the railway foundation. Underground drainage and services such as power, water and electricity are then installed. A layer of ballast is placed for each line which will form the track bed.

### **Stage 2- Laying concrete sleepers**

Concrete rail sleepers are placed on the ballast along the rail alignment as a base support for the rail. Sleepers are positioned by a front-end loader with a sleeper 'grab' attachment which picks up a set of sleepers and lays them in the configuration for the rail tracks to then be attached.

### **Stage 3 - Laying the rail track**

The steel rail is placed on top of the concrete sleepers and clipped into place by either a track mountable machine or by hand. The rail is then welded together using 'flash butt-welding' which melts two rail pieces together forming a seamless rail track.

### **Stage 4 – Ballast**

Ballast is a specific type of rock used for supporting the sleepers and rail track, keeping them in place while trains run. A ballast machine rides the new tracks and places the ballast over the sleepers and between the tracks.

### **Stage 5 - Settling the rail**

A track mountable machine called a tamping machine rides along the new track, lifting the tracks, and vibrating the ballast into place. It then sets the track into its final position. This method is repeated numerous times to ensure the rail line settles and is ready for operation.

### **Stage 6 - Installing over-head equipment**

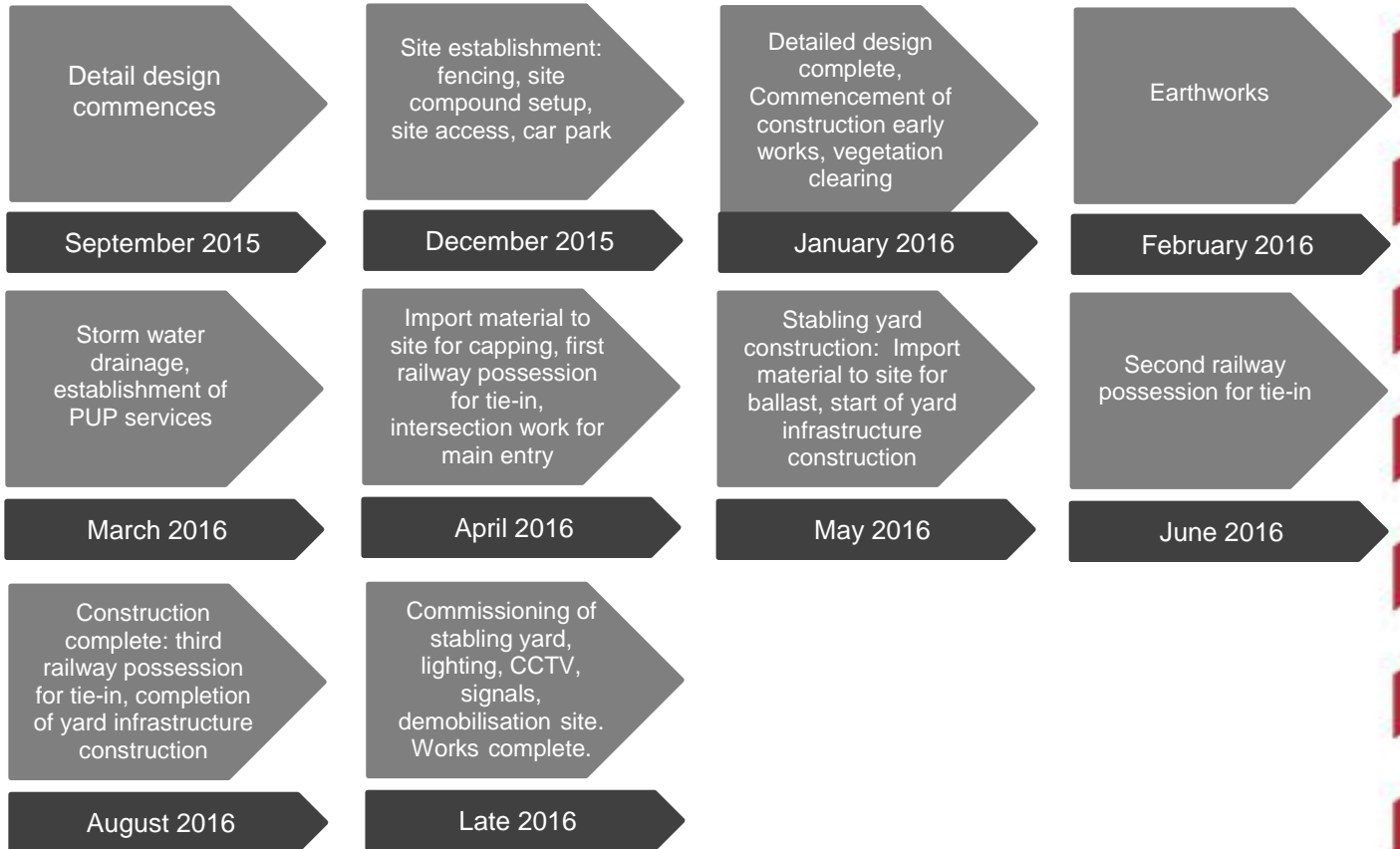
Masts are installed along the rail alignment to support the equipment which provides electricity to operate trains. Signaling structures are also installed along the rail route.

# For your information



## Key construction dates

Key dates relating to the design, construction and commissioning of the Woombye stabling facility include:



## Where can I find out more information?

If you have a specific question that has not been addressed in this fact sheet, would like to register for more information or speak to a member of the Project Team, contact:

**Phone:** 1800 783 334 (free-call) **Email:** [stabling@qr.com.au](mailto:stabling@qr.com.au)