

Water Level

Bed Level

Rock Level

Water Level

Bed Level

## Driven Piling





goldlina

Gold Coast Light Rail

Placement of pile

of pile

Repetition

## GoldLinQ has commenced construction of Stage One of Queensland's first light rail system.

of pile

McConnell Dowell (MacDow) and Bombardier Transportation Joint Venture are the design, construct and delivery partner of the GoldLinQ consortium.

McConnell Dowell (MacDow) will construct five bridges as part of the 13-kilometre Stage One route. In order to build these structures, piling activities will be carried out.

### What to expect?

Piling can result in increased levels of noise, vibration and dust in surrounding areas. Vibration may be felt in nearby buildings. This is a common technique used in urban areas and if you feel vibration in your property due to construction activity there is no immediate cause for concern.

Every effort will be made to minimise construction impacts and monitoring will be carried out during piling works. Notifications will be provided to properties that may be affected prior to the works commencing.

Piling work will mostly be carried out between 6:30am and 6:30pm, Monday to Saturday.



Australian Government

#### **Nation Building Program**

## Bored Piling In Water





Timing of this work is subject to weather conditions and construction activities. About GoldLinQ

In June 2011 GoldLinQ was awarded the contract to design, build and operate Stage One of the Gold Coast light rail system. In partnership with the State and Federal Governments and Gold Coast City Council,

# . What is piling?

Piles create a solid foundation to support a bridge by reaching a strong layer of soil or rock in areas where the surface lacks the strength to support a certain structure. Bored and driven piles will both be used on the Gold Coast light rail with the method chosen for each area determined by factors including soil type and the load supported by each pile. Bored piling creates less noise and involves the use of a vibratory hammer to drive a permanent steel liner followed by a mechanical grab to excavate the soil and a drilling rig to penetrate through rock to eventually create a circular hole. A steel prefabricated reinforcement cage (see above diagram) is lowered into the hole and concrete is poured. Once the concrete sets, the bored pile is complete. Driven piling involves hammering a prefabricated concrete pile to a determined depth using a piling rig. Driven piling will be used on the Macintosh Island North and South bridges as well as the Smith Street viaduct.

STEP 2

STEP 4.

Install drill head

Drill out this portion

Pour concrete pile

(PBA 612) onto pile top and drill out rock

To keep up-to-date with the progress of Queensland's first light rail network and sign up for updates visit www.goldlinq.com.au. or call the project hotline on 1800 967 377\*. *'Free call within Australia. Call charges may apply from mobile phones and payphones.* 







GoldLinQ will deliver a \$1 billion world-class public transport system for the Gold Coast. The GoldLinQ consortium consists of McConnell Dowell Constructors (Aust) Pty Ltd (MacDow), Bombardier Transportation

Ltd (MacDow), Bombardier Transportation Australia Pty Ltd and KDR Gold Coast Pty Ltd. Collectively the companies have decades of experience delivering and operating rail projects across Australia and around the world.