Piles and Pile Caps

The South Road Superway project features a 2.8km elevated roadway above the existing South Road in Wingfield and Regency Park. Piles are used to carry the load of the structure deep into the ground, and pile caps form the solid foundation on which the piers are then built. Before piling began, the South Road Superway team tested three different pile types at three different locations along the Superway alignment. The soils comprise soft sand layers around 8-10 metres deep, with groundwater occurring between 2-4 metres deep.

Piles

- There are 740 piles, each with a diameter of 1050mm, supporting 68 piers
- The average depth of each pile is 27 metres, down to strong strata where the Hindmarsh clays become hard
- If joined end-to-end, the piles would reach 20 km.
- Each pile takes about 1.5 hours to install and 30 cubic metres of concrete (6 truck loads) is used
- Eight people work on each pile rig (Urban Superway will have two rigs operating)
- On average, four piles will be created each day
- Local company OneSteel in Cavan has supplied the reinforcing steel and Boral at Wingfield has supplied the concrete

Pile Caps

- A pile cap is a concrete slab 2m thick, up to 12m x 12m wide, that rests on groups of between 8 and 16 piles (depending on the size required)
- The pile cap provides a strong stable foundation for the pier, and up to 205m$^3$ of concrete can be used in a single pile cap (41 truck loads)

For more information, including regular construction updates, p 1300 638 789 or visit www.infrastructure.sa.gov.au and follow the links to the South Road Superway website.