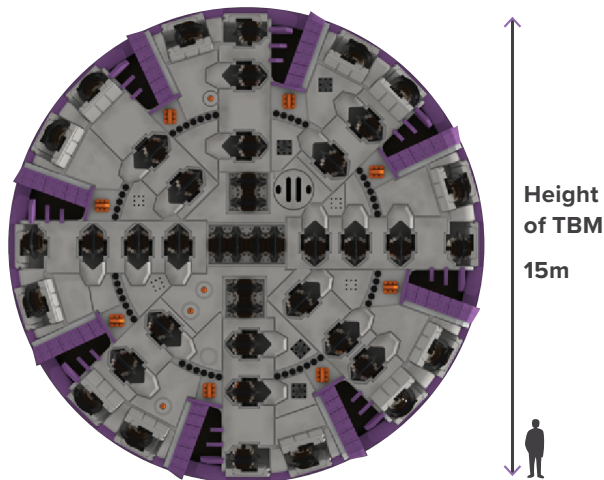


# Construction

Construction of the project will occur in two stages from south to north, beginning with the Southern Tunnels before moving onto the Northern Tunnels.

## Construction approach

The majority of the Southern and Northern Tunnels will be constructed using tunnel boring machines (TBMs) which will operate non-stop; progressing approximately 8-10m per day. Tunnel construction waste (known as spoil) will be collected and processed in temporary acoustic sheds to mitigate noise and dust impacts prior to being transported for re-use or disposal.



## Construction environmental management

A Construction Environmental Management Plan (CEMP) will be developed and implemented to manage potential environmental and community impacts and to ensure the project complies with environmental and waste management legislation and practices.

The project is estimated to generate over four million cubic metres of spoil, including soil, rock and fill during construction. Spoil will be managed appropriately and classified prior to leaving the construction site in accordance with SA Environment Protection Authority (EPA) standards and guidelines.

It is expected the majority of spoil generated by the project will be suitable for re-use outside of the project corridor. Any material not suitable for re-use will be disposed of at an appropriately licensed facility using licensed waste transporters.

Construction and operation of the project will also generate waste streams that require management and disposal. Where possible, generation of waste will be avoided, and disposal should only occur where other waste management options are not possible.

## Traffic management

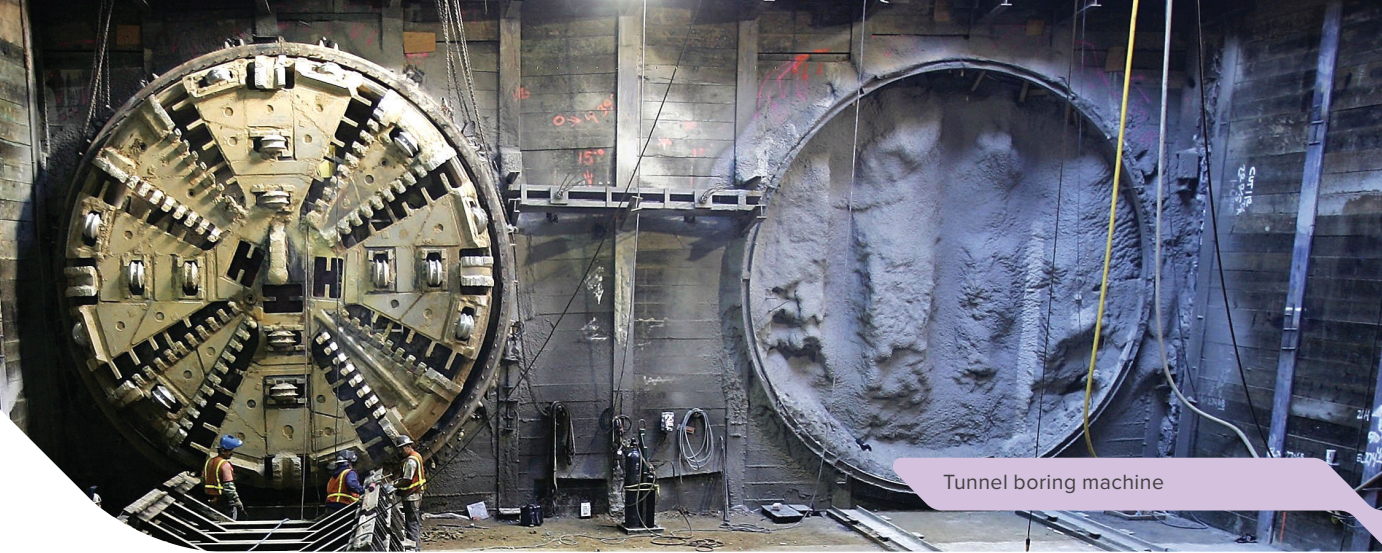
Comprehensive traffic management measures will minimise impacts on surrounding roads and ensure the safety of the public, motorists and construction personnel

to the best extent possible. However, road access restrictions and diversions are likely to be required. Affected residents, communities and businesses will be informed of any potential restrictions or expected impacts in advance of any changes.

## Pre-construction activities

Early works, preparatory investigations and surveys are required in advance to prepare sites for the main construction activities of major infrastructure projects and are being undertaken for the T2D Project. These works typically take place before detailed design has been finalised, and include:

- survey work and investigations, including investigative drilling
- condition surveys of buildings and infrastructure
- property acquisitions and adjustment works, including installation of property fencing
- demolition of existing structures
- contamination testing and land remediation (subject to remediation action plan recommendations where required)
- relocation, adjustment and protection of utilities and services affected by the project (ongoing during main works)
- roadwork adjustments to provide access to temporary construction support sites
- detailed heritage investigations, protections, salvage and/or conservation works.



Tunnel boring machine

## Construction activities

The project construction will be delivered in two packages – the Southern Package and the Northern Package. Construction will progress from south to north, with the Southern Package of works from Darlington to north of Anzac Highway, consisting of the Southern Tunnels and sections of open motorway with connections to the surface road network at each end of the tunnels. The Northern Package, consisting of the Northern Tunnels and sections of open motorway with connections to the surface, is expected to commence about two years after the start of the Southern Package, and will complete the project by connecting the Southern Package through to the existing motorway at Grange Road.

Laydown areas will be established first for the Southern Tunnels followed by a similar area for the Northern Tunnels. These areas provide starting points for the large TBMs to commence tunnelling operations. Typical construction activities for the tunnels and open motorway sections include:

## Northern and Southern Tunnels

- construction of cut and cover tunnel and dive structures
- construction of tunnels by TBMs and cross-passages
- construction of surface connections and roadworks
- civil finishing works, including safety barriers and noise walls
- urban design and landscaping
- tunnel fit out, including safety and control systems
- intelligent transportation system (ITS) infrastructure for motorway control
- tunnel ventilation facilities including vertical air extraction
- construction of operational facilities, including
  - new transport management centre
  - water treatment plants.

## Open motorway

- construction of trough structures including building retaining walls on each side of the proposed road
- construction of surface connections and roadworks
- construction of drainage basins and creek/overland flow conveyance structures
- bridge works
- civil finishing works, including safety barriers and noise walls
- urban design and landscaping
- ITS infrastructure for motorway control.

Scan the QR code to view the suite of assessments included in the PAR or visit [T2D.sa.gov.au/PAR](https://T2D.sa.gov.au/PAR).

