

Artist's
impression

T2D TORRENS TO
DARLINGTON



T2D James Congdon Drive

Landscape and visual amenity

Landscape and visual amenity is the assessment of impacts and changes to the current scenery and settings that will be altered as construction and eventual operation of the project takes place.



Australian Government



Government of South Australia
Department for Infrastructure
and Transport

Extract from the Project Assessment Report (PAR) | February 2024

Existing environment

The T2D Project will predominantly be constructed either underground via tunnels or within a corridor that is highly modified and urbanised.

The existing environment features a mix of urban land uses including residential, commercial, retail and industrial areas as well as public parks and recreational areas.

The landscape is generally tightly bound by the built environment, with few natural features remaining – these being River Torrens / Karrawirra Parri and Brownhill Creek / Willawilla.

There are few ecological features remaining within the T2D Project area and a general absence of mature trees located along South Road. Existing vegetation generally comprises planted trees, shrubs and grasses located mainly in median strips, private property, side streets or major arterial roads intersecting South Road.

There is an absence of larger amenity trees located within the South Road corridor, particularly south of Anzac Highway where trees are primarily in private properties adjacent to the road. North of Anzac Highway there are also trees in private properties, supplemented with amenity plantings of London Plane trees (*Platanus acerifolia*) kerbside in several sections north of Sir Donald Bradman Drive up to the River Torrens / Karrawirra Parri.

Potential impacts to existing environment

The use of tunnels for the majority of the T2D Project will significantly minimise above-ground visual impacts and will mitigate potential adverse effects to existing landscape character.

The visual impact of tunnel works will be limited to portal locations. While the temporary visual impact would be high, the works and resulting impact would be confined to small areas.

Key temporary and permanent changes associated with construction and operation of the project are outlined below.

Construction impacts

- **Temporary noise walls:** location, appearance and height resulting in temporary change to scenic quality and visual character
- **General earthworks:** topsoil removal, clearing, grubbing vegetation removal resulting in temporary change to scenic quality and visual character
- **Tunnel construction:** tunnel laydown areas and facilities including acoustic sheds are expected to result in temporary change to scenic quality and visual character

- **Construction traffic:** increased heavy vehicles due to construction traffic may temporarily change scenic quality and visual character
- **Demolition:** Removal of commercial, industrial and residential buildings may result in temporary changes to scenic quality and visual character.

Operational impacts

- **New project infrastructure:** installation of new roadways and structures resulting in permanent change to scenic quality and visual character
- **Maintenance of new infrastructure:** routine maintenance works may have temporary low visual impact.

Key above-ground project elements

Tunnel portals: the T2D Project will provide a calming transition to and from the tunnels with elegant tunnel portal structures and passive shading devices that provide an unobtrusive and uncluttered visual experience and reduce any strobing effect for motorway users.

Ventilation facilities: wherever possible, ventilation facilities are planned to be located underground to reduce their visual impact on the surrounding streetscape and landscape. Ventilation facilities, where required above-ground, will be designed with an appropriate scale to appear as buildings or sculptural features. Use of a curved, sculptural form will soften their appearance, and materials and finishes are intended to match the surrounding environment.

Bridges and overpasses: while bridges and overpass structures are significant in size, the design seeks to reduce their impact by featuring slow transitions in

grade change and form as well as light and perforated supporting materials. Transparent materials will be used for noise barriers on top of bridges and overpass structures to maximise visual permeability.

Noise barriers: materials and finishes for noise barriers are intended to match the surrounding environment and also take inspiration from the history of Kaurua Country on which the T2D Project occurs, including indigenous plants, flowers, patterns and colours.

Alternatives, mitigation and opportunities

The T2D Project design seeks to minimise visual and landscape impacts as far as possible. The iterative design process has responded to feedback from community and stakeholder engagement and has identified key areas where visual and landscape impact is a priority. Approximately 60% of the 10.5km T2D Project is in underground tunnels, which significantly reduces permanent visual impacts.

The intention of the project design is not to screen all elements and recede the motorway as a secondary element within the urban landscape, but rather to integrate these elements, highlighting certain elements and screening others.

An Urban Design Strategy (UDS) has been developed for the T2D Project to guide good urban design, landscape and public realm outcomes. The UDS sets principles, objectives and requirements for the T2D Project to achieve high visual amenity through design that helps to mitigate any landscape or visual impacts.



Inside T2D tunnel

Approvals, permits and authorisations

The project is being undertaken under the powers of the Commissioner of Highways under the *Highways Act 1926*, which seeks to 'make further and better provision for the construction and maintenance of roads and works'.

While the *Planning, Development and Infrastructure Act 2016* (PDI Act) is relevant to the project as it regulates the development of land in South Australia, it does not apply where land is owned by or acquired under Section 20(5) of the *Highways Act 1926*. The only exception to this is

where the development materially affects the value of a State Heritage place. Therefore, the PDI Act will have limited application for this project.

To further ensure impacts to land use are minimised wherever possible and to ensure consistency, the project design has incorporated the existing planning controls and general development policies set out by the Planning and Design Code.

The T2D Engagement Campaign (2021) found that **80% of participants felt visual appearance and amenity was important. As such, minimising these impacts has been a priority throughout design, and approximately 60% of the 10.5km project will be in underground tunnels.**

Scan the QR code to view the suite of assessments included in the PAR or visit T2D.sa.gov.au/PAR.

