DRAWING NUMBER

02 GA SECTIONS & ELEVATIONS

00 COVER

01 GA PLANS A0002

A0001

A0003A

A0003B

A0004

A0005

A0006

A0006A

A0006B

DRAWING INDEX

GENERAL - COVER SHEET

SITE CIRCULATION PLAN

GENERAL ARRANGEMENT - EXISTING SITE PLAN

GENERAL ARRANGEMENT - 6 WHITTENS LANE

GENERAL ARRANGEMENT - SITE PLAN - PROPOSED FACILITY

GENERAL ARRANGEMENT - ROOF PLAN & GROUND PLAN

GENERAL ARRANGEMENT - BASEMENT LEVEL 1 & 2 PLAN

GENERAL ARRANGEMENT - 32 GRANGE PARK AVENUE

GENERAL ARRANGEMENT - GA SECTIONS & ELEVATIONS

GENERAL ARRANGEMENT - SITE PLAN - UNDERGROUND FACILITY

DRAWING TITLE

### PLANNING SUBMISSION - REMOVAL OF EASEMENT DETAIL 28/09/2023 ZR NB PS PLANNING SUBMISSION 25/02/2022 ZR NB CM

SCALE

NTS

1:500

1:500

1:500

1:200

1:200

1:200

1.200

NTS

1:200

CODE

WL-01

### Yarra Valley Water Ltd

MATERIAL SCHEDULE

DESCRIPTION

TRAPEZOIDAL ROOF SHEETING WITH MATCHING TRIMS AND

'SHOU SUGI BAN' OR SIMILAR APPROVED.

'SHOU SUGI BAN' OR SIMILAR APPROVED.

OR SIMILAR APPROVED

OR SIMILAR APPROVED.

FEATURES. COLOUR TO BE COLOURBOND NIGHT SKY OR SIMILAR

TIMBER CLAD WALL TYPE 01 - VERTICAL TIMBER FINS CLAD OVER

TIMBER CLAD WALL TYPE 02 - VERTICAL TIMBER FINS CLAD OVER TRANSPARENT WALL. TIMBER TO BE JAPANESE CHARRED WOOD

TIMBER CLAD WALL TYPE 03 - VERTICAL TIMBER FINS CLAD OVER

LOUVRES. TIMBER TO BE JAPANESE CHARRED WOOD 'SHOU SUGI BAN'

TIMBER CLAD WALL TYPE 04 - VERTICAL TIMBER FENCING ON STEEL

FRAME. TIMBER TO BE JAPANESE CHARRED WOOD 'SHOU SUGI BAN'

RAMMED EARTH FEATURE WALL, POTEITIAL TO INCORPORATE ARTWORK, TO BE AGREED WITH COUNCIL AND INDIGENOUS MOTE: IN CASE OF TIMBER OLD WALL TYPE OF TIMBER IS TO BE SPACED WITH MATERIALITY OF WALL SHOWN BEHIND THE VERTICAL FINS

SOLID INSULATED WALL. TIMBER TO BE JAPANESE CHARRED WOOD

### TRAM ROAD RESERVE WATER RECYCLING FACILITY

IMAGE

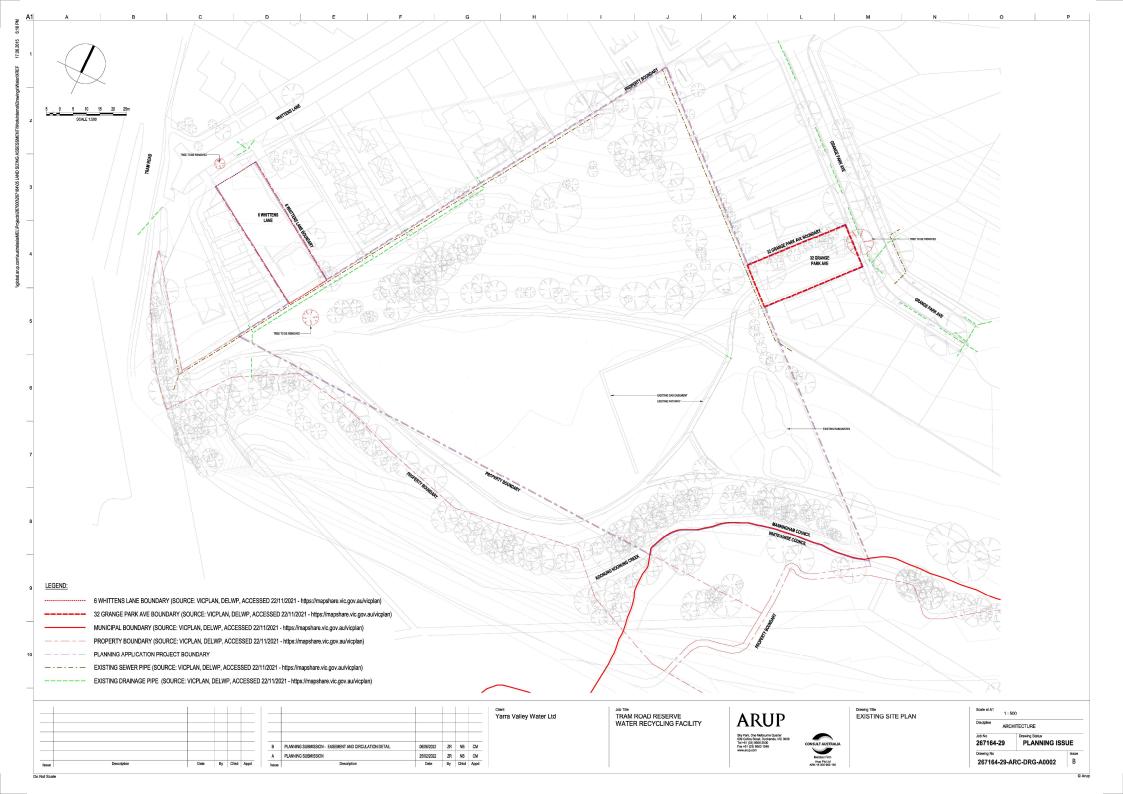
# **ARUP**

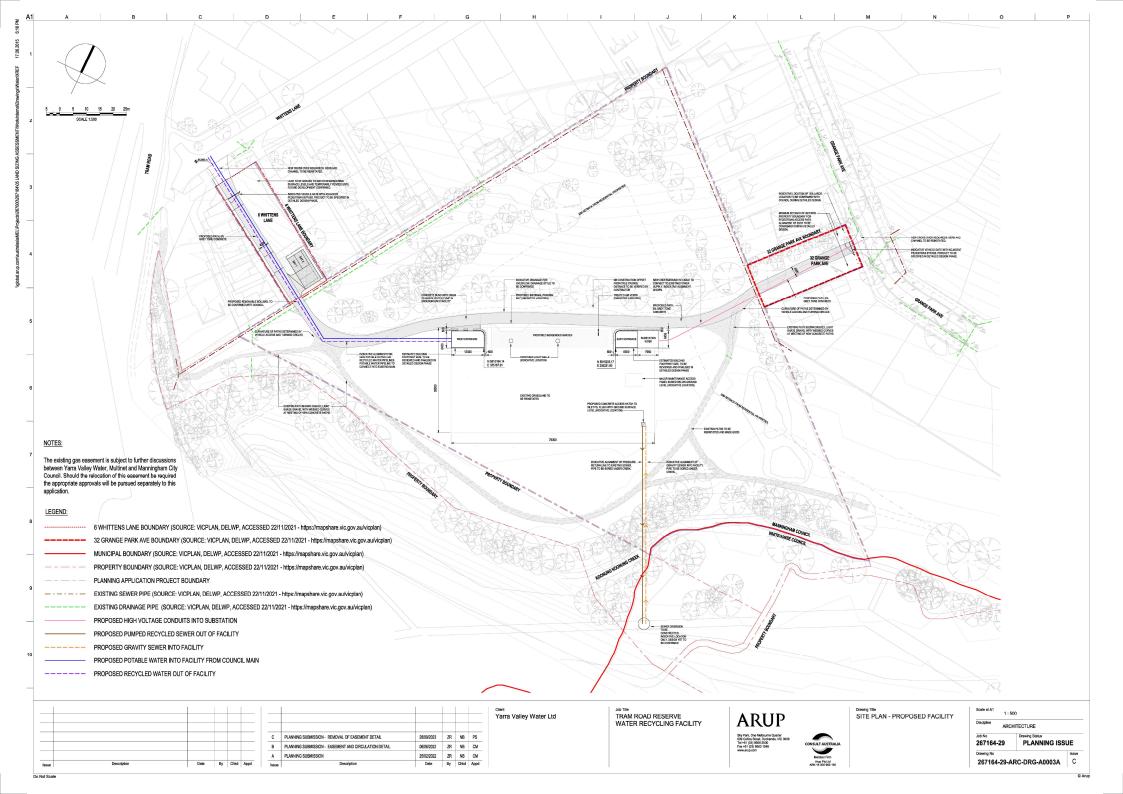
### Drawing Title COVER SHEET

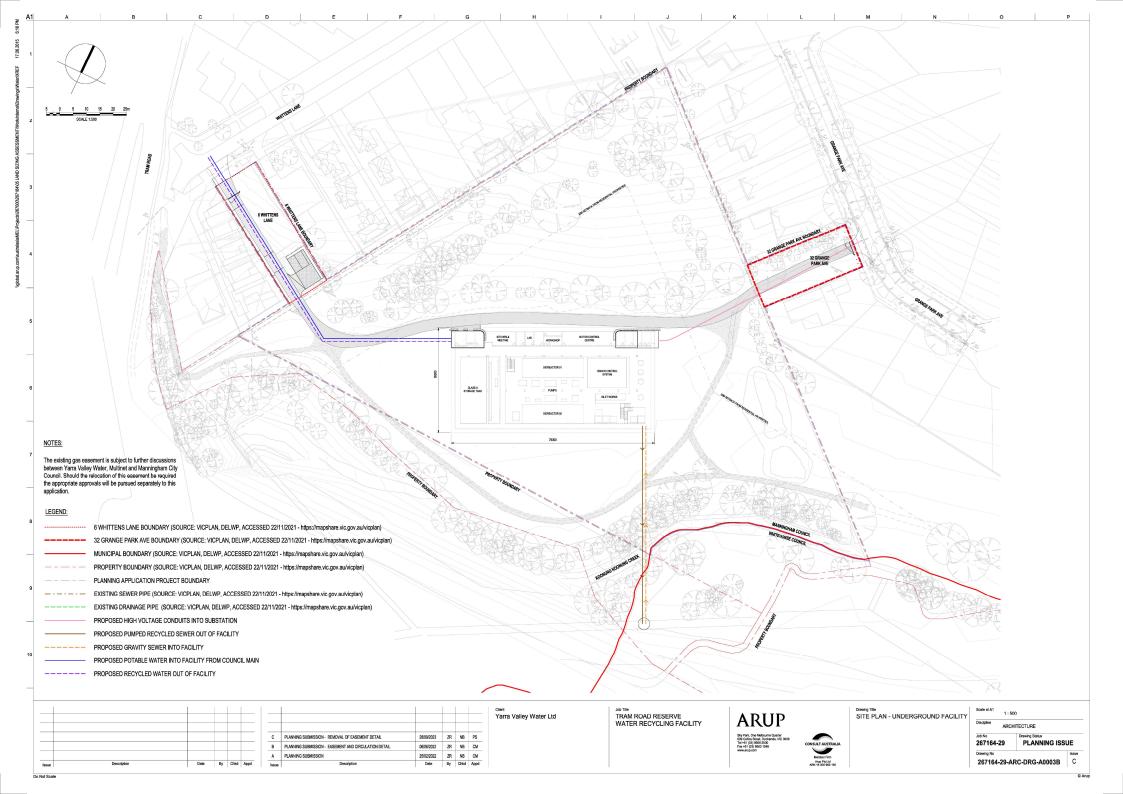
Scale at A1		
Discipline ARC	HITECTURE	
Job No	Drawing Status	
267164-29	PLANNING ISSUE	
Drawing No		Issue
267164-29-4	RC-DRG-A0001	С

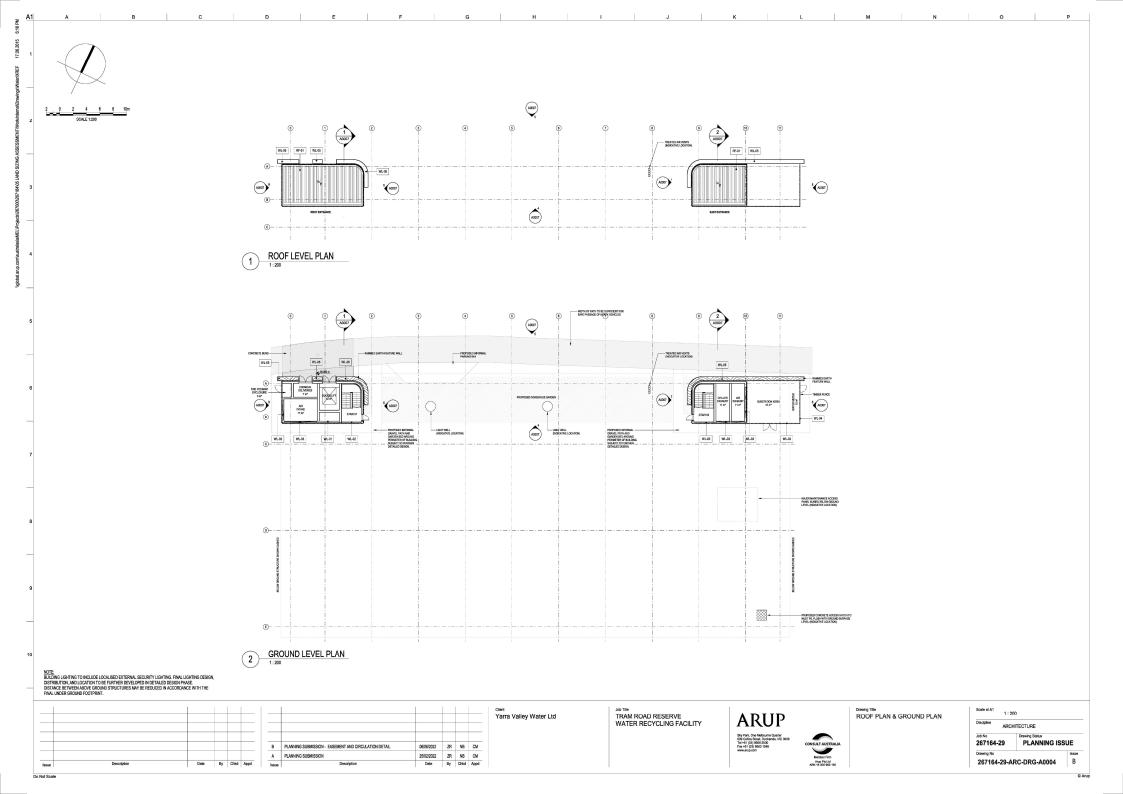
TRAM ROAD RESERVE

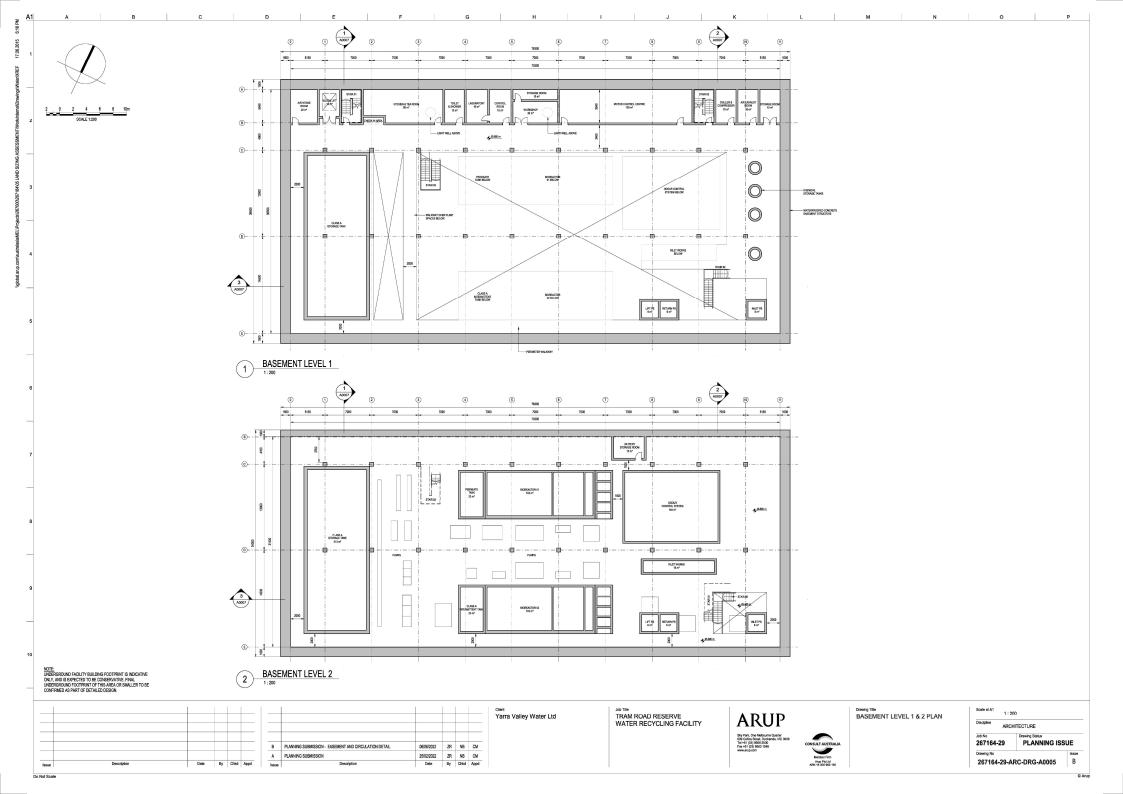
WATER RECYCLING FACILITY

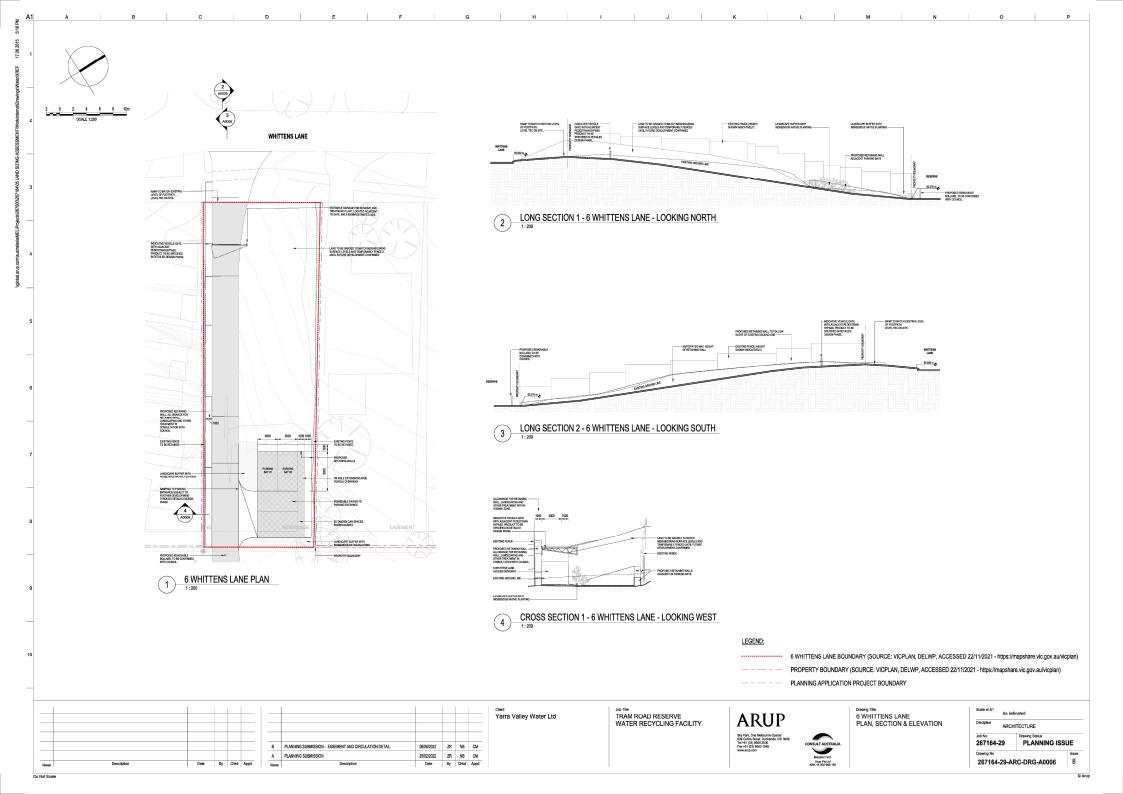


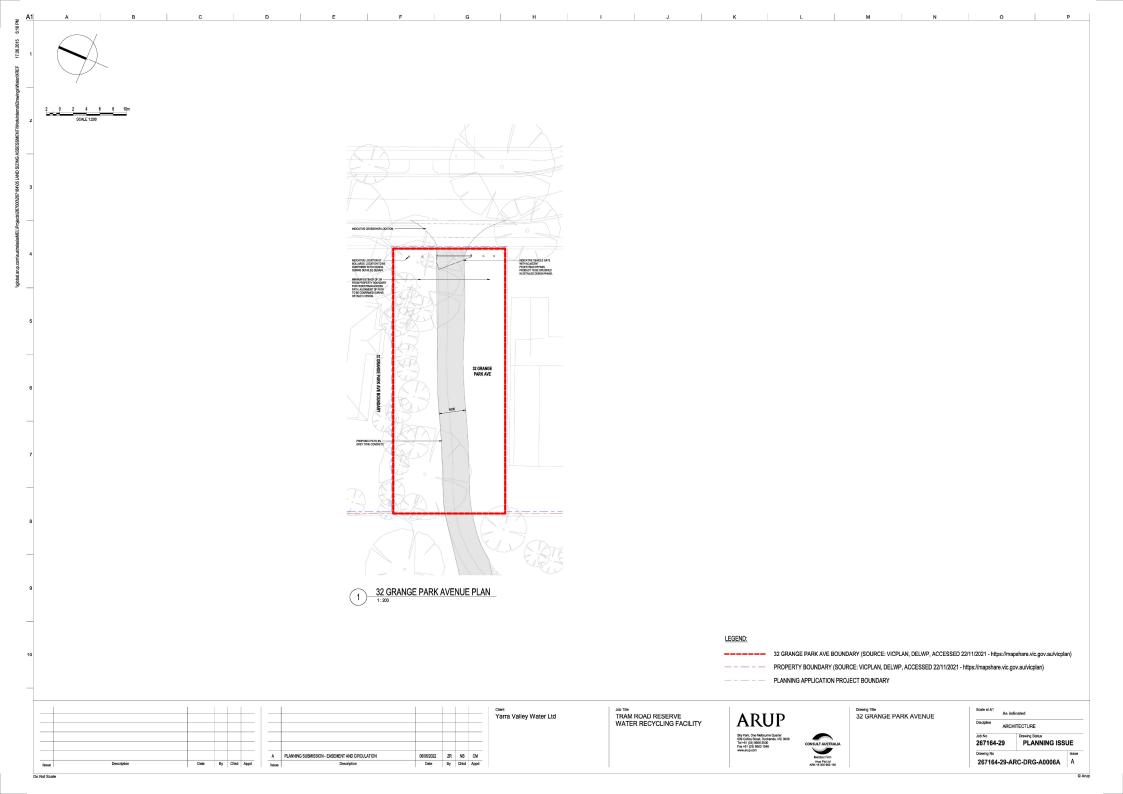


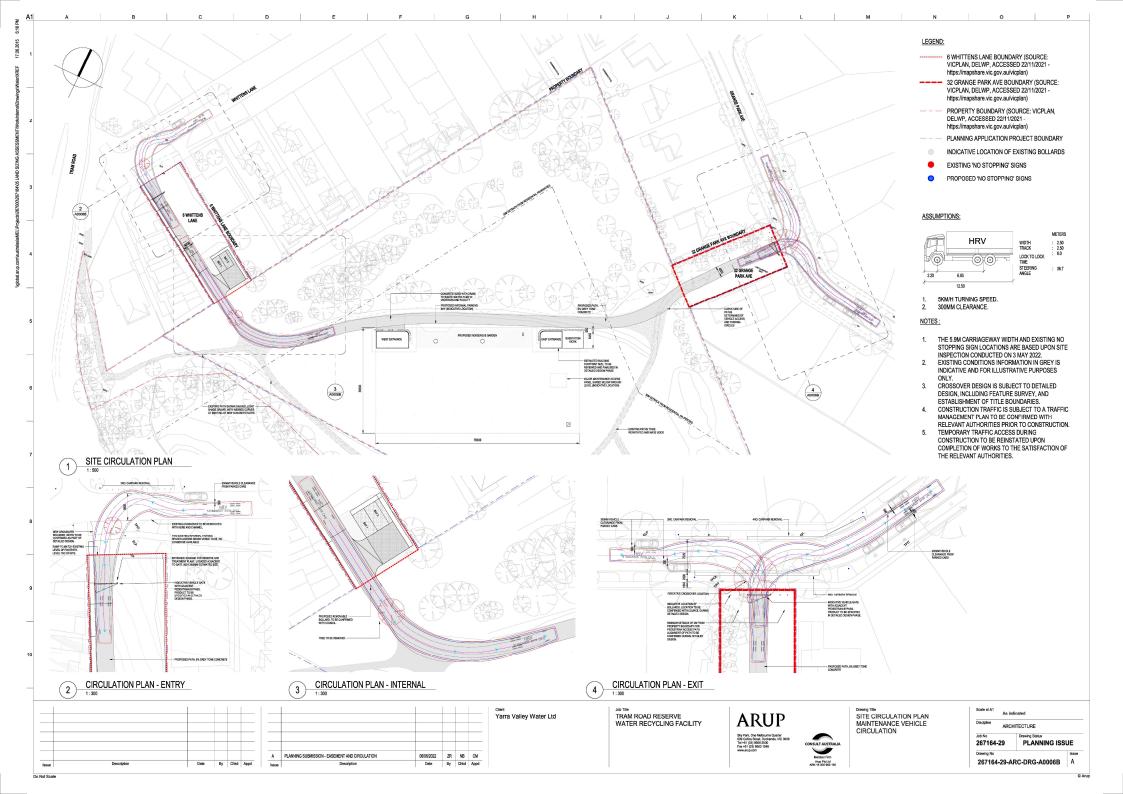


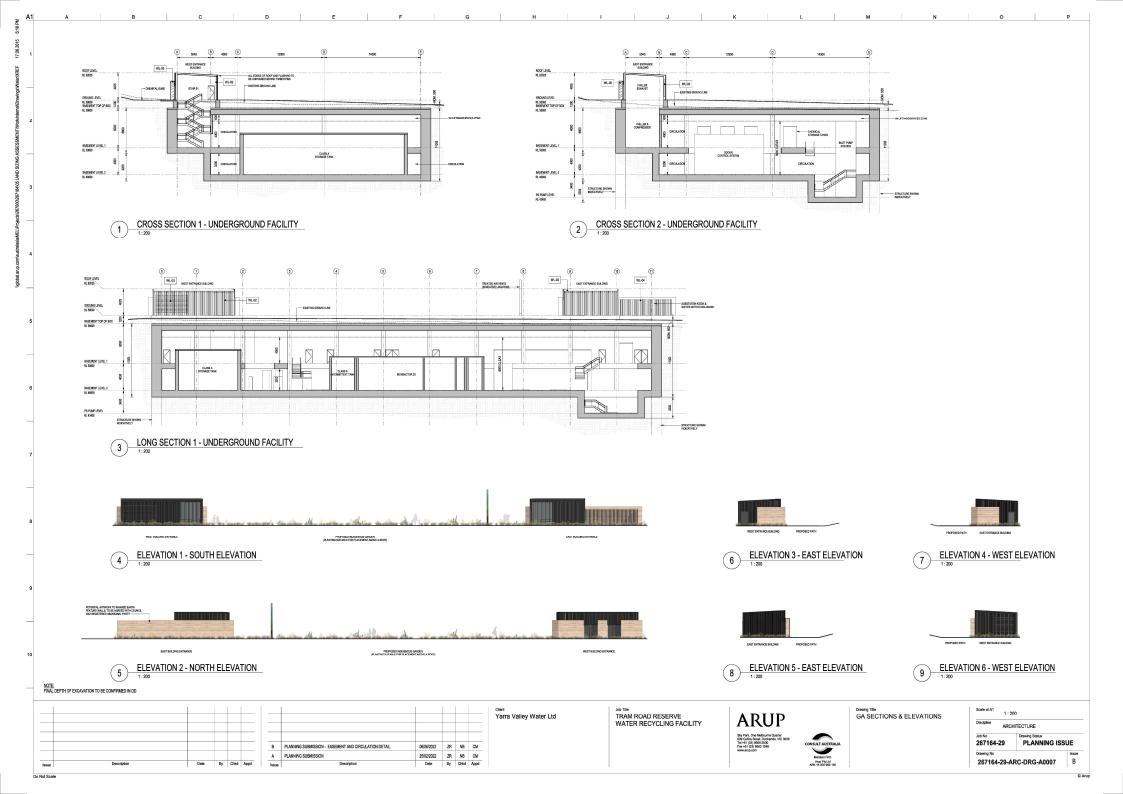












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# 05

# Design response

- Proposed site layout
- Site access
- Facility access
- Architecture
- Materials
- Access and amenity
- Architecture
- Materials
- Landscape and amenity
- Cultural heritage

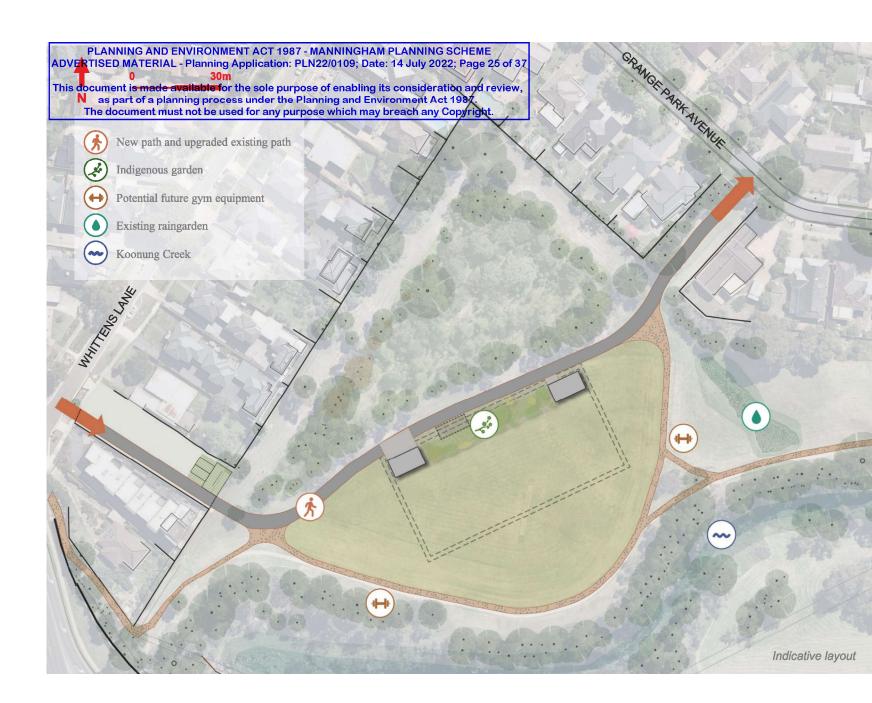
05 Design response

# Proposed site layout

The key design focus is to return the Reserve close to its existing condition with minimal loss of open space whilst providing additional features that improve safety, access and amenity of the Reserve.

The proposed site layout includes the addition of a northern access pathway that enters from a new access point from 6 Whittens Lane and continues through to Grange Park Avenue. Operational access for vehicles, staff, maintenance and security will be via the new path. Low profile gates and bollards will be used to regulate vehicular access to the Reserve.

Otherwise, existing paths and access routes will be retained. The Facility's above-ground buildings will be placed on the north side of the Reserve to keep the main area of the Reserve open for casual recreation. Other improvements, such as gym equipment, are also possible.



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05 Design response

# Proposed site layout

The design of access pathways and the above-ground buildings will minimise the impact on established areas of tree planting; sufficient distances from tree roots will be considered to mitigate any disturbance. To retain the natural character of the Reserve, the existing raingarden and vast majority of vegetation will be retained, with the design requiring the removal of one existing trees within the Reserve and two street trees.

Any significant planting will be sited between or immediately adjacent to the above-ground buildings. Plantings are generally expected to be low profile due to the underground Facility beneath not permitting deep root systems.

Any vegetation added would be Indigenous and maintained by Yarra Valley Water. It is envisaged that Indigenous landscape architects will be engaged to design the Indigenous garden.



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05 Design response

## 6 Whittens Lane

A new access route is proposed via 6 Whittens Lane to provide entry for vehicles, staff and maintenance and security.

Pedestrian access will be 24/7, however vehicle access will be managed by gates and bollards. Such features will regulate visitors and parking spaces, and can act as a gateway operated by Yarra Valley Water to minimise vehicular entry into the Reserve.

The 6 Whittens Lane site will be regraded to permit vehicle access. This will require a new retaining wall alongside the new access route. Two formal and two informal tandem car parking spaces will be provided at the lowest point of the 6 Whittens Lane parcel adjoining the Reserve and within close proximity to the Facility. These spaces will be constructed using a permeable surface and will also have a small retaining wall.

The remaining 6 Whittens Lane land will be reserved for future development consistent with the Neighbourhood Residential Zone.





Potential retaining wall options: a) and b) in situ concrete with timber form work



c) Gabion wall



d) Recycled Ironbark sleepers with steel H section



Potential permeable surface treatments



Access road through 6 Whittens Lane

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# **Indigenous Species**

With a focus on indigenous hardy and low maintenance species, the following suggested species can be incorporated for low screening and retaining elements for the retaining walls in 6 Whittens Lane.

Strap leaf species and grasses

- · Dianella revoluta
- Lomandra longifolia
- · Poa labillardieri

### Climbers / ground cover species

- Billardiera macrantha
- · Chrysocephalum appiculatum
- · Clematis microphylla
- Dichonra repens
- Hardenbergia violacea
- · Kennedia prostrata

### Shrubs

- · Bursaria spinosa
- Correa reflexa
- Chrysocephalum semipapposum
- Goodenia ovata















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Potential retaining wall with indigenous species

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05 Design response

# Facility layout

The location and design of the above-ground buildings have considered safety and vehicular sightlines of pedestrians. The Facility will need two above-ground buildings to enable staff to access to the underground Facility. Integrated into the eastern building will be a fenced area for an electricity kiosk that will provide power to the Facility.

The northern pathway will provide pedestrian and vehicle access to the Facility. The pathway complements the existing paths in the Reserve by helping form a walking loop for Reserve visitors. The pathway's design will incorporate drainage to manage runoff from the slopes to the north and help ensure the paths and Reserve remain useable during wet weather.

A spill capture bund (a slightly sunken area with a drain) is proposed to be imbedded within the northern pathway next to the western building to ensure any spills from deliveries are safely contained. An informal car space is also provided within the Indigenous garden for occasional visits by operational vehicles, helping minimise disruption to public use of the new path.



Example of spill capture bund within roadway

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05 Design response

## Architecture

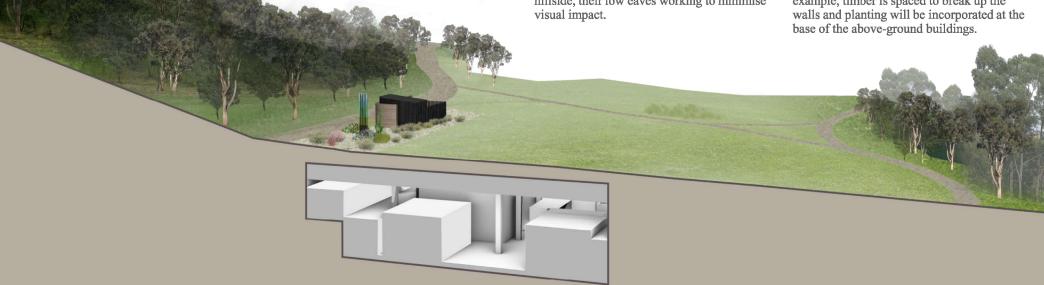
The above-ground buildings aim to sit discretely within the site and blend with the surrounding landscape. The massing of the above-ground buildings aims to minimise their footprint and the visual impact of the architecture to suit the local scale of nearby domestic buildings.

A natural and sustainable material palette has been adopted for the architecture, consisting of rammed earth and scorched black timber. The rammed earth wall faces the northern pathway, allowing for close engagement as people walk or cycle past the building. The dark timber buildings face the Reserve, helping nestle the buildings into the shadows of the trees and hillside, their low eaves working to minimise visual impact.

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The articulation of the architecture is aimed to provide visual interest along the northern pathway with the rammed earth walls, which will frame an Indigenous garden between the above-ground buildings. Indigenous artwork is a possibility as part of the walls and garden. Within the garden the 'people' spaces of the underground Facility below will be enhanced through incorporation of light wells.

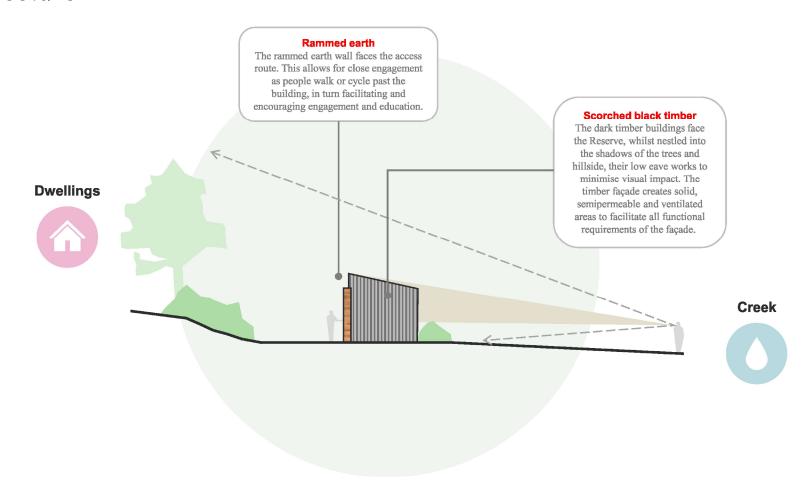
The timber façade creates solid, semipermeable and ventilated wall surfaces to facilitate all functional requirements of the Facility within. Crime Prevention Through Environmental Design (CPTED) principles have been adopted to deter graffiti, for example, timber is spaced to break up the walls and planting will be incorporated at the base of the above-ground buildings.



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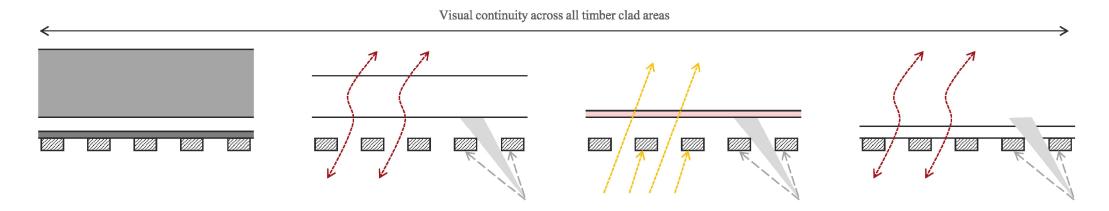
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05 Design response

## Materials



### Solid

Vertical timber battens over compressed fibre cement (CFC) sheeting, blockwork (or precast concrete), waterproofing and insulation. Solid wall provides a sleek minimalist aesthetic, while battens provide some richness and tactility.

### Air

Vertical timber battens over louvred areas. This system allows for the required ventilation requirements, whilst minimising the visual impact of the louvres.

### Light

Vertical timber battens over translucent sheeting or glazed areas. This system allows natural light in whilst providing some sun shading, and minimising views into the operational areas.

### Screen

Vertical timber battens screen the plant open air plant spaces beyond. The screen allows air to flow through, whilst obscuring views to plant equipment. PLANNING AND ENVIRONMENT ACT 1987 - MANNINGHAM PLANNING SCHEME ADVERTISED MATERIAL - Planning Application: PLN22/0109; Date: 14 July 2022; Page 33 of 37

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05 Design response

# Materials

















05 Design response

# Landscaping and amenity

An Indigenous garden will provide added amenity for the community; it will be maintained by Yarra Valley Water and designed through engagement with the Indigenous community. Within the area between above-ground buildings, the Indigenous garden will contain vegetation as well as skylights to provide daylight to the underground 'people' spaces.

There is also opportunity for Indigenous artwork to be incorporated on the rammed earth walls and ventilation. These walls face the northern path to encourage the community to engage with its motifs and messaging.



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05 Design response

# Water sustainability

The Facility will assist in providing sustainable water supply for dwellings in Doncaster Hill into the future. While the Facility is largely hidden below ground to preserve open space, it is important that the Facility's role in improving water security in the face of climate change and population growth be shared with the community. The Facility's above-ground presence will aim to do this through its design as well as appropriate signage and educational materials.

The narrative of water sustainability goes back to 65,000 years of Indigenous heritage. The design is inspired by the Wurundjeri Woi wurrung people living along Birrarung tributaries, honouring their deep connection to water and other natural features. The Facility design offers the opportunity to work with local Elders to recognise and honour this connection. There are opportunities to include artefacts and artwork in the design of rammed earth walls and ventilation, which will frame an Indigenous garden and tell the story of sustainable water from generation to generation.

