

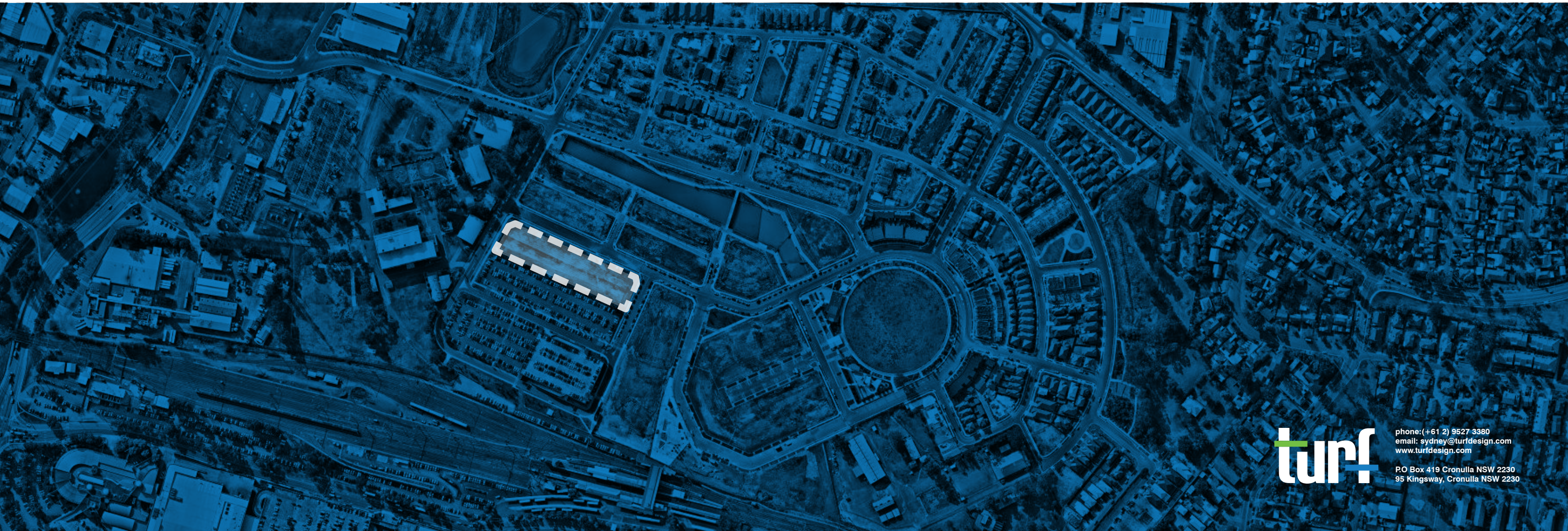
THE SHEFFIELD, THORNTON

PAYCE

LANDSCAPE DA REPORT

ISSUE A

November 2015



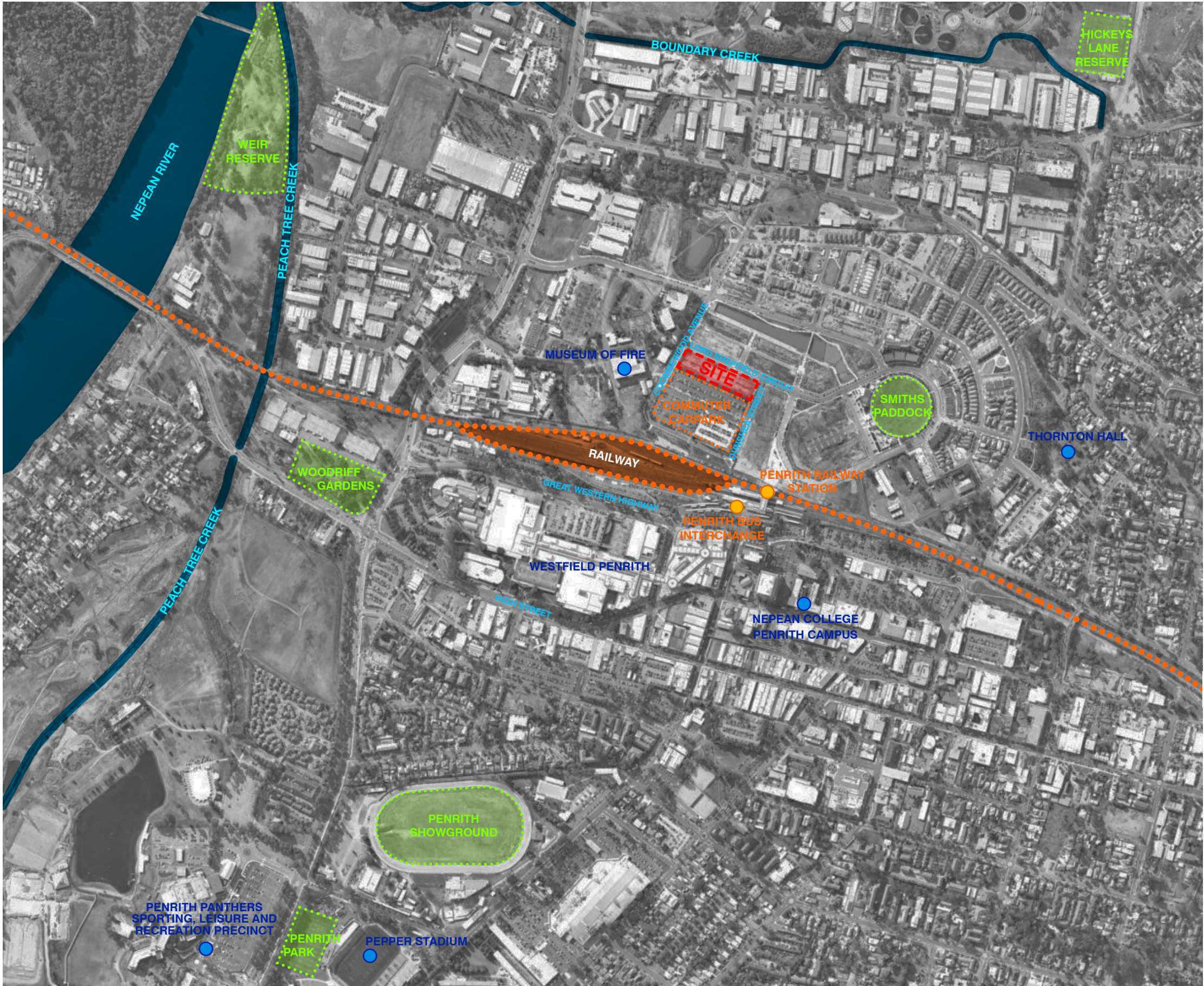
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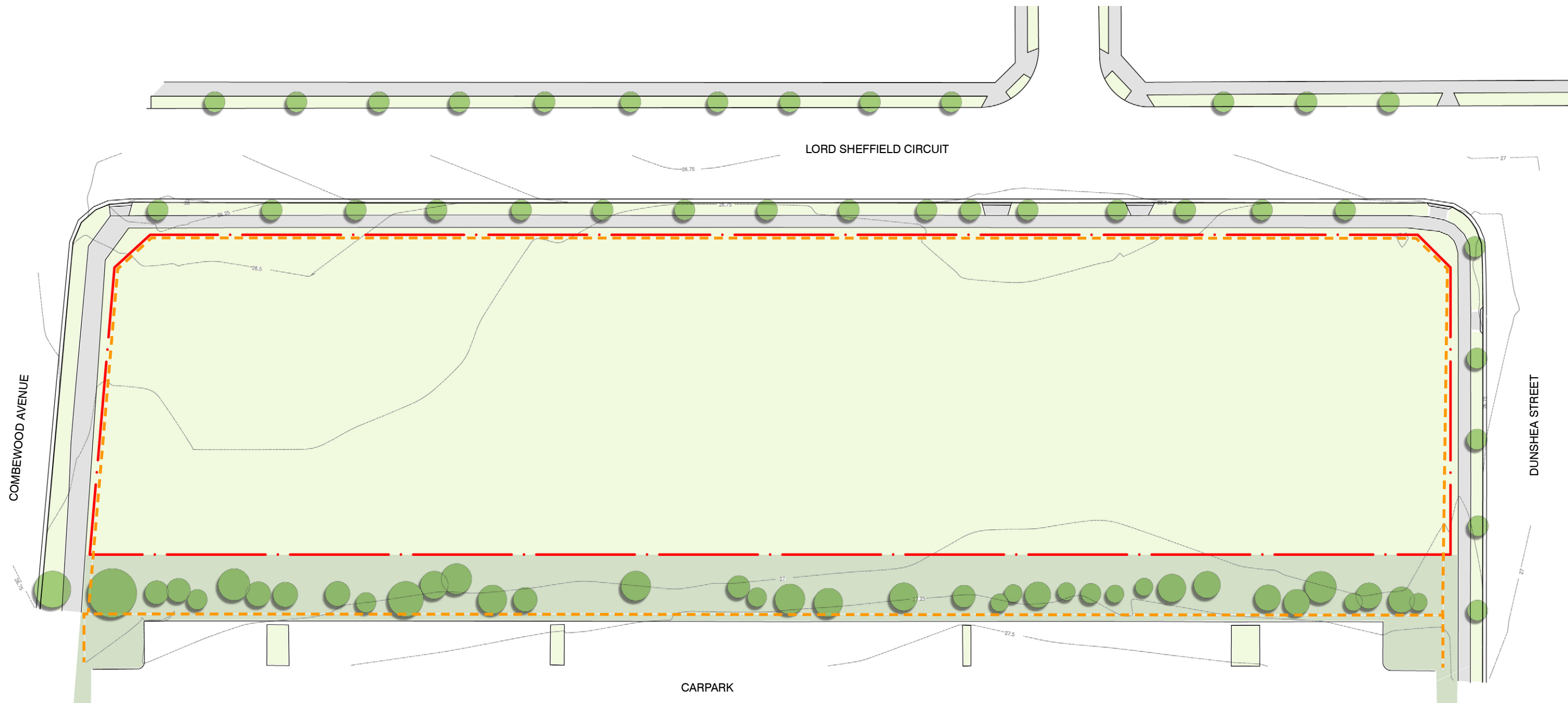
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CONTEXT

The site, adjacent to the North Penrith commuter car park, is in close proximity to public transport (including the Penrith Railway Station and Penrith bus interchange), the Penrith City Centre, recreational spaces and employment areas.





AREA
The site comprises an area of 6370m² of undeveloped land located on the southern side of Lord Sheffield Circuit.

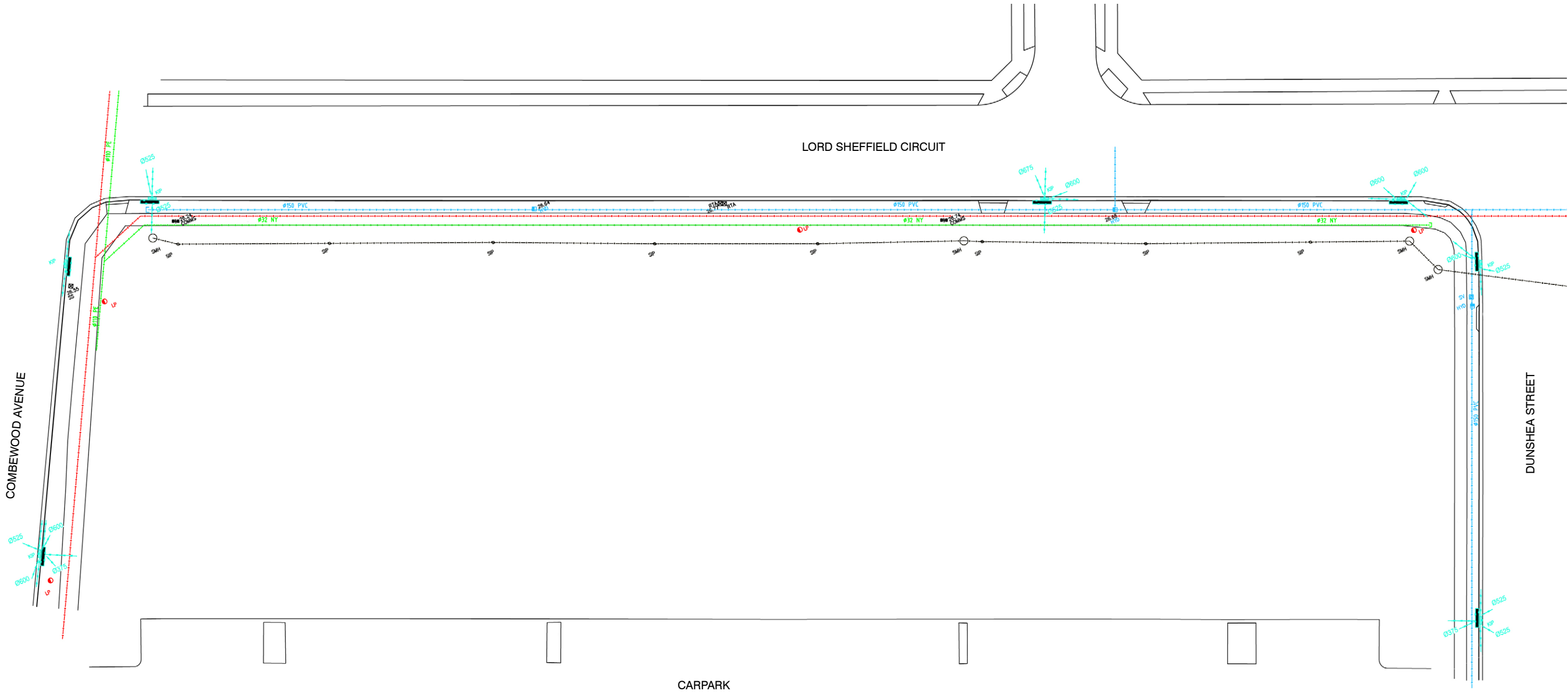
FRONTAGES
The site has road frontages to the north (Lord Sheffield Circuit), east (Combewood Avenue) and west (Dunshea Street), and a commuter carpark to the south.

TOPOGRAPHY
The area is reasonably flat with a very slight fall of less than 0.5m from the south east corner of the property to the north-west corner.

VEGETATION
The site is vacant and has no existing vegetation. Tree planting south of the site provides a buffer between the southern boundary and the commuter carpark. New street tree planting also exists outside the site's northern and eastern boundaries on Lord Sheffield Circuit and Dunshea Street.

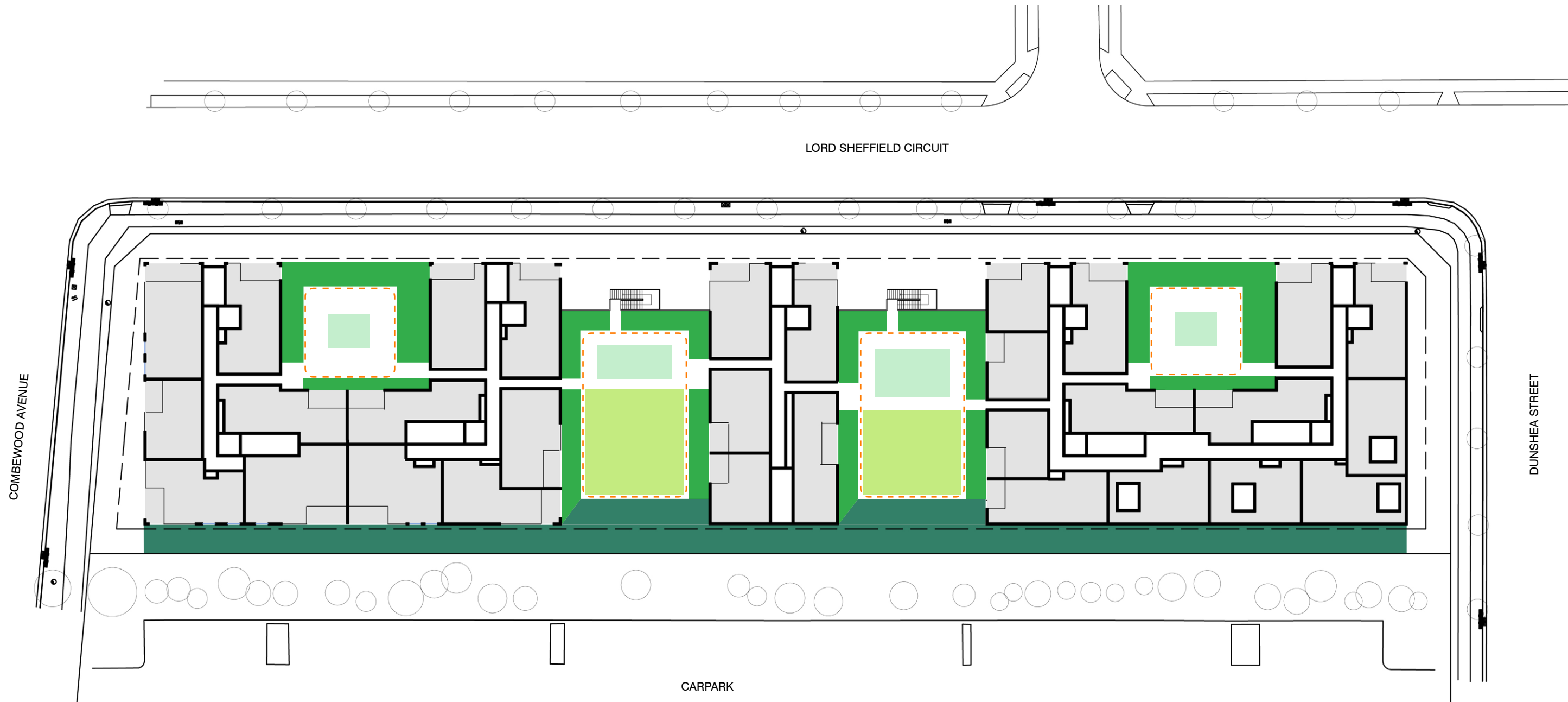
TRANSPORT CONNECTIVITY
There is a pedestrian pathway across the northern, eastern and western frontages of the site (on Lord Sheffield Circuit, Combewood Avenue and Dunshea Street). The site backs onto the North Penrith Commuter Car Park. Penrith Railway Station and Penrith bus interchange are approximately 250m and 350m walking distance from the site respectively.

- LEGEND**
- Site boundary
 - Existing trees
 - Existing contours
 - Existing turf
 - Existing planting area
 - Existing concrete footpath
 - Existing fence



LEGEND

- Existing water supply
- Existing gas service
- Existing electricity service
- Existing sewer service
- Existing stormwater



LANDSCAPE PRINCIPLES

- Promote pedestrian activity by providing clear and direct throughways with appropriate paving finishes and lighting.
- Utilise the architectural language of the built forms to inform the spatial arrangement and geometry of the podium landscape.
- Incorporate universal access into the design of all communal spaces, connecting walkways and building entries without compromising design quality.
- Balance the desire for an outlook to public areas with the need for visual privacy internally and externally.
- Maximise solar access and natural ventilation by selecting a variety of tree species to suit varying requirements throughout the site.
- Provide planting comprising complimentary foliage, colour and textures to ensure visual harmony.
- Promote biodiversity and robustness within the planting scheme.
- Use screen planting to the rear of courtyard spaces to visually mask the adjacent carpark and buffer funnelled breezes.

LEGEND

- Communal outdoor spaces
- Perimeter planters of varying heights for visual interest and soil depths
- Open lawn and outdoor dining spaces
- Central planters
- Screen planting to visually mask adjacent carpark and buffer wind

LANDSCAPE DESIGN CONTROLS

In order to ensure a landscape design in line with the objectives of the Penrith Development Control Plan, the following DCP controls have been identified and informed the landscape design principles:

PROTECTION OF THE ENVIRONMENT

Environmentally Sustainable Design:

- Planting of deciduous trees on northern and western aspects
- Selection of low water/low maintenance plants, including drought tolerant species where appropriate
- Planting of native or indigenous plants where appropriate
- Using drip irrigation systems where appropriate
- Using recycled and biodegradable products, including recycled soils and pavements where appropriate
- Allowing for composting, mulching and worm farms on site
- Using quality, long lasting materials
- Using soils and mulches manufactured with recycled waste.

Soil Landscapes:

- Selection of plant species accordingly

Minimising Soil Erosion:

- Ensuring imported soil does not impact on waterways or surrounding environments.

Avoidance of Excavation and Filling:

- Minimising any earthworks by accommodating the natural landform and utilising designs that require minimal cut and fill, particularly around existing trees to be retained

Conserving Site Soil:

- Where it is necessary to remove areas of topsoil as a result of cut and fill requirements, do not be remove from the site but stockpile in another part of the site for re-use in the landscaping process

Species Selection:

- Consider suitability to existing site conditions such as soils, aspect, drainage and micro-climate

- Select native species where appropriate
- Planting should consist of a variety of trees, shrubs and ground covers to contribute to biodiversity

Protection of Trees and Vegetation on Construction Sites and Adjoining Public and Privately Owned Land:

- Existing vegetation to be protected from soil compaction, root, trunk and limb damage, soil contamination and changes in surface levels that affect the health
- Where required, vegetation on public property and adjacent private land to be protected

Minimisation of Impervious Surfaces:

- Where appropriate, include permeable paving options

NEIGHBOURHOOD AMENITY AND CHARACTER

Landscape Character:

- Reinforce the identified natural attributes of the site
- Enhance the amenity and visual quality of the site

Integration of Design:

- Ensure landscape and building designs are complementary and aim to achieve similar design outcomes

Streetscape:

- Integrate with and enhance the existing characters, including vegetation, pavement, building features and heritage items
- The landscape design is to soften the development and streetscape

Community Safety:

- Promote the safety of the community through the maximisation of natural surveillance and appropriate lighting

Buffer zones:

- Provide densely planted buffers, using generally native or indigenous species where appropriate, to help minimise land use conflicts

SITE AMENITY

Contextual Design:

- Seek to screen development, particularly from the sides and rear of an allotment
- Highlight architectural features, define entry points, indicate direction, and frame and filter views into the site
- Use shrubs and small trees to screen service areas and block unwanted views that reduce privacy
- Ensure that plantings when mature will not conflict with structures and services

Open Space Requirements:

- Communal space/recreational facilities is to be located and designed to avoid nuisance or danger to neighbours, residents and visitors
- Communal open space should be accessible from all dwellings within the development
- Maximise solar access to all open spaces
- Select and locate trees to regulate solar access to buildings.

Deep Soil Zones:

- Maximise the area of a deep soil zone

Equal Access:

- Ensure equal access for people with disabilities

APPROACH

The landscape response seeks to offer a diversity of external spaces that enhance apartment living. The design responds to the building geometry, utilising the architectural language of the built forms to inform the spatial arrangement and geometry of the podium landscape.

Vegetation is proposed to moderate environmental conditions, complement vertical building scale and forms, enhance privacy, provide views of lush greenery from apartment balconies and windows, and offer a rich communal landscape setting.

Privacy for podium level residents has been addressed through the selection and placement of trees and screen planting.

URBAN ELEMENTS

Elements such as paving, furniture, and lighting will be developed further during detailed design. Refer L-DA-16 for proposed materials & finishes.

PLANTING DESIGN

The planting design has been developed in order to provide a lush and rich visual aesthetic. Complimentary foliage, colour and textures have been selected to ensure visual harmony.

A range of species including local native and exotic will be used to promote biodiversity and robustness within the planting scheme. Low-growing plant species will be located where appropriate to ensure clear views and site lines.

Consideration has been given to the incorporation of low water demand and low maintenance plant species in all areas to reduce mains consumption and fertiliser contamination of drainage water.

The habit and form of canopy trees will provide a dappled filigree of light and shade providing environmental amelioration year round.

AMENITY

Solar access and natural ventilation have been maximised by selecting a variety of tree species to suit varying requirements throughout the site. Deciduous and light-canopied trees have been nominated in close proximity to building facades. Visual privacy needs have been addressed in the planting design. The desire for an outlook to public areas is balanced with the need for privacy internally and externally, during day and night. The design acknowledges the opportunity to provide communal open space and take advantage of views. Open pergola structures over the communal BBQ areas on the podium will provide summer shade, whilst ensuring adequate light and passive surveillance. Climbing plants will be trained to the structure, providing dappled shade, and giving life and seasonal change to the space.

ACCESSIBILITY

All residents of The Sheffield can access and enjoy communal areas. Universal access to AS1428 has been incorporated into communal spaces, connecting walkways and building entries without compromising design quality. Gently graded pathways will provide accessibility for all age groups and degrees of mobility; ensuring that residents can access site amenities comfortably. Paths are rationally laid out into a clear and identifiable pathway network assisting orientation for visitors, and access to and from building entries and service areas. Lighting of external spaces will be provided to ensure access points are well lit, improving visibility and the sense of safety.

DRAINAGE

The detailed design will specify drainage cell to all soft landscape zones on structure.

IRRIGATION

Irrigation will be included as a design & construction item within the tender package. Irrigation will be provided to all soft landscape areas on structure.

SOIL

The planting will comprise a complementary mix of indigenous and exotic species. Soil requirements will therefore vary according to varying soil chemistries enjoyed by individual species. For indigenous vegetation, soil profiles will be provided which have modest nutrient levels particularly phosphorus. Suggested material would equal Australian Native Landscapes 'Low P' mixture. In areas where exotic species are to be planted an industry standard organic soil mixture will be provided. Consideration will be given to the planting arrangement to ensure species sensitive to nutrient will be grouped together.

LIGHTING

Lighting of external spaces will be provided to ensure access points are well lit, improving visibility and the sense of safety. Unobtrusive lighting will be incorporated where appropriate to enable night time recreational use.

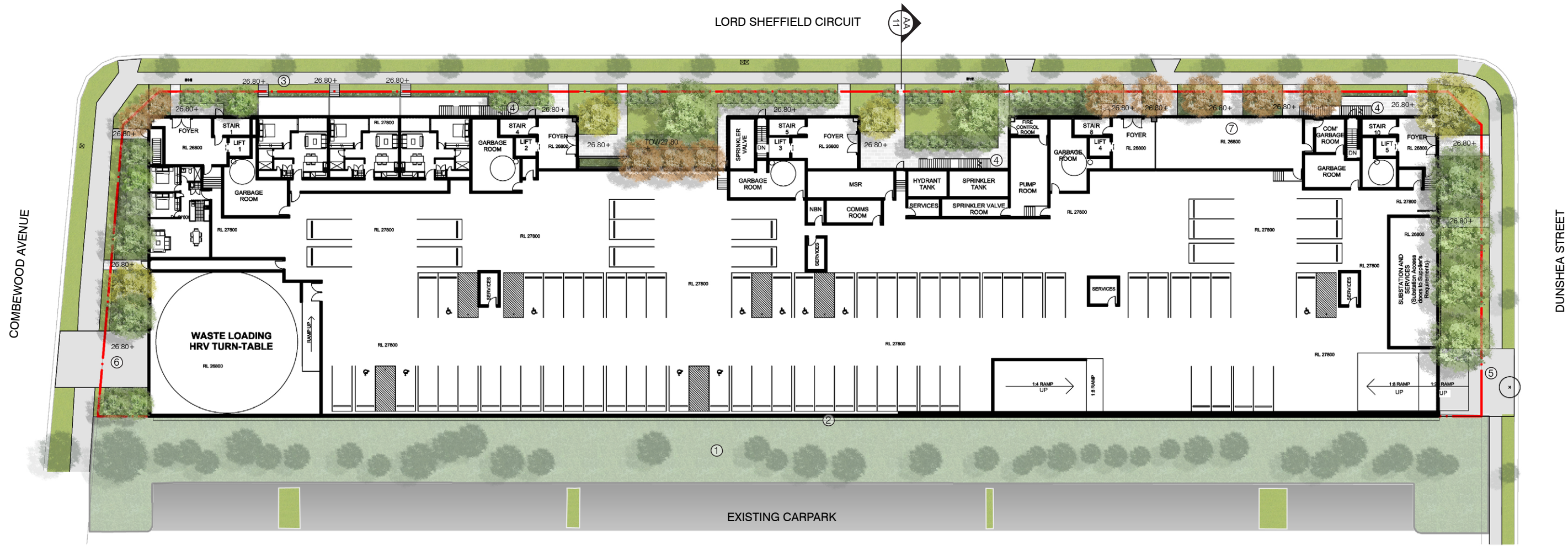
PLANT ESTABLISHMENT MAINTENANCE

A landscape maintenance contractor will be engaged to maintain all plant material in a state of health and vigour for a period of 52 weeks after practical completion.

The contractor must provide the Superintendent with a proposed maintenance works program for approval. The landscape contractor must keep a logbook of all maintenance works undertaken and include 'works to date' information with all progress payment invoices.

- Works will include, but not be limited to:
- Monitoring the irrigation system on a weekly basis to ensure plants are not under or over irrigated,
 - Replacing dead plant material to establish a complete cover of planting

- without obvious voids at final completion.
- Replenishment of mulch as required to provide cover to the soil surface minimising weed encroachment.
 - Suppression of weed growth.
 - Low phosphorus nutrient will be provided to indigenous plant groupings, and a broad spectrum fertiliser applied to exotic plant groupings to satisfy differing chemical requirements.
 - Selective pruning / crown lifting / canopy shaping of trees to remove potential future structural defects, establish branching above head height etc.



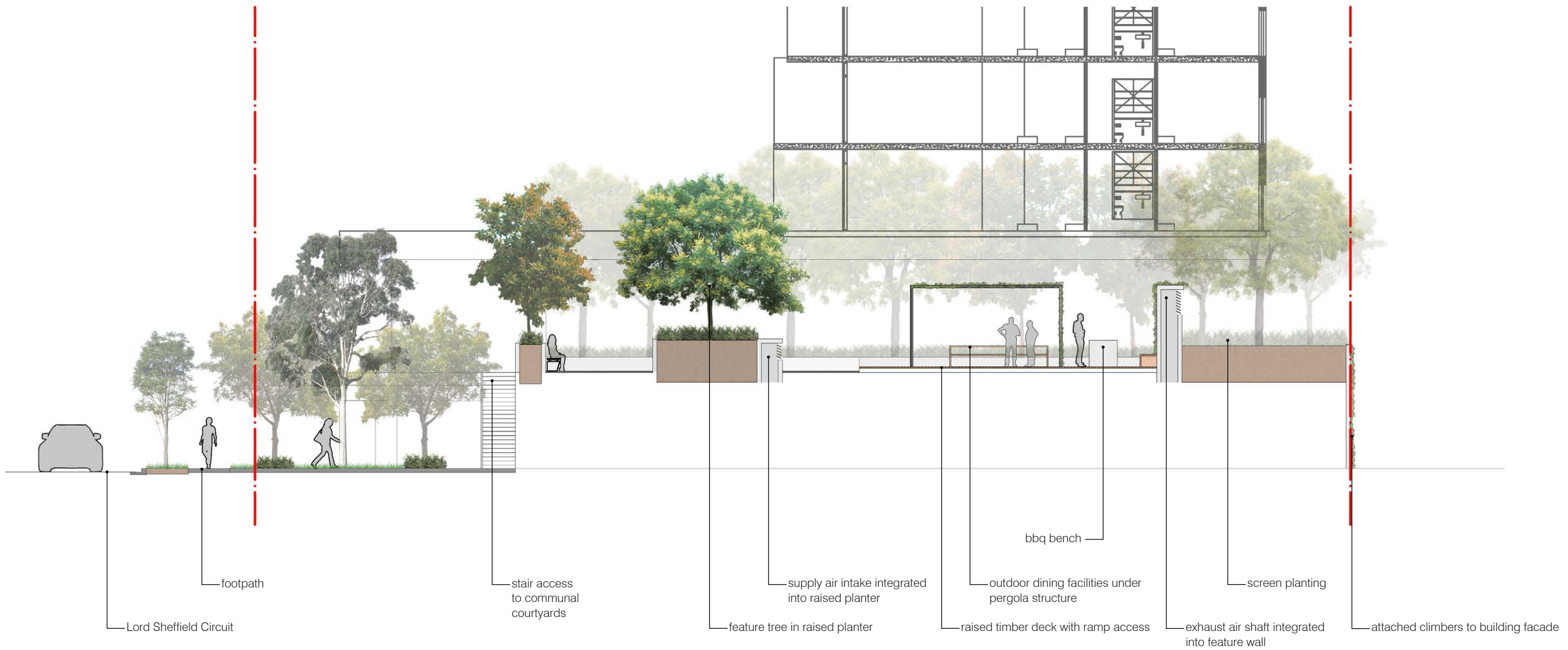
LEGEND

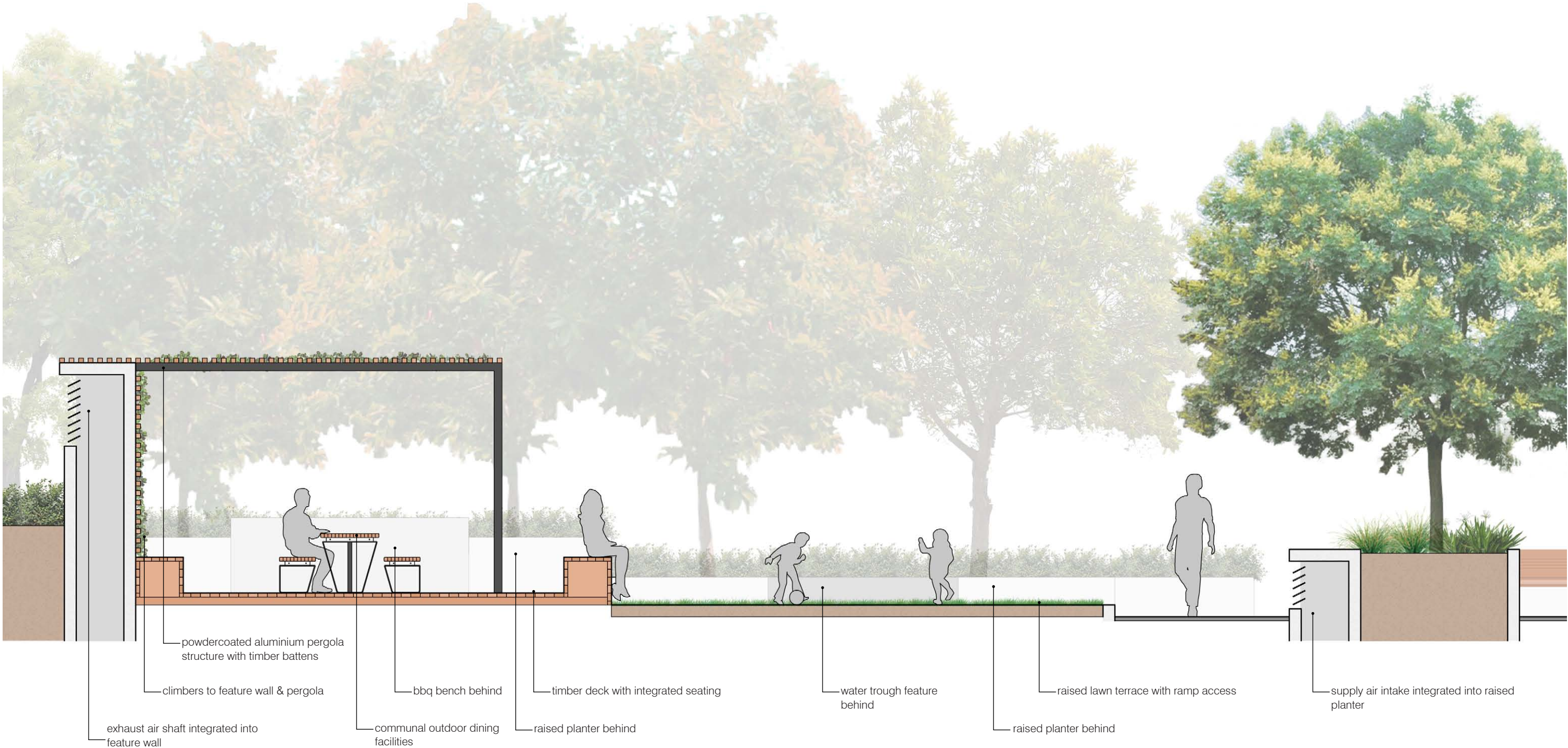
- | | |
|-------------------------------|---|
| Property boundary | ① Existing buffer planting to be retained |
| Existing trees to be retained | ② Attached climbers to building facade |
| Existing trees to be removed | ③ Street access to private balconies |
| Proposed trees | ④ Stair access to communal courtyards |
| Garden bed | ⑤ Carpark entry |
| Lawn | ⑥ Waste loading entry |
| Concrete paving | ⑦ Retail space |
| Concrete unit paving | |



LEGEND

- | | |
|-----------------------|---|
| --- Property boundary | ① Lawn terrace |
| Proposed trees | ② Timber decking |
| Garden bed | ③ BBQ |
| Lawn | ④ Outdoor dining facilities under pergola structure |
| Concrete unit paving | ⑤ Timber seating |
| | ⑥ Water feature |
| | ⑦ Supply air intake integrated into planter |
| | ⑧ Exhaust Air Shaft integrated into feature wall |
| | ⑨ Lawn area flush with adjacent paving |



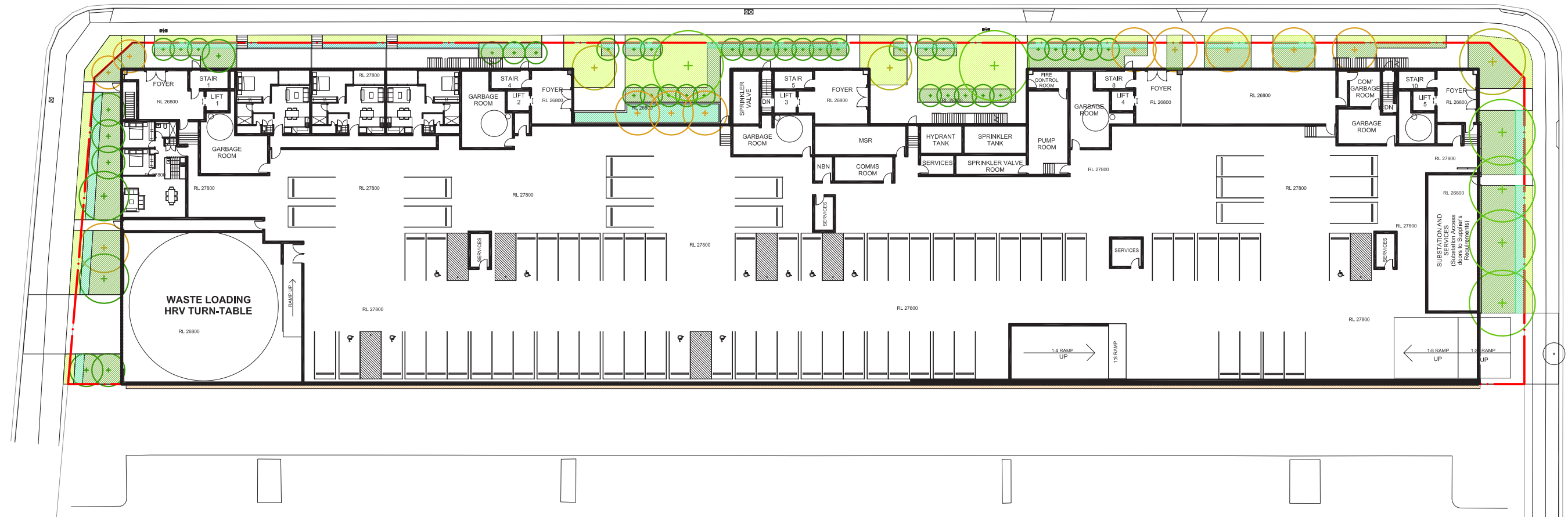






PLANTING

GROUND FLOOR PLANTING PLAN



LEGEND

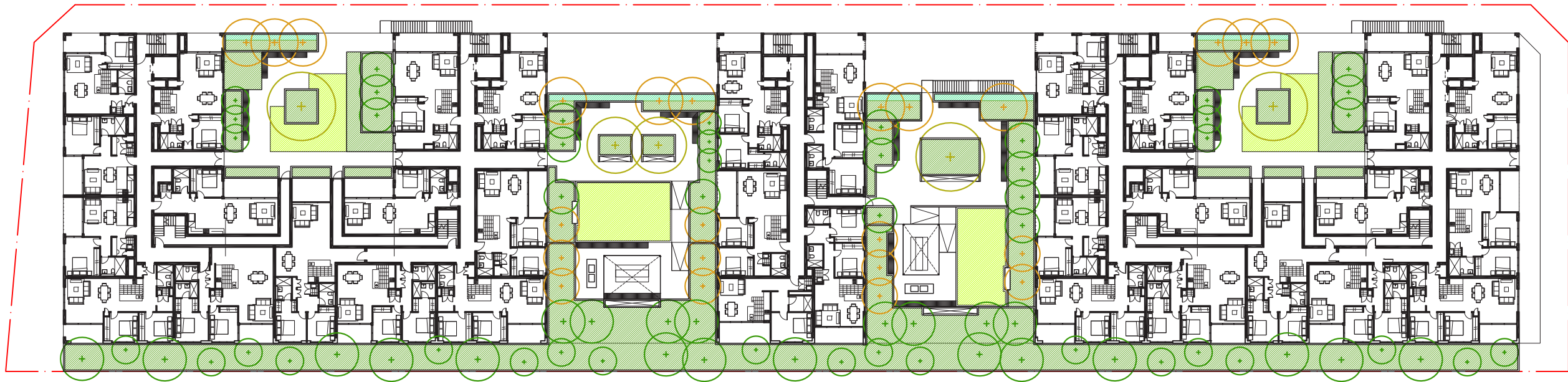
TREES:

- + Koelreuteria paniculata
- + Pyrus ussuriensis
- + Eucalyptus tereticornis
- + General trees

PLANTING MIXES:

- Screen planting
- Mass shrub planting
- Groundcover / cascade
- Climbers
- Lawn

Refer L-DA-17 for plant species, pot sizes and spacing.



LEGEND

- TREES:
- Koelreuteria paniculata

Pyrus ussuriensis

General trees
- PLANTING MIXES:

Mass shrub planting

Groundcover / cascade

Climbers

Lawn

Refer L-DA-17 for plant species, pot sizes and spacing.

PLANTING
PLANTING PALETTE



TREES

TREES

- Specified / located species:
- Koelreuteria paniculata
 - Pyrus ussuriensis
 - Eucalyptus tereticornis
- General species:
- Waterhousea floribunda
 - Tristaniopsis laurina
 - Eucalyptus sclerophylla
 - Melaleuca linariifolia
 - Melaleuca styphelioides
 - Callistemon salignus
 - Tilia cordata

Pot size: 50-200L

SCREEN PLANTING

- Indicative species:
- Viburnum odoratissimum
 - Viburnum 'Emerald Lustre'
 - Callitris muelleri
- Pot size: 300mm
- Spacing: 700mm

SCREEN PLANTING



MASS SHRUB PLANTING

MASS SHRUB PLANTING

- Indicative species:
- Dianella revoluta
 - Callistemon 'White Anzac'
 - Agave attenuata
 - Euonymus japonicus 'Aureo Marginatus'
 - Xylosma japonica
 - Cupressus sempervirens 'Stricta'
 - Schefflera arboricola
- Pot size: 200mm
- Spacing: 500mm



GROUNDCOVER / CASCADES

GROUNDCOVER / CASCADES

- Indicative species:
- Grevillea obtusifolia
 - Grevillea lanigera
 - Myoporum parvifolium
 - Grevillea juniperina 'Molonglo'
- Pot size: 150mm
- Spacing: 400mm



CLIMBERS

CLIMBERS

- Indicative species:
- Parthenocissus tricuspidata
 - Pandorea jasminoides
 - Trachelospermum jasminoides
- Pot size: 200mm
- Spacing: 600mm

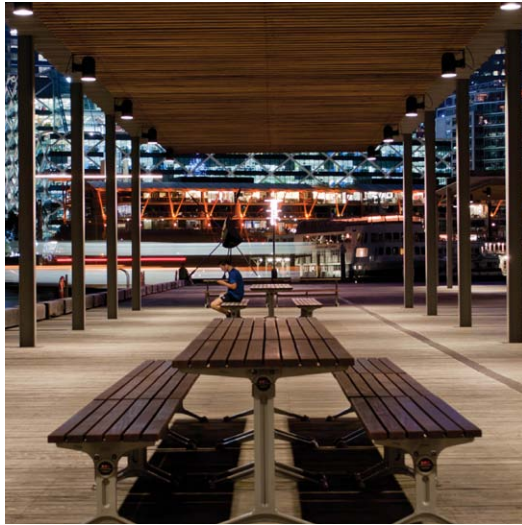
Final arrangements and quantities to be provided during DD / Tender.

FURNITURE & FIXTURES



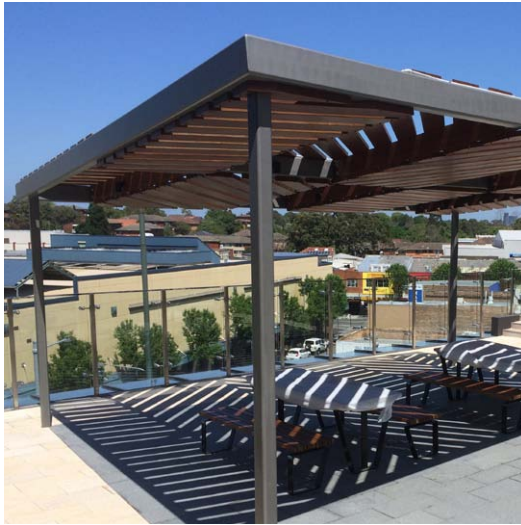
BENCH SEATING

Semi-bespoke bench seating, selected to suit the site's local character, will provide residents with comfortable resting places throughout the communal spaces.



ALFRESCO DINING

Large dining tables and seating facilitate outdoor dining adjacent to BBQs and provide social gathering spaces.



PERGOLA STRUCTURES

Powdercoated aluminium pergola structures with timber battens will provide dappled light during the day and visual interest at night to the communal dining spaces.



CONCRETE BBQ BENCHES

Concrete BBQ benches provide robust communal facilities. Construction detailing and materials will be appropriate to the communal context.

PAVING



CONCRETE UNIT PAVING

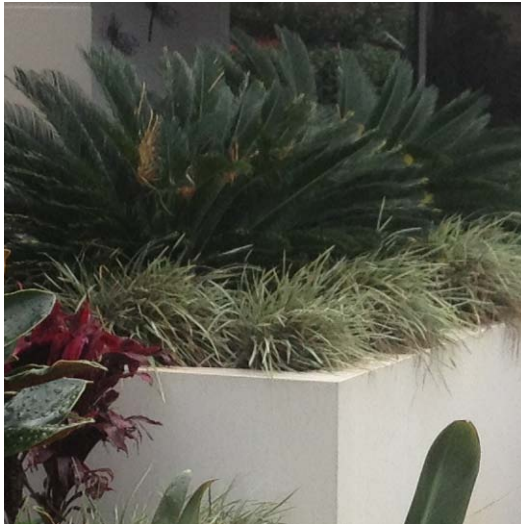
Robust concrete unit paving will ensure an attractive and hard wearing paving surface to heavily trafficked communal areas.



TIMBER DECKING

Universally accessible raised deck platforms overlooking the lawn terraces define the communal dining spaces.

RAISED PLANTER WALLS



WALLS

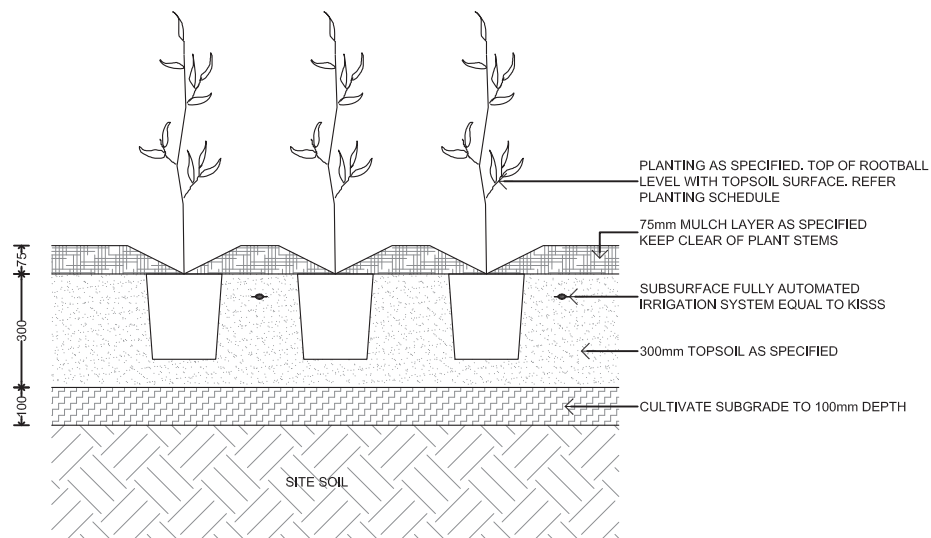
Rendered painted raised planters are proposed to complement the finish of the building facade.

WATER ELEMENTS

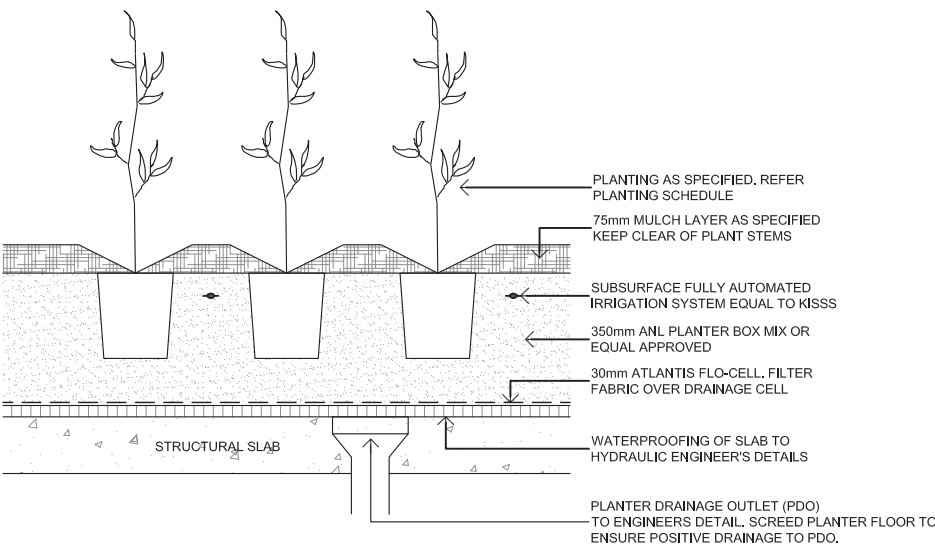


WATER TROUGHS

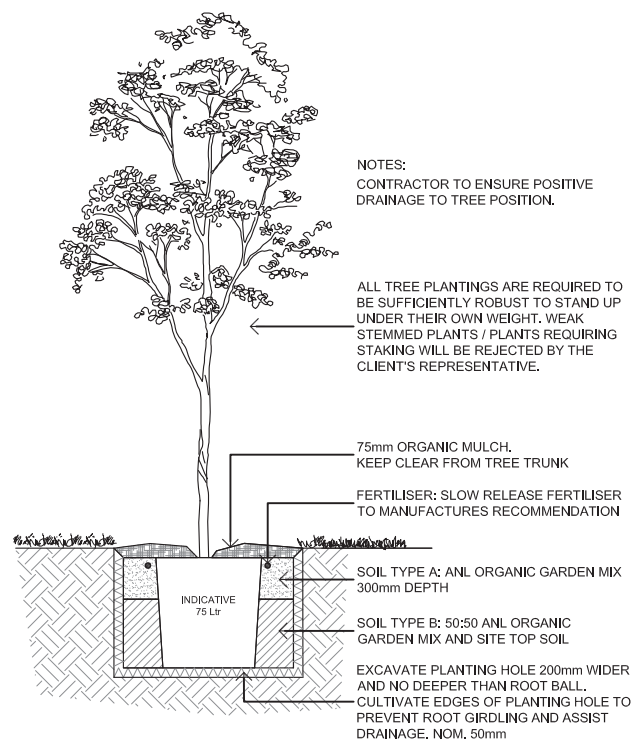
Rectangular GRC water troughs with tap and drainage connections will provide playful focal point element to the lawn terraces.



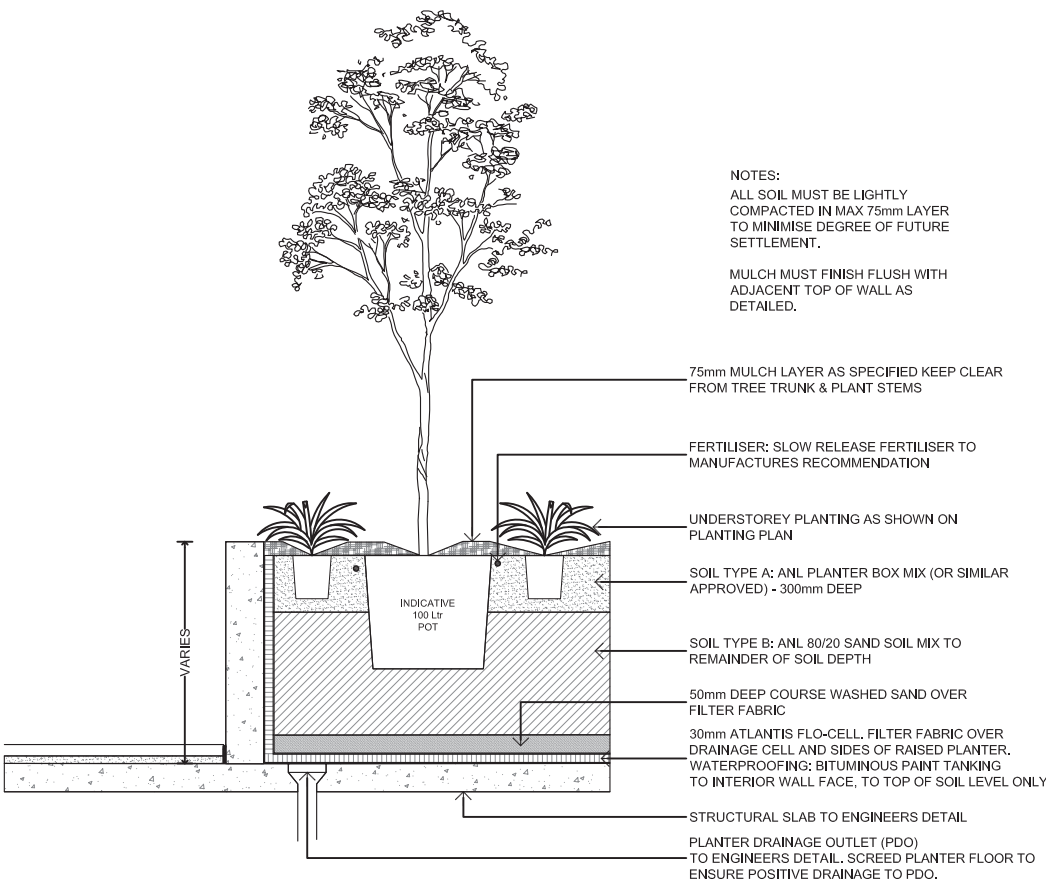
1 TYPICAL MASS PLANTING IN DEEP SOIL
1: 20 @ A3



2 TYPICAL MASS PLANTING ON STRUCTURE
1: 20 @ A3



3 TYPICAL TREE PLANTING IN DEEP SOIL
1: 40 @ A3



4 TYPICAL RAISED PLANTER ON STRUCTURE
1: 40 @ A3