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Glossary

AHD
Australian Height Datum

AS
Australian Standards

BCA
Building Code of Australia

CBD
Central Business District

CFC
Compressed Fibre Cement

DDA
Disabilities and Discrimination Act

ECR
Emergency Control Room

EIS
Environmental Impact Statement

FFL
Finished Floor Level

GMS
Galvanised Mild Steel

GPT
Gross Pollutant Trap

GRC
Glass Reinforced Concrete

ICR
Incident Control Room

MOC
Motorway Operations Complex

NATA
National Association of Testing Authorities

PAR
Preferred Activity Report

PHY
Pacific Highway

PHR
Pennant Hills Road

RMS
Road and Maritime Services

SS
Stainless steel

SWTC
Scope of Works and Technical Criteria

WQP
Water Quality Pond

Gateway
There are entrance points which have a high degree of visibility and a distinct sense of transition. Gateways may include landscaping, public art, gateway structures, special lighting and signs.

Entrances
These are points of entry to a neighbourhood, tunnel or historic zone.

Node
Neighbourhood focal points, nodes are highly visible locations which serve as meeting places for residents or one or more neighbourhoods and have a clear identity as neighbourhood locations. They can be functional or natural.

Boulevard
Boulevards are arterial routes provided with large street trees with a continuous and consistent landscape treatment. The landscape treatment often emphasises a formal design pattern. Overhead utilities are eliminated or reduced along a boulevard. Features include widened footpaths, special footpath treatments, crosswalk paving materials and other public amenities.

Parkway
A continuous freeway which traverses a park or parkland setting in an urban environment. In this submission the word is interchangeable with the description of a boulevard.

Shared Path
These are priority routes for pedestrians and cyclists. A pathway adjacent to the road.

Bundling
Overhead power and/or telecommunications lines that could be 'bundled' and placed in conduits and/or trenches underground.

Dive structure
The retaining structure and feature claddings diving to the entrance to a tunnel entrance or portal.

Portal
The face and retaining structure immediately above the tunnel entrance, generally located perpendicular to the dive structure.

Noisewall
A wall created to mitigate and deflect the effects of predominantly traffic noise.

1.0 General

1.1 Report Objective

This report describes the project's urban, architectural and landscape design proposals.

The design of the various project components is developed through an integrated urban design team approach. This approach encourages a continuous component evolution and refinement throughout the tendering period. The components, would of necessity, receive further development at the construction stage, arising from detailed engineering requirements, constructional constraints, community consultation and Authority approvals. Further design modifications are also anticipated as an outcome of the community consultation process.



View of Observatory Park.

1.0 General

1.2 General Context

Overview

The project would:

- Connect the Hills M2 Motorway to the M1 Pacific Motorway;
- Reduce travel times and improve road safety;
- Improve access; and
- Reduce traffic congestion on Pennant Hills Road.

The urban design proposal would:

- Improve driver experience;
- Blend the project into the existing built and natural environment;
- Improve public transport travel times;
- Provide safe, fast connection for cyclists; and
- Improve safety and access for pedestrians.

Project Extent

The scope of urban design, architectural and landscape works proposed are all the works occurring within the property boundaries of the road corridor for the full length of the project, together with certain works on intersecting local roads.

The Road and Tunnel Project

The completed project is significant in terms of increasing accessibility, reducing travel times, lowering traffic volumes on existing roads and interconnecting with Sydney's present motorway network. It would provide a motorway-standard tunnel connection between the Hills M2 Motorway and the M1 Pacific Motorway, and would considerably reduce North-South travel time through the Sydney metropolitan area.

Surface roads through the Pennant Hills and residential areas would likely experience reductions in traffic, resulting in improvements in the connectivity and permeability of their urban fabric.

There would also be an extension of current art and cultural elements and the introduction of themed elements to enhance aesthetics associated with the project.

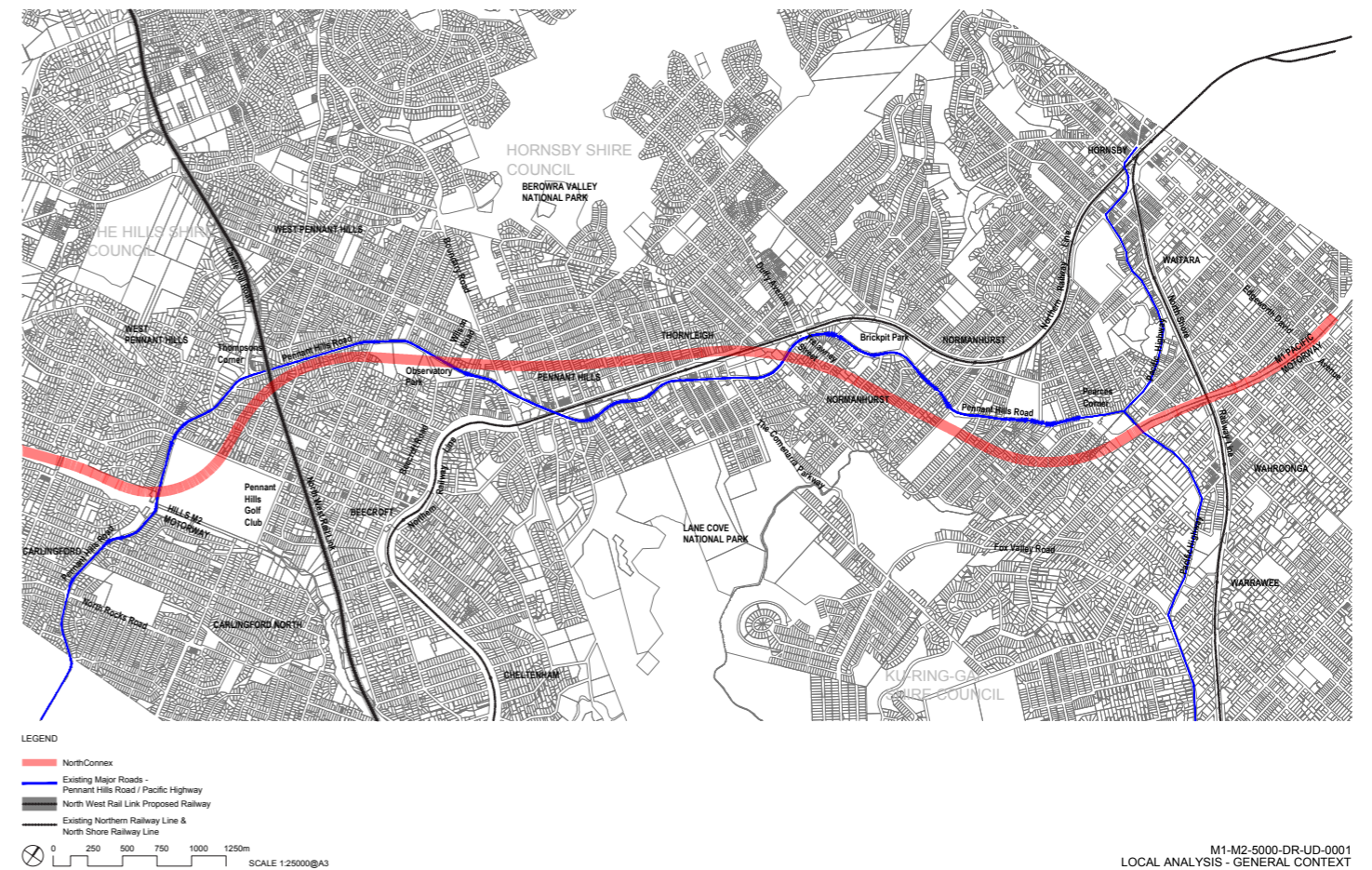
Pedestrian and Bicycle Networks

The project includes pedestrian and cyclist routes along and across its length. The routes are provided as either shared pedestrian and cycleways, or, in parts, as separate pedestrian and cyclist paths. The design ensures they are both attractive and safe for users.

The shared path would be maintained to ensure connectivity, pedestrian safety, neighbourhood amenity, and contribute to encouraging exercise and a more sustainable mode of transport.

Environmental, Aesthetic and Safety Aspects

The project would contribute to a positive reduction in local traffic in the presently congested Pennant Hills area. This outcome would make for a safer, more pleasant environment with decreases in noise and environmental pollution. The project's integrated design approach would ensure enhanced landscaping and built design outcomes.



SOUTHERN INTERCHANGE

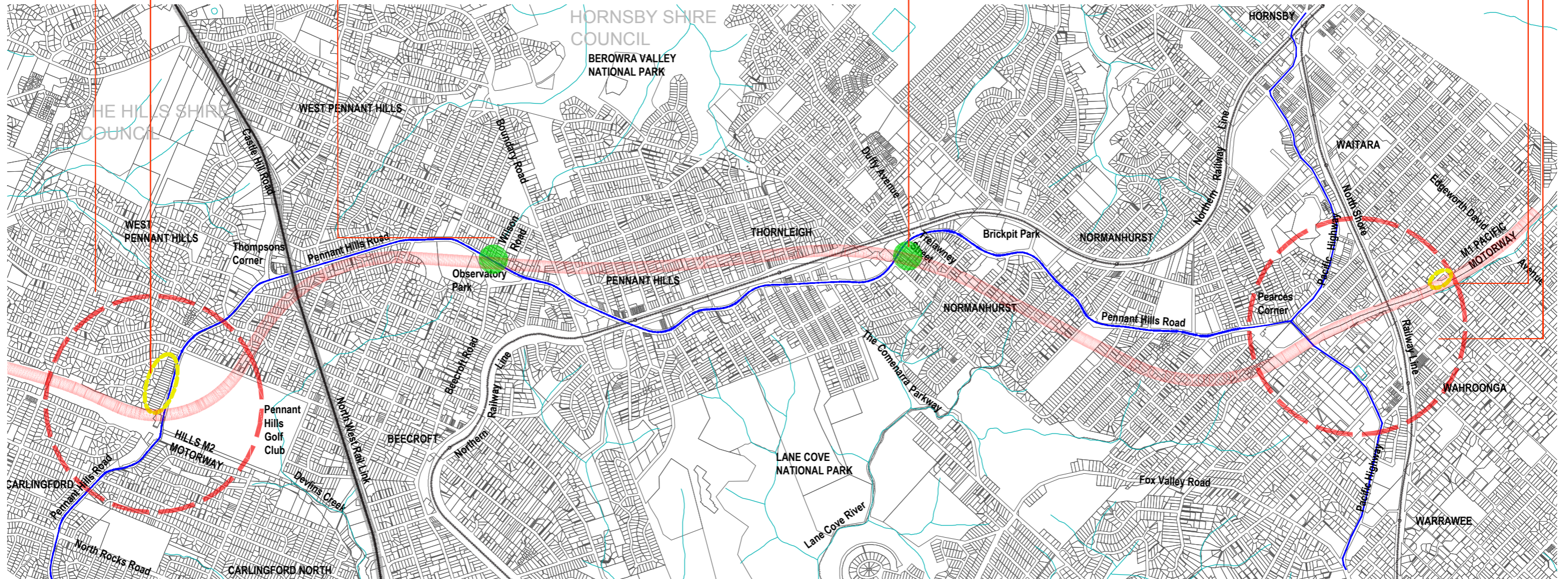
NORTHERN INTERCHANGE

Northern ventilation facility

Motorway operations complex

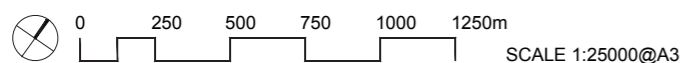
Trelawney Street tunnel support facility

Wilson Road tunnel support facility



LEGEND

- NorthConnex
- Existing Major Roads - Pennant Hills Road / Pacific Highway
- North West Rail Link Proposed Railway
- Existing Northern Railway Line & North Shore Railway Line
- Waterways



1.0 General

1.3 Document Review

To understand the existing conditions, an analysis of the route was undertaken, examining specific sites at both a macro and micro level.

1.4 Macro Analysis

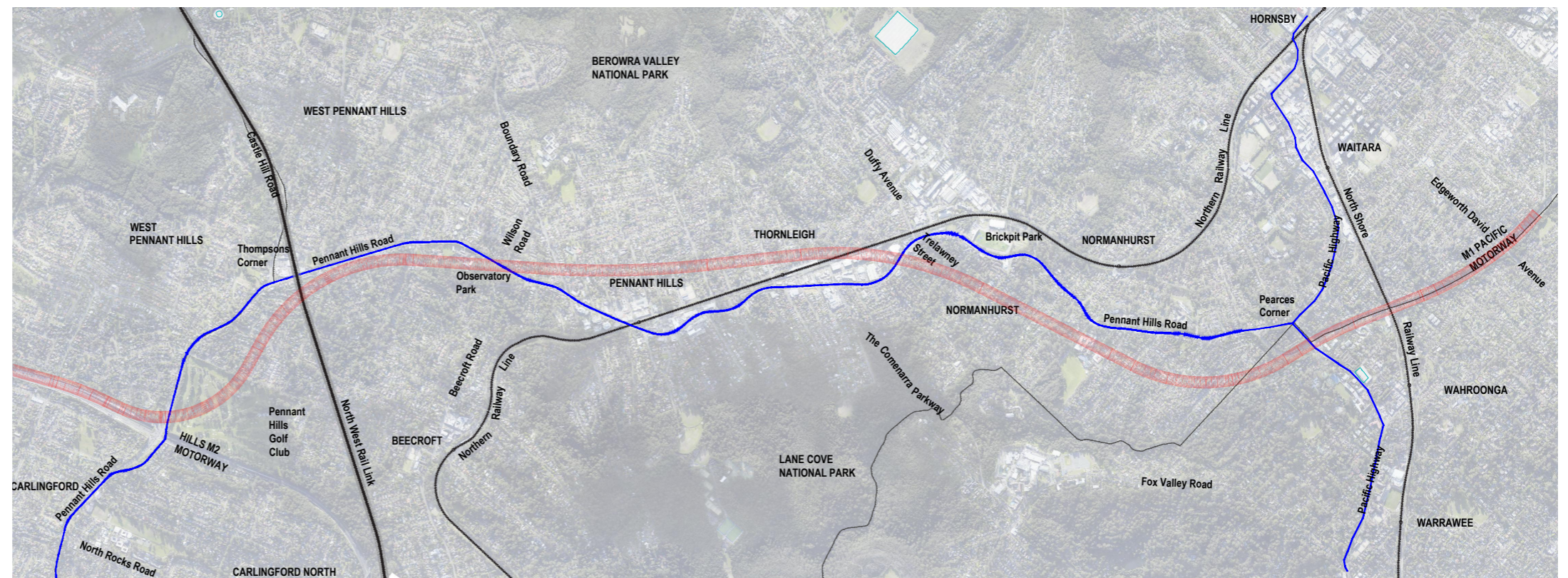
1.4.1 Urban and Landscape Typology

Through urban landscape typology analysis, major topographic, landscape and built form features are identified.

Design Implications:

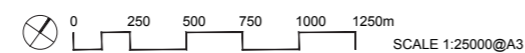
Achieve appropriate contextual design through the integration of new built elements into the existing built fabric, including:

- View catchments and view corridors;
- Landform and underlying geology (which impinges upon planting palettes);
- Topography (which contributes significantly to the visual experience of the road journey);
- Vegetation communities; and
- Built form responses.



LEGEND

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- Existing Northern Railway Line & North Shore Railway Line



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CONTEXTUAL ANALYSIS - NORTHCONNEX OVERLAY WITH AERIAL