

State Significant Development Application Environmental Impact Statement



North Ryde Station Precinct - Station North and Station South Site

Submitted to Department of Planning and Infrastructure
On Behalf of UrbanGrowth NSW

March 2014 ■ 13528

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Stephanie Ballango

28/03/2014

This report has been reviewed by:



Lesley Bull

28/03/2014

Contents

1.0	Introduction	1
1.1	Background to the Development	1
1.2	Objectives of Development	4
1.3	Overview of Proposed Development	5
1.4	Other Approvals	6
1.5	Analysis of Alternatives	6
2.0	Site Analysis	7
2.1	Site Location and Context	7
2.2	Site Description	8
2.3	Surrounding Development	14
3.0	Consultation	16
3.1	Ryde City Council	16
3.2	Transport for NSW	16
3.3	Community Consultation	16
4.0	Description of Proposed Development	17
4.1	Subdivision	17
4.2	Gross Floor Area Allocation	18
4.3	Civil Works and Entry Road Design	18
4.4	Street Tree Planting	19
4.5	Water Cycle Management	19
4.6	Infrastructure and Services	19
4.7	Waste and Construction Management	19
5.0	Environmental Assessment	20
5.1	Director General's Environmental Assessment Requirements	20
5.2	Environmental Planning and Assessment Act, 1979	20
5.3	Compliance with Planning Policies and Environmental Planning Instruments	22
5.4	Transport and Accessibility	27
5.5	Water Cycle Management	31
5.6	Tree Removal	32
5.7	Geotechnical	33
5.8	Infrastructure and Utilities	33
5.9	Environmental and Construction Management	33
5.10	Site Suitability	35
5.11	Public Interest	35
6.0	Mitigation Measures	36
7.0	Justification for the Proposal	37
7.1	Social and Economic	37
7.2	Biophysical	37
7.3	Ecologically Sustainable Development	37
8.0	Conclusion	41

Contents

Figures

1	Regional Context	7
2	Site Location (Station North sub precinct)	8
3	North Ryde Station Precinct – Station Site and M2 Site	9
4	Aerial photograph of the Station North sub-precinct	9
5	View of on-site car park, vegetation and neighbouring building from the south west	10
6	View of the on-site car park, vegetation and North Ryde station from the north east	10
7	View of the site from the east	11
8	ECRL Corridor	12
9	Surrounding development	15
10	Draft Plan of Subdivision	18
11	Station Street design	29
12	SSDA Station Street design	30

Tables

1	Comparison of required and proposed Station Street elements	30
2	Mitigation Measures	36

Appendices

A	Director General's Requirements <i>Department of Planning and Infrastructure</i>
B	Draft Plan of Subdivision and Engineering Plans <i>Robert Bird Group</i>
C	Civil Design Report <i>Robert Bird Group</i>
D	Stormwater Management Report <i>Robert Bird Group</i>
E	Transport Impact Assessment <i>Parsons Brinckerhoff</i>
F	Arborist Report <i>Naturally Trees</i>

Statement of Validity

Environmental Impact Statement prepared by

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In respect of	State Significant Development Application for North Ryde Station Precinct - Station North and Station South Site

State Significant Development Application

Applicant name	UrbanGrowthNSW
Applicant address	Level 14 60 Station Street Parramatta NSW 2150
Land to be developed	Lot 4 DP 1131774 and Lot 160 DP 1136651
Proposed development	Subdivision and construction and opening of an entry road with associated infrastructure works.

Environmental Impact Statement

	An Environmental Impact Statement (EIS) is attached.
Certificate	<p>I certify that I have prepared the content of this EIS and to the best of my knowledge:</p> <ul style="list-style-type: none">■ It is in accordance with Part 4 of the <i>Environmental Planning and Assessment Act 1979</i> and Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.■ It contains all available information that is relevant to the environmental assessment of the development to which the statement relates.■ The information contained within this statement is neither false nor misleading.

Signature



Name

Stephanie Ballango Lesley Bull

Date

28 March 2014

Executive Summary

Purpose of this report

UrbanGrowth NSW has lodged a State Significant Development Application (DA, SSD 6256) over land located at the junction of Delhi Road and the M2 Motorway, North Ryde (Lot 4 in DP 1131774 and Lot 160 in DP 1136651) seeking consent for subdivision, opening of a road and subdivision, civil, landscaping and infrastructure works, and allocation of gross floor area (GFA) to proposed Lot 1.

Under Schedule 2, Clause 12 of the State Environmental Planning Policy State and Regional Development 2011 (SEPP SRD), development on the North Ryde Station Precinct Site, within which the proposed development is proposed, for the purposes of a principal subdivision establishing major lots or public domain areas, and the creation of new roadways and associated works is State Significant Development.

This Environmental Impact Statement (EIS) has therefore been prepared to satisfy Division 4.1 of Part 4 of the EP&A Act, the EPA, Regulation 2000 and the SEPP SRD.

Background

Key features of the North Ryde Station Precinct are outlined in **Section 1** of this EIS, including the current status of applications across the North Ryde Station Precinct, and development for which consent is currently being sought.

Proposed Development

This SSDA seeks consent for subdivision, allocation of GFA to proposed Lot 1, and the carrying out of civil and associated infrastructure works within the Station North sub-precinct of the North Ryde Station Precinct. In the future, the Station North sub-precinct is to be developed for a mix of residential and non-residential uses, including but not limited to residential buildings, commercial, retail, community and open space. The Station North sub-precinct is one of two development plots identified in the North Ryde Station Precinct.

More specifically, this SSDA seeks approval for the following components of development:

- demolition of existing structures on the Site;
- construction of a new entry road from Delhi Road to the North Ryde Rail Station;
- subdivision to create 2 super lots and the opening as a public road of the new entry road;
- allocation of gross floor area to proposed Lot 1;
- drainage and stormwater management infrastructure within the future road reserve lot;
- vegetation removal, landscaping and public domain works including construction of a shared pedestrian share way; and
- associated utilities servicing infrastructure - electrical, sewerage, telecommunications, potable water and gas.

A key factor influencing the scope and extent of the development as proposed by this SSDA is the need to provide a single future public road which both:

- “unlocks” public road access to Lot 160 in DP 1136651 and thereby facilitates future development of that land in accordance with its zoning; and
- provides public road access to the southern boundary of Lot 4 in DP 1131774 and thereby facilitates future site development as well as obviates the need for vehicular site access from and egress to Delhi Road across the northern boundary of the site immediately adjacent to North Ryde Station. This provides a significant public benefit to users of Delhi Road and the Station.

Strategic and Statutory Planning Considerations

Under Schedule 2, Clause 12 of the SEPP SRD, development on the North Ryde Station Precinct site for the purposes of a principal subdivision establishing major lots or public domain areas, and the creation of new roadways and associated works is State Significant Development.

A request to issue Director-General’s Requirements (DGRs) for environmental assessment of the Station North sub-precinct was made on 7 November 2013. DGRs were issued by the DoPI to UrbanGrowth NSW on 20 January 2014 (see **Appendix A**).

Section 5.0 of the EIS considers all applicable legislation in detail. The proposal complies with all relevant planning controls.

Ryde Local Environmental Plan 2010 (Ryde LEP 2010) is the principal environmental planning instrument applying to the Site. Pursuant to the provisions of the Ryde LEP 2010, the Site is zoned B4 Mixed Uses. Uses permissible on the Site are broad and include development for the purposes of subdivision, residential accommodation, business premises, roads, and public recreation. There are no detailed controls or provisions that guide or restrict the size of future lots, or civil and infrastructure works such as that proposed on the Site.

Environmental Impact

This EIS provides an assessment of the environmental impacts of the project in accordance with the DGRs and sets out the mitigation measures required to be implemented prior to, and during, construction works to manage and minimise potential impacts arising from the development (refer to Section 6.0). Key environmental assessment considerations identified include, amongst others:

- compliance with statutory and strategic planning controls and objectives;
- transport and accessibility;
- water cycle management and flooding impacts;
- tree removal;
- geotechnical and contamination constraints;
- infrastructure and utilities;
- environmental and construction management;
- site suitability; and
- public interest.

This SSDA has environmental planning merit in the following respects:

- it is consistent with the urban design principles established in the North Ryde Station Precinct Development Control Plan 2013, particularly in so far as it:
 - facilitates the future mixed use development that is envisaged for the North Ryde Station Precinct;
 - provides an accessible and connected road network that is consistent with the approved framework for the Site;
- the proposed allocation of GFA to proposed Lot 1 complies with the maximum permissible floor space ratio (FSR) control calculated over the total site area including the area of the future public road;
- transport infrastructure works are in accordance with the principles established as part of the UAP process, including pedestrian cycle path network and road infrastructure upgrades;
- the integrated water cycle management plan is consistent with the principles of Water Sensitive Urban Design approved for the Site under the UAP process, ensuring the quantity and quality of stormwater leaving the Station North sub-precinct meets statutory requirements and predevelopment flow levels;
- there is minimal risk to flooding as the Site is located on a local ridge line between two catchments and therefore flooding from external catchment flows is not expected;
- implementation of an Integrated Water Management Plan including a preliminary erosion and sediment control plan that satisfies the requirements of the NRSP DCP 2013;
- the risk of unstable slopes arising from the bulk earthworks is very low and able to be managed;
- the Ryde UAP process confirmed that the site is suitable for future commercial, residential, and open space uses, and the risk of unexpected contamination can be appropriately managed; and
- a construction environmental management plan will be prepared prior to the commencement of works to manage the methods and impacts of construction activities.

All identified impacts are addressed in this EIS and are capable of being ameliorated through the implementation of appropriate mitigation measures outlined in Section 6.0.

Conclusion

The mitigation measures in Section 6.0 have been prepared to inform the ongoing management of the Station North sub-precinct throughout the construction phase and operational phase of the entry road and associated works. This EIS fulfils the requirements of the *Environmental Planning and Assessment Act 1979* and addresses the DGRs, and demonstrates that the impacts of the proposal can be satisfactorily managed. In light of the above, and the significant benefits of the proposed development, we therefore recommend that the proposed development be approved.

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Minister for Planning and Infrastructure as part of a Staged State Significant Development Application (SSDDA) pursuant to Division 4.1 of the Environmental Planning and Assessment Act, 1979 (EP&A Act). The SSDDA seeks approval for subdivision, road opening and the subdivision, civil, landscaping and infrastructure works on land located at the junction of Delhi Road and the M2 Motorway, North Ryde and legally described as Lot 4 in DP 1131774 and Lot 160 in DP 1136651.

The EIS has been prepared by JBA Urban Planning Consultants Pty Ltd (JBA), for the proponent, UrbanGrowth NSW, and is based on plans and consultant assessment appended to this statement (see Table of Contents). It describes the development site, its environs and the proposed development, and includes an assessment of the proposal in accordance with the Director General Requirements (DGRs) issued on 20 January 2014 pursuant to Schedule 2 of the EP&A Regulation (**Appendix A**).

The EIS should be read in conjunction with the studies and other information appended to this statement. The studies provide a technical assessment of the environmental impacts of the proposed development, and recommend proposed mitigation measures to manage potential environmental impacts associated with the proposal.

1.1 Background to the Development

On 17 October 2012, the NSW Government identified the North Ryde Station Precinct as an Urban Activation Precinct (UAP) that would undergo precinct-wide renewal and redevelopment for mixed uses. The UAP program was announced as part of the 2012-13 NSW State Budget and applies to important areas that the Minister for Planning and Infrastructure considers have a wider social, economic or environmental significance for the community or has re-development significance of a scale that is important to implementing the State's planning objectives.

Following an extensive and rigorous assessment process, the North Ryde Station Precinct was rezoned by the Minister for Planning and Infrastructure in September 2013 for mixed use and high density residential purposes. The North Ryde Station Precinct Development Control Plan 2013 (NRSP DCP 2013) was subsequently adopted by the Department of Planning and Infrastructure (DoPI) and provides more detailed provisions to guide development, relevant to the subject Station North sub-precinct site as part of the overall North Ryde Station Precinct. Key features of the NRSP DCP 2013 as it applies to the Station North sub-precinct include:

- identification of a new L-shaped local road from Delhi Road to a point which is adjacent the southern end of the North Ryde Rail Station portal;
- identification of a potential future connection from the new local road eastwards towards the existing commercial area;
- the signalisation of the Delhi Road/new local road intersection;
- an urban plaza and pedestrian / cycle link on the western edge of the sub-precinct to connect to the M2 Site further west; and
- an east-west oriented cycle/pedestrian shareway through the Site.

Director General Requirement	Location in Report	
Earthworks	Report	Appendix
Detailed survey showing existing and proposed levels, and proposed quantities of cut and fill necessary for the proposed works	Section 4.2	Appendix B
Cross sections and details of any excavation works within 25m of rail corridor	Section 4.2	Appendix B
Fill details including materials and source	Section 4.2	Appendix B
Disposal locations and means of transportation	Section 4.2	Appendix B
Urban Design	Report	Appendix
Plan(s) and supporting documentation identifying any proposed open space, public domain areas and pedestrian/cycle linkages, and include details of their future management	Section 3.5	Appendix B
Transport and Accessibility (Construction and Operation)	Report	Appendix
Provide details of the proposed roads and pedestrian/cycle routes in accordance with NRSP DCP 2013 and demonstrate clear and safe vehicular, cyclist and pedestrian linkages to key destination points will be provided	Sections 4.3 and 5.4	Appendix E
Demonstrate proposed roads satisfy the street dimensions and designs in NRSP DCP 2013 and provide for adequate road side collection points for all super lots accessible by Council's waste vehicles	Section 5.4	Appendix E
Demonstrate how future access points identified in NRSP DCP 2013 will be connected or preserved	Section 5.4	Appendix E
Provide proposed access and the parking provision details, including compliance with the relevant Australian Standards	Sections 4.3 and 5.4	Appendix E
Demonstrate road and pedestrian/cycle route designs provide safe and effective movement and adequate capacity	Section 5.4	Appendix E
Provide details of Road 38 construction including supporting traffic modelling detailing operation of traffic lights for intersection of Road 38 and Delhi Road	Sections 4.3 and 5.4	Appendix E
Biodiversity		
Provide an arborist report	Section 5.6	Appendix F
Provide a street tree plan	Section 4.4	Appendix B
Water	Report	Appendix
Show measures to protect water quality discharging to natural systems. If potential impacts are identified, provide details on proposed measures to mitigate potential impacts	Section 4.5 and 5.5	Appendix B and D
Prepare an Integrated Water Management Plan	Section 4.5 and 5.5	Appendix B and D
Address the provisions of the relevant water sharing plan	Section 4.5 and 5.5	-
Address water licensing considerations	Section 4.5 and 5.5	-
Flooding	Report	Appendix
Demonstrate development is compatible with any relevant flood hazard of the land and identify any impacts on flood behaviour	Section 5.5	Appendix D
Geotechnical and Contamination	Report	Appendix
Demonstrate suitability of the land for the proposed development having regard to the site's geotechnical characteristics	Section 5.7	-
Assess contamination issues associated in accordance with SEPP 55 and other relevant legislation and guidelines	Sections 5.3 and 5.7	-
Outline measures to avoid, manage or mitigate adverse geotechnical or contamination impacts	Section 5.7	-
Utilities and Services	Report	Appendix
Identify any utilities and services that currently pass through or service the site and identify the means by which such utilities and services will be decommissioned or removed	Sections 2.2, 4.6 and 5.8	Appendices C and D

Director General Requirement	Location in Report	
Identify all existing easements and any encumbrances that will be affected by the proposed subdivision	Section 2.2	Appendices C and D
Provide details of the required utilities and services, and required augmentation and future maintenance needs	Sections 4.6 and 5.8	Appendices C and D
Identify how the proposed infrastructure design will accommodate efficient provision of other urban infrastructure (e.g. street lighting)	Section 4.6	Appendices C and D
Construction Impacts	Report	Appendix
Assess construction and operational impacts and identify appropriate mitigation measures including: <ul style="list-style-type: none"> – construction noise – air quality – water quality – soil and erosion – groundwater impact – impacts on groundwater dependent ecosystems – waste 	Sections 4.7 and 5.8	-
Prepare Construction Traffic Management Plan to mitigate impacts to accessibility, amenity and safety of public transport use, walking and cycling during construction, including access arrangements for emergency vehicles and works and an estimation of the number of truck movements expected during the construction phase	Section 5.4	Appendix E

1.2 Objectives of Development

The North Ryde Station Precinct comprises approximately 12 hectares of largely government-owned land centred on North Ryde Railway Station. The UAP declaration recognises that the cohesive ownership and strategic location of the site provides a unique opportunity to respond to Sydney's housing pressures by locating new homes in close proximity to public transport and employment opportunities, consistent with NSW Government strategies, plans and policies.

The Precinct is located in close proximity to the Epping to Chatswood Rail Link (ECRL), which is a high quality underground rail link connecting the Macquarie Park area to the Metropolitan CityRail network. North Ryde Station has been operating well below its patronage capacity, primarily due to the surrounding "North Ryde Station Precinct" being largely undeveloped to the south and northwest. Poor pedestrian, cycle and vehicular connectivity between the station and nearby commercial development to the east, south and northwest and residential catchments to the south and west further compound this.

The key objectives of the overall North Ryde Station Precinct project are:

- To provide for a range of housing options in close proximity to public transport and employment opportunities.
- To improve accessibility and connectivity to, within and around the North Ryde Station Precinct, particularly the Station itself.
- To activate the North Ryde Station Precinct and support patronage of North Ryde Station to generate adequate return on Government investment in this infrastructure.
- To facilitate the productive development of currently underutilised lands within the strategically important Macquarie Park Corridor, and more widely within the Global Economic Corridor.
- To promote development within the North Ryde Station Precinct which will support key transport and land use priorities and targets established by the NSW Government.

With respect to this particular SSDA, the key objective of UrbanGrowth NSW is to accelerate the development of the North Ryde Station Precinct to ensure the release of development parcels for housing supply. A key factor influencing the scope and extent of the development as proposed by this SSDA is the need to provide a single future public road which both:

- “unlocks” public road access to Lot 160 in DP 1136651 and thereby facilitates future development of that land in accordance with its zoning; and
- provides public road access to the southern boundary of Lot 4 in DP 1131774 and thereby facilitates future development of that land in accordance with its zoning as well as obviates the need for future vehicular access from and egress to Delhi Road across its northern boundary. Given the proximity of this northern boundary to North Ryde Station, the re-routing of vehicular site traffic to the southern boundary of Lot 4 provides a significant public benefit to users of Delhi Road and the Station.

1.3 Overview of Proposed Development

This SSDA seeks consent for subdivision, and the carrying out of civil and associated infrastructure works on land located at the junction of Delhi Road and the M2 Motorway, North Ryde (Lot 4 in DP 1131774 and Lot 160 in DP 1136651). In the future, the Station North sub-precinct is to be developed for a mix of residential and non-residential uses, including but not limited to residential buildings, commercial, retail, community and open space. The Station North sub-precinct is one of two development plots identified in the North Ryde Station Precinct.

More specifically, this SSDA seeks approval for the following components of development:

- demolition of existing structures on the site;
- construction of a new entry road from Delhi Road consistent with the road layout required by the NRSP DCP 2013;
- subdivision to create 2 super lots and the opening as a public road, of the proposed new entry road;
- allocation of permissible GFA to proposed Lot 1;
- drainage and stormwater management infrastructure within and outside the future road reserve lot;
- vegetation removal, landscaping and public domain works including construction of a shared pedestrian share way; and
- associated utilities servicing infrastructure including:
 - relocation of the sewerage and stormwater infrastructure as illustrated in the Engineering Plans prepared by Robert Bird Group attached at **Appendix B**;
 - provision of pit and pipe for future communications infrastructure; and
 - electrical supply as illustrated in the Engineering Plans prepared by Robert Bird Group attached at **Appendix B**.

1.4 Other Approvals

In addition to the approvals noted elsewhere in this document, additional approvals will be required in order to permit the proposed development to occur. These approvals include, but are not limited to:

- *Sydney Water Act, 1994* under Section 73 (compliance certificate); and
- *Roads Act, 1993* under Section 138 (connecting to a classified road).

These additional approvals will be sought at the appropriate time.

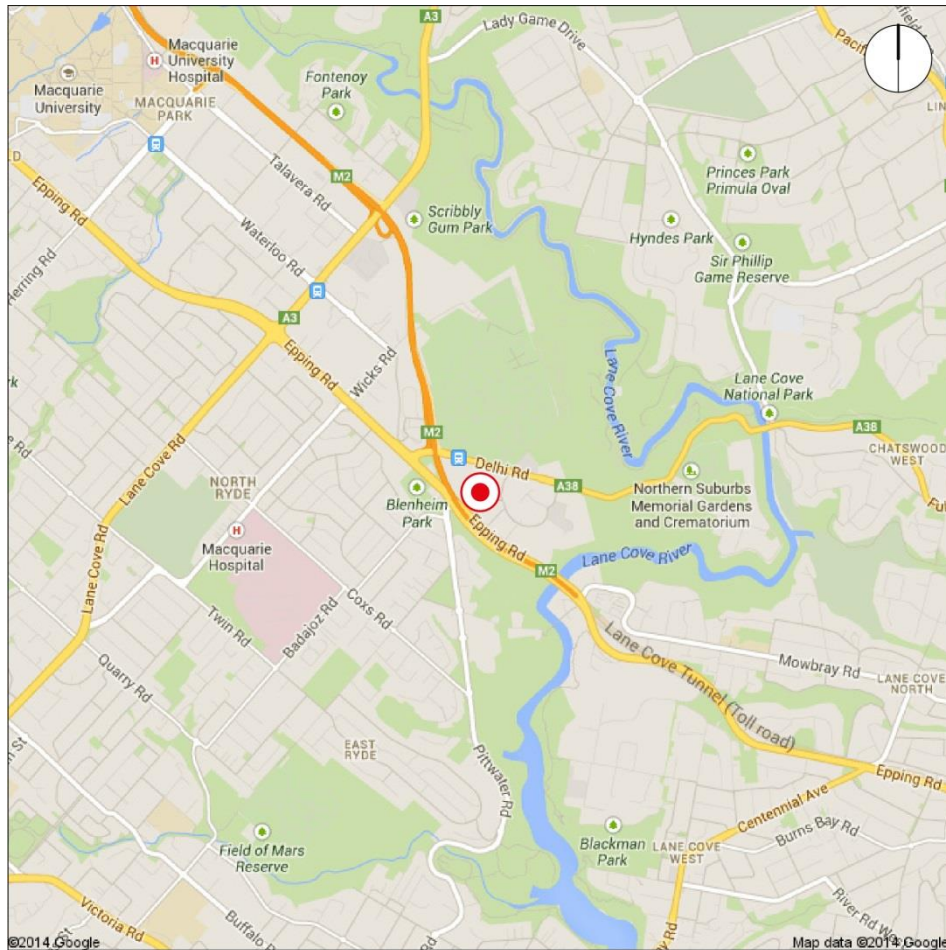
1.5 Analysis of Alternatives

Through the UAP process, the NSW Government recognised that the North Ryde Station Precinct represents a strategic site capable of contributing towards the housing and employment targets for the middle ring suburbs of Sydney's metropolitan area. The Site has therefore already been identified for redevelopment, and is intended to be subdivided and released to the market for mixed uses purposes to take advantage of the land's proximity at North Ryde Station. This SSDA facilitates the timely development of the North Ryde Precinct to ensure the successful development of the State Government's first UAP.

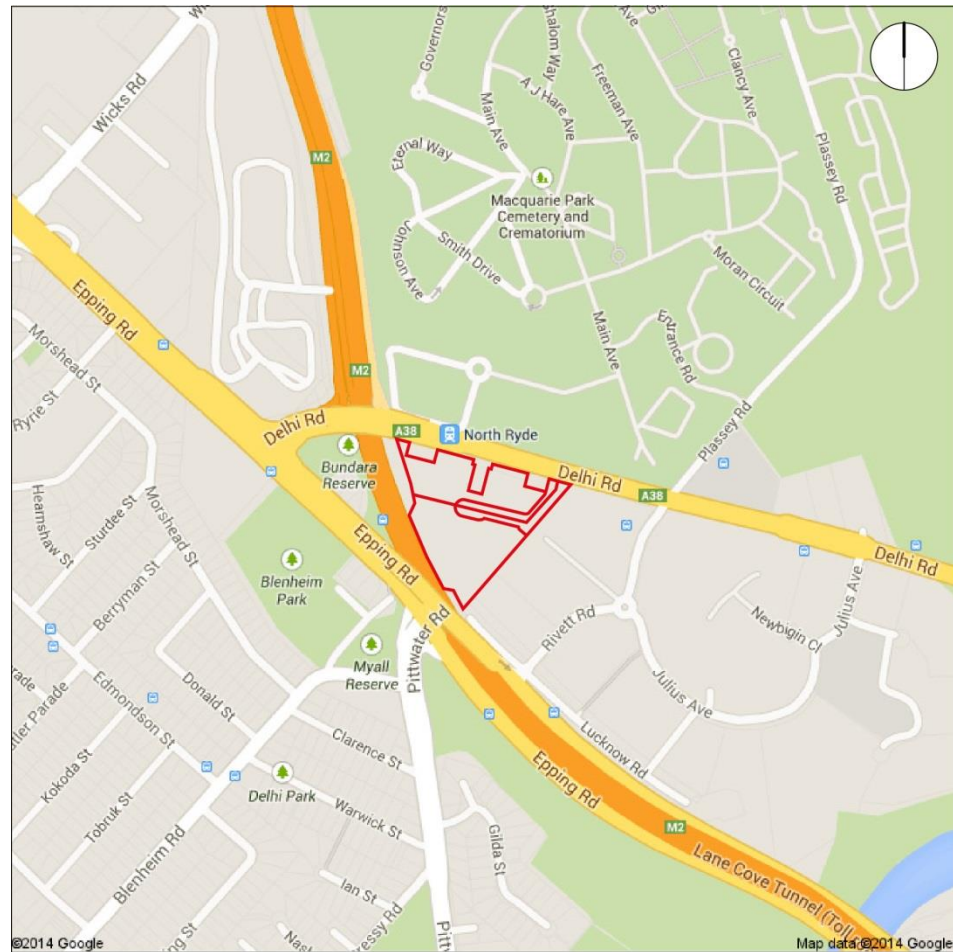
2.0 Site Analysis

2.1 Site Location and Context

The North Ryde Station Precinct is situated within the City of Ryde (Council) Local Government Area (LGA), at the southern end of the Macquarie Park Corridor (refer to **Figure 1**). The North Ryde Station Precinct comprises a total land area of 12.22ha and is bounded by the M2 Motorway, Epping Road and Delhi Road. The location of the North Ryde Station Precinct is shown in **Figures 1** and **2** below.



● The Site
Figure 1 – Regional Context



 The Site

Figure 2 – Site Location (Station North sub precinct)

2.2 Site Description

There are two key sites within the North Ryde Station Precinct – the ‘Station Site’ comprising the Station North and Station South sub-precincts and the ‘M2 Site’, as shown in **Figure 3**.

The land that is the subject of this SSDA (herein referred to as ‘the Site’) is located within the ‘Station Site’ at the junction of Delhi Road and the M2 Motorway, North Ryde. The Site is legally described as Lot 4 in DP 1131774 and Lot 160 in DP 1136651. Lot 4 DP 1131774 is owned by UrbanGrowth NSW and Lot 160 DP 1136651 is owned by Goodman Investment Funds Management Limited.

An aerial photograph illustrating the boundary of the Site is provided at **Figure 4**.

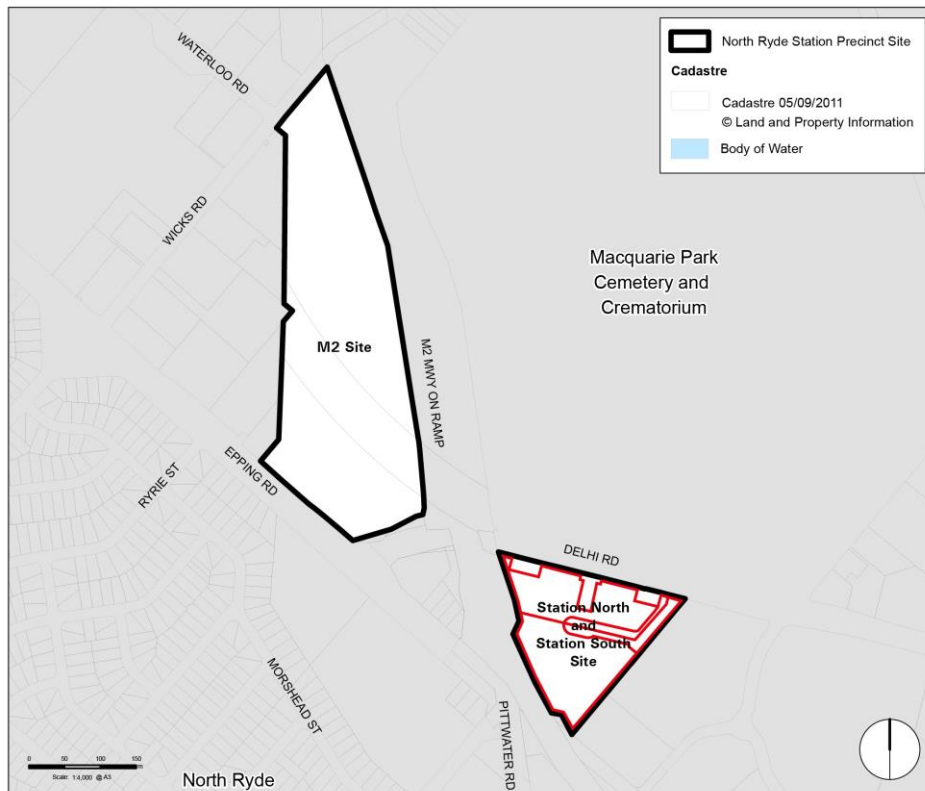


Figure 3 – North Ryde Station Precinct – Station Site and M2 Site



Figure 4 – Aerial photograph of the Station North sub-precinct

2.2.1 Existing Development

The Site is currently occupied by a temporary car park associated with the M2 Motorway widening project. Photographs of the existing development are provided at **Figures 5 to 7** below.



Figure 5 – View of on-site car park, vegetation and neighbouring building from the south west



Figure 6 – View of the on-site car park, vegetation and North Ryde station from the north east



Figure 7 – View of the site from the east

2.2.2 Topography

The Site's natural topography has been modified, with original surface levels having been changed to suit the previous developments on the Site. The Site now slopes down to the south with a difference in level of about 8m between the northern and southern boundaries. A Site Survey has been prepared by Robert Bird Group and is included at **Appendix B**.

2.2.3 Soil and Geotechnical Features

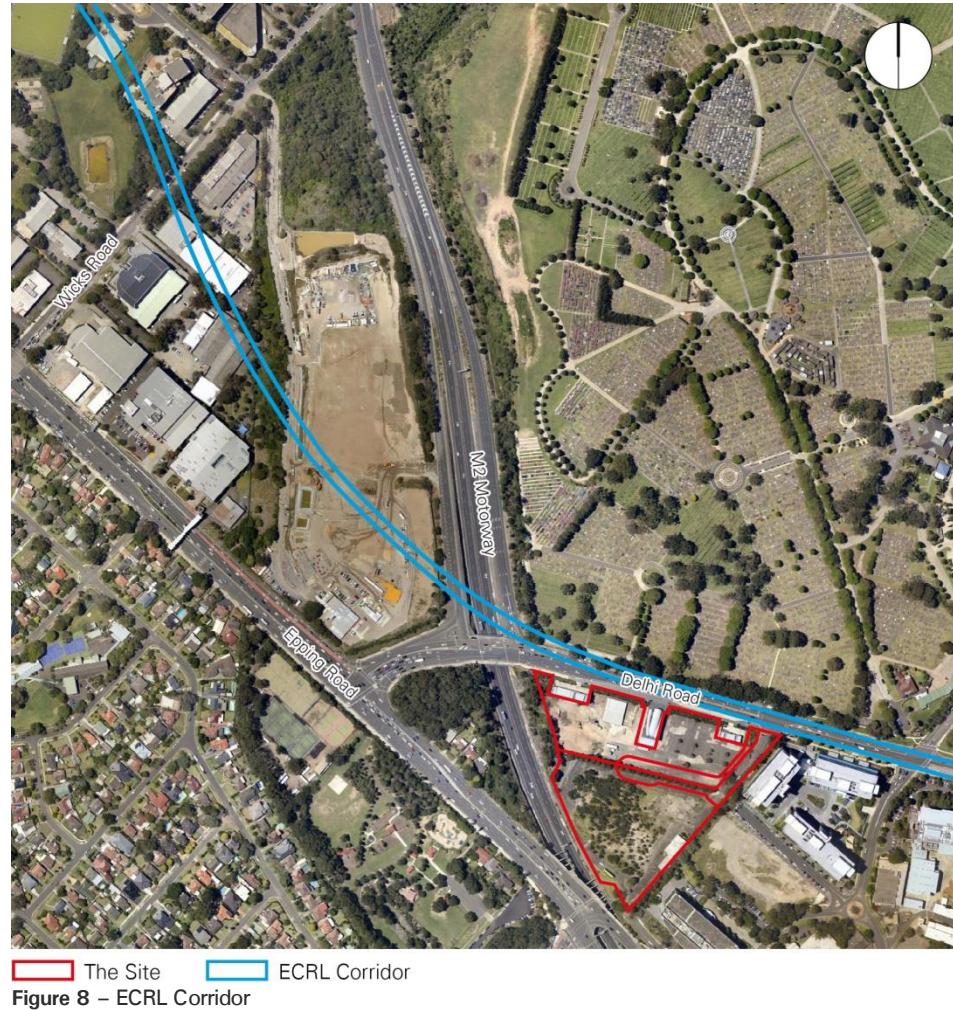
A Preliminary Geotechnical Assessment Report was undertaken by Douglas Partners as part of the UAP process (refer to Report on Preliminary Geotechnical Investigation prepared by Douglas Partners, dated November 2012). The Report presents the findings of a desktop study, which determines the likely geotechnical and soil characteristics of the North Ryde Station Precinct including the Station North sub-precinct. The report draws upon previous geotechnical investigations carried out at the Site in making its assessment, and is summarised below.

Subsurface Conditions

Various geotechnical investigations have previously been undertaken at the site between 1971 and 2013. Douglas Partners advises that there are a range of different and distinct geotechnical subsurface profiles present across the Site, including:

- fill between 0.15m and 0.2m AHD;
- hard shaly clay or clayey shale was encountered to depths of 2.0m to 6.5m;
- extremely low to high strength shale, siltstone and sandstone at depths of 10.8m to 13.6m; and
- medium to high strength, fine and medium grained sandstone below approximately RL 50m was proven to depths of 40.05m to 45m with some carbonaceous silty laminate and siltstone bands at various depths.

Further, the ECRL Corridor runs north of the Site under Delhi Road with part of the easement (Reserve Zones) encroaching on the site. Development in the vicinity of the ECRL is guided by the ECRL Underground Infrastructure Protection Guidelines which provide the engineering and statutory requirements. In addition, any excavation to a depth of at least 2m below ground level triggers the requirement under clause 86 of the Infrastructure SEPP to obtain the concurrence of Rail Corp prior to consent being granted.



Groundwater

Douglas Partners noted that groundwater was observed during previous investigations at between RL 53.2m in February 2001 and RL 46.5m in October 2001.

2.2.4 Site Contamination

Phase 1 and Phase 2 Assessments were prepared by Douglas Partners during the UAP process in order to determine the presence and extent of potential contaminants as a result of historical site activities and uses including heavy metals, fuels and oils, asbestos and organic contaminants (refer to Phase 1 Contamination Assessment prepared by Douglas Partners, dated October 2012 and Phase 2 Contamination Assessment prepared by Douglas Partners, dated November 2012). Site investigations revealed that there is generally low potential for contamination on the Site.

Groundwater Contamination

Groundwater within the Site contains low concentrations of heavy metals, however these are considered to be representative of background levels within the locality rather than of any site specific issues.

2.2.5 Vegetation Cover

The Site is generally sparsely vegetated with rows of trees along the Delhi Road frontage and at the north-western corner. Consent for removal of this landscaping and vegetation is sought in this SSDA.

2.2.6 Water Cycle

Stormwater

Stormwater drainage within the Site is comprised of a below ground local network and trunk drainage and overland flow paths. Stormwater is captured by surface inlet pits within roadways, pedestrian thoroughfares and landscaped areas which drain into minor pipe networks, and ultimately into major trunk stormwater culverts.

Flooding

The Site is currently inundated by localised flooding arising from run off during storm events. An overland flow path runs north south from Delhi Road.

Water Quality

There is minimal infrastructure in place within the Site that is intended to manage the quality of stormwater runoff. The majority of existing runoff within the precinct discharges with untreated flows from upstream external catchments.

2.2.7 Site Access and Transport

Vehicular Access

Access to the Site is via existing traffic signals at the intersection of Delhi Road and The Leighton Way (generally referred to as Road 38).

A number of arterial roads surround the Site, influencing effective pedestrian and bicycle movements to the station and constraining site access. These roads include:

- The M2 Motorway which forms the north eastern boundary of the M2 site and the south western boundary of the North Ryde Station Site.
- Epping Road, which bisects the Precinct and forms the southern boundary of the M2 Site and the RMS Site.
- Delhi Road, which divides the M2 Site from the RMS and Station Site.

Rail

The North Ryde Rail Station is located immediately adjacent to the Site. Under the NRSP DCP 2013, the Site is envisaged to include a future public plaza and drop off/pick up facilities as well as public transport (bus) connections. North Ryde Station is a key station along CityRail's network with excellent connectivity to the wider network.

Bus

An extensive network of bus services is located in the vicinity of the Site. Delhi Road, for example, is serviced by 27 buses operated by the State Transit Authority and Hillsbus, connecting with the wider Sydney CBD and a wide variety of suburban locations.

Cycling

The Site is accessible to cyclists via a number of official and informal cycle routes. Dedicated cycle lanes are located on both sides of Delhi Road. Bike parking facilities are located on Delhi Road at the North Ryde Rail Station.

Pedestrian Access

Pedestrians can access the Site from the east and west along Delhi Road, however the arterial roads and large intersections present a barrier to easy pedestrian movement.

2.2.8 Utilities and Infrastructure

Robert Bird Group has undertaken a desktop study of existing utility infrastructure services within and in the vicinity of Site and undertaken subsequent consultation with service providers as detailed in the Civil Design Report at **Appendix C**. Further details of existing utilities are provided at Section 1.4 of **Appendix C**.

2.3 Surrounding Development

The land uses immediately surrounding the Site include:

- To the south – North Ryde, a low density residential suburb consisting primarily of single storey detached dwellings.
- To the east – The M2 and the Riverside Corporate Park which is a continuation of the Macquarie Park Corridor consisting primarily of large floor plate multi storey commercial buildings.
- To the west – The built form in the area is a mix of modern medium rise, large floor plate commercial buildings, some vacant sites and older small scale commercial buildings.
- To the north – The Precinct is bounded by Delhi Road to the north of the North Ryde Station Site. The Macquarie Park Crematorium and Cemetery are located further to the north.

A map of the key developments surrounding the Site is provided at **Figure 9**.



- | | |
|------------------------------|--|
| 1. Station North Subprecinct | 5. Residential Development |
| 2. Station South Subprecinct | 6. Riverside Corporate Park |
| 3. M2 Site | 7. Lane Cove National Park |
| 4. Blenheim Park | 8. Macquarie Park Cemetery & Crematorium |
- Figure 9 – Surrounding development**

3.0 Consultation

Consultation is recognised as an important aspect of the successful delivery of the North Ryde Station Precinct, with the NSW Government speaking with industry and stakeholders from day one of the Project's inception.

The consultants retained by UGNSW to prepare this SSDA and the plans and reports lodged with it have undertaken consultation with relevant parties during the preparation of this SSDA and their reports.

The level of consultation undertaken up to the lodgement of this SSDA is considered to be appropriate and justified and exceeds minimum requirements of the (former) Department of Planning's Major Project Community Consultation Guidelines (October 2007) – therefore meeting the DGRs.

A summary of the initial consultation process undertaken to-date is provided below.

3.1 Ryde City Council

UrbanGrowth NSW has consulted with Council in preparing this SSDA, particularly in relation to the road design and the status of the wider North Ryde Station Precinct project.

3.2 Transport for NSW

UrbanGrowth NSW has consulted Transport for NSW regarding the interface of the proposed early works with the North Ryde Rail Station.

UrbanGrowth NSW is committed to ongoing consultation with Transport for NSW to ensure delivery of what in future will be an integrated and high quality interface with the railway station.

3.3 Community Consultation

Extensive consultation has been undertaken with the community during the UAP process.

4.0 Description of Proposed Development

This SSDA seeks approval for the following works, each of which are described in further detail below:

- demolition of existing structures on the site;
- construction of a new entry road from Delhi Road to the North Ryde Rail Station;
- subdivision to create 2 super lots and the opening as a public road, of the proposed new entry road;
- allocation of gross floor area to proposed Lot 1;
- drainage and stormwater management infrastructure within and outside the future road reserve lot;
- vegetation removal, landscaping and public domain works including construction of a shared pedestrian share way; and
- associated utilities servicing infrastructure including:
 - relocation of the sewerage and stormwater infrastructure as illustrated in the Engineering Plans prepared by Robert Bird Group attached at **Appendix B**;
 - provision of pit and pipe for future communications infrastructure; and
 - electrical supply as illustrated in the Engineering Plans prepared by Robert Bird Group attached at **Appendix B**.

The estimated cost of works for which consent is sought, including the costs of the proposed demolition works is \$2,127,667 million.

4.1 Subdivision

A draft subdivision plan has been prepared by Robert Bird Group, attached at **Appendix B** and is reproduced at **Figure 10**.

This SSDA proposes to create 2 super lots for future high density residential apartment, retail and commercial uses and open space and public domain. Proposed Lot 1 will be 11,315m² in area and Proposed Lot 2 will be 15,002m² in area. The road reserve is proposed to be 4,300m² in area.

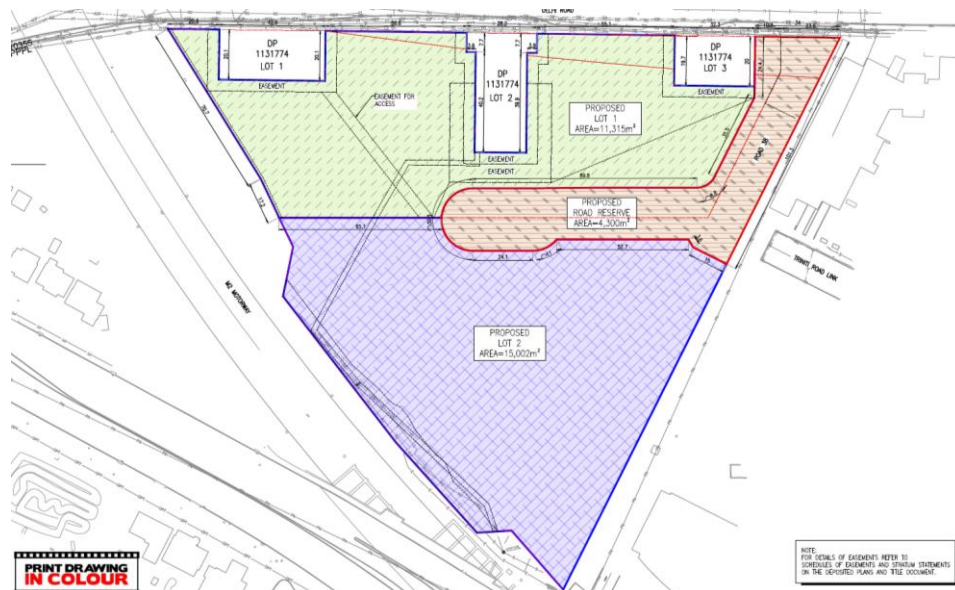


Figure 10 – Draft Plan of Subdivision

4.2 Gross Floor Area Allocation

Under Ryde LEP 2010 a maximum FSR of 2.3:1 applies to the Station Site North and 3.5:1 applies to the Station Site South, permitting an overall 91,535m² of GFA on the site. The proposed subdivision and creation of the future public road reserve lot will result in the creation of two lots for future development. This SSDA seeks approval for allocation of 29,900m² GFA which is permissible on the existing Lot 4 in DP 1131774 to proposed Lot 1. This is proposed to account for the future provision and dedication to Council of the proposed road lot. The allocation of GFA to the proposed Lot 1 is in accordance with the planning outcomes intended by Ryde LEP 2010. Future development on proposed Lot 1 will be required to comply with the GFA allocated.

4.3 Civil Works and Entry Road Design

Proposed construction activities are detailed in the Civil Works Drawings (**Appendix B**) and Civil Design Report (**Appendix C**) prepared by Robert Bird Group on the Site and include:

- Demolition;
- Site preparation and clearance;
- Sediment and erosion control measures;
- Earthworks and site grading;
- Roadworks and pavements; and water sensitive urban design and stormwater drainage measures.

The Site Layout and Grading and Typical Road Cross Section Plans prepared by Robert Bird Group and attached at **Appendix B** illustrate the proposed road location and layout.

Access into the site will be from Delhi Road, however no works are proposed at this stage to upgrade or augment the intersection – which is proposed to be undertaken in the future when land uses are also being proposed and trigger the need for the intersection to be upgraded.

4.4 Street Tree Planting

This SSDA seeks consent only for street tree planting within the road reserve. These works are detailed in the Landscaping Plan prepared by Robert Bird Group (**Appendix B**).

4.5 Water Cycle Management

The Flooding, Stormwater and WSUD Report prepared by Robert Bird Group (**Appendix D**) includes details of the proposed stormwater drainage and water cycle management measures proposed for the Site, including direct surface runoff from the new entry road to the piped drainage system proposed within the road reserve.

In particular, this SSDA seeks consent for the upgrade and amplification of the existing stormwater culverts, protection of existing stormwater infrastructure and connection of the new entry road and surrounding public domain to the stormwater system. Stormwater detention for the future built form to be constructed on the proposed lots adjoining the proposed new road is not dealt with in this SSDA because that is a matter which should be dealt with at the time of assessment of development applications for built form on those proposed lots.

4.6 Infrastructure and Services

The Civil Works Drawings (**Appendix B**), Civil Design Report (**Appendix C**) and the Stormwater Management Report (**Appendix D**) prepared by Robert Bird Group collectively detail the proposed works to the sewerage, stormwater/drainage, electricity and communications utilities.

4.7 Waste and Construction Management

Waste will be managed in accordance with the NSW Government's Waste Reduction and Purchasing Policy. Demolished materials (such as road pavement and fencing) which are deemed appropriate for re-use will be loaded and stockpiled accordingly using an excavator with heavy rigid truck tippers. Any demolished materials considered unfit for re-use and recycling and requiring disposal shall be loaded wholly within the site and carted to an approved waste handling facility.

A detailed construction management plan will be prepared by the Principal Civil Contractor prior to the commencement of the construction works and will be subject to detail design and conditions of consent, and will provide detailed waste management practices and procedures.

5.0 Environmental Assessment

This chapter contains our assessment of the environmental effects of the proposed development as described in the preceding chapters of this EIS.

Under Section 79C(1) of the EP&A Act, in determining a staged development application the consent authority has to take into account a range of matters relevant to the development including the provisions of environmental planning instruments; impacts of the built and natural environment, the social and economic impacts of the development; the suitability of the site; and whether the public interest would be served by the development.

The assessment includes only those key matters under Section 79C(1) that are relevant to the proposal. The key planning issues associated with the proposed development are listed in **Table 2** below.

Table 2 – Planning Issues

Planning Issues	Assessment	
	SEE	Technical Study
Environmental Planning and Assessment Act 1979	Section 5.2	N/A
Compliance with Planning Policies	Section 5.3	N/A
Compliance with Planning Instruments	Section 5.4	N/A
Transport and Accessibility	Section 5.4	Appendix E
Water Cycle Management and Flooding	Section 5.5	Appendix B and D
Tree Removal	Section 5.6	Appendix B and F
Geotechnical and contamination constraints	Section 5.7	N/A
Infrastructure and Services	Section 5.8	Appendix B and C
Environmental and construction management	Section 5.9	N/A
Site Suitability	Section 5.10	N/A
Public Interest	Section 5.11	N/A

5.1 Director General's Environmental Assessment Requirements

Table 1 in **Section 1.1** provides a summary which sets out the individual matters listed in the DGRs and identifies where each of these requirements has been addressed in this EIS and the accompanying technical studies.

5.2 Environmental Planning and Assessment Act, 1979

State Significant Development

The EP&A Act establishes a specific assessment system to consider projects classed as State significant development (SSD). SSD is development deemed to be of significance to the State and for example includes projects located in precincts regarded as important by the NSW Government, such as the North Ryde Station Precinct. As noted at **Section 1.1**, the proposed development the subject of this SSDA is classed as SSD.

This EIS has examined and taken into account the relevant matters affecting or likely to affect the environment by reason of the proposed development. **Table 3** provides an assessment of the proposed development against the objects of the EP&A Act.

Table 3 – Objects of the EP&A Act 1979

Object	Comment
5(a)(i) To encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.	<p>The development of the Site will contribute to the proper management, development and conservation of the natural and artificial resources of the Site.</p> <p>In particular, measures outlined at Section 6 will be implemented to ensure the conservation of natural resources throughout the construction and operational phases, and existing artificial resources and infrastructure will be retained where practicable.</p> <p>The development of the North-West Plot will contribute to the conservation of energy and water resources, a reduction in construction and operational waste generation.</p>
5(a)(ii) To encourage the promotion and co-ordination of the orderly economic use and development of land.	The proposed development involves the orderly redevelopment of the Site. The Proposal will promote economic growth and make greater use of an underutilised Site in a strategic location.
5(a)(iii) To encourage the protection, provision and co-ordination of communication and utility services.	The proposal is not expected to impact on the provision or coordination of communication and/or utility services as outlined at Section 5.7 . Relevant utility providers have been consulted during the development of the proposal.
5(a)(iv) To encourage the provision of land for public purposes.	This SSDA proposes the creation of a public road.
5(a)(v) To encourage the provision and co-ordination of community services and facilities.	The proposal, as part of the broader North Ryde Station Precinct redevelopment, supports the provision of community services and facilities.
5(a)(vi) To encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	The Site is highly modified and located within an urban environment, and as such is not expected to impact on biodiversity values. The Site is not considered to have habitat suitable for any threatened flora and fauna, and the only vegetation proposed to be removed are introduced trees.
5(a)(vii) To encourage ecologically sustainable development.	The proposed development accords with the principles of Ecologically Sustainable Development, as set out in Schedule 2 of the EP&A Regulation 2000. This is further considered in Section 7.3 of this EIS.
5(a)(viii) To encourage the provision and maintenance of affordable housing.	Not applicable.
5(b) To promote the sharing of the responsibility for environmental planning between different levels of government in the State.	Extensive consultation has been undertaken with various levels of government and government agencies during the preparation of this proposal, and all government agencies will be afforded the opportunity for further input into the development process during the public exhibition process.
5(c) To provide increased opportunity for public involvement and participation in environmental planning and assessment.	The community consultation carried out assisted the development of the proposal and is detailed in Section 3 of this EIS. Further consultation will be carried out prior to the commencement of construction and throughout the construction period.

5.3 Compliance with Planning Policies and Environmental Planning Instruments

The following key planning strategies and policy instruments are relevant to this SSDA:

- Metropolitan Strategy and Draft Inner North Subregional Strategy;
- Draft Metropolitan Strategy for Sydney 2031
- State Environmental Planning Policy (State and Regional Development) 2011;
- State Environmental Planning Policy No.55 – Remediation of Land;
- State Environmental Planning Policy (Infrastructure) 2007;
- Ryde Local Environmental Plan 2010 (Ryde LEP 2010); and
- North Ryde Station Precinct Development Control Plan 2013.

This SSDA is generally consistent with the provisions of the relevant planning policies identified in the DGRs, as are summarised in **Table 4** below and detailed in the following sections and other supporting technical information appended to this EIS.

Table 4 – Consideration of Relevant Policies, Guidelines and Environmental Planning Instruments

Instrument/Strategy	Comments
Strategic Plans	
NSW State Plan (NSW 2021)	<p>The Plan articulates the State's response to housing affordability. It acknowledges the impact of housing supply on affordability and recognises that there is a need to ensure competitive tension in the supply of land so there is a continuing flow of new properties to the market. The State Plan does not include specific goals for housing and land supply but refers to the goals set in the Metropolitan and Regional Strategies.</p> <p>NSW 2021 is based around five strategies to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen our local environment and communities. NSW 2021 includes numerous goals that are relevant to the site, such as 'grow patronage on public transport by making it a more attractive choice', 'build liveable centres', and 'enhance cultural, creative, sporting and recreation activities'. NSW 2021 also aims to focus growth around existing transport hubs.</p> <p>The proposed development is consistent with the goals of NSW 2012 in that it aims to:</p> <ul style="list-style-type: none"> – encourage patronage on public transport by facilitating the creation of super lots which will be ultimately released to the market to be developed for residential and employment generating floor space in close proximity to North Ryde Rail station as well as bus. – grow business investment in NSW by providing infrastructure to support the North Ryde Station Precinct's core facilities.

Instrument/Strategy	Comments																																		
Metropolitan Plan for Sydney 2036 and Draft Inner North Subregional Strategy	<p>The Strategic Justification for the North Ryde Station Precinct including the Site to which this SSDA applies was addressed as part of the UAP process. This included consideration of the overall project in relation to the Sydney Metropolitan Strategy and the Draft Inner North Subregional Strategy.</p> <p>The Draft Inner North Subregional Strategy aims to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the region's population over the next 25 years.</p> <p>The North Ryde Station Precinct is identified as part of the Macquarie Park Specialist Centre and is earmarked for residential and employment generating uses. The commencement of the works proposed in this SSDA will facilitate the delivery of super lots that will be ultimately released to the market for mixed uses development, consistent with the land use framework established for the Site.</p> <p>This SSDA will also support and promote the future transit oriented development of the Site in proximity to the ECR rail line.</p>																																		
Draft Metropolitan Strategy for Sydney to 2031	<p>The Draft Metropolitan Strategy for Sydney to 2031 supports ongoing housing growth through urban renewal particularly around other centres located on the Strategic Transit Network. The Strategy also recognises the Global Economic Corridor, within which the Site is located, as one of nine 'city shapers' – which are areas earmarked for transformative urban renewal and regeneration and which will be (or already are) supported by enhanced accessibility and connectivity through new infrastructure and improved transport services to provide higher intensity housing and employment. This SSDA is entirely consistent with the objectives of the Draft Strategy.</p>																																		
EP&A Act and EP&A Regulation																																			
EP&A Act	<p>The proposed development is consistent with the objects of the EP&A Act, particularly for the following reasons:</p> <ul style="list-style-type: none"> – it allows for the orderly and economic development of land; – it is development that will ultimately be for public purposes; – it seeks to protect the environment through mitigation measures. 																																		
EP&A Regulations	<p>The EIS has addressed the specification criteria within Schedule 2, Clauses 6 and 7 of the EIS. The EIS has also addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage.</p> <p>Clause 7(1)(d)(v) of Schedule 2 is addressed below.</p> <table border="1" data-bbox="450 1332 1121 1848"> <thead> <tr> <th data-bbox="450 1332 794 1361">Act</th><th data-bbox="794 1332 1121 1361">Approval Required</th></tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="450 1361 1121 1391">Legislation that does not apply to State Significant Development</td></tr> <tr> <td data-bbox="450 1391 794 1420">Coastal Protection Act 1979</td><td data-bbox="794 1391 1121 1420">N/A</td></tr> <tr> <td data-bbox="450 1420 794 1449">Fisheries Management Act 1994</td><td data-bbox="794 1420 1121 1449">N/A</td></tr> <tr> <td data-bbox="450 1449 794 1478">Heritage Act 1977</td><td data-bbox="794 1449 1121 1478">N/A</td></tr> <tr> <td data-bbox="450 1478 794 1507">National Parks and Wildlife Act 1974</td><td data-bbox="794 1478 1121 1507">N/A</td></tr> <tr> <td data-bbox="450 1507 794 1536">Native Vegetation Act 2003</td><td data-bbox="794 1507 1121 1536">N/A</td></tr> <tr> <td data-bbox="450 1536 794 1565">Rural Fires Act 1997</td><td data-bbox="794 1536 1121 1565">N/A</td></tr> <tr> <td data-bbox="450 1565 794 1594">Water Management Act 2000</td><td data-bbox="794 1565 1121 1594">N/A</td></tr> <tr> <td colspan="2" data-bbox="450 1594 1121 1624">Legislation that must be applied consistently</td></tr> <tr> <td data-bbox="450 1624 794 1653">Fisheries Management Act 1994</td><td data-bbox="794 1624 1121 1653">No</td></tr> <tr> <td data-bbox="450 1653 794 1682">Mine Subsidence Compensation Act 1961</td><td data-bbox="794 1653 1121 1682">No</td></tr> <tr> <td data-bbox="450 1682 794 1711">Mining Act 1992</td><td data-bbox="794 1682 1121 1711">No</td></tr> <tr> <td data-bbox="450 1711 794 1740">Petroleum (Onshore) Act 1991</td><td data-bbox="794 1711 1121 1740">No</td></tr> <tr> <td data-bbox="450 1740 794 1769">Protection of the Environment Operations Act 1997</td><td data-bbox="794 1740 1121 1769">No</td></tr> <tr> <td data-bbox="450 1769 794 1798">Roads Act 1993</td><td data-bbox="794 1769 1121 1798">Yes</td></tr> <tr> <td data-bbox="450 1798 794 1827">Pipelines Act 1967</td><td data-bbox="794 1798 1121 1827">No</td></tr> </tbody> </table>	Act	Approval Required	Legislation that does not apply to State Significant Development		Coastal Protection Act 1979	N/A	Fisheries Management Act 1994	N/A	Heritage Act 1977	N/A	National Parks and Wildlife Act 1974	N/A	Native Vegetation Act 2003	N/A	Rural Fires Act 1997	N/A	Water Management Act 2000	N/A	Legislation that must be applied consistently		Fisheries Management Act 1994	No	Mine Subsidence Compensation Act 1961	No	Mining Act 1992	No	Petroleum (Onshore) Act 1991	No	Protection of the Environment Operations Act 1997	No	Roads Act 1993	Yes	Pipelines Act 1967	No
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Instrument/Strategy	Comments	
	Floor Space Ratio	The station site north has a maximum permissible FSR of 2.3:1 and the station site south has a maximum permissible FSR of 3.5:1. The proposed development complies with the maximum permissible FSR.
Other Development Controls	Clause 5.9 – Preservation of Trees or vegetation	This SSDA seeks consent for the removal of 33 trees as shown in the arborist report prepared by Naturally Trees at Appendix F and discussed at Section 5.6 demonstrates that the proposed tree removal is consistent with Clause 5.9 and does not raise any heritage landscape, indigenous or ecological issues.
	Clause 6.2 – Earthworks	<p>Clause 6.2 identifies the considerations a consent authority must have regard to prior to granting development consent for earthworks. This SSDA satisfies Clause 6.2 as follows:</p> <ul style="list-style-type: none"> – the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality is minimised as the earthworks proposed by this SSDA are specifically to facilitate and enhance drainage of the Site through a pit and pipe system within the new entry road; – the SSDA is entirely consistent with the established land use framework under the Ryde LEP 2010 and NRSPDCP 2013 and therefore the current proposal will not compromise the likely future use or redevelopment of the land; – the earthworks strategy relies on minimising the disposal of fill off site and the engineering plans prepared by Robert Bird Group at Appendix B demonstrates that excavated materials can be largely used as fill elsewhere on Site; – the proposal is not expected to have a significant impact on the existing and likely amenity of adjoining properties; – fill material does not need to be sourced externally; – the final destination of any excavated material will be in accordance with best practices standards; – there is little risk of disturbing any significant heritage relics; and – there is little risk of potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area if the proposal is carried out in accordance with the recommendations of UrbanGrowth NSW's expert consultant team.
	Clause 6.6 – Macquarie Park Corridor	Clause 6.6 identifies the objectives that must be satisfied by all DAs seeking development within the Macquarie Park Corridor. This SSDA satisfies Clause 6.6

Instrument/Strategy	Comments
	<p>as follows:</p> <ul style="list-style-type: none"> – the subdivision will create super lots that will be able to be released to the market for the development of employment, residential and potentially other globally competitive businesses; – the proposed development is the first stage in implementing the State Government's strategic objectives of integrating land use and transport, reducing car dependency and creating opportunities for employment in areas supported by public transport on the first UAP; – the proposed development will be undertaken in accordance with the relevant Australian Standards and best practice to ensure the quality of future development is high; – the construction of the new entry road is the first step in delivering a high-quality, well-designed and safe environment and providing a street connection to the North Ryde Rail Station as established by the NRSPDCP 2013.
Clause 6.9 – Development requiring the preparation of a development control plan	Clause 6.9 has been satisfied through the preparation of the NRSPDCP 2013, which is addressed in detail below.
North Ryde Station Precinct DCP 2013	
3.1.2 Indicative Layout Plan	<p>The proposed road network and subdivision pattern is generally consistent with the Indicative Layout Plan (Figure 3 in NRSAP DCP 2013).</p> <p>The proposal seeks to provide site access off Delhi Road onto Road 38 connecting to Station Street to the east, as indicated as an appropriate site access point on the Indicative Layout Plan.</p> <p>Built form outcomes for the site will be demonstrated in future DA's.</p>
3.2 Circulation Networks	The proposed local road network will reflect that illustrated in the Indicative Vehicular Movement (Figure 4 in NRSP DCP 2013).
3.3 Public Transport	A Public Transport Facilities Plan will be submitted with the first Development Application for residential/commercial development.
3.4 Open Space	Parks and open spaces will be provided in accordance with the Indicative Open Space Typologies (Figure 5 in NRSP DCP 2013) as the subject of future DA's. The proposed street tree planting will be in accordance with the City of Ryde Street Tree Master Plan.
4.1 Streets	The proposed local road will be in line

Instrument/Strategy	Comments
	<p>with the requirements set out in 3.2 Circulation Networks.</p> <p>The proposed new roads will provide a 6.5m carriageway for the double lane, but will only provide a 3.25m carriageway for the single lane. On Station Street a 4.5m carriageway for the single lane should be provided. Due to the provision of an additional share way zone adjacent to both new roads, it is considered that this will be sufficient to provide adequate carriageway for the expected traffic.</p> <p>Planting will generally be provided in Station Street as shown on the Landscaping Plan provided at Appendix B.</p> <p>Pavements will be provided to both roads in accordance with Table 4 and Figure 11 (NRSP DCP 2013).</p>
	<p>4.2 Pedestrian and Cycle Network</p> <p>Share ways have been provided in accordance with the Indicative Pedestrian and Cycle Links (Figure 13 NRSP DCP 2013).</p>
	<p>4.3 Pedestrian and Cycle Station Link</p> <p>N/A</p>
	<p>4.4 Stormwater Management</p> <p>An Integrated Water Management Plan and Stormwater Management Plan have been prepared by Robert Bird Group and are attached at Appendices C and E.</p>
	<p>4.5 Streetscape Planting</p> <p>Street tree planting is proposed as shown in the Landscaping Plan attached at Appendix B.</p>
	<p>4.6 Street Furniture and Lighting</p> <p>Street lighting will be provided in accordance with the requirements set out in the Macquarie Park Public Domain Technical Manual and will comply with the Australian Standards for road lighting.</p>
	<p>4.8 Safety</p> <p>Road and pathway widths are designed to reinforce the human scale of the development and encourage walking, cycling and use of the public domain.</p> <p>A CPTED Assessment will be undertaken at the time of assessment of development applications for built form on the proposed new lots adjoining the proposed new road.</p>
	<p>7.1 Vehicular Access</p> <p>Potential pedestrian/vehicular conflict will be minimised by the provision of clear sightlines.</p> <p>The appearance of car parking is improved by the provision of planting,</p>
	<p>7.3 Bicycle Parking</p> <p>Bicycle Parking will be provided with future DA's.</p>
	<p>7.6 Accessible Design</p> <p>The proposed works will comply with the relevant Australian Standards for street parking.</p>
	<p>8.2 Flooding</p> <p>The site is not flood affected.</p>
	<p>8.5 Waste Management</p> <p>Construction waste will be managed in accordance with a Construction</p>

Instrument/Strategy	Comments	
		<p>Environmental Management Plan which will be prepared and finalised by the appointed contractor prior to construction commencing Individual Waste</p> <p>Management Plans will be submitted with future DA's for residential/commercial development.</p>
	8.6 Vegetation Management	The Arborist Report prepared by Naturally Trees is provided at Appendix F and outlines the extent of clearing on the site; the removal of any significant trees has been minimised.
	8.7 Soil Management	A Soil and Erosion Control Plan has been prepared and is provided at Appendix B and outlines that the proposal will be consistent with all relevant provisions of the Ryde DCP 2010.
	8.8 Site Contamination	Refer to SEPP 55 assessment below. The site is suitable for the proposed works.
State Environmental Planning Policies		
SEPP (State and Regional Development) 2011	State Environmental Planning Policy (State and Regional Development) 2011 identifies development that is State Significant Development and for which the Minister for Planning and Infrastructure is the consent authority. The proposed development is on the North Ryde Station Precinct and falls into a class of major development described in Schedule 2, Clause 12 of the SEPP.	
SEPP 55	<p>SEPP 55 provides controls and guidelines for the remediation of contaminated land. In particular, this Policy aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. Before determining a development application that changes the use of land, a planning authority must consider whether the land is contaminated and be satisfied that it is suitable in its current state or will be suitable, after remediation for the proposed development.</p> <p>Clause 7 specifies that a consent authority must not consent to the carrying out of any development on land unless it has considered whether land is contaminated and if the land is contaminated, it is satisfied that the land is/can be suitable for the proposed development.</p> <p>Contamination was considered during the UAP process and it was confirmed that the Site is suitable for the proposed development as discussed at Section 2.2.4.</p>	
SEPP (Infrastructure)	<p>The SEPP Infrastructure 2007 (ISEPP) provides a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process. The SEPP supports greater flexibility in the location of infrastructure and service facilities along with improved regulatory certainty and efficiency.</p> <p>This SSDA includes infrastructure works as described in Section 4 of this EIS and is not inconsistent with the ISEPP.</p>	

5.4 Transport and Accessibility

5.4.1 UAP Process

The North Ryde Station Precinct Transport Management and Accessibility Plan (TMAP), prepared by Parsons Brinckerhoff, was approved as part of the UAP process. The TMAP models anticipated traffic generation rates and movements based on an indicative mixed use development scenario, and outlines a strategy

for managing traffic and transportation through the progressive implementation of local and regional road and intersection upgrades, public transport initiatives, and pedestrian and cycling initiatives.

In addition, the TMAP proposes an internal road hierarchy which was subsequently incorporated into the NRSP DCP 2013 (refer to Figure 6.2 of the TMAP and Figure 4 of the NRSP DCP 2013) along with road typology details. Under the approved TMAP and NRSP DCP 2013, the Site is envisaged to accommodate an L-shaped 28.5m wide local road that connects Delhi Road to the southern entrance of the North Ryde Rail Station.

Since preparation of the TMAP, the extent of the North Ryde Station Precinct UAP has been reduced and the land use mix has also been adjusted to primarily increase the release of land for new housing in close proximity to infrastructure, transport, services and jobs. The commercial land use has been reduced in favour of more residential and retail. Parsons Brinckerhoff has therefore prepared a supplementary Traffic Impact Assessment, provided at **Appendix E**, which assesses the approved TMAP's findings based on the revised indicative land use mix, as well as specifically responds to the traffic related DGRs issued for this SSDA. The following section is an assessment of the works proposed by this SSDA against the relevant DGRs. Reference should be made to the Traffic Impact Assessment for broader traffic related matters regarding the North Ryde Station Precinct.

It is noted that the TMAP assumptions include the maximum permissible GFA calculated across the whole site area. As such the proposed allocation of GFA to proposed Lot 1 is accounted for in the TMAP assumptions.

5.4.2 Station Sub-precinct Assessment

Access and Street Design

This SSDA seeks a revised road layout to the requirements of the NRSP DCP 2013 and the approved TMAP, including a 7.75m reduction in the overall road reserve width of Station Street, revisions to the Station Street turning circle, removal of the central swale required by the NRSP DCP 2013, and revisions to the northern footpath including removal of the cycleway and reduction in the footpath width by 1 metre.

A comparison of the individual street elements in the NRSP DCP 2013 and currently proposed designs is provided in **Figures 11** and **12** and **Table 5**. Each of the proposed revisions are considered in the following sections and at **Appendix E**.

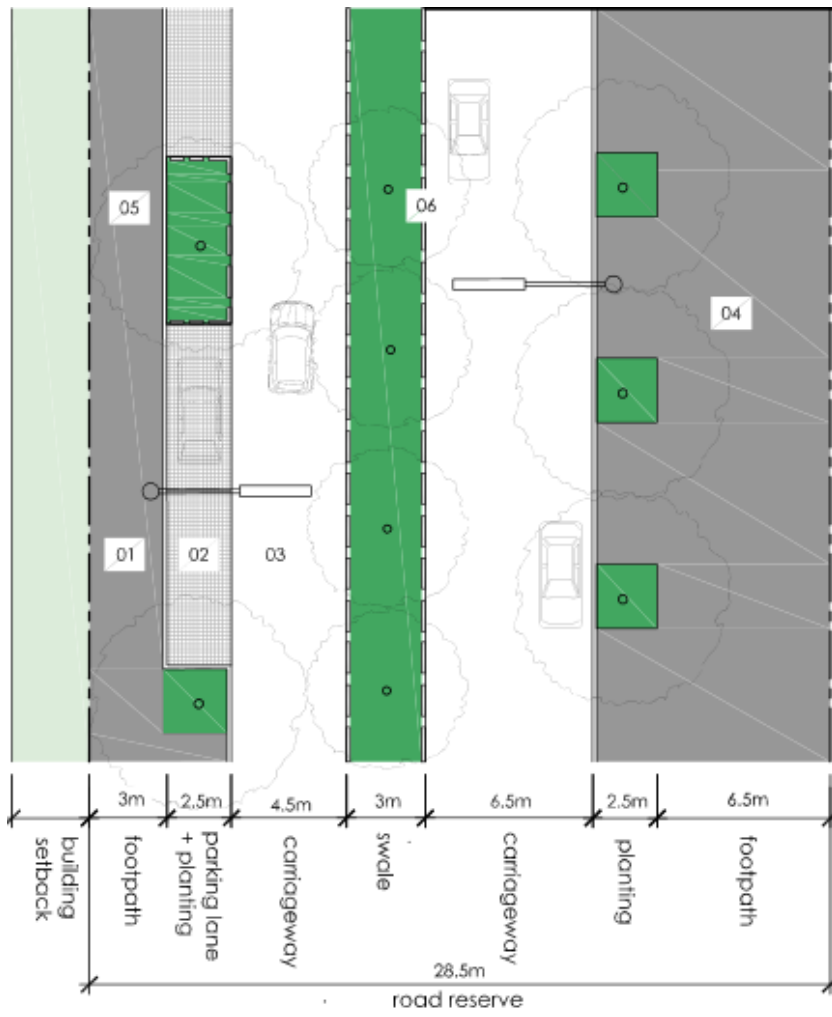


Figure 11 – NRSP DCP 2013 Station Street design

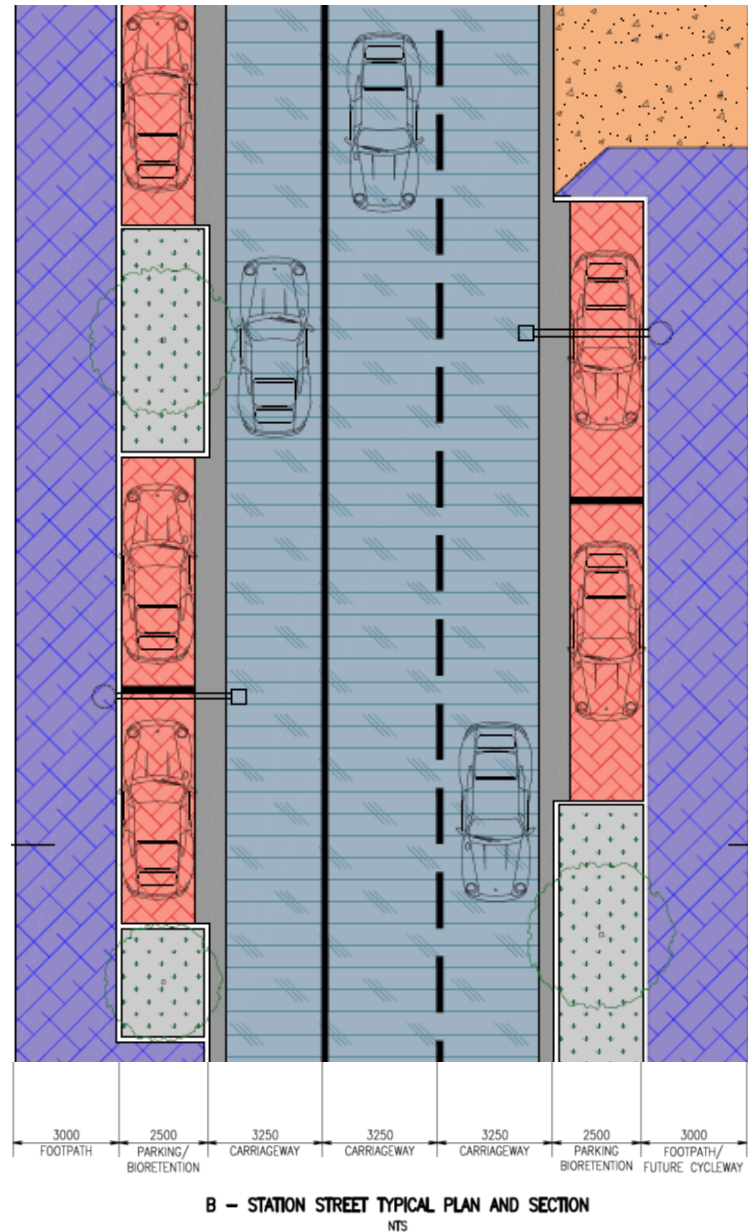


Figure 12 – SSDA Station Street design

Table 5 – Comparison of required and proposed Station Street elements

Street element	NRSP DCP 2013 Requirement	SSDA Proposal	Comment/Reason
Footpath	3m	3m	
Parking and planting	2.5m	2.5m	
Carriageway	4.5m	3.25m	Standard lane width sufficient with no swale
Swale	3m	0m	No longer required
Carriageway	6.5m	6.5m	
Planting	2.5m	2.5m	
Footpath	6.5m	3.0m (minimum)	Removes provision for cycleway and reduces footpath by 1m
Total road reserve	28.5m	20.75m	Reduction of 7.75m

Turning Circle Configuration

SIDRA traffic modelling undertaken for the revised land use mix in support of the supplementary Traffic Impact Assessment indicates that traffic generation and queuing at the Road 38/Station Street intersection is expected to be less than initially expected under the approved TMAP. The shape and dimension of the turning circle has therefore been revised as queuing back into the turning circle is forecast to be minor and accordingly is no longer of concern.

Street Design – Reduced Carriageway Width and Removal of Central Swale

The central swale within Station Street required by the NRSP DCP 2013 has been removed given the proposed stormwater infrastructure works and increased tree planting across other parts of the Site (refer to discussion at Sections 5.5 and 5.6 respectively). The removal of the swale has no traffic implications, and accordingly the carriageway width has been commensurately reduced from 4.5m to 3m.

Revised Footpath Width

The footpath dimension north of the turning circle has been reduced to 3m width and is therefore less than the 6.5m requirement identified in the NRSP DCP 2013. The 5m footpath width proposed by this SSDA is considered appropriate as Parsons Brinckerhoff has confirmed that sufficient width for shared use by pedestrians and cyclists can still be achieved.

On Street Parking

The approved TMAP allocated on-street parking within the Site to car share, disabled parking, a loading zone, kiss-and-ride, short-stay timed parking and motorcycle parking. This SSDA does not seek to amend the on street car parking arrangements contemplated by the TMAP, other than to provide three (3) on street car parking spaces in addition to the five (5) indented bays and drop-off area contemplated by the approved TMAP. The three additional space have no significant traffic generation or queuing impacts on Station Street or the surrounding road network.

Bicycle parking will be provided as part of future development applications for built form on the proposed new lots adjoining the proposed new road.

Construction Traffic Impacts

Construction traffic volumes and routes for this SSDA are not able to be determined at this point. However, to manage the impacts of construction traffic on the locality, a detailed construction traffic management plan will form part of the Construction Environmental Management Plan (CEMP) for the development prior to commencement of works.

Notwithstanding this, Section 8 of the Traffic Impact Assessment provided at **Appendix E** provides a preliminary assessment of the expected construction traffic impacts.

5.5 Water Cycle Management

5.5.1 UAP Process

A Hydrological Impact Assessment prepared by SLR Consulting Australia Pty Ltd and a Hydrology, Flooding and Water Sensitive Urban Design Strategy Report prepared by Storm Consulting Pty Ltd accompanied the UAP.

Collectively those investigations found that the Site is subject to localised runoff which can be attributed to the Site's topography. The Hydrological Impact

Assessment recognised that the future development of the Site and in particular the future stormwater drainage systems would abate this run off.

The adopted NRSP DCP 2013 requires the preparation of an Integrated Water Management Plan that incorporates water sensitive urban design measures, and includes:

- existing hydrology conditions;
- objectives and performance standards for water cycle outcomes that are to be achieved during construction and operation phases of any development, having regard to stormwater management provisions in the Ryde DCP 2010;
- water management measures to meet objectives and performance standards referred to in clause 4.4(2)(b) of the NRSP DCP 2013 including but not limited to:
 - i. on site storage for rainwater reuse;
 - ii. stormwater treatment devices to remove gross pollutants, sediments, oils and greases from first flush stormwater run-off;
 - iii. bioremediation swales;
 - iv. other water sensitive urban design measures such as water efficient irrigation systems, rainwater tanks, and use of drought tolerant plant species.

5.5.2 Station Sub-precinct Assessment

Stormwater Management

Robert Bird Group has prepared a drainage concept for this SSDA consistent with parameters of the conceptual stormwater drainage approved under the UAP process (**Appendices C and E**). The proposed development incorporates water sensitive urban design (WSUD) measures to treat stormwater runoff via a combination of roadside bio-retention and stormwater pit litter baskets, in order to reduce pollutant loads prior to discharging into the existing network. Stormwater drainage connections are proposed to Lot 160 DP 1136651, draining along Road 38, to the final stormwater pit to the south of Lot 160 DP 1136651. The Station Street and Road 38 stormwater network will be designed to accommodate the peak design flows. The proposed roadworks have no effect on the percentage of impervious area and as such it is assumed to have a negligible effect on the peak discharge. The quality of water being discharged is also expected to be satisfactory as indicated in the MUSIC modelling undertaken by Robert Bird Group.

Stormwater quality during the construction phase will be safeguarded through the implementation of measures detailed in the Erosion and Sediment Control Plan included within the Civil Infrastructure Drawings prepared by Robert Bird Group (**Appendix B**). These plans have been prepared in accordance with the 'Blue Book' which is considered to be industry best-practice for construction-phase stormwater control. Further details of the proposed pre-, during and post construction erosion and sediment control measures are detailed in Section 5.1 of **Appendix D**.

5.6 Tree Removal

The proposal will result in the removal of 24 high category trees and nineteen low category trees. The Arboriculture Impact Appraisal and Method Statement prepared by Naturally Trees and attached **Appendix F** has assessed the potential impacts of the development on trees required to be removed. That Report concludes that the existing trees on the site are not a constraint to development, being small in stature, limited ecological value, and only providing a fair contribution to the amenity of the local area. The Report goes on further to

suggest that any perceived loss of amenity can be quickly compensated for by replacement tree plantings. Subject to the recommended tree protection measures being implemented during construction works, no adverse impact is expected on the trees to be retained.

5.7 Geotechnical

As outlined in Section 2.2.3, a Preliminary Geotechnical Investigation Assessment prepared by Douglas Partners formed part of the UAP proposal. The Assessment concluded that the Site generally does not exhibit any specific geotechnical constraints, or acid sulphate soils, and therefore the proposed development presents a low risk to existing surrounding structures.

5.8 Infrastructure and Utilities

The proposed development is not expected to have any adverse impacts on the existing utilities infrastructure.

5.9 Environmental and Construction Management

A Construction Environmental Management Plan will be prepared prior to commencement of works. The Plan will include measures to manage the methods and impacts of construction, and address the following matters:

- management responsibility and reporting, and key personnel and responsibilities including workplace health and safety officers;
- environmental management including management of:
 - construction traffic in accordance with the Supplementary Traffic Assessment at **Appendix E**;
 - noise and vibration;
 - air quality and dust; and
 - vegetation.
- workplace health and safety policy and on-site safety requirements including risks and control methods, safe work method statements, traffic management, electrical power supply and safety, signs, protective equipment and clothing, fire prevention, communication, public safety, inspections and safety audits, site inductions and visitors, plant and equipment; and
- site emergencies including procedures for evacuation, fire, injury, crime, flood, storm, dust, first aid and incident reporting.

Construction Traffic and Pedestrian Management

With respect to construction traffic and parking management, the following principles will be incorporated into the CEMP:

- Primary construction heavy vehicle egress will be via the established new entry road at Delhi Road.
- All vehicles entering through advised gates in a forward direction with a speed limit of 10kmh.
- After delivery, vehicles will exit through designated gates, in a forward direction.
- Truck movements to and from the Site to be restricted to specified routes.
- Truck movements to be scheduled to minimise disruption to Site operations, the local community, and the road network.
- It is anticipated that there will generally only be 3-4 truck movements per hour accessing the Site for the duration of the development. In instances where this volume increases, e.g. for concrete pours, it will be controlled to alleviate any congestion to the surrounding traffic network.
- There is to be no construction parking provided on Site, with use of public transport to be promoted (through the tendering process and site inductions etc.) and utilised.
- A controlled permit system for vehicles at access points, using only certified traffic controllers, will be maintained.
- Traffic movements and vehicles will conform to current RMS requirements.
- Appropriate directional signage and traffic control will be provided.
- Temporary road closures, single lane access and relocations during construction to be subject to coordination with appropriate authorities, and involve consultation with stakeholders.

In terms of pedestrian access and management, key measures will include:

- Implementation of pedestrian diversions with appropriate protection.
- Security fencing to protect pedestrian traffic from entering the site boundaries.
- Careful planning of hoarding locations and types will aim to ensure access to the North Ryde Rail Station is maintained, so that the level of access is generally reflective of what is currently available.

Sediment and Erosion Control

A preliminary Erosion and Sediment Control plan has been prepared (refer to **Appendix B**). This plan has been developed to ensure that there are no unacceptable impacts on water quality and volumes within existing watercourses and stormwater drainage systems as a result of the proposed development.

5.10 Site Suitability

Having regard to the characteristics of the Site and its location, the proposed development is considered suitable for the Site as it:

- will provide alternative access to Lot 4 as recommended by the TMAP adopted under the UAP process, thereby providing a material traffic benefit on Delhi Road;
- is consistent with the approved land use framework established within the Ryde LEP 2010 and the NRSP DCP 2013;
- is consistent with the maximum FSR provision within Ryde LEP 2010;
- is capable of being developed in a manner that will minimise impacts to the natural, historical, and environmental qualities of the Site;
- will result in only minor environmental impacts that can be appropriately managed and mitigated;
- is the first stage in facilitating the renewal of the Site, consistent with the State Government's vision; and
- will unlock land to the south owned by Goodman.

5.11 Public Interest

This SSDA is considered to be in the public interest as it will:

- ultimately contribute to the development of North Ryde Station Precinct into one of Sydney's first UAP's;
- support the creation of lots which will be released to the market and which will accommodate future residential and employment generating uses;
- create a new functional, and well design entry road which will provide connections to the future public plaza south of the North Ryde Rail Station.

6.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 5** below. These measures have been derived from the assessment in Section 5.0 and those detailed in appended consultants' reports.

Table 6 – Mitigation Measures

Subject	#	Commitment	Responsibility / Timing
Traffic and Access		UrbanGrowth NSW will carry out the road works identified in Engineering Plans at Appendix B prepared by Robert Bird Group dated February 2014.	Appointed contractor during works.
Drainage and Stormwater		Stormwater infrastructure will be provided in accordance with the plans at Appendix B prepared by Robert Bird Group dated February 2014.	Appointed contractor during works.
		The recommendations of the Arboriculture Impact Appraisal and Method Statement prepared by Naturally Trees will be implemented during construction works.	Appointed contractor during works.
Construction Impacts		A Construction Environmental Management Plan (CEMP) is to be prepared which is to be implemented throughout the construction works under the responsibility of the Principal Contractor.	To be satisfied by the appointed contractor prior to issue of the Construction Certificate.

7.0 Justification for the Proposal

Investment in major projects can only be justified if the benefits of doing so exceed the costs. Such an assessment must consider all costs and benefits, and not simply those that can be easily quantified. As a result, the EP&A Act specifies that such a justification must be made having regard to biophysical, economic and social considerations and the principles of ecologically sustainable development.

This means that the decision on whether a project can proceed or not needs to be made in the full knowledge of its effects, both positive and negative, whether those impacts can be quantified or not.

This SSDA involves subdivision to open a new public road, construction of an entry road and associated works. The assessment must therefore focus on the identification and appraisal of the effects of the proposed change over the Site's existing conditions.

Various components of the biophysical, social and economic environments have been examined in this EIS and are summarised below.

7.1 Social and Economic

The NSW Government's number one planning priority is to restore economic growth and establish NSW as the first place in Australia to do business. The North Ryde Station Precinct forms a central part of achieving this ambition of "making NSW number one again" and reinforcing Sydney's status as Australia's global city.

The development of the North Ryde Station Precinct has been earmarked as a strategic urban renewal site which will accommodate approximately 3,000 homes and 1,500 jobs. The North Ryde Station Precinct is proposed to be developed as a transit oriented development, in which the proposed future traffic infrastructure has been carefully formulated for the public benefit through the TMAP adopted as part of the UAP process.

The creation of the proposed new road is the first step in implementing the web of traffic infrastructure mandated in the TMAP for the public benefit by alleviating traffic from Delhi Road, unlocking the Site to facilitate access to the Goodman owned land south of the Site, and enabling release of the super lots to the market for development for economic investment and creation of an active and vibrant community.

7.2 Biophysical

The proposed development is to be carried out within a highly disturbed urban environment which largely comprises highly modified land. As set out in **Section 2** of this EIS, the Site does not possess any significant biophysical elements. The Site has been subject to a range of urban uses in the past, and has been highly modified to reach its current state. The carrying out of the proposed development is not expected to adversely impact on any biophysical elements.

7.3 Ecologically Sustainable Development

The principles of ecologically sustainable development are set out in section 6(2) of the *Protection of the Environment Administration Act 1991* (NSW). The principles of ESD include intergenerational equity, the precautionary principle, conservation of biological diversity and ecological integrity and improved valuation, pricing and incentive mechanisms. It is appropriate for decisions made under the EP&A Act to have regard to the objects of the Act, as set out in section 5 of the Act, including ESD.

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
 - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
 - (ii) *an assessment of the risk-weighted consequences of various options,*
- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- (c) *conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- (d) *improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
 - (i) *polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
 - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
 - (iii) *environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

Importantly, the development of the Site is consistent with the principles of ESD as it meets the needs of the present without compromising the ability of future generations to meet their own needs. ESD design measures have been integrated into the design of the stormwater infrastructure particularly. Each principle of ESD as relevant to the proposed development is addressed below.

7.3.1 Precautionary principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment. The sustainability strategy for the Site and the broader North Ryde Station Precinct is on-going and must be considered in the context of the staged planning process set up by the UAP process. The ESD opportunities approved under the UAP process and have been incorporated into the land use framework that now applies to the Site.

In particular this SSDA delivers the following ESD outcomes and satisfies the requirements of the NRSP DCP 2013 as follows:

- provision of a subdivision layout that contributes to the realisation of the North Ryde Station Precinct as a transit oriented development that recognises its proximity to public transport, and employment opportunities;
- provides lot sizes to accommodate mixed use development that will be capable of accommodating a range of affordable housing forms and typologies that meet the needs of a diverse range of age groups and family types; and
- ensuring environmental impacts are minimised and where necessary appropriately managed.

When taking into account the above ESD measures, this EIS has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not relevant to the proposal.

7.3.2 Inter-generational equity

Inter-generational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. This SSDA has been designed to benefit both the existing and future generations by:

- providing support services for the future North Ryde Station Precinct facilities to assist in securing the Precinct's role as a successful UAP, thereby providing ongoing economic and employment benefits to residents and the State of NSW;
- providing lasting benefits in terms of safe road design, urban structure and connectivity to promote walking, cycling and pedestrian connectivity; and
- implementing safeguards and management measures to protect environmental values.

This SSDA has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long term implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this EIS and the appended technical reports.

7.3.3 Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration. The proposal would not have any significant effect on the biological diversity and ecological integrity of the study area. Design and management measures to reduce excavation within the site and reduce the export of gross pollutants into the waterway all contribute directly the conservation of biological diversity and ecological integrity within the area.

7.3.4 Improved valuation, pricing and incentive mechanisms

UrbanGrowth NSW has been appointed by the State Government to deliver the North Ryde Station Precinct project based on the economic, environmental and social merits of the urban framework established as part of the UAP process. That framework has undergone significant assessment and testing to ensure that the proposed development ultimately achieves the best development outcome for the across all evaluation criteria.

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things.

8.0 Conclusion

This EIS has been prepared to consider the environmental, social and economic impacts of the proposed subdivision, entry road construction and associated works within the Station North sub-precinct within the North Ryde Station Precinct. The EIS has addressed the issues outlined in the DGRs (**Appendix A**) and accords with Schedule 2 of the EP&A Regulation 2000 with regards to consideration of relevant environmental planning instruments, social and environmental impacts including traffic, noise, construction impacts and stormwater.

Having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified and warrants approval for the following reasons:

- The proposal is permissible with consent and meets all requirements of the relevant planning controls for the site;
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the *Environmental Planning and Assessment Regulation 2000* (refer to Section 7.3);
- The proposed development is consistent with the land use controls and design guidelines for the North Ryde Station Precinct established by the Ryde LEP 2010 and NRSP DCP 2013;
- The construction of the entry road will support future development of the North Ryde Station Precinct consistent with the mixed uses vision established by the DoPI through the recently gazetted UAP process;
- The proposed development is not expected to result in any adverse or unmanageable environmental, social or economic impacts.

Given the planning merits described above, and the public benefits associated with the proposed development, it is recommended that this application be approved.