



DEVELOPMENT PLAN

LOT 522 ON PLAN 74182, AND LOT 521 MADIGAN ROAD, GAP RIDGE



DOCUMENT CONTROL

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This structure plan is prepared under the provisions of the City of Karratha Town Planning Scheme No.8

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: 14 JANUARY 2016

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to Section 16 of the *Planning and Development Act 2005* for that purpose, in the presence of:

M. Wreelan

Witness

18 January 2016

Date

14 January 2026 _____ Date of Expiry



TABLE OF MODIFICATIONS TO DEVELOPMENT PLAN

Modification No.	Description of Modification	Date Endorsed by Council	Date Endorsed by WAPC



EXECUTIVE SUMMARY

This Development Plan applies to Lot 522 on Plan 74182, and Lot 521 Madigan Road, Gap Ridge. It outlines:

- ▲ The location of the Development Plan area; and
- ▲ The land-use, subdivision and development proposed.

The Development Plan encourages the development of a bulky goods retail / showroom area at the corner of Madigan Road and Dampier Highway.

The area to the south of the site is also zoned Development Plan Area and encompasses a transient worker accommodation facility owned and operated by CIVEO Property Pty Ltd on Lot 526, whilst Lot 525 is leased for the purposes of a transient worker accommodation facility operated by Woodside Energy Ltd, Kansai Electric Power Australia Pty Ltd, Woodside Burrup Pty Ltd and Tokyo Gas Pluto Pty Ltd. Once the terms of lease expires for the transient worker accommodation facility on Lot 525 and the CIVEO transient worker accommodation facility ceases operation, the southern portion of the Development Plan Area is expected to be subdivided and developed as a new residential expansion in Gap Ridge. A Development Plan will be prepared for these areas separately.



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1. Correspondence from the Department of Environment and Conservation
2. Correspondence from the Minister for Indigenous Affairs

TECHNICAL APPENDICES

3. Geotechnical Report
4. Traffic Impact Assessment
5. Traffic Technical Note 2014
6. Traffic Technical Note 2015
7. Lot 521 Madigan Rd, Karratha Bulky Goods Site Drainage Channel Advice
8. Assessment of Market Potential
9. Pump Station Servicing Strategy



TECHNICAL APPENDICES

Technical Appendix Number	Document Title	Nature of Document	Referral/Approval Agency	Summary of Document Modifications
3.	Geotechnical Study Proposed Industrial Development Lot 522 Dampier Highway, Karratha	Geotechnical Report	Galt Geotechnics	
4.	Traffic Impact Assessment	Traffic Impact Assessment	Shawmac Consulting Civil & Traffic Engineers, Risk Managers	
5.	Traffic Technical Note 2014	Technical Note	Shawmac Consulting Civil & Traffic Engineers, Risk Managers	
6.	Traffic Technical Note 2015	Technical Note	Shawmac Consulting Civil & Traffic Engineers, Risk Managers	
7.	Lot 521 Madigan Rd, Karratha Bulky Goods Site Drainage Channel Advice	Drainage Advice	Jim Davies & Associates Pty Ltd	
8.	Assessment of Market Potential	Market Analysis Report	Macro Plan Dimasi	
9.	Pump Station Servicing Strategy	Servicing Strategy	Cossill & Webley Consulting Engineers	





Part One

STATUTORY SECTION



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1. Development Plan Area

This Development Plan shall apply to Lot 522 on Plan 74182, and Lot 521 Madigan Road, Gap Ridge being the land contained within the inner edge of the line denoting the Development Plan boundary on Plan 1 – Development Plan.

This Development Plan may be amended or a new Development Plan prepared in relation to Lot 502 and Lot 525 on Plan 55670, Lot 526 and Lot 527 on Plan 74184 and Lot 509 and Lot 501 Madigan Road, Gap Ridge.

Specific focus is given on Lot 522 on Plan 74182, and Lot 521 Madigan Road, Gap Ridge, which forms the 'Service Commercial' Zone which will be developed in a two (2) stage process. The remaining land within the Development Area ('DA13' under TPS 8) will retain the existing 'Urban Development' zoning under the Scheme until this Development Plan is amended or a new Development Plan prepared and adopted.

2. Development Plan Content

This Development Plan comprises:

- a) Part One - Statutory section

This section contains the Development Plan map and statutory planning provisions and requirements.

- b) Part Two – Non-statutory (explanatory) section

This section to be used as a reference guide to interpret and justify the implementation of Part One.

- c) Appendices – Technical reports and supporting plans and maps.

3. Interpretations and Relationship with the Scheme

Unless otherwise specified in this part, the words and expressions used in this Development Plan shall have the respective meanings given to them in the City of Karratha Town Planning Scheme No. 8 ('the Scheme') including any amendments gazetted thereto.

Plan 1 – Development Plan outlines land use, zones and reserves applicable within the Development Plan area. The zones will not have statutory effect as it is currently not included in the City's Scheme.

Pursuant to Clause 27 of Schedule 2 – Deemed Provisions for Local Planning Schemes under the Planning and Development (Local Planning Schemes) Regulations 2015:

- a) A decision-maker for an application for development approval or subdivision approval in an area that is covered by a structure plan that has been adopted by the Commission is to have due regard to, but is not bound by, the structure plan when deciding the application.

4. Operation

In accordance with Clause 7.2.11.1 of the Scheme, this Development Plan shall come into operation when it is certified by the Western Australian Planning Commission (WAPC) pursuant to Clause 7.2.11.1(a) of the Scheme or adopted, signed and sealed by the Council pursuant to Clause 7.2.11.1(b) of the Scheme, whichever is the latter.

5. Land Use and Subdivision

Plan 1 – Development Plan outlines land use, zones and reserves applicable within the Development Plan Area. The zones will not have statutory effect as it is currently not included in the City's Scheme. The content of the Land Use Permissibility Table in this section is indicative only until such a time as the City includes (through a Scheme Amendment), the 'Service Commercial' Zone and the land use permissibility associated with the zone into the Scheme.

5.1 Urban Development Zone

5.1.1 Intent

The Urban Development Zone is intended to remain under the present zoning of land as classified under the Scheme. The provisions of the Scheme relating to the Urban Development Zone apply.

5.2 Parks, Recreation and Drainage Reserve

5.2.1 Intent

The Parks, Recreation and Drainage Reserve is intended to provide for high quality parks for public use and may include drainage and buffer areas, which is held by the Council.

5.3 Service Commercial Zone

5.3.1 Intent

The Service Commercial Zone is intended to provide for a wide range of showrooms, wholesaling and bulky goods uses, which by reason of their scale, character, operation and land requirements, are not generally appropriate to, or cannot conventionally or economically be accommodated within the Town Centre or Commercial Zones.

5.3.2 The objectives of the Service Commercial Zone are to:

- a) encourage a range of land uses, particularly showrooms, warehouses and bulky goods uses which support the functions of the nearby City Centre and Commercial Zones;
- b) identify appropriate locations for the orderly development of service commercial activities, having due regard to vehicle, cycling and pedestrian movement, car parking and the appearance of buildings and works;
- c) provide for uses which combine the need for showrooms and facilities involving warehousing, wholesaling and distribution;
- d) encourage the provision of landscaped areas in a manner that complements and enhances the setting within the surrounding area; and
- e) provide for uses that will not compete with or detract from the City Centre Zone as the principal centre for retail and commercial activity.

5.4 Indicative Land Use Permissibility

Land use permissibility within the Development Plan Area shall be in accordance Table 1.

Until such a time that a Scheme Amendment is gazetted, the zones and land use permissibility under this Development Plan is indicative and does not have the force of TPS 8.

Table 1: Indicative Land Use Permissibility Table.

Land Use	Service Commercial Zone
RESIDENTIAL	
Aged or Dependent Persons Dwelling	X
Ancillary Accommodation	X
Caravan Park	X
Caretaker's Dwelling	X
Grouped Dwelling	X
Home Business	X
Home Occupation	X
Hotel	X
Motel	X
Multiple Dwelling	X
Park Home Park	X
Residential Building	X
Rural Settlement	X
Short Stay Accommodation	X
Single House	X
Tourist Resort	X
Transient Workforce Accommodation	X
INDUSTRY	
Abattoir	X
Aerodrome	X
Agriculture	X
Intensive Agriculture	X
Harbour Installation	X
Hire Service (Industrial)	X
Industry – Extractive	X
Industry – General	X
Industry – Light	X
Industry – Noxious	X
Industry – Rural	X
Industry – Service	X

Land Use	Service Commercial Zone
Industry – Resource Processing	X
Road Freight Terminal	X
Stockyard	X
Storage Facility / Depot / Lay Down Area	X
COMMERCE	
Animal Establishment	X
Display Home	X
Dry Cleaning Premises	SA
Market	X
Motor Vehicle and / or Marine Repair	IP
Motor Vehicle and / or Marine Sales & Hire	P
Motor Vehicle and / or Marine Service Station	SA
Motor Vehicle and / or Wrecking	X
Motor Vehicle Wash	SA
Office	IP
On-site Canteen	X
Outdoor Display	P
Reception Centre	X
Restaurant	X
Restricted Premises	SA
Shop	AA
Showroom	P
Take-away Food Outlet	X
Vehicle Store	X
Warehouse	P
HEALTH, WELFARE AND COMMUNITY SERVICES	
Car Park	AA
Child Care Premises	X
Community Use	X
Consulting Rooms	X
Corrective Institution	X
Education Establishment	X
Emergency Services	AA
Funeral Parlour	AA
Hospital	X

Land Use	Service Commercial Zone
Juvenile Detention Centre	X
Medical Centre	X
Nursing Home	X
Place of Public Meeting, Assembly or Worship	X
Minor Utility Installation	AA
Utility Installation	AA
Veterinary Centre	AA
ENTERTAINMENT, RECREATION AND CULTURE	
Equestrian Centre	X
Entertainment Venue	SA
Marina	X
Private Recreation	AA
Public Recreation	X
Tavern	X

6. Development

6.1 Development Provisions

6.1.1 Service Commercial Zone Development Provisions

The following provisions apply to all development within the Service Commercial Zone:

6.1.1.1 Architectural Character

- (a) Building facades should be a minimum height of 5m.
- (b) Facades must be designed to address the primary and secondary streets by providing visual interest, permeability and articulation.
- (c) Buildings on corner lots must be designed to address their landmark location through the application of contemporary design, materials and finishes and/or other architectural elements and features.
- (d) No blank walls or extensive service / loading areas are to be exposed to the primary street frontage.

6.1.1.2 Setbacks

- (a) Buildings should provide primary setbacks in accordance with Plan 2 – Setback Plan.
- (b) Side and rear setbacks to be as prescribed by the National Construction Codes (as amended).

6.1.1.3 Parking and Access

- 
- (a) The provision of car parking bays is to be in accordance with TPS 8 and be of a minimum width of 2.7 metres.
 - (b) Parking spaces and manoeuvring areas will be designed in accordance with the Australian Standard for off-street parking and paved, kerbed, drained and marked to the satisfaction of the City of Karratha.
 - (c) Access to parking areas should be provided within primary setback areas.
 - (d) Access should generally be provided in accordance with Plan 3 – Access Plan.

6.1.1.4 Loading and Service Areas

- (a) Loading areas should be located to the rear of developments.
- (b) Storage areas should be screened from view.

6.1.1.5 Signage

- (a) All signage must meet the requirements contained in the Design Guidelines prepared by Landcorp which relate to the Karratha Bulky Goods Area. The provisions of any other adopted guidelines and relevant Scheme provisions also apply.
- (b) Planning Approval may be required in accordance to the Scheme, relevant Local Laws and Local Planning Policies.

6.1.1.6 Landscaping

- (a) Landscaping of the drainage reserves is to be undertaken on a stage by stage basis by the Developer.
- (b) All lots require a 1.0m wide landscaping strip along primary and secondary setback areas, as illustrated on Plan 4 – Development Concept Plan.

6.1.1.7 Staging

- (a) Staging of development is to generally occur in accordance with Plan 5 – Staging Plan.
- (b) Access onto Dampier Highway is indicative only and will be subject to further investigation, consultation and approval with Main Roads Western Australia.
- (c) A temporary cul-de-sac is to be provided at the developed extent of the road reserve within Stage 1. This cul-de-sac is to be removed once the road is extended as part of Stage 2.
- (d) The Stage 2 area, as shown on Plan 5 – Staging Plan is not to be cleared of existing vegetation unless a Clearing Permit from the Department of Environment Regulation or a subdivision of land has

been approved by the Western Australian Planning Commission has been granted.

6.1.1.8 Retail Floorspace

- (a) The amount of showroom floorspace Net Lettable Area (NLA) for the Development Plan should be in accordance with Table 2.

Table 2: Retail Floorspace Provision

Centre	Maximum Net Lettable Area	
	Stage 1	Stage 2
Karratha Bulky Goods Area	25,000m ² NLA	*

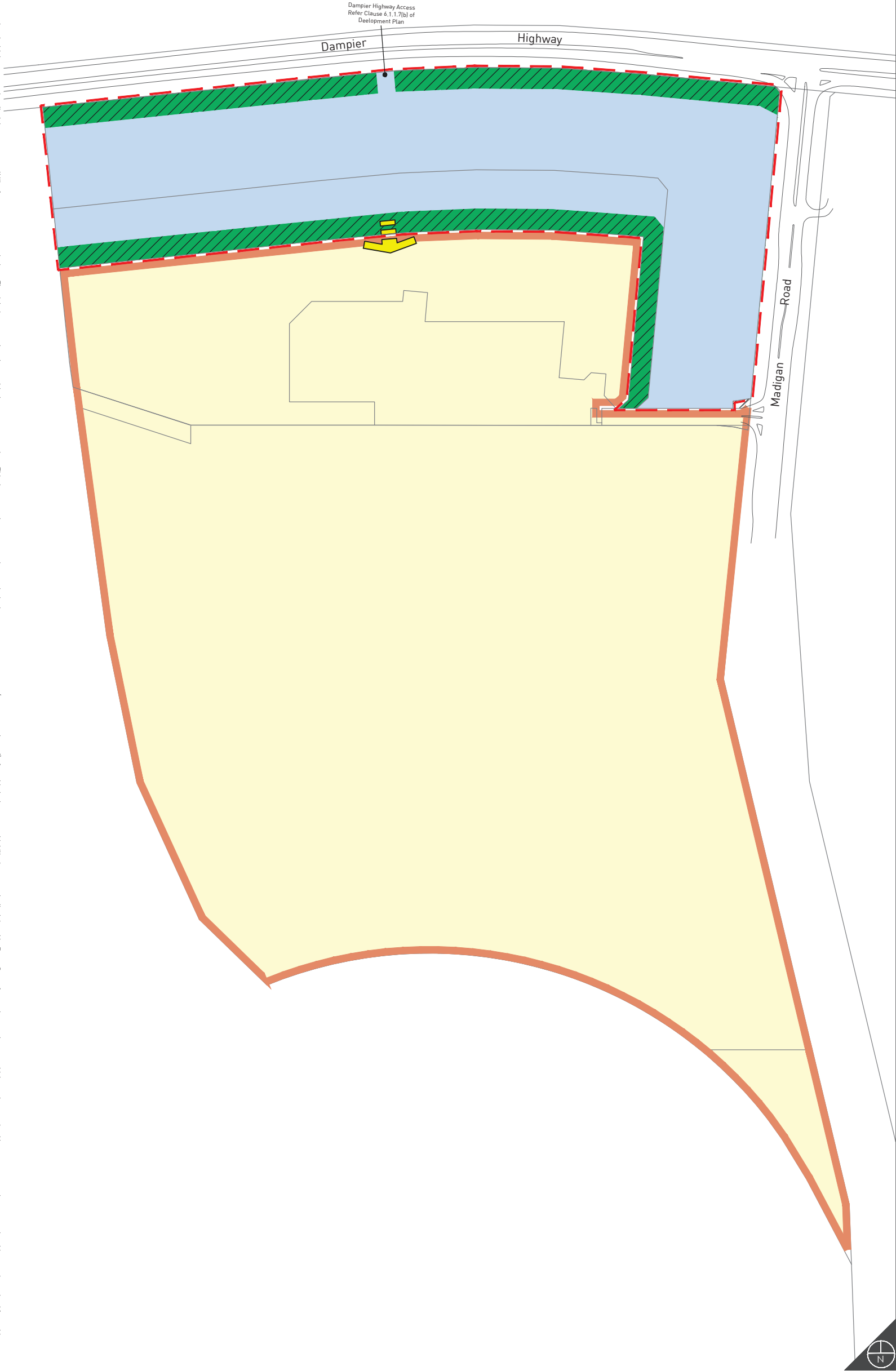
* Prior to consideration of any additional showroom floorspace within Stage 2 that exceeds the floorspace proposed within Stage 1 the City will require the preparation of a Retail Sustainability Assessment.

- (b) For the purposes of this Development Plan, NLA shall mean the area of all floors confined within the internal finished surfaces of permanent walls but excludes the following areas:
- all, toilets, cleaners' cupboards, lift shafts and motor rooms, escalators, tea rooms and plant rooms, and other storage and service areas;
 - lobbies between lifts facing other lifts serving the same floor;
 - areas set aside as public space or thoroughfares and not for the exclusive use of occupiers of the floor or building;
 - areas set aside for the provision of facilities or services to the floor or building where such facilities are not the exclusive use of occupiers of the floor or building.

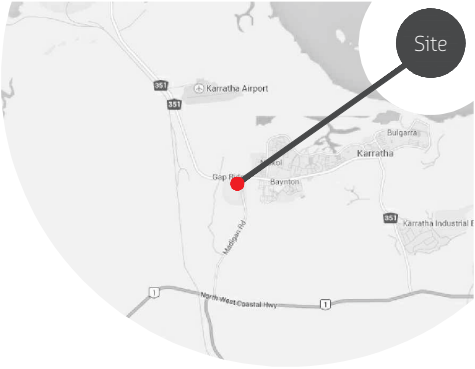
6.1.1.9 Subdivision

- (a) Subdivision is to be generally consistent with the layout as shown on Plan 6 – Indicative Subdivision Plan.

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Planning Design Delivery



- LEGEND
- Development Plan Area
 - 7 Existing Lot Numbers
 - Existing Lot Boundaries
 - Urban Development
 - Service Commercial
 - Parks, Recreation and Drainage
 - ⇨ Possible Future Road Connection(s)
(Exact Location to be Determined)

0 250 Metres

REVISIONS		
Rev	Date	Drawn
B	2014.06.25	K. Trenberth
C	2014.12.09	M. Sullivan
D	2015.04.21	M. Sullivan
E	2015.07.22	M. Sullivan



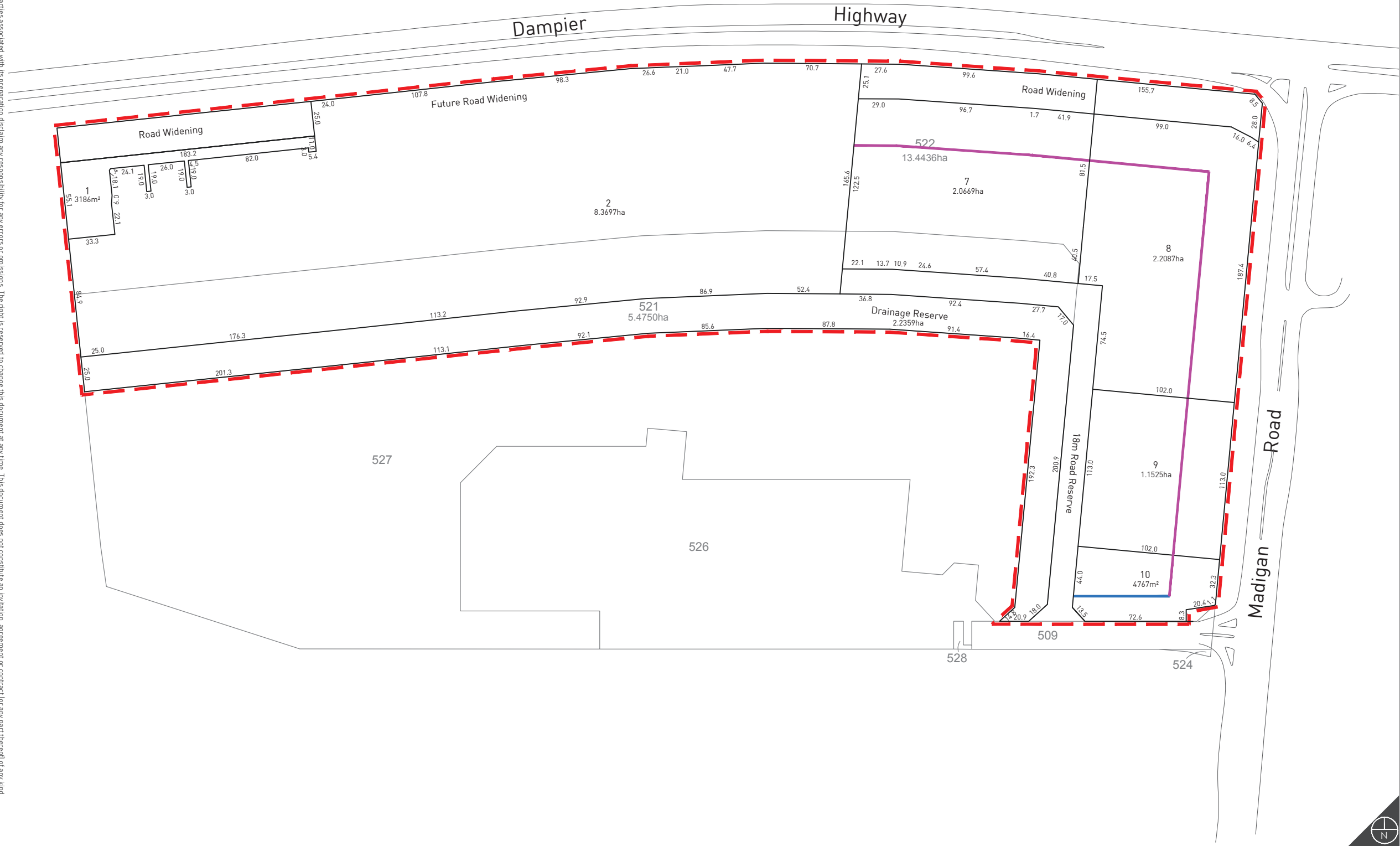
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Drawn:	K. Trenberth
Projection:	N/A
Plan ID:	8123-FIG-02-E
Base Data supplied by Whelans	

Development Plan

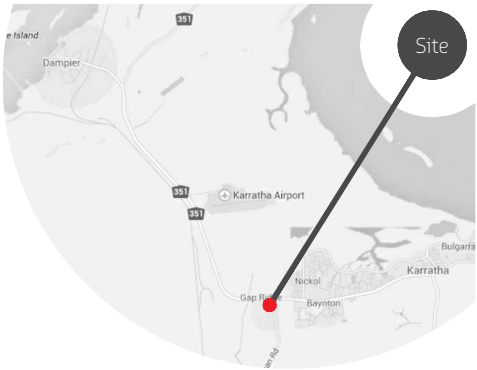
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Matt Sullivan 22 July 2015

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Planning Design Delivery



- LEGEND
- Subject Site
 - Proposed Boundaries
 - 33.5m Setback
 - 18m Setback

Note: All other setbacks to be in accordance with the NCC.

0 75 150 Metres

REVISIONS

Rev	Date	Drawn
B	2014.10.02	M. Sullivan
C	2014.12.17	M. Sullivan
D	2015.04.21	M. Sullivan
E	2015.11.24	M. Sullivan



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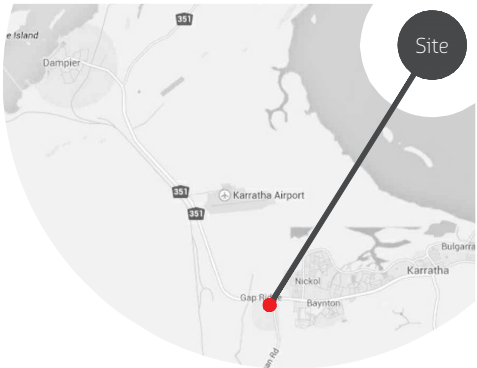
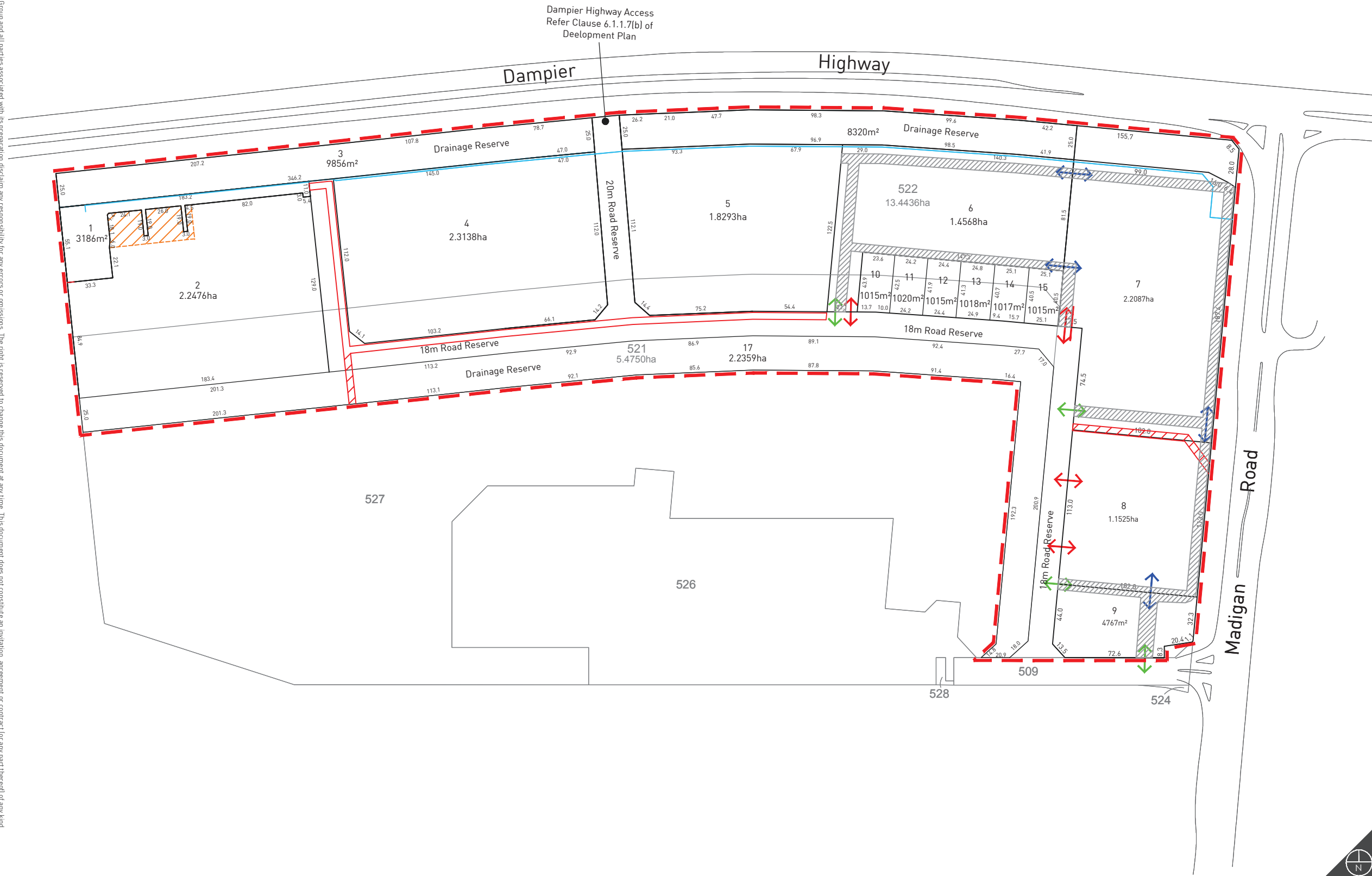
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Designer: N. Stewart
Drawn: K. Trenberth
Projection: N/A
Plan ID: 8123-FIG-07-E
Base Data Provided by WHELANs

Setback Plan - Stage 1

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Matt Sullivan 24 November 2015

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- LEGEND
- Subject Site
 - Proposed Boundaries
 - Public Access
 - Service Vehicle Access
 - Internal Access Linkage
 - Internal Access Areas

0 75 150 Metres

REVISIONS

Rev	Date	Drawn
A	2014.09.23	K. Trenberth
B	2014.10.02	M. Sullivan
C	2014.12.17	M. Sullivan
D	2015.04.21	M. Sullivan



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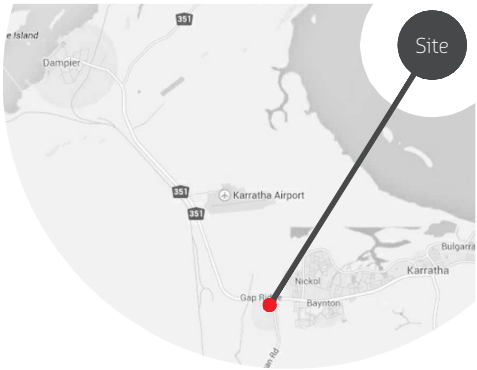
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Access Plan - Stage 1

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Matt Sullivan 23 April 2015

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- LEGEND
- Subject Site
 - Existing Lot Numbers
 - Existing Boundaries
 - Indicative Boundaries
 - Building Outlines
 - 1m Landscaping Strip
 - Indicative Landscaping

0 75 150 Metres

REVISIONS

Rev	Date	Drawn
B	2014.09.23	K. Trenberth
C	2014.10.02	M. Sullivan
D	2014.12.17	M. Sullivan
E	2015.04.17	M. Sullivan



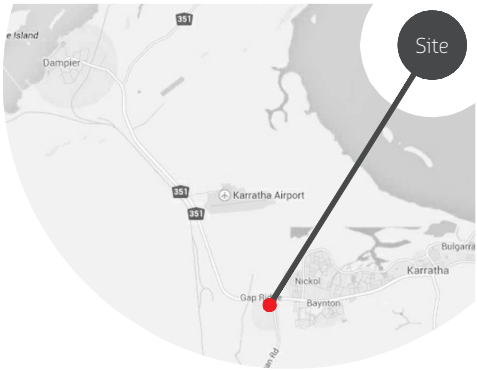
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Client:	Landcorp
Designer:	N. Stewart
Drawn:	K. Trenberth
Projection:	N/A
Plan ID:	8123-CON-01-E
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Development Concept Plan - Stage 1

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Gap Ridge

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- LEGEND
- Subject Site
 - 7 Proposed Lot Numbers
 - Proposed Lot Boundaries
 - Stage 1
 - Stage 2

0 75 150 Metres

REVISIONS

Rev	Date	Drawn
B	2014.09.23	K. Trenberth
C	2014.10.02	M. Sullivan
D	2014.12.17	M. Sullivan
E	2015.04.21	M. Sullivan



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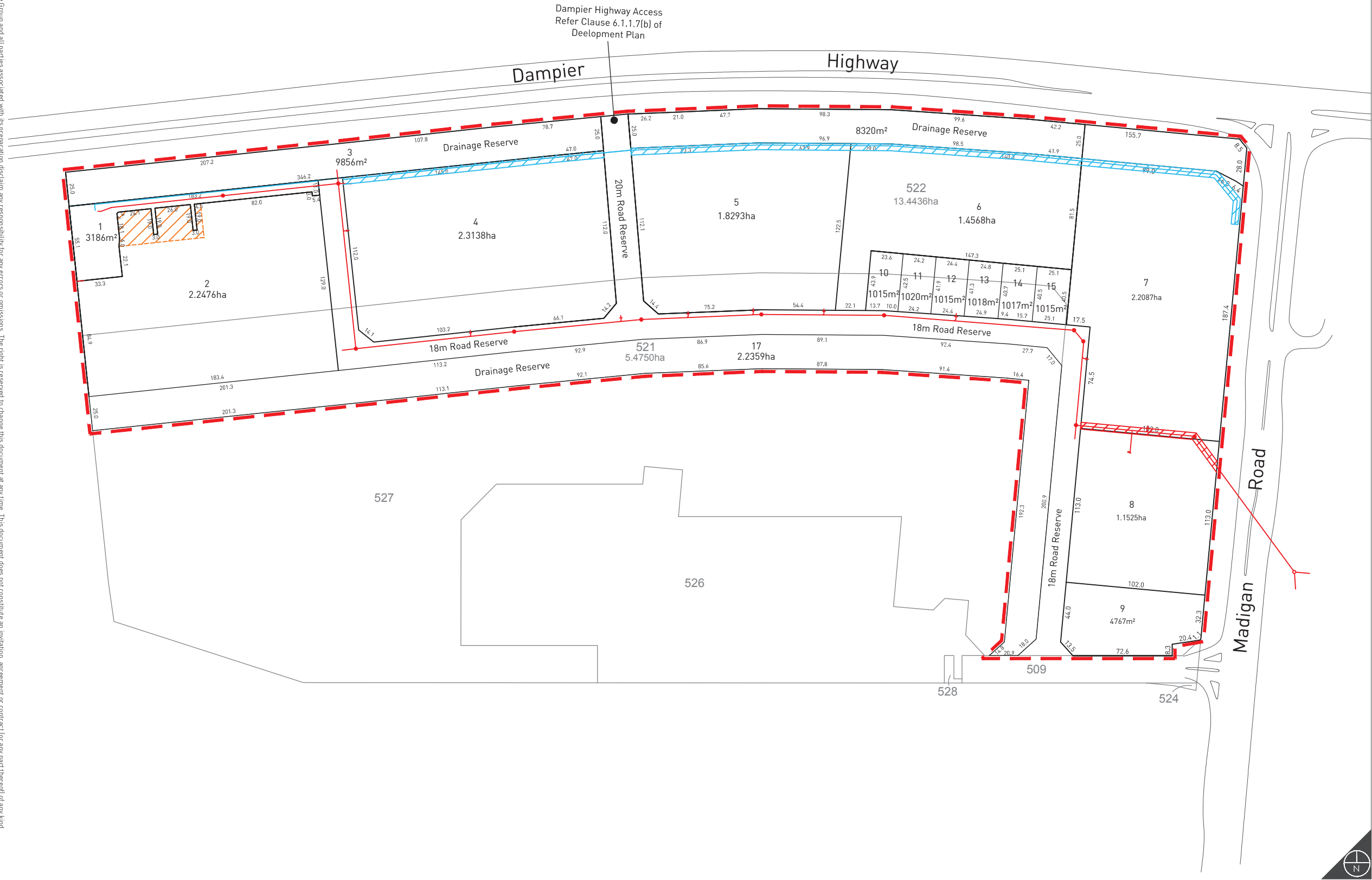
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Job Ref:	8123
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Client:	Landcorp
Designer:	N. Stewart
Drawn:	K. Trenberth
Projection:	N/A
Plan ID:	8123-STG-01-E
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Staging Plan

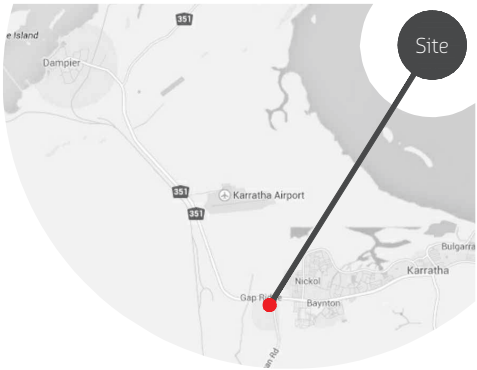
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Planning Design Delivery



- LEGEND
- Subject Site
 - Existing Lot Numbers
 - Existing Boundaries
 - Proposed Boundaries
 - Sewer
 - Sewer Easement
 - Pressure Main Easement
 - Pump Station Easement

0 75 150 Metres

REVISIONS		
Rev	Date	Drawn
G	2014.09.19	M. Sullivan
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Scale:	1:3000 @ A3
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Designer:	N. Stewart
Drawn:	M. Winfield
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Base Data Provided by WHELAN'S	

Indicative Subdivision Plan

Corner Dampier Road & Madigan Road
Gap Ridge



Part Two

EXPLANATORY SECTION



ROWEGROUP

Planning Background

1.1 Introduction and Purpose

Rowe Group acts on behalf of Landcorp, and various landowners of Lot 522 on Plan 74182, and Lot 521 Madigan Road, Gap Ridge ('the subject site').

This report has been prepared in support of a Development Plan which will guide the future development of the subject site under the provisions of the City of Karratha Town Planning Scheme No. 8 ('the Scheme').

1.2 Land Description

1.2.1 Location

The subject site is located in the Municipality of the City of Karratha approximately 5 kilometres west of the Karratha town centre.

Refer Figure 1 – Regional Location.

The subject site is situated in Gap Ridge and bound by Dampier Highway to the north, Madigan Road to the east, a transient worker accommodation facility to the south and vacant land to the west. All of the aforementioned roads are sealed, gazetted roads.

Refer Figure 2 – Local Location.

1.2.2 Legal Description and Ownership

The subject site comprises two (2) land parcels, being:

- ▲ Lot 521 on Certificate of Title Volume 2785 Folio 810; and
- ▲ Lot 522 on Certificate of Title Volume 2794 Folio 483.

The subject site has a total land area of approximately 19.275 hectares, with frontages of approximately 862.2 metres to Dampier Highway and approximately 360.7 metres to Madigan Road.

The Development Area ('DA13' under the Shire of Roebourne Town Planning Scheme No. 8) also includes a number of allotments further to the south of the subject site, being;

- ▲ Lot 501 on Certificate of Title Volume LR3145 Folio 902;
- ▲ Lot 502 on Certificate of Title Volume 3145 Folio 903;
- ▲ Lot 509 on Certificate of Title Volume LR3012 Folio 13;
- ▲ Lot 525 on Certificate of Title Volume LR3162 Folio 579;
- ▲ Lot 526 on Certificate of Title Volume 2812 Folio 336; and
- ▲ Lot 527 (74184) on Certificate of Title Volume LR3162 Folio 581.

Refer Figure 3 – Site Plan.

1.2.3 Existing Improvements

The subject site is largely vacant, with some remnant vegetation. Please note that there is a permit to clear native vegetation granted under Section 51(e) of the Environmental Protection Act 1986, which authorises Landcorp to clear, subject to certain terms, conditions and restrictions. These conditions include avoiding and minimising the amount of native vegetation to be cleared and weed control. The clearing permit will expire on 27 December 2016.

Refer Appendix 1 – Correspondence from the Department of Environment and Conservation.

1.3 Planning Framework

1.3.1 Zoning and Reservations

Under the provisions of Shire of Roebourne Town Planning Scheme No. 8 ('TPS 8'), the subject site is zoned 'Urban Development' and annotated as 'DA13', which relates to the provisions contained under Appendix 7 of TPS 8. The subject site is also located within the 'Airport Obstacle Height Limitation Area SCA'.

Refer Figure 4 - Zoning Plan.

Sub-Clause 6.4.1 of TPS 8 stipulates:

Before considering any proposal for subdivision or development of land within the Urban Development zone, the Council may prepare or require the preparation of a Development Plan for the entire development area or any part or parts as is considered appropriate by Council.

Appendix 7 of TPS 8 stipulates the following conditions in relation to 'DA13':

1. *An approved Development Plan together with all approved amendments shall apply to the land in order to guide subdivision and development.*
2. *To provide for showroom, transient worker accommodation, recreation and future residential development.*
3. *The City may require any expansion of existing transient worker accommodation to be subject to the approval of a Development Plan illustrating how the development can be adapted for future permanent residential development.*
4. *The City may require a Development Plan addressing interface issues, shared access and servicing prior to approving any showroom development.*
5. *Land uses classified on the Development Plan apply in accordance with clause 7.2.11.4.*

The subject site is located within the 'Airport Obstacle Height Limitation Area SCA'. Sub-Clause 7.3(b) of TPS 8 states that application within this area shall be referred to the relevant airport managing authority for comment and that no development within the 'Airport Obstacle Height Limitation Area SCA' shall exceed 45m AHD.

The Development Plan has been prepared in accordance with the provisions contained within Appendix 7 and Appendix 8 of TPS 8. The Development Plan, once adopted by the Shire and endorsed by the Western Australian Planning Commission ('WAPC'), will ensure the subject site is developed in an orderly and proper manner.

1.3.2 Land Use Permissibility

It is noted that Note 1 under Zoning Table in Clause 3.2 of TPS 8 states that 'Showroom's are not permitted on land abutting Dampier Highway. In order to comply with this requirement, this Development Plan seeks to create separate land parcels (notated as 'Drainage Reserves' on the Development Concept Plan (Plan 4)) between the adjoining Dampier Highway road reservation and the future lots shown on the Indicative Subdivision Plan (Plan 6). Additionally, the intent of this requirement was to restrict vehicle access to lots directly adjacent Dampier Highway within the Karratha Town Centre. This Development Plan does not propose to allow direct vehicle access to lots via Dampier Highway. Therefore, the Development Plan is considered to be compliant with this requirement.

Furthermore, Condition 5 of 'DA13' under Appendix 7 of TPS 8 requires development and use of land to be in accordance with an endorsed Development Plan. Therefore a land use table has been incorporated into Part 1 of this Development Plan to guide the use of land at the subject site.

Condition 2 of 'DA13' under Appendix 7 of TPS 8 identifies 'Showroom', 'Transient Worker Accommodation', 'Recreation' and future residential development as preferred uses at the subject site. The proposed Development Plan encourages showroom and bulky goods uses at the subject site.

Additionally, Sub-Clause 7.2.11.4 of TPS 8 stipulates that under a Development Plan in the areas designated as zones, the permissibility of uses is to be the same as set in the Zoning Table as if those areas were zones under the Scheme having the same designation. It is noted that 'Service Commercial' is not a zone under TPS 8. It should be noted that the zones will not have statutory effect as it is currently not included in the City's Scheme. Until such a time that a Scheme Amendment is gazetted, the zones and permissibility under this Development Plan is indicative and does not have the force of TPS 8.

According to discussions with the City of Karratha, the subject site has been identified as 'Service Commercial' under the City's draft Local Planning Strategy which is currently being considered by the Department of Planning. In order to facilitate development for showroom uses, as identified under Condition 2 of 'DA13' under Appendix 7 of TPS 8, this Development Plan has incorporated the 'Service Commercial' Zone. The proposed land use permissibility reflects the discussions between LandCorp, Rowe Group and the City of Karratha Planning Staff.

The Development Plan proposes that the subject site be identified as 'Service Commercial' Zone. The remainder of the Development Area ('DA13' under TPS 8) will retain the existing 'Urban Development' Zone. The proposed Development Plan lists the land use permissibility relevant to the 'Service Commercial' Zone. This Development Plan can be amended or a new Development Plan prepared to facilitate development of the portion of land which will retain the 'Urban Development' Zoning under TPS 8. It is envisaged that this portion of land will be developed for residential purposes.

1.3.3 Local Planning Strategy and Technical Reports

The City of Karratha is yet to release a draft Local Planning Strategy ('the Strategy') for public viewing. The Shire has released a number of technical reports which will influence the Strategy. Therefore, the technical reports have been addressed as part of this Development Plan, as outlined below.

1.3.3.1 Technical Report 2 – Property Market Analysis

In preparing the City of Karratha Local Planning Strategy, the City of Karratha commissioned the preparation of a Property Market Analysis. This Property Market Analysis provides an understanding

of the current property market fundamentals in the City of Karratha and an understanding of the current retail supply of floor space in the Shire and the evident demand for such floor space.

The Property Market Analysis outlines that there is a demand for minimal bulky goods retail in the City of Karratha. However, the Property Market Analysis does not consider the lack of bulky goods retail uses within the wider Pilbara Region. As detailed in Section 3.7 of this Report, the proposed Karratha Bulky Goods Area will serve the entire Pilbara Region.

1.3.4 Local Planning Policies

1.3.4.1 Draft Development Design Guidelines

Landcorp has prepared draft Development Design Guidelines which will guide development within the 'Service Commercial' Zone. The City of Karratha may adopt the draft Development Design Guidelines as a Local Planning Policy upon further investigation and consideration of the draft Development Design Guidelines.

1.3.5 Other Regional Plans and Policies

1.3.5.1 Karratha Primary Trade Area Retail and Commercial Strategy

The Karratha Primary Trade Area Retail and Commercial Strategy ('the Commercial Strategy') was prepared by SGS Economics and Planning Pty Ltd in July 2009. The Commercial Strategy provides an analysis of the demand for retail and commercial floorspace in the City of Karratha and to prepare a retail and commercial development strategy for the area's principle towns of Karratha, Dampier, Wickham, Roebourne and Point Samson.

The Commercial Strategy advocates the development of a bulky goods precinct at the subject site with an initial retail floorspace of 5,500m². There is the potential for this retail area to be augmented by the future transfer of the retail floorspace (4,530m²) from the Karratha Industrial Estate. It is envisaged that the GAP Ridge area would have a retail floorspace of somewhere in the order of 12,000m² after 2020.

Whilst the Development Plan will ultimately result in a total of bulky goods retail that would exceed the envisaged 12,000m², as stipulated by the Retail Strategy, the Development Plan proposes a restriction on the staged market driven release of bulky goods retail floorspace. This will ensure that the development at the subject site is developed as demand for bulky goods retail increases.

1.3.5.2 Karratha Area Development Strategy 1998

The Karratha Area Development Strategy 1998 ('the Strategy') identifies four major planning issues facing the City of Karratha and Western Australian State Government:

- ▲ Resolving land and water use conflicts;
- ▲ Accommodating the expansion and diversification of the local and regional economies;
- ▲ Accommodating population growth and associated community infrastructure; and
- ▲ Responding to local Aboriginal interests.

The Strategy identifies the subject site for future residential development. The Development Plan identifies Lot 520 and Lot 507 for transient worker accommodation in facilities in the short to medium term with options for permanent residential in the longer term.

1.3.5.3 Karratha City of the North Plan 2009

The Karratha City of the North Plan 2009 ('KCNP') is a three-phase strategy that will guide the development of future housing, open spaces, commercial activities, tourist accommodation, entertainment and retail areas as well as service infrastructure, transport, education and community facilities.

The subject site is located within the 'Gap Ridge / Seven Mile' Precinct. This Precinct is identified as a 'light industry/administration/accommodation' area by the KCNP. An area approximately corresponding to the area of Lot 505 is marked for bulky goods development; the remainder of the subject site is marked for transient workers accommodation.

The proposed Development Plan is considered to be consistent with the intentions of the KCNP.

1.3.5.4 Karratha Regional Hotspots Land Supply Update 2010

The Karratha Regional Hotspots Land Supply Update 2010 ('KRH') inform on availability of land for future residential, industrial and commercial uses and identifies the planning and infrastructure coordination needed to meet demand.

The KRH identifies the frontages to Dampier Highway and Madigan Drive for commercial/logistics uses and is described as the 'Gap Ridge Bulky Goods Precinct'. The balance of the site area is identified for workforce accommodation (including workforce accommodation and tourism).

The proposed Development Plan is considered to be consistent with the intentions of the KRH.

1.3.5.5 Karratha Coastal Vulnerability Study

The Karratha Coastal Vulnerability Study involves a study of the impacts of future climate change (CZM), calculation of the hydrology around Karratha (JDA), assessment of the shoreline stability (Damara), modelling of the flooding from storm surge (GEMS) and modelling of the riverine flooding (JDA).

The potential impacts of this study have aided in determining a number of different scenarios for flooding. These include 100 yr ARI scenarios for the years 2010, 2060, 2110. The Shire has advised that it will observe the 2110 scenario in considering its assessment of future development proposals.

1.3.5.6 Karratha Western Bypass

The Karratha Western Bypass will form the a major north south connection bypass between Dampier Highway and Madigan Road and will run along the eastern boundary of the Gap Ridge Industrial Estate. The Karratha Western Bypass is expected to accommodate some 30,000 to 40,000 vehicles per day.

The Karratha Western Bypass will allow for continuous and uninterrupted heavy vehicle movement along Dampier Highway, between the Gap Ridge Industrial Estate and Dampier Harbor to the north. The proposed Karratha Western Bypass is a long term project and is not envisaged to be constructed until after 2020.

The proposed Development Plan incorporates a left-in left-out access onto Dampier Highway. This access is indicative only (as annotated on Plan 1 – Development Plan) and is subject to further investigation and consultation with and approval from Main Roads WA. This accessway is located approximately 600m from the Madigan Road and Dampier Highway signalised intersection and will not impact upon vehicle movements through this intersection.

Site Conditions and Constraints

2.1 Biodiversity and Natural Area Assets

The subject site in general terms is predominantly cleared of vegetation. The western portion of Lot 521 does show signs of small shrubs. The subject site shows no signs of significant fauna.

As discussed above, a permit to clear native vegetation granted under Section 51(e) of the Environmental Protection Act 1986, which authorises Landcorp to clear, subject to certain terms, conditions and restrictions.

2.2 Engineering and Servicing

The following information has been prepared by Cossill & Webley Consulting Engineers in support of this Development Plan.

2.2.1 Landform and Soils

The development area is underlain by a relatively thin layer of clay, likely alluvium, overlaying weathered granite.

A geotechnical investigation undertaken by Galt Geotechnics for the proposed development recommends a site classification of 'Class M' is applicable, provided their site preparation guidelines are adopted.

The topography of the site is relatively flat, steadily sloping from RL 9.5m AHD near Seven Mile Creek to RL 14m AHD near Madigan Road. The site will require significant import fill to raise the land above the flood plains achieving adequate grades and cover. Preliminary designs indicate lot levels will steadily slope from RL 15.2m AHD at Madigan Road to 11m AHD at the Seven Mile Creek interface.


2.2.1.1 Acid Sulphate Soils

The Department of Environment Regulation (DER) database identifies the site as having a low to very low risk of Acid Sulphate Soils (ASS). Galt Geotechnics have undertaken geotechnical investigations for the site and performed two bore holes, each 13.5m deep in the vicinity of the pump station site. Tests for Acid Sulphate Soils were conducted, with all samples containing net acidity concentration below the DER action criteria of 0.03% and therefore classified as non-acid sulphate soils (NASS). No ASS management will be required on this site.

2.2.2 Groundwater and Surface Water

2.2.2.1 Groundwater

Groundwater mapping indicates the water table underlying the site should be between 5m and 10m below ground level. Geotechnical investigations of the site indicate groundwater was encountered at approximately 5.5m to 6m below ground surface level at the eastern portion of the site near Seven Mile Creek. Test pits were also investigated throughout the remainder of the site; however no groundwater was encountered up to 2.5m below the existing surface levels. Experience in the area indicates that groundwater levels can rise significantly after a heavy rainfall event due to underground layers of rock forming fractured rock aquifers. During a recent extreme event, groundwater at a site approximately one kilometre south was observed to rise approximately 3m. A similar rise in groundwater at the



Subject site would result in groundwater rising to a level approximately 3m to 4m below finished surface level.

Seven Mile Creek abuts the site on the western boundary, and is usually dry year round except after heavy rainfall events.

The Karratha Coastal Vulnerability Study (August 2012) prepared by JDA indicates a significant portion of the site closest to Seven Mile Creek becomes inundated with water during various flooding and storm event scenarios. The site requires fill to raise levels above that susceptible to flooding.

Refer Technical Appendix 3 – Geotechnical Report.

2.3 Heritage

2.3.1 Aboriginal Heritage

There are two (2) sites of Aboriginal Heritage listed on the Department of Indigenous Affairs Register of Sites as follows:

GR10AS02 and GR10AS01

Both sites are listed on the Permanent Register of Sites with 'Open Access' and 'No Restriction'. Both sites are listed as having archaeological significance.

Consent under Section 18(3) of the Aboriginal Heritage Act 1972 has been provided by the Minister for Indigenous Affairs to allow the use of the subject site, which may impact on the known Aboriginal Heritage sites.

Refer Appendix 2 – Correspondence from the Minister for Indigenous Affairs.

2.3.2 European Heritage

There are no sites of European heritage significance listed for the subject site under the Commonwealth Heritage Lists, Heritage Council of WA or City of Karratha Municipal Heritage Inventory. As such the subject site is not constrained from development in this regard.

Land Use and Subdivision Requirements

3.1 Land Use

The Karratha Bulky Goods Area is exposed to high volumes of traffic along Madigan Road, with even higher volumes of traffic along Dampier Highway. This makes the corner location ideal for bulky goods / showroom uses which need high exposure rates to passing vehicles in order to be economically viable.

The Development Plan proposes a Parks, Recreation and Drainage Reserve between the Service Commercial Zone and the Urban Development Zone. This Reserve acts a buffer between the Service Commercial Zone and the Urban Development Zone.

The southern portion of the subject site has been intentionally zoned 'Urban Development', as per the guidance of TPS 8. Appendix 7 of TPS 8 stipulates that the subject site should accommodate future residential development and that the existing transient worker accommodation facility to be adapted to accommodate such future development. It is envisaged that once the existing Transient worker accommodation facility ceases operation, this Development Plan will be amended to implement provisions relating to residential subdivision and development which are contemporary to that time.

3.2 Parks, Recreation and Drainage

In addition to the proposed Parks, Recreation and Drainage Reserve between the Service Commercial Zone and the Urban Development Zone, a minimum of 10% of the Urban Development Zone which occupies the southern portion of the subject site will be set aside for 'Parks, Recreation and Drainage Reserve'. However this will not occur until such a time that the Development Plan has been amended for the purposes of including residential subdivision and development provisions.

Once land has been reserved for 'Parks, Recreation and Drainage', the land will then be ceded to the City of Karratha for purposes of maintenance and upkeep.

3.3 Residential

The southern portion of the Development Area DA13 is part of this Development Plan, however, Appendix 7 of TPS 8 identifies this portion of the subject site for future residential purposes, pending the existing Transient worker accommodation facility ceasing operation. Once there is increased demand for residential land in Karratha, this Development Plan can either be amended to incorporate residential subdivision and development provisions or a separate Development Plan can be prepared.

A preliminary dwelling yield assessment shows that between 250 and 300 dwellings can be accommodated within the 'Urban Development' zoned area of the subject site, with a portion of the subject site being ceded as public open space.

This Development Plan includes a future road access point to this area.

3.4 Movement Networks

The following information has been prepared by Shawmac Consulting Civil and Traffic Engineers, Risk Managers in support of this Development Plan.

Refer Technical Appendix 4 – Traffic Impact Assessment.

3.4.1 Trip Generation

Review of the proposed development of the Karratha Bulky Goods site located on the south side of Dampier Highway to the west of Madigan Road indicates that the site has the potential to generate between 1,556 vehicles per day (Stage 1) and 2,521 vehicles per day (Stage 2) (Refer Technical Appendix 4 – Traffic Impact Assessment).

Based on likely desire lines and access points on Dampier Highway and Madigan Road, the additional traffic could increase flows on Dampier Highway by up to 4,250 vehicles per day on Dampier Highway and 285 vehicles per day on Madigan Road. Flows on Madigan Road can increase by up to 5,400 vehicles per day should access not be provided on Dampier Highway.

3.4.2 Access

Based on a primary access point on Dampier Highway and a secondary access point on Madigan Road, modelling indicates that under peak flows expected following completion of the Stage 2 development, both the intersection of Dampier Highway and the Access Road and Dampier Highway and Madigan Road would be expected to function satisfactorily.

Sensitivity analysis indicates that the Madigan Road - Dampier Highway intersection would still function satisfactorily should flows increase by up to 50% over and above those modelled. Similarly, it is expected that the Dampier Highway – Access Road intersection would continue to function satisfactorily with an increase in flows by up to 25%.

Additional traffic would be directed to the intersection of Dampier Highway and Madigan Road increasing the stress on the signalised intersection should access not be provided on Dampier Highway. Should traffic increase at an annual rate of 10%, saturation is likely to occur within 4 to 5 years. However, with access provided on Dampier Highway, the intersection of Dampier Highway and Madigan Road is not predicted to reach saturation for another 3 to 4 years.

Refer Technical Appendix 5 – Traffic Technical Note 2014.

3.4.3 Parking

It is anticipated that parking would be provided in accordance with the TPS 8, including the requirement for the minimum width of parking bays to be 2.7 metres. Given that the development / land use is likely to be best categorised as 'bulky goods retail' it is considered that parking demand is most appropriately estimated under a land use category of 'Showroom'. Based on the TPS 8 requirement (1 bay for every 50m² NLA), likely demand is estimated at approximately 530 bays for Stage 1 and approximately 328 bays for Stage 2.

3.4.4 Consideration of Transient Workforce Accommodation Site

Following discussions between the City of Karratha and the land owners of the adjoining Transient Workforce Accommodation Site ('TWA Site') concerns were raised regarding the use of the access road via Madigan Road for the access for the Stage 1 development. The land owner of the adjoining TWA Site raised concerns that the assessment did not consider the current traffic generated by the TWA or any future expansion of the TWA which has a current approval in place for up to 1,276 persons.

The Local Authority voiced concern that should Stage 2 of the proposal not be taken up for some time and access rely on the existing access used by the TWA to Madigan Road then assessment of the intersection under that scenario should be undertaken to confirm its adequacy.

Given that the TWA caters largely for fly in fly out workers, it is expected that 80% of persons accommodated in the TWA will travel to various sites via a private bus service (assumed occupancy of 48) while the remaining 20% will travel via private vehicle (assumed average occupancy 1.5). It has been assumed that the bus service will be coordinated with the start and end of shifts such that all services travel loaded (i.e. a bus arriving with workers for finishing shift will then depart with workers from the start shift). All staff are assumed to arrive and depart during the assessed peak hour periods.

The following table summarises the maximum expected traffic flow generated by the TWA Site:

Personnel	Trips	Private Vehicles (AM out)	Private Vehicles (AM in)	Bus (AM out)	Bus (AM in)
1,276	276	155	100	18	18
Personnel	Trips	Private Vehicles (PM out)	Private Vehicles (PM in)	Bus (PM out)	Bus (PM in)
1,276	276	100	155	18	18

The intersection is predicted to operate at good levels of service both in the AM and PM peak periods.

Should the percentage of persons accommodated in the TWA travelling to various sites via a private bus service (assumed occupancy of 48) decrease to 60% with 40% travelling via private vehicle (assumed average occupancy 1.5 persons) it is expected that the maximum traffic flow generated by the site would be as shown below.

Personnel	Trips	Private Vehicles (AM out)	Private Vehicles (AM in)	Bus (AM out)	Bus (AM in)
1,276	340	200	140	16	16
Personnel	Trips	Private Vehicles (PM out)	Private Vehicles (PM in)	Bus (PM out)	Bus (PM in)
1,276	340	140	200	16	16

Refer Technical Appendix 6 – Traffic Technical Note 2015.

The assessment confirmed that with a 50% increase in total traffic entering the intersection, it is expected that the worst delay would move from 15 seconds to 27 seconds, the degree of saturation from 0.21 to 0.46 and the Level of Service on the worst leg (right turn from the Access Road) from “C” to “D”. Under these conditions the performance of the intersection remains within an acceptable level.

The assessment has considered not only traffic from the proposed development but also traffic potentially generated from the full development of the existing Transient Workers Accommodation. As such, the assessment is considered to represent a worst case scenario. Notwithstanding this, a sensitivity analysis was carried out on a range of flows scaled from 100% to 150% and this confirmed a significant level of capacity on the intersection. As such there is confidence that the intersection will not become oversaturated and flows unstable in the unlikely event that worst case traffic volumes are realised.

3.5 Servicing

The following information has been prepared by Cossill & Webley Consulting Engineers in support of this Development Plan.

3.5.1 Noise Management

No noise studies have been carried out for the Subject site. With traffic noise from Madigan Road and Dampier Highway being the primary noise sources, it is envisaged that no site management or mitigation measures will be required within the site given that the subject site is zoned commercial.

Additionally, the 'Service Commercial' zone will act as a buffer between Dampier Highway and the future residential area. Noise studies may be required when the residential area is proposed to be subdivided and later, developed.

3.5.2 Local Water Management

Drainage within the site includes a shared future drainage reserve along the southern boundary that will service the proposed Subject site and the adjacent redevelopment of the existing transient worker accommodation facility to the south in the future. This drainage reserve grades into Seven Mile Creek to the west.

The site is also bounded by existing Main Roads Western Australia ('Main Roads') drains within proposed road reserve widenings to the north and east. The road widenings are required to accommodate existing Main Roads drains which have been constructed within the subject site. It is proposed that drainage from the subdivision lots and roads be discharged to the Main Roads drains via kerb openings and rock pitching. These drains grade out to Seven Mile Creek to the west.

Section 3.5.3.5 of this report provides the site details regarding drainage and water management strategies.

3.5.3 Infrastructure Coordination, Servicing and Staging

The following provides a summary of the infrastructure and servicing for the proposed Subject site. Sketch 6105-00-SK10 is appended for consultation with the below comments. The sketch outlines proposed installation of services to the proposed pump station at the north west corner of the site. These services are designed to be on the permanent alignment of the subdivisional road and as such avoid duplication or realignment of these services at the time the subdivision is constructed. The services are for the pump station and also to the future subject site.

The proposed pump station currently has an approved Engineering Summary Report with the Water Corporation and is pending detailed design. It is expected construction will commence later in 2014.

The ultimate intersection entrance for the subject site off Madigan Road was constructed in 2012 to access the existing transient worker accommodation facility to the south.

3.5.3.1 Water Supply

Water will be supplied from an existing 150mm diameter water reticulation pipe in the western road reserve of Madigan Road and within the ultimate entrance road to the site. It is anticipated there is sufficient capacity in the network to supply from Madigan Road. At the time of subdivision construction, the pump station will be supplied by water from the proposed connection with pipe work constructed on the ultimate alignment of the proposed spine road.

Many of the proposed subdivision lots can be supplied directly off this line. Reticulation extensions will be required to service the remainder of the site.

3.5.3.2 Sewer

The Water Corporation has planned for the site to be reticulated with an existing 300mm diameter gravity sewer main through the spine of the site, serving the recently completed Madigan Road Residential Estate immediately to the east. The sewer was constructed on the anticipated alignment of the future Bulky Goods subdivision road and is up to 6.5m deep at the downstream end of the catchment. Lot connections have been constructed on the gravity sewer to service future adjacent lots. Additional sewer extensions will be required at the time of subdivision construction.

The subdivision's sewer grades to the proposed pump station at the north west of the site before being pumped into an existing pressure main near the Dampier Highway and Madigan Road intersection.

3.5.3.3 Gas and Electricity

All lots within the site will be serviced with underground power, which will be fully developer funded. In servicing the proposed pump station, a high voltage cable is required to be installed from existing switchgear at the site entrance. A low voltage cable will also be installed in conjunction with services for the pumping station on the proposed future alignment of the spine road to service the proposed lots within the Subject site. Additional LV cable will be installed at subdivision stage to service any remainder lots within the estate.

We are currently in the process of gaining advice from Horizon Power about current capacity of the network or if network reinforcement will be required as a result of the subdivision.

There is no existing gas distribution or reticulation infrastructure in Karratha. Despite the large volumes of gas being produced on the Burrup Peninsular, there is unlikely to be demand for reticulated gas in Karratha.

3.5.3.4 Telecommunications

All lots within the site will be connected to NBN Co services, utilising the pit and pipe proposed to be installed during the construction of all other services within the road reserve.


Network connection can be made to the recently completed Stage 1 of the Madigan Road Residential Estate, by boring under Madigan Road to the east.

NBN Co will cable the development once civil construction has been completed and applications by individual lot owners have been made for service connections to their lots.

3.5.3.5 Drainage

An existing drainage channel moves in a west-east direction across the subject site. This includes the existing transient worker accommodation facility to the south of the drainage channel and approximately 75% of the future industrial areas to the west. The total catchment area for the drainage channel is approximately 27.2ha with no contributing external catchments. Runoff from the Pluto Camp to the south of the Subject site is contained within its own area and discharged to the west into Seven Mile Creek.

The design storms were calculated internally by the model with reference to the methodology in Australian Rainfall and Runoff (Institution of Engineers Australia, 2001). The rainfall temporal pattern was assumed to be spatially uniform across the catchment with storm durations ranging from 5 minutes to 72 hours. XP-Storm modelling produced a peak 100yr ARI flow of 10.3m³/s outflow from the drainage channel flows westward towards Seven Mile Creek. Previous flood modelling of Seven Mile Creek was performed by GHD (2009) and indicated the 100yr ARI floodplain extended partly in to the western portion of the Subject site at a level of 10.4m AHD.



Further flood modelling has also been performed by JDA et. al. (2011) in the Draft Karratha Coastal Vulnerability Study to assess the impacts of future climate change, calculation of the hydrology, assessment of the shoreline stability, modelling of the flooding from storm surge and modelling of riverine flooding in Karratha.

Advice from the Department of Water indicates that the modelling scenario to be adopted for planning purposes is the 100 yr ARI current climate rainfall (2010) together with 20 yr ARI 2110 storm surge scenario. For this scenario, the 100yr ARI floodplain extent is similar to GHD (2009) with a flood level of 10.6m AHD.

This flood level has been conservatively adopted as the initial backwater condition in the drainage channel modelling.

Note that the Department of Water's Floodplain Management Strategy specifies that to ensure adequate flood protection is provided to development located outside of the 100yr ARI floodplain, a minimum building floor level of 0.50m above the adjacent 100yr ARI flood level is recommended. This is also recommended in the City of Karratha's Stormwater Design Guidelines.

Preliminary design drawings indicate the drainage channel is located within a 25m wide drainage reserve. The invert of the drainage channel outlet at the western lot boundary is 8.5m AHD.

However note that topographic data currently indicates that there is an approximately 1.5m high man made bund/spoil at this drainage outlet location that crosses the property boundary and may impede drainage channel function. For the purposes of this drainage modelling and to ensure the outlet of the drainage channel functions efficiently on site, it is assumed that this bund/spoil is removed and the area is graded consistent with surrounding natural surface levels.

Notwithstanding the above, if the bund / spoil is not removed, discharge from the drainage channel can still flow north around the bund / spoil and towards Seven Mile Creek as there is sufficient existing natural grade to facilitate this. However, this flow is required to pass through the south west corner of the currently vacant 'Possible Future Expansion Site' within the Subject site which may affect future development of this area.

The drainage channel was modelled with the Seven Mile Creek 100yr ARI flood level of 10.6m AHD to determine maximum food levels in the channel and with a free outfall to determine maximum velocity.

Results from the 100yr ARI modelling indicate that the flood depth in the channel ranges from approximately 0.42m upstream to 2.10m downstream, within the proposed channel design depth.

Note that both the Department of Water and City of Karratha recommend a minimum building floor level of 0.50m above the adjacent 100yr ARI flood level.

Maximum velocity at the downstream section of the channel is 2.7m/s, exceeding the City of Karratha's recommended 2.0m/s maximum velocity for erosion control. Erosion and sedimentation transport control measures such as drop structures and rock armouring should be adopted to reduce velocities.

The section of the drainage channel highlighted as 'Possible Drainage Design Refinement' represents an area where the Seven Mile Creek 100yr ARI backwater has less of an impact. Therefore there is an opportunity to reduce the width of the drainage channel to maintain 100yr ARI flood depths of approximately 1m. However, this will increase adjacent finished Lot levels to maintain the 0.50m clearance to the 100 yr ARI flood level in accordance with Department of Water and City of Karratha policies.

Refer Technical Appendix 7 – Lot 521 Madigan Rd, Karratha Bulky Goods Site Drainage Channel Advice.

In light of the above, a Local Water Management Strategy has not been prepared to accompany this Development Plan.

3.6 Educational Facilities

Assessment of land and lot yields for the southern portion (i.e. the Urban Development Zone) has indicated that the southern portion of the subject site can accommodate approximately 250 to 300 dwellings with areas of public open space also provided. Under Liveable Neighbourhoods, Primary Schools are required to serve up to three (3) neighbourhoods, whilst Secondary Schools are required to serve approximately 6,500 to 7,000 lots.

Given the recent expansion of the western areas of Karratha, two (2) new Primary Schools have been constructed, including Tambrey Primary School and Baynton West Primary School.

Whilst a Secondary School may not be necessarily required by the development of the Urban Development Zone, it is possible that the development of the Urban Development Zone may create the demand for a new Primary School.

Therefore when considering any amendment to the Development Plan which includes residential subdivision and development provisions, shall have due consideration for the provision of new educational facilities in Karratha.

3.7 Market Potential Assessment

A Market Potential Assessment has been undertaken by Macro Plan Dimasi in support of this Development Plan.

Refer Technical Appendix 8 – Assessment of Market Potential.

3.7.1 Trade Area Definition

Given the lack of bulky goods retail in Karratha and the surrounding region, it is likely that the trade area for the Karratha Bulky Goods Area is as follows:


- ▲ The primary sector encompasses the whole of the City of Karratha;
- ▲ The secondary east sector contains the Town of Port Hedland and the western parts of the Shire of East Pilbara; and
- ▲ The secondary south sector incorporates the Shire of Ashburton, including the towns of Onslow and Tom Price.

The trade area which is likely to be served by the Karratha Bulky Goods Area therefore encompasses the majority of the Pilbara region, including the two main towns of Karratha and Port Hedland. The Karratha centre is expected to successfully serve this region, given the Town's predominant role and the Karratha Bulky Goods Area being the only such facility in the region.

3.7.2 Competition

A limited number of bulky goods traders are provided in the Karratha City Centre, including:

- ▲ A small Harvey Norman store of around 1,300m² is located on Balmoral Road, a short distance north of Dampier Highway. At this size, the Harvey Norman store does not offer



the full range of products as compared to a full scale store which can be upwards of 5,000m². Indeed, the offer of Harvey Norman at Karratha is quite limited, even though a wide range of categories are represented, including furniture, whitegoods and appliances.

- ▲ A relatively dated Home Timber and Hardware store is located adjacent to the Harvey Norman and is estimated to be around 1,500m² in size.
- ▲ The immediate precinct also contains an independent sports operator named Adventure Sports, which offers camping, fishing, sporting and diving equipment. It is a freestanding store with an estimated total GLA of around 1,800m², including a mezzanine level. A small Carpet Court store is also located nearby on Sharpe Avenue.
- ▲ Centro Karratha is the main fully enclosed shopping centre for Karratha residents and is anchored by a full-line Kmart discount department store, and a smaller Target Country store, together with Coles and Woolworths supermarkets, supported by a range of specialty traders. The centre also incorporates a furniture and bedding store as well as a Retravisson outlet.

The provision of bulky goods retail facilities in Karratha at present is very limited, both in terms of quantum of floorspace, and even more so, in terms of quality of the offer. Given the size of Karratha, and its growth profile, and given also the regional role which Karratha plays and is intended to play increasingly in the future, there is a clearly evident need for a dedicated, high quality bulky goods shopping alternative to be provided within the town.

Beyond Karratha, the other major town in the region is Hedland, located some 240km to the east, incorporating the urban areas of Port Hedland and South Hedland. South Hedland Shopping Centre is the second largest centre (behind Centro Karratha) serving the regional population base. It is anchored by a Kmart discount department store and a Coles supermarket, together with Retravisson and about 25 – 30 specialty shops.

The provision of bulky goods traders is also very modest within the broader region, with the proposed Karratha Bulky Goods Area to be the only dedicated bulky goods location in the region.

3.7.3 Potential Impacts

Typically, the greatest impacts from any new development are absorbed by the closest comparable stores/centres. As already detailed in this report, at present within the Karratha City Centre the representation of comparable stores / facilities to those which would be provided at the new Karratha Bulky Goods Area is minimal. The Karratha Bulky Goods Area will not replace the retail goods provided in the great majority of City Centre retailers, which are focused around food and convenience, clothing and footwear, retail services, and a limited provision of household goods.

The provision of household goods retailing is restricted, within the City Centre retail core, to two (2) stores in Centro Karratha (Karratha Furniture and Bedding and Retravisson) as well as the nearby Harvey Norman, Home Timber and Hardware, and Carpet Court stores.

Whilst some, or perhaps all, of these facilities could possibly migrate to the Karratha Bulky Goods Area over time, their absence from the Karratha City Centre would not reduce the City Centre's role, or its ability to grow. For example, two of these stores which are currently provided at Karratha Shopping Centre (Karratha Furniture and Bedding and Retravisson) could be backfilled by other core retail uses (for example, other mini-majors, such as Best & Less).

The City Centre therefore would remain the primary hub for Karratha and broader area residents for their main shopping purposes.

3.7.4 Benefits for the Karratha City Centre

The Karratha Bulky Goods Centre facility is considered to result in a number of economic benefits for Karratha, including:

- ▲ The provision of a modern facility to locate retailers requiring large floorplates for their operation;
- ▲ Employment creation, both during construction and the ongoing operation of the centre, helping to achieve the aspirations of Karratha into a more diversified economy;
- ▲ Reduction in the level of escape expenditure, particularly in the bulky goods category; and
- ▲ Supporting and complementing the City Centre's role, both in terms of retail and in scale, in order for Karratha to remain the main regional destination for the Pilbara region.

In respect to employment creation, we estimate that the number of long term jobs accommodated by a Karratha Bulky Goods Area of approximately 20,000 – 25,000m² at Karratha would be in the order of 400-500 positions. Additional employment would obviously be created during the construction phase, while other multiplier benefits would accrue to the regional economy and the broader Western Australia economy as a result of the development.

Most importantly, however, the role of the new Karratha Bulky Goods Area will be to help improve the quality of life for Karratha residents. The beautification and ongoing development of the City Centre, and the resultant additional retail and food and beverage facilities which are expected to be provided within the City Centre over time, are helping and will further help to make Karratha an attractive place to live. The provision of a good range of bulky goods shopping facilities, conveniently located on the major highway, will further add to the appeal of Karratha as a place to live.

The creation of the proposed Karratha Bulky Goods Area will also strengthen the regional role of Karratha, throughout the Pilbara. By providing a one-stop facility for big ticket comparison shopping items for the home, the new Karratha Bulky Goods Area will attract residents not just from Karratha but also from the balance of the Pilbara, including to some degree from Hedland.

3.8 Development Staging

It is anticipated most of the site will be constructed as in two (2) stages, with the portion of site closest to Madigan Road to be developed first, followed by the western portion near Seven Mile Creek. An indicative development plan has been provided in Part 1 of this Development Plan. The second stage will only occur should there be demand for additional bulky goods / showroom uses in Karratha and the wider Pilbara Region.

Construction of the pump station, access track and all services within the proposed road reserve to the pump station site is anticipated to commence in late 2014.

Refer Technical Appendix 9 – Pump Station Servicing Strategy.

3.9 Developer Contribution Arrangements

The cost for the provision of service infrastructure, such as power, water, gas and sewer is to be borne by the landowner / developer.

04

Conclusion

This report describes the Development plan proposed to guide the subdivision and development of the subject site identified as Lot 522 on Plan 74182, Lot 521 Madigan Road, Gap Ridge ('the subject site').

The Development Plan is a requirement of the provisions of TPS 8, which requires the endorsement of a Development Plan prior to subdivision and / or development.

The objective of the Development Plan is to guide the subdivision and development of a Service Commercial district, where a range of showroom, warehouse and large format retail outlets will be established to meet the (bulky goods) retail needs of residents in the Karratha and wider Pilbara coast and surrounding regions. The Development Plans seeks to establish a bulky goods centre which is highly accessible from the existing regional road network and internally, is legible and safe for vehicles, cyclists and pedestrians alike.

It is expected that the Karratha Bulky Goods Area will comprise of approximately 25,000m² floorspace.

The Development Plan is designed to maximise exposure to passing trade – a prerequisite to the success of any Service Commercial – but to establish a pedestrian-friendly environment within the Development Plan where pedestrians can move freely between bulky goods outlets without conflict with cars and service vehicles.

It is envisaged that a freehold title subdivision will occur to establish individual lots for anchor tenants. The exact position of lot boundaries is not shown on the Development Plan as it is subject to further negotiation with purchasers / tenants. An indicative subdivision plan has been provided. Regardless, all proposed lots will have legal frontage to a public road and all necessary easements and rights of carriageway will be registered on the Certificates of Title to ensure access in perpetuity over driveways, car parking areas and pedestrian paths.

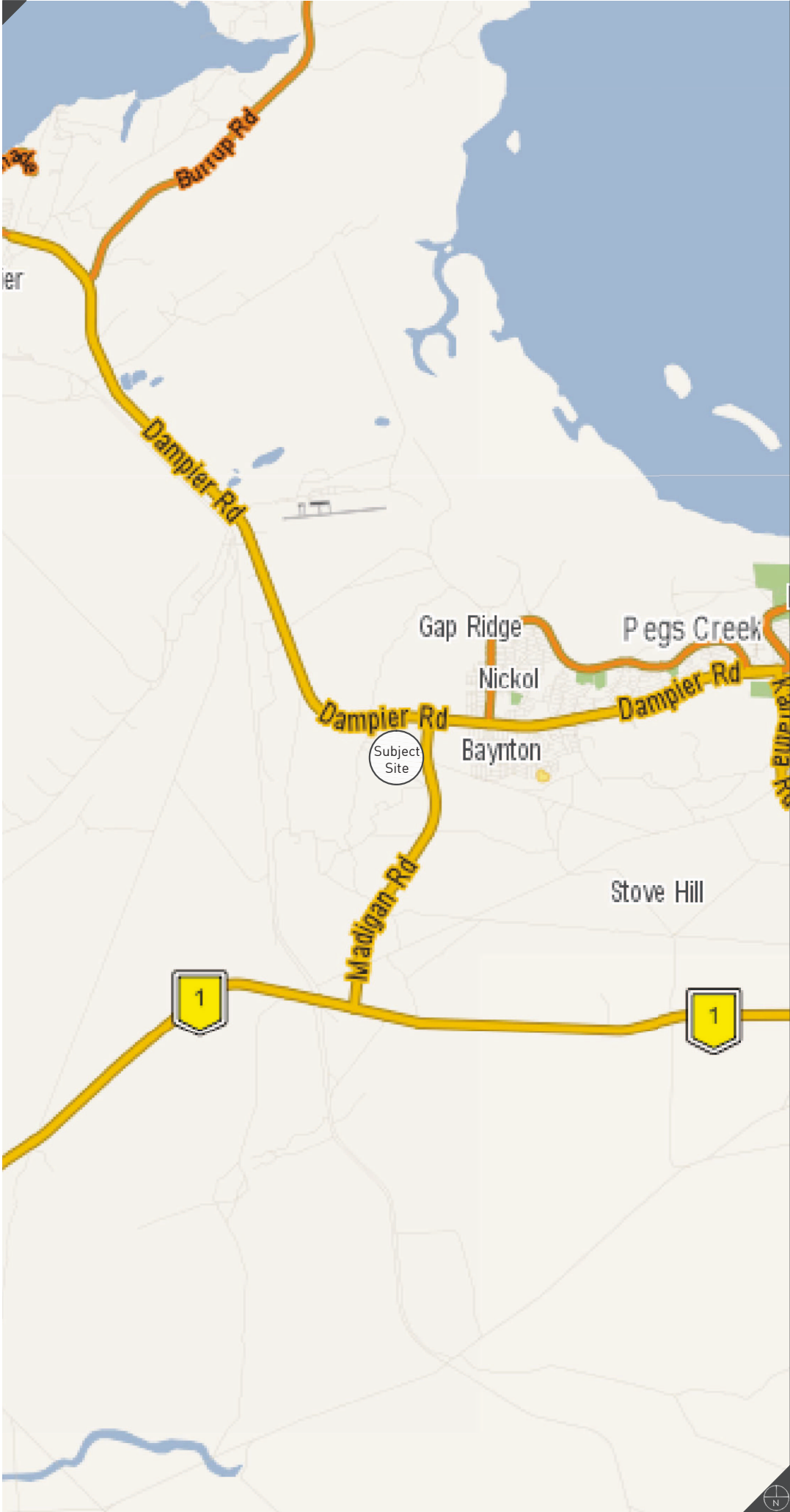
The Development Plan will ensure the subject site is developed in an orderly and proper manner.



FIGURES



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A	2014.06.25	K. Trenberth



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Job Ref:	8123
Scale:	N.T.S. @ A4
Client:	Landcorp
Designer:	N. Stewart
Drawn:	K. Trenberth
Projection:	N/A
Plan ID:	8123-FIG-03-A
Map supplied by Street Directory	

Regional Location

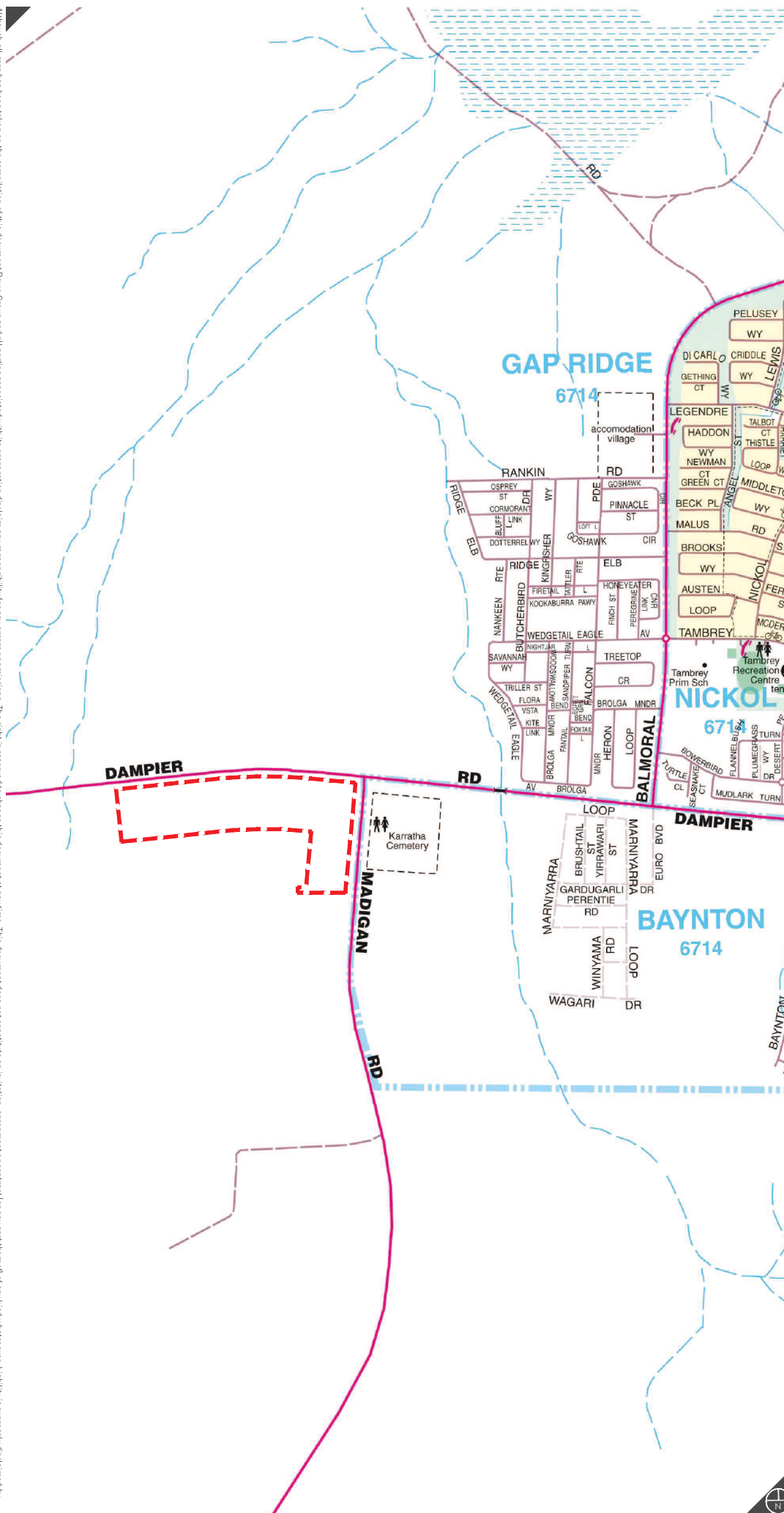
Lots 521 and 522 Madigan Road
Gap Ridge

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--- Subject Site



0 500 Metres

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Scale: 1:20,000 @ A4
Client: Landcorp
Designer: N. Stewart
Drawn: K. Trenberth
Projection: N/A
Plan ID: 8123-FIG-04-A
Map supplied by Streetsmart

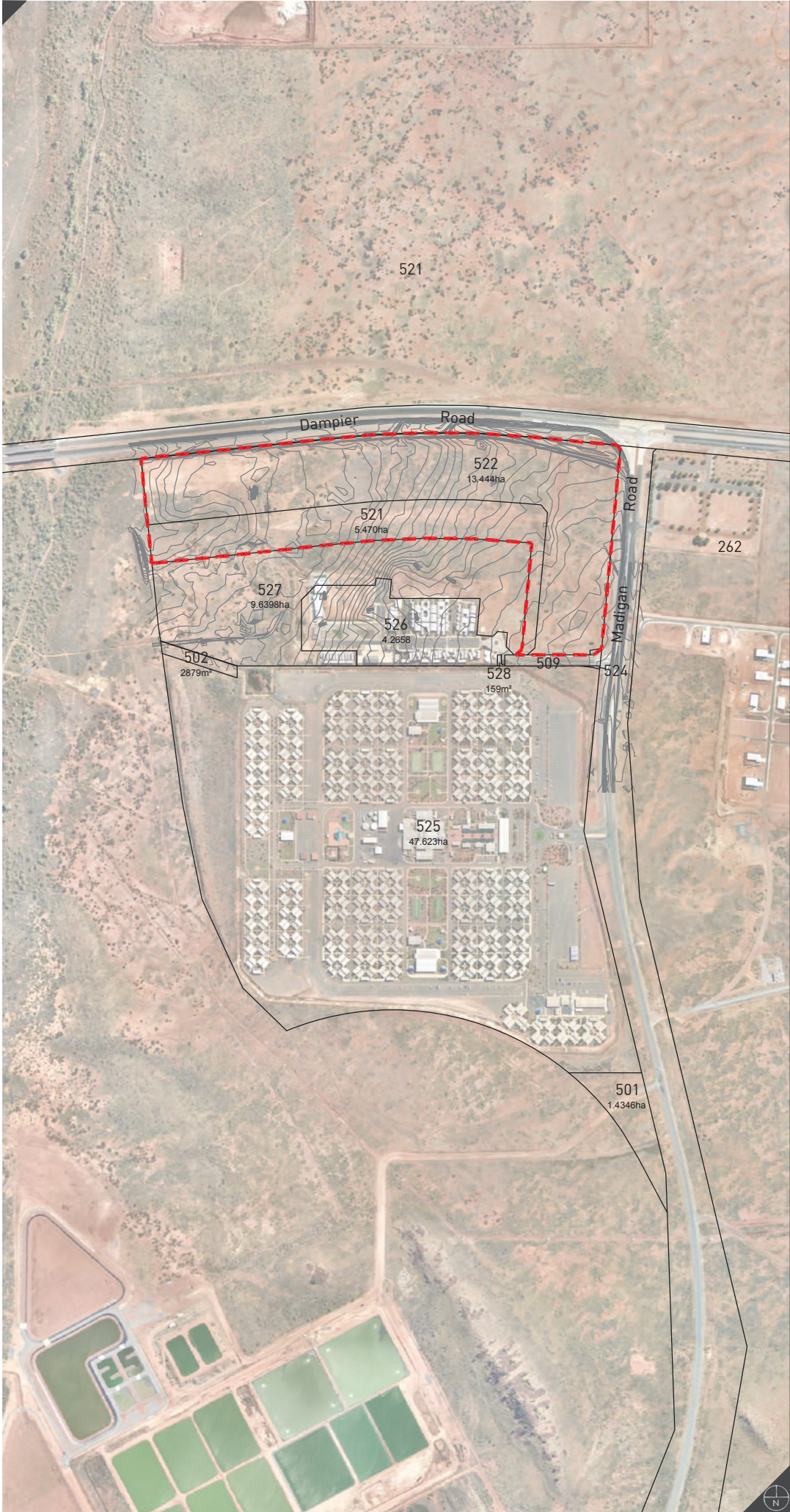
Local Location

Lots 521 and 522 Madigan Road
Gap Ridge



LEGEND

- Subject Site
- Contours
- 522 Existing Lot Numbers
- Existing Boundaries



0 250 Metres

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Client:	Landcorp
Designer:	N. Stewart
Drawn:	K. Trenberth
Projection:	N/A
Plan ID:	8123-FIG-05-B
Aerial captured and supplied by Nearmap	

Site Plan

Lots 521 and 522 Madigan Road Gap Ridge

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LEGEND

■ Subject Site

METROPOLITAN REGION SCHEME RESERVES

■ Parks, Recreation & Drainage

■ State & Regional Roads

■ Conservation Recreation & Natural Landscapes

■ Public Purposes

Denotes As Follows:

C Cemetery

WDT Waste Disposal and Treatment

ZONES

■ Urban Development

■ Rural

OTHER

▲▲▲ Airport Noise Restriction SCA

▲▲▲ Airport Obstacle Height Limitation Area SCA

■ DA13 Sca Development Areas (See Scheme Text)

0 500 Metres

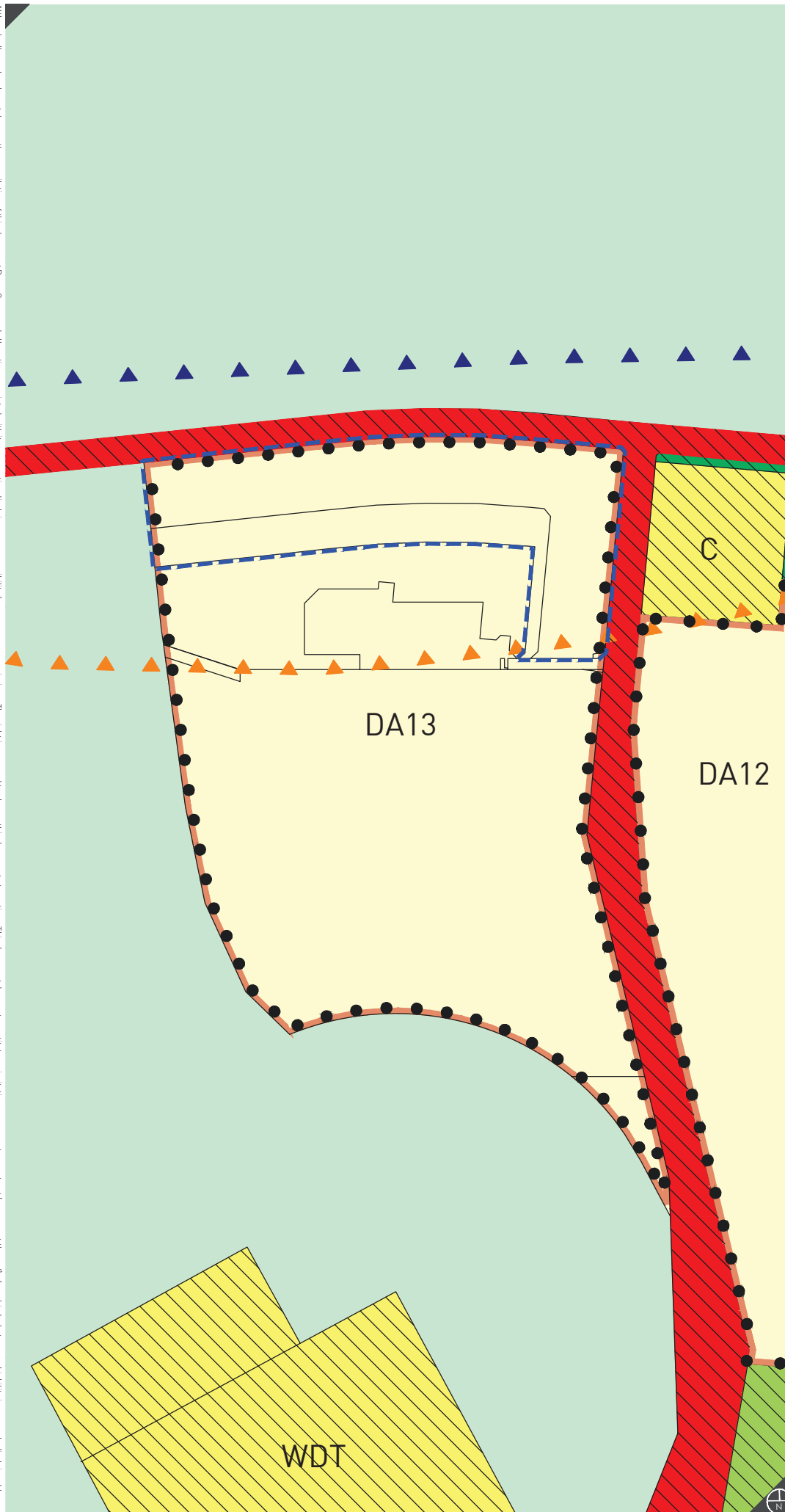
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Client: Landcorp
Designer: N. Stewart
Drawn: K. Trenberth
Projection: N/A
Plan ID: 8123-FIG-06-B
Zoning supplied by WAPC



TPS Zoning

Lots 521 and 522 Madigan Road
Gap Ridge