# LOCAL STRUCTURE PLAN LOT 1 [NO. 501] ALEXANDER DRIVE

LOT 1 (NO. 501) ALEXANDER DRIVE MIRRABOOKA



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This report has been authorised by:

Greg Rowe Managing Director

Reyne Dial Planner

Jamie Baxter Quality Control

#### CONTACT PERTH OFFICE

p 9221 1991 e infoldrowegroup.com.au w rowegroup.com.au a 3/369 Newcastle Street, Northbridge 6003

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		OF AMENDMENT	'S	
	Amendment No.	Summary of the Amendment	Amendment Type	Date Approved by WAPC
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				1
		1		



This structure plan is prepared under the provisions of the City of Stirling District Planning Scheme No.3

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: 5 October 2016

Signed for and on behalf of the Western Australian Plant	ning Commission
an officer of the commission duly authorised by the Co Section 16 of the Planning and Development Act 2005 to presence of:	
Jampaliño	Witness
5 October 2016	Data

Date of Expiry: 5 October 2026

#### **EXECUTIVE SUMMARY**

This Local Structure Plan (LSP) addresses Part Lot 1, Lot 9251 (Crown Reserve: 34929) and Lot 47 Alexander Drive, Mirrabooka (the 'subject site'). The LSP area comprises 15.02 hectares of land zoned 'Industrial' under the Metropolitan Region Scheme and 'Development' under the City of Stirling District Planning Scheme No. 3.

The site is located approximately 9.8 kilometres north of the Perth Central Area. The subject site is privately owned and is located opposite the Malaga Industrial area, is approximately 1.6 kilometres north of the Mirrabooka secondary centre and is 3.55 kilometres north-west from the Morley strategic metropolitan centre.

The LSP seeks to facilitate the development of a 'Mixed Business Precinct' to accommodate a range of land uses which complement the existing Industrial Area to the east of Alexander Drive whilst providing an appropriate integration with the nearby residential areas.

The 'Mixed Business Precinct' will facilitate a range of uses, including:

- Office;
- Showroom;
- Warehouse;
- Light Industry; and
- Other compatible uses as deemed appropriate by the City.

The preparation of the LSP has been undertaken in liaison with the City of Stirling and other relevant government authorities.

111	Item	Data	Structure Plan Ref (Section No.)
IIIIII	Total area covered by the Structure Plan	15.02 hectares	1.2.2
	Area of each land use proposed:	Hectares Lot Yield	
	Mixed Business	15.02 ha -	4.1
	Total estimated lot yield	4 lots	4.3
	Number of high schools	0	4.6
	Number of primary schools	0	4.6
	Estimated commercial floor space	Approx. 3.5 hectares	4.7
	Estimated area of percentage of public open space given over to:		
	Regional open space	0	4.2
	District open space	0	
	Neighbourhood parks	0	
	Local Parks	0	



1/4/				
į		CON	TENTS	
WHITE.	Rec	ord of	Endorsement	i
MANIMATE AND A STREET	Tab	le of A	mendments	ii
	Exe	cutive	Summary	iii
	1.	Struct	ure Plan Area	2
	2.	Operat	tion	2
	3.		g	
	4.		ision and Development Requirements	
	5.		onal Information	
	01	Plann	ning Background	6
	1.1		uction and Purpose	
	1.2		Description	
			Location	
			Area and Land Use	
	1200011		Legal Description and Ownership	
	02		Planning Framework	
	2.1		and Reservations	
		2.1.1	Metropolitan Region Scheme	
			City of Stirling District Planning Scheme No. 3	
	2.2		nal and Sub-Regional Structure Plan	
			Draft Perth and Peel @ 3.5 Million	
			Draft Central Sub-Regional Planning Framework	
	22		Draft Central Metropolitan Perth Sub-Regional Strategy	
	2.3	2.3.1	Economic and Employment Lands Strategy: (Non-Heavy Industrial)	
		2.3.2	City of Stirling Draft Local Planning Strategy	
			Mirrabooka Local Area Plan	
	2.4		25	
			Bush Forever	

	2.4.2	State Planning Policy (SPP 2.8) Bushland Policy for the Perth Metropolit Region	
	2.4.3	State Planning Policy 4.1 - Draft State Industrial Buffer (Amended)	12
	2.4.4	State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning	12
2.5	Other	Approvals and Decisions	12
	2.5.1	Deed of Agreement	12
03	Site	Conditions and Constraints	14
3.1	Biodiv	versity and Natural Area Assets	14
	3.1.1	Flora and Vegetation	14
	3.1.2	Priority and Threatened Ecological Communities	14
	3.1.3	Fauna	15
3.2		orm and Soils	
	3.2.1	Acid Sulphate Soils	15
	3.2.2	Contamination	16
3.3	Groun	dwater and Surface Water	17
	3.3.1	Groundwater	17
	3.3.2	Surface Water	17
3.4	Bushf	ire Hazard	17
3.5	Herita	ge	17
	3.5.1	Indigenous Heritage	17
	3.5.2	Non-Indigenous Heritage	17
3.6	Conte	xt and Other Land Use Constraints	17
04	Land	Use and Subdivision Requirements	19
4.1	Land	Use	19
4.2	Open	Space	19
4.3	Resid	ential	19
4.4	Mover	ment Network	19
	4.4.1	Existing Road Network	19
	4.4.2	Proposed Road Network	20
	4.4.3	Public Transport	21
	4.4.4	Pedestrian and Cycle Networks	21

14				
	4.5	Water	- Management	21
	4.6	Educa	ation Facilities	22
annihit.	4.7	Activit	ty Centres and Employment	22
MINIMINITY.	4.8	Infras	tructure Coordination, Servicing and Staging	23
		4.8.1	Earthworks / Drainage	23
		4.8.2	Water Supply	23
		4.8.3	Sewer	23
		4.8.4	Gas	24
		4.8.5	Electricity	24
	4.9	Devel	opment Contribution Arrangements	24

# **⊿FIGURES**

#### Plan 1. Structure Plan Map

- 1. Regional Location
- 2. Local Location
- 3. Site Plan
- 4. MRS Zoning
- 5. DPS 3 Zoning
- 6. Vegetation Condition
- 7. Context Plan
- 8. Indicative Layout Plan

<b>⊿</b> TEC	:HNICAL AP	PENDICES		
Appendix Number	Document Title	Nature of Document	Referral/Approval Agency	Summary of Document Modifications
1.	Certificates of Title	Informational		
2.	Environmental Assessment and Management Strategy	Environmental	Department of Parks and Wildlife	
3.	Transport Assessment	Transport	City of Stirting	
4.	Servicing Report	Engineering	Western Power, Water Corporation, City of Stirling	

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# Part One IMPLEMENTATION



#### Structure Plan Area

This Structure Plan shall apply to Part Lot 1 (No. 501), Part Lot 9251 (Crown Reserve: 34929) and Lot 47 Alexander Drive, Mirrabooka being the land contained within the inner edge of the line denoting the Structure Plan boundary on the Structure Plan map (Plan 1).

#### 2. Operation

This Structure Plan comes into effect on the day it is approved by the Western Australian Planning Commission.

#### Staging

Development of the site will commence upon issue of subdivision and / or development approval. Specific staging and timing for the development is unknown at this stage.

#### 4. Subdivision and Development Requirements

#### 4.1 Structure Plan Map

The subdivision and development of land is to generally be in accordance with the Structure Plan.

#### 4.2 Vehicular Access

- a) Primary vehicular access to the site should be taken from the signalised intersection at Victoria Road and Alexander Drive. Should subdivision/development of the Local Structure Plan area result in the requirement for upgrade/modification of this intersection, any costs associated with these works will be at the cost of the applicant/landowner.
- b) The existing vehicular access point to the site at the intersection of Alexander Drive and Truganina Road is to be modified at the cost of the applicant/landowner to support the anticipated traffic volumes generated by the Structure Plan area at the time of subdivision and/or development.
- c) Notwithstanding clauses 4.2 a) and 4.2 b) above, an alternative Access Strategy may be prepared and implemented at subdivision or development stage, subject to approval from Main Roads WA.

#### 4.3 Drainage Management Plan

An Urban Water Management Plan (UWMP) shall be prepared for the LSP area in consultation with the City of Stirling at subdivision and / or development stage. The UWMP should be prepared in the early stages of the detailed design process to allow for the appropriate consideration of Water Sensitive Urban Design (WSUD) elements.

#### 4.4 Contamination

In accordance with Section 58 (6)(a) and (b) of the Contaminated Sites Act, any applications for the development of the land should be referred to the Department of Environment Regulation for comment, regarding the suitability of the land for any proposed use.

A condition for the investigation, and if required, remediation of contamination to ensure the site is suitable for any proposed development may be imposed.

4.5 Vegetation
Any future

Any future subdivision and development applications for the site are to be designed appropriately to address the location of the Threatened Ecological Community.

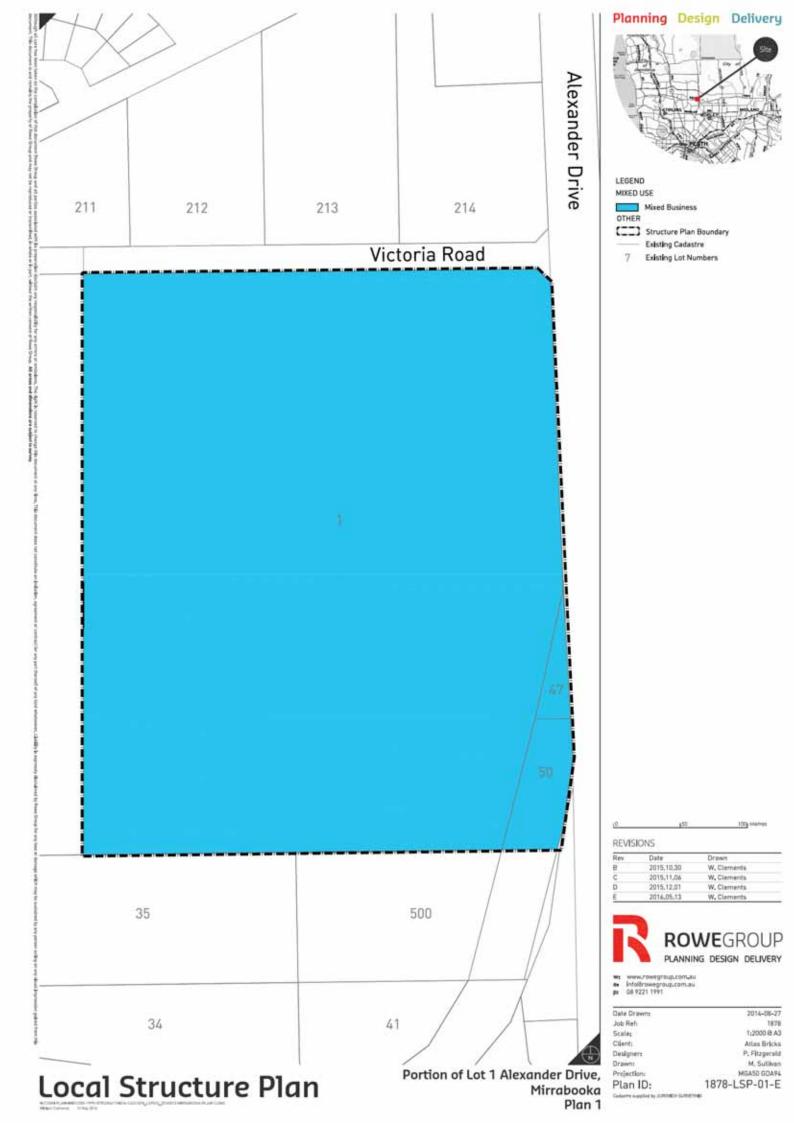
4.6 Land Use

When determining subdivision and/or development applications within the structure plan area, a decision maker is to give due regard to the structure plan and the land-use permissibility and development standards applicable to the 'Mixed Business' zone under the City's District Planning Scheme No. 3, until such time that the site is rezoned to 'Mixed Business'.

#### 5. Additional Information

Additional Information	Approval Stage	Consultation Required
Urban Water Management Plan	Submit with subdivision application	City of Stirling
Contaminated Assessment	Submit with subdivision application	Department of Environmental Regulation
Geotechnical Report	Submit with subdivision application	City of Stirling
Revised Traffic Impact Assessment	Submit with subdivision application	City of Stirling, Main Roads WA and Department of Transport
Bushfire Management Plan	Submit with subdivision application	Department of Fire and Emergency Services

Table 1: Additional Information



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# Part Two EXPLANATORY SECTION



# O1 Planning Background 1.1

This Local Structure Plan (LSP) has been prepared on behalf of Atlas Group Pty Ltd, as a precursor to subdivision and/or development of Part Lot 1 (No. 501), Part Lot 9251 (Crown Reserve: 34929) and Lot 47 Alexander Drive, Mirrabooka (the 'subject site') zoned 'Development' under the provisions of the City of Stirling District Planning Scheme No. 3 (DPS 3).

This LSP will guide future land use and development within the site and provide a framework for subdivision and development. The purpose of Part 2 of the LSP is to provide an explanation for the Part 1 provisions.

#### Land Description

#### 1.2.1 Location

The subject site is located within the municipality of the City of Stirling and is approximately 9.8km north of the Perth Central Area.

The subject site is privately owned and is located opposite to the existing Malaga industrial area within the City of Swan. The site is also located approximately 1.6km north of the Mirrabooka secondary centre and is 3.55km north-west from the Morley strategic metropolitan centre.

The subject site is generally bound by Alexander Drive in the east, a landfill and excavation area to the west and remnant vegetation to the north and south. Reid Highway is located in close proximity to the south of the site with the existing Mirrabooka residential area being located to the north-west of the site.

Refer Figure 1 - Regional Location and Figure 2 - Local Location.

#### 1.2.2 Area and Land Use

The LSP area comprises approximately 15.02 hectares of land, and is generally accessed from Alexander Drive and Victoria Road.

The land has previously been used for brick making and included a quarry (to supply brick sand) which is now utilised for inert landfill. As outlined at Section 2.5.1, agreements are in place with State Government to cease the waste disposal and other uses, thereby making a portion of the site (the LSP area) available for Mixed Business type uses.

Over time, uses on the land have included:

- Office and administration;
- Outdoor display area;
- Concrete batching plant;
- Aerobic digestion and composting facility;
- Outdoor storage; and
- Parking and landscaping.



The uses as outlined above generally operate under formal planning approval with a number of uses operating in accordance with non-conforming use rights. Ultimately all existing land uses on the subject site will cease operation as a result of this LSP and subsequent subdivision/development.

External to the site and the original parent land holding, the land is bounded by government-owned vegetated area, which will ultimately form a contiguous recreation area with that portion of the original lot to be ceded to the Western Australian Planning Commission for Regional Open Space purposes.

Refer Figure 3 -Site Plan.

#### 1.2.3 Legal Description and Ownership

The LSP comprises three (3) land parcels, being:

Lot Number	Address	Plan/ Diagram No.	Vol./Folio	Land Ownership
Portion of Lot 1	501 Alexander Drive	D36381	1656-48	Atlas Brick Pty Ltd
Lot 47	499 Alexander Drive	D70313	1840-357	Western Australian Planning Commission
Lot 501	No street address	P64753	2820-125	Western Australian Planning Commission

Table 2: Land Ownership Details

In accordance with the Deed of Agreement between Atlas Brick Pty Ltd and the Western Australian Planning Commission (WAPC) and the Honourable John Day (MLA) Minister for Planning, Lots 47 and 501 and to be amalgamated with Lot 1 to create a single title over the LSP area.

At the time of writing this report, Deposited 404602 showing the amalgamation of Portion of Lot 1, Lot 47 and Lot 501 has been lodged with Landgate by the Department of Planning for assessment.

Refer to Appendix 1 - Certificates of Title.

# **02** Town Planning Framework

#### 2.1 Zoning and Reservations

#### 2.1.1 Metropolitan Region Scheme

The subject site is zoned 'Industrial' under the Metropolitan Region Scheme (MRS). The site was rezoned from 'Parks and Recreation' to 'Industrial' on 29 November 2013 [MRS Amendment No. 1247/57].

The subject site is bordered by land zoned 'Parks and Recreation' on the north and south, which is identified a 'Bush Forever' site under the MRS.

Alexander Drive, which abuts the eastern boundary of the site, is reserved as an 'Other Regional Road' under the MRS.

Refer to Figure 4 - Metropolitan Region Scheme Map.

#### 2.1.2 City of Stirling District Planning Scheme No. 3

The subject site was rezoned from 'Private Institutions' to the 'Development' zone under the City of Stirling District Planning Scheme No. 3 (DPS 3) as part of Town Planning Scheme Amendment No. 42 which was approved by the Minister for Planning on 4 March 2015. It is noted however, the Amendment is yet to be published within the Government Gazette.

In accordance with the provisions of the 'Development' zone under the Scheme, a LSP is required as a precursor to subdivision and development. This LSP has been prepared in accordance with the deemed provisions of the Planning and Development (Local Planning Schemes) Regulations 2015.

By reason of the subject site's zoning, it is included within Schedule 10 (Development Areas) of the DPS 3. Schedule 10 identifies the specific purpose of LSPs in Development Areas. In the case of this LSP, Schedule 10 identifies its purpose as being:

To facilitate the development of a range of:

- light/service industrial uses; and
- mixed business uses.

The LSP proposes a Mixed Business zoning across the site which satisfies the above by way of providing for a range of permissible land uses which includes but is not limited to, light/service industrial uses and mixed business uses.

#### 2.2 Regional and Sub-Regional Structure Plan

#### 2.2.1 Draft Perth and Peel @ 3.5 Million

The Draft Perth and Peel @ 3.5 Million was released for public comment in May 2015, and seeks to provide a framework for the development of the Perth and Peel regions as the population reaches an estimated 3.5 million by 2050. The document seeks to meet the targets identified under Directions 2031 and the State Planning Strategy 2050. The suite of documents include the over-arching Perth and Peel @ 3.5 million report and four draft planning frameworks for the Central, North-West, North-East and South Metropolitan Sub-Regions.



The subject site is identified as 'Industrial Centre' under the draft Central Metropolitan Sub-Regional Framework.

#### 2.2.2 Draft Central Sub-Regional Planning Framework

As noted above, the subject site is identified as an 'Industrial Centre' under the draft Central Sub-Regional Planning Framework (the 'Framework'). Whilst the subject site is rather isolated and of significantly smaller scale than other 'Industrial Centres' identified under the Framework, the site presents a unique opportunity to provide for an appropriate transition between the existing Malaga Industrial area to the east of Alexander Drive and the existing residential area to the north of Victoria Road.

The LSP has been assessed against the objectives of 'Industrial Centres' under the framework as follows:

- The Mixed Business zoning proposed under the LSP facilitates a diverse range of employment opportunities for the Mirrabooka locality, including but not limited to, showrooms, office, warehouse and other complementary uses.
- The site's proximity to Reid Highway in conjunction with the existing industrial area to the east of Alexander Drive offers a unique employment node which is border by existing residential areas to the north. Whilst previously heavier type industrial uses have been operating out of the site, the transition to a Mixed Business zone allows the site to maintain its identification as an Industrial Centre whilst providing for a more complementary suite of uses to adjoining residential areas.
- The site is uniquely located along Alexander Drive which is a primary arterial route into and out of the city centre. The proposed Mixed Business zoning will ensure employment diversity is maintained along a key Regional Road and an appropriate level of industrial land is provided for within the Central Sub-Region.

On this basis, the LSP is considered to satisfy the objectives of 'Industrial Centres' under the Framework and is compliant in this regard.

#### 2.2.3 Draft Central Metropolitan Perth Sub-Regional Strategy

Directions 2031 and Beyond provides a broad strategic framework defining the overall visions for the Perth and Peel Regions for the next 20 years. It sets out the planning framework and objectives for the delivery of housing, infrastructure and services to accommodate future projected population growth within both regions.

To support the implementation of Directions 2031 two sub-regional strategies were prepared – the Outer Metropolitan Perth and Peel Sub-Regional Strategy, and the Central Metropolitan Perth Sub-Regional Strategy. The subject land is situated within the Central Metropolitan Perth Sub-Regional Strategy [the 'Strategy'] which refines the framework set under Directions 2031.

The LSP complies with the general intent of the draft sub-regional strategy as it is appropriate to consolidate and contain future industrial development to the subject site, in close proximity to established regional road infrastructure and nearby complimentary industrial uses.

# 2.3 Planning Strategies

#### 2.3.1 Economic and Employment Lands Strategy: (Non-Heavy Industrial)

The Economic and Employment Lands Strategy: (Non-Heavy Industrial) outlines the State Government's planning for the future of industrial land use in the Perth and Peel Regions. It builds on Directions 2031 and Beyond, and focuses on a strategy for industrial sites, on light and general industry uses and the future provision of industrial land.

The Department of Planning's reporting on the MRS Amendment specifically references a broader range of uses on the land, including commercial, stating that:

The proposed amendment is in accordance with the general intent of the Economic and Employment Lands Strategy ('EELS') as it seeks to better acknowledge existing industrial land uses, and contain future industrial/commercial development to the subject land.

The LSP seeks to build upon the rezoning of the land under both the MRS and DPS 3 by facilitating the site for a range of industrial and commercial uses on industrial zoned land. The LSP achieves this by way of providing the framework for the land to be developed as a Business Park with a suite of permissible uses which complement the existing Malaga Industrial Area.

The LSP is therefore considered to be consistent with the provisions of the EELS.

#### 2.3.2 City of Stirling Draft Local Planning Strategy

The City of Stirling adopted its draft *Local Planning Strategy* (the 'Strategy') in March 2013. The Strategy has since been referred to the WAPC however to date, has not received consent to advertise.

The draft Strategy is broadly based on the culmination of all Local Area Plans, whilst using the principles of the City's reviewed Corporate Strategic Plan and is within the realms and restrictions of the State and Local planning related strategies.

A key objective of the Strategy is to provide for increased employment and commercial opportunities within the City. The LSP meets this objective of the Strategy by way of providing for additional short and long term employment and development opportunities.

As the draft *Local Planning Strategy* is yet to be advertised, it is not considered to be a seriously entertained planning proposal for the purpose of progressing this LSP.

#### 2.3.3 Mirrabooka Local Area Plan

The Mirrabooka Local Area Plan (LAP) was released by the City of Stirling in January 2010 and provides a comprehensive, community-based plan, which identifies and considers social, economic and environmental issues for the Mirrabooka locality.

With specific regard to the subject site, the LAP notes that:

There may still be opportunities for further expansion of economic activity within the Local Area itself. At present the redevelopment of the Atlas Brickwork site into a business park is possible, which could diversify and increase local employment opportunities.

The Mixed Business zoning proposed over the site as part of the LSP is consistent with the LAP as it will facilitate the site for development as a 'Business Park' which may include uses such as showrooms, warehouses, offices and other associated uses. The suite of uses available under the

proposed Mixed Business zoning is considered to diversify and increase local employment opportunities, consistent with the LAP.

This is further recognised under the LAP which notes there are few employment opportunities within the bounds of the Mirrabooka locality itself, with 88% of residents working beyond the local area. The LAP also notes that a total of 6.5% of residents within the locality are unemployed, compared to the 3.6% average of residents City-wide.

In accordance with the LAP, the provision of local jobs in close proximity to existing residents is highly desirable. The provision of a diverse range of land uses, facilitated by the Mixed Business zone in a 'Business Park' arrangement, is consistent with the established strategic planning for the area and with the expectations of local residents. The LSP will assist the City in meeting the objectives of the LAP, particularly through the creation of considerable local employment opportunities.

#### 2.4 Policies

#### 2.4.1 Bush Forever

The Bush Forever Policy was prepared by the WAPC in 2000 as a ten year strategic plan for the retention and protection of regionally significant bushland within the Perth Metropolitan region. Bush Forever presents a 'whole of government approach' to the protection of bushland (and associated wetlands), with the Bush Forever policy endorsed by the Government of Western Australia, WAPC, the Environmental Protection Authority, and other key environmental agencies.

One of the principle aims of Bush Forever is to provide a guide to site implementation for landowners, developers and the community, by clearly distinguishing each Bush Forever site and associated site implementation recommendations.

The subject site adjoins Bush Forever Site 385 on its northern and southern boundaries.

Notwithstanding, the activities associated with the proposed LSP do not encroach upon these boundary nor are not expected to impact upon the conservation area. The LSP is therefore considered to comply with the requirements of the WAPC's Bush Forever Policy.

#### 2.4.2 State Planning Policy (SPP 2.8) Bushland Policy for the Perth Metropolitan Region

State Planning Policy 2.8 (SPP 2.8) was gazetted in June 2010. The aim of SPP 2.8 is to provide a policy and implementation framework that will ensure bushland protection and management issues in the Perth Metropolitan Region are appropriately addressed and integrated with broader land use planning to secure long-term protection of biodiversity and associated environmental values.

The policy applies to the Metropolitan region and addresses two distinct aspects of bushland management being, Bush Forever sites and local bushland.

The policy recognises the protection and management of significant bushland areas as a fundamental consideration in the planning process, while also seeking to integrate and balance wider environmental, social and economic considerations. Generally, the policy does not prevent development where it is consistent with policy measures.

Whilst the site is bound by a Bush Forever site, as previously noted the activities associated with the proposed LSP are not expected to impact upon the conservation areas. Further, it is noted that any remaining vegetation within the boundaries of the site is degraded in nature which is considered to hold little ecological value.

11

#### 2.4.3 State Planning Policy 4.1 - Draft State Industrial Buffer (Amended)

The draft State Planning Policy 4.1 (SPP 4.1) provides for a state-wide, consistent approach to the protection and long-term security of industrial zones, transport terminals, other utilities and special uses. Draft SPP 4.1 also provides for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by residual emissions and risk.

The proposed Mixed Business zone would not result in industrial uses that could affect the residential area to the north in terms or noise, dust, odour or other impacting factors (Cottage, General, Light and Service are the only Industry types available).

The Policy states structure plans are to identify buffer areas around major existing or proposed industrial areas and infrastructure. The intent of the LSP is to provide for a mix of complementary uses such as showrooms, office and General/Light Industry, none of which are expected to negatively impact the surrounding residential amenity, nor require any specific buffers. The LSP is therefore considered to satisfy the principles and objectives of SPP 4.1.

#### 2.4.4 State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning

The general objectives of State Planning Policy 5.4 are to ensure people are protected from unreasonable levels of transport noise and to ensure new development is compatible with existing transport corridors and freight operations.

Under the provisions of Schedule 1 of the policy, Alexander Drive is classified as a 'primary freight road' under the jurisdiction of the local government.

Given the LSP does not seek to create any new residential areas, noise from Alexander Drive is not considered to be a development constraint in this instance, nor impact upon the day-to-day operation of uses on the site.

#### **2.5** Other Approvals and Decisions

#### 2.5.1 Deed of Agreement

A Deed of Agreement was signed on December 2012 by the owner of the subject site (Atlas Brick Pty Ltd), the Minister for Planning and the Western Australian Planning Commission (WAPC) to provide a framework for the coordinated cessation of waste disposal and affiliated uses on site, the ceding and remediation of a portion of the site for Regional Open Space, and the conversion of the remainder of the site for 'Mixed Business' type uses.

In accordance with the provisions of the Deed, an amendment to the MRS was initiated and subsequently approved by the Minster for Planning in 2013, rezoning the subject site to 'Industrial'.

Following the rezoning of the site under the MRS, the subject site was rezoned 'Development' under the City of Stirling DPS 3 in March 2015. At the time of writing this report, the Amendment is yet to be published in the Government Gazette.

The provisions of the Deed require a Local Structure Plan to be prepared and lodged for the site following the gazettal of the Local Planning Scheme Amendment. This LSP has therefore been prepared in accordance with the provisions of the Deed to fulfil this requirement.

The Deed also addresses responsibilities and timeframes for:

- Preparation and endorsement of the LSP;
- Subdivision of the land and preparation of necessary surveys;
- Lodgement of documentation and transfer of land;
- Finalisation of leases and land uses.

The ultimate identification of the land for Mixed Business under this LSP reflects previous discussions with the Department of Planning and the City of Stirling. It is an expectation of the landowner that LSP designations are consistent with these previous commitments.

### 03 Site Conditions and Constraints

#### 3.1 Biodiversity and Natural Area Assets

The following provides a summary of the environmental site conditions and constraints. For further information, the Environmental Assessment and Management Strategy (EAMS) prepared by 360 Environmental is provided at Appendix 2.

#### 3.1.1 Flora and Vegetation

The subject site is located within the Heddle vegetation mapping unit of 'Karrakatta Complex, Central and South'. The site also falls within the Shepherd vegetation mapping unit, 'Bassendean\_1001' which is described as 'medium very sparse woodland; jarrah, with low woodland; banksia and casuarina'.

A Level 1 Flora and Vegetation Survey was undertaken by 360 Environmental on 5 October 2015. The survey identified the following two vegetation associations within the LSP area:

- BmMps Low Open Woodland of Banksia menziesii over Mesomelaena pseudostygia, Daviesia nudiflora subsp. nudiflora, Xanthorrhoea preissii, Eremaea pauciflora var. Pauciflora, Stirlingia latifolia, Acacia pulchella and Daviesia triflora.
- Em Low Open Woodland of Eucalyptus marginata over Mesomelaena pseudostygia, Jacksonia sternbergiana and Daviesia divaricata subsp. divaricata [ms] over introduced species.

The results of the survey noted that remnant vegetation within the LSP area occupies approximately 0.17 hectares and ranges in condition from 'Excellent' to 'Completely Degraded'.

It is also noted that a search of the Department of Parks and Wildlife NatureMap database revealed no species of conservation significant flora were located within two kilometres of the subject site.

Refer to Figure 5 - Vegetation Condition

#### 3.1.2 Priority and Threatened Ecological Communities

The Department of Parks and Wildlife Mapping of Priority (PECs) and Threatened Ecological Communities (TECs) reveals that no PECs are mapped within the subject site, however the site falls within the buffer area of mapped TECs. The TEC is associated with 'SCP 20a - Banksia attenuate woodland over species rich dense shrublands'.

The Level 1 Flora and Vegetation Survey undertaken by 360 Environmental recorded vegetation association BmMps, which has been identified as FCT SCP20a and is described as 'Banksia attenuate woodlands over species rich dense shrublands', listed as 'Endangered' by the State.

The total area of the TEC identified within the site is 0.15 hectares, which includes the inferred TEC area comprising Em vegetation.

The LSP area is considered to hold little ecological value due to the degraded nature and limited amount of remaining vegetation within the site. Notwithstanding, given the identification of the TEC SCP20a within the subject site, clearing of native vegetation within this area will require a native vegetation clearing permit.

#### 3.1.3 Fauna

A desktop fauna review was undertaken using Department of Parks and Wildlife Threatened Species and Communities database revealed two threatened species, two species protected under international agreement and two priority species were identified as occurring within 2km of the subject site.

The fauna species which have previously been recorded within 2km of the subject site include:

- Bettongia penicillata subsp. ogilbyi (Woylie, Brush-tailed Bettong) Threatened;
- Calyptorhynchus latirostris (Carnaby's Cockatoo) Threatened;
- Ardea modesta (Eastern Great Egret) International Agreement;
- Merops ornatus (Rainbow Bee-eater) International Agreement;
- Neelaps calonotos (Black-striped Snake) Priority 3;
- Macropus irma (Western Brush Wallaby) Priority 4;
- ✓ Oxyura australis (Blue-billed Duck) Priority 4; and
- Synemon gratiosa (Graceful Sunmoth) Priority 4.

The limited vegetation within the site may have the potential to provide habitat for the above species with the exception of the Ardea modesta (Eastern Great Egret) and the Oxyura Australia (Blue-billed Duck) which prefer wetland habitats.

Given the small area of remnant vegetation, it is expected that the vegetation would only provide potential habitat in association with the surrounding Bush Forever areas which appear to contain better quality vegetation, based on desktop investigations.

The potential habitat for Black Cockatoos has been considered and whilst some suitable habitat species have been identified within the site, 360 Environmental consider that a referral for impacts to Matters of National Environmental Significance is not required based on the small area of vegetation within the site (0.17 hectares).

#### 3.2 Landform and Soils

Site specific contour mapping indicates that the site elevation ranges from approximately 45 metres Australian Height Datum (mAHD) in the east, up to 60mAHD in the west. The majority of the site is flat to gently sloping however there is a steep incline in the western portion of the site.

Soil mapping has been completed at a regional scale which shows the site as occurring within the Bassendean system within the soil phase 212Bs\_S8 which is characterised by 'sand – very light grey at surface, yellow at depth, fine to medium-grained, sub-rounded quartz, moderately well sorted of eolian origin.

#### 3.2.1 Acid Sulphate Soils

The Department of Environmental Regulation (DER) Acid Sulphate Soil (ASS) Risk Mapping identifies the entire site as having 'moderate to low risk of acid sulphate soils occurring within 3m of the natural soil surface'.

Given the considerable separation to groundwater, it is unlikely any requirement for ASS investigations will be triggered.

#### 3.2.2 Contamination

The subject site has historical been used for inert landfilling operations since 1977. Between 1977 and 1997 the landfill was licenced to accept putrescibles waste. In 2009, an investigation notice was issued for the site due to potential contamination issues caused by landfilling activities. GHD were commissioned in 2010 to undertake a Preliminary Site Investigation (PSI) which was later submitted to the Department of Environment Regulation (DER).

The DER concluded that further investigations were required to determine the nature and extent of any contamination, and classified the site as 'Possibly contaminated – investigation required' under the Contaminated Sites Act 2003 on 19 September 2011. Since this time, several investigations have been undertaken in relation to potential contamination resulting from previous landfilling activities at the site. These investigations include:

- A Sampling and Analysis Plan (SAP);
- A Groundwater Investigation Report (GIR); and
- A Limited Risk Assessment (based on the outcomes of the Groundwater Investigation Report).

A mandatory auditor was then appointed to review this information prepared by GHD prior to submission to DER. In 2013, the Mandatory Auditors Report (MAR) and GIR were submitted to DER. Correspondence was received from the DER in February 2014 advising as follows:

"the classification of the site remains unchanged... however the reasons for the classification have been updated."

The action required to be undertaken to determine the presence of potential contaminants and thus the current classification of the site are:

- Soil investigations to be carried out in accordance with DER's Contaminated Sites Management Series of guidelines and the 'National Environmental Protection (Assessment of Site Contamination) Measures 1999'; and
- ▲ Landfill gas investigations with reference to the guideline 'Assessing risks posed by hazardous ground gases to buildings' (Construction Industrial Research and Information Association 2007).

Prior to subdivision approval, the proponent will ensure it is demonstrated that the site is able to support the proposed development in accordance with any requirements of the DER.

In addition, following a detailed health assessment the DER have advised the following:

The levels of substances present in groundwater beneath the site and the Bush Forever reserve immediately south and west are unlikely to pose a risk to human health under the current landuse. However, they may pose a risk to human health under a more sensitive landuse such as residential or public open space... if groundwater is being, or is proposed to be abstracted, DER recommend that analytical testing should be carried out.

Given that the development is not considered a more sensitive land use and groundwater abstraction is not proposed, there will be no source to receptor contact and it is expected that analytical testing will not be required.

#### 3.3 Groundwater and Surface Water

#### 3.3.1 Groundwater

Regional groundwater contour mapping suggests that the groundwater table below the site is between 29 and 31mAHD which equates to between 16 and 31 metres below ground level.

Given the considerable separation to groundwater and the porous, sandy nature of the soils within the site, infiltration potential is expected to be maximised. 360 Environmental has consulted with both the Department of Water and the City of Stirling who have advised that a Local Water Management Strategy for the site is not required as part of the LSP.

An Urban Water Management Plan will however be required as part of any future subdivision / development approval for the subject site. Provision has been included within Part 1 of the LSP text accordingly.

#### 3.3.2 Surface Water

According to the Department of Water mapping, no streams or tributaries occur within the subject site. Similarly, Department of Parks and Wildlife online mapping indicates no streams or tributaries are present within the LSP area.

#### 3.4 Bushfire Hazard

The subject site is situated within an existing Urban area, and therefore the risk of bushfire attack is considered to be low. Existing vegetation on the subject site will be cleared as part of the development of the site (subject to obtaining the necessary approvals), and therefore does present a bushfire risk.

It is noted that the subject site is bordered on its northern and southern boundaries by Bush Forever Site 385. Notwithstanding, this area of bushland is not considered to pose a bushfire risk to any future development. As depicted on the Indicative Layout Plan contained at Figure 7, it is likely that internal roads will be provided at these boundaries to facilitate vehicular access and movement through the site. As a result of providing internal roads to these boundaries, the separation distance between any future buildings and the adjacent bushland vegetation would be in excess of that prescribed under the WAPC's Planning for Bushfire Protection Guidelines.

Given the low bushfire risk presented to the subject site, a Bushfire Management Plan is not considered to be necessary and has therefore not been prepared as part of this Local Structure Plan.

#### 3.5 Heritage

#### 3.5.1 Indigenous Heritage

A search of the Department of Aboriginal Affairs Aboriginal Heritage Inquiry System identified no sites of Indigenous heritage significance being located within the LSP area.

#### 3.5.2 Non-Indigenous Heritage

No places were identified on the Heritage Council of Western Australia Heritage Places Database or the City of Stirling Municipal Heritage List for the LSP area.

#### 3.6 Context and Other Land Use Constraints

The subject site is located approximately 250m south of existing residential areas, 450m north of Reid Highway and is located immediately adjacent to the Malaga Industrial area.

The subject site provides for an important transition between existing residential areas to the north of and industrial uses to the east of Alexander Drive. The Mixed Business zoning proposed under the LSP provides for a gradual transition between the industrial uses to the east and residential uses to the north-west of Alexander Drive. The Mixed Business zoning provides for the opportunity to create a high quality built form Business Park estate which would have a significantly lesser impact on adjacent residential areas compared to that of a wholly industrial estate.

18

### 14 Land Use and Subdivision Requirements

#### 4.1 Land Use

The LSP sets out land use, environmental considerations and servicing requirements for the subject site.

The LSP is proposed to comprise a range of 'Mixed Business' uses to both complement the nearby Malaga Industrial area and provide for an appropriate to the existing residential area to the north of the site.

The following describes the design response proposed under the LSP.

Please also refer to the LSP Plan 1, provided at the end of Part One.

#### 4.2 Open Space

In accordance with Development Control Policy 4.1 - Industrial Subdivision, the LSP does not provide for any new areas of public open space. The land abutting the LSP area remains zoned 'Parks and Recreation' under both the MRS and the City of Stirling District Planning Scheme No. 3 which ultimately be developed for recreational purposes once the inert land fill activities cease operation.

#### Residential

The LSP does not propose any new areas of residential development. Existing residential areas are located to the north-west of the subject site and on the southern side of Reid Highway.

#### 4.4 Movement Network

The following provides a summary of the proposed movement network. For further information it is recommended the reader consult the Transport Assessment included at Appendix 3.

#### 4.4.1 **Existing Road Network**

#### 4.4.1.1 Alexander Drive

Alexander Drive forms the eastern boundary of the development and is classified as a District Distributor A under the Main Roads Functional Road Hierarchy, Alexander Drive is constructed as a median-divided dual carriageway and is intended to perform the function of carrying inter and intraregional traffic. This allows frequent connections to local streets with a low percentage of trucks and a bus route.

The subject site currently has two access points off Alexander Drive.

#### 4.4.1.2 Truganina Road

Truganina Road is identified as an access road which terminates at the intersection with Alexander Drive. Truganina Road is a single lane carriageway with an approximate 22m wide road reserve and 10m wide pavement with kerbing. Truganina Road predominantly provides vehicle access to abutting properties.

#### 4.4.1.3 Victoria Road

Victoria Road is classified as a 'Local Distributor' under the Main Roads Functional Hierarchy and has an approximately road reserve width of 20m with a 7m wide seal and kerbing. Victoria Road extends

across both sides of Alexander Drive and forms the northern boundary of the subject site and allows movement of traffic within local areas and connects access roads to higher order distributors.

The subject site currently has one access point off Victoria Road which has been temporarily modified to be used as an exit only.

#### 4.4.2 Proposed Road Network

It is anticipated that the proposed road network will be defined as part of detailed design to be undertaken at subdivision / development stage. The final built form outcome for the site has not yet been defined with the LSP providing the framework for further subdivision / development of the site into a Business Park in the near future.

Notwithstanding, an Indicative Layout Plan has been prepared based upon the findings of the Transport Assessment prepared by Porter Consulting Engineers. The indicative layout shown at Figure 7 has been provided as an example only and represents how the built form may be developed taking into consideration the comments of the Transport Assessment.

The LSP and Transport Assessment have been prepared taking into consideration the key points of the submission lodged by Main Roads WA as part of the MRS Amendment process. The submission is summarised as follows:

- A traffic impact assessment will need to be undertaken in the future detailed planning stages;
- An access strategy for the site will need to be prepared in liaison with MRWA; and
- The proponent is advised to liaise with MRWA during the future detailed planning stages.

As detailed within the Transport Assessment, it is recommended that further detailed traffic modelling is undertaken at the development application stage once the built form has been defined. The modelling should determine whether additional upgrades are required to the surrounding intersections of Victoria Road and Alexander Drive or Truganina Road and Alexander Drive.

The LSP proposes the following access strategy to the site, taking into consideration the recommendations of the Transport Assessment:

- Primary vehicular access to and from the site being taken from the signalised intersection of Alexander Drive and Victoria Road.
- The existing vehicular access point to the site from the intersection of Alexander Drive and Truganina Road should be modified to a 'left-in / left-out' access only for northbound traffic.
- The second vehicular crossover point to Alexander Drive being removed as part of the redevelopment of the site.
- Victoria Road being extended to allow access to the landfill and excavation site for the period of the lease agreement between Atlas Group and the WAPC in accordance with the Outline Structure Plan.

It is also anticipated that Victoria Road will require upgrading for the portion of road abutting the LSP boundary as a condition of subdivision / development. In accordance with the provisions of the Deed, lease rights are required between Atlas Group and the WAPC to allow access to the rear portion of Lot 1, not subject to this LSP. Access to the rear portion of Lot 1 is required to be maintained to allow Atlas Group to continue landfill and excavation activities in accordance with the provisions of the Deed.

#### 4.4.3 Public Transport

The site is currently serviced by the following Transperth Bus Routes which operate along Alexander Drive:

- Transperth Bus Routes 886 and 887 operate between the Roe Street Bus Station (Perth CBD) and the Alexander Heights Shopping Centre.
- Transperth Bus Route 889 operates between the Roe Street Bus Station (Perth CBD) to Lassen Park off Guadalupe Drive (Ballajura).

Bus Stop No. 12844 is located on the western side of the Alexander Drive road reserve, north of Truganina Road.

#### 4.4.4 Pedestrian and Cycle Networks

In accordance with Liveable Neighbourhoods requirements, footpaths will be provided on at least one side of every street. Footpaths should be provided to a minimum width of 2m.

The Traffic Report prepared by Porter Consulting Engineers recommends that a Principal Shared Path (PSP) be constructed along the development frontage to both Alexander Drive and Victoria Road which may be accommodated as part of further detailed design.

On-street cycle lanes may also be accommodated throughout the site which could connect to the PSP along Victoria Road and Alexander Drive. It is noted that an existing shared path which forms part of the Perth Bicycle Network is located along the western side of the Alexander Drive road reserve which connects to the wider bicycle network.

#### 4.5 Water Management

Preliminary discussions with both the Department of Water and City of Stirling indicate that the preparation and lodgement of a Local Water Management Strategy to support the LSP is not required in this instance for the following reasons:

- The minimum depth to groundwater across the site is 10m which will enable the infiltration of stormwater runoff within the future lot boundaries;
- There are no onsite waterways within the boundaries of the subject site; and
- Future development is to be designed in a manner that would allow for drainage (up to the 100 year ARI event) to be accommodated on site.

Notwithstanding, in accordance with discussions with the City of Stirling, an Urban Water Management Plan (UWMP) will be required as a condition of subdivision / development which is to guide the stormwater drainage design for the proposed development. In accordance with preliminary comments received from the City of Stirling's Technical Services Department, the UWMP is to be prepared in accordance with the requirements of the Department of Water's Better Urban Water Management (2008) and Stormwater Management Manual for WA (2004 – 2007).

The UWMP is required to address the following:

Both the flood protection 1% annual exceedance probability (AEP) event and also Water Sensitive Urban Design (WSUD) objectives to the complete satisfaction of the City of Stirling and shall be approved by the City of Stirling prior to the commencement of the detailed drainage design for the development.

- WSUD elements to be considered shall include but not be limited to rainwater tank, tree pits, rain gardens/bioretention swales, soakwells, roof gardens, green walls and stormwater pollutant traps. It is noted the proposed car parking areas will provide excellent opportunities for the implementation of WSUD elements such as rain gardens/bioretention swales and tree pits. These WSUD initiatives should be incorporated early on in the planning process to ensure that sufficient land area is provided to allow the integration of the WSUD elements into the car park layout.
- The UWMP should be prepared collaboratively by civil engineering, architectural, landscape and drainage design consultants to maximise opportunities for 'at source' management of rainfall in accordance with WSUD objectives.
- The UWMP should allow for the retention of the major 1% AEP within the boundaries of the lot. The drainage design consultant will be responsible for determining the on lot storage requirements taking into account soil permeability. The absolute minimum onsite retention storage volume to be provided shall be equivalent to 15 millimetres of rainfall occurring over all impervious surfaces.
- Rainfall runoff from roof areas shall be managed by capture, reuse (if applicable) and infiltration systems that shall be separate to those systems used to manage runoff from other impervious surfaces including access roads, car parks and courtyards where increased pollutant loads will occur.

#### 4.6 Education Facilities

The LSP does not propose the creation of any new school sites nor trigger the requirement for a new school site.

The site is within close proximity to a number of local schools including, Boyare, Dryandra and North Morley and Camboon Primary Schools. Senior education is similarly available with nearby secondary schools including Balga, Morley and Mirrabooka Senior High Schools as well as Ballajurra Community College.

#### 4.7 Activity Centres and Employment

In accordance with State Planning Policy 4.2 – Activity Centres for Perth and Peel (SPP 4.2), the closest Strategic Metropolitan Centre to the site is Morley, which is located approximately 4.1 kilometres to the south-east.

The Mirrabooka Secondary Centre is located approximately 1.5 kilometres to the south-west of the LSP area which provides for a diversity of land uses, including a range of economic and community services to service the locality.

The LSP will provide for new commercial development and employment opportunities within the area which will support the existing centres within the north-west corridor. The creation of a 'Mixed Business' precinct with uses such as showrooms, light industry, offices and other associated uses will support the existing Malaga Industrial Area located on the eastern side of Alexander Drive whilst providing for range of additional employment opportunities for local residents.

In accordance with the findings of the Transport Assessment prepared by Porter Consulting Engineers, the site is capable of accommodating up to 35,000m<sup>2</sup> of 'General Office' and up 35,000m<sup>2</sup> of 'Bulky

Goods' such as Showroom and Warehouse uses without causing the intersection of Alexander Drive and Victoria Road to fail.

The establishment of new businesses as a result of the LSP will also provide for additional employment opportunities within the locality.

#### 4.8 Infrastructure Coordination, Servicing and Staging

The Engineering Services Report prepared by Porter Consulting Engineers confirms there are no significant servicing constraints to the Structure Plan area with the required utilities.

The following provides a summary of the infrastructure and servicing for the LSP area, however for further information it is recommended the reader consult the Engineering Services Report provided at Appendix 4.

#### 4.8.1 Earthworks / Drainage

The site's geology should result in high permeability of material which would allow for drainage basins and soak wells to be used for the processing of stormwater. Should this be the case then a soakage basin would be required on the site with a storage capacity of between 7,000 - 9,000m<sup>3</sup>.

The site's storage requirements should be further reviewed and determined at detailed design stage.

#### 4.8.2 Water Supply

The site currently has an existing water connection off the 200mm reticulation main located adjacent to the intersection of Alexander Drive and Truganina Road. Whilst the Water Corporation is not in a position to confirm service capacity until the LSP has been adopted, given water infrastructure is located adjacent to the site, it is unlikely that the Water Corporation will require servicing upgrades as part of the development.

It is also noted that the subject site is serviced by an existing 150mm diameter PVC fire service with water connection from the 375mm distribution main. A fire booster is located adjacent to the Alexander Drive road reserve. An internal 150mm PVC fire mains has been installed throughout the site with hydrants located as required.

#### 4.8.3 Sewer

Water Corporation is not in a position to provide service information until the LSP has been adopted. Notwithstanding, Water Corporation future planning shows that the Harris Street pump station is currently operating above 7.91/s with future planned capacity of 10.61/s.

The most likely method to service the site would be to extend the existing Truganina Road sewer through the centre of the site. Should this occur, the likely minimum height the proposed buildings finished floor levels would need to be is RL 45 to RL 46m AHD. This level could potentially be reduced at detailed design stages once the final development concept is known.

Once the details of the proposed development are known, the Water Corporation should be contacted to confirm the capacity of the existing downstream pump station to handle the additional wastewater generated from the development.

## 4.8.4 Gas

There is existing gas infrastructure located adjacent to the subject site. Gas supply is not anticipated to be a present a constraint to the development.

#### 4.8.5 Electricity

Existing power infrastructure is located adjacent to the subject site. The infrastructure will need to be extended through the subject site to reticulate the proposed development. Western Power will need to be contacted once the details of the development are known to confirm the capacity of the infrastructure.

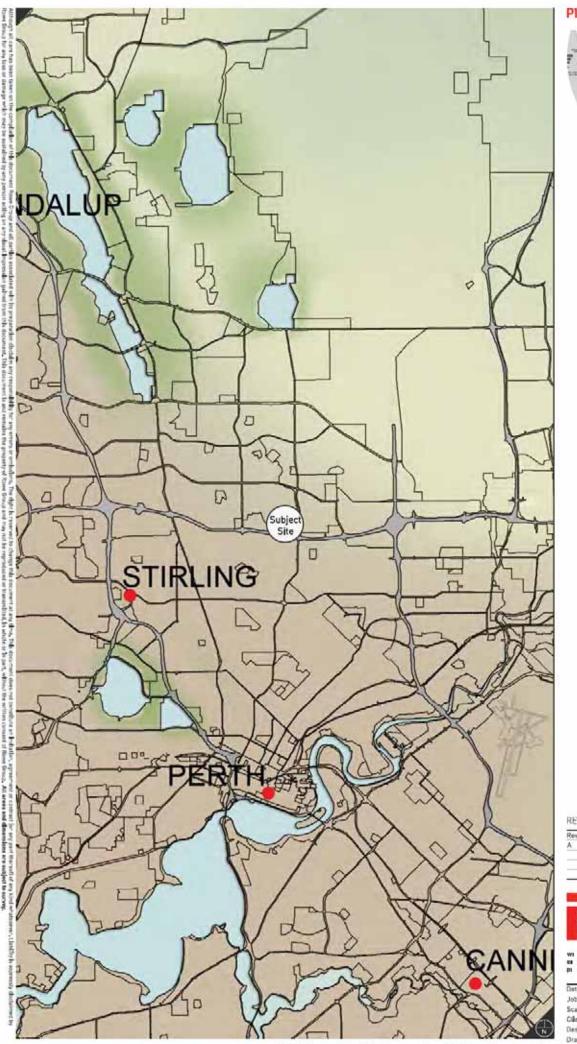
#### 4.9 Development Contribution Arrangements

No Development Contributions Arrangements are proposed or required by virtue that the land will be in single ownership following amalgamation of the lots in accordance with the provisions of the Deed.



### **FIGURES**





Planning Design Delivery

REVISIONS

Rev	Date	Drawn	
A	2014,08,27	M. Sullivan	



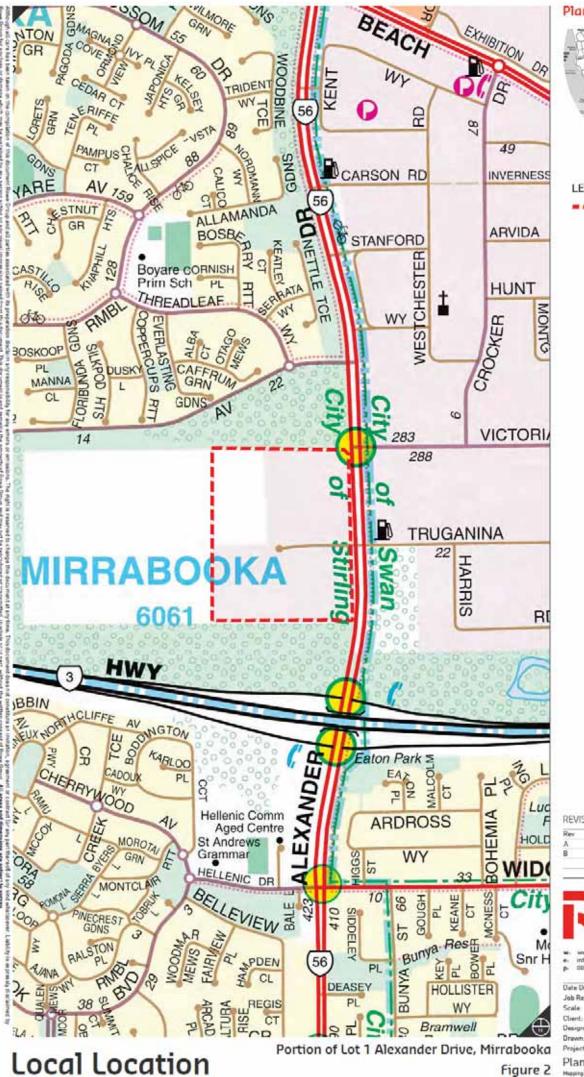
ROWEGROUP

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| Date Drawn: 2014-09-27 | Job Ret: 1870 | Scales | NTS to AK Client: Attas Bricks | Designer: P. Pizzgerald | Drawn: M. Sulliven | NIA Plan ID: 1878-FIG-04-A

Portion of Lot 1 Alexander Drive, Mirrabooka

Figure 1



Planning Design Delivery

LEGEND

■ ■ ■ Subject Site

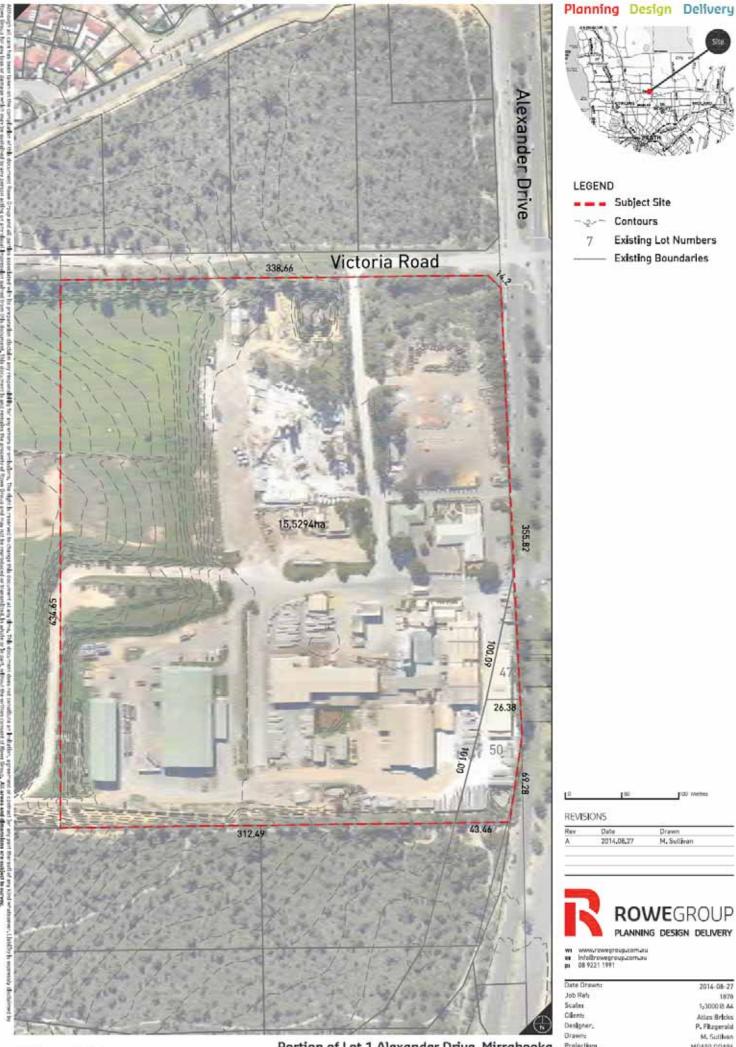
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A:	2014.08.27	M. Sullivan	
9	2015.10.21	W. Clements	



Projection 1878-FIG-05-B Plan ID:

Figure 2



Portion of Lot 1 Alexander Drive, Mirrabooka

Figure 3



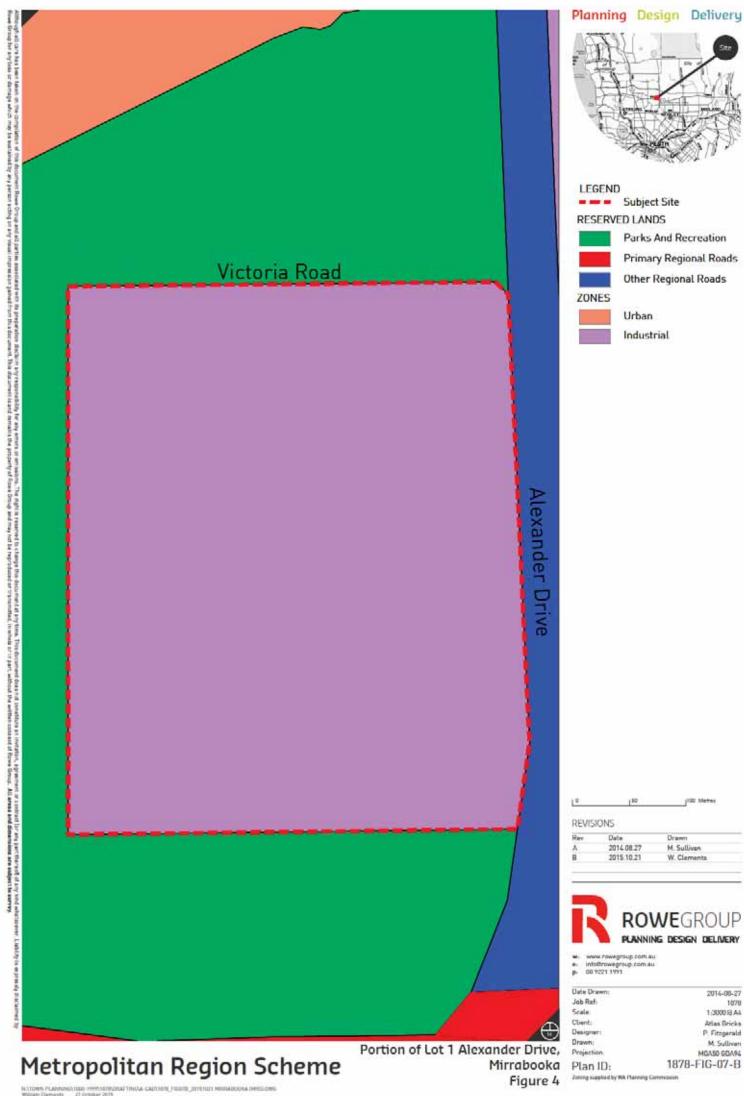
**Existing Boundaries** 

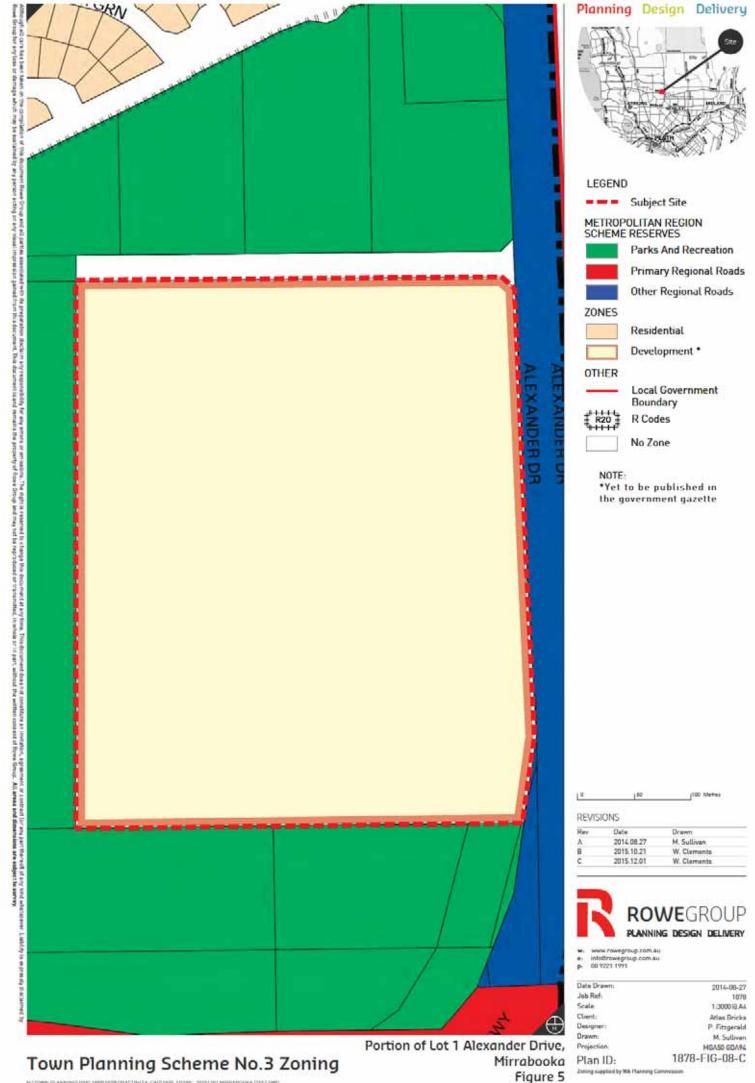
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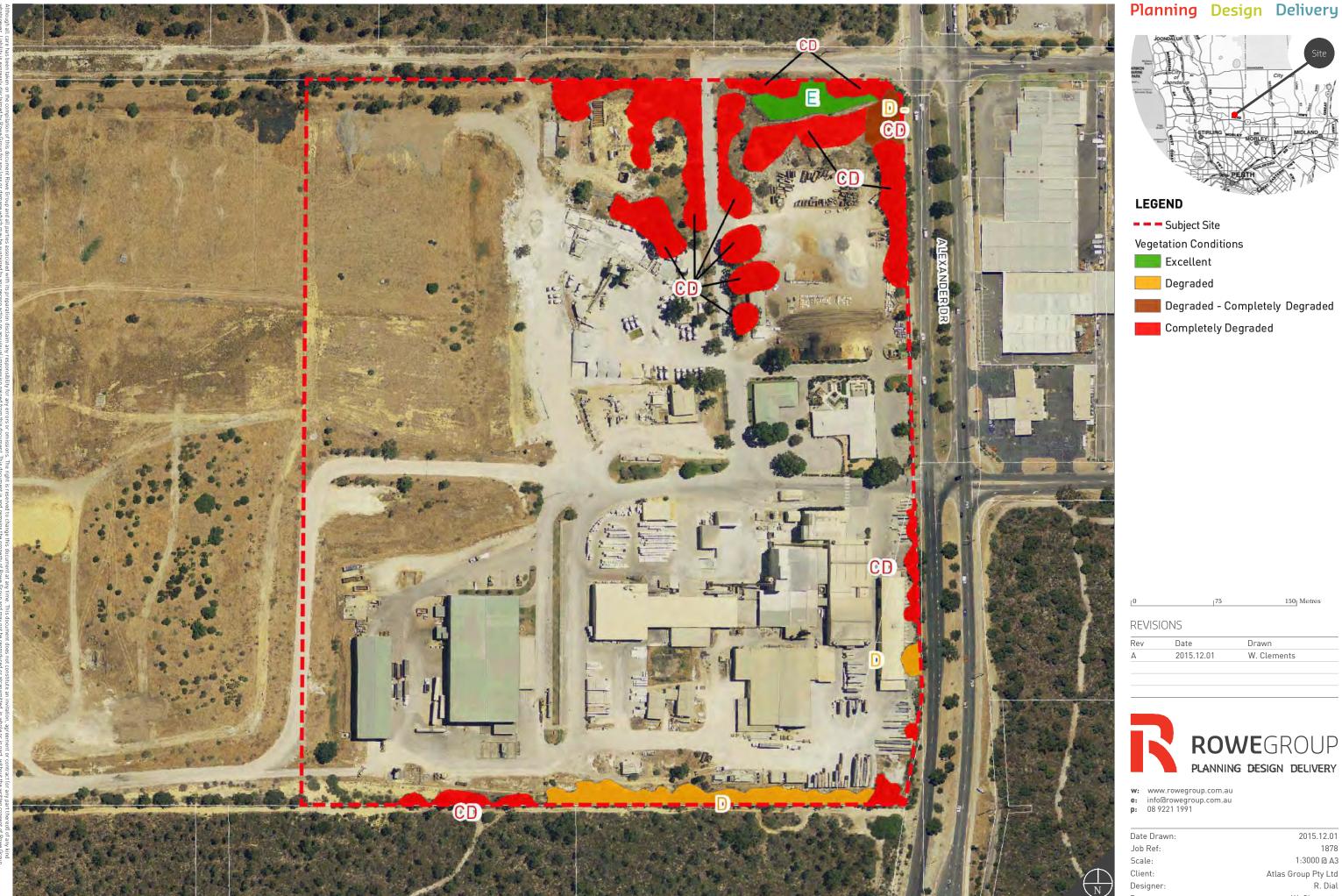
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Lot 1 (No. 501) Alexander Drive Mirrabooka Figure 6

**LEGEND** 

-- Subject Site

**Vegetation Conditions** 

Excellent

Degraded

Degraded - Completely Degraded

Completely Degraded

#### REVISIONS

A 2015.12.01 W. Clements	



e: info@rowegroup.com.au p: 08 9221 1991

Date Drawn:

Atlas Group Pty Ltd

2015.12.01

Plan ID: 1878-FIG-14-A

Vegetation Condition

NOTOWN PLANNING LIBERT 1999 1878 BLD PAFTING AL-CAD/1878\_FIGHA\_20151201 MIRRABOOKA NEGETATION CONDITION.DWG



Lot 1 (No. 501) Alexander Drive Mirrabooka Figure 7

Planning Design Delivery



LEGEND

\_ \_ Subject Site

#### REVISIONS

Rev	Date	Drawn
А	2015.10.21	W. Clements
В	2015.12.02	W. Clements



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2015.10.21 Atlas Group Pty Ltd Plan ID: 1878-FIG-12-B

Context Plan



Lot 1 (No. 501) Alexander Drive Mirrabooka Figure 8

#### LEGEND

■ ■ Subject Site

Commercial - Showrooms

Commercial - Offices

Carparking

Landscaping

Victoria Road to be upgraded for the length of the LSP boundary.

Access to landfill and excavation area to be maintained for Atlas Brick

Left in access only

Proposed future 'parks and recreation'. Landfill and excavation to continue until a time as agreed between the Western Australian Planning Commission and the landowner.

Indicative Roundabout Location

Indicative Open Car Parking

Existing Signalized Intersection (4-way movement)

> Note: Proposed development scenario shown is indicative only and subject to further detailed design at subdivision/ development stage.

#### REVISIONS

Rev	Date	Drawn	
E	2015.11.06	W. Clements	
F	2015.11.12	W. Clements	
G	2015.12.02	W. Clements	



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Aerial Photography captured and supplied by Nearman



Level 2 Kishorn Court 58 Kishorn Road Mount Pleasant 6153 Western Australia

PO Box 1036 Canning Bridge 6153 Western Australia

Tel: (08) 9315 9955 Fax: (08) 9315 9959 Email: office@portereng.com.au

www.portereng.com.au

