



TOWN PLANNING
AND URBAN DESIGN

LAKE ROAD WESTFIELD STRUCTURE PLAN

Development Area 5 As Identified Under Schedule
12 And Developed In Accordance With The
Provisions Of Part 6a Of The City Of Armadale
Town Planning Scheme No 4

September 2006
Reference 706-133
Issue 1

PERTH
MELBOURNE
SYDNEY
CANBERRA

ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Armadale
Local Planning Scheme No. 4.

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

JULY 2007

In accordance with Schedule 2, Part 4, Clause 28 (2) and refer to Part 1, 2. (b) of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

Date of Expiry:

19 OCTOBER 2035



DOCUMENT CONTROL

Document ID: PLANNING/PG 2006/706.133/Draft Report/Lake Road.indd						
Issue	Date	Status	Prepared by		Approved by	
			Name	Initials	Name	Initials
1	26.09.06	FINAL	Murray Casselton		Tony Paduano	

This page has been left blank intentionally.

CONTENTS

INTRODUCTION	1
SITE DESCRIPTION	3
Location	3
Land Use and Improvements	4
Site Topography	4
Road Widening	4
Legal Description	6
Land Ownership	6
PLANNING FRAMEWORK	7
Metropolitan Region Scheme	7
City of Armadale Town Planning Scheme No. 4	7
Regional/District Planning Studies	7
SITE CONTEXT AND ANALYSIS	11
Landform and Vegetation	11
Geology And Soils	11
Ground Water Level	12
Existing and Proposed Land Uses	12
Movement Networks and Public Transport	14
Environmental Considerations	14
Cultural Heritage Considerations	14
Servicing Considerations	14
Traffic Assessment	16
PROPOSED STRUCTURE PLAN	17
Design and Development Philosophy	17
Single Residential Development	17
Grouped Dwelling Development	18
Public Open Space	19
Landscaping and Streetscape	19
Pedestrian/Bicycle Movement	19
Transit Orientated Design	19
Urban Water Management	20
Roadworks	20
Waste Management	21
Bulk Earthworks / Site Works	21
IMPLEMENTATION AND STAGING	23
CONCLUSION	25
APPENDIX 1	27
Certificates of Title	27
APPENDIX 2	29
Structure Plan	29

This page has been left blank intentionally.

INTRODUCTION

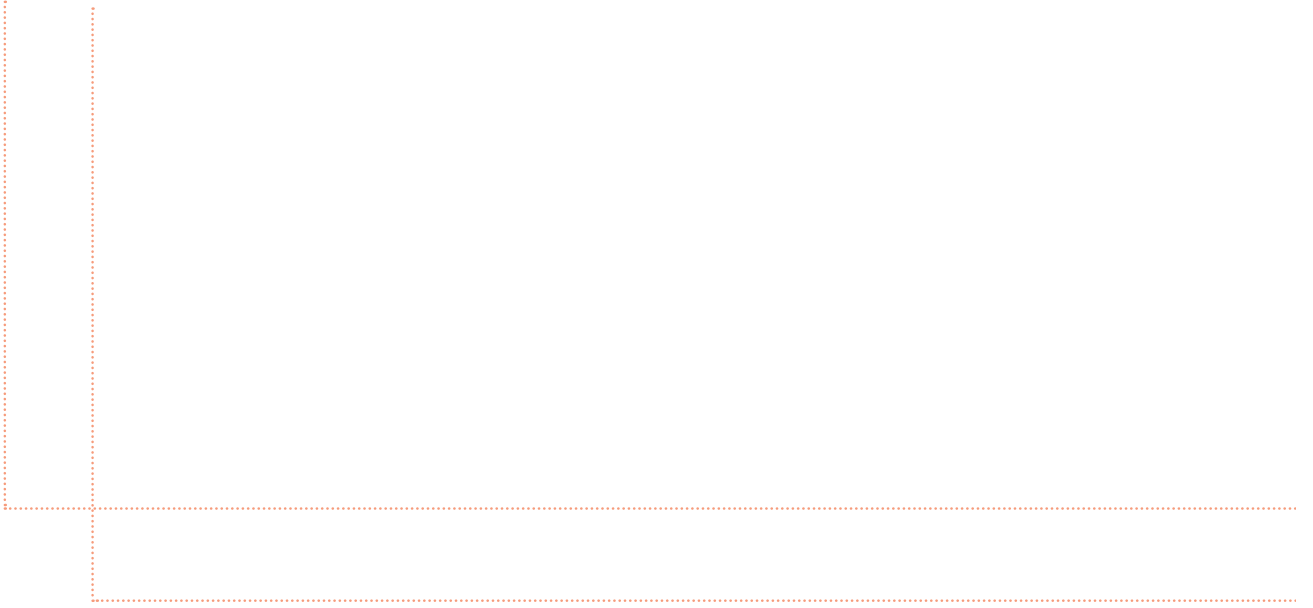
This Structure Plan (SP) has been prepared by The Planning Group (WA) Pty Ltd for submission to the City of Armadale, on behalf of Australian Investment Trading Group Pty Ltd, the purchaser of Lots 7 and 65 Lake Road, for the area bounded by Lake Road, Railway Avenue and Centre Road, Westfield. The intent of the SP is to guide the development of both improved and unimproved land within the identified area in a co-ordinated and integrated manner.

The proponents have undertaken a comprehensive review of all town planning, engineering, and other relevant considerations in order to prepare the SP. Traffic management issues have been resolved in direct consultation with the City of Armadale and are not considered to be an impediment to the proposal. The SP conveys a residential lot configuration that supports the best outcome for the site within its context and constraints.

The SP has been developed in accordance with the requirements of the City of Armadale Town Planning Scheme No. 4 (TPS4) Part 6A – Development (Structure Planning) Areas and addresses the major portion of the area contained in Development Area 5 (DA5) as identified in TPS4 Schedule 12 – Development (Structure Planning) Areas. The SP seeks approval from the City of Armadale and the Western Australian Planning Commission (WAPC) pursuant to the requirements of Part 6A of TPS4.

DA5 also encompasses Lots 5 and 6 Centre Road and the northern portion of Part Lot 8 Railway Avenue, which currently accommodate a church, primary school and the existing City Farmers commercial premises respectively, the uses of which are not proposed to change as part of the SP process. On this basis these sites have not been included in the SP area.

The City of Armadale have also advised that there are no current and valid development approvals in place over the subject site which would constrain or influence the outcomes of the structure planning process.



This page has been left blank intentionally.

SITE DESCRIPTION

Location

The subject site is located approximately 22 kilometres south of the Perth Central Business District and 4 kilometres north of the Armadale Town Centre (Regional Centre).

In a regional context the subject site is located within the City of Armadale, immediately west of Railway Avenue and within 50 metres of the Perth-Armadale Railway line and Albany Highway to the east and Tonkin Highway to the northwest. The subject site is located approximately 1.4 kilometres northeast of the Kelmscott Town Centre.

REFER TO FIGURE 1 – LOCATION PLAN

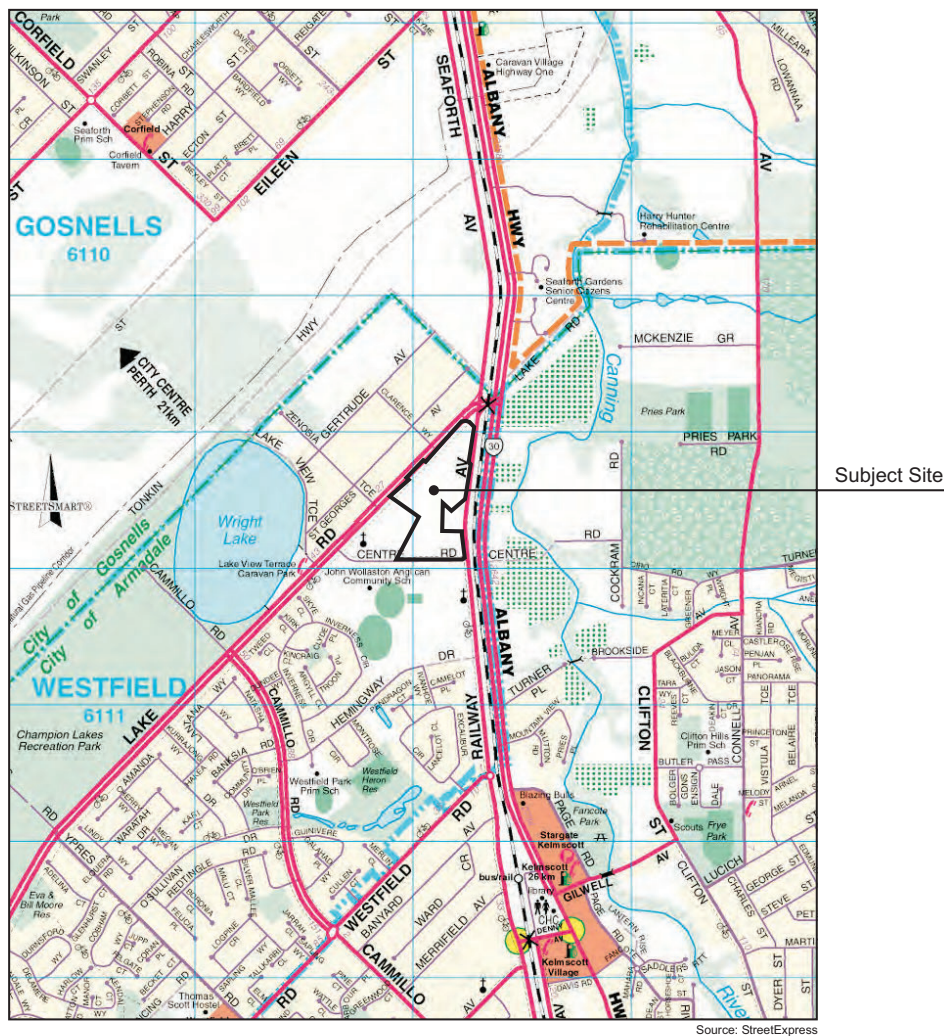


FIGURE 1 – LOCATION PLAN

Land Use and Improvements

The subject site has a total land area of 6.8781 hectares, partially including lot 8 which is currently occupied by the existing City Farmers development and a dwelling (if the whole of lot 8 is included the land area would be 7.4469 hectares), and has a frontage to Lake Road of 371 metres, Railway Avenue of 473 metres and Centre Road of 206.5 metres. Lot 7 is also currently occupied by a dwelling and related outbuildings.

DA5 also encompasses Lots 5 and 6 Centre Road, which accommodate a church and primary school respectively, the use of which are not proposed to change as part of the SP process.

REFER TO FIGURE 2 – SITE PLAN

Site Topography

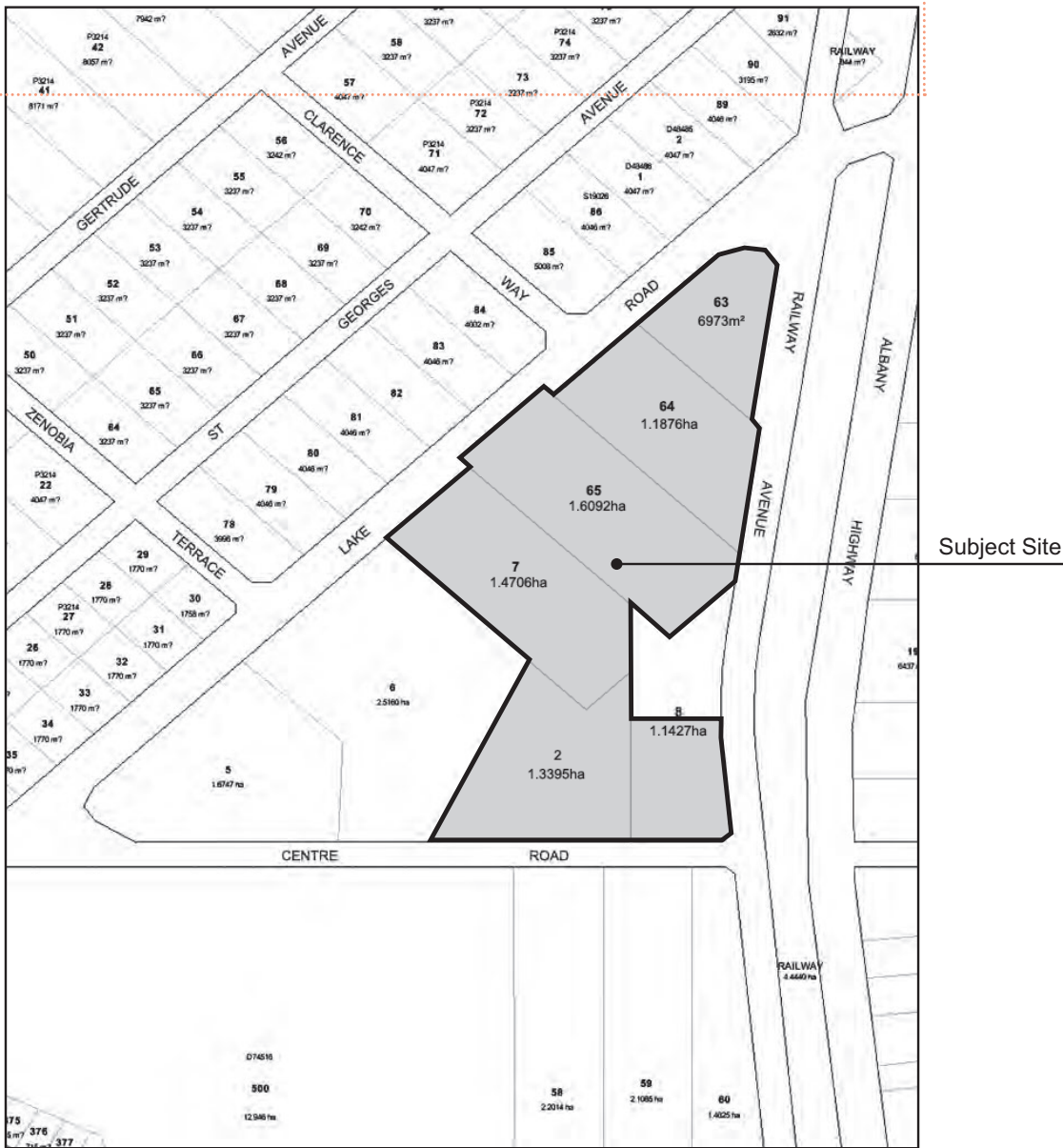
The majority of the subject land has been previously cleared for rural living. Predominant vegetation is introduced around the existing dwellings and associated structures. The subject land is generally flat (RL 24.00 AHD) and gently slopes towards Centre Road to the south of the site.

Road Widening

The subject land is affected by a road widening under the Metropolitan Region Scheme. The road widening on Railway Avenue has been accommodated in the SP. The acquisition and any subsequent construction will follow normal procedures.



FIGURE 2 – SITE PLAN



Legal Description

The land the subject of this SP has an area of 6.8781 hectares and is comprised of 6 lots, being Lot 2 (2) Centre Road, Lot 8 (3) Railway Avenue and Lots 7 (22), 63 (10), 64 (16) and 65 (20) Lake Road, Westfield, described as:

Lot 2 on Diagram 71981 and being the subject of Certificate of Title Volume 1772 Folio 603. The land comprises 1.3395ha and fronts Centre Road.

Lot 8 on Deposited Plan 44471 and being the subject of Certificate of Title Volume 2591 Folio 372. The land comprises 1.1427ha (with only a 0.5739ha portion being included within the SP area) and fronts Railway Avenue and Centre Road.

Lots 63 and 64 on Plan 2706 and being the subject of Certificate of Title Volume 1068 Folio 887. Lot 63 comprises 0.6973ha and Lot 64 comprises 1.1876ha, with both lots fronting Lake Road and Railway Avenue.

Lot 65 on Plan 2706 and being the subject of Certificate of Title Volume 1284 Folio 204. The land comprises 1.6092ha and fronts Lake Road and Railway Avenue.

Lot 7 on Deposited Plan 44471 and being the subject of Certificate of Title Volume 2591 Folio 371. The land comprises 1.4706ha and fronts Lake Road.

REFER TO APPENDIX 1 FOR CERTIFICATES OF TITLE.

Land Ownership

Land ownership of the subject land is depicted in Table 1.

Table1

Lot	Street	Location	Volume / Folio	Diagram / Plan	Ownership
2	Centre Road	Canning Location 30	1772/603	Diagram 71981	Giuseppe Gatani
8	Railway Avenue	Canning Location 30	2591/372	Deposited Plan 44471	Valley Cove Pty Ltd
63	Lake Road	Canning Location 30	1068/887	Plan 2706	Carmelo Gatani
64	Lake Road	Canning Location 30	1068/887	Plan 2706	Carmelo Gatani
65	Lake Road	Canning Location 30	1284/204	Plan 2706	Pasco Pty Ltd
7	Lake Road	Canning Location 30	2591/371	Deposited Plan 44471	Mark Kingsley Iredell & Agnes Lynn Iredell

PLANNING FRAMEWORK

This section of the report details the State and local planning framework as it applies to the subject land.

Metropolitan Region Scheme

Under the provisions of the MRS, the subject site is zoned 'Urban'. The Urban zoning of the site facilitates development of the land as proposed. Areas to the south of the subject site are predominantly zoned 'Urban'. To the east of the site on the other side of Albany Highway and to the northwest of the site, most areas are zoned 'Rural'. To the west and southwest of the site most land is reserved for 'Parks and Recreation' and accommodates the Champion Lakes Recreation Park.

The portions of Lake Road and Railway Avenue abutting the subject site are reserved as 'Other Regional Roads' and Albany Highway and Tonkin Highway are reserved as 'Primary Regional Roads' under the Metropolitan Region Scheme. Consequently, proposed vehicular access points on to Lake Road and Railway Avenue will require approval from the Western Australian Planning Commission (WAPC).



City of Armadale Town Planning Scheme No. 4

Under the provision of the City of Armadale TPS4, the subject site is zoned 'Residential R15/40'. The proposed Structure Plan is in accordance with the zoning of the land.

In addition, Schedule 12 of TPS4 identifies the site as being located within Development Area 5 (DA5) with several provisions relating to subdivision and development.

Clause 6A.1.1 of TPS4 indicates that a Development Area requires a Structure Plan to be prepared and adopted prior to subdivision or development of land and the subdivision and development of land is to be generally in accordance with the Structure Plan.

Provision 6.1, detailed in Schedule 12 states "Comprehensive planning for the area shall be undertaken by the preparation of a Structure Plan to guide subdivision and development".

The purpose of this Structure Plan is to meet these requirements.

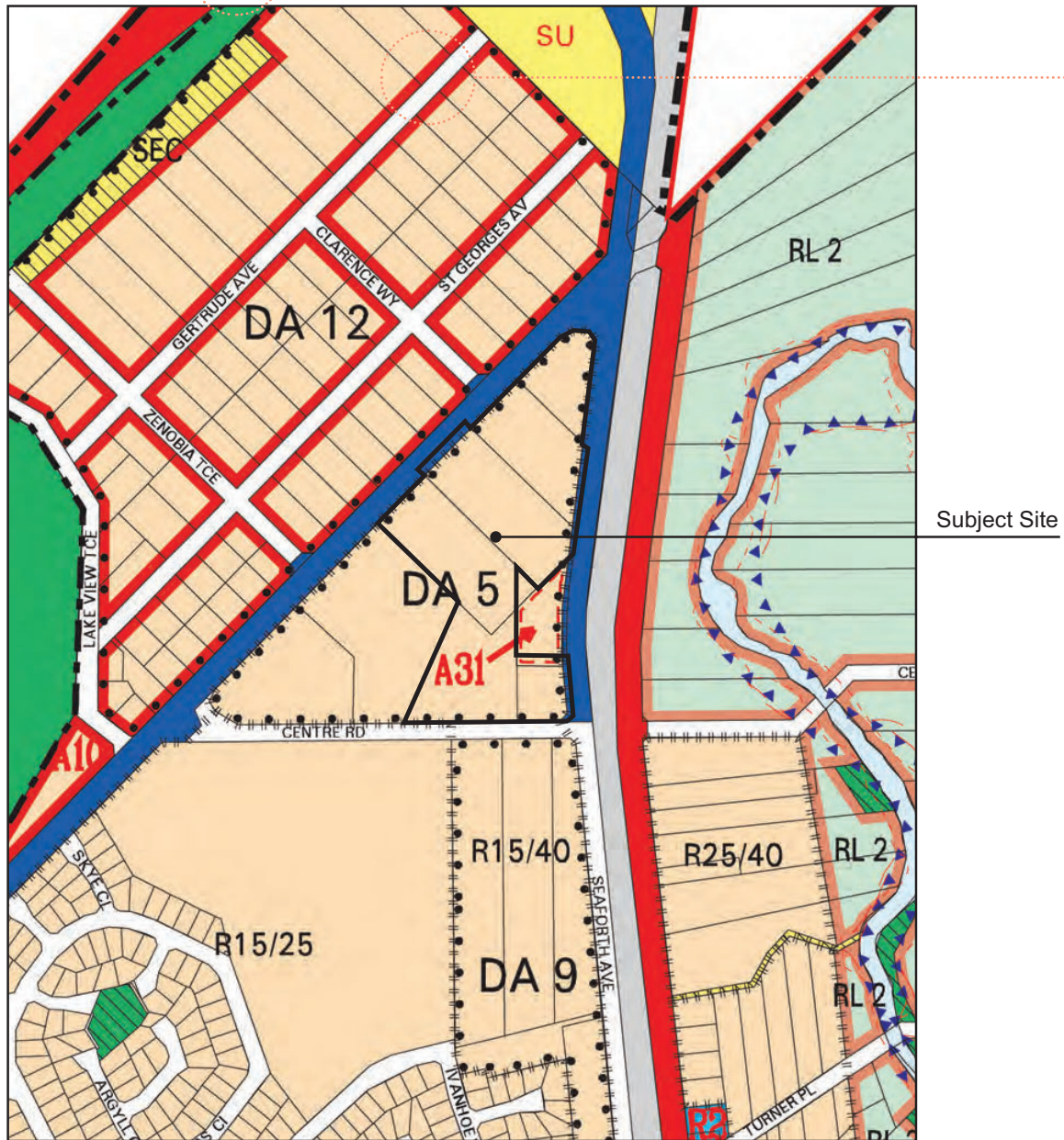
REFER TO FIGURE 3 – ZONING PLAN

Regional/District Planning Studies

State Sustainability Strategy

The State Sustainability Strategy recognises Liveable Neighbourhoods as the primary document for guiding urban development towards sustainability. The Strategy also recognises place making as fundamental to sustainability and promotes structural and non-structural improvements in how urban and community development is delivered. This Structure Plan is a step in the delivery of best practice sustainable development.

FIGURE 3 – ZONING PLAN



LEGEND

METROPOLITAN REGION SCHEME RESERVES

- PARKS AND RECREATION
- RAILWAYS
- WATERWAYS
- PRIMARY REGIONAL ROADS
- OTHER REGIONAL ROADS
- PUBLIC PURPOSES -
SHOWN AS FOLLOWS:
SU

LOCAL SCHEME RESERVES

- PARKS & RECREATION
- PUBLIC PURPOSES
SHOWN AS FOLLOWS:
SEC STATE ENERGY COMMISSION

ZONES

- RESIDENTIAL
- SPECIAL RESIDENTIAL
- DISTRICT CENTRE
- RURAL LIVING

OTHER

- R20 R CODES
- A1 ADDITIONAL USES
- R1 RESTRICTED USES
- SCHEME BOUNDARY
- LOCAL GOVERNMENT BOUNDARY
- DEVELOPMENT AREA (STRUCTURE PLAN)
(SEE SCHEME TEXT)
- SCA-FLOOD PRONE AREAS-FLOODWAYS
- SCA-FLOOD PRONE AREAS-FLOOD FRINGES

Source: DPI

Network City: Community Planning Strategy for Perth and Peel

Network City is the outcome of the 'Dialogue with the City' consultation process. It calls for a fundamental change in the planning for Perth and Peel leading to a network of movement corridors. The Structure Plan responds to the Network City Planning Strategy by linking well into an established movement corridor, potentially accommodating a variety of household compositions and requirements and integrating in to existing public transport systems.

Urban Expansion Policy (1990) & South-East Corridor Structure Planning

The Urban Expansion Policy and South-East Corridor Structure Plan were prepared by the former Department of Planning and Urban Development (now Department for Planning and Infrastructure) in the early and mid 1990's. The documents provide objectives and strategies for planning the future urban growth of the region.

Bush Forever

Bush Forever which was released in 2000, is a strategic policy document prepared by the Ministry for Planning (now Department for Planning and Infrastructure) which identifies regionally significant bushland to be retained and protected.

The identified areas are representative of regional ecosystem, habitats and associated wetlands considered of conservational value. The sites identified in the Bush Forever document are supported by guides for management and the assessment of land use proposals.

The subject land is not identified within Bush Forever and accordingly this issue is not considered to be an impediment or constraint to the future development of the land.

Liveable Neighbourhoods Community Design Code Edition 3 (2004)

The WAPC released the original Liveable Neighbourhoods Community Design Code in December 1997 (the Code). The Code represents a review of subdivision standards and is focused on encouraging the creation of neighbourhoods based on walkability.

These 'neighbourhoods' are intended to create a sense of place, level of access and quality of life within new urban areas, which is not provided for in conventional urban development. A key element of the Code is the distribution and location of social and community infrastructure such that it can be easily accessed by residents within a five to ten minute walk. The Code also encourages mixed land uses and a greater diversity of residential densities with some higher density nodes at neighbourhood centres. The code includes the following aspects:

- Increased vehicular and pedestrian permeability through 'traditional' grid like road patterns;
- Specifically addressing the creation of frontage options for development abutting arterial roads;
- Increased residential densities and the distribution and location of varying densities within new urban areas;
- Careful consolidation of the form of urban development to provide opportunities for transitional redevelopment over time (robust urban form); and
- Re-emphasising a 'Main Street' retail environment and associated mixed use activities.

In June 2000, Edition 2 of the Code was released which essentially was an update and refinement of the original Liveable Neighbourhoods document.

The changes to the Code under Edition 2 included the simplification of a number of the prescribed requirements, additional street design and traffic considerations, also the inclusion of "Detailed Area Plans" in lieu of the previously espoused "Building Access Guidelines".

Draft Edition 3, which was released in October 2004 for public comment, incorporates many of the development control policies relating to structure planning and subdivision. Edition 3 overcomes the lack of detail provided in regard to the design of mixed-use 'activity centres' as well as providing a comprehensive framework for urban development.

The Liveable Neighbourhoods design philosophy has been applied in the preparation of this SP, particularly in respect of providing mixed densities, pedestrian and vehicular permeability within the SP area and integrating in to the surrounding locality, including access to public transport options.

SITE CONTEXT AND ANALYSIS

This section of the report details the site characteristics and development considerations pertaining to the subject land.

As described previously, the subject land is located within the City of Armadale, immediately west of Railway Avenue and within 50 metres of the Perth-Armadale Railway line and Albany Highway to the east and Tonkin Highway to the north west. The subject site is located approximately 1.4 km north east of the Kelmscott Town Centre.

Outlined below are site characteristics and development considerations pertaining to the site.

Landform and Vegetation

The site is relatively flat and vegetated in part with the greater portion currently being vacant.

On-site vegetation tends to take the form of low scrub, introduced weeds and grasses with isolated trees and copses of trees, some of the larger specimens of which may be original endemic on-site vegetation with the remainder being endemic and non-endemic plantings which have occurred subsequent to European settlement of the area.

Public Open Space (POS) areas within the site have been located so as to maximise the retention of endemic and substantial on-site vegetation where practical to do so.



Geology And Soils

Reference to the Perth Geological Survey Map series indicates the primary soil condition is classified as Sandy Clay, white grey to brown, fine to coarse-grained sub-angular to rounded, clay of moderate plasticity gravel and silt layers near the Scarp.

The sandy clay layers vary in depth up to the underlying Sandstone layers, the base geological unit.

The permeability of the sandy clays is variable but in the low permeability range according to the physical properties listed in the general features for the material. The clays are likely to have moderate shrink-swell properties with medium to low bearing capacities.

The site conditions will enable development of the land for residential purposes with a combination of cut and fill preparation and importation of sand. The site will achieve a minimum 'S' classification.

Ground Water Level

Ground water contours are not available for the area due to the nature of the soil conditions, however, ground water is likely to be sufficiently below the natural ground level surface so as not to impede construction on site.

The permeability of the soils typical in the area is low. On this basis soakwells for development of lots will only work if additional fill is placed in areas where silty sands are exposed to the surface.

Based on these general conditions the site is partly suitable for on site disposal of stormwater by soakage only by filling the site and encouraging recharge in specific locations. It is likely that the individual lots will require direct connections to the piped drainage network.

Groundwater quality is an important issue and should be given priority consideration. Techniques and strategies that require consideration include:

- Limiting or avoiding direct runoff discharge or stormwater disposal into wetlands.
- Maximising on-site stormwater disposal by soakage or storage techniques both on a micro and macro scale within the areas dedicated to wetland landscaping and stormwater management facilities.

Existing and Proposed Land Uses

The site is surrounded by predominantly residential and community uses. Land to the south accommodates the John Wollaston Anglican Community School and related playing fields although it is noted that this area is zoned for low and medium density residential use with a portion forming part of DA9 which allows for grouped dwellings. Land to the east of the Perth Armadale Railway line and Albany Highway is predominantly larger lot rural living with a portion zoned for low to medium density residential use. Land to the south-west and west of the site is reserved for Parks and Recreation and is occupied by Champion Lakes Recreation Park and Wright Lake. Land to the north and north-west of the site is part of Development Area 12 (DA12) under TPS4 and is currently occupied by low-density residential development.

REFER TO FIGURE 4 – AERIAL PLAN



FIGURE 4 – AERIAL PLAN



Subject Site

Source: DLI

Movement Networks and Public Transport

The primary movement destinations for future residents of the neighbourhood may be considered with regards to the following commercial and employment nodes:

Perth Central Business District;
Armadale Regional Centre; and
Kelmscott District Centre

The site is located approximately 1.4 kilometres north from the multi-modal Kelmscott Train Station which can be accessed from Railway Avenue, and 1.8 kilometres south of the Seaforth Train Station which can be accessed by Albany Highway.

Existing Transperth Bus stops exist in the vicinity of the Lake Road and Albany Highway intersection and provide direct access to the Perth Central Business District and Armadale City Centre with the bus services also being able to be utilised to access the train stations as detailed above.

Existing cycle paths also provide good access to the subject site and are in place on the Lake Road, Railway Avenue and Centre Road frontages, servicing the existing John Wollaston Anglican Community School and also provide ready pedestrian and bicycle access to the Kelmscott Town Centre and Railway Station.



Environmental Considerations

There are no known environmental issues associated with the proposed SP area that warranted a more detailed environmental assessment.

Cultural Heritage Considerations

Consultation undertaken with the City of Armadale indicates that there are no sites of cultural heritage significance within the subject area.

Servicing Considerations

The subject land is able to be serviced by all normal servicing infrastructure, detailed as follows:

Sewer Reticulation

Preliminary information from the Water Corporation of WA indicates that there are no existing services available in the vicinity of the site.

The Water Corporation indicated that there are several options to connect the development to sewer as follows:

- Installation of a type 10 Temporary Pump station on the subject land and pumping to the 450DN sewer in Verna Street (between Ashburton Drive and Chamberlain Street).
- Installation of a type 10 Temporary Pump station on the subject land and pumping to a 225DN pipe near the Eileen Street / Jane Street intersection.

- Installation of the permanent pump station (type 40S) that will be subject to a prefunding arrangement to be located to the north-east of the site near the Salvation Army rehabilitation centre site.
- Installation of a gravity connection along Railway Avenue to the existing 300mmDN gravity main. This option may only be available for a part of the development site, however, this may suit the first stage of development (lots 6 and 65 Lake Road).

The last option is subject to Water Corporation planning being completed to determine the capacity of the existing mains on that area. The Water Corporation have indicated that it has not completed detailed investigations as to where the sewer connection point will be, however, have guaranteed an outfall for the sewage from the catchment.

The proposed pump station options will cater for the whole catchment within the SP area and adjacent landholdings.

All created lots will need to be served with a gravity sewer system connected to the Water Corporations sewer reticulation network as a condition of development. All developed lots will therefore be served by a conventional gravity sewer system with the majority of the reticulation sewers located within road reserves. The internal sewer reticulation would be designed in accordance with the Water Authority Sewerage Manual and would discharge to treatment facilities located within the study area.

Standard Water Corporation headworks charges would apply to development options that require Water Corporation service infrastructure.

Water Reticulation

The site is serviced by existing mains on all street frontages. The Water Corporation has indicated that the existing water supply infrastructure does not have sufficient capacity to serve the proposed subdivision. Water mains will need to be upgraded as follows:

- Installation of a new 200mm diameter main along Lake Road between Camillo Road and Centre Road connecting to the existing 100mm main.
- Installation of a new 100mm main along Centre Road to connect the existing mains at each end of Centre Road.
- Installation of a new 100mm diameter main along Railway Avenue between Lake Road and Centre Road intersections.

The internal water reticulation will be designed and constructed in accordance with standard Water Corporation requirements.

Standard Water Corporation headwork charges will apply to all development options that require Water Corporation services infrastructure.

Power Supply

Preliminary information from Western Power indicates there is a service network within the study area. It is anticipated that this network will have sufficient capacity to service the development with underground power.

Western Power will require that all lots within the proposed development will be served by extension of the existing infrastructure. At this stage the subject area is serviced by a combination of overhead and underground distribution systems (depending on the date of original installation). It is likely that an underground network will be required for the proposed development option which is the subject of the SP.

The cost of this work will need to be met in full by the developer and standard Western Power requirements will apply.

Telecommunications

Preliminary information from Telstra indicates that there is an extensive service network in the vicinity of the subject area. It is anticipated that this network will have sufficient capacity to service the development with telecommunications services.

Telstra will install any new telecommunications network facilities to the proposed lots, subject to the developer providing, at their cost, trenching for cable laying.

Alternatively, where cable routes match Western Power underground power supply routes, Telstra will wherever possible use the Western Power trenches in lieu of the developer providing additional trenching.

No headworks charges for Telstra services are anticipated.

Gas Supply

Alinta Gas have not formally responded to preliminary enquiries, however, it is envisaged that reticulated gas services are available in the area. It is anticipated that this network will have sufficient capacity to service the development with reticulated gas services by extension of the existing mains. It is anticipated that Alinta Gas would fund these works at the appropriate time.

Traffic Assessment

Traffic management issues have been resolved in direct consultation with the City of Armadale and are not considered to be an impediment to the proposal.

A detailed traffic assessment was not considered necessary on the basis that the proposal encompasses a moderately small area with limited residential lot yield, with the proposed subdivisional roads and lot access points feeding directly in to the well established local road network, which subject to the inclusions of turning lanes as depicted on the SP, has adequate capacity to accommodate any local traffic increases associated with the subsequent development of the subject site.

PROPOSED STRUCTURE PLAN

This section provides for an overview of the SP. The SP is included within Appendix 2 of this report. Whilst this section describes the design philosophy of the SP, the SP has been prepared based on an indicative subdivision plan due to the small size of the subject area and the solely residential use proposed.

Design and Development Philosophy

The Structure Plan (SP) for the 6 lots, being Lot 2 Centre Road, Lot 8 Railway Avenue and Lots 7, 63, 64 and 65 Lake Road, Westfield, proposes residential use only and comprises of a mixture of lot sizes, including grouped dwelling sites and single residential sites. The average single residential lot size is 591.2m² and grouped dwelling site is 2578.1m². The overall average residential lot size is 815.6m². The proposed lot sizes for the development are noted on the SP.

The site is strategically suitable for residential infill development as it is consistent with the planning intent and desired character established for the area, has good access to an existing developed road system and cycle path network, and is located in relatively close proximity to public transport and recreational facilities. The proposed mixed density within the development will enable a variety of future residents with differing requirements to construct housing types suited to their particular needs and will ensure product diversity and a mixture of household compositions.

Lots within the SP area will require amalgamation as part of future subdivision applications. Specifically, lots 7 and 65 will require amalgamation as part of a future subdivision application for this area.

Single Residential Development

The subject site is proposed to be developed for single residential dwellings with density codings of between Residential R15 to Residential R25 with an average lot size of 591.2m². A total of 55 single residential lots are proposed ranging in size from 355m² to 834m² (not including truncations).

There are 39 single residential lots proposed on the basis of a Residential R15 zoning with a maximum lot size of 834m², a minimum lot size of 644m² and an average lot size of 677.4m².

There are 16 single residential lots proposed on the basis of a Residential R25 zoning with a maximum size of 566m², a minimum lot size of 355m², and an average lot size of 381.1m².

The lots proposed are generally uniform in shape and width with the exception of lots located on the boundary between existing lots 2 and 7 due to the awkward parent lot configuration. Residential R15 lots have widths ranging between 6.8 metres to 37.7 metres and depths ranging between 22.9 metres to 55.3 metres. Residential R25 lots have widths ranging between 13.7 metres and 21.0 metres and depths of 27.0 metres. It is noted in this regard that the irregular shape of parent lots has necessitated some irregular lot shapes in order to fit in within parent lot boundaries.

In regard to meeting average lots size requirements for the Residential R15 and R20 lots, regards has been had for the inclusion of up to 20m² of corner truncation area as allowed for under Clause 3.1.2 (A2) of the Residential Design Codes.

Proposed lot frontage and vehicular access arrangements for single residential lots are depicted in Table 2.

Lots	Frontage	Vehicular Access
2-14	Lake Road	6.01 metre rear laneway
15-17,30,34,35,59-62	Railway Avenue	6.01 metre rear laneway
37-39	Internal 16.0 metre road	Internal 16.0 metre road
18-29	Internal 16.0 metre road	6.01 metre rear laneway
40-42, 44-48, 50-52	Internal 15.0 metre or 14.0 metre road	Internal 15.0 metre or 14.0 metre road
53-55	Centre Road	Centre Road
56-58	Internal 15.0 metre road	6.01 metre rear laneway

Table 2 – Lot Frontage and Vehicular Access arrangements for Single Residential Lots.

A Restricted Covenant will be required for all lots fronting Lake Road and Railway Avenue which have alternative vehicular access arrangements to prevent direct vehicular access. The Restrictive Covenant will be enforced through a condition of subdivision approval.

Grouped Dwelling Development

There are 7 grouped dwelling lots proposed on the basis of a Residential R40 zoning with a maximum lot size of 4204m², a minimum lot size of 1591m² and an average lot size of 2578.1m². The grouped dwelling lots have been designed around parent lot configurations and have generally proposed vehicular access arrangements either via direct road frontage, access to a laneway or both. Waste Collection has been facilitated by inclusion of a 6.01metre rear laneway where possible.

Proposed lot frontage and vehicular access arrangements for the grouped dwelling lots are depicted in Table 3.

Lot	Area	Frontage	Vehicular Access
1	2307m ²	Lake Road and Railway Avenue	6.01 metre rear laneway
31	2099m ²	Internal 16.0 metre road	Internal 16.0 metre road or 6.01 metre rear laneway
32	3369m ²	Internal 16.0 metre road	Internal 16.0 metre road or 6.01 metre rear laneway
33	1591m ²	Internal 15.0 metre road	Internal 15.0 metre road or 6.01 metre rear laneway
36	4204m ²	Railway Avenue	6.01 metre rear laneway
43	2057m ²	Internal 15.0 metre road	Internal 15.0 metre road
49	2420m ²	Internal 14.0 metre road	Internal 14.0 metre road

Table 3 – Lot Frontage and Vehicular Access arrangements for Grouped Dwelling Lots

A Restricted Covenant will be required for all lots fronting Lake Road and Railway Avenue which have alternative vehicular access arrangements to prevent direct vehicular access. The Restrictive Covenant will be enforced through a condition of subdivision approval.

Public Open Space

There is already significant public open space in the immediate locality, including the substantial Champion Lakes Recreation Park, containing Wright Lake to the south-west and west of the subject site and the Westfield Heron Reserve approximately 800 metres to the south of the subject site. The site is also located in relatively close proximity to existing recreational areas along the foreshore of the nearby Canning River, which is located east of the site.

Local recreation needs are anticipated to be met by the provision of a 2509m² public open space (POS) reserve centrally located within the subject area and a small 481m² POS reserve (pocket park) in the northern section of the subject area. A 600m² POS Reserve has also been located within the southern portion of the area principally in order to meet likely future storm water disposal requirements. These POS areas form 5.22% of the area the subject of the SP, being 4.78% less than the normally required 10% POS allocation. In the context of the overall DA5 this POS allocation is considered to be adequate as the retention of the existing church, primary school and City Farmers operations will ensure that overall open space provision within the boundaries of the area will be significantly in excess of the normally required 10%. The key objective in the design and provision of POS in this case has been to ensure that sufficient open space is provided to meet local needs and that the areas do not become an unnecessary management and maintenance burden to the City of Armadale.

Five of the seven proposed grouped dwelling sites also sit either adjacent or in close proximity to the larger POS reserve where it is intended to service the residents recreational needs.

Landscaping and Streetscape

The landscape treatment options will vary according to budget and return based on more extensive studies to be undertaken at the detailed stage of development.

The existing vegetation species will become the key landscape elements of any landscape strategy supported by ancillary plantings, including the retention of any mature vegetation in the vicinity of the proposed POS areas. A feature of the soakage areas will be the utilisation of wetland plantings where this proves to be feasible.

The use of a common theme with all landscaping elements and street furniture will be consistent with a high quality development and will be implemented to the satisfaction of the City of Armadale and are intended to ensure an attractive environment for the site.

Pedestrian/Bicycle Movement

The proposed internal road network will include the provision of footpaths in order to accommodate pedestrian movements within the subject site. Bicycle movement will be accommodated on the proposed local road system and will link in well with the established dual use path system, which is already established around the perimeter of the site.

Excellent pedestrian and cyclist permeability through the subject site from Railway Avenue to Lake Road and vice versa will also be ensured through an internal road and will provide good access to the Champion Lakes Recreational Reserve.

Transit Orientated Design

The subject site is suitable for the higher end of low density residential development (Residential R25) and the incorporation of grouped dwelling lots which can be developed to a density equivalent of Residential R40, due to the close proximity of the existing public transport network. The SP will provide a well integrated land use which benefits from the regional access opportunities available through transit.

In accordance with “Policy no. DC 1.6 Planning to Enhance Public Transport Use”, medium to high residential densities should be encouraged in public transport precincts and on land within identified frequent public transport services. The proposed Residential R25 lots and the grouped dwelling Residential R40 lots reflect the intent and objectives of “Policy No. DC 1.6 Planning to Enhance Public Transport Use”.

Urban Water Management

Preliminary discussions with the City of Armadale have indicated that the design philosophy for drainage in the area is to ensure that downstream discharges are limited to existing flows, which includes compensation and nutrient stripping prior to being allowed to overflow in to the adjacent road drainage networks and river foreshore areas.

Stormwater collection disposal strategies will incorporate storage and flood attenuation prior to discharge to existing watercourses.

The City of Armadale has indicated that the existing 225 diam. stormwater pipe connection to the Canning River will require upgrading. This new pipe will need to be installed across Railway Avenue, the railway reserve and Albany Highway. This pipe will need to be tunnel-bored across these busy roads and reserve areas to effect an economic installation.

All road reserves will be drained with a conventional piped drainage system consisting of collector gullies, manholes and controlled outfalls to the proposed soakage / flood attenuation areas and wherever possible incorporating water sensitive design principles which may include swale drains within the dedicated swale and nutrient stripping areas.

Any soakage or compensation basin systems will be located within the public open space areas and are intended to be extensively landscaped to encourage nutrient stripping and natural filtration of the stormwater drainage.

In general stormwater management for all development options would comprise the following general features:

- Maximising on site storage and recharge of surface runoff into existing aquifers.
- Limiting runoff to pre-development conditions by promoting filtration of runoff through enhanced natural vegetation and storage systems.

Groundwater resource management will include limiting drainage invert to above established Annual Average Maximum Groundwater Level. As indicated previously, groundwater levels across the site are at medium depths but may be managed by careful water sensitive design management.

Roadworks

All internal roadworks will be designed and constructed in accordance with the requirements and standards of the City of Armadale as appropriate to the regulatory control requirement of the individual roads and hierarchy requirements. Roadworks will generally consist of traditional kerbed and asphalted pavements.

All entrance roads in to the development cells will be subject to intersection treatments, to include refuge islands and high level treatments to provide an “Identity entry statement” as required by the Streetscape concept. The intersection treatment on to perimeter distributor roads will offer a high level of control for all traffic flow. The City of Armadale have indicated that the entrance / exit from the development area on to Railway Avenue and Lake Road will require particular attention in order to provide safe access and turning movements. These concerns have been factored in to the preparation of the SP.

Minimum recommended carriageway widths will be selected with due reference to local authority and community codes and will include parking provisions for local traffic.

In order to achieve a legible road hierarchy within the development cells, the following carriageway widths have been planned within the development:

(i) Main Entrance Road	16m reserve with 6.0m seal width
(ii) Main loop road	16m reserve with 6.0m seal width
(iii) Minor internal roads	14-15m reserve with 6.0m seal width
(iv) Laneways	6.01 reserve with full width seal

The above reserve widths are also designed to accommodate the relevant services corridors required to provide reticulated essential services to the proposed development.

Existing perimeter roads may require minor upgrading where new roadworks intersect, however, it is not envisaged that perimeter roads require major upgrading. A 5.0m road widening will be required along Railway Avenue and this has been included on the SP. This land will need to be ceded to the City of Armadale for future road extensions.

Waste Management

Waste management considerations were incorporated in to the structure planning process and have been given specific consideration in developing the road hierarchy. All waste collection vehicle movement has been set up to be undertaken in a forward motion with minimal manoeuvring by internally looped road systems.

No direct waste pick up will be required to occur from lot frontages to Railway Avenue and Lake Road. All of these lots will have waste collected from rear laneways that have been designed in order to allow use by waste collection vehicles. Waste pick up from grouped dwelling lots will also be undertaken from rear laneways where ready access can be provided including to a shared front waste collection area on the northern most grouped dwelling lot. All other lots will be serviced from their frontage to internal subdivision roads or via the less heavily trafficked Centre Road.

Bulk Earthworks / Site Works

The majority of the site is cleared. On this basis, preparatory works for development should be limited to the following:

- Demolition of selected existing outbuildings, slabs structures and remnant improvements.
- Removal of walls, fencing and other improvements as necessary, however, retaining as many existing and significant trees and vegetation as possible.
- Stripping and grubbing of areas to be earth worked with due regard to vegetation preservation in selected areas.

Consideration of landscape treatments for road verges, common areas, and site entries, will be an important feature of redevelopment strategies for the site.

It is anticipated that the bulk earthwork operations for the recommended development option will be completed using material available from the site with some importation of additional fill as required to fulfil the geotechnical obligation of the site.

Once the earthworks have been completed the site will be temporarily stabilised (prior to construction commencing) either by the respreading of stockpiled topsoil from the bulk earthwork operations, or by hydromulch stabilisation as appropriate and in accordance with the requirements of the City of Armadale.

This page has been left blank intentionally.

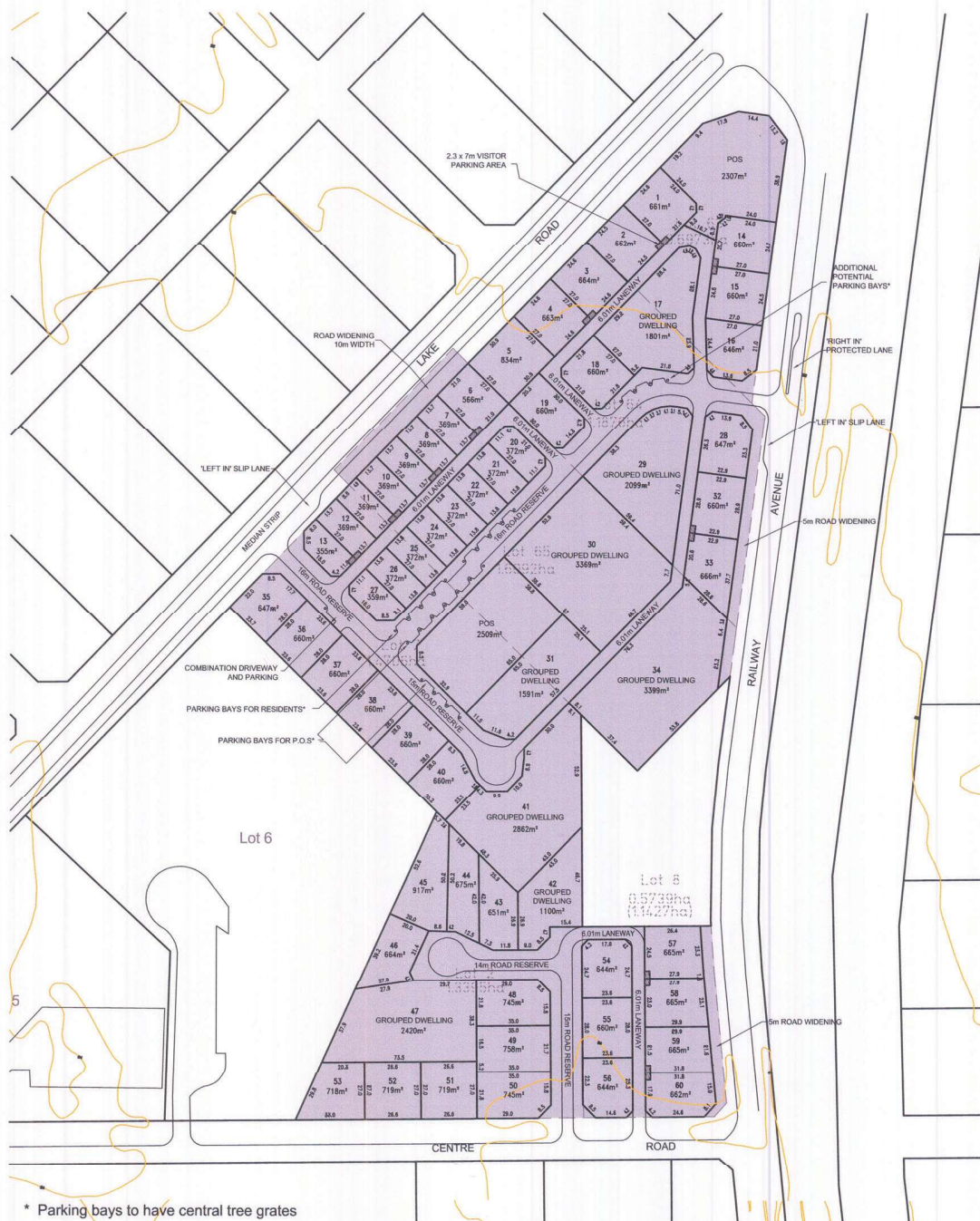
IMPLEMENTATION AND STAGING

As indicated previously, this Structure Plan (SP) has been prepared on behalf of Australian Investment Trading Group Pty Ltd, the purchaser of Lots 7 and 65 Lake Road, for the area bounded by Lake Road, Railway Avenue and Centre Road, Westfield. On this basis it is anticipated that the subdivision of these landholdings will form the initial stage of the implementation of the SP.

The intent of the SP would then be to guide the future development of both improved and unimproved land within the remainder of the area in a co-ordinated and integrated manner.

The emplacement, upgrading or existence of all normal engineering services in close proximity to the land will provide a range of options for the staging of the remainder of the development.





*NOTE

ALL BUILDINGS, TREES AND VEGETATION TO BE REMOVED, EXCEPT TREES AND VEGETATION IN POS AREAS.

ORIGINAL AREAS

Lot 2	1.3395ha
Lot 7	1.4706ha
Lot 8	0.5739ha (1.1427ha)
Lot 63	0.6973ha
Lot 64	1.1876ha
Lot 65	1.6092ha

Total Area 6.8781ha (7.4469ha)

No. of existing lots - 6
No. of proposed lots - 60
No. of proposed POS - 2

Proposed Boundary

Existing Boundary

Application Area

2.3 x 7m Visitor Parking Area

PROVISIONS

1. Road widening for Railway Avenue and Lake Road is to be ceded free of cost to the Crown at the subdivision stage.
2. The balance of the standard 10% Public Open Space contribution shall be provided via a Public Open Space cash-in-lieu contribution.
3. No vehicle access or egress will be permitted from private property directly to Lake Road or Railway Avenue.
4. Uniform open style fencing is to be utilised for all lots abutting Public Open Space and uniform fencing no higher than 1.2m in respect of properties adjoining Lake Road and Railway Avenue.
5. The developer is to liaise with the Environment Protection Authority and the Western Australian Planning Commission with respect to management of acid sulphate soils on the site.

This concept has been prepared for the purpose of meeting client specifications. The drawing does not constitute an invitation, agreement or contract (or any part thereof) of any kind whatsoever.

Although care has been taken in the compilation of this drawing by The Planning Group WA Pty Ltd, all parties associated with the proposed property development disclaim all responsibility for any errors or omissions. The right is reserved to change the plan at any time.

Liability is expressly disclaimed by The Planning Group WA Pty Ltd for any loss or damage which may be sustained by any person acting on any visual impression gained from this drawing.



AMENDED



PROPOSED STRUCTURE PLAN LAKE ROAD, WESTFIELD

Date: 11 April 2007
Scale: 1:2000
Drawing No: 706 133 CP7C 11 04 07 /awg

Designer: MC

Drawn: BL

TOWN PLANNING
AND URBAN DESIGN

tpg

Level 1, 101 St Georges Terrace Perth Western Australia 6000
PO Box 1013 Queens Road Perth Western Australia 6000
Telephone: (08) 943 5881 Fax: (08) 943 5881
Email: info@tpg.com.au

The Planning Group WA Pty Ltd
ABN 26 097 273 222

This page has been left blank intentionally.

CONCLUSION

The Structure Plan (SP) for the subject site, being Lot 2 Centre Road, Lot 8 Railway Avenue and Lots 7, 63, 64 and 65 Lake Road, Westfield, should be supported by the City of Armadale and the Western Australian Planning Commission, as the SP:

- Complies with the requirements of the City of Armadale Town Planning Scheme No. 4, with the provision of lots with sizes in the range of Residential R15 to Residential R40, consistent with the sites underlying Residential R15/R40 zone;
- Responds to different household compositions through the provision of different lot sizes and configurations to meet differing requirements;
- Utilises the existing road network in the locality and provides legible linkages in to this network;
- Ensures that the subject site has ready access to multi-mode public transport (bus and rail) and links in to an existing cycle path network providing access to nearby commercial centres and public transport stops; and
- Is consistent with the planning and desired character established for the area.

