



DAYTON LOCAL STRUCTURE PLAN 2B

PREPARED PURSUANT TO THE CITY OF SWAN
LOCAL PLANNING SCHEME 17 AND WEST SWAN EAST
DISTRICT STRUCTURE PLAN

CITY OF SWAN



PREPARED BY:

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TOWN PLANNING + URBAN DESIGN



Dayton

City of Swan

LOCAL STRUCTURE PLAN 2B SPN/0325M-2

Issue 4: April 2018

PREPARED PURSUANT TO THE CITY OF SWAN LOCAL PLANNING
SCHEME 17 AND WEST SWAN EAST DISTRICT STRUCTURE PLAN

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Job code: ASP WES LSP 2B
File reference: 180412RLGA_Local Structure Plan 2B
Revision No: 5

Quality Assurance

Issue/Version:	Date:	Author:	Reviewer:
1	12.11.2012	Karen Wright	Mark Szabo
2	16.05.2013	Karen Wright	Mark Szabo
3	23.05.2013	Kelley O'Neill	Mark Szabo
4	05.04.2018	Mitch Bisby	Mark Szabo
5	12.04.2018	Mitch Bisby	Mark Szabo

ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Swan Local Planning Scheme No. 17.

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

15 November 2013

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

TABLE 1: TABLE OF AMENDMENTS

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC
1	Modify the movement network and distribution of land uses in the vicinity of Sam Rosa Place	Standard	17 January 2018
2	Modify the residential density code applicable to cells in the vicinity of Blundell Street	Standard	3 April 2018
3	Modify the movement network for Lot 30 (7) Sam Rosa Place and modify the residential density code applicable to land abutting Cranleigh Street	Standard	3 July 2020

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EXECUTIVE SUMMARY

The Dayton Local Structure Plan No.2B (LSP 2B) has been commissioned by Aspen Living for approval pursuant to the provisions of Schedule 4 'Special Use – West Swan' zone of the City of Swan Local Planning Scheme No.17 and the West Swan East District Structure Plan for the broader Dayton area.

The LSP 2B encompasses approximately 54.18ha of land in an eastern position of the suburb of West Swan, east of Lord Street and north of the extension of Marshall Road, in what is known as 'West Swan East' and marketed as 'St Leonards Estate'. The ultimate objective of the LSP 2B is to facilitate the creation of a range of urban land uses, being predominantly residential, a government primary school and public open space, and then the subsequent development within a coordinated and logical planning framework. The intended land uses within LSP 2B are partly guided by the associated Sub Regional and District Structure Plans which previously endorsed the location of the proposed primary school and the Resource Enhancement Wetland.

In summary, the LSP 2B proposes:-

- Approximately 434 residential lots at densities ranging from R20-R60 with a projected dwelling yield of 533;
- Protection of a Resource Enhancement Wetland and its associated buffer within approximately 5ha of public open space;
- An additional area of 6.4909ha of public open space to accommodate drainage and local recreational needs;
- A 5.58ha primary school site to accommodate an extra-large primary school as previously agreed; and,
- An integrated transport and servicing network.

The Dayton LSP 2B has been prepared in consultation with a project team, both in the context of the preparation of the District Structure Plan, and now at the refined local structure plan level. These consultants include:-

- Traffic;
- Environmental;
- Ethnographic;
- Odour;
- Contamination;
- Noise;
- Acid Sulfate Soils;
- Hydrology;
- Fire and Emergency Management;

- Community & Economic Development;
- Commercial Centres Analysis; and,
- Landscape Management.

A copy of the consultant reports and findings are included within the associated District Structure Plan for West Swan East, with the refined traffic, engineering, wetland management, cultural heritage and landscape management included within this LSP 2B report. As such, the District Structure Plan should be read in conjunction with this report for a more comprehensive and broader appreciation of the background technical analysis which has led to the creation of LSP 2B.

Once endorsed, this Local Structure Plan will dictate the zoning or reservation and the Residential Design Code, where applicable, to individual land holdings and form the framework for landowners to proceed towards subdivision and development in a well planned and logical manner. The LSP 2B will also enable the relevant government agencies to assess such future proposals in a coordinated fashion, noting that there is no requirement for landowners to proceed to subdivision and development of their individual landholdings should it not be their intent and nor are any timeframes prescribed by this structure plan.

1. INTRODUCTION

1.1 OVERVIEW

This Local Structure Plan (LSP) report has been prepared on behalf of Aspen Living, in consultation with other landowners during 2010, to further refine the adopted District Structure Plan for West Swan East as it applies to the central-eastern cell known as Local Structure Plan 2B (LSP 2B). The LSP 2B area is generally bound by Arthur Street to the west, Cranleigh Street to the north, the eastern extent of the Dampier to Bunbury Natural Gas Pipeline (and current extent of the Metropolitan Region Scheme Urban zoning) and Marshall Road to the south, noting that portions of these roads are currently unconstructed. The LSP 2B is the second structure plan to evolve as part of the ongoing planning and expansion of the suburb of Dayton (previously known as West Swan East and also now marketed as 'St Leonards Estate'), and as such forms an important expansion area of the Perth Metropolitan Area.

The philosophy and technical background associated with the layout of the proposed LSP 2B is described in detail herein.

1.2 BACKGROUND

Dayton (or West Swan East as it was referred to previously and is referred to still in earlier planning documentation) has been earmarked for urban development in the Metropolitan Region Scheme for many years, having been rezoned to 'Urban' from 'Urban Development' in 2002 and rezoned from 'Rural' to 'Special Use' under the City of Swan Local Planning Scheme No. 17 in 2008. Both zonings enable development for a range of urban uses subject to the appropriate structure planning and background investigations as relevant to the site.

Given that Dayton is part of a larger future development area stretching from Albion in the north to Caversham in the south and West Swan (West) to the west, a Swan Sub-Regional Structure Plan was prepared, advertised and subsequently endorsed in early 2009. This Structure Plan then guided the key land use components and framework for the greater area, ensuring that the more detailed planning continued to progress in a coordinated manner. This included the West Swan East District Structure Plan preparation which reflected the recommendations of the Sub-Regional Structure Plan.

The West Swan East District Structure Plan was advertised during late 2009 and early 2010 and subsequently adopted by Council in April 2010 and endorsed by the WA Planning Commission in 2011, providing the direction for the preparation of this LSP.

In conjunction with the District Structure Plan process, and in accordance with an agreed procedure established by the Western Australian Planning Commission and the City of Swan, the State Administrative Tribunal approved a subdivision application over the south-western corner of Dayton, referred to as an 'Early Release Subdivision' which facilitated the commencement of subdivisional works prior to finalisation of the local structure planning process. As a significant portion of the original subdivision application area was excluded from the approval due to it being affected by an odour buffer around a mushroom farm, a second stage of an 'Early Release' subdivision was lodged by Aspen to ensure an ongoing provision of residential lots to cater for an impending housing shortage. The second stage of the 'Early Release' subdivision is located within the LSP 2B area and whilst not yet approved, correlates well with the proposed structure plan.

In terms of recent consultation, other landowners within the LSP 2B area were consulted by the Aspen Group in mid 2010, and previously by Council and the Aspen Group during formal advertising of the District Structure Plan. The outcomes of these consultations, combined with the investigations and recommendations of the consultant project team and relevant government agencies, forms the basis for the land use allocation of this LSP. The key comments raised by landowners as part of the 2010 preliminary consultation, resulting in minor adjustments to the road network, was the ability to retain existing dwellings whilst still facilitating future subdivision potential.

2. SUBJECT AREA

2.1 LOCATION

The subject Dayton LSP 2B land parcel is located approximately 22 kilometres from the Perth CBD and 8 kilometres from the Midland Regional Centre, north of the Reid Highway and east of the Swan Valley. The site is accessed from off Lord Street through the adjoining Local Structure Plan area for cell 1 via the road pavements of Marshall Road, Coast Road and Cranleigh Street and also via the adjoining Arthur Street road pavement. From the east, the subject land is accessible from West Swan Road via the existing local road network of Victoria Street and Coast Road to the south, or Harrow Street in the far north (refer to Location Plan at Figure 1).

2.2 LOCALITY CONTEXT

The subject site forms part of a greater developing sub-region within which a district shopping centre, district educational facilities, district sporting facilities and an integrated transport network is planned. LSP 2B is strategically sited towards the centre of the Sub Region with Albion proposed district facilities to the north, the developing West Swan West on the western side of Lord Street, Caversham future development area to the south of Reid Highway, and the balance of the Dayton future urban development to the east. The Swan Sub-Regional Structure Plan at Figure 6 illustrates the context of the subject site within the broader planning for the Sub Region and the distribution of key land uses proposed within this Region.

Beyond the developing Sub Region lies the Swan Valley to the east, Ellenbrook district facilities to the north, Morley Regional Centre to the south-west, Malaga Industrial Area to the west and the Swan Valley rural area further to the east, within which numerous tourism and employment opportunities exist. Also, the Midland Regional Centre to the south-east which caters for a greater diversity of commercial, employment, entertainment and tertiary educational needs.

The LSP site itself is partially bounded by two rural standard bitumen roads, being Arthur Street and a portion of Cranleigh Street. Sam Rosa Place bisects the site, ending in a cul-de-sac from which a number of substantial homes gain access, including a couple of properties outside of the subject area. Neither the eastern extent of Cranleigh Street nor Marshall Road is constructed, though a road reserve exists for both and within which drainage is currently accommodated.

To the north lies the existing rural residential area which is part of the expanding urban development area which stretches up to Harrow Street, after which land is then part of a Bush Forever site. Similarly, land to the south is also part of a similar future urban area which extends to Reid Highway, though a significant portion is currently affected by an odour buffer around an operating mushroom farm. The land to the west is also predominantly still being used for rural residential purposes, with that in the south-west currently being converted to residential uses as part of the first stage of the 'Early Release Subdivision'. The eastern direction differs however in that it is still zoned Rural and leads towards the Swan Valley protection area.

Overall the site's context is changing, evolving from a primarily rural residential context to one of urban growth and development which is likely to occur over the next ten years. Land to the east however may remain rural for the medium to longer term, placing LSP 2B towards the periphery of the urban region of Perth

Collectively, these surrounding areas provide a diversity of local employment opportunities within easy reach of future residents via the existing road and bus network as well as satisfying shopping, educational, tourism, entertainment and lifestyle needs of the community beyond that proposed to be catered for within the LSP itself.

2.3 LANDOWNERSHIP

The LSP 2B area is owned by a range of different entities, including St Leonard's Estate and Sagecorp (both divisions of the Aspen Group) and a multitude of individual landowners, many of whom reside on the land.

The current (as at 2011) ownership within LSP 2B is summarised within Figure 4.

2.4 CURRENT LAND USES

The LSP 2B area comprises rural residential type uses reminisce of its previous semi-rural status, as is evident in the Orthophoto at Figure 2 as well as evidence of progression towards construction of residential lots approved as part of an 'Early Release' subdivision approval within Aspen owned land. The existing road networks of Cranleigh Street, Marshall Road, Coast Road, Blundell Street, Sam Rosa Place and Arthur Street can also be seen on the Orthophoto.

It should be noted that several lots along the most eastern periphery are dual zoned as well as being impacted upon by the existing gas pipelines and as such, their current rural residential use may partially continue into the longer term reflective of the zoning of those lots.

2.5 SITE HISTORY

The LSP 2B area has previously been predominantly cleared and grazed and more recently converted to rural residential and rural lifestyle uses with a number of homes and associated outbuildings constructed throughout the subject area. The size and age of these homes varies considerably, with some constructed in recent years and likely to be retained into the short and medium term.

In recent years the north-western portion of the site, adjoining Arthur Street, was once used as the Caversham Wildlife Park, now relocated to Whiteman Park. Evidence of some of the landscaping associated with this past use is still present.

The Resource Enhancement Wetland located in the south-western corner of the site has historically been retained within a vegetated area though in a degraded state, noting that two homes and the Arthur Street road reserve encroach into the nominated buffer around that wetland. A couple of farm dams associated with previous semi-rural activities have also been developed within the subject land as is evident on the aerial photo.

3. SITE ANALYSIS

A Site Analysis Plan is included at Figure 3 to assist in summarising the following key land use opportunities and constraints.

3.1 ENVIRONMENTAL

In accordance with the provisions of Schedule 4 of the City of Swan Local Planning Scheme No.17, a full Environmental Assessment Report applicable to the subject land and extending to the full district was included within the appendices of the associated West Swan East District Structure Plan and should be read in conjunction with this report. A list of these documents that may be found within the District Structure Plan document is as follows:

- A Local Water Management Strategy;
- An Environmental Assessment Report;
- A Wetland Management Plan (incorporating mosquito management plan);
- A Field Ambient Odour Impact Assessment Study;
- A Noise Impact Assessment;
- A Preliminary Acid Sulfate Soils Investigation Report;
- A Preliminary Contamination Investigation Report; and,
- A Cultural Heritage Report.

These environmental reports and management plans more accurately identify key land capability opportunities and constraints within the subject land, the features of which then impact on the LSP 2B planning are identified on the Site Analysis Plan contained at Figure 3 and summarised below:

- No odour impact associated with a mushroom farm located south of the LSP2B area along Victoria Road affects the subject land, enabling all of LSP 2B to be developed in an unconstrained manner, however a 1,000m notification area around the existing mushroom farm does impact on the southern portion of LSP2B;
- No noise exposure associated with the Reid Highway to the south or the future Perth-Darwin Highway to the west which might otherwise impact on the urban development potential of LSP 2B;
- Previous uses, generally agricultural and storage in nature, may have resulted in some evidence of contamination on properties which will require further investigation or some level of remediation at the more detailed subdivision stage but nothing that prevents structure planning from progressing;
- Preliminary acid sulfate soil investigations has revealed there is the potential for acid sulfate soils to exist within locations across the LSP 2B area, generally constrained to two pockets, which then require further investigation or the preparation of management plans at the subdivision stage(s);

- No significant remnant vegetation or rare or threatened species of flora or fauna requiring protection were identified within the LSP 2B area;
- The presence of a Resource Enhancement Wetland adjoining Arthur Street in the south-western corner of the subject land requiring protection and adequate buffering;
- The presence of a Multiple Use Wetland across the broader LSP 2B area which is less of a constraint and suitable for conversion to urban use;
- Recognition that mosquitos and midges associated with the wetland may pose a nuisance to future residents and that an appropriate management plan should be prepared accordingly;
- The presence of the Dampier to Bunbury Natural Gas Pipeline along the eastern boundary of the subject land, contained within its own easement and having no additional buffering requirements as it relates to the subject land;
- That there are no recognised Aboriginal Sites within the subject area;
- A Local Water Management Strategy has been prepared and endorsed over the greater district, identifying drainage catchment areas, drainage requirements (volumes and general locations) required for accommodating the intended urban development. The endorsed LWMS has therefore guided both the extent of the LSP 2B and the general location, distribution and use within the nominated public open space areas.

These environmental investigations and environmental constraints have not revealed any features that then prevent the site from being developed for urban purposes in accordance with the LSP 2B land use allocation now proposed, subject to consideration and relevant conditions as may be appropriate.

3.2 SERVICING INFRASTRUCTURE

A servicing strategy plan is included at Figure 8 to summarise and supplement the information provided in Section 5.9 of this report. In addition, an engineering servicing report prepared by Tabec is included within the LSP 2B documentation at Appendix 1. The key existing servicing features applicable to the LSP 2B area are summarised as follows:

- Existing 330KV powerlines within a 70m wide easement parallel to the south side of the Marshall Road reserve immediately south of the LSP2B site and constrains placement of the future urban standard Marshall Road pavement but not development associated with the LSP2B;
- Reticulated water is available to the area with extensions and upgrades already occurring as part of the current subdivision construction works;
- The subject land is not historically connected to reticulated sewer and as such the initial Early Release subdivision works has had to extend and upgrade services from the south, with a current limit of 500 lots (the majority of which are contained within LSP1) capable of being serviced without further upgrades;

- A 350mm steel high pressure gas distribution pipeline is located parallel to the southern side of the Marshall Road reserve, consistent with the 330KV powerline easement. The gas main has an impact on any construction or excavation works proposed within 15m of this pipeline;
- WA Gas Networks has recently installed a gas Pressure Reduction Station on the south western side of the intersection of Marshall Road and Arthur Street (immediately outside of the LSP2B area) enabling the local area and future lots to be serviced by reticulated gas; and,
- The LSP 2B area is already serviced by a normal telecommunications network with extensions readily capable of being achieved as part of any future subdivision works.

3.3 MOVEMENT NETWORK

Existing access points, road reserves and pavements are also notated on the Site Analysis Plan and are incorporated into the preparation of the LSP 2B plan with required upgrades and district and neighbourhood connector extensions addressed in more detail in section 5.7 of this report and in the associated Traffic Impact Assessment Report contained at Appendix 2.

The key existing road and movement features are summarised as follows:

- Access to the LSP 2B area is currently available via the existing roads of Arthur Street, Cranleigh Street, Marshall Road, Blundell Street and Sam Rosa Place, all of which are proposed for retention in a modified form (some road reserves widened and some reserves deleted) but all upgraded from their previous rural status;
- Malvern Street road reserve to the LSP 2B's north-east is not a constructed road pavement and does not form part of the LSP 2B and is not proposed to be modified from its current status;
- The proposed Henley Brook Avenue will be the eastern conduit for urban traffic from the Dayton development; see the Development Contribution Plan for DCA 2 and appended traffic report for further information and details;
- The future Perth-Darwin Highway is reserved under the Metropolitan Region Scheme along the adjoining LSP 1's western boundary to the far west of LSP2B, access to which is constrained and as yet unfinalised;
- Arthur Street currently ends in an unconstructed cul-de-sac head in the south but has been identified and reserved for conversion to a 'fly-over' (bridge) across the Reid Highway to connect Dayton with Caversham in the south, the timing of which is not known. Arthur Street in the north also ends in a cul-de-sac but shall ultimately be upgraded to a through road connecting to Harrow Street;
- Marshall Road has been identified as connecting to West Swan (west) via a 'fly-over' bridge across the future Perth-Darwin Highway in the longer term;

- Through the approval of the Early Release Subdivision in the adjoining LSP 1, formal controlled access via a round-about on Lord Street, south of Marshall Road and to the west of the LSP 2B area, has been designed and constructed as the primary access to the southern portion of LSP 1 and then towards the LSP2B area as an interim scenario however ultimately Marshall Road shall be the main east-west connection;
- Access to the nearby Reid Highway to the south-west of the subject land is not available other than via the current intersection at Lord Street or at West Swan Road to the south-east;
- The LSP 2B area adjoins other development cells and future road networks, consideration to this and their respective anticipated timeframes is required so as to facilitate appropriate short, medium and longer term transport arrangements;
- An existing public bus route exists down Lord Street and West Swan Road to service the local area, with none existing within LSP2B;
- A 'Public Purposes Reserve' intended to accommodate a public transport route of some description is included within the Metropolitan Region Scheme reservation to the far west outside of LSP 2B, on the western side of Lord Street, with a possible public transport station nominated generally near the existing Lord Street/Reid Highway intersection; and,
- There is a general lack of footpaths and dual use paths within and adjoining the subject area other than those already approved as part of the subdivision works for the 'Early Release' subdivision within LSP 1 and 2B.

4. PLANNING CONTEXT

4.1 METROPOLITAN REGION SCHEME

The Metropolitan Region Scheme (MRS) is the statutory land use planning scheme for the Perth metropolitan region. The principal functions are to reserve and zone land and control development on reserved and zoned land. The MRS reflects the agreed strategic direction for land within the metropolitan region and is a catalyst for changes to planning controls at the local level and subsequent local area planning.

The entire subject area is zoned 'Urban' and has been zoned as such since 2002, noting that this 'Urban' zone boundary as defined at its most eastern extent, does not correlate with lot boundaries and instead is defined by the location of the gas pipeline locations, the proposed development of the LSP 2B area is consistent with the 'Urban' zoning, however those lots partially outside the LSP 2B and partially outside the extent of the 'Urban' zone shall remain dual zoned (part Urban and part Rural) with only their 'Urban' portion having any development potential consistent with the LSP2B plan, noting that any subdivision of these lots is subject to a Detailed Area Plan to help address the dual zoning and impact of the gas pipelines.

The nearby MRS 'Primary Regional Road' reservations applicable to the Reid Highway and future Perth-Darwin Highway to the west of the subject land help to form the logical boundary to the wider district area whilst also defining where access to (none directly from LSP 2B) and across (being two future flyovers, one at Marshall Road and another at Arthur Street) the highways may be achieved in the interim and the future. The currently unconstructed Henley Brook Avenue to the east of the LSP2B is reserved as a 'Secondary Regional Road' under the MRS and shall ultimately carry traffic in a north south direction, replacing some of the traffic function of West Swan Road.

4.2 CITY OF SWAN LOCAL PLANNING SCHEME

The City of Swan Local Planning Scheme No.17 (LPS 17) zones the Dayton district site 'Special Use – West Swan' within which the LSP 2B is situated (refer Figure 5). Those MRS dual zoned lots along the most eastern periphery of the LSP shall also remain dual zoned under the LPS, with their western extent having urban development potential under the LPS2B and their eastern extent retained in the adjoining 'General Rural' zoning of the LSP.

The relevant objectives and Scheme provisions relating to the 'Special Use' zone are included within Schedule 4 of the Scheme text and guide both the preparation of the District Structure Plan (DSP) as well as this Local Structure Plan, and subsequent local structure plans.

This LSP 2B has been prepared in accordance with both the generic Scheme provisions relating to structure plan sites and also Schedule 4 - the objectives of the Special Use zone as detailed further below in Table 1.

Table 1: LPS 17 Special Use Provisions

	Objectives of Special Use Site No.11	Structure Plan Achieves Objectives By:
1.	To ensure that development in the estate achieves optimal integration with development in surrounding area;	Ensuring consistency with Swan Sub-Regional Structure Plan and Swan Urban Growth policies and guidelines. Consultation with adjoining developers during the plan preparation stages also assists in achieving integration particularly from a road connection and servicing point of view.
2.	To provide for the development of a functional and cohesive community consistent with the orderly and proper planning and in the interest of the amenity of the Estate;	The Local Structure Plan has been prepared in accordance with Liveable Neighbourhoods and other planning principles to achieve a well-planned design in the best interests of the resulting Estate, ultimately aiming to create a cohesive community.
3.	To develop the Estate in a manner that protects, conserves and enhances the natural environment and cultural assets and to investigate and manage impacts upon the natural environment;	The background investigations have identified environmental features requiring protection or enhancement which have been suitably acknowledged and protected within both the District Structure Plan and now also the LSP 2B as relevant.
4.	To encourage variety in the range of lot sizes and dwelling types within the Estate but consistent with cohesiveness;	The DSP identifies a broad category of low, medium and high density residential land uses, within which a wide spectrum of dwellings, including retirement village, single residential dwellings, lower density lifestyle lots, grouped housing and multiple dwellings may be accommodated. The LSP is consistent with the DSP and now further refines the variety of lot sizes by designating a range of specific R- Codes from R5 to R40.
5.	To enhance the Estate with the provision of open space and recreation networks and facilities with particular attention being given to the timely provision of appropriate community services;	Two parcels of public open space are nominated within LSP 2B in the context of the other POS areas proposed on the DSP. The larger of these POS areas has previously been identified in the District Structure Plan and also reflects the location of the Resource Enhancement Wetland. The provision of the second, more northern POS, reflects both the need for well distributed, well staged and accessible POS plus also the findings of the LWMS. The POS has also been allocated in the context of the overall District Structure Plan, noting that a large active recreation area and a community purpose site is proposed for just outside of the LSP 2B boundary.
6.	To make provision for school sites and other appropriate education facilities within the Estate in a manner that facilitates their management and	A large (one and a half size) primary school is nominated within the Sub Regional and District Structure Plans at a size and location as

	use as a resource for local communities;	negotiated with the Department of Education and Training and is now reflected accordingly in the LSP 2B
7.	To provide appropriate retail and commercial facilities to service the needs of residents of the Estate and with a view to the integration of retail areas with other commercial and business areas and with social services so as to maximise convenience;	A local neighbourhood commercial centre is identified to the south-west of the LSP 2B (in LSP2A to the south) which shall cater for the local shopping and business needs of the future residents. A larger district centre is proposed within Albion to the north, as identified in the Sub Regional Structure Plan within which LSP 2B is sited.
8.	To provide retail and commercial centres, business parks and service areas to satisfy the need for such services within the Estate and to provide local employment opportunities; and,	The LSP excludes any retail or commercial sites in accordance with the adopted Sub Regional Structure Plan and DSP land use allocation.
9.	To employ strategies and design aimed at optimising accessibility to the local centre and future public transport node(s) by the use of comprehensive movement networks and by other means which will facilitate connection with public transport and arterial road links to Midland, Perth and other parts of the Metropolitan Region.	<p>The DSP centrally located the local neighbourhood centre and 'Activity Corridor' to maximise accessibility and encourage walkable catchments, supported by adjoining medium densities. The LSP 2B proposes some medium density residential uses in the south-western corner near the local neighbourhood centre.</p> <p>The road and dual use path network, including the adjoining Activity Corridor down Arthur Street, shall be used to encourage connections towards this local centre and destinations further afield.</p>

The Dayton district is also included within 'Development Contribution Area 2' (DCA 2) of LPS 17 which requires a 'Development Contribution Plan' to be prepared in accordance with Schedule 13 of the Scheme, this matter is addressed in the District Structure Plan report via a Financial Assessment Report included in the final adopted version of the West Swan East District Structure Plan and more recently in a draft Development Contribution Plan currently being finalised for the DCA 2 area, as also discussed in section 6 of this report.

4.3 SUB-REGIONAL STRUCTURE PLAN

The City of Swan and the Department of Planning, in consultation with key landowners and other government agencies, prepared and advertised a Sub-Regional Structure Plan for the Swan Urban Growth Corridor, being land located generally between Midland and Ellenbrook in the suburbs of West Swan, Caversham and Albion, all surrounding the subject area.

The Sub-Regional Plan is a strategic planning document designed to guide the coordinated growth and development of the Swan Urban Growth Corridor to ultimately accommodate over 30,000 new residents plus associated community, commercial, open space and infrastructure land uses.

The Sub-Regional Plan contains the following key features of relevance to the LSP 2B area:

- An 'Activity Corridor' connecting Albion district centre in the north to Caversham in the south via the Arthur Street flyover across the Reid Highway, is to run through the heart of West Swan and forms the western boundary of the subject area, with medium residential densities, possible future public transport and home based business opportunities encouraged along the Corridor;
- One local neighbourhood centre centrally located along the Activity Corridor is to be provided within Dayton, immediately south-west of LSP 2B with no further commercial requirements within LSP 2B;
- A predominance of residential land uses across the LSP 2B area which assists in the broader District achieving an overall of nett residential density target of 22 dwelling units per hectare;
- Recognition of the operating mushroom farm and associated buffer which has since then been confirmed as not impacting upon LSP 2B;
- Recognition of the existing Caversham Primary School to accommodate some additional students, but then the need for a 1.5 sized primary school centrally located within the Dayton district cell, adjoining a large open space area intended to accommodate district level sporting facilities;
- The existence of the Dampier to Bunbury and the Parmelia gas pipeline easements along the LSP 2B eastern boundary and their associated buffer requirements to sensitive land uses;
- An integrated traffic management study across the Sub-Region, confirming road networks and hierarchy as proposed, including an upgraded intersection in the interim for Marshall Road (west) and Lord Street, also acting as the entry to the adjoining LSP 1 area from off Lord Street.

The above has formed the basis for progressing the planning, traffic management, infrastructure provision and land use allocation within LSP 2B and across the greater district.

4.4 DISTRICT STRUCTURE PLAN

As required by LPS 17, a District Structure Plan (DSP) for Dayton was prepared and advertised for public comment during December 2009 to February 2010, was adopted by Council subject to modifications in April 2010 and is anticipated for final endorsement during mid 2010. The DSP broadly guides the land uses across all of Dayton, ensuring coordination of district matters such as drainage, road connections, schools and employment opportunities.

The DSP also nominates local structure plan cells, predominantly based upon drainage catchments, existing street networks and logical boundaries for ease of future planning. LSP 2B is one such cell and within which the broad land uses (including public open space), key road networks and infrastructure corridors are already defined.

This LSP report and plan remains consistent with the DSP particularly in terms of:

- Extent of LSP coverage and designated boundaries;
- Allocation of nominated residential densities and density targets;
- Location and areas for public open space, wetland conservation and drainage;
- External and internal road network;
- Provision and access to an adjoining 'Activity Corridor';
- Recognition of adjoining gas pipeline easements and their setback requirements; and;
- Inclusion of supporting management plans as required by the DSP, specifically a wetland management plan and a cultural heritage management plan. No risk assessment report associated with the gas pipelines is included given that no departure from established easement and setback requirements are proposed.

4.5 DIRECTIONS 2031 AND BEYOND

This strategic plan recognises the benefits of a more consolidated city and sets realistic goals to promote housing affordability and sustainable urban growth. The key guiding directions of 2031 revolving around:

- How we provide for a growing population whilst ensuring that we live within available land, water and energy resources;
- Where development should be focused and what patterns of land use and transport will best support this development pattern;
- What areas we need to protect so that we retain high quality natural environments and resources; and,
- What infrastructure we need to support our growth.

The document includes a series of themes which have key strategies for ultimately achieving them, each are quite involved and as such the Directions 2031 document should be read in collaboration with this structure plan proposal, however some features of relevance include:

- Promoting higher densities;
- Increasing catchment populations close to activity centres;
- Improving public transport patronage;
- Promoting community connectivity and health particularly through paths and walk trails;
- Protect biodiversity and environmental significance;

- Expand and enhance open space networks through continued identification and management; and,
- Maximise urban infrastructure to improve efficiency of existing services.

In this regard, the LSP 2B is in an area which is in close proximity to an existing urban area which is currently continuing to grow and shall ultimately provide a range of local and district level facilities such as a secondary education, district shopping, district sporting facilities, mixed business opportunities

Collectively this suggests that the site is well situated for residential land uses which will subsequently then act to improve existing public transport patronage, improve the viability of existing and proposed district and regional centres and in a manner that enhances community and environmental health.

It is also noted that the Directions 2031 sets a minimum target of 15 dwellings per gross urban zoned hectare of land in new development areas, something which the LSP 2B achieves.

4.6 DRAFT OUTER METROPOLITAN PERTH AND PEEL SUB-REGIONAL STRATEGY

Forming part of the Directions 2031 document is the above strategy which provides further commentary and guidance specific to the various sub regions, including the north-east corridor within which the subject land is located.

Dayton (including LSP 2B) is identified in the draft Strategy as undeveloped urban land intended to accommodate 2800 dwellings. The LSP 2B is consistent with the strategy framework and in achieving this target number of dwellings.

Also of interest is that the strategy recognises that the average household size has decreased from 2.89 persons per house to 2.74 persons in recent years and is anticipated to fall to 2.21 persons by 2031 suggesting that there is an increasing need for more houses (given fewer people live in each house but population growth is continuing) and that the size of the household home will continue to decrease. Both points are of relevance in providing additional urban land within the LSP 2B area and in catering for changing residential needs.

4.7 CITY OF SWAN URBAN GROWTH POLICIES

In response to the State's significant existing and projected levels of population growth and the *Network City* document, the City of Swan has prepared and adopted an Urban Growth Policy package, incorporating the 'Urban Growth Policy', the 'Neighbourhood Planning Policy', 'Environmental Planning Policy' and the 'Community and Economic Planning Policy'. In summary, these policies contain objectives for Structure Plans within the Swan Urban Growth Corridor (relating to Dayton) including (though not restricted to):-

- Responding to the social and economic needs of the Community;
- Encouraging innovation and best practices in urban design and environmental management;

- Taking a partnership approach with government, non-government and other landowners in the Urban Growth Corridor in respect to land use and water management;
- Providing choice and affordability in housing;
- Creating safe and convenient access;
- Encouraging an identifiable sense of place;
- Minimising the impact on the natural environment;
- Minimising energy, infrastructure and water costs; and,
- Ultimately ensuring that the urban growth contributes to sustainable urban communities.

The LSP 2B helps achieve the above objectives in that it:-

- Facilitates a range of permeable transport movements (car, bus and possible future rail) through appropriate road widths, gridlike street networks, appropriate road hierarchy, provision for future public transport, and regular cell blocks ultimately allowing for a well connected and surveilled local street network;
- Identifies a range of housing densities achieving a net dwelling density recognising the Urban Growth Policy minimum of 22 dwelling units per hectare, with medium and higher densities closer to public open space, future public transport nodes and the local commercial centre with convenient access for all dwellings to key destination facilities and parks;
- Protects the natural environment by retaining a naturally occurring wetland within public open space and buffered appropriately from surrounding residential uses, with a Wetland Management Plan prepared to assist in the appropriate treatment and management of the wetland;
- Accommodates infrastructure retention, upgrades and extensions which will cater for the anticipated growth with drainage infrastructure to encourage stormwater retention;
- Includes well designed and sizeable public open space that will facilitate drainage and natural infiltration in a responsible manner whilst also offering a recreation amenity to future residents;
- Has worked collaboratively with government to ensure a suitable public primary school is provided in accordance with the District Structure Plan;
- Proposes a design which depicts a good level of integration with neighbouring planning, predominantly through the road network, land use allocation, infrastructure provision and environmental (including groundwater and drainage) analysis.

Also in accordance with the 'Planning for Urban Growth' requirements of the Policy, the LSP 2B is premised on the engineering, ethnographic, community and economic development, financial reporting commitments, fire and emergency access information and environmental management strategies and plans prepared at the District Structure Plan stage, with additional landscape management, traffic management and refinement of servicing provided within the LSP documentation.

In this regard the Dayton LSP 2B is consistent with the suite of Urban Growth Policies and their specific objectives and requirements applicable to structure plan preparation.

4.8 LIVEABLE NEIGHBOURHOODS

Liveable Neighbourhoods is a state-wide development control policy to facilitate the development of sustainable communities. It provides an integrated planning and assessment policy for the preparation of Structure Plans and subdivision designs and represents an alternative performance-based approach to conventional subdivision policies.

The Local Structure Plan presented within this report adopts the principles of *Liveable Neighbourhoods* policy and should be assessed against the objectives and requirements of each of the *Liveable Neighbourhoods* design elements.

Liveable Neighbourhoods promotes a number of key principles for creating a vibrant and sustainable community. These principles include the following and are embodied in the elements of the Liveable Neighbourhoods document:

- Walkability;
- Site responsive design;
- Safety and Surveillance;
- Neighbourhood Structure;
- Efficiency.

The LSP has been designed with these principles in mind by helping recognise a support a future neighbourhood centre to the east; by ensuring lots are orientated to encourage passive surveillance and appropriate solar orientation; by creating clear and appropriate neighbourhood connector street blocks; a distribution of public open space; plus ensuring residential densities appropriately reflect the broader neighbourhood structure and responds to the sites' opportunities and constraints.

4.9 EARLY RELEASE SUBDIVISION

As part of the Sub-Regional Plan preparation process, an agreement was reached to provide for what is known as an 'early land release program' as a means of assisting in the timely production of a supply of residential lots to cater for the current population growth of the Perth Metropolitan Region. The Sub-Regional Structure Plan contains criteria for determining the area, extent and planning process of land suitable for the early land release program.

An early release subdivision application for the Aspen owned south-west quadrant of Dayton (outside of the LSP 2B area) was prepared and approved through the State Administrative Tribunal process in accordance with the Sub-Regional Structure Plan criteria in advance of the District Structure Plan process. During the assessment and approval process of the early release subdivision, a 650m interim mushroom farm buffer was designated around an existing mushroom farm, significantly impacting upon the proposed subdivision area and resulting in the exclusion of some 7ha of proposed residential lots.

In recognition of the impact of the mushroom farm buffer and exclusion area, a secondary early release subdivision application was lodged for the south-western area of LSP 2B and for some lots south of LSP 2B, accessed from Marshall Road and Coast Road (as depicted on the Site Analysis Plan at Figure 3). The subdivision plan is consistent with the proposed LSP 2B orientation, street network and proposed residential densities and the intention was to assist in the ongoing timely provision of residential lots within what is still a logical framework. The secondary component of the early release subdivision was presented to Council in October 2010 and approved by the Western Australian Planning Commission in December 2010.

As a result of the Early Release Subdivision application within LSP2B, a gross area of 4.005ha was approved for new single residential lots, associated subdivisional roads and public open space, plus 7,190m² was for the 'Public Utility Reserve' and two parcels totalling 5.064ha were approved as balance lots. The remainder of the overall application area was either not approved or was located outside of LSP 2B. Within the approved portion of Early Release Subdivision applicable to LSP2B a Developer Cost Contribution equivalent to 9.0688ha (being the gross approved subdivision plus balance lots, less public open space).

5. LOCAL STRUCTURE PLAN

The 54.1818ha of land contained within the Dayton LSP 2B is intended primarily for residential development, serviced with two previously agreed locations for public open space, of which one contains the recognised Resource Enhancement Wetland, plus provision for an ‘Activity Corridor’ forming the western boundary of the site and a large sized public primary school in the north of the LSP.

The broad allocation of land uses as reflected on the LSP 2B plan is described in more detail in the following sections and summarised in Table 2 below.

Table 2: Land Use Summary

Land Use	Total Area
Primary School	5.58ha
Low Density Residential (R20)	13.7563ha
Medium Density Residential (R30)	5.2885ha
Medium Density Residential (R40)	0.27ha
Medium Density Residential (R60)	2.352ha
Public Open Space	6.4909ha
Road Reservations	15.70ha
Western Power Easement	1.7460ha
Dampier to Bunbury Gas Pipelines Easement	1.746ha
Cranleigh Street Drainage Reserve	1.0310ha
Nett Residential Area (excludes roads, reservations, school & POS)	21.6674ha

The land use permissibility within the land use zones and reserves shown on the LSP2B plan are then to be determined by assessing them against the permissibility’s in the Zoning Table of the Local Planning Scheme No.17.

5.1 STRUCTURE PLAN VISION

The LSP 2B, being part of the overall DSP and the second local structure plan to evolve within the District, seeks to create an urban environment complementary to adjoining LSP 1 where a strong sense of community is forged around key features such as the primary school (being part of the heart of the District), the nearby Community Site, public open space and local commercial centre already proposed in LSP 1 to the south-west, and where the physical, social and mental health of that community can be encouraged and sustained.

The urban environment facilitated by the LSP is based on a logical and permeable network of streets, partially already defined by the existing road reserves, and which then combine with the public open space and dual use path network to create a pleasant walking/cycling environment within the cell and towards destinations external to the LSP. Emphasis has also been place on ensuring integration with the other future LSP areas so that once constructed,

the LSP 2B is not a standalone estate but part of a larger Dayton community and larger suburb.

Creating a site offering a range of housing diversity was a significant objective for the structure plan, ultimately assisting in improving the vibrancy and economic viability of features outside of the LSP 2B boundaries and not just those within, such as the Activity Corridor and primary school and public open space.

5.2 RESIDENTIAL AREAS

5.2.1 Lot Pattern

The Structure Plan is comprised of a range of residential densities ranging from single residential R20 through to medium density (R30 and R40) sites and higher density R60 sites. Lots overall have been orientated such that they would provide effective surveillance of (and achieve an effective relationship with) the public domain such as the streets, future bus routes, the primary school and local parks and preferably in an east-west alignment for maximum solar access.

The lot pattern is generally based on attempting to achieve a permeable gridlike network whilst utilising the existing road alignments and maximising the opportunity for existing dwellings to be retained on future allotments through the creation of 'homestead' lots. The overall design rationale being to try and facilitate a highly permeable and legible street layout which protects views through the site in a cross-like manner between the school, the two parks, the Activity Corridor and down to Marshall Road whilst recognising that this may occur in a staged manner and that some landowners may seek to retain their existing homes. A range of route alternatives are therefore presented to residents as a result of the lot pattern and street network.

5.2.2 Housing Products

The LSP primarily intends to provide the opportunity for family sized homes generally at R20 or R30 densities, with some strategically placed R40 and R60 sites suited to smaller families or single people in the form of smaller single residential cottage lots and a grouped housing opportunity next to the Activity Corridor.

Also aimed at achieving variety in housing form is the inclusion of a provision on the LSP which allows for R20 coded corner lots to be developed at an R30 density if desired. The intention in allowing such a provision is to allow flexibility by landowners to consider developing their low density corner lots as duplex developments, with each dwelling then expected to achieve street frontage.

A plan is included at Figure 10 to assist in illustrating the diversity of housing product to be encouraged within the LSP2B.

5.2.3 Future Lot Yield

The following table provides a summary of the estimated residential yield of the LSP and confirms the achievement of Table 6 of the District Structure Plan lot yield target whereby a minimum of requirement of 468 dwelling units (being 90% of 520 estimated total) is to be provided for within LSP 2B. Similarly, this yield helps towards achieving the Western

Australian Planning Commission and City of Swan objective of a minimum of 22 dwelling units per nett hectare of residential land.

Table 3: Residential Lot Yield Analysis

Lot Type	Density Code	Average Lot Size as per R Codes	Indicative Average Lot Size	Estimated Lot Yield	Estimated Dwelling Yield	Total Area (nett)
Low Density Residential	R20 (R30 corner lots)	450m ²	520m ²	258	259*	13.7563ha
Medium Density Residential	R30	300m ²	350m ²	92	179	5.2885ha
Medium Density Residential	R40	220m ²	340m ²	1	11	0.27ha
Medium Density Residential	R60	180m ²	200m ²	83	83	2.3526ha
TOTAL YIELD				434	533	21.6674ha

* This yield estimate does not include the opportunity for corner R20 lots to be developed at R30 density as per the notation on the LSP2B plan.

The above calculations indicate that a good range of housing products shall be made available and equates to an average housing density of 25 dwelling units per nett hectare of residential land if developed at its anticipated capacity. This meets the target of 22 dwelling units per nett hectare, notwithstanding that LSP 2B is constrained by the gas pipeline corridor which is no longer identified for future residential development. Further, as evidence in the Site Analysis plan and Orthophoto, LSP 2B includes many existing and significantly sized, well established homes, the retention of which on larger sized R20 coded land, reduces the dwelling unit yield.

5.2.4 Variations to Lot Yield

The estimated residential lot yields may be increased by way of:

- Inclusion of Aged and Dependent persons dwellings;
- Development of R30 and above coded sites for multiple dwellings whereby a plot ratio then applies rather than minimum lot size requirements;
- Development of land in a manner that fully utilises its development potential (ie achievement of the minimum average as per the applicable R Code);
- Development of studios, such as studio above garage scenarios;

- Development in accordance with a Detailed Area Plan whereby minor variations to the applicable R Code can then be considered via a statutory planning mechanism.

Variations to the Residential Design Code allocation across the LSP2B to facilitate an increase in residential density may be supported following an amendment to the LSP2B in accordance with 5A.1.14 of the Scheme or if the applicable Residential Design Code provisions are modified in accordance with an endorsed Detailed Area Plan as may be applicable to that site.

Any proposals to increase the applicable Residential Design Code to then provide for higher dwelling yields are to consider, and be assessed with regard to:

- Impact on traffic generation such that should a significant increase in traffic then likely result, a modified traffic impact assessment report may be required and consideration then given to the recommendations within;
- Impact on the streetscape to ensure that garage domination would not then result;
- Ability to accommodate any additional car parking, including visitor parking, on site unless alternative agreed arrangements are made to Council's satisfaction;
- Achievement of appropriate vehicular access arrangements, noting that battleaxe legs are not generally supported, that roads such as Marshall Road and Arthur Street are not intended to accommodate direct driveway access and that additional driveway access opposite the primary school may cause further traffic conflict;
- Retention of an appropriate interface and transition to the rural hinterland to the east;
- The impact of the gas pipeline easements and agreed setbacks, noting that a further increase in ownership and housing density across the affected land would result in the potential for additional maintenance and access issues for the gas pipeline operators; and,
- Changes to residential density targets, contemporary planning principles and a review of population trends in the local area to ensure that housing provision continues to reflect good urban design outcomes and community needs.

5.2.5 Population

Based on an average (Australian Bureau of Statistics) household size of 2.53 and the current estimated dwelling yield of 533, the LSP 2B area would result in a residential population of approximately 1,348 persons, a figure which will help improve the vibrancy of the locale and ensure a good number of families are located in short walking distance to a range of future services and facilities.

5.2.6 Detailed Area Plans

The intention is for Detailed Area Plans (DAP) to be prepared for portions of the LSP as is determined relevant at the subdivision stage, primarily any rear lane accessed lots, lots directly fronting POS and R40 and R60 single residential areas where lots are anticipated at less than 350m² in area, or in locations as recommended by the City of Swan.

A DAP is also proposed for preparation over the primary school site as a planning mechanism for ensuring the logical and well designed co-location of the school and the adjoining district open space.

In general, DAP's will ultimately assist in addressing more detailed matters such as setbacks, surveillance from the home, air circulation, car parking, solar access, fencing and built form so as to ensure a high quality and well planned dwelling layout ultimately results on each lot, contributing to sustainable streets and the overall amenity of the estate.

5.3 PUBLIC OPEN SPACE

5.3.1 Objectives

The objective of the POS provision was never simply to meet the statutory requirements, but rather to create an estate based upon the following aims:

- Integration of internal and external living in a legitimate attempt to encourage healthy outdoor recreation;
- Increasing passive interaction opportunities with other residents as a means to address social isolation and improve mental health;
- Provide safe and attractive movement networks that are not solely reliant upon car ownership and within the context of anticipated destinations;
- Protection of existing wetland and wetland vegetation with the opportunity to further enhance the wetland environment and encourage birdlife;
- Recognising that the wetland buffer may also accommodate a drainage and nutrient stripping function as the two are compatible;
- Accommodate drainage in a usable landscaped manner to create an amenity for residents as well as allowing for natural nutrient stripping and infiltration processes to occur;
- Encourage maximum surveillance of POS areas to discourage opportunities for criminal activities;
- Recognition of proposed land uses and POS locations and types external to the subject area as also depicted on the DSP; and
- Provision of some variety in the POS types and sizes in acknowledgement of the likely diversity of family types and needs resulting from the proposed density and cell structure.

5.3.2 Distribution

The POS is distributed across two areas, one towards the north-east and one towards the south-west, noting that the primary school also offers some open space amenity to residents in the north-west and that additional public open space will be made available throughout the broader district.

The distribution of POS within LSP 2B ensures that all residents will be within a 200m radius of POS with both designed to be directly connected via the subdivision road network and footpaths.

5.3.3 Function

The two areas of POS each offer a different function, though both with a passive recreation and drainage component. The Landscape Concept Plans contained within the Landscape reporting included at Appendix 5, as prepared by consulting landscape architects Emerge, best explains the variation in function, summarised broadly as follows:

E-POSF05 (the more northern of the POS areas; POS 1 in Appendix 3) is intended for informal active and passive recreation in the form of grassed area(s) and a children's playground. It shall also include a landscaped drainage retention area in the form of a biofiltration swale with dispersed trees for shade and amenity to create a parkland setting. A walk path is also intended to be constructed to connect residents in an east-west direction and around the park via a viewing deck.

E-POSF07 (being the southern POS and containing the existing wetland and its associated buffer; POS 2 in Appendix 3) is intended to provide for the rehabilitation of the degraded wetland vegetation to improve its overall ecological function. The use of walkways and shade trees are proposed to provide a pedestrian route from the general LSP 2B area towards the Activity Corridor as well as offering a circular walking trail around the POS. In terms of drainage, the use of bio retention swales and bio infiltration basins via a 'Living Stream' scenario is proposed to protect the wetland whilst also accommodating drainage. And finally a small 'kick about' area towards the south-eastern corner of the POS shall help provide the opportunity for informal active play.

These POS areas and the resultant usable credit confirm that each POS constitutes a Neighbourhood Park in accordance with *Liveable Neighbourhoods* and that whilst they both accommodate some drainage, these drainage areas would add to the overall functionality of the POS areas by adding a focus and contributing to the landscape appeal.

5.3.4 Implementation

10 per cent of the subdivisible area (as defined by WAPC policy) of each development site is required to be ceded free of cost at the time of subdivision, alternatively, a cash equivalent to the land value can be paid. A condition of subdivision approval is usually imposed to enforce this requirement.

In implementing the LSP 2B POS areas, it is noted that the LSP 2B plan nominates locations of POS areas with further details given in the POS Schedule (Table 4). While the credit percentage of POS in LSP 2B is less than 10% of the gross subdividable area of the LSP 2B area, in this instance, the provision of public open space within LSP 2B must be considered in

the context of the framework established by the West Swan East District Structure Plan and the subsequent POS calculations within all five Local Structure Plans.

The Development Contribution Plan then becomes the mechanism for cost sharing and reimbursement, managed by the City and implemented generally as a condition of subdivision.

The implementation of individual POS areas is required to also abide by the following principles:

- a) The subsequent accreditation of a particular POS is subject to detailed design and landscape concept plans, demonstrating its function and usability for recreational purposes to the satisfaction of the City of Swan;
- b) If any residential lots immediately adjoin any public open space, a footpath (or an alternative that encourages casual surveillance) is to be provided reasonably near the common boundary on the POS, to the satisfaction of City of Swan officers;
- c) A maximum of 2% Restricted POS (as defined in Liveable Neighbourhoods) may be credited towards POS in the LSP2B area. Should the WAPC and City of Swan give written in-principle support to an applicant's request to credit Restricted POS that exceeds what is in the LSP 2B POS Schedule(s), the applicant is required to amend the structure plan, as per the provisions of Local Planning Scheme No.17;
- d) A wetland management plan is required to be implemented for the REW wetland to the satisfaction of the City of Swan officers;
- e) Public Open Spaces are to be designed using hydro zoning principles; and,
- f) Developers will be responsible for maintaining public open spaces in accordance with Council policies (currently for a five year timeframe) and rectify any design faults during this time. A period less than that specified in Council policy (but to a minimum of two years) may be negotiated by the City and developers subject to developers being able to demonstrate to the City that the public open space is adequately established and can be maintained to the City's standards. Based on the above the following provides the POS provision for LSP 2B.

Table 4: Public Open Space Summary

LSP2B POS SCHEDULE			
ASP WES ST/	160825_Dayton POS Schedule Rev.6.xlsx	ha	ha
A	Gross Area		
	LSP 2B	54.1818	
	TOTAL		54.1818
	Deductions		

	Non Creditable open area's (1:1 drainage & Wetland Core)	2.1199
	Public Primary School (LSP 2B)	5.6600
	Cranleigh Street Road Reserve Drainage (LSP 2B)	0.9319
	Public Utilities Dayton LSP2B (Western Power)	2.4696
	Public Utilities Dayton LSP2B (Gas Pipeline)	1.7711
B	TOTAL	12.9525
C	Excess Restricted POS $((S-(0.02(A-B)))/0.98=C)$	2.3387
D	TOTAL DEDUCTIONS (B+C=D)	15.2912
E	Net Subdivisible Area (A-D=E)	38.8906
F	10% Requirement (10% of E = F)	3.8891
POS Requirement		
G	Minimum 80% Unrestricted Open Space (80% of F=G)	3.1112
H	Maximum 20% Restricted Open Space (20% of F=H)	0.7778
POS Provided		
U	Total Unrestricted Open Space (T)	1.2545
V	Net Restricted Open Space (S-C=V)	0.7778
W	Creditable Restricted Open Space (to a max H)	0.7778
X	Total Unrestricted + Creditable Restricted POS Provided (U+W)	2.0323
Y	Total Unrestricted POS + Creditable POS (U+W as a %)	5.23%
Z	Surplus POS Area (X-F)	-1.8567
Z1	Gross POS (I)	6.4909
Z2	Gross POS /Gross Area (I/A)	11.98%

5.4 WETLAND

5.4.1 Context

The wetland identified on the LSP 2B plan and incorporated into the public open space provision is a reflection of the previously identified and mapped Resource Enhancement Wetland (REW) and its associated 50m buffer measured from the extent of the Department of Environment and Conservation's mapped wetland. Whilst the existing wetland is currently in a degraded state and has been previously modified, no change to the mapped wetland extent, the wetland category or status is proposed as part of this Local Structure Plan or as part of the corresponding Wetland Management Plan. The exception being that the 50m buffer is modified along the western boundary in recognition of the existing Arthur Street road and pavement as has previously been resolved at the District Structure Plan stage.

5.4.2 Principles and Uses

A Wetland Management Plan as well as a Landscape Concept Plan for the REW wetland have been prepared and are incorporated into this Structure Plan documentation and shall form the basis for future refinements in the drainage and landscape treatment of the wetland and the public open space area in which it is to be contained. Whilst all of the wetland is to be incorporated into public open space, credits towards the 10% POS calculations has been allocated in a manner consistent with Liveable Neighbourhoods, being no credit for the wetland core and credit for the 50m wide wetland buffer area, some of which may also be used for drainage treatment, up to a maximum of 20% of the total POS in LSP2B.

Within the public open space, the principle focus is to protect and enhance the wetland environment, improving it from its current degraded status by revegetation using native trees, shrubs, reeds and sedges whilst also improving public enjoyment of its environs via a path network, interpretive signage and a viewing platform. The proposed 'Living Stream' construction, being a landscaped mechanism for encouraging natural filtration and nutrient stripping prior to any runoff water entering the wetland, shall also be incorporated into the public open space design with some opportunity for smaller grassed areas around the periphery of the wetland buffer. As addressed in the Local Water Management Strategy and associated addendums, the wetland buffer areas do also form part of a drainage storage function during storm events, the wetland core area however does not.

It is also recognised that the current wetland area and proposed public open space area is in private ownership and does contain existing development. The above intended principles and uses shall therefore likely occur in a staged manner and in reflection of the land owners intentions and as subdivision and development for urban purposes progresses.

5.5 PRIMARY SCHOOL SITE

5.5.1 Context

During the preparation of the Sub Regional Structure Plan, and then reinforced as part of the District Structure Plan preparation, the Department of Education advised that a new public primary school would be required within the Dayton District. Whilst Caversham Primary School, just to the east of the subject land, had some capacity for additional students, this school is partially constrained by the gas pipeline setback and by drainage, inhibiting its ability to accommodate too many more buildings.

The anticipated population within the urban developed Dayton district would therefore require a new school which would cater for 50% more students than a standard primary school. As such, a 5.6ha school site, co-located with public open space for a shared oval scenario, was deemed necessary. The location selected at the Sub Regional and District level planning was considered suitable due to its central location, its distance from the existing 132KV and 330KV powerlines, its distance from the gas pipelines and its proximity to a large active district open space area with ready access available along at least three connector roads.

LSP 2B now reflects the previously established location and context by including the 5.6ha primary school adjoining Arthur Street, Blundell Street, Cranleigh Street and the future district open space facilities to the north. As Caversham Primary School still has capacity for additional students, the timing of the Dayton primary school may still be several years away.

5.5.2 Principles and Uses

The primary school site shall be ceded as part of the normal statutory subdivision process (it is not a Developer Contribution Plan item) to the Department of Education and Training (DET) in anticipation that the DET will refine the land use planning and architectural designs applicable to the future school, in consultation with the City of Swan who are currently progressing the landscape allocation and design over the adjoining district open space. Typically a primary school might accommodate a full sized football/cricket oval plus sports courts and cricket practice nets, these may be shared as part of the open space design. A Detailed Area Plan will be required to be prepared for the primary school to assist in guiding the co-location of the recreational open space area, shared between the school and the adjoining district open space exterior to the LSP 2B area. The DAP will then help provide the mechanism for input by the City of Swan and the Department of Education in the overall designing of the district open space and primary school, particularly important given their contribution to the overall district.

In undertaking the subdivision and road construction around the primary school as part of any future subdivision application prepared in accordance with the LSP 2B, consideration will be given to appropriate footpath and dual use path provision, opportunities for pedestrian refuges or other safe crossing points, and passive surveillance of the school by nearby residences to improve safety in the area.

The primary school is proposed as a 'Public Purpose' reserve consistent with the reservations included in the City of Swan Local Planning Scheme No.17.

5.6 WESTERN POWER EASEMENT

5.6.1 Context

The existing 330KV powerline, contained within its own easement, runs parallel to the south side of Marshall Road forming the southern boundary to LSP 2B and creating a significant constraint to land use, but a logical boundary to the LSP2B area. The LSP 2B proposes to, now reflect the more recent position and decisions of the City of Swan in agreement with the Department of Planning. The land containing the 330kv power lines has been nominated as road reserve, with the retention of the easement.

The southern extent of the Marshall Road reserve is intended to overlap partially with the 330KV powerline easement. Similarly, subdivisional road reserves, including the roads already approved in accordance with the Early Release subdivision, are also proposed or constructed within the powerline easement. Such road reserves are compatible with the powerline easement and assists in maximising the urban development potential of the LSP2B cell.

5.6.2 Principles and Uses

In LSP2B, land encumbered by the 330kv powerlines easement is to be landscaped to the satisfaction of the City (on the advice of those parties benefiting from the easement) and transferred to the Crown free of cost and without any payment of compensation for incorporation into the adjoining road reserve. Where the adjoining road is DCP infrastructure, any land requirements and embellishments that are beyond the need and scope of the delivering the road cannot be claimed as an offset or credit under the DCP.

The road reserve containing the 330KV powerlines does not form part of any POS contribution, and instead would be suitable for low maintenance, low water consuming landscaping and cycleways linking to the broader region. A landscape concept plan and indicative cross section through the 330KV powerline easement (refer Figure 12) has been prepared and agreed to in principle by Western Power given that it complies with their land use and height restrictions.

The proposed corridor may also assist in pedestrian and cyclist movement in an east-west direction through Dayton via the local commercial centre and Activity Corridor. Similarly, it assists in providing a green link back towards LSP1 and the POS now developed in the LSP1 Early Release subdivision area given it may be developed as a low height and low maintenance native biodiversity corridor.

Consistent with this designation, portions of the subdivisional roads are proposed, or already constructed, within the 330KV powerline easement. This improves the efficiency of land development and helps minimise maintenance costs for the land constrained by the easement .

In summary, permitted uses within the road reservation containing the 330kv power line easement include; road reserve, car parking associated with the community site and shopping centre, low maintenance open space, community garden and pedestrian and cyclist network.

5.7 ACTIVITY CORRIDOR

5.7.1 Context

The Swan Sub-Regional Structure Plan and West Swan East District Structure Plan both designated an 'Activity Corridor' leading from Albion in the north, down Lord Street to Cranleigh Street and then running down Arthur Street to Caversham in the south. This Activity Corridor forms the western boundary to LSP 2B as shown on the plan.

The Activity Corridor relies upon the construction of a fly-over across the Reid Highway to connect Dayton with the Caversham urban development to the south. The timing of this fly-over is still uncertain and as such, the 'Activity Corridor' is unlikely to fully operate as intended until the connection to Caversham is complete and the local neighbourhood centres in Dayton and Caversham are developed. Similarly, a public transport route down Arthur Street is also unlikely in the short term.

In recognition of the longer term purpose of the Activity Corridor, the road network within LSP 2B has been designed to ensure a high level of permeability connecting towards the corridor, with 4 local subdivisional roads, plus the pathways associated with the public open space and primary school, linking the cell towards it.

5.7.2 Principles and Uses

The Activity Corridor is literally a corridor intended to accommodate a range of activities, including higher vehicular transport use, public transport, dedicated pedestrian and cyclist routes, developments and land uses which generate higher visitation such as retail uses and community destinations and in a manner that is easily accessible. The Activity Corridor through Dayton acts as a central spine through the suburb, connecting structure plan cells

together and shall help form part of the character and vibrancy for the broader estate once complete.

Opportunity for medium density residential uses (R40) are proposed along the Activity Corridor and within close proximity to it with the objective of attempting to maximise activity and increase the number of residents nearby, helping facilitate a viable and well accessible public transport route. Lots immediately adjoining the Activity Corridor may be encouraged to accommodate home office/home based businesses in future to utilise pedestrian and vehicular exposure from the Corridor and again assist in its activation. A provision (Note 6) on the LSP 2B has been included in this regard. Direct driveway access along the Activity Corridor however is not proposed as part of the LSP 2B, nor supported in the consideration of the Traffic Assessment Report.

The refinement and subsequent implementation of approved development along the Activity Corridor shall be ongoing throughout the life of the LSP 2B and is also reliant upon the development of adjoining local structure plans. Its success shall also continue to evolve after the construction of the Reid Highway flyover at Arthur Street and after the development of the local commercial centre to the south-west, the service commercial site to the north-west (along Lord Street) and the developments in Caversham and Albion. Until then, only the road design of Arthur Street (to provide for cyclist routes, bus routes, anticipated long term traffic volumes and an attractive pedestrian environment), the allocation of broad land uses and encouraging clear sight lines and permeability to the Activity Corridor, can try to facilitate its ultimate function.

Subdivision approval and subsequent good quality construction of medium density development and road networks within LSP 2B, will also assist in furthering it towards achieving a busy corridor of various activities as provided for in a planning sense.

5.7.3 Design Objectives

The design objectives for the Activity Corridor are intended to promote pedestrian movement to, along and across the Corridor to reduce the reliance on private cars, promote healthier living and to help facilitate a friendlier and safer neighbourhood. In doing so, the following are included:

- No garages or driveways along the Arthur Street portion so as to avoid garage domination and traffic conflict caused by reversing cars;
- Awnings and verandahs and a good standard of articulation to the building (such as inclusion of windows, balconies, shading devices, use of differential materials) is encouraged to any residential dwelling fronting or siding on to the Activity Corridor to assist in street activation and a friendly pedestrian environment;
- Any home office or home based businesses fronting the Activity Corridor should assist in activating and beautifying the streetscape again through a high standard of front facade, use of verandahs and awnings, large street front windows, clearly identifiable doorways fronting the Activity Corridor, quality signage and a clear relationship to the street;

- The school buildings and land use allocation within the primary school site should be designed and orientated in recognition of their ability to contribute towards activation of the Activity Corridor;
- Pathways (footpath or dual use path) will be required on both sides of the Activity Corridor with use of pedestrian refuges, crosswalks or directional signage used to assist pedestrians ability to readily cross the Activity Corridor;
- Good quality and ‘themed’ street furniture and street trees offering a shading function to the satisfaction of the City of Swan are to be used along the Activity Corridor with an emphasis on the proposed ‘main street’ area immediately south of Marshall Road;
- Integration of the public open space design with the path and street tree theme of the Activity Corridor, particularly to encourage walkability to and between the POS and the nearby community/commercial areas;
- Any corner lots and dwellings with a frontage to the Activity Corridor must clearly address both streets such as through the use of wrap-around verandahs, balconies on a second storey, windows from habitable rooms overlooking the street, the use of quality semi-permeable fencing where fencing is necessary and high quality and well maintained front landscaping.

In addition, the use of Detailed Area Plans and design guidelines for residential land uses along the Activity Corridor may help assist in achieving good design outcomes.

5.8 MOVEMENT NETWORK

The proposed road network is based upon integration with the existing roads within and adjoining the LSP 2B (particularly given that a number of modern and established homes are reliant upon the existing road network for access), those approved within LSP 1 and within the Stage 2 Early Release subdivision design as well as with those future roads identified in previously agreed planning documents, such as Henley Brook Avenue to the east of the subject land which has been previously reserved for a future road in the Metropolitan Region Scheme and the connections to it previously agreed upon.

From the above framework, a series of local access streets are then proposed to extend through the LSP 2B cell, connecting the existing roads together to create a legible and permeable grid-like pattern with viewscales towards the public open space, Activity Corridor and primary school all successfully achieved whilst also attempting to minimise the impact on existing homes, particularly those homes in which landowners have previously expressed a desire to retain. Such an outcome encourages efficiency for vehicles, cyclists and pedestrians as well as for the future lot yields of individual landowners. The proposed road network also links with the proposed road network created as part of the broader District Structure Plan and the public transport routes within or adjoining, and hence the associated West Swan East DSP should be read in conjunction with this LSP.

It should also be noted that in designing the road network, consideration was also given to road widths, noting in particular that the existing Cranleigh Street and Marshall Road reserves need to be adjusted as part of the structure planning, with narrowing and widening to occur as relevant to the anticipated traffic volumes and road pavement design.

Similarly, the road network reflects the ideal access scenarios. Residential driveways directly accessing Marshall Road and Arthur Street were deemed undesirable as part of the Transport Assessment, and as such, the use of a 'Controlled Access Place' adjoining Marshall Road, or opportunities for dwellings to gain driveway access from perpendicular or rear access streets is proposed. Maintaining an attractive street design but reducing opportunities for traffic conflict.

As LSP2B has an interface with adjoining future local structure plan cells (particularly LSP 2A to the south and LSP4 to the north), consideration has also been given to a future road layout within these adjoining cells to ensure logical, safe and well integrated connections can be achieved without undermining the future planning of the adjoining cells. Whilst road reserves proposed within LSP2B are shown on the LSP 2B plan to terminate at the LSP2B boundary, as reflected in Figure 4 of the Traffic Assessment Report, a district wide approach to the planning and design of these road connections has occurred and hence the LSP2B plan should be read in conjunction with the Traffic Assessment Report and in the context of the West Swan East District Structure Plan.

The recommendations of LSP 2B Transport report (refer Appendix 2) results in the need to address and refine all short and medium term access opportunities and these are detailed in Appendix C of the Transport Assessment with the key recommendations summarised in Tables 6 and 6A of this Report.

5.8.1 Road Hierarchy

Whilst exterior to LSP 2B, the proposed Henley Brook Avenue to the east of LSP2B is the highest road category reflected in the LSP 2B documentation as it shall ultimately be designed to provide a regional north-south traffic route relieving significant traffic from off West Swan Road and assisting in connecting LSP 2B towards destinations such as Midland and Albion. Marshall Road shall ultimately provide the closest connection with Henley Brook Avenue, the timing of which is more a longer term proposition and is addressed in more detail in the Traffic Assessment Report at Appendix 2.

Arthur Street and Marshall Road are categorised as 'Integrator B' roads and shall be the primary roads carrying the greatest volumes of traffic around the LSP 2B area. Marshall Road ultimately connecting with Henley Brook Avenue and forming a flyover across the Perth-Darwin Highway in the west and more immediately providing the connection to Reid Highway via Lord Street, and Arthur Street ultimately acting as part of the Activity Corridor connecting LSP 2B with Albion in the north and to Caversham in the south via a future flyover across Reid Highway. Cranleigh, Blundell and Sam Rosa Place (and Sam Rosa Place's extension) are classified as Access Street B roads and are likely to provide direct routes for traffic and cyclists particularly towards Harrow Street in the far north and Lord Street to the west. The balance of the roads within the LSP 2B are Access Streets C and D and should be perceived as typical suburban residential streets.

The proposed road widths then reflect the road hierarchy, with wider roads reflecting their classification and anticipated traffic volumes, Arthur Street proposed at 25m in width and Marshall Road proposed at a total of 38m in width (being extra wide to also accommodate a drainage function within the road median), with the majority of the other roads proposed to be constructed within a minimum 15.4 metre road reserve, reduced in places where immediately abutting POS, or where 6 metre laneways are proposed instead and increased to a minimum of 18m where a bus route may ultimately eventuate.

Both the road hierarchy, road connections both within and exterior to the subject land, and the road widths, based upon the traffic calculations, are discussed in more detail in the accompanying Appendix 2 Traffic Assessment Report, noting also that the LSP 2B design and road allocation is consistent the requirements of *Liveable Neighbourhoods* and may also be further refined at the subdivision stage.

5.8.2 Road Treatments

Considerable attention has been given to ensuring a safe integration with the existing periphery road network of Arthur Street and Marshall Road, particularly in the context of the District Structure Plan and the more detailed designing underway for adjoining local structure plans to the south and west. As such, the intersections on the Structure Plan have all been carefully reviewed by the consultant Engineer and Traffic Engineer to ensure safe access and egress into the LSP 2B site.

The key road treatments being:

- Construction, and upgrading of all existing roads, to City of Swan standards, including black asphalt with red asphalt/brick paving for any onstreet car parking;
- Mountable and semi-mountable kerbing, with flush kerbing alongside some POS areas;
- Use of bollards and directional signage where required;
- A significant sized round-about at the Marshall Road and Arthur Street intersection;
- A round-about at the intersection of Cranleigh Street and Arthur Street to assist in traffic control associated with the Activity Corridor and primary school;
- A smaller round-about at the intersection of Blundell and Cranleigh streets;
- Use of two Controlled Access Places (slip roads) parallel to the main Marshall Road pavement to facilitate driveway access into adjoining residential lots without directly accessing the main Marshall Road pavement;
- Closure of the excess widths of Cranleigh Street road reserves and their subsequent inclusion into residential land use as notated on the LSP 2B plan;
- A 5m road widening of Arthur Street along the eastern side as it adjoins the LSP2B area to facilitate the traffic and associated road reserve requirements for the 'Activity Corridor';

- Upgrading and widening of Marshall Road reserve to convert it to a boulevard arrangement with a wide median for drainage and landscape treatment as per the cross sections contained within the Traffic Report, the southern portion of the Marshall Road reserve to be partially located within the 330KV powerline easement given the two land uses are compatible (see Appendix 7);
- A controlled intersection, currently proposed via a round-about, midway along Marshall Road at what is proposed to be a fourway connecting southwards;
- Use of threshold treatments at other fourway intersections along minor access streets within LSP 2B; and,
- Maintenance of existing battleaxe leg or driveway access to constructed public roads from Lot 26, Lot 127, Lot 28 and Lot 29, located at the eastern periphery of LSP2B, unless alternative satisfactory vehicular access is resolved during the preparation of subdivision and Detailed Area Plans over those lots as also notated on the LSP2B plan.

Figure 11 of the Traffic Assessment Report also further addresses road and intersection treatments, with the Engineering Servicing Report at Appendix 1 and the Engineering Concept Plans at Appendix 7 also addressing road construction treatments.

5.8.3 Public Transport

The LSP area has access to an established public transport route down Lord Street and West Swan Road which are likely to continue operating in the longer term until such time as additional or alternative routes are established, possibly upon finalisation of the Activity Corridor and associated flyovers and possibly also the construction of Henley Brook Avenue, the public transit corridor parallel to the Perth-Darwin Highway alignment as well as the development of key destinations such as the Albion District Centre in the north.

To accommodate future public transport routes and maximise accessibility to such services, the LSP 2B suggests that Arthur Street, Marshall Road and the Blundell/Sam Rosa Place routes would best accommodate future bus services, as previously discussed with the Public Transport Authority in the preparation of the District Structure Plan.

These proposed possible future bus routes are reflected on Figure 7 of the Traffic Assessment Report and were critical to the determination of road widths (being a minimum of 18m and more typically a minimum of 20m), road traffic treatments and the provision of footpaths and dual use paths within the LSP.

5.8.4 Bicycle and Pedestrian Network

Emphasis has been placed on maximising the potential for cycling and walking throughout both the subject land and the wider estate, particularly via the areas of POS, the Activity Corridor and also the proposed landscaped powerline corridor located on the southern side of Marshall Road. The provision of a gridlike streetscapes was also designed to encourage permeability and route options whilst attempting to disperse vehicular traffic to create attractive residential streets suitable for walking and cycling along.

Recognition was also given to the broader context, including a possible future transport node in the far south-west of Dayton near the Lord Street/Reid Highway intersection, the location of the public primary schools both within and adjoining the LSP 2B, the location of the private primary school on Arthur Street to the north of LSP 2B, the future highschool in Albion and various commercial centres internal and external to Dayton in the plan preparation stage. This has then also guided the designation of the footpath and dual use path network as is illustrated at Figure 8 of the Traffic Assessment Report.

The ultimate aim being that in creating attractive streetscapes, choice of routes and well connected public open space areas, the future community will be inclined to walk and cycle both for recreation and as an alternate form of commuting.

5.8.5 Accessibility

As noted previously, the site is highly permeable with cell blocks less than 200m long and in a partial grid-like layout (accommodating existing Sam Rosa Place) so as to offer variety in route possibilities and encourage viewscales towards key destinations. Being a relatively regular shaped LSP and with POS distributed evenly with the school site also helps ensure all lots shall be within approximately 200m to open space.

All lots are also located within 400m of a proposed future bus route(s) and within 1km of a proposed commercial and retail node (to the south west) and within 1km of a proposed primary school (2 x government and 1 x existing private).

Marshall Road and Arthur Street also provide road connections to the wider district and region, ultimately connecting Albion, West Swan, Caversham and Dayton together into the one Sub Region whilst also connecting to Reid Highway and the future Henley Brook Avenue, and in the longer term also the Perth-Darwin Highway. On a broader scale, LSP 2B is very well connected with good access routes back to Midland, the Perth CBD and employment and commercial facilities in Ellenbrook, Malaga and Morley.

5.9 GAS PIPELINE

5.9.1 Context

The Dampier to Bunbury Gas Pipeline and the Parmelia Gas Pipeline are existing pipelines traversing the Perth metropolitan region and the Dampier to Bunbury Gas Pipeline forms the eastern extent of the LSP 2B whilst the Parmelia Gas Pipeline is further east and falls outside of the Structure Plan boundary. Both are proposed to be retained in an unaltered fashion within their current trenches and respective easements.

Both Gas Pipelines have differing characteristics;

- The Dampier to Bunbury Natural Gas Pipeline (DBNGP) (between Muchea and Kwinana) does not have any setbacks (other than the width of the easement in which it is contained) to residential uses.
- The Parmelia Pipeline, has a 70m setback from the pipeline easement to residential uses.

As both pipelines do not converge where they adjoin LSP 2B, no further setbacks are required. Both setback distances have been respected in the formulation of the LSP 2B plan and no residential dwelling to be constructed within the setback areas or within the pipeline easements.

5.9.2 Principles and Uses

Parmelia Pipelines

As mentioned the Parmelia pipeline easement is outside of the LSP 2B boundary and no change of ownership or land use is proposed within or immediately adjoining the easement. In accordance with State Planning Policy, the Parmelia Pipeline has a 70m setback from the pipeline to residential uses and is identified as a 70 metre buffer on the face of the LSP. The impact of the buffer from the Parmelia Pipeline extends very marginally along the entire length of the western extremity of the Structure Plan. No dwellings are proposed to be located within the buffer.

Prior to subdivision of Lots 26 or 29 Sam Rosa Place or Lot 549 Malvern Street, a Risk Management Plan must be prepared in accordance with the requirements of the WAPC's Planning Bulletin 87. Such Risk Management Plan is to be approved by the Parmelia Gas Pipeline operator and implemented to the satisfaction of the Western Australian Planning Commission.

Dampier to Bunbury Natural Gas Pipelines (DBNGP)

To appropriately manage the DBNGP pipeline easement, forming the eastern boundary of the LSP, it is the preference of the state to exclude the land, the subject of the DBNGP easement from residential development.

To ensure appropriate management of the DBNGP easement, no residential lot or development is to extend over the DBNGP easement. Rather it is proposed that at the time of subdivision of properties containing the pipeline easement, a condition of subdivision approval will be imposed requiring that the land containing the easement will be ceded free of cost to the crown, vested in the Department of Regional Development and Lands with a Management Order to the DBNGP Operator.

As mentioned above, prior to subdivision of Lots 26 or 29 Sam Rosa Place or Lot 549 Malvern Street, a Risk Management Plan must be prepared in accordance with the requirements of the WAPC's Planning Bulletin 87. Such Risk Management Plan is to be endorsed by the Parmelia Gas Pipeline operator and implemented to the satisfaction of the Western Australian Planning Commission.

5.10 ENVIRONMENTAL CONSIDERATIONS

5.10.1 Heritage

In 2007 an Aboriginal Heritage Survey was undertaken by R & E O'Connor in support of the District Structure Plan. This investigation did not reveal any sites within LSP2B as having Aboriginal heritage value. The Department of Indigenous Affairs (DIA) has previously indicated however that further archaeological investigations are required for the LSP 2B area to supplement the original 2007 report, as such, a Cultural Heritage Management Plan (CHMP) was been compiled in 2010, again by R & E O'Connor and covering the whole District (including the LSP 2B area) in more detail, a copy of which is included at Appendix 4.

The purpose of the CHMP being to ensure that any subdivision and development works associated with the conversion of Dayton to urban development will, wherever possible, protect and preserve the known Aboriginal heritage sites and any yet to be identified sites. Should protection and preservation not be viable, the CHMP provides the guidance to ensure that all actions in respect to those sites occur in a manner consistent with the legislative requirements. The key recommendation applicable to LSP 2B being that the developers nominate a heritage officer familiar with the requirements of the CHMP to help ensure the protection of any objects or skeletal remains should they be uncovered during development works and to assist in any liaising during the construction process. The Aspen Group has committed to this arrangement, other future developers within the LSP 2B area shall also heed the CHMP recommendations.

5.10.2 Acid Sulfate Soils

Preliminary Acid Sulfate Soil investigations to a depth of 7 metres were undertaken as part of supporting the District Structure Plan, revealing no presence of Acid Sulfate Soils to a depth of 3 metres within the LSP 2B area, with some risk at depths greater than 3 metres, of which the first stage Early Release subdivision construction has appropriately avoided or addressed. All future subdivision approvals/works shall be required undertake further Acid Sulfate Soils investigations as recommended in the Preliminary Acid Sulfate Soils Investigation report and shall then ensure that:

- a) An Acid Sulfate Soils Management Plan shall be prepared at the subdivision stage and/or as a requirement of a dewatering licence application; and,
- b) Acid Sulfate Soils will be managed as per the approved Acid Sulfate Soil Management Plan in accordance with the relevant DEC Guidelines.

5.10.3 Odour

The odour assessment undertaken as part of the District Structure Plan process revealed no odours of significance associated with past or present land uses, including the mushroom farm located on Victoria Road. However, given the mushroom farm is still in operation, a 500m interim buffer has been agreed to through a negotiation process with the Department of Environment and Conservation (DEC) and Department of Planning and is now reflected as such on the endorsed District Structure Plan.

Whilst the 500m buffer lies well outside the LSP2B area, until the mushroom farm ceases operation, lots created between 500m and 1,000m of this source of the potential odour, or

as otherwise determined to the satisfaction of the Western Australian Planning Commission (WAPC), will require a notification on title imposed as a condition of subdivision approval, as agreed through a negotiation process with the Department of Planning and Department of Environment and Conservation (DEC), subject to the satisfaction of the WAPC. As shown on the LSP2B plan, the southern portion of the cell is affected by this notification area.

5.10.4 Contaminated Sites

A Preliminary Contaminated Sites Investigation Report covering only limited lots within the broader West Swan District was prepared in July 2008 and forms part of the West Swan District Structure Plan document. The investigation revealed evidence of possible pesticide use, trace metals, nutrients, pathogens, petroleum hydrocarbons and solvents associated with past or existing uses on some properties and some evidence of uncontrolled fill. None of these contaminants are of great significance and can be (or have been already) remediated as part of the subdivision works to the satisfaction of Council and the DEC.

As a result of the Preliminary Contaminated Sites Investigation, a recommendation was made for detailed site investigations to be undertaken for the locality, these more detailed analyses have been undertaken as part of the lodged subdivision application areas. Additional Contaminated Site Assessment and Soil Contamination and Remediation Plans will subsequently be required to be prepared at the subdivision stage by the proponents of any sites/landholdings where a potential source of contamination exists, including non-Aspen owned land. The identified contaminated site will then be managed as per the relevant approved Contaminated Site Assessment and Soil Contamination and Remediation Plan in accordance with DEC Guidelines.

5.10.5 Local Water Management

A Local Water Management Strategy (LWMS) has previously been developed by JDA Consultant Hydrologists on behalf of West Swan Estate Pty Ltd for the West Swan East District Structure Plan area (JDA, 2009). At the request of the City of Swan a revision to the LWMS was completed by JDA, July 2012. The revised LWMS is currently being assessed by the City of Swan, Department of Water and Swan River Trust.

The compilation of the previously approved LWMS included a range of expertise and guidelines from leading authorities to assist the implementation of best practice sustainable urban development and urban water management in Dayton. The LWMS is consistent with the North East Corridor Urban Water Management Strategy (GHD, 2006), prepared on behalf of the Department of Water (DoW) as the overarching regional drainage strategy for the area. It is also consistent with the requirements of the Swan Urban Growth Corridor Drainage and Water Management Plan (DoW, 2009).

The LWMS was prepared to an appropriate level of detail to support both the District Structure Plan and individual Local Structure Plans for Dayton, including LSP 2B. The LWMS was approved by both the Department of Water (DoW) and City of Swan in June 2009.

The LWMS is consistent with DoW's recommended approach for urban water management and the Western Australia land use planning system as outlined in Better Urban Water Management (WAPC, 2008).

Key elements of the LWMS have been incorporated into the LSP 2B preparation, namely the siting of the proposed public open space (POS) and allocation of POS credits in the context of drainage requirements. The LSP 2B boundary was also selected in the context of logical LWMS catchments to ensure future planning coordinates well with drainage requirements. JDA Consultant Hydrologists have since been consulted in the preparation of the LSP 2B plan to ensure continued consistency with the LWMS and reaffirm drainage requirements, Appendix 6 of this report contains affirmation of previously agreed drainage requirements as contained in the Local Water Management Strategy and explanation of any subsequent modifications and refinements, such as that now proposed within the Marshall Road road reserve.

An Urban Water Management Plan (UWMP) has been developed for the Aspen Group's Stages 1J – 1N, being the Early Release subdivision area within LSP2B, and provides technical content confirming the modifications to the LSP2B plan as they differ from the previously endorsed LWMS for the greater district and are consistent with the objectives of the LWMS, including flood management and the proposed stormwater system design. The UWMP has been accepted by the City of Swan and the Department of Water in March 2011.

5.11 SERVICING INFRASTRUCTURE AND UTILITIES

The Engineering Servicing Report at Appendix 1, and as also supplemented by Figure 8, confirms the manner in which infrastructure will be provided. A summary of the report is provided below. The Report confirms that there are no identified servicing constraints that prevent the land from being developed as intended, with the site able to be serviced with all essential services and infrastructure.

5.11.1 Power

All power lines will be relocated underground as part of the subdivision construction, including the existing 22KV high voltage powerlines and the low voltage distributor aerial lines currently located within some existing road reserves in LSP 2B. All new lots will be serviced via new distributor services as part of fulfilling the normal Western Australian Planning Commission conditions of any subdivision approval.

The existing 330KV powerlines along the southern side of Marshall Road reserve shall be retained in its current easement status and does not impact on the LSP 2B future residential lots however consideration to the powerline infrastructure and the easement constraints has been taken into account in devising the Marshall Road design.

5.11.2 Communications

Both optical fibre and local cable communication infrastructure is available to the LSP 2B area. Developers within the LSP 2B area can therefore provide connection to all normal telecommunication infrastructure by applying directly to Telstra, in doing so, consideration can also be given to broadband internet connections. As there is no statutory requirement for this to be provided as an essential infrastructure item as a condition of subdivision approval, discretion by each developer may result and each developer should undertake their own investigations in this regard, noting that the earlier staged subdivisions do not restrict the ability for subsequent developers (or landowners) to extend or connect to the network(s).

5.11.3 Water

The installation of 2690m of 600mm water main from the intersection of Benara and Altone Roads to the intersection of Patricia Street and the Lord Street extension (to the south west of the subject site) was completed, with a subsequent extension via a 250mm connection along Patricia Street to Arthur Street and then up to the intersection of Arthur Street and Marshall Road as part of achieving the Stage One Early Release subdivision works.

Some initial lots within LSP 2B may be able to be serviced via the 250mm connection now located at the Arthur St/Marshall Rd intersection. The balance of the LSP 2B area however will require the extension of the 600mm water main along the Lord Street road reserve to Marshall Road, and then a 250mm service east along Marshall towards Arthur Street.

All lots however will be provided with connections as part of the future subdivision works and in accordance with Water Corporation requirements via the installation of water reticulation throughout the subject area within the common trench, along with other essential services. The Water Corporation's expectation is that the developer shall fund all water, sewer and drainage reticulation and that contributions towards headworks may also be required. Additionally, the developer may be required to fund new works or the upgrading of existing works and protection of those works. Any temporary works will need to be fully funded by the developer and land ceded for these works. Developers will therefore continue to liaise with the Water Corporation at:

- The preliminary planning stage of any development to determine the Corporation's current servicing and land requirements; and/or;
- Every 6 months to confirm if the information provided is still valid.

5.11.4 Sewer

The provision of reticulated sewer to the LSP2B area is intended as a three phase process.

Phase 1 being the initial capacity expansion for approximately 500 lots (which includes those lots within nearby LSP 1). This phase involves the recently constructed Type 40 pumping station on land within Caversham along Patricia Street near the low-point of the Caversham landholdings in the vicinity of the ungazetted tributary. This interim facility allows for "early release" subdivisions both within Caversham and within Dayton but then no further temporary servicing is proposed.

The second phase being the ultimate capacity expansion to service the entire Dayton district area plus other developments in Caversham to the south.

Phase two requires the construction of a Type 180 Pumping Station near the intersection of Benara Road and Bennett Street. There is potential this will be constructed in a staged approach starting as a Type 40, then upgraded to a Type 90 pumping station up to its final configuration as a Type 180 PS, (this will be determined in an upcoming Project Design Review or PDR which will be undertaken by the Water Corporation). The Water Corporation requires developer contributions to the purchase of the landholding required for the pumping station site. The infrastructure includes the construction of a rising main connecting the proposed pump station to infrastructure approximately 4 kilometres away near the intersection of Benara Road and Tonkin Highway.

The final phase being the provision of the internal sewer servicing network. The Water Corporation's current planning allows for two separate sewerage catchment areas within the overall Dayton district area. This includes a smaller catchment and associated Type 10 pump station (pumps at a maximum rate of 10 litres per second) that is contained entirely within Dayton and located along the eastern boundary of the LSP 2B area and includes less than approximately 50% of the LSP 2B area. The second catchment includes the western portion of LSP 2B and is part of a much larger catchment that also includes all of the developable area south of Reid Highway and east to Bennett Brook as well west into West Swan West. The eastern portion will then discharge, via a 100mm rising main, into the larger overall catchment.

All proposed lots within LSP 2B will be provided with connections in accordance with Water Corporation requirements. The cost per lot to install the internal sewerage reticulation is expected to be relatively high as a result of:-

- The likelihood that many of the sewer lines deeper than approximately 2.5 metres below finished surface level may need to be dewatered.
- The potential for deep sewer lines due to the relatively flat nature of the site.

Again, the developers will continue to liaise with the Water Corporation in this regard.

5.11.5 Site Drainage

Development outfall flows will need to be attenuated to pre-development flows as presented in the DWMP (DoW, 2009), necessitating installation of compensating basins/swales with the accompanying bioretention areas for frequent storm events, some of which is proposed within public open space and some within road reserves, including Marshall Road. This is addressed in the report by JDA Consultants contained in the related DSP for Dayton, but in essence will involve provision of piped street and roof drainage water to site flood attenuation areas, with the major storm events being discharged offsite via connections to existing drainage installations. The endorsed Local Water Management Strategy prepared for Dayton addresses the flow discharges.

Site disposal of roof drainage will be via soakwells where capacity to infiltrate stormwater exists. Fill will be required to lift developed lots to the level above the estimated annual average groundwater level (AAMGL), The fill is required by the Western Australian Planning Commission, as agreed with the City of Swan, JDA Consultants and Tabec Engineering Consultants.

5.11.6 Gas

A Pressure Reduction Valve to the existing 350mm High Pressure Gas line running along Marshall Road from the west was installed near the intersection of Marshall Road and Arthur Street as part of the Early Release subdivision works. Whilst gas is not an essential service required as a condition of subdivision by the Western Australian Planning Commission, the newly extended infrastructure is sufficient to supply gas to the rest of the LSP 2B area with only some minor local extensions within road reserves to then be constructed as part of the subdivision works to service those future lots.

Where any section of the 350mm High Pressure gas pipeline is not already adequately protected in an easement, an easement will be required as part of the subdivision works, noting that the pipeline correspondence predominantly with the proposed 'Public Utility' reserve which adjoins but is external to the LSP2B area.

6. IMPLEMENTATION

6.1 STATUTORY PROVISIONS SUMMARY

Table 5: Statutory Implementation of LSP 2B

Element of Local Structure Plan	Statutory Provision to be Applied	
1. Structure Plan Area	This Local Structure Plan shall apply to land generally bounded by land just north of Cranleigh St in the north, Arthur St to the west, the southern extent of the 330KV powerline easement and the eastern extent of the MRS Urban boundary and gas pipeline easement, all within the suburb of Dayton being the land contained within the inner edge of the line denoting the subject area on the Local Structure Plan Map.	
2. Structure Plan Map	<p>The Local Structure Plan Map (figure9) outlines land use, zones and reserves applicable within the Structure Plan area.</p> <p>The zones and reserves designated under this Structure Plan apply to the land within it as if the zones and reserves were incorporated into the Scheme.</p>	
3. Use Class permissibility	Land use permissibility within the structure plan area shall be in accordance with the corresponding zone or reserve under the Scheme with the exception of the following:	
	Applicable Zone	Additional Use Class & Permissibility
	Residential	'Sales Office' is an 'A' Use
4. Residential Design Requirements	The Local Structure Plan Map defines the Residential Density that applies to specific areas within the Structure Plan. Residential development is to be consistent with the <i>Residential Design Codes</i> with the exception of the variations outlined within 5.2.4 of the Structure Plan Report or may as otherwise be varied by Detailed Area Plans prepared in accordance with 5.2.6.	
5. Development Contribution Arrangements	<p>The Structure Plan area is within Development Contribution Area 2 (DCA2) as identified in the Schedule 13 of the City's Local Planning Scheme 17 (LPS17). The following provisions apply:</p> <p>a) A Development Contribution Plan applies to this Structure Plan area and should be read in conjunction with the Structure Plan.</p> <p>b) Any landowner seeking subdivision within the Structure Plan area is to contribute in accordance with the endorsed Development Contribution Plan.</p>	

	<p>c) If subdivision is sought;</p> <ul style="list-style-type: none"> • for land which has not already been approved for subdivision under an early release subdivision approval; <p style="padding-left: 40px;"><u>and;</u></p> <ul style="list-style-type: none"> • prior to the DCP's incorporation into Schedule 13 of LPS17 so as to be given effect under that Scheme; <p>the owner/developer shall first enter into a deed with the City of Swan that requires the owners/developers to make an appropriate cost contribution upon notification by Council that payment is required and securing payment of any balance that might be due on gazettal of the DCP for DCA 2, as contemplated by Clause 5A.2.7.2 of LPS17.</p> <p>Subdivision or development of those lots which are not the subject of a deed is not to occur until such time as the provisions of the relevant Development Contribution Plan for DCA 2 - Dayton (West Swan East) have been incorporated in Schedule 13 of LPS17.</p> <p>d) The staging of some (but not all) DCP infrastructure works and arrangements is summarised in Table 6 within 6.2 of the report.</p>
<p>6. Limitations or restrictions affecting subdivision and/or development</p>	<p><u>a) Development Contributions to DCA 2</u></p> <p>Subdivision is not to occur until the DCP is approved and incorporated into the Scheme or the developer/landowner first enters into a Deed of Agreement with the City in accordance with Point 5 above and 6.2 of the Local Structure Plan report.</p> <p><u>b) Development / Subdivision within the Parmelia Pipeline setback distance, as specified in Planning Bulletin 87:</u></p> <p>Prior to subdivision of Lots 26 or 29 Sam Rosa Place or Lot 549 Malvern Street, a Risk Management Plan must be prepared in accordance with the requirements of the WAPC's Planning Bulletin 87. Such Risk Management Plan is to be approved by the Parmelia Gas Pipeline operator and implemented to the satisfaction of the Western Australian Planning Commission.</p> <p><u>c) Development / Subdivision within the Dampier to Bunbury Natural Gas Pipelines Easement & Setback distance, as specified in P.B. 87:</u></p> <p>At the time of subdivision of properties containing the pipeline easement, a condition of subdivision approval will be imposed requiring that the land containing the easement will be ceded free of cost to the crown, vested in the Department of Regional</p>

	Development and Lands with a Management Order to the DBP.
7. Detailed Area Plans Requirements	Detailed Area Plans may be required by the WAPC on advice from the City of Swan as a condition of subdivision. See Section 5.2.6 of the Local Structure Plan report.
8. Public Open Space	<p>The structure plan map nominates locations of POS areas, with POS to be provided generally in accordance with 5.3 and Table 4 of the Local Structure Plan report.</p> <p>The final accreditation of a particular POS is subject to detailed design and landscape plans, demonstrating its function and usability for recreational purposes to the satisfaction of the City.</p>
9. Additional Reports/Tasks Required at Subdivision / Development	<p>In accordance with the City of Swan Local Planning Scheme 17 as it applies to Special Use Zone 11 - West Swan (East), the District Structure Plan for Dayton (ODP-159) and various agencies requirements, additional investigations, reporting or infrastructure considerations are required as part of, or prior to subdivision approval over the balance of the Structure Plan area.</p> <p>The investigations / tasks summarised in 6.4 of the Local Structure Plan report (as applicable) shall be implemented upon approval of subdivision or development and read in conjunction with provision 6.2 of Special Use Zone 11 - West Swan in Schedule 4 of the Scheme.</p>
10. Operation Date	In accordance with clause 5A.1.12.1 of the Scheme, this Local Structure Plan shall come into operation on the day on which it is endorsed by the Commission, pursuant to clause 5A.1.10.2 of the Scheme.

6.2 DEVELOPMENT CONTRIBUTIONS ARRANGEMENTS

West Swan East District Structure Plan area, which includes the LSP 2B area, is identified as 'Developer Contribution Area 2' (DCA 2) within Schedule 13 of LPS 17. DCA 2 in Schedule 13 gives effect to the Dayton Development Contribution Plan ('DCP').

The objective of the DCP is to ensure equitable distribution of development costs between stakeholders and is the mechanism that delivers the Swan Urban Corridor Sub Regional Structure Plan, the Urban Growth Corridor – Sub Regional Planning Community Facilities Analysis and the West Swan East District Structure Plan outcomes.

The DCP applicable to DCA2 identifies a number of infrastructure items within or immediately adjoining the LSP 2B area, as well as throughout the wider District, which are required to be ceded, resumed or constructed as part of the process of converting Dayton

from a predominantly rural use to an urban use consistent with the structure planning outcomes. The 'Infrastructure Demand' is apportioned across the development in order to derive Infrastructure Contribution Rates for each network of Infrastructure. Each developer will be required to make Cost Contribution payment based on the area that they develop and the applicable Contribution Rate for DCA 2.

Table 6 below lists:

- a) The DCP items that are within or borders the LSP2B area or are works/arrangements that need to commence as part of the development of LSP2B, and;
- b) The triggers for the completion of these DCP items before or at the subdivision clearance of deposited plan that generates the lot (or its unit of equivalent demand) that meets or exceed the trigger specified in that table.

This is not a comprehensive listing of works and land identified in the endorsed Development Contribution Plan for DCA 2, so where a DCP item is not listed in the table below, the trigger for the acquisition and/or construction of the DCP item is addressed in its relevant Local Structure Plan and the 'Capital Expenditure Plan for the Urban Growth Corridor' ('CEP'). In the absence of an endorsed LSP or CEP, the CEP advertised by City of Swan applies.

The construction of DCP items will be guided by subdivision and the CEP, which will give due regard to the triggers in the endorsed LSP2B and availability of funds.

Any developers seeking subdivision within LSP2B must contribute to the endorsed DCP applicable to DCA 2 as contemplated by Clause 5A.2.5.2 of the City of Swan Local Planning Scheme No.17. If however subdivision is sought prior to the final endorsement of the DCP and its incorporation into Schedule 13 of LPS17, the owner/developer shall first enter into a deed with the City of Swan that requires the owners/developers to make an appropriate cost contribution upon notification by Council that payment is required and securing payment of any balance that might be due on gazettal of the DCP for DCA 2.

Table 6: Triggers for DCP Works

Item on LSP plan	DCP Code	Description of DCP item	Description if the DCP item needs to be acquired and/or constructed in stages	Trigger (dwelling units or equivalent)
1	E-IRF03	Roundabout Cnr Arthur St and Cranleigh St	Construct roundabout	Primary School and/or LSP2B (1200 du)
3	E-TRF03	Upgrade Arthur Street (Marshall Rd to Cranleigh St)	1. Widen and kerb west side	Northern LSP1 (800 du)
			2. Upgrade to integrator B standard	1200 du
5	E-IRF01	Roundabout Cnr Marshall Road and Arthur Street	Construct roundabout	1200 du
See LSP1	E-TRF05	Upgrade Marshall Road	Upgrade to integrator B	1200 du
See LSP1	E-TRF04	(Lord St to Arthur St)	standard	

6	E-TRF32	Construct Marshall Road (east of Arthur Street)	Construct to integrator B standard	1200 du
7	E-IRF05	Roundabout Cnr Marshall Road and link to Sam Rosa Place	Construct roundabout	1200 du
8	E-TRF38	Construct Marshall Road (eastern section of LSP2B)	Construct to integrator B standard	1200 du
9	E-IRF02	Intersection of Marshall Road and LSP2B eastern access street	Construct priority controlled intersection	1200 du
10	E-TRF39	Construct Marshall Road (west of Henley Brook Ave)	Construct to integrator B standard	1200 du
11	E-ISE01	Roundabout Cnr Marshall Road and link to Henley Brook Ave	Construct roundabout (see Appendix 2)	1200 du
***		Upgrade to Coast Road between Arthur Street and West Swan Road	Localised widening and enhanced street lighting	1200 du
		Intersection of Coast Road and West Swan Road	Construct priority controlled intersection	1200 du
12	E-TRF25 to 29, 33, 34 & 35, E-ACQ07 to 13	Construct Henley Brook Avenue (Marshall Road to Reid Highway)	Land acquisition and construct first carriageway.	1200 du
			Construct second carriageway	Year 2023
See LSP2A	E-ITF04	Intersection of Henley Brook Ave and Victoria Rd	Construct priority controlled intersection	1200 du

*Given Henley Brook Avenue depends on land acquisitions and Marshall Rd depends on the willingness of multiple affected landowners to subdivide, these roads may not be available by the time the 1200 dwelling unit trigger is reached. If Marshall Rd and Henley Brook Ave are not available, then Coast Rd (notated *** on Table 6) is presented as an interim arrangement that a subdivider (or the City and WAPC through a condition of subdivision) can implement until the ultimate access arrangement (Marshall Road & Henley Brook Avenue) or an alternative access strategy is agreed upon & implemented. See Appendix C of the Transport Assessment for these alternative access strategies.*

6.3 GROUNDWATER AND STORMWATER MANAGEMENT

Groundwater and stormwater management systems will be implemented by the subdivider(s) separate to the Development Contribution Plan (DCP) for Development Contribution Area 2 (DCA 2). Drainage infrastructure does not form part of the cost-sharing arrangements in the DCP for DCA 2.

As the precise nature of the drainage infrastructure will be determined in the Urban Water Management Plan(s) at subdivision, it is premature to speculate on the costs and design of all drainage infrastructures in all Public Open Spaces. Consequently stormwater and groundwater management in LSP2B will be implemented as follows:

- a) The approved Urban Water Management Plan shall be implemented by the subdivider, including the construction of the identified stormwater and groundwater management systems;
- b) Although subdivision may be prepared over a single landholding, the drainage planning in a UWMP cannot be limited to the extent of the subdivision and must demonstrate how the UWMP integrates with the approved LWMS;
- c) If the UWMP significantly varies from the approved LWMS and is approved by the Department of Water and Local Government, the relevant UWMP is to state that there has been a modification to the LWMS subcatchment and future development within the modified subcatchment should be undertaken in a manner consistent with that modification accordingly. If the Department of Water or City of Swan requests the LWMS to be amended this is to be undertaken at the applicant's expense with the structure plan modified in accordance with the provisions of 5A.1.14 of Local Planning Scheme 17;
- d) Where groundwater and stormwater management systems are proposed in a POS, all works and land required for the drainage functions will be delivered through conditions of subdivision;
- e) Where the work/embellishment of a POS is in excess to what is prescribed in the adopted DCP for DCA 2, the completion of this component of the work by a landowner or a collective group of landowners cannot offset their liability under the DCP for DCA 2;
- f) As per the Swan River Trust's advice and Council's resolution on the District Structure Plan, Urban Water Management Plans at subdivision shall: (1) Use the most recent data for estimated annual flow for Bennett Brook for its percentage runoff calculations and design, which is available from Swan River Trust website; (2) Use information on the ecological water requirements from the recently released Swan Canning Water Quality Improvement Plan, which is available from Swan River Trust website, and; (3) Where Controlled Groundwater Levels (CGL) are proposed, provide justification regarding the implications for water quality treatment, and where necessary specify alternative treatment measures; and
- g) Subsequent Urban Water Management Plans are to implement the water efficiency and conservation principles in the approved Local Water Management Strategy.

In addition to the above, any artificial dams located within LSP 2B (generally identified on the Site Analysis Plan) shall require engineering certification of the closure of the artificial dams to be provided to the City of Swan as a condition of the local structure plan's approval.

6.4 STAGING OF SUBDIVISION AND DEVELOPMENT

Upon successful advertising, adoption and endorsement of the LSP, landowners within the LSP2B may progress to subdivision and/or development over the balance of the LSP2B which has not previously been granted subdivision as part of the Early Release program. It is likely that subdivision over the Aspen owned land near Arthur Street shall be sought and approved soon after LSP 2B approval and the final construction of the Early Release area lots immediately east of the wetland. The timing of other subdivisions is dependent upon individual landowner intentions and is therefore indicatively nominated as a third and fourth stage.

An indicative staging plan is included at Figure 10 to assist in illustrating the likely order of staging and subdivision construction works within the LSP 2B area but is simply a guide to likely logical progression partially based on Aspen's program and partially on proximity to servicing extensions, noting that the 500 lot sewer allocation provides an initial hurdle for release of lots until additional extensions are realised.

In relation to the infrastructure items and the triggers mentioned in table 6, it is intended that the completion of these upgrades will be constructed before or at subdivision clearance of deposited plan that generates the lot (unit of equivalent demand) that meets or exceeds the triggers.

6.5 SUBSEQUENT TECHNICAL REPORTS REQUIRED

In accordance with the City of Swan Local Planning Scheme No.17 as it applies to Dayton and also in accordance with the District Structure Plan and various agency guidelines and policies, additional investigations, reporting or infrastructure considerations are required as part of, or prior to, achieving subdivision construction over the balance of the LSP 2B area and to which developers and landowners should take note. These additional studies are summarised in Figure 13 of this report and are generally an extension of broader level investigations undertaken as part of the structure plan preparation.

7. CONCLUSION

The Dayton Local Structure Plan 2B report and accompanying plan and appendices satisfies Council's Scheme requirements with respect to a District Structure Plan being in place prior to the more detailed Local Structure Plan endorsement and substantive subdivision and development of the land, excluding the separate Early Release Subdivision approval previously granted by the Western Australian Planning Commission in late 2010.

The Local Structure Plan as described in this report generally satisfies the planning frameworks adopted by the City of Swan and the Western Australian Planning Commission and the previous advice received during consultation with other agencies. The Plan should ultimately assist in achieving a contemporary and well integrated suburb that helps provide a transition from west to east and north to south (both via the road and path network, public transport access, land use allocation and residential densities) whilst also helping contribute to a vibrant heart centered around a local commercial centre to the immediate south-west, linked by an Activity Corridor along the LSP 2B's western boundary and with strong overall emphasis on the POS areas and primary school as an important contributor to the cell and the wider district.

In light of the above, the Local Structure Plan as submitted would represent a logical, well planned and timely addition to the ongoing development of the City of Swan's Urban Growth Corridor and the next stage of implementing the District Structure Plan.

NOTES:

1. Areas and dimensions are subject to survey.
2. The road layout is subject to final design at subdivision. See Traffic Assessment Report (Appendix 2) and Concept Plans (Appendix 7) for further information.
3. All corner lots that are coded R20 can be developed/subdivided to a maximum density of R30.
4. The function and design of public open space areas shall be generally in accordance with the concept plans included in the LSP 2 documentation, though still subject to refinement as part of Landscape Management Plans to be approved prior to construction.
5. Subdivision and development within residential areas shall comply with the 'Residential zone of Local Planning Scheme No.17 and the Residential Design Codes as they apply to the designated R Codes reflected on this plan , or referred to in Note 3 above .
6. No dwellings permitted within gas pipeline buffer. Notifications on title apply to lots containing gas pipeline buffer.
7. Use and development within the designated 330KV Powerline Easement shall be subject to approval by Western Power and the City of Swan, the intention being for this corridor to be utilized for low maintenance open space, community garden opportunities, pedestrian/cyclist path network, road reserves and car parking in a manner consistent with the existing power line easement .
8. A Developer Contribution Plan (DCP) applies to this cell & should be read in conjunction with the Structure Plan. Triggers for DCP Items/Works (see s.6.2).
9. Detailed Area Plans may be required by the WAPC on advice from the City of Swan as a condition of subdivision (see s.5.2.6.).
10. Any subdivision of Lots 26, 28, 29 and 127 is to be designed in a manner that achieves satisfactory road access to a constructed public road for the balance rural lots.
11. The existing drainage basin on Lot 27 Coast Road is to be relocated/redesigned as a result of the Structure Plan development at the developers expense.
12. Any artificial dam located within the Structure Plan area is to be formally closed via City of Swan engineering certification as part of the subsequent development of the land by the applicable landowner/developer.
13. Prior to subdivision of Lots 26 or 29 Sam Rosa Place or Lot 549 Malvern Street, a Risk Management Plan must be prepared in accordance with the requirements of the WAPC's Planning Bulletin 87. Such Risk Management Plan is to be approved by the Parmelia Gas Pipeline operator and implemented to the satisfaction of the Western Australian Planning Commission.
14. The residential laneway immediately south of Cranleigh Street is to have left in, left out access only from Arthur Street.

LEGEND

- Subject Area: LSP 2B
- Residential Zone
- Public Purpose Reserve
Primary School
- Public Open Space/Drainage
- Resource Enhancement Wetland
- 50m Wetland Buffer
- MRS Other Regional Road
- Indicative Carriageway
- Activity Corridor - Home Based
Business / Home Office Opportunitites
- Dual Use Path
- Public Utility
- 330KV Powerline Easement & Road Reserves
- Gas Pipeline Easement
- 70m Buffer to Parmelia Gas Pipeline
- DCP Item (s6.2 Table 6)



LOCAL STRUCTURE PLAN 2B

City of Swan



SCALE 1:4000 @ A3
 DATE: 7th JULY 2020
 FILE: 978_07.07.2020.dwg
 DRAW: - SB
 CHECKED: -



DYNAMIC PLANNING AND DEVELOPMENTS

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