STRUCTURE PLAN

WAPC/2015/1-2

SHENTON PARK HOSPITAL REDEVELOPMENT

Final – January 2017

Endorsement Page

This Structure Plan is prepared under the provisions of the Shenton Park Hospital Redevelopment Improvement Scheme.

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

15 February 2017

Signed for and on behalf of the Western Australian Planning Commission:

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

(Witness)

7 March 2017 (Date)

15 February 2027 (Date of Expiry)

Table of Amendments

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC

Executive Summary

The Shenton Park Hospital Redevelopment (SPHR) Structure Plan (the Structure Plan) area applies to a portion of the SPHR Improvement Scheme area, being the land contained within Lot 3240 Selby Street, Shenton Park, as well as portion of Lots 9358, 9073, 7961, 10149 and 10754 and 10162 to the north.

The Structure Plan area covers the land illustrated at the Structure Plan Map **(Plan 1)**. The Structure Plan area is 16.93ha in size and is proposed to be zoned for Residential, Mixed Use and Urban Development purposes under the SPHR Improvement Scheme.

The Structure Plan for the SPHR site has been prepared to guide and facilitate the subdivision and development of the site for primarily residential purposes, however also anticipates a range of commercial/office, retail and community uses. The Structure Plan has been prepared under the provisions of Part 8 of the SPHR Improvement Scheme.

ITEM	**DATA**	**STRUCTURE PLAN REF (SECTION NO. OF SCHEME REPORT)**
Total area covered by the structure plan	16.93ha	7.1
Area of each land use proposed: - Residential - Mixed Use - Urban Development	 - 7.30ha - 1.69ha - 0.61ha	7.3
Estimated number of dwellings	Minimum 1100 dwellings	6.3.1
Residential site density	R60 to R160	7.3.2
Estimated commercial floor space	A maximum of 5,500sqm net lettable area	6.2.2
Estimated area and percentage of public open space	3.69ha (27.56%)	7.7

1 Part One: Implementation

1.1 STRUCTURE PLAN AREA

The Structure Plan applies to the **Shenton Park Hospital Redevelopment Structure Plan** area. This incorporates land comprising Lot 3240 Selby Street, Shenton Park, well as the following surrounding portions of land, described as Portion of Lots 7961, 9073, 9358, 10754, 10149 and Lot 10162.The Structure Plan area is identified on the Structure Plan Map **(Plan 1).**

1.2 OPERATION

The Structure Plan shall come into operation when the Structure Plan is granted final approval and endorsement by the Western Australian Planning Commission (WAPC), pursuant to Part 8 of the SPHR Improvement Scheme.

1.3 STAGING

Given the size of the Structure Plan area, it is envisaged that the site will not be required to be developed in stages. **Plan 1** illustrates an indicative subdivision design and layout to demonstrate how the details and content of the Structure Plan will be reflected on the ground.

This indicative subdivision layout will be refined throughout the detailed design stage within the context of the requirements of the Structure Plan and will be finalised as part of any formal subdivision application. Staging of physical works in implementing the subdivision will ultimately take consideration of market forces and commercial considerations.

1.4 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

The subdivision and development of land within the Structure Plan area is to generally be in accordance with the Improvement Scheme and Structure Plan that applies to the land, as well as any Improvement Scheme Policies and design guidelines prepared in accordance with Part 2 and Part 3 of the Scheme respectively.

As set out in Part 6 of the Improvement Scheme, general development requirements apply to all development on land subject to this Structure Plan. Prior to lodging an application for any planning approval, the Commission will require the completion of and/or demonstration of compliance with the development requirements set out in Part 6, except where it is justified to the satisfaction of the Commission that the requirements are not relevant to the specific proposal.

1.4.1 Areas hatched 'Area for Vegetation Rehabilitation and Bushfire Management' identified on **Plan 1** shall be managed and rehabilitated in accordance with the Bushfire Management Plan, the Landscape Master Plan and any Landscape Management Plan prepared for the land under provision 1.4.3 of Part 1 of the Structure Plan.

1.4.2 The intent for the hatched areas referred to above is to provide a high amenity environment that promotes the retention of cells of high quality remnant vegetation while providing the necessary setbacks and separation corridors to ensure public safety. The approach to manage bushfire risk is for rehabilitated vegetation to be divided into cells to establish an acceptable Bushfire Attack Level (BAL). These retained cells will contain rehabilitated vegetation with a full tree canopy and understory.

1.4.3 A Landscape Management Plan shall be prepared for areas of rehabilitated vegetation as a condition of subdivision approval. The Landscape Management Plan will guide the management and maintenance actions and responsibilities for the hatched areas on **Plan 1.**

1.4.4 All public open space areas and road reserves shall be identified and incorporated into the Improvement Scheme as Local Scheme Reserves.

1.5 ADDITIONAL INFORMATION

ADDITIONAL INFORMATION	PURPOSE	APPROVAL STAGE	CONSULTATION REQUIRED
Landscape Management Plan	To provide management actions, strategies and responsibilities for the areas of public open space within the Woodland precinct, including proposed rehabilitated vegetation areas.	Condition of subdivision approval (WAPC)	Department of Planning City of Nedlands

STRUCTURE PLAN - PART ONE: IMPLEMENTATION SECTION

SHENTON PARK HOSPITAL REDEVELOPMENT

PROJECT NO: PA1149
CLIENT: LANDCORP
DATE: 01/09/16
DRAWING NO: LSP-01
REV: 7
SCALE: 1:2500@A3
DRAWN: AN
CHECKED: SLL

N

Base data supplied by: MNG
Datum: Geocentric Datum of Australia 1994 (GDA94)
Projection: MGA 94 Zone 50
Positional accuracy: +/- 4m

THE GOVERNMENT OF WESTERN AUSTRALIA

LANDCORP

10754
10149
7961
9073
9358
10162
9722
10024
9585
3240
71
7158
406
384
429
430
10494
5584
11671
12019
13073
CLUBB AVENUE
NICHOLL STREET
NASH STREET
LONNIE STREET
BEDBROOK PLACE
SELBY STREET
LEMNOS STREET
STUBBS TERRACE
RAILWAY ROAD

LEGEND

- STRUCTURE PLAN BOUNDARY
- LOCAL ACCESS ROAD
- POTENTIAL FUTURE LOCAL ACCESS ROAD
- EXISTING CADASTRE

Scale 1:2,500 @ A3

0 10 25 50 100 125m

MOVEMENT NETWORK PLAN

SHENTON PARK HOSPITAL REDEVELOPMENT

PROJECT NO: PA1149
CLIENT: LANDCORP
DATE: 09/09/16
DRAWING NO: MNP-01
REV: 3
SCALE: 1:2500@A3
DRAWN: AN
CHECKED: SLL

N

Base data supplied by: MNG
Datum: Geocentric Datum of Australia 1994 (GDA94)
Projection: MGA 94 Zone 50
Positional accuracy: +/- 4m

THE GOVERNMENT OF WESTERN AUSTRALIA

LANDCORP

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5584
11671
BEDBROOK PLACE
SELBY STREET
CLUBB AVENUE
NICHOLL STREET
NASH STREET
LONNIE STREET
LEMNOS STREET
STUBBS TERRACE
RAILWAY ROAD
1
2
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LEGEND

- STRUCTURE PLAN BOUNDARY
- PUBLIC OPEN SPACE
- MIXED USE (50% DEDUCTION)
- EXISTING CADASTRE
- # POS NUMBER (REFER TO POS SCHEDULE)
- AREA FOR VEGETATION REHABILITATION AND BUSHFIRE MANAGEMENT

Scale 1:2,500 @ A3

0 10 25 50 100 125m

POS PLAN

SHENTON PARK HOSPITAL REDEVELOPMENT

PROJECT NO: PA1149
CLIENT: LANDCORP
DATE: 07/09/16
DRAWING NO: POS-01
REV: 8
SCALE: 1:2000@A3
DRAWN: AN
CHECKED: SLL

N

Base data supplied by: MNG
Datum: Geocentric Datum of Australia 1994 (GDA94)
Projection: MGA 94 Zone 50
Positional accuracy: +/- 4m

THE GOVERNMENT OF WESTERN AUSTRALIA

LANDCORP

7 Part 2 – Structure Plan – Explanatory Section

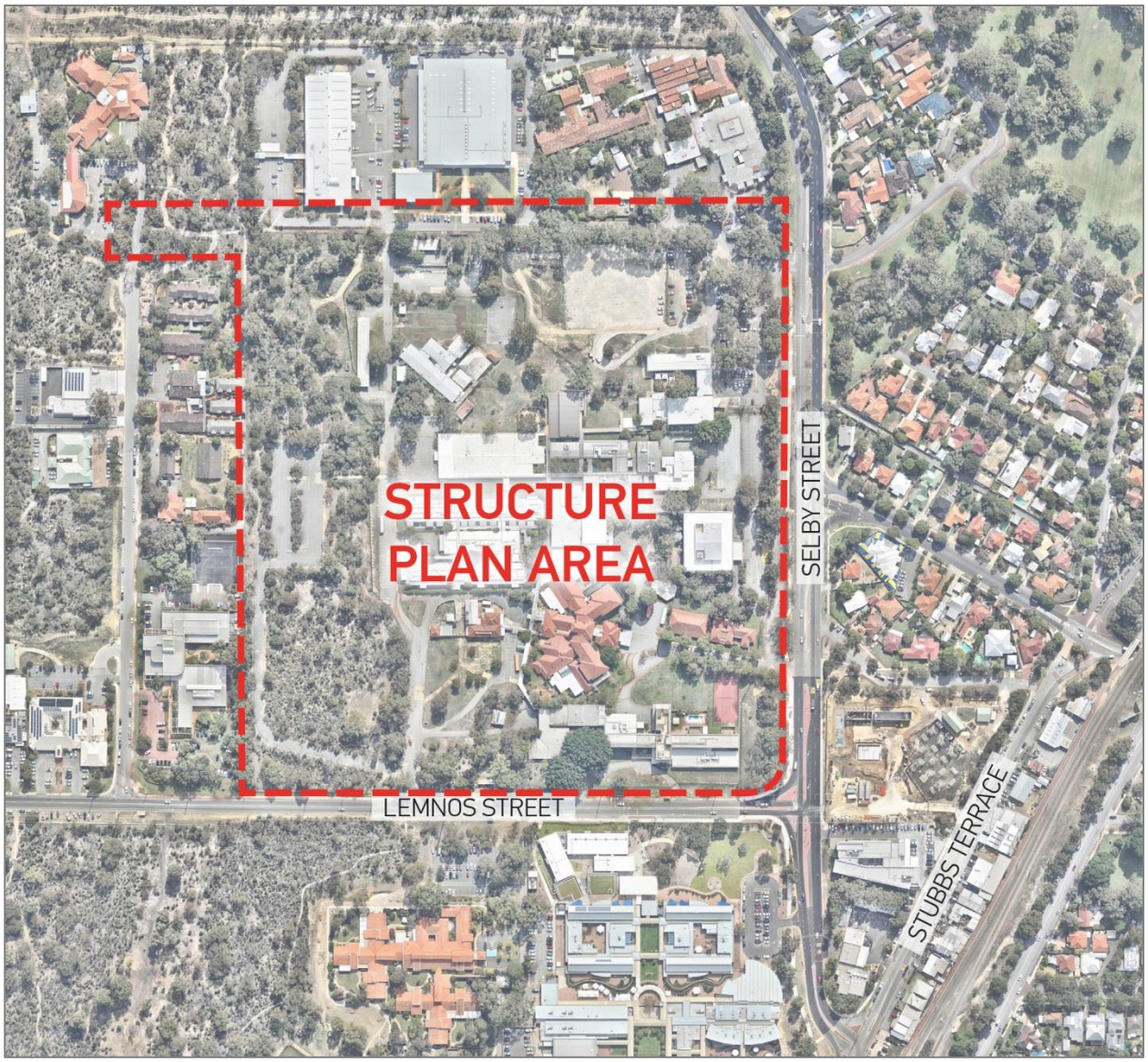
7.1 INTRODUCTION AND PURPOSE

The Local Structure Plan applies to a portion of the Improvement Scheme area, being the land contained within Lot 3240 Selby Street, Shenton Park, as well as portion of Lots 9358, 9073, 7961, 10149 and 10754 and 10162 to the north.

The Structure Plan area covers the land illustrated at **Figure 5** below. The Structure Plan area is 16.93ha in size and is proposed to be zoned for Residential, Mixed Use and Urban Development purposes under the Improvement Scheme.

The Structure Plan for the SPHR site has been prepared to guide and facilitate the subdivision and development of the site for primarily residential purposes, however also anticipates a range of commercial/office, retail and community uses. The Structure Plan has been prepared under the provisions of Part 8 of the Improvement Scheme.

FIGURE 5 – STRUCTURE PLAN AREA



7.2 DESIGN VISION AND OBJECTIVES

The overarching vision for the SPHR Structure Plan is as follows:

> *'The future redeveloped Shenton Park site offers the next evolution of inner city living - an urban village within a landscape setting. The redevelopment of the site will showcase a choice of multigenerational housing, affordable living, and local amenity, whilst retaining distinctive trees to create a neighbourhood with a feeling of security and privacy and clear connections to the train station and surrounds'.*

This vision is underpinned by a set of objectives for the site, which include:

- To celebrate the cultural and heritage aspects of the site through built form and in the design of the public realm and landscape.
- To provide a range of housing densities and typologies supported by local amenities and services in a natural parkland setting.
- To create a sense of place with a strong focus on accessibility and rehabilitation through interpretation of the site's heritage.
- To provide a permeable, accessible and connected public realm with links to surrounding areas and transport.
- To restore and enhance ecological links to create opportunities for passive recreational amenity in collaboration with local community and local authority.
- To encourage climate responsive design in public realm and built form to increase energy efficiency.
- To maximise the use of public transport, cycling and walking.

7.2.1 DESIGN CONTEXT

Based on significant investigations undertaken to guide the preparation of the Structure Plan, a context and constraints plan has been prepared and is attached at **Appendix B.** A summary of the key site characteristics is provided below.

OPPORTUNITIES	CONSTRAINTS
▪ Transit choice – the site is well serviced by bus and train services. ▪ Opportunity for renewal – opportunities to deliver a new community with community facilities and capitalise on the sites location. ▪ Site history – the relics and story of the site provide the capacity to deliver a distinct personality and character. ▪ Adaptive re-use of heritage buildings – existing buildings provide a canvas for adapting the site for reuse. ▪ Supporting amenities and services – there are opportunities to provide service and convenience facilities to cater for the future residents. ▪ Topography – the site has significant level changes providing the opportunity to embrace reinforce view lines, control massing and perception of height and create microclimates. ▪ Housing form – potential to provide a unique and innovative response based on the desirable location, local demographic trends and gaps in the local housing market, ▪ Retention of remnant bushland and significant trees – opportunities to link the site with adjoining Bush Forever reserves (creating a green ecology corridor) should be considered.	▪ Existing overhead power lines – located on the southern edge are unsightly and have setback requirements. ▪ Western Power sub-station – currently limits the capacity to improve the journey to the train station and develop a community hub. ▪ Drainage – a drainage sump is located in the western portion of the site and is visually intrusive and poorly located. ▪ Location of existing services – existing services on unplanned, non-standard alignments cannot be located within private property or contain structures over. ▪ Adjoining Development zone – the site will need to provide for integration and connection with a major development area to the north (owned by UWA). ▪ Integration with Broader locality – the site is relatively isolated from residential development – the only contiguous residential area is across Selby Street which presents a barrier to integration and connection. ▪ Existing access considerations – there are poor pedestrian linkages from the site to the train station and the road network on the periphery is currently structured to purvey traffic past the site and does not provide for integration.

7.2.2 DESIGN EVOLUTION

The SPHR project was initiated in 2012 to investigate the future use of the site when the new State Rehabilitation Centre opened at the Fiona Stanley Hospital – which has now occurred. From design inception to the preparation of this Improvement Scheme and Structure Plan, the redevelopment of the site has been an evolutionary process, informed by a significant body of technical work and community and stakeholder engagement.

The following section provides a design narrative that concludes with the preparation of this Improvement Scheme and Structure Plan, including an outline of the processes that have informed the overall design evolution.

7.2.2.1 PLACE VISIONING REPORT – APRIL 2012

A project vision plan was prepared in April 2012 which set out how the site could be redeveloped, to inform a business case for LandCorp to acquire the land. The key elements of this vision plan were as follows:

- Retention and adaptive re-use of existing buildings, including Victoria House for residential or mixed use purposes and a portion of Thorburn House for potential student accommodation as a temporary use (with a long term vision for redevelopment). Retention of existing significant vegetation was also a key consideration.
- The plan allowed for flexible cell proportions to accommodate a range of building typologies including terrace housing, maisonettes, walk-up apartments and apartment buildings. Building heights were proposed based on a desire to blend with the existing built form on-site.
- A retail/commercial precinct proposing shop/retail uses and ancillary specialty/office uses. A north facing piazza orientated along the 'main street' at the entrance to the precinct was also envisaged.
- The initial place vision thematically divided the site into 4 precincts, each with their own characteristics , including the western bushland which comprises an elevated area with views to the CBD, the lower density housing product to the north, the north facing courtyard development comprising Victoria House and campus style development on Lemnos Street.

7.2.2.2 DRAFT MASTER PLAN DESIGN – 2014

Based on the previous conceptual design work, a draft Master Plan design was prepared for the site which was used as the basis for community and stakeholder engagement. Key elements of the original draft Master Plan design are as follows:

- The Master Plan provides for a number of medium to high density housing options, allowing for mixed uses. The design interfaces with health uses and the natural environment, creating an active and healthy space.
- The Plan integrates the natural and built environment – the design retains much of the existing topography and incorporates best practice water sensitive urban design.
- The development design vision attempts to reuse existing heritage buildings whilst demonstrating new built form outcomes.
- The design promotes contemporary Australian architecture and urban design, whilst meeting the challenges of long term sustainability. The built form at key nodes focuses on street level activation and will appropriately respond to the opportunities and constraints of the site.
- The design integrates a level of flexibility to enable a transition in densities over time.

7.2.2.3 COMMUNITY AND STAKEHOLDER ENGAGEMENT

Based on the draft Master Plan, a consultation process was undertaken from August 2014 to January 2015. This included telephone and online surveys, two public forums, focus groups with stakeholder groups and the establishment of a Community Reference Group. The draft Master Plan was then made available for public comment between the 8th December 2014 and 30th January 2015.

A number of submission and comments were received which informed the evolution of the draft Master Plan. Key changes undertaken in response to community and stakeholder feedback included the reduction in developable land area within the remnant bushland area and the addition of single residential lots (townhouses).

7.2.2.4 DESIGN REVIEW AND FINAL DRAFT MASTER PLAN

An independent internal design review process at LandCorp was undertaken (chaired by the Government Architect) to inform the final draft Master Plan and statutory documents. **Figure 6** overleaf, provides a comparison between the draft and final draft Master Plan. Key changes include:

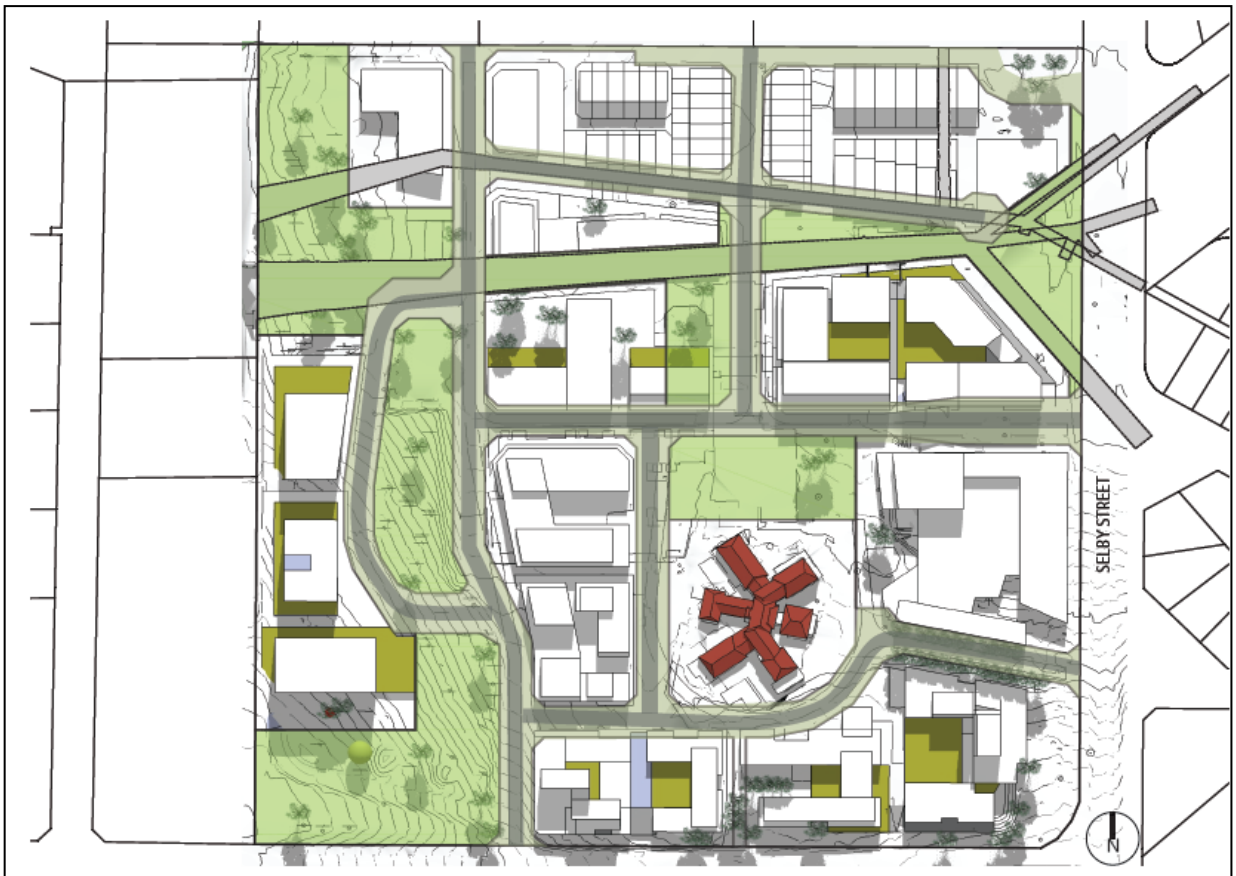
- The road layout was simplified without comprising overall site responsiveness.
- Lot shapes were improved to maximise the use of land and avoid truncation and fractured corners.
- Vehicle access points were rested to minimise the dominance along key pedestrian roads.
- A 3D model was developed to test and modify the urban form and internal street edges/connections including the optimum locations of height.
- Further analysis was undertaken in regard to the location of apartment buildings within the Woodland Precinct with road access modified to improve street activation and integrate bushfire requirements.
- The hierarchy of streets has been further developed.
- The Plan was cross-referenced with a tree survey within lot boundaries and develop built form options to test and confirm suitable species for retention or removal.
- Increase the potential green space adjacent to G Block (State heritage listed building) to allow interpretation of heritage outcomes and overall improvement to wider green interspace connectedness.
- Increased curtilage surrounding Victoria House (State Heritage listed building).

A 3D model has also been developed to test height, bulk, setbacks, street interface, views, building separation, overshadowing and the interface with Victoria House and the other retained elements, such as the therapeutic courtyard garden, adjacent to G Block. This 3D model has been used to determine key development requirements outlined in the Improvement Scheme.

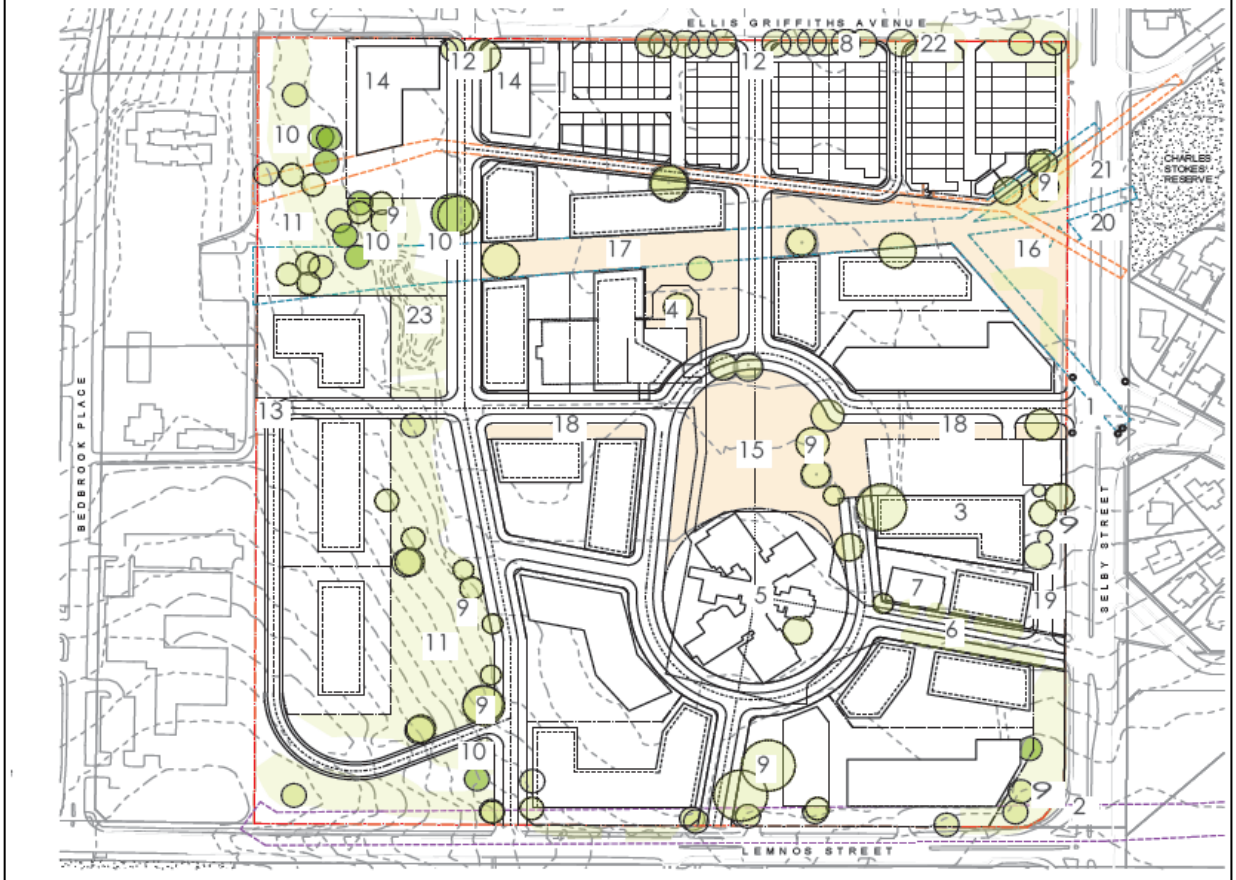
7.2.2.5 GREEN STAR

An opportunity to obtain accreditation through the Green Star Communities Assessment rating tool is currently being investigated. The accreditation process is likely to be progressed over the next year and will be managed concurrently with the statutory planning process.

FIGURE 6 – DRAFT AND CURRENT MASTER PLAN DESIGN



Current DRAFT Master Plan - 2015



Draft Master Plan - 2014

7.3 LAND USE AND SUBDIVISION REQUIREMENTS

7.3.1 LAND USE

The Structure Plan provides the following areas:

- 7.30ha residential zoned land.
- 1.69ha mixed use zoned land.
- 0.61ha urban development zoned land.
- 3.69ha public open space.
- 3.64ha roads.

The proposed road network facilitates efficient access to and from the site in all directions with accessibility to the surrounding road network.

7.3.2 RESIDENTIAL

Residential density has been designed to achieve a minimum yield of 1,000 dwellings over the Residential zoned portion of the site. The proposed planning framework does however provide capacity for additional dwelling yield to be delivered, subject to appropriate built form design responses being delivered in accordance with the design guidelines and approvals being obtained. This will also be guided by market demand and therefore will be a matter for prospective developers/builders to determine.

In the interests of establishing a level of flexibility and in accordance with orderly and proper planning, dwelling yields of up to 1,600 have been tested in the various technical assessments accompanying the Structure Plan to ensure that there is sufficient infrastructure capacity both currently and into the future to cater for demand.

The densities have been distributed based on their spatial location in the context of the Structure Plan area and the wider locality and shaped by site conditions and the outcomes of extensive stakeholder and community consultation. Density distribution will ensure a sensitive transition and integration between adjoining residential areas and Shenton College.

The Structure Plan proposes a density range of R60 to R160 across the site resulting in an estimated minimum yield of 1,100 dwellings. This is to allow flexibility at subdivision stage to achieve the best design outcome. The Structure Plan map allocates an R-Coding to specific development cells (R60 or R160).

7.3.3 CLIMATE RESPONSIVE DESIGN

The Structure Plan design promotes climate responsive design in order to increase energy efficiency. This will be further promoted through the design guidelines, which will address items of a detailed design nature such as thermal efficiency, solar design, shading, ventilation and water collection.

7.4 MIXED USE DEVELOPMENT

The Structure Plan proposes 2.22ha of land within the Heritage Precinct to be developed as mixed use development. This area comprises a development cell along Selby Street to the east, as well as Victoria House and the area of public open space to the north.

The intent for this area is to provide an activated local commercial centre at Selby Street comprising a supermarket and a range of ancillary retail/shop uses. Residential uses are permitted above commercial uses within the Mixed Use zone, to encourage a variety of active uses. A minimum dwelling density yield of 130 dwellings is proposed over the Mixed Use zone portion of the site.

The Structure Plan also proposes the retention and reuse of the heritage-listed Victoria House, for residential, community and/or commercial purposes as well as the retention of trees to reinforce the boulevard style entrance to the site. The overall intent for this precinct is to deliver a commercial and community heart for the Structure Plan area. A strong sense of place and community will also be promoted, as well as a high level of streetscape design.

7.5 EXISTING BUILDING

Curtin University occupy a portion of the Structure Plan area for the purposes of a Health Research Campus. This building will remain and form part of the development for an agreed lease term between LandCorp and Curtin University, and is to remain serviced throughout initial site works.

7.6 INTERFACE TREATMENTS

7.6.1 SHENTON COLLEGE

The Structure Plan is cognisant of the adjoining Shenton College High School. In order to respect this existing use, the Design Guidelines require development fronting Shenton College or adjacent to existing residential development to be designed to limit overlooking within acceptable levels. This may include planting trees in specific locations to provide a visual screen. Further, level changes in this area will ensure impacts of building height are minimised in this location.

7.6.2 BEDBROOK PLACE

The Structure Plan proposes to maintain an existing vegetation corridor in this area as well as provide a suitable buffer and transition to existing uses on Bedbrook Place, to the west. Given the nature of existing uses on Bedbrook Place, the proposed building orientation is predominately to the east, to capture superior views of the city. Should the properties on Bedbrook Place be developed in the future, there may be scope for the future activation of the western edge of the Structure Plan area to respond to any new development.

7.6.3 SELBY STREET

Selby Street provides the main access to the Structure Plan and connects Underwood Avenue with Stubbs Terrace. Given this context, commercial uses are concentrated adjacent to Selby Street in a highly accessible location, which will avoid access through surrounding lower order streets.

The Design Guidelines also ensure buildings present an appropriate response to the street, through the use of setbacks and maximum building heights. Further, there are several areas on this frontage have been identified for public open space purposes to accommodate existing services or for the retention of trees. This will ensure an appropriate transition between the proposed medium-high density development with the existing low density residential areas to the east of Selby Street (within the City of Subiaco).

7.6.4 VICTORIA HOUSE

In order to appropriately respond to the State Heritage-listed Victoria House, the Design Guidelines prescribe appropriate setback requirements to ensure both the buildings and curtilage associated with Victoria House is respected and the character maintained as part of the development of the site.

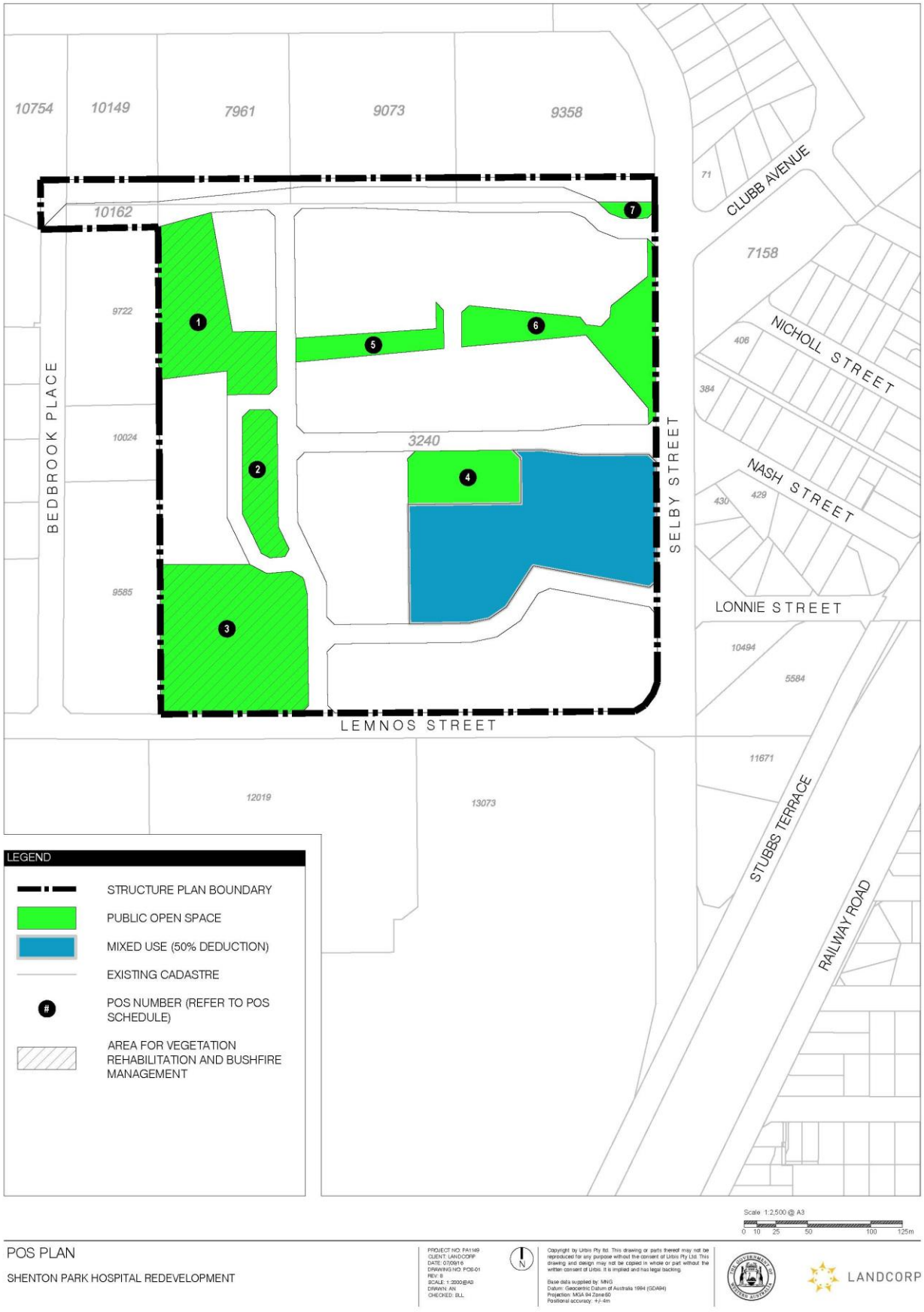
7.7 PUBLIC OPEN SPACE

The Structure Plan proposes a total of 3.69ha of public open space comprising 27.56% of the Structure Plan area and 17.56% in excess of State Government policy, as presented in **Table 7**, below. A public open space plan is provided at **Figure 7.**

TABLE 7 – PUBLIC OPEN SPACE SCHEDULE

Site Area ha				**16.93**
Less ha				
EPA Wetlands to be ceded	0.00			
Protected bushland sites	0.00			
Unrestricted POS sites not included in POS contribution	*2.62*			
Restricted POS not included in POS contribution	*0.00*			
Foreshore Reserves to be ceded	0.00			
Total		**2.62**		
Net Site Area ha				**14.31**
Deductions				
Primary School and High School	0.00			
Town Centres / Commercial (50% of Mixed Use)	0.92			
Dedicated Drainage Reserves	0.00			
Transmission corridors	0.00			
Other (Sewer pump station site)	0.00			
Other (P&R Land)	0.00			
Total Deductions	**0.92**			
Gross Subdivisible Area			**13.39**	
Public Open Space @ 10%			**1.34**	
Public Open Space Contribution				
May Comprise				
minimum 80% unrestricted POS	**1.07**			
maximum 20% restricted POS	**0.27**			
Unrestricted POS sites				
Area 1	0.83			
Area 2	0.31			
Area 3	1.34			
Area 4	0.37			
Area 5	0.22			
Area 6	0.57			
Area 7	0.05			
Unrestricted POS Total area	**3.69**	***27.56***	***percent***	
Restricted Use POS sites (detention/inundation more often than 1:1 yr event, MUW, Buffers etc.)				
Restricted POS contribution	**0.00**	***0.00***	***percent***	
Total Restricted Use POS able to contribute to POS (cannot exceed 2% of required 10%)		**0.00**		
Contributing POS				
Unrestricted POS	**3.69**			
Restricted POS	**0.00**			
Total Contributing POS	**3.69**	***27.56***	***percent***	
Total POS provided				**3.69**
Surplus unrestricted POS				**2.62**
Surplus restricted POS				**0.00**

FIGURE 7 – PUBLIC OPEN SPACE PLAN



7.7.1 BUSHLAND AND VEGETATION RETENTION

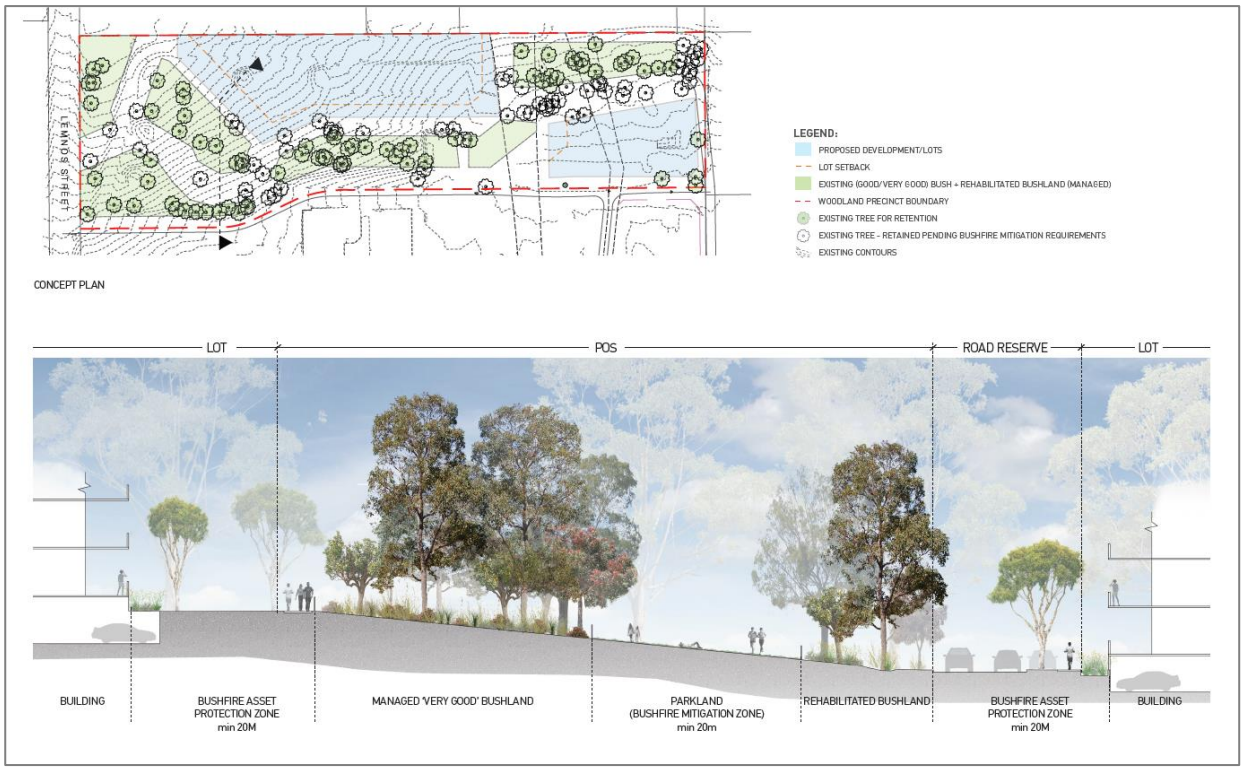
The Structure Plan provides for the retention and rehabilitation of 59 per cent of the bushland identified as 'very good' and 53 per cent of the bushland identified as 'good' in Appendix C - Flora and Fauna Assessment.

A Landscape Management Plan is to be prepared to guide the management and maintenance actions and responsibilities for the proposed public open space areas within the Woodland Precinct. The Landscape Management Plan will be developed in accordance with the requirements of Liveable Neighbourhoods, the Bushfire Management Plan and will address issues including:

- Key vegetation species.
- Materials palette.
- Retained vegetation and tree protection measures.
- Drainage requirements.
- Bushfire mitigation/maintenance requirements.
- Heritage response/interpretation.
- Lifecycle costs.
- Maintenance requirements.

Figure 8 provides a cross-sectional view through the southern 'Area for Vegetation Rehabilitation and Bushfire Management' and shows indicatively the relationship between vegetation and bushfire management.

FIGURE 8 – INDICATIVE WOODLAND TREATMENT (SOURCE: URBIS 2016)



7.8 MOVEMENT NETWORK

A Transport Assessment has been prepared by Arup (June 2015) in accordance with the WAPC's Transport Assessment Guidelines for Development (2006), and is attached at **Appendix D**. A summary of the key elements is provided within the sections below. A Movement Network Plan is provided at **Figure 9** below.

7.8.1 TRAFFIC GENERATION

A total of between 722 and 999 one-way vehicle trips have been forecast to occur within the Structure Plan area in the AM and PM peak hour. The forecast net change in peak hour traffic is therefore between 474 and 718 trips.

A detailed description of the proposed development trip generation (residential and non-residential) and traffic assignment, distribution and forecast traffic impacts, is detailed in the Transport Assessment at **Appendix D**.

7.8.2 SITE ACCESS

The Structure Plan proposes the following access points to the proposed development:

- Retention of the westernmost access on Ellis Griffiths Avenue albeit with a ban on the right-out and through-movement to Clubb Avenue opposite. Similar bans on the Clubb Avenue approach are recommended.
- A new (western) approach to the signalised intersection of Selby Street and Nash Street, creating a 4-way intersection.
- Replacement of Little Selby Drive with a full movement T junction.
- Potential replacement of Berry Loop with a full movement T junction although this may have a minor (laneway) function.
- Retention of the westernmost access on Lemnos Street (full movements T junctions).

Proposed intersection spacing is generally consistent with current provisions. The minimum separation is along Selby Street is approximately 100 metres between the replacement for Little Selby Drive and Lemnos Street, which is consistent with Liveable Neighbourhoods.

In designing the proposed site access points, the following matters were considered:

- Location of site access on Lemnos Street to avoid conflict with pick-up and set-down areas for Shenton College and the bus stop on the north side of Lemnos Street.
- Ellis Griffiths Avenue/Selby Street and Clubb Avenue/Selby Street should be restricted to left-in, left-out and right-in given potential sight-line issues associated with the right-out movement from Ellis Griffiths Avenue and forecast performance issues.

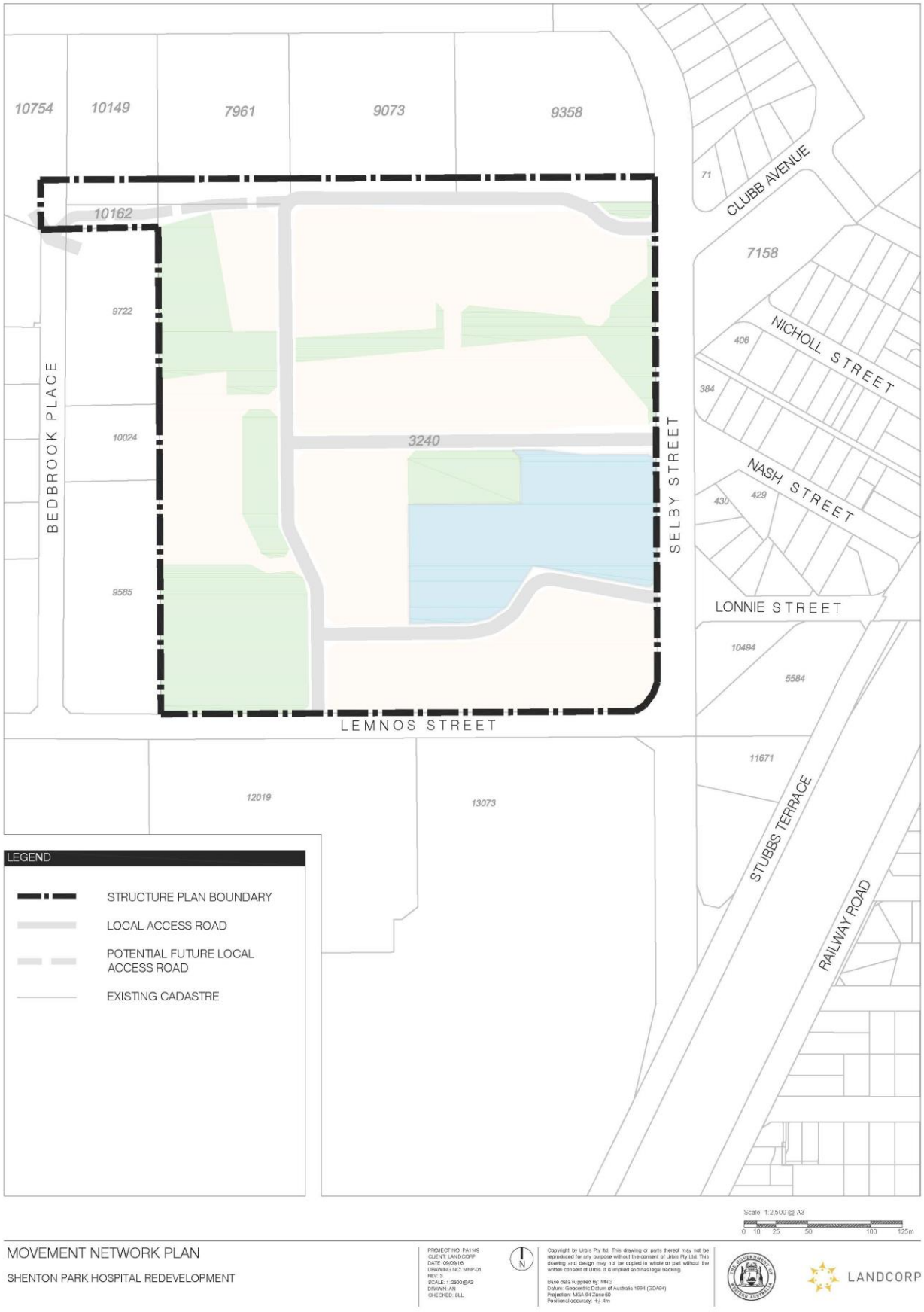
Detailed engineering drawings and road network plans will be required as a condition of subdivision approval.

7.8.3 INTERNAL ACCESS ROADS

A legible and well-connected street network has been designed in accordance with Liveable Neighbourhoods. Generally, all internal streets will operate as Access A Streets or a lower category of Access Street and should permit all movements unless sightline or safety considerations preclude this at the subdivision stage.

All streets have been designed assuming a 40km/hr speed limit, with a footpath on each side. Suitable traffic calming treatments are anticipated on streets adjacent to the central open space area, which will be determined at the detailed design/subdivision stage.

FIGURE 9 – MOVEMENT NETWORK PLAN



7.8.4 PEDESTRIAN AND CYCLE ACCESS

A range of active transport improvements are proposed to address existing deficiencies and to cater for the development of the Structure Plan area. These improvements include:

- Continuation of the shared path along the west side of Selby Street and north side of Lemnos Street connecting to existing infrastructure and extending the shared path to Underwood Avenue.
- Potential splitting of pedestrian and cycle paths adjacent to the planned Mixed Use zone, to mitigate conflicts. This section of path will be resolved during detailed design.
- Installation of cycle lanes on Selby Street, south of Lemnos Street to complete the on-street link between Lemnos Street and Stubbs Terrace. Coordination with the City of Nedlands and Department of Transport is required in this regard.
- An improved active transport crossing of Lemnos Street near the intersection of Selby Street. This is proposed as part of a broader redesign of this intersection to reduce vehicle speeds and taper back vehicular priority.
- Improved pedestrian crossing potential at the intersection of Selby Street and Nash Street as part of the construction of the western leg.
- Improved pedestrian/cycle crossing facilities along Lemnos Street, including a new median island in proximity to the proposed western access to the site.

7.8.5 PUBLIC TRANSPORT

Current public transport services (bus and rail) which service the site and surrounds is considered excellent. Accordingly, there are no upgrades proposed as part of the Structure Plan.

The Transport Portfolio has however advised that the Shenton Park passenger rail station is likely to be converted from ‘limited stops’ to ‘all stops’ during the peak service periods in the near future. This is being undertaken in recognition of the increasing demand for services, particularly when the Structure Plan area is developed.

7.9 INFRASTRUCTURE COORDINATION, SERVICING AND STAGING

The following provides an outline of the key proposals and strategies for infrastructure and servicing within the SPHR site (based on a comprehensive Engineering Servicing Report, prepared by Pritchard Francis, attached at **Appendix E**).

7.9.1 WATER

The site is currently serviced by a 150mm RC potable water main off Selby Street and a 150mm RC line off Lemnos Street. During demolition works it is likely these existing service lines will be decommissioned and a new water reticulation network be installed with the capacity to service the proposed development.

Based on discussions with the Water Corporation, the site will be best serviced by reticulating potable water in a loop through the site, off the 300mm dia main along Selby Street and the 200mm dia main along Lemnos Street.

Currently the Curtin University building is fed off the internal water reticulation system, however, the University will be acquiring an independent water supply off the 305RC pipe running along the eastern boundary of Selby Street, in the near future.

7.9.2 WASTEWATER

Water Corporation has advised that there is capacity in their sewer network for the expected flows from the development. They requested that they be updated on the staging of the works, and expected flows to their sewer network for each stage.

7.9.3 DRAINAGE

Water Corporation has advised that the 1350mm dia stormwater drain is close to capacity and will not be accepting any additional stormwater from the site, however there is an existing connection point from the site to the drainage pipe in the north-eastern carpark area. It is understood this connection point can continue to be used, as long as future flows into the drainage network are consistent with current stormwater quantities.

7.9.4 GAS

There are numerous service lines running to the site from the surrounding medium to low pressure gas lines in the area. Accordingly, connecting the site into the gas network is not considered to be an issue. Discussions with ATCO Gas indicate that a connection to the site will commence once a development plan is in place and a possible demand on their network is assumed.

7.9.5 POWER

The 66KV power line running along the south boundary of Lemnos Street and the 132 KV line running along the east boundary of Selby Street will be retained. The Structure Plan however proposes to bury the 33KV line along the west boundary of Selby Street, with the burying of the 132KV along the north Lemnos Street reserve to be discussed with Western Power in the future, if it is deemed necessary.

The existing electrical supply allowance to the proposed development will be reallocated for the future development in consultation with Western Power. Within the site there are two substations and a 11/6.6kV main switchboard which serviced the hospital and university buildings. These substations will be decommissioned as part of demolition works, with power transferred to a new point of connection capable of servicing the site in the interim (including Curtin University).

7.9.6 ENGINEERING REQUIREMENTS

The Structure Plan proposes to retain existing site levels and priority roadways as much as feasible, utilising roads and vegetated areas to transition from higher points on site to lower levels, with minimal retaining.

It is desirable from a construction and cost perspective to balance the cut to fill on site in order to reduce importation of materials and limit the quantity of retaining structures. It is intended that the development strategy utilises the site topography for drainage and viewlines, and limit disturbance to the bushland area along the west of the site, while ensuring bushland areas are managed, with appropriate setbacks, in accordance with bushfire management requirements.

7.10 WATER MANAGEMENT

A Local Water Management Strategy (LWMS) has been prepared by Essential Environmental (**Appendix F**) which details the proposed water management strategies for the site and also addresses urban water management plan requirements.

Stormwater management for the Structure Plan area will incorporate the use of on-site retention as close to the source as possible (at each lot and within streets and public realm areas), and use infiltration or rainwater harvesting systems that will capture runoff from impervious surfaces. Where it is not possible to accommodate at-source retention, stormwater from events up to and including the 1% annual exceedance probability event, will be collected and conveyed to underground infiltration cells located within public open space areas.

From a flood protection perspective, the LWMS indicates that the site is not expected to be subject to flooding from the external area in the 100 year ARI event. The on-site drainage system, road layout and earthworks design will ensure that lots are located at a minimum of 0.3m above the 100 year ARI flood level of the adjacent roads and drainage infrastructure.

A summary of more detailed strategies presented in the LWMS is provided in the following sections.

7.10.1 ROADS AND PUBLIC REALM AREAS

- Stormwater run-off in public realm areas generated in small events will be directed to tree-pits in road reserves or adjacent public open spaces areas.
- Minor event flows in excess of the capacity of tree-pits will enter the piped drainage system via standard sized entry pits located immediate down gradient of the tree pits for conveyance to underground infiltration cells, located beneath POS areas.
- Major events will be directed via streets and overland flow paths to underground infiltration areas located beneath POS areas.

7.10.2 LARGE MULTIPLE RESIDENTIAL AND COMMERCIAL LOTS

- Each lot will be required to retain and infiltrate on site up to and including the 5% annual exceedance probability events, through the use of underground infiltration systems, roof gardens, raingardens, rainwater tanks and/or other mechanisms in combination.
- Rooftop gardens are recommended for consideration for at least 50% of the roof space within the development.
- The use of porous asphalt and concrete for paving of key laneways and pedestrian access areas is recommended to allow greater at-source infiltration and reduce pressure on underground storage systems.

7.10.3 SINGLE RESIDENTIAL LOTS

- Each lot will be required to retain and infiltrate on-site up to and including the first 15mm of rainfall using underground infiltration systems (soakwells) and/or raingardens depending on space and configuration.
- Approximately $2m^3$ of storage, in soakwells, will be required per lot.

7.11 BUSHFIRE MANAGEMENT

The western portion of the Structure Plan has been identified as being bushfire prone with areas of moderate to extreme bushfire hazard. Accordingly, a Bushfire Management Plan has been prepared by Calibre Consulting to support the Structure Plan and is attached at **Appendix G**.

The Bushfire Management Plan also identifies surrounding bushland, including hazard vegetation on the southern side of Lemnos Street (Shenton Bushland - Reserve 43161 and Reserve R20074) as well as the Underwood Avenue vegetation to the north of the site. It notes that the bushland on the western portion of the site and in Bedbrook Place forms a linkage between these vegetation areas. The bushland within the site consists of Banksia and Jarrah woodland with Grasstrees. The understory has significant weed infestation which has contributed to high fuel loads.

While the bushland area on the site is relatively small and fragmented it is still larger than the 1 hectare threshold for defining bushfire prone vegetation pursuant to State Planning Policy 3.7. This bushland has been classified as having an 'extreme' bush fire hazard rating. Both State Planning Policy 3.7 and the Planning for Bush Fire Protection Guidelines have a presumption against development in areas with an extreme bush fire hazard level and/or requires construction standards of Bushfire Attack Level (BAL)-40 or BAL-FZ.

In order for the site to be developed the bushland corridor must have permanent fuel reduction and management measures to reduce the hazard level and/or construction standard. This will be achieved by developing and managing the bushland area as parkland with reduced fuel loads. The objective is to achieve a responsible and balanced approach between bushfire risk management and management measures, and landscape amenity and biodiversity conservation objectives.

Assuming that the bushland corridor is developed as managed parkland, then the primary bushfire hazard areas will be external to the site and in particular the Shenton Bushland to the south and Reserves 37387 and 37388 on the north western corner of the site. The vegetation in Bedbrook Place is potentially classified vegetation based upon its size and proximity to other classified vegetation.

Consequently, the boundary of the bushfire prone land is shown (in the Bushfire Management Plan) as generally being within 100m from the western site boundary and the Shenton Bushland south of the site.

Development which is within 100m of these hazard areas will need to have a BAL assessment undertaken and potentially be constructed in accordance with Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas. This will ensure that a further assessment of the vegetation in Bedbrook Place is undertaken when development occurs.

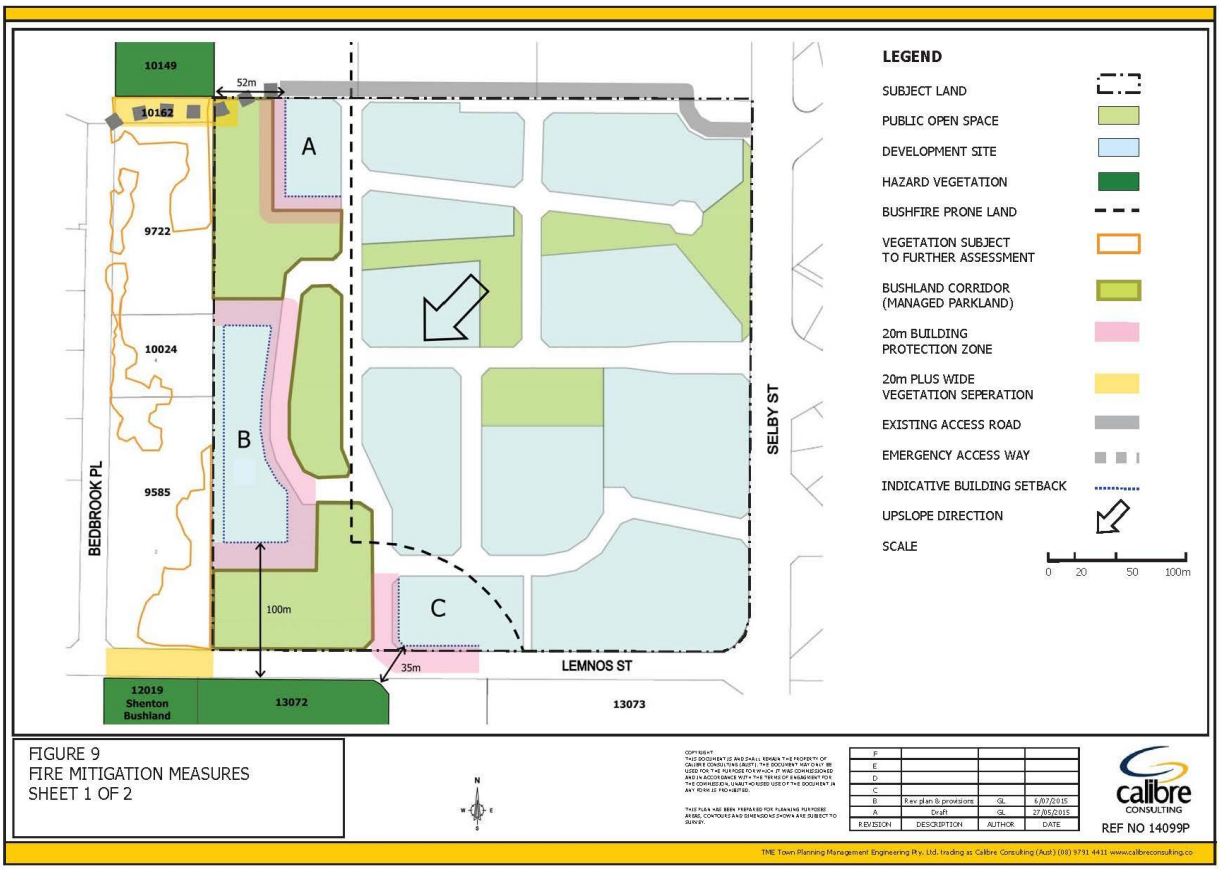
In the event that the bushland corridor is not managed in this manner then it would be defined as classified hazard vegetation. This would then extend the boundary of the bushfire prone land further eastwards into the site.

If Reserves 37387 and 37388 become Bush Forever sites, this means that the vegetation will remain on those sites. This then has implication for both the development of the subject land and the protection of the existing buildings and land uses (assets) on the eastern side of Bedbrook Place and Milroy Lodge.

It is noted that Bedbrook Place is a cul-de-sac which is approximately 390m in length. The Planning for Bushfire Protection Guidelines (Acceptable Solution A2.3) do not encourage cul-de-sacs in bush fire prone areas and where they occur they should not be more than 200m in length unless they are connected by an emergency access way. There are existing uses in Bedbrook Place, some of which can be considered as sensitive health uses including Milroy Lodge. Consequently it is appropriate to consider measures to improve fire management in this area.

The existing and proposed land uses on the site and in the surrounding area includes semi residential and health care facilities. These are potentially considered as 'vulnerable uses' under SPP3.7 which require additional consideration. In addition as they are not automatically covered by the application of the AS3959 Construction Standards under the Building Regulations it is necessary for the Improvement Scheme to ensure that appropriate construction standards and fire management measures are implemented. **Figure 10** below provides an extract of the Bushfire Management Plan (attached at **Appendix G**), illustrating the measures proposed for ensuring appropriate bushfire protection.

FIGURE 10 – FIRE MITIGATION MEASURES (SOURCE: CALIBRE CONSULTING 2015)



In the context of the above, the Bushfire Management Plan recommends that the following key measures proposed for ensuring appropriate bushfire protection:

- Ensuring that the structure plan design has appropriate regard to the principles contained within the Planning for Bushfire Protection Guidelines (2010).
- Developing the bushland corridor as 'managed parkland'. This will be achieved by the physical reduction of fuel loads and/or the fragmentation of the bushland into cells of less than 2,500 sqm in size.
- Requiring that a management plan be prepared for the bushland corridor. This is to address the proposed vegetation modification, separation areas, fuel loads and weed management. This plan is to have regard to the measures contained in Council's Natural Areas Management Plan 2013 – 2018; FESA's Guidelines for Fire Management Planning for Urban Bushland and the WAPC Designing Out Crime Guidelines.
- Requiring the Improvement Scheme to stipulate that all buildings (including non-residential and health care buildings) located within 100m of the identified hazard vegetation are constructed in accordance with AS3959.
- That any new buildings on bushfire prone land shall require a planning approval. Any application for a vulnerable land use should include an emergency evacuation plan for the proposed occupants to the satisfaction of the Responsible Authority.
- Provision of a 20m Building Protection Zone around all buildings located on bushfire prone land.
- Provision of fire hydrants within the subdivision.
- Compliance with Council's Bush Fire Notice.
- Promoting fire awareness and joint responsibility between all stakeholders.

The Plan recommends a number of fire mitigation measures which have either been incorporated into the Structure Plan design or will be required at the subdivision or development stage.

7.12 HERITAGE RETENTION AND INTERPRETATION

The SPHR site has been recognised for its cultural heritage significance through its formal permanent entry on the State Register of Heritage Places, specifically Victoria House and the Sir George Bedbrook Spinal Unit (Block G and gardens). The Structure Plan specifically proposes the retention of Victoria House and the avenue of Queensland Box trees along Victoria Drive.

The therapeutic courtyard garden and a portion of the Sir George Bedbrook Spinal Unit (Block G) will also be interpreted and retained where feasible. All other buildings and structures on site will be demolished, however several have a degree of physical presence that may warrant some form of interpretation including Seymour House, Thorburn House and a covered walkway link.

A Heritage Strategy and Thematic Framework for the site has been prepared to accompany the Structure Plan and is attached **Appendix H.** A future heritage agreement with the Heritage Council will be required in order to use, adapt or reinterpret heritage buildings on site.

7.13 LANDSCAPE DESIGN

The landscape design of the site has been informed by a series of considerations including existing site conditions, landscape activity spaces and various individual development/character precincts. A conceptual Landscape Master Plan is provided at **Appendix I.** A summary is provided below.

The key elements of the conceptual landscape master plan are as follows:

- The conceptual Master Plan encourages the retention of remnant vegetation and significant trees. This will create a more seamless integration with surrounding areas whilst providing for a sense of establishment in new development areas. It will also provide a canvas for reinterpreting the site history through promoting healing and active living and contributing to the ecology and biodiversity values of the site.
- Landscape treatments are linked with the site topography and are designed to assist with the management and treatment of stormwater, including the use of bio-retention swales and rain gardens.
- Local native flora species are promoted in order to promote plants which are tolerant to local site and climate conditions and to moderate ongoing irrigation and maintenance requirements. Plant species will be selected to provide food source for the Carnaby's Cockatoos.
- The plan promotes pedestrian circulation with a number of key journeys throughout the site, including the journey to the train station to the south-east, woodland and park connections and intimate spaces.
- The plan retains pockets of endemic vegetation in order to provide a link to the surrounding bushland areas. The design of this area promotes a pedestrian environment, with necessary setbacks and separation areas to ensure compliance with relevant bushfire guidelines.
- The landscape design responds to the heritage context of the site, through the provision of retained heritage corridors, gardens and extrapolation of the site story through interpretation.
- The grouping of planting species will provide interest and contrast within the site and will be defined by a range of landscape typologies including woodland, parkland, heritage and urban areas. Mature tree transplants are proposed at key nodes particularly within the central civic space and internal gardens. There are options to relocate mature trees from within the site.
- A wide range of landscape materials will be selected to reinterpret the site history and create interest, while providing a sense of place. The elements and landscape features will be used to provide form, structure, shade, shelter and amenity. Colours and materials from past eras (1930's – 1980's) will be incorporated into the design.

The conceptual Masterplan illustrates 4 landscape precincts, including the Woodland Precinct, Parkland Precinct, Heritage Precinct and Linkage Precent. Whilst the site will have a strong, unified landscape character, each precinct will be identified by minor changes to the overall palette. A brief description of each is provided below.

Woodland Precinct

This precinct includes areas of established Banksia/Jarrah woodland. The landscape design within this precinct will promote the woodland as a destination and attraction for the community, providing public access, and rehabilitating pockets of quality remnant vegetation. There will be access through the woodland with clearings, viewing sites, and walking trails, positioned to occur in existing degraded areas where possible. Landform in the woodland will be retained, providing spectacular views of the city from elevated positions.

Parkland Precinct

The linear open space in this precinct will have a parkland character, with the retention of mature native trees within open grassed areas. Flexible areas will be provided for informal activities such as yoga or boot camp. Planting will be native and informal. The parkland precinct will connect the local community to the Subiaco parkland along the Charles Stokes Reserve. Significant existing Water Corporation assets will be integrated in the design.

Heritage Precinct

This precinct sits at the heart of the development and includes the heritage Victoria House. The precinct is intended to provide the key community gathering space, with a relationship to both Victoria House and the proposed commercial/retail centre. The central open space includes an established landscaped courtyard and mature trees surrounding Victoria House. Planting is a mix of exotic and native and this theme will be continued with new planting. Heritage interpretation will be focused in this precinct with materials reused from the site within landscape features. The community park will be the main gathering space for visitors to the precinct.

Linkage Precinct

This precinct will be predominantly built form, with a focus on retaining and enhancing perimeter vegetation. Landscape within the Linkage precinct will provide a higher density visual buffer to and from Shenton College. The Selby St , streetscape will be improved to support pedestrian movement to and from the train station, detailed in line with Crime Prevention Through Environmental Design (CPTED) guidelines. The fig tree grove off Lemnos street will be incorporated into development sites, with an incorporated public access way.

7.13.1 LANDSCAPE HERITAGE TREATMENT

The proposed landscape design caters promotes the heritage of the site, in particular Victoria House and surrounds, G Block and the walkway between the two areas. Specifically, the proposed design responds to the heritage of the site through the provision of the following:

- Spaces dedicated to reflection and interpretation of the sites heritage.
- Historically significant heritage planting.
- Retained heritage corridors and gardens.
- Adaptive re-use of heritage elements through the landscape design.
- Extrapolation of the site story through interpretation.

The Landscape Conceptual Master Plan presents the following response to the heritage-listed buildings and sites within the Structure Plan area:

<u>Victoria House and Surrounds</u>

The existing heritage avenue to Victoria House holds rich cultural history. This will be respected and promoted through the use of interpretive artwork and planting and will be undertaken through engagement with the community. Views of the landscape surrounding Victoria House and the Heritage Precinct will provide a sense of local identity.

The entry lobby wing of Victoria House provides an opportunity for an interpretive space that could potentially display components of the hospital history and be maintained as a semi-public space. The radial arrangement of the building promotes interaction with the surrounding landscape.

<u>G-Block, Gardens and Walkway</u>

The mature vegetation in this area is a significant part of the natural heritage and is intended to be retained. The existing mosaic artworks will be reinterpreted within the G Block site to reflect the rich social heritage of the area.

7.13.2 TREE RETENTION

The Structure Plan design has been informed by the need to retain significant trees where practical and feasible through the alignment of roads and lot boundaries. There are a number of trees that have been earmarked for retention as part of the conceptual Landscape Master Plan. The proposed landscaping treatment and configuration of public open space has been designed to ensure the retention of significant trees in accordance with the recommendations of the Arborist Report and tree surveys (**Appendix I**).

Many of these trees contribute to the historical and existing character and sense of place within the site, therefore the Structure Plan proposes to incorporate the trees into the design where practical and feasible to ensure the future residents are able to benefit from the natural elements.

8 Implementation and Review

8.1 APPLICATION AND APPROVALS PROCESS

To guide the preparation, lodgement and assessment of development applications within the Improvement Scheme Area, a detailed approvals process has been developed. Separate approvals processes are provided for the following:

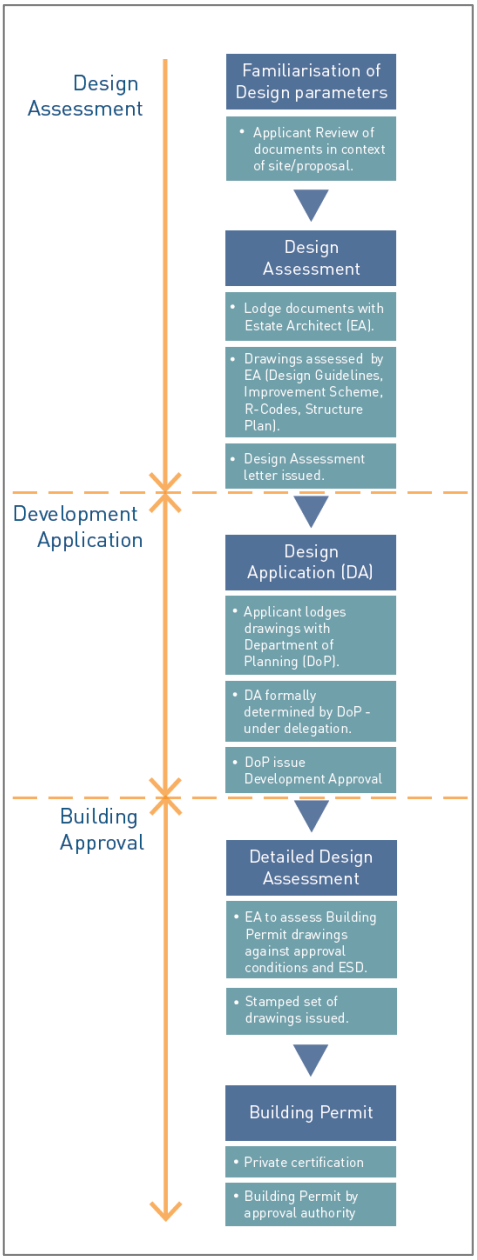
- Single and grouped dwellings.
- Multiple dwellings and non-residential (mixed use) development.

Figure 11 below illustrates the proposed application and approvals process for each of the above.

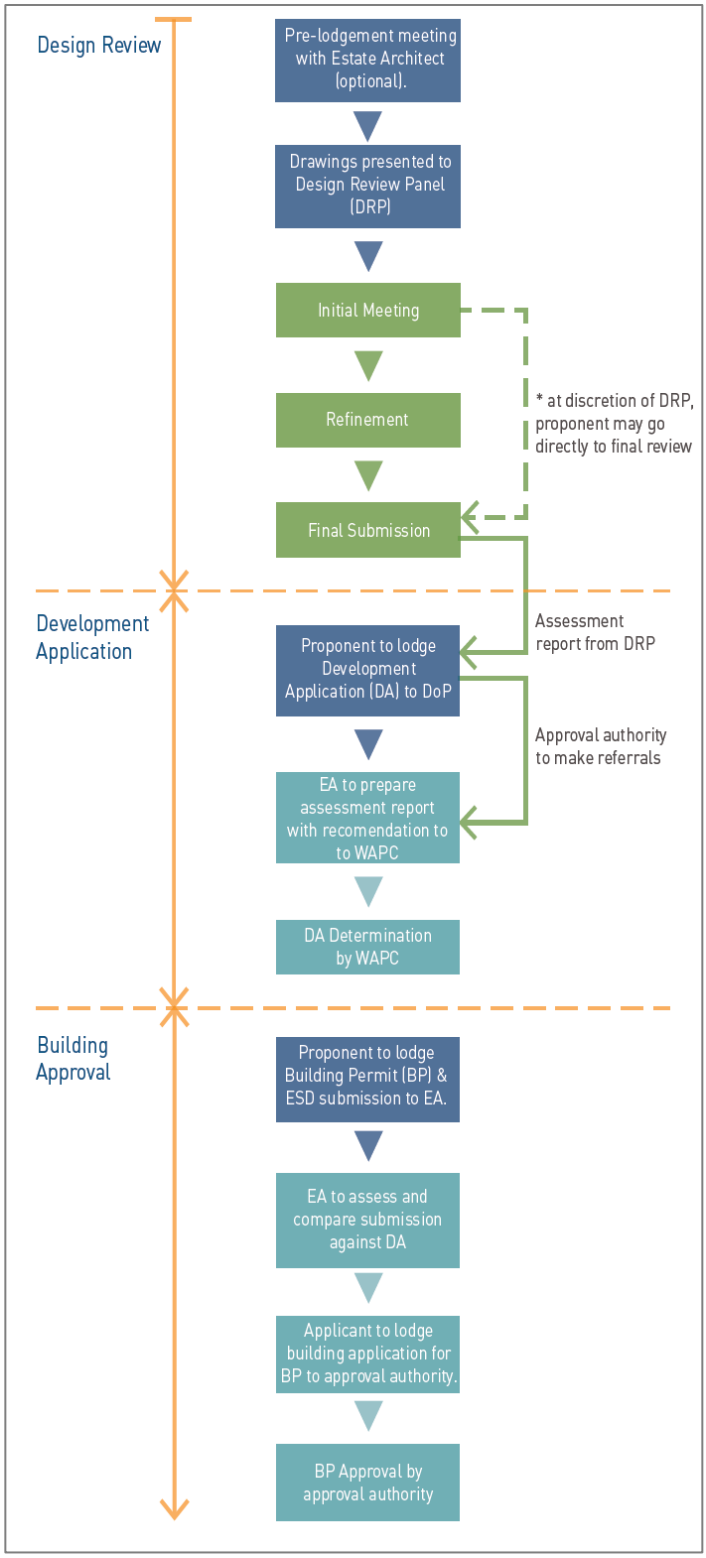
It is noted that planning applications made under the terms of the Improvement Scheme are 'excluded development applications' for the purposes of the *Planning and Development (Development Assessment Panels) Regulations 2011*. As such, irrespective of cost, no applications are to be determined by Development Assessment Panels.

FIGURE 11 – APPROVALS PROCESS FLOW CHARTS

SINGLE/
GROUPED DWELLINGS



MULTIPLE DWELLINGS/
NON-RESIDENTIAL DEVELOPMENT



A summary of each approvals process is provided below:

8.1.1 SINGLE AND GROUPED DWELLINGS

The process for development application relating to single and grouped residential dwellings is summarised below:

Design Review

- Applicant review of documentation.
- Pre-lodgement meeting with Estate Architect (optional), testing concept sketch design.
- Drawings presented to Estate Architect for assessment/comment to refine design intent.
- Estate Architect to issue a design assessment letter to Applicant with a copy to the WAPC (or a delegate of the WAPC).

Development Application

- Applicant to prepare application together with required form and documentation.
- Applicant lodges application (together with design endorsement) with the Department of Planning.
- Estate Architect and Statutory Planner assess the DA submission against the Improvement Scheme/Design Guidelines/R-Codes, etc for compliance, providing an assessment report with recommendation for consideration to the WAPC within 10 days.
- Development application assessed by Department of Planning (or a delegate of the WAPC) and determined under delegation.
- WA Planning Commission (or a delegate of the WAPC) to issue determination notice to Applicant.

Building Approval

- Applicant to prepare building permit and Environmentally Sustainable Design (ESD) submission package and pre-lodge with Estate Architect together with form and required documentation.
- Estate Architect to assess detailed drawings against approval conditions and for Environmental Sustainable Design compliance.
- Estate Architect to issue determination of detailed design endorsement to Applicant within 10 days of lodgement.
- Applicant to lodge building application and detailed design endorsement with City of Nedlands.
- City of Nedlands to issue building permit.

8.1.2 MULTIPLE DWELLINGS AND NON-RESIDENTIAL DEVELOPMENT

The process for development application relating to multiple residential dwellings and non-residential is summarised below:

Design Review

- Applicant review of documentation.
- Pre-lodgement meeting with Estate Architect (optional), testing concept sketch design.
- Drawings presented to design review panel for assessment/comment to refine design intent. (Nominally a 3 step review process by DRP),
- Subject to sufficient progression by the applicant the DRP can advance the process on a 2-3 week turn around per review. Applicant to submit concept design to DRP a minimum of 48 hours prior to Design review meeting or presentation.

- DRP meet and/or review the final DRP position on the design proposal
- Design Review Panel (DRP) issues a design assessment report to Applicant with a copy to the WAPC (or a delegate of the WAPC) in which they resolve to Endorse, Endorse with conditions or Not Endorse the Design

Development Application

- Applicant to prepare application together with required form and documentation
- Applicant lodges application (together with design endorsement) with the Department of Planning.
- Department of Planning to refer application to the Estate Architect within 7 days.
- WAPC to undertake referrals (if required) and provide comments and/or recommendation within 10 days.
- Estate Architect and Statutory Planner assess the DA submission against the Improvement Scheme/Design Guidelines/R-Codes, etc for compliance, providing an assessment report with recommendation for consideration to the WAPC within 10 days
- Development application assessed by Department of Planning (or a delegate of the WAPC) and presented to the Statutory Planning Committee (or a delegate of the WAPC)for determination
- WA Planning Commission (or a delegate of the WAPC) to issue determination notice to Applicant.

Building Approval

- Applicant to prepare building permit and ESD submission package and pre-lodge with Estate Architect together with form and required documentation.
- Estate Architect to assess detailed drawings against approval conditions and for Environmental Sustainable Design compliance.
- Estate Architect to issue determination of detailed design endorsement to Applicant within 10 days of lodgement.
- Applicant to lodge building application and detailed design endorsement with City of Nedlands.
- City of Nedlands to issue building permit.

8.1.3 ESTATE ARCHITECT

It is envisaged that an Estate Architect will be engaged by LandCorp as the Master Developer to coordinate the approvals process. The Estate Architect will have a critical role in both approvals processes (single/grouped dwellings and multiple residential/non-residential) to ensure a level of design endorsement prior to the application being formally lodged with the Department of Planning for consideration.

It is intended that the Estate Architect will then engage a statutory planner to assess applications against the relevant provisions of the R-Codes.

8.1.4 DESIGN REVIEW PANEL

A design review panel (DRP) will be formed to consider and provide advice on multiple dwelling applications as well as non-residential development applications. At this stage, it is envisaged that the DRP will comprise senior representatives (at an Officer level).

A Terms of Reference document will be prepared to guide the membership and operation of the Design Review Panel in due course.

8.2 FUTURE NORMALISATION

It is envisaged that the SPHR Improvement Scheme will remain operational until such time as the site is completely built out, which is currently anticipated to range from approximately 8-15 years (depending on market demand). At the point in time when there is a need to normalise the Improvement Scheme area back into the City of Nedlands and City of Subiaco local planning scheme, 2 scheme amendment processes will need to be undertaken which will require initiation by each local government and determination by the WAPC.

Whilst the detail of the future scheme amendments is not known at this early stage, it is envisaged a comprehensive review of the City of Nedlands and City of Subiaco local planning schemes will need to be undertaken at the time to determine the suitability to the SPHR site in the context of these scheme provisions. If additional amendments over and above the standard Scheme provisions are required, several other options could be pursued (ie. through the use of Additional Use designations, Special Control Areas etc). Further, it will be necessary to consider whether any elements of the design guidelines need to be transferred to the local government planning framework (eg. through a local development plan or local planning policy), or whether the standard R-Code requirements will suffice.

In any case, the Improvement Scheme has been prepared using the model scheme text in the *Planning and Development (Local Planning Schemes) Regulations 2015* as a base and therefore improves the capacity for normalisation into the City of Nedlands and City of Subiaco Schemes in the future. Technical Documentation

9 Technical Documentation

An outline of supporting technical documentation is provided in **Table 8** below, including references to applicable appendices (provided electronically only, due to file size).

TABLE 8 – TECHNICAL DOCUMENTATION

DOCUMENT	DATE	PREPARED BY	APPENDIX REF.
Flora and Fauna Assessment Report and Peer Review	April 2015 15 January 2015	GHD PGV Environmental	C
Transport Assessment Report	6 July 2015	Arup	D
Engineering Servicing Report	8 June 2015	Pritchard Francis	E
Local Water Management Strategy (also addressing urban water management plan requirements)	June 2015	Essential Environmental	F
Bushfire Management Plan	5 July 2015	Calibre Consulting	G
Heritage – Thematic Framework	8 June 2015	Palassis	H
Landscape Master Plan	7 July 2015	Urbis	I
Aboriginal Heritage Report	December 2013	R&E O'Connor	J

Appendix A Certificate of Title and Sketch

Appendix B Opportunities and Constraints Plan

Appendix C Environmental Reports (GHD 2015 and PGV Environmental 2015)

Appendix D Transport Assessment Report (Arup 2015)

Appendix E Engineering Servicing Report (Pritchard Francis 2015)

Appendix F Local Water Management Strategy (Essential Environmental 2015)

Appendix G Bushfire Assessment (Calibre Consulting 2015)

Appendix H Heritage Thematic Framework (Palassis 2015)

Appendix I Landscape Master Plan (Urbis 2015)

Appendix J Aboriginal Heritage Report (R&E O'Connor Pty Ltd 2013)

Appendix K Pre-Lodgement Consultation Schedule

TABLE 9 – PRE-LODGEMENT CONSULTATION SCHEDULE

AGENCY/STAKEHOLDER	DATE OF CONSULTATION	METHOD OF CONSULTATION	SUMMARY OF OUTCOME
Land owners within and adjacent to the structure plan area	Various.	Community workshop and survey.	Identified and confirmed community aspirations for the site.
Surrounding businesses/health service providers (including Alzheimer's, Paraquads)	Various and ongoing	Representatives on Community Reference Group, community workshop and information session, ongoing online engagement, briefings offered to all and face-to-face meetings with majority of surrounding stakeholders.	Feedback on draft Master Plan considered in preparing final Master Plan and or Improvement Scheme/Structure Plan.
Relevant community and environment groups in the area	Various	Representatives on Community Reference Group; community workshop and information session; ongoing online engagement; various face to face meetings and telephone calls	Feedback on draft Master Plan considered in preparing final Master Plan and or Improvement Scheme/Structure Plan.
Local government(City of Nedlands)	Ongoing	Representatives on Community Reference Group, representatives on Senior Officers Group and Steering Committee	Ongoing consultation with regard to the Master Plan, Improvement Scheme and Structure Plan – encouraging review and feedback on the planning elements. prior to lodgement Meeting in 1st quarter 2015 with senior officers from planning and technical services to discuss preliminary transport planning data. Documentation of issues for consideration during preparation of Transport Assessment for Improvement Plan
Adjoining Local Government (City of Subiaco)	Ongoing	Senior Officer Group and Steering Committee	Ongoing consultation with regard to the Master Plan, Improvement Scheme and Structure Plan – encouraging review and feedback on the planning elements. prior to

AGENCY/STAKEHOLDER	DATE OF CONSULTATION	METHOD OF CONSULTATION	SUMMARY OF OUTCOME
			lodgement Meeting in 1st quarter 2015 with senior officers from planning and technical services to discuss preliminary transport planning data. Documentation of issues for consideration during preparation of Transport Assessment for Improvement Plan.
Shenton College	30th July 2014	Meeting with Michael Morgan, Principal and Roger Castle, Board Chair of Shenton College Representatives on Community Reference Group, face-to-face meetings	Discussion of the proposed redevelopment of the SPHR site and how the process of engagement relating to the project will unfold over the coming months. At that meeting Shenton College raised the need for an auditorium facility and the projected growth of Shenton College. LandCorp advised that although not responsible or able to provide the funding for an auditorium facility, it could potentially assist in identifying a suitable land parcel which the auditorium could be built on. The discussion concluded with LandCorp to discuss a footprint for a similar facility from Department of Education to assist in identifying a suitable location.
	16th September 2014	Community Reference Group meet Roger Castle, Board Chair Shenton College	Overview of redevelopment process, activities on site to date, next steps; community engagement process overview and next steps.
	31st March 2015	Meeting with Michael Morgan, Principal and Roger Castle, Board Chair of Shenton College	Focus on the height of the proposed development parcels in the location of corner of Lemons and Selby Streets. Shenton College advised that there was concern regarding potential overlooking from the proposed 12 storey buildings outlined in the draft master plan, particularly as this part of the development was located directly opposite the middle school

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			playground. LandCorp advises that they would keep Shenton College updated as the Master Plan was further developed and once 3D modelling was completed of the final master plan they would share with the College. This would provide view lines / perspectives from both the College and the proposed development area.
	21st April 2015	Community Reference Group meeting with Roger Castle, Board Chair, Shenton College	LandCorp provided overview of recent site and redevelopment activities including statutory planning process. Roger requests the early consultation of the final master plan with Shenton College due to overlooking concerns.
Department of Planning	Ongoing	Face-to-face meetings/telephone calls Representatives on Senior Officers Group and Steering Committee.	Ongoing liaison to test and confirm items as well as to encourage ongoing feedback into documents.
Department of Water	Various	Written correspondence and telephone calls with senior officers in Regional Office	Telephone advice sought and letter written to support application for groundwater license, plus subsequent telephone calls to check progress – outcome was groundwater license issued as requested. Emails and telephone conversations to discuss principle of addressing UWMP requirements within the LWMS – outcome was support for the proposed approach.
Department of Education	13-21 August 2015	Email correspondence	Liaison regarding the potential for the western portion of the site to be used for Department of Education (DoE) use. DoE replied stating that even under

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			a high density mode, it is unlikely that the 3.4ha offered by LandCorp would meet DoE's requirements and so will consider other options.
Environmental Protection Authority	Various	Quarterly meeting with LandCorp/EPA (11 November 2014 and 11 March 2015) with Paul Vogel, Kim Taylor, Liesl Rohl, Manager – Land Use Planning	Discussed the redevelopment of the SPHR site and associated clearing of native vegetation with representatives of the EPA.
Department of Lands	Various and ongoing	Regular face to face meetings; telephone and correspondence (with DG and Director Planning plus other Officers)	Issues considered as part of preparation of Improvement Scheme and Structure Plan.
Main Roads WA	9 June 2015	Face-to-face meeting	The high-level development and transport proposals were discussed with Main Roads WA's officers. The preliminary findings of road network analysis were also presented. Main Roads WA noted that Selby Street may need to take on a higher-order traffic function in future, which means that intersection proximity and turning movement allowances should be reviewed. More specifically, there was no objection to the proposal to construct a fourth (western) leg at the existing signalised intersection of Selby Street and Nash Street. The proposal would be subject to approval by Main Roads WA Traffic Operations Branch in a future stage of planning.
Public Transport Authority	26 February 2015	Senior officers – face-to-face meeting	PTA did not highlight any particular concerns and was supportive generally of the overall development proposal and transport provisions.
Department of Transport	24 February 2015	Senior officers – face-to-	The Department did not highlight any particular concerns and was

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		face meeting	supportive generally of the overall development proposal and transport provisions.
Heritage Council of WA	15/05/2015 05/06/2015	Meeting with Heritage Officers Adelyn Siew and Melissa Davis, with a follow-up site walk-over to discuss the registered places.	LandCorp outlined the intent surrounding the formulation of the Improvement Scheme documents in relation to the registered heritage elements of interest, providing officers with an appreciation of the factors presented in the documents. Heritage Officers confirmed that the Heritage Process wouldn't be fettered by the formulation of the Improvement Scheme and Structure Plan, and LandCorp made adjustments to the scheme documents to ensure the two processes could continue run in parallel.
Western Power	23 January 2015	Meeting and Emails	Meeting/communication to inform the Engineering Servicing Report.
Alinta Gas	-	Dial-as-you-dig	-
Water Corporation	14 May 2015	Meeting	Meeting to inform the Engineering Servicing Report.
NBN	-	Dial-as-you-dig	-
Telstra	-	Dial-as-you-dig	-