Division 14 – South-East Thornlands Structure Plan Overlay

5.14.1 Introduction

(1) This division contains the provisions for the South-East Thornlands Structure Plan Overlay. They are –

(a) The South-East Thornlands Structure Plan Overlay Tables of Assessment, that incorporates –
- (i) levels of assessment for development in the South-East Thornlands Structure Plan overlay (section 5.14.2);
- (ii) assessment criteria for development in the South-East Thornlands Structure Plan Overlay (section 5.14.3);
- (iii) South-East Thornlands Structure Plan Overlay – Table of Assessment for Material Change of Use Premises (section 5.14.4);
- (iv) South-East Thornlands Structure Plan Overlay – Table of Assessment for Other Development not associated with a Material Change of Use of Premises (section 5.14.5).

(b) The South-East Thornlands Structure Plan Overlay Code, that incorporates –
- (i) compliance with the South-East Thornlands Structure Plan Overlay Code (section 5.14.6);
- (ii) overall outcomes for the South-East Thornlands Structure Plan Overlay Code (section 5.14.7);
- (iii) Specific Outcomes and Probable Solutions applicable to Assessable Development (section 5.14.8).

5.14.2 Levels of assessment for development affected by the South-East Thornlands Structure Plan Overlay

(1) Section 5.14.4 and 5.14.5 identify the level of assessment for development affected by the South-East Thornlands Structure Plan Overlay, as follows –

(a) Section 5.14.4 South-East Thornlands Structure Plan Overlay – Table of Assessment for Making a Material Change of Use of Premises –
- (i) column 1 identifies uses that are exempt or assessable;
- (ii) column 2 identifies the level of assessment for the uses listed in column 1;
- (iii) where the use is defined in Part 9 - Schedule 3 - Dictionary, Division 1 - Uses and is not listed in column 1 it is exempt;
- (iv) where the use is not defined in Part 9 - Schedule 3 - Dictionary, Division 1 - Uses and is not listed in column 1 it is code assessable.

(b) section 5.14.5 South-East Thornlands Structure Plan Overlay – Table of Assessment for Other Development not associated with a Material Change of Use of Premises –
- (i) column 1 identifies other development that is exempt or assessable;
- (ii) column 2 identifies the level of assessment for other development listed in column 1;
- (iii) where the other development is not listed in column 1 it is exempt.

(2) Zones and other Overlays may alter the level of assessment identified in 1(a) and (b).[5.68]

[5.68] Refer to Part 4 Zones and Part 5 Overlays to determine the level of assessment for the use or other development. Part 1 section 1.2.5(10)(f) explains how the highest level of assessment applies.

5.14.3 Assessment criteria for development in the South-East Thornlands Structure Plan Overlay

(1) Development affected by the South-East Thornlands Structure Plan Overlay is assessed against the assessment criteria listed in column 3 of section 5.14.4 and 5.14.5, being the specific outcomes in section 5.14.8 of the South-East Thornlands Structure Plan Overlay Code for assessable development.

(2) The South-East Thornlands Structure Plan Overlay Code only addresses assessment criteria specific to the South-East Thornlands area that are not adequately dealt with by other parts of the Redlands Planning Scheme. In all circumstances reference must be made to the relevant zone code and any other overlay a material change of use or other development may trigger. Should any case arise where provisions of the South-East Thornlands Structure Plan Overlay Code are in conflict with another code in the Redlands Planning Scheme, the Specific Outcome and Probable Solutions in section 5.14.8 of the South-East Thornlands Structure Plan Overlay shall take precedence.

5.14.4 South-East Thornlands Structure Plan Overlay – Table of Assessment for Material Change of Use of Premises

South-East Thornlands Structure Plan Overlay – Table of Assessment for Material Change of Use of Premises

column 1	column 2	column 3
Use[5.69]	**Level of Assessment**[5.70]	**Assessment Criteria**
■ Aged Persons and Special Needs Housing ■ Apartment Building ■ Caretakers Dwelling ■ Child Care Centre ■ Commercial Office ■ Community Facility ■ Display and Sale Activity ■ Dual Occupancy ■ Education Facility ■ Emergency Services ■ Estate Sales Office ■ Garden Centre ■ Health Care Centre ■ Indoor Recreation Facility ■ Minor Utility ■ Mobile Home Park ■ Multiple Dwelling ■ Outdoor Recreation Facility ■ Park ■ Place of Worship ■ Refreshment Establishment ■ Service Industry ■ Service Station ■ Shop ■ Telecommunications Facility ■ Temporary Use ■ Tourist Accommodation ■ Tourist Park ■ Utility Installation [5.71] ■ Veterinary Surgery	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code
Defined uses not listed in column 1	Exempt	
Uses not defined in Part 9 - Schedule 3 - Dictionary, Division 1 - Uses	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code

[5.69] See Schedule 3 – Dictionary, Division 1 – Uses for defined uses.
[5.70] See Schedule 3 – Dictionary, Division 2 – Administrative Terms for a definition of level assessment.
[5.71] Except where required for electrical power distribution.

5.14.5 South-East Thornlands Structure Plan Overlay – Table of Assessment for Other Development not associated with a Material Change of Use of Premises

South-East Thornlands Structure Plan Overlay – Table of Assessment for Other Development

column 1	column 2	column 3
Other Development	**Level of Assessment[5.72]**	**Assessment Criteria**
Reconfiguration for -		
Creating lots by subdividing another lot by Standard Format Plan[5.73]	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code
Rearranging the boundaries of a lot by registering a plan for subdivision	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code
Operational Work for -		
Excavation and Fill	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code
Operational Work for Reconfiguring a lot (by Standard Format Plan)	Code Assessable	■ South-East Thornlands Structure Plan Overlay Code
All other development not listed in column 1	Exempt	

[5.72] See Part 9 – Schedule 3 – Dictionary, Division 2 – Administrative Terms for a definition of level of Assessment.
[5.73] Whether or not having a Community Management Statement.

5.14.6 Compliance with the South-East Thornlands Structure Plan Overlay Code

(1) Development that is consistent with the specific outcomes in section 5.14.8 complies with the South-East Thornlands Structure Plan Overlay Code.

5.14.7 Overall Outcomes of the South-East Thornlands Structure Plan Overlay Code

(1) The overall outcomes are the purpose of the South-East Thornlands Structure Plan Overlay Code.

(2) The overall outcomes sought for the South-East Thornlands Structure Plan Overlay Code are described by four (4) key characteristics –

(a) Land Use Precincts;
(b) Movement Network;
(c) Land Use Conflict Mitigation;
(d) Infrastructure.

Each of these are detailed below –

(a) Land Use Precincts
(i) Provide for a range of uses and other development that contribute to the creation of an integrated urban community that:
a. respects and protects the natural environment;
b. maintains and enhances natural ecological systems;
c. creates a vibrant urban community that promotes a sustainable, healthy lifestyle and a strong sense of community;
d. ensures a mix of housing densities and building types;
e. promotes and facilitate alternatives to the use of the car for residents and visitors alike;
f. provides a range of recreational opportunities;
g. delivers a density of development that makes efficient use of scarce developable land;
h. delivers an efficient and affordable infrastructure network;
i. creates a sustainable, walkable, highly connected urban community that embraces design excellence and promotes design innovation;
j. within land use precincts 1, 2, 2a, 3, 3a and 5 as depicted on Map 1 – South-East Thornlands Structure Plan – Land Use Precincts, maintains koala habitat linkages, and incorporates koala sensitive development;
k. within lands use precincts 4a, 4b, 4c, 4d, 4e, 4f as depicted on Map 1 – South-East Thornlands Structure Plan – Land Use Precincts, assists the survival of local koala populations by protecting and enhancing koala habitat areas and movement corridors;
l. within all land use precincts, maximise the retention of existing koala habitat trees as well as clusters of other trees and significant individual trees as valuable landscape features;
m. ensure that where koala habitat trees are to be removed they are replaced such that there is a net gain in the area or number of koala habitat trees within the Structure Plan area;
n. ensure development respects the existing topography and minimises to the greatest extent practicable the need for excavation and fill.

Note –

Redland City Council will seek endorsement and support from the Department of Environment and Resource Management (DERM) to include all land located in the Greenspace Precinct as depicted on Map 1 – South-East Thornlands Structure Plan – Land Use Precinct within the Koala Planning Area 1 as defined by the draft South East Queensland Koala Conservation State Planning Policy.

(ii) Uses and other development reinforce the specific development intent for each Land Use Precinct, depicted on Map 1 South-East Thornlands Structure Plan – Land Use Precincts, as follows –
a. Mixed use – Local Centre Precinct (Precinct 1) –

- provides limited shopping and commercial activities to service the convenience needs of the surrounding local community;
- provides community purpose space (office space and/or meeting rooms) to meet the social infrastructure needs of local residents;
- provides strong links with the pedestrian and cycling network and surrounding residential precincts;
- provides, in association with adjoining community, parkland and educational facilities, a local community focal point for the surrounding residential precincts;
- provides opportunities for medium density residential accommodation at above ground level to be integrated with commercial, and retail activities at street level;
- supports a mid-rise built form to achieve critical mass for the precinct.

b. Housing Precinct (Precinct 2) –
- provides predominantly low-rise detached dwellings on individual lots of varying size;
- achieves a density of 12 – 15 dwellings/ha with a low-rise building form;
- Sub-precinct 2a Attached Housing –
  - provides an increased range of residential uses to include aged persons and special needs houses and multiple dwellings such as town houses, villas and terrace housing;
  - provides a transition from mid-rise medium density residential to urban residential housing forms;
  - is within walking distance or adjacent to local and district parkland, or the Mixed Use – Local Centre Precinct or Victoria Point Major Centre.

Note 1 –

Lot 8 on RP84253 has an existing Planning & Environment Court approval for 8 unsewered 'Park Residential' Lots. The proposal includes building envelopes for proposed dwelling houses, indicative area for effluent and stormwater treatment and covenants on title regarding environmental protection values.

Note 2 –

Provision exists for a potential district park (2 to 4 hectares) to be located in the northern area of the Structure Plan area adjacent to Cleveland Redland Bay Road. The area is marked indicatively on the Structure Plan and will be subject to Council acquisition.

c. Medium Density Residential Precinct (Precinct 3) –
- provides for a range of medium density residential uses that are predominantly of a mid-rise built form;
- are located adjacent to or in close proximity to the Mixed Use – Local Centre Precinct or Victoria Point Major Centre or located along principal streets and designed to take advantage of views and amenity provided by adjoining open space areas;
- Sub-Precinct 3a Medium Density Housing (Eprapah Creek) provides for increased building heights to maximise the use of a scarce developable land with walking distance of the Victoria Point Major Centre and bus interchange while ensuring design and layout maximises the retention and on going protection and management of existing habitat koala trees.

d. Greenspace Precinct (Precinct 4) –
- provides for the long term management, protection and enhancement of the following elements:
  - habitat and movement corridors for koala and native fauna;
  - waterways and coastal ecosystems;
  - visual amenity associated with natural and semi natural landscapes;
  - land subject to flooding and storm surge;
  - land intended to remain in private ownership for residential use for a single dwelling house on existing lots in an environmentally sensitive setting;

- recreational facilities including active recreational facilities comprising three local parks and a network of passive linear open recreational spaces and connections.

- Sub-precinct 4a Coastal Corridor protects and enhances publicly owned land that:
  - incorporates a regionally important habitat and movement corridor for Koalas and other fauna between Pinklands Reserve and bushlands adjacent to Eprapah Creek;
  - buffers ecologically sensitive Ramsar wetland wader bird roosts and the Moreton Bay foreshore and marine habitats;
  - restricts active recreation opportunity to the local park;
  - maintains the hydraulic capacity of the Moreton Bay foreshore to accommodate ecological processes including tidal storm tide, potential sea level rise, flooding and overland stormwater flows;
  - protects existing remnant and non-remnant vegetation.
- Sub-precinct 4b Eprapah Creek Corridor protects and enhances publicly owned land that:
  - incorporates a regionally important habitat and movement corridor for koalas and other fauna;
  - maintains the hydraulic capacity of Eprapah Creek and its riparian flood plains to accommodate local flooding and overland stormwater flows;
  - incorporates a local park;
  - buffers the ecologically sensitive habitats and receiving waters of Eprapah Creek;
  - protects existing remnant and non-remnant vegetation.
- Sub-precinct 4c Pinklands Reserve Corridor protects and enhances publicly owned land that:
  - buffers the adjoining ecologically sensitive habitat areas;
  - serves as a movement corridor for koalas and other fauna;
  - protects existing remnant and non-remnant vegetation;
  - in combination with the existing Pinklands Sporing Reserve provides a physical and visual break of open space and bushland between the urban communities of Thornlands.
- Sub-precinct 4d Thornlands Creek Corridor protects and enhances publicly owned land that:
  - buffers the ecologically sensitive habitats and receiving waters of Thornlands Creek;
  - maintains the hydraulic capacity of Thornlands Creek and its riparian flood plains to accommodate local flooding and overland stormwater flows;
  - incorporates an important habitat and movement corridor for koalas and other fauna.
- Sub-precinct 4e Bushland Living provides for single dwelling houses on existing privately owned lots that:
  - maintains the hydraulic capacity of existing wetlands/waterways and Moreton Bay Foreshore to accommodate ecological processes including tidal storm surges, flooding and overland stormwater flows;
  - serves as a habitat and movement corridor for koalas and other fauna.
- Sub-precinct 4f Flood Prone Area – Central Open Space protects and enhances publicly owned land that:
  - maintains the hydraulic capacity, water quality and ecological values of this locally important drainage line;
  - incorporates a local park;
  - provides opportunity for establishing habitat and movement corridor for koalas and other fauna;
  - in combination with the existing school grounds and bushland areas to the east and south east provides for a physical and visual break between the urban communities of Thornlands and Victoria Point.

e. Rural Non-Urban Precinct (Precinct 5) –
- provides opportunity for productive rural activities that rely on the use of land including traditional activities which will not compromise sensitive land uses on adjoining lands;

- generates employment and economic activities from low key tourism opportunities;
- supports small scale traditional cottage industry that is operated and managed by the residents, such as timber work, pottery or similar crafts;
- provides for the establishment of single detached dwelling houses on existing lots;
- maintains current lot size with no additional lots being created;
- ensures vehicular movements generated to and from the use can be managed without detrimental effect or impact on Boundary Road.

Note –

This precinct ensures the existing rural-based activities on Lot 16 on RP14839 can continue in perpetuity. Future development applications lodged over this lot will be subject to access provisions and will need to obtain an approval with the Department of Transport and Main Roads to obtain direct access to Boundary Road.

(b) Movement Network (Map 2, Map 3)
- (i) Uses and other development reinforce a safe, integrated, highly accessible and interconnected road network that:
  - a. provides high levels of legibility, connectivity and permeability for all street uses, while ensuring appropriate levels of safety, amenity and protection from the impact of traffic movements;
  - b. provides attractive streetscapes which reinforce the amenity of residential precincts;
  - c. ensures the provision of esplanade roads to separate land within the Greenspace precinct from urban development;
  - d. ensures a consistent high quality landscaping treatment is delivered along both Cleveland Redland Bay Road and Boundary Road;
  - e. incorporates boulevard style roads with substantial landscaped medians and verges providing green pedestrian linkages between:
    - Greenspace Sub-Precinct 4d – Thornlands Creek Corridor and Greenspace Sub-Precinct 4f – Flood prone area – Central Open Space;
    - Greenspace Sub-Precinct 4a – Coastal Corridor and Greenspace Sub Precinct 4c Pinklands Reserve Corridor;
    - Greenspace Sub-Precinct 4b Eprapah Creek Corridor and the proposed intersection and pedestrian crossing point on Boundary Road.
- (ii) Uses and other development create an integrated cycle and pedestrian network that maximises connectivity and permeability to public open space, Victoria Point Major Centre, the Mixed Use – Local Centre Precinct and adjoining community facilities.
- (iii) Uses and other development are designed to maximise accessibility to public transport by ensuring pedestrian and cycling paths link residential precincts with the Victoria Point bus interchange, local bus stops and the Mixed Use – Local Centre Precinct.

(c) Land Use Conflict Mitigation
- (i) Uses and other development achieve a high standard of amenity by mitigating potential conflicts and impacts between new residential uses and
  - a. existing rural, agricultural and nursery activities;
  - b. traffic on Cleveland Redland Bay Road, Boundary Road and the internal trunk collector road;
  - c. sensitive environmental areas including koala habitats, Eprapah Creek and the Moreton Bay foreshore;
  - d. existing dwelling houses on Park Residential zoned land adjoining the structure plan area.

(d) Infrastructure
- (i) Uses and other development are serviced by infrastructure necessary to support an integrated urban community by –
  - a. maximising the use of existing infrastructure;
  - b. providing for the extension of infrastructure in an orderly, sustainable and cost effective manner while ensuring design and layout minimises adverse impacts on environmental values;
  - c. providing high quality:
    - reticulated water;

- reticulated sewerage;
- storm water management;
- energy;
- telecommunications including conduits for fibre optics or secure wireless networking enabling the development of high speed board band services.

d. ensuring potable water, wastewater and stormwater infrastructure networks are integrated to reduce the impacts of urban development on the water cycle through:
- reductions in overall potable water demand and use;
- minimising wastewater production;
- incorporating water reuse infrastructure to maximise recycling opportunities;
- protecting waterway health by improving stormwater quality and reducing site runoff;
- ensuring all water, sewerage and stormwater infrastructure is designed and located to the greatest extent practicable outside the Greenspace Network unless identified as part of a regional solution in Part 10 – Priority Infrastructure Plan.

5.14.8 Specific Outcomes and Probable Solutions applicable to Assessable Development

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	Land Use Precincts		
S1.1	(1) Provide for a range of uses and other development that contribute to the creation of an integrated urban community in accordance with Map 1 – Land Use Precincts.	**P1.1**	(1) No probable solution identified.
S1.2	(1) Precinct 1 – Mixed Use – Local Centre incorporates uses and other development that – (a) integrate local scale commercial, service industry, community and retail uses with residential accommodation; (b) provide, in association with the adjoining educational, parkland, religious and community facilities a focal point for the surrounding residential precincts; (c) contribute to social interaction and activity at street level.	**P1.2**	(1) No probable solution identified.
	(2) Uses within Precinct 1 – Mixed Use – Local Centre include – (a) a limited amount of retailing (shops) that provides for local convenience shopping whilst respecting the role and function of Victoria Point Major Centre as the pre-eminent retail and service activity centre in the southern half of the City; (b) small scale commercial offices or service industry activities that encourage and support local employment opportunities while respecting and protecting the amenity of adjoining residential precincts; (c) a small scale community facility such as a meeting room to meet the social infrastructure needs of local residents; (d) multiple dwellings and apartment buildings where part of a mixed use development and where ensuring the maintenance of active street frontages at ground level.		(2) In Precinct 1 – Mixed Use – Local Centre, the gross floor area of: (a) a single 'shop' tenancy does not exceed 400m2; (b) all 'shop' tenancies do not exceed 800m2 in total; (c) commercial office, service industry and refreshment establishment tenancies do not exceed 1,200m2 in total; (d) a single commercial office, service industry or refreshment establishment does not exceed 200m2; (e) a community facility achieves a minimum of 200m2. **Note –** Refer to Part 8 Division 3 – Centre Design for further assessment criteria related to Centre Design.
	(3) Building height adopts a mid-rise built form complementary with adjoining residential zones.		(3) Buildings or structures do not exceed 14 metres above ground level.

Assessable Development			
	Specific Outcomes		**Probable Solutions**
S1.3	(1) Precinct 2 – Housing is designed and located to – (a) provide low-rise detached dwellings on individual lots of varying size; (b) ensure reconfiguration provides: (i) a mix of lot sizes to accommodate a variety of dwelling types; (ii) an average net residential density of 12-15 dwellings per hectare. (2) Sub-Precinct 2a – Attached Housing is designed and located to provide an increased range of residential uses including multiple dwellings and aged persons and special needs housing.	**P1.3**	(1) No probable solution identified. (2) No probable solution identified.
S1.4	(1) Precinct 3 – Medium Density Housing is designed and located to – (a) provide for a range of medium density uses such as multiple dwellings, apartment buildings and aged persons and special needs housing; (b) limit overall building height to 13m and 3 storeys except in Sub-precinct 3a; (c) maximise views and outlook across adjoining areas of open space; (d) facilitate convenient walking to – (i) public open space and local and district parks; or (ii) convenience shopping employment and community opportunities within Precinct 1 – Mixed Use – Local Centre; or (iii) higher order facilities and bus interchange at Victoria Point Major Centre; (e) ensure that where development adjoins Precinct 4 – Greenspace network it is located and designed so as not to compromise adjoining environmental values or the hydraulic capacity and ability of the adjoining land to accommodate the one percent AEP flood;	**P1.4**	(1) No probable solution identified.

Assessable Development			
	Specific Outcomes		**Probable Solutions**
	(f) ensure a building layout and design that – (i) contributes to the establishment of an attractive streetscape; (ii) reduces building bulk by a combination of balconies, recesses and variations in building form and materials; (iii) requires roofs to be pitched, articulated, gabled or other features to avoid single plane or flat rooflines; (iv) on lot 20 on SP140739 incorporates a range of design treatments that: ■ ensure the establishment of a high quality attractive streetscape on the corner of the visually prominent intersection of Cleveland Redland Bay Road and Boundary Road; ■ positively recognises the strategic position of the locality as the southern gateway to the South-East Thornlands Structure Plan area.		**Note –** Refer to relevant use codes for specific built form assessment criteria.
	(2) Sub-precinct 3a - Medium Density Housing (Eprapah Creek) is designed and located to – (a) limit overall building height to 16m and 4 storeys, where it is demonstrated that buildings do not dominate the landscape when viewed from Boundary Road; (b) restrict non residential uses to protect the role and function of Victoria Point Major Centre; (c) ensure development is integrated with existing topography and designed to step down the existing slope towards Eprapah Creek; (d) maximise to the greatest extent practicable the retention and ongoing protection and management of existing koala habitat trees. **Note –** Redland City Council in consultation with the landowners and developers will develop a series of design manuals to assist and guide the creation of sustainable integrated local neighbourhoods.		(2) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
S1.5	(1) Uses and other development reinforce the specific development intent for land use precincts 1, 2, 2a,3 and 3a as depicted in Map 1 – South-East Thornlands Structure Plan – Land Use Precincts, while being designed to: (a) maintain koala habitat linkages; (b) ensure the location and design of buildings and other structures and other works allows koalas to traverse the landscape in which the development is located including: (i) siting buildings/structures, roads and works in ways that minimise the fragmentation of koala habitat to be retained; (ii) incorporating layout and design measures to minimise the extent to which a koala that is traversing the landscape is impeded from reaching its destination either within the development site, or on the other side of the development site; (iii) locating buildings/structures and other works in existing cleared areas; (iv) retaining koala habitat trees as well as clusters and significant individual other trees which provide valuable landscape and environmental features; (v) providing habitat links of native vegetation across the site; (vi) erecting koala friendly fences on lot boundaries, except where koala exclusion fences are the only practical way of safeguarding koalas from uses on the lot; (vii) ensuring roads or road networks are located, designed and constructed to minimise the risk to koalas from vehicle strikes; (viii) respects the existing topography and minimises to the greatest extent practicable the need for excavation and fill.	**P1.5**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(ix) ensuring where development unavoidability results in the loss of koala habitat trees, offset planting is carried out at the rate of one tree for every one metre of tree height removed.		
S1.6	(1) Precinct 4 – Greenspace Network comprising six (6) Sub-precincts is designed and located to – (a) enhance, protect and maintain environmental, landscape, scenic and recreation values; (b) protect the hydraulic and ecological processes of the Moreton Bay foreshore, waterway corridors, flood prone land and land subject to storm tide; (c) protect, manage and enhance koalas and koala habitat to ensure the long term viability of koalas in the area; (d) protect remnant and non remnant vegetation, cleared areas and artificial wetlands that contribute to local habitat and movement of fauna; (e) provide a buffer for core habitat values associated with Eprapah Creek, Moreton Bay foreshore and Pinklands Reserve; (f) incorporate active recreational facilities including three local parks and a network of passive linear open spaces and connections incorporating shared pedestrian and cycle networks; (g) where in Sub-precincts 4a, 4b, 4c, 4d and 4f - be progressively transferred to public ownership; (h) where in Sub-precinct 4e - be retained in private ownership.	**P1.6**	(1) No probable solution identified.
	(2) Sub-precinct 4a - Coastal Corridor protects and enhances publicly owned land that – (a) incorporates a regionally important habitat and movement corridor for koalas and other fauna moving between Pinklands Reserve and bushland adjacent to the tidal section of Eprapah Creek; (b) incorporates a local park in close proximity to the Mixed Use – Local Centre Precinct		(2) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(Precinct 1) and surrounding Medium Density Housing Precinct (Precinct 3); (c) protects a locally important node of vegetation located between the local park and Precinct 2 – Housing, and Sub-precinct 2a Attached Housing, and Precinct 3 Medium Density Housing; (d) provides a buffer of a minimum of 200m to the Ramsar listed wetland wader bird roost and marine habitat and foreshore areas of high ecological sensitivity from the impacts of passive recreation along the shared pedestrian cycle way and adjoining housing precinct; (e) ensures the large existing farm dam adjoining the housing precinct to the west is maintained as an artificial wetland and habitat area; (f) protects the hydraulic capacity and ecological features and values of the Moreton Bay foreshore which naturally accommodate the flow of waters during storm tide events and potential sea level rises; (g) is transferred to public ownership where part of a development site.		
	(3) Sub-precinct 4b – Eprapah Creek Corridor protects and enhances publicly owned land that – (a) incorporates and protects a regionally important habitat and movement corridor for koalas and other fauna; (b) incorporates a local park and connects to a green pedestrian linkage to the proposed intersection and pedestrian crossing on Boundary Road; (c) protects existing stands of remnant and non remnant vegetation; (d) protects the hydraulic capacity and ecological functions of Eprapah Creek and land which naturally accommodates the flow of water during flood events; (e) is transferred to public ownership where part of the development site.		(3) No probable solution identified.
	(4) Sub-precinct 4c – Pinklands Reserve Corridor protects and enhances publicly owned land that –		(4) No probable solution identified.

Assessable Development			
Specific Outcomes		Probable Solutions	
	(a) consolidates core habitat areas of the Pinklands Reserve that provides a locally important wildlife habitat movement corridor for koalas and other fauna; (b) provide a buffer for core habitat values of Pinklands Reserve from the impacts of uses and other development excluding infrastructure; (c) protects existing stands of remnant and non remnant vegetation; (d) in combination with the existing Pinklands Sporting Reserve provides a physical and visual break of open space and bushland between the urban communities of Thornlands; (e) is transferred to public ownership where part of a development site.		
	(5) Sub-precinct 4d - Thornlands Creek Corridor protects and enhances publicly owned land that – (a) protects a locally important habitat and wildlife movement corridor for koalas and other native fauna; (b) protects riparian vegetation and enhance water quality for natural drainage lines and minor waterways associated with the Thornlands Creek catchment; (c) provides for the rehabilitation of disturbed sections of minor waterways; (d) protects existing stands of remnant and non-remnant vegetation; (e) retains existing artificial wetlands for the purpose of providing aquatic habitats and stormwater management; (f) protects the hydraulic capacity and ecological functions and values of the waterway and lands which accommodate the flow of water during flood events; (g) is transferred to public ownership where part of a development site.		(5) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(6) Sub-precinct 4e - Bushland Living is designed and located to – (a) provide for a lifestyle choice that protects, maintains and contributes to environmental values; (b) protects the hydraulic capacity and ecological functions of wetlands, waterways and Moreton Bay Foreshore and lands which accommodate the flow of water during flood and storm tide events; (c) protects locally important habitat and movement corridor for koalas and other fauna; (d) ensure development envelopes are established through material change of use or reconfiguration and are shaped and located to – (i) accommodate all associated activities, infrastructure, access and landscaping; (ii) be within the most degraded or cleared areas of the premises; (iii) maximise edge effects to areas external to the development envelope; (e) be retained in private ownership.		(6) No probable solution identified.
	(7) Sub-precinct 4f - Flood Prone Areas – Central Open Space protects and enhances publicly owned land that – (a) provides opportunities for re-establishing habitat and movement corridors for koalas and other fauna; (b) protects the hydraulic capacity of the waterway and lands which accommodate the flow of water during flood events; (c) incorporates a local park located above the 1 percent AEP flood inundation level; (d) provides pedestrian connectivity to a proposed intersection and pedestrian crossing on Boundary Road; (e) in combination with the existing school grounds and bushland to the east and south east provides for a physical and visual break between the urban communities of Thornlands and Victoria Point; (f) is transferred to public ownership where part of a development site.		(7) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
S1.7	(1) Precinct 5 – Rural Non Urban incorporates uses and other development that: (a) promote traditional and emerging rural activities that minimise adverse impacts on sensitive land uses on adjoining lands; (b) include small scale traditional cottage industry that is operated and managed by the residents such as timber work, pottery or similar crafts; (c) generate employment and economic activities from low key tourism opportunities; (d) provide for the establishment of a single detached dwelling house on existing lots; (e) maintains current lot size with no additional lots being created; (f) ensures vehicular movements generated to and from the use can be managed without detrimental effect or impact on Boundary Road.	**P1.7**	(1) No probable solution identified.
S2.1	Movement Network (1) Principal streets that include trunk collector and collector streets are provided generally in accordance with Map 2 – Road Movement Network Plan. (2) Trunk collector and collector streets are designed to accommodate the safe and efficient movement of public transport buses. **Note –** Trunk collector and collector streets are generally fixed in their location. Changes to the location of trunk collector and collector streets will only be considered when it can be demonstrated that the revised location: (a) provides increased levels of legibility, connectivity and permeability for all street users; (b) improves levels of safety and amenity; (c) provides enhanced environmental outcomes.	**P2.1**	(1) No probable solution identified. (2) Trunk collector and collector streets are designed to accommodate public transport buses.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
S2.2	(1) Access streets and access places are designed and located to – (a) provide a high level of internal accessibly and good external connections for vehicles through the use of a grid pattern layout; (b) minimise the use of cul de sacs; (c) maximise the maintenance and protection of existing vegetation; (d) assist in the conveyance and treatment of stormwater; (e) provide alternative access to existing lots accommodating dwelling houses that currently directly access onto Cleveland Redland Bay Road and Boundary Road; (f) allow views and access to breeze and landscape; (g) ensure pedestrian and cyclist permeability and access to public bus stops on Cleveland-Redland Bay Road; (h) not extend into land included in the Greenspace Network – Precinct 4 except to facilitate access to Lot 20 on SP140739 as depicted on Map 2 – Road Network Plan. **Note –** Access Streets, except where required to be located adjacent to land within the Greenspace Precinct, are not fixed in location and generally are not shown on Map 2 – Road Movement Network Plan. (2) Where new streets are created within Precinct 3 – Medium Density Housing and Sub-precinct 3a the width of the street shall be capable of accommodating street parking on both sides of the street.	**P2.2**	(1) No probable solution identified. (2) Where new streets are created within Precinct 3 – Medium Density Housing and Sub-precinct 3a the width of the street/ road reserve shall be a minimum of 18m.
S2.3	(1) Collector, access streets and access places incorporating esplanade treatments are provided adjacent to all land included within the Greenspace Precinct and designed to – (a) achieve a low speed environment for cars, cyclists and pedestrians;	**P2.3**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(b) incorporate a shared pedestrian and cycle pathway; (c) incorporate, where possible, grassed swales instead of kerb and channel on the side of the road adjacent to land included in the Greenspace Precinct; (d) ensure no part of the road pavement is constructed within the Greenspace Precinct; (e) ensure minimum disturbance to existing native vegetation; (f) assist in the conveyance and treatment of stormwater. **Note –** The esplanade road located adjacent to the Pinklands Conservation Area has been previously mapped as Koala Sustainability Area and is located within the Bushfire Hazard Overlay. No clearing is proposed within this reserve, so adequate demonstration of treatment of this corridor will be required as part of any future development application. **Note -** The final alignment and design of the esplanade road may be varied to ensure minimal disturbance to existing vegetation and to protect and enhance the ecological, scenic and hydrological functioning of the identified Greenspace Sub-precincts.		
S2.4	(1) All boulevard roads are designed and located to incorporate substantial landscaped medians and verges providing high quality landscaped pedestrian linkages between: (a) Greenspace Sub-Precinct 4d – Thornlands Creek Corridor and Greenspace Sub-Precinct 4f – Flood prone area – Central Open Space; (b) Greenspace Sub-Precinct 4a – Coastal Corridor and Greenspace Sub-Precinct 4c – Pinklands Reserve Corridor; (c) Greenspace Sub-Precinct 4b – Eprapah Creek Corridor and the proposed intersection and pedestrian crossing point on Boundary Road.	**P2.4**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(2) The boulevard road identified on Map 2 – Road Movement Network Plan, located between Greenspace Sub-precinct 4d Thornlands Creek Corridor and Greenspace Sub-precinct 4f – Central Open Space and Flood Prone Area shall be a minimum width of 50m.		(2) No probable solution identified.
	(3) The boulevard roads identified on Map 2 – Road Movement Network Plan located between (a) Greenspace Sub-Precinct 4c Pinklands Reserve and Greenspace Sub-Precinct 4a Coastal Corridor shall be a minimum width of 22m; (b) Boundary Road and Greenspace Sub-Precinct 4b – Eprapah Creek Corridor shall be a minimum width of 25m.		(3) No probable solution identified.
S2.5	(1) All roads and streets are landscaped with native plants including koala food trees to provide shade and to assist with the movement of koalas and other fauna, and enhance visual amenity.		(1) No probable solution identified.
S2.6	(1) Road corridors under the control of the Department of Transport and Main Roads (DTMR), (Cleveland Redland Bay Road and Boundary Road) are designed and of sufficient width, as identified on Map 2 – Road Movement Network Plan to – (a) incorporate fauna exclusion fencing; (b) incorporate fauna crossings; (c) restrict direct vehicular access from all new uses and new lots; (d) provide three new road intersections; (e) accommodate road widening of sufficient width to accommodate:	**P2.5** **P2.6**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		Probable Solutions	
	(i) a minimum 2.5 metres shared use concrete path on street; (ii) cycling lanes; (iii) four vehicular lanes; (iv) a minimum ten (10) metre wide strip of land on both sides of Cleveland-Redland Bay Road to accommodate noise attenuation treatments including fencing, landscaping and earth mounds; (v) a minimum ten (10) to fifteen (15) metre wide strip of land on both sides of Boundary Road to accommodate noise attenuation treatments including fencing landscaping and earth mounds.		
S2.7	(1) Noise attenuation measures undertaken with DTMR road corridors (Cleveland Redland Bay Road and Boundary Road) are designed to – (a) achieve a high quality visual appearance; (b) ensure any acoustic fencing is erected on property boundaries and screened from the road carriageway by landscaping and landscaped earth mounds of at least ten (10) metres in width; (c) incorporate physical and visual breaks to allow for pedestrian and cyclist permeability; (d) give consideration to innovative measures for land identified on Map 1 – Land Use Precincts within Precinct 4 – Greenspace Network so as to maintain acoustic controls for adjoining properties while maintaining a high quality visual appearance, the hydraulic capacity of the land in co-ordination with providing opportunities for re-establishing habitat and movement corridors for koalas and other fauna.	**P2.7**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	Note – Intersection and Access Points: - The locations of the proposed intersections on Cleveland-Redland Bay Road and Boundary Road are fixed. The creation of additional intersections and access points onto either of these two roads will not be supported. Transport and Main Road Corridors: - To maintain residential amenity and ensure sufficient area for off street car spaces, the width of the required road corridors Cleveland Redland Bay Road and Boundary Road may be varied along the frontage of existing standard urban lots which contain an existing dwelling house. Fauna Exclusion Fencing and Fauna Crossings: - To assist the survival of local koala populations, it is essential appropriate exclusion fencing and koala fauna crossings are provided both on Cleveland Redland Bay Road and Boundary Road. Redland City Council will continue to liaise with DTMR and DERM to ensure the timely delivery of this infrastructure.		
S2.8	(1) Provide an integrated network of pedestrian and cycle paths in accordance with Map 3 – Cycling and Public Transport Network Plan, ensuring safe and convenient access in accordance with CPTED principles to – (a) local and district parks; (b) Victoria Point Major Centre and bus interchange from a shared pedestrian and cycle path along Cleveland Redland Bay Road and from a shared cycle and pedestrian path and bridge across Eprapah Creek providing direct access from Abeya Street; (c) Eddie Santagiuliana Way and adjoining foreshore areas; (d) Pinklands Sporting Reserve; (e) Precinct 1 – Mixed Use – Local Centre Precinct and the adjoining educational, community and religious facilities on Beveridge Road.	**P2.8**	(1) No probable solution identified.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(2) The internal road network is linked to primary and secondary pedestrian/cycle links through pathways at strategic locations to provide direct access to bus stops, schools, shopping and community facilities and public open spaces.		(2) No probable solution identified.
	(3) Noise attenuation treatments along Boundary Road and Cleveland Redland Bay Road are designed to provide physical and visual breaks to ensure pedestrian and cyclist permeability and access to public bus stops.		(3) No probable solution identified.
S2.9	(1) Uses and other development maximise opportunities to incorporate public transport providing convenient connections between activity areas and residential precincts.	**P2.9**	(1) No probable solution identified.
	Land Use Conflict Mitigation		
S3.1	(1) Uses and other development that adjoin Boundary Road and Cleveland Redland Bay Road incorporate noise attenuation measures that – (a) achieve a high quality attractive visual appearance from all public streets; (b) include a combination of – (i) vegetated earth mounds; (ii) acoustic screens; (iii) acoustic treatments incorporated into the building design; (c) incorporate landscaping to enhance visual amenity and minimise the visual impacts of noise screens; (d) incorporate physical and visual breaks where adjoining cul de sacs and bus stops to allow for pedestrian and cyclist permeability.	**P3.1**	(1) No probable solution identified. **Note –** Refer to Part 11 – Planning Scheme Policy 5 – Environmental Emissions for further information on noise and air quality impacts. **Note –** Noise sensitive development will need to meet Main Roads Road Traffic Noise Management Code of Practice. Refer also to Part 5 Division 10 Road and Rail Noise Impacts Overlay.
S3.2	(1) Uses and other development are located and designed to protect the ongoing operation of adjoining existing agricultural or rural activities by limiting the potential impacts of chemical spray, noise, odour, fumes, steam, soot, ash, dust, grit, oil, radio or electrical interference by –	**P3.2**	(1) No probable solution identified.

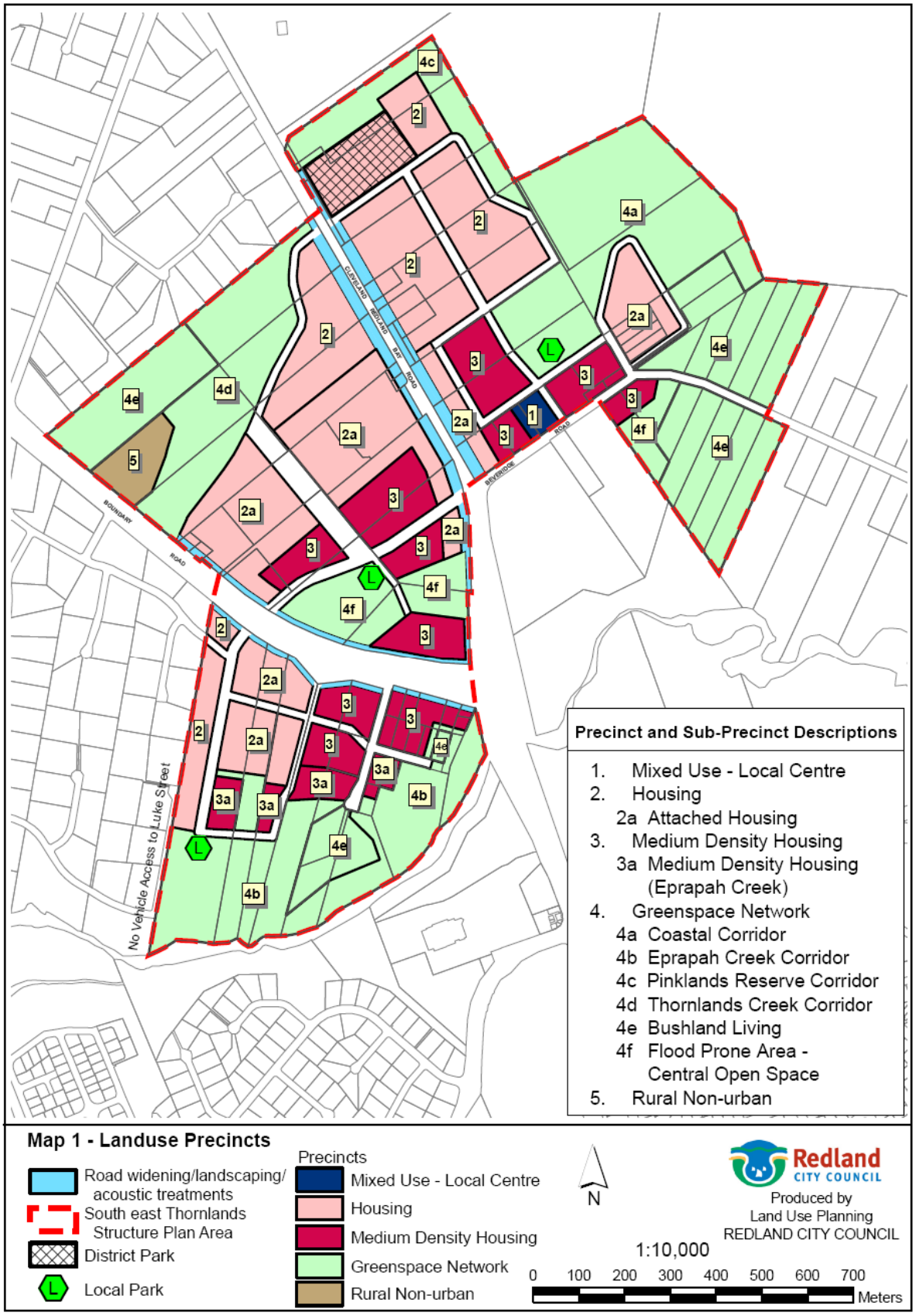
Assessable Development			
Specific Outcomes		**Probable Solutions**	
	(a) incorporating staging plans which minimise potential conflicts; or (b) incorporating attenuation measures including vegetated buffers and noise attenuation barriers that minimise noise and other environmental emissions whilst respecting the landscape setting.		
S3.3	(1) Uses and other development are designed and located to protect the amenity of dwelling houses on existing lots included in the Park Residential Zone by: (a) requiring reconfiguration of land involving the creation of any new lots directly adjoining the Park Residential Zone to achieve a minimum: (i) site area of 1200m^2; (ii) a frontage of 25m; (b) restricting the establishment of dual occupancies and multiple dwellings on newly created lots which directly adjoin existing Park Residential zoned lots.	**P3.3**	(1) No probable solution identified.
	Infrastructure Network		
S4.1	(1) Uses and other development are serviced by infrastructure including – (a) reticulated water; (b) reticulated sewerage; (c) stormwater management systems. (2) Reticulated water sewerage and stormwater management infrastructure is designed to ensure, where practicable it is located outside the Greenspace Network as depicted on Map 1 – Land Use Precincts. **Note –** Currently there is limited potable water supply, waste water disposal and stormwater management infrastructure within South-East Thornlands. This infrastructure is required to be constructed.	**P4.1**	(1) No probable solution identified. (2) No probable solution identified. **Note –** For additional assessment requirement refer to Part 8 – Division 7 – Infrastructure Works Code and Division 9 – Stormwater Management Code.

Assessable Development			
Specific Outcomes		**Probable Solutions**	
S4.2	(1) Development must include measures to integrate water supply, wastewater and stormwater and thus ensure protection of the water cycle and environment by: (a) reducing overall water use; (b) minimising wastewater production where practicable; (c) incorporating water reuse infrastructure to maximise recycling opportunities; (d) protecting waterway health by improving stormwater quality and reducing site run-off; (e) minimising impacts on the water cycle; (f) locating to the extent practicable all water, wastewater and stormwater infrastructure outside the Greenspace Network (Precinct 4) unless identified as part of a regional solution in Part 10 – Priority Infrastructure Plan. **Note –** To assist in achieving S4.2 all development proposals are required to be accompanied by an Integrated Water Management Plan (IWMP) that identifies the range of strategies and actions proposed to integrate water supply, wastewater and stormwater and thus ensure protection of affected waterways and catchment areas. An IWMP also identifies those Water Sensitive Urban Design (WSUD) measures proposed to be incorporated in a development to ensure protection of the water cycle. The IWMP must provide sufficient information on how these matters are to be dealt with for the particular site. Detailed design of the drainage network and Water Sensitive Urban Design measures will usually be required as a subsequent application for operational works or as a condition of approval.	**P4.2**	(1) No probable solution identified.

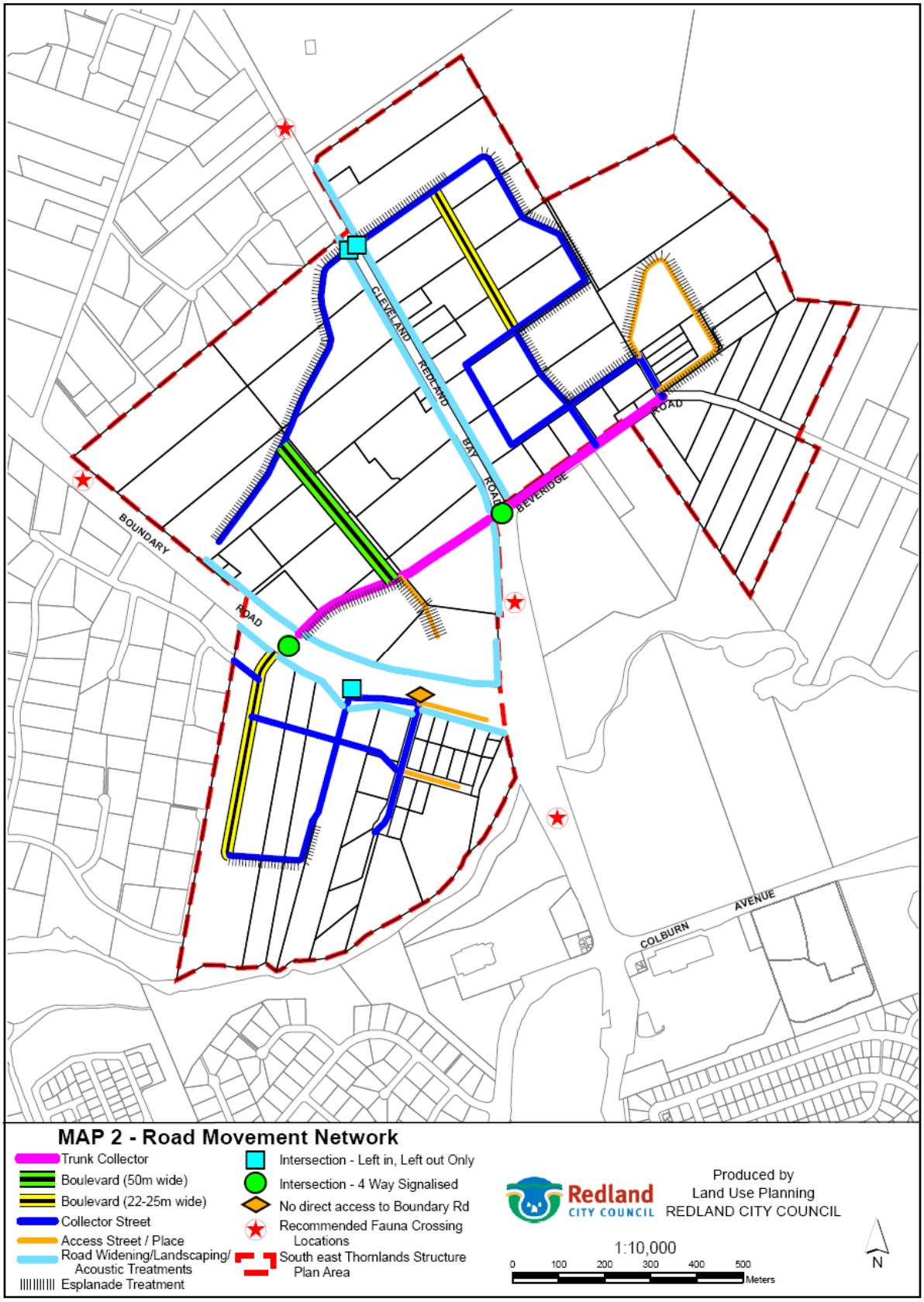
Assessable Development			
Specific Outcomes		**Probable Solutions**	
	Any proposal to locate any water, wastewater or stormwater infrastructure within the Greenspace Precinct must demonstrate that such infrastructure cannot be located within an Urban Precinct and be accompanied by a full ecological assessment which demonstrates such works can be designed, constructed and maintained in a manner which protects the ecological and hydrological integrity of the area.		(1)
S4.3	(1) New development is provided with high quality telecommunications infrastructure including conduits for fibre optics or secure wireless networks that enable the deployment of high speed broadband services.	**P4.3**	(2) No probable solution identified.
S4.4	(1) New development is provided with energy distribution and reticulation network with the under grounding where practicable of all electrical network infrastructure.	**P4.4**	(1) No probable solution identified.
S4.5	(1) Energy efficient lighting systems including grid connector solar powered LEDP lighting systems will be utilised where practicable for use in all public spaces and bus stops.	**P4.5**	(1) No probable solution identified.

South-East Thornlands Structure Plan Overlay

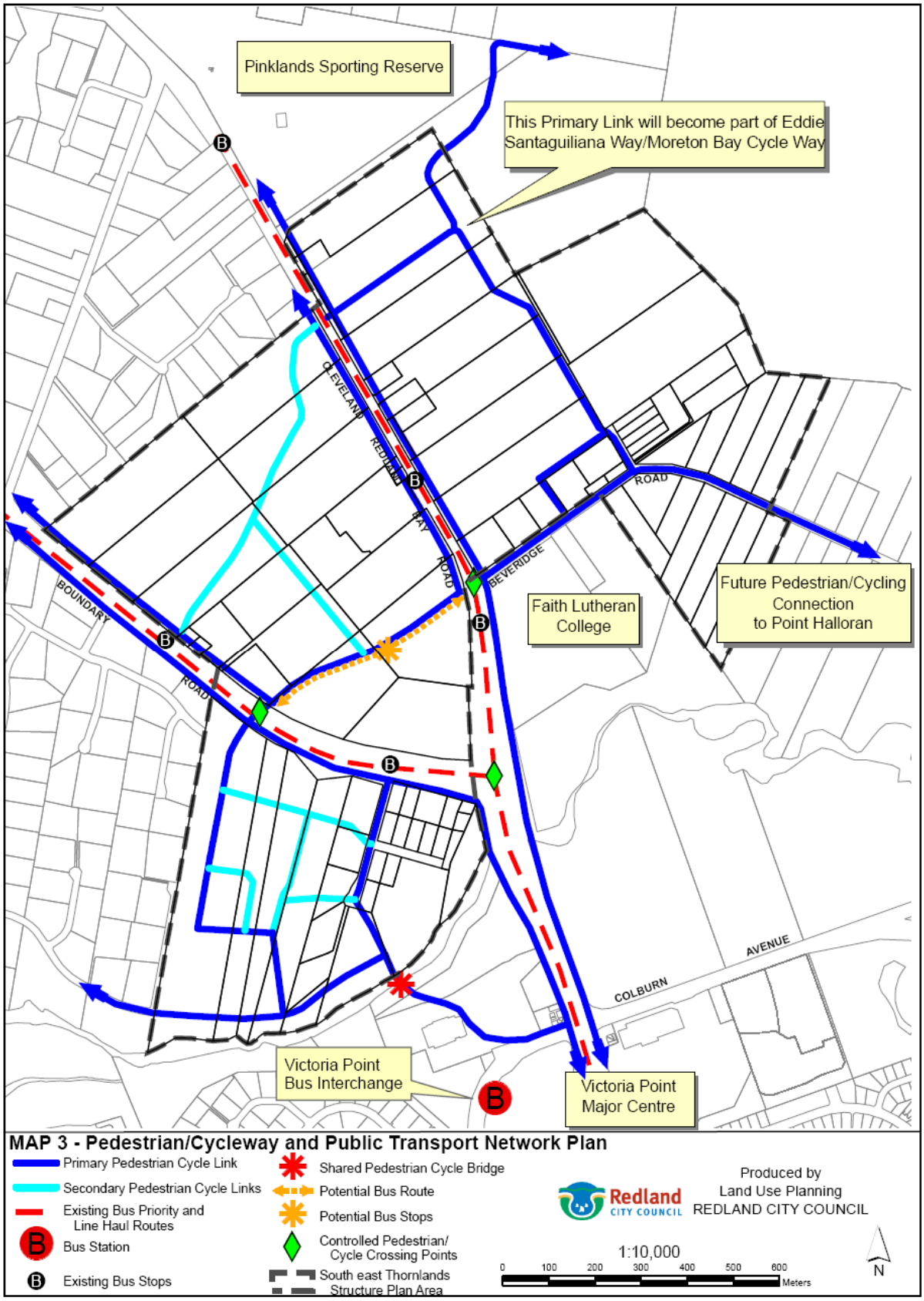
Map 1 – Land Use Precincts



Map 2 – Road Movement Network



Map 3 – Pedestrian/Cycleway and Public Transport Network Plan



South-East Thornlands Structure Plan Overlay