

## SC6.20 Planning scheme policy for Palmview Structure Plan

### SC6.20.1 Preliminary

#### Purpose

- (1) The purpose of this planning scheme policy is to:-
- (a) state standards identified in the **Palmview structure plan area code**;
  - (b) provide guidelines and advice about satisfying assessment criteria in the **Palmview Structure Plan**; and
  - (c) state the additional information which the Council may request in respect of a development application.

#### Application

- (2) This planning scheme policy applies to a development application for a preliminary approval to which section 242 of the Act applies or a development application for assessable development in the Master Planned Area.
- (3) The provisions of the **Planning scheme policy for the Palmview Structure Plan** prevail over the provisions of any other planning scheme policy to the extent of any inconsistency.

#### Relationship to Palmview Structure Plan

- (4) This planning scheme policy is to be read in conjunction with the **Palmview Structure Plan**.

#### Interpretation

- (5) Terms used in this planning scheme policy that are also used in the **Palmview Structure Plan** have the meaning given in the **Palmview Structure Plan**.

### SC6.20.2 Ecological and landscape protection outcomes

#### Preliminary

- (1) This section applies to the following ecological and landscape protection outcomes:-
- (a) the ecological and landscape protection outcomes in Performance Outcomes PO4 to PO15 in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the master planned area)** of the **Palmview structure plan area code**; and
  - (b) the non-urban open space infrastructure network outcomes in Performance Outcomes [P045 P03840](#) to [P049 P04244](#) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the Development of Infrastructure and Services)** of the **Palmview structure plan area code**.

#### General advice for ecological and landscape protection outcomes

- (2) The following is general advice about satisfying the ecological and landscape protection outcomes:-
- (a) The ecological and landscape protection outcomes seek to ensure that the development of the Master Planned Area occurs in a manner that:-
    - (i) appropriately recognises and responds to physical constraints;
    - (ii) provides for the protection and rehabilitation of a significant part of the Master Planned Area for environmental and landscape protection purposes; and
    - (iii) otherwise exhibits ~~contemporary~~ best practice approaches to ecological and landscape protection.
  - (b) The ecological and landscape protection outcomes are primarily intended to be satisfied by the following:-

(i) avoiding development for urban purposes, other than the limited infrastructure specified on the structure plan maps, occurring:-

- (A) on flood prone land identified as being unsuitable to be filled for urban purposes; and
- (B) in an ecologically important area;

(ii) achieving a minimum of ~~615~~ **483.4** hectares of land for ecological protection and rehabilitation purposes to improve the extent and capability of natural systems to absorb the impacts associated with large scale urban development and increasing population pressure through the following:-

- (A) the establishment of the non-urban open space infrastructure network specifically identified on **Other Plans Map OPM P14-P12 (Palmview master planned area non-urban open space infrastructure network) in Schedule 2 (Mapping)**;
- (B) the implementation of **Appendix SC6.20A (Palmview master planned area ecological and landscape protection and rehabilitation plan)**;
- (C) the implementation of a Local Ecological and Landscape Protection and Rehabilitation Plan which:-

- 1. outlines how **Appendix SC6.20A (Palmview master planned area ecological and landscape protection and rehabilitation plan)** is to be achieved;
- 2. is to be assessed against the requirements which may include the matters in **Section 10 (Requirements for local ecological protection and rehabilitation plan)** of **Appendix SC6.20A (Palmview master planned area ecological and landscape protection and rehabilitation plan)** specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval; and
- 3. has been approved by a compliance certificate given by the Council;

(D) where the provision of infrastructure required to service development in the Master Planned Area adversely impacts on an ecologically important area, the implementation of a Environmental Offset Plan which:-

- 1. outlines how the ecological and landscape protection outcomes for environmental offsets are to be achieved;
- 2. is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in **Table SC6.20H (Compliance assessment requirements)**; and
- 3. has been approved by a compliance certificate given by the Council.

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#### Guidelines and advice for the ecological and landscape protection outcomes

(3) The **Palmview master planned area ecological and landscape protection and rehabilitation plan (Appendix SC6.20A)** provides for the following:-

- (a) guidelines about satisfying the ecological and landscape protection outcomes; and
- (b) advice about the requirements for Local Ecological and Landscape Protection and Rehabilitation Plans to be required in a preliminary approval to which section 242 of the Act applies or another applicable development approval.

#### Advice for environmental offset outcomes

(4) For the purposes of Performance Outcome PO6 in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the master planned area)** of the **Palmview structure plan area code**, the following is advice about satisfying the assessment criteria in the code for the environmental offset outcomes:-

- (a) the Structure Plan Maps identify which infrastructure corridors cross ecologically important areas and the approximate location of the crossings;

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- (b) a environmental offset is required to be provided under the **Palmview structure plan area code** in circumstances where infrastructure required to service the Master Planned Area adversely impacts upon:-
  - (i) an ecologically important area (either within the Master Planned Area or external to the Master Planned Area); or
  - (ii) the ability to achieve a minimum of [645-483.4](#) hectares of land for ecological protection and rehabilitation purposes;
- (c) infrastructure is to be considered to adversely impact upon an ecologically important area where one or more of the following occurs or is likely to occur:-
  - (i) the clearing of native remnant or regrowth vegetation or habitat;
  - (ii) the restriction of fauna movement or other impact upon a habitat corridor;
  - (iii) water quality or a natural hydrological condition is affected; and
  - (iv) the functioning of the ecologically important area is otherwise impacted upon.

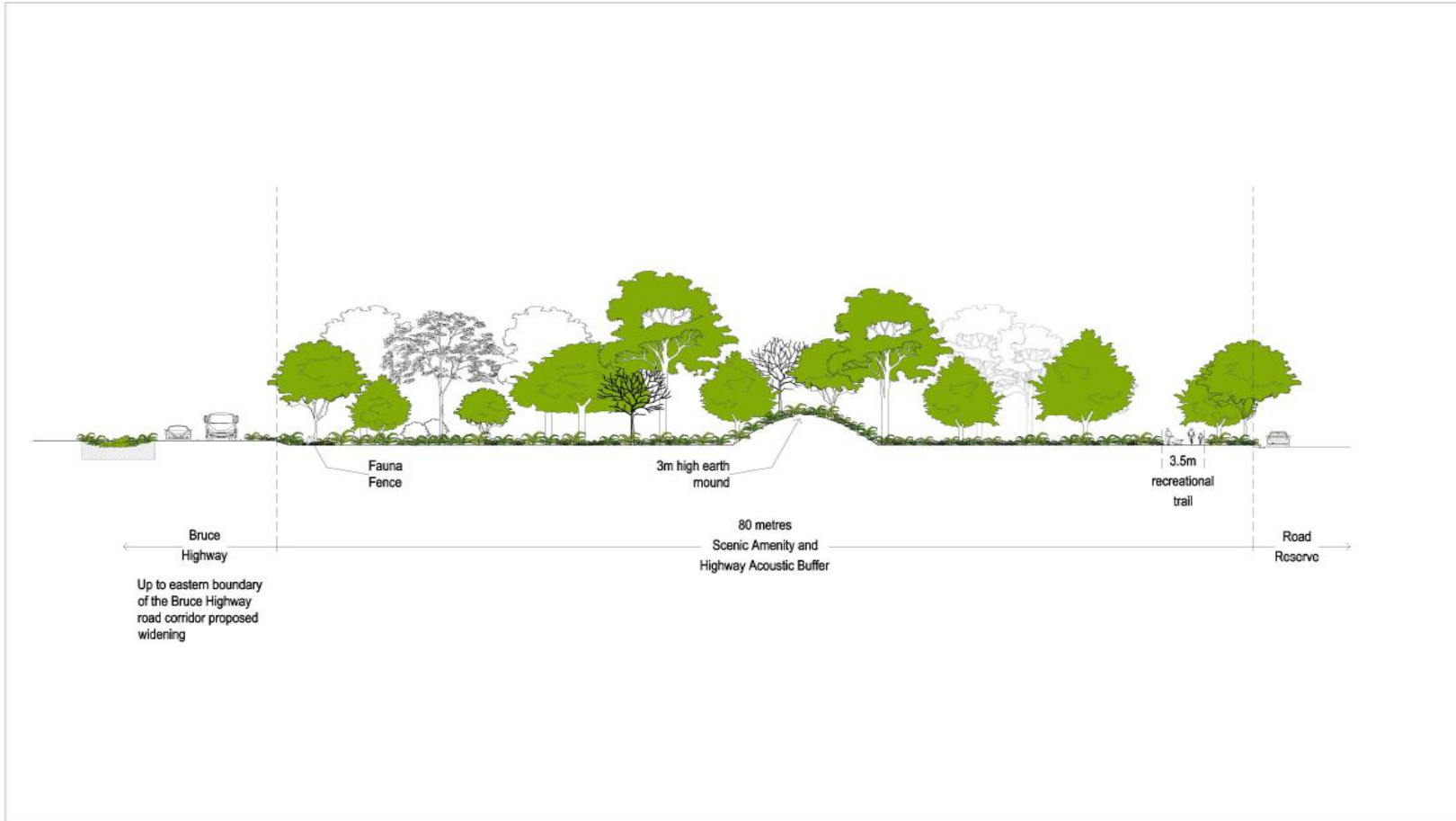
Advice for environmental transition area outcomes

- (5) For the purposes of Performance Outcome PO9 in **Section 10.3.4.3 (Performance Outcomes and Acceptable Outcomes for the whole of the Master Planned Area)** of the **Palmview structure plan area code**, the following is advice about satisfying the standards in the code for the environmental transition area outcomes:-
  - (a) the ecological and landscape protection outcomes provide for limited low impact activities and embellishments to occur within the environmental transition area where they can be demonstrated to be compatible with the primary ecological function of the area;
  - (b) a environmental offset is not required in respect of development of the environmental transition area where the development satisfies the standards in the code for the environmental transition area outcomes;
  - (c) further guidance in respect to stormwater infrastructure is specified in [Section SC6.20.9 \(Integrated Water Cycle Management Infrastructure Network Outcomes\)](#)~~the Planning scheme policy for Development works~~; and
  - (d) further guidance in respect to recreation parks is specified in [Section SC6.20.10.9 \(Urban Open Space Infrastructure Network Outcomes\)](#).

Standards and advice for the scenic amenity and highway acoustic buffer outcomes

- (6) For the purposes of Performance Outcome PO10(f) in **Section 10.3.4.3 (Performance Outcomes and Acceptable Outcomes for the whole of the Master Planned Area)** of the **Palmview structure plan area code**, the following are the standards in the code for the scenic amenity and highway acoustic buffer outcomes:-
  - (a) the scenic amenity and highway acoustic buffer is developed in accordance with the typical cross section specified in **Figure SC6.20A (Scenic amenity and highway acoustic buffer typical cross section)**.
- (7) For the purposes of Performance Outcome PO10 in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the ~~master Master planned Planned areaArea~~Area)** of the **Palmview structure plan area code**, the following is advice about satisfying the assessment criteria in the code for the scenic amenity and highway acoustic buffer outcomes:-
  - (a) the Palmview Master Planned Area forms an important part of the distinctive green space or intra-urban break between Caloundra and Maroochydore and is visually significant in relation to views of the Mooloolah River floodplain landscape from the Bruce Highway; and
  - (b) the **Palmview Structure Plan** provides for an 80 metre wide semi-vegetated buffer (measured from the eastern boundary of the Bruce Highway Road Corridor proposed widening) to be established along the full length of the Palmview Master Planned Area boundary to the Bruce Highway.

Figure SC6.20A Scenic amenity and highway acoustic buffer typical cross section



## SC6.20.3 Neighbourhood design, housing and density outcomes

### Preliminary

- (1) This section applies to the neighbourhood design, housing and density outcomes in Performance Outcomes PO26 to PO33 in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the master planned area)** of the **Palmview structure plan area code** (neighbourhood design, housing and density outcomes).

### General advice for neighbourhood design, housing and density outcomes

- (2) The following is general advice about satisfying the neighbourhood design, housing and density outcomes:-
- (a) the urban structure and land use pattern of the Palmview Master Planned Area is based on the establishment of a number of neighbourhoods which:-
- (i) aggregate to comprise the broader Palmview community and support the function of the Palmview District Activity Centre; and
  - (ii) are generally defined by a walkable catchment being a five minute walk (400 metres) from an activity centre.
- (b) the neighbourhood design, housing and density outcomes of the **Palmview structure plan area code** seek to ensure that development within the Palmview Master Planned Area creates a number of neighbourhoods that:-
- (i) support sustainable urban development through maximising land efficiency;
  - (ii) encourage alternative travel options to car based travel by promoting the attractiveness of walking, cycling and public transport and providing maximum choice for the end user;
  - (iii) promote good access and connectivity between new neighbourhoods while providing clear connection to surrounding development;
  - (iv) establish main street activity centres that promote walkable neighbourhoods and provision of employment;
  - (v) achieve lot and dwelling diversity particularly around activity centres and public transport;
  - (vi) protect areas of environmental value and incorporate cultural, environmental and key landscape features;
  - (vii) promote community health through the provision of a variety of public open spaces and the promotion of active transport modes;
  - (viii) promote perimeter block development that establishes an active interface between building frontage and streets to improve personal safety through increased surveillance and activity;
  - (ix) foster a sense of community and strengthen local identity and sense of place while catering to a range of differing lifestyles;
  - (x) promote environmentally sustainable urban water management; and
  - (xi) are complete integrated communities rather than a series of housing estates.
- ~~(e) the neighbourhood design, housing and density outcomes are primarily intended to be satisfied through the following:-~~
- ~~(f) application of best practice neighbourhood design implemented through a preliminary approval to which section 242 of the Act applies or the approval of a another applicable development application;~~
- ~~(ii) implementing an Affordable Living Plan which-~~
- ~~(A) outlines how the housing affordability and affordable living outcomes for the Master Planned Area are to be achieved;~~
- ~~(B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in Table SC6.20H (Compliance assessment requirements); and~~
- ~~(C)(c) has been approved by a compliance certificate given by the Council.;~~
- (d) development should be designed through an integrated design approach that iteratively considers each component or network of a neighbourhood;
- (e) development should provide neighbourhoods that are arranged to take account of the following:-

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- (i) elements of the major movement networks (i.e. spacing of sub-arterial roads and trunk collector roads);
  - (ii) [the District Activity Centres](#);
  - (iii) precinct boundaries or transitions;
  - (iv) school sites;
  - (v) elements that are shared by more than one neighbourhood (i.e. schools and district parks); and
  - (vi) adjoining master plan boundaries.
- (f) development should comply with the design outcomes for neighbourhood design specified in **Table SC6.20A (Neighbourhood design outcomes)**.

**Table SC6.20A Neighbourhood design outcomes**

| Column 1<br>Neighbourhood Element | Column 2<br>Design Outcomes   |
|-----------------------------------|---|
| Neighbourhood Area                | <ul style="list-style-type: none"> <li>• Each neighbourhood is generally defined by a five minute walk (400 metres) from the neighbourhood centre.</li> <li>• Each neighbourhood has individual points of difference to strengthen identity.</li> <li>• A robust urban and neighbourhood structure is established that can accommodate a range of uses and which is flexible enough to change over time.</li> </ul>   |
| Movement Networks                 | <ul style="list-style-type: none"> <li>• Street environments prioritise and encourage pedestrian and cycle movement throughout a connected walkable neighbourhood.</li> <li>• A highly permeable and integrated grid-based movement network of streets, pedestrian and cycle paths that maximise access to public transport is established.</li> <li>• The street network is focussed on the Local Activity Centres whilst providing for strong links between the Local Activity Centres and the District Activity Centre.</li> <li>• The layout of streets enables development to front all streets and public spaces.</li> <li>• Culs-de-sac are not provided, or where provided, no more than 10% of dwellings have frontage to a cul-de-sac.</li> <li>• There are efficient external connections, specifically for bicycles and pedestrians.</li> </ul>   |
| Activity Centres                  | <ul style="list-style-type: none"> <li>• An activity centre is provided as a community focus for each neighbourhood.</li> <li>• Activity centres are located central to the walkable neighbourhood catchments, adjacent to principal movement arteries served by public transport.</li> <li>• Activity centres include a mix of compatible uses that provide for a variety of daily needs, community facilities and urban open space, such as a small square that reinforces a sense of community identity.</li> <li>• Transition between centre uses and residential uses occurs at mid-block property boundaries rather than at a street frontage so that similar forms of development front each other across a street.</li> <li>• All streets are fronted by development or public spaces to maintain street activity.</li> <li>• All off street vehicle parking areas are located to the rear of sites and do not have direct street frontage.</li> </ul>  |
| Residential Density               | <ul style="list-style-type: none"> <li>• A range of densities and variety of housing types are provided.</li> <li>• The concentration of housing density increases with proximity to activity centres.</li> <li>• The diversity and density of housing provided supports public transport use.</li> <li>• A wide range of lot sizes and building forms allow greater housing and lifestyle choice.</li> <li>• Residential developments <a href="#">are not provided in gated street formats involving gated communities, such as a retirement facility, are designed to ensure that the connectivity of road, public transport, bicycle and pedestrian networks are not compromised and that perimeter fences do not prevent surveillance of and integration with adjoining urban and non-urban open spaces and other public spaces.</a></li> <li>• Perimeter block development is provided in the District Activity Centre and adjacent to Local Activity Centres to promote a sense of enclosure and active streetscape while providing for casual surveillance.</li> </ul> |
| Community Facilities              | <ul style="list-style-type: none"> <li>• Community uses and facilities are located in or adjacent to Activity Centres <a href="#">or</a></li> </ul>   |

| Column 1<br>Neighbourhood<br>Element        | Column 2<br>Design Outcomes   |
|---|---|
|   | <p><a href="#">major urban open space areas</a> and at locations that are highly accessible and easily identifiable.</p> <ul style="list-style-type: none"> <li>Community uses and facilities are designed to have versatility and adaptability for a variety of functions over time.</li> <li>Land for community uses and facilities may be located adjacent to open space where joint use of the facility with the space is envisaged.</li> </ul>   |
| Schools                                     | <ul style="list-style-type: none"> <li><del>Primary schools are generally located between neighbourhoods to enable sharing amongst two or three neighbourhoods.</del></li> <li><del>Secondary schools and major private schools are located on arterial routes near public transport in areas that do not take up a large amount of the core walkable catchment area of a public transport station.</del></li> <li>Strong, direct connections are provided from schools to the walking and cycling network in the surrounding neighbourhood areas.</li> <li><a href="#">The transport infrastructure in neighbourhoods around schools is to have sufficient capacity to service anticipated trip generation and to avoid any adverse impacts on surrounding land uses, the external transport network and public safety.</a></li> </ul> |
| Employment Areas                            | <ul style="list-style-type: none"> <li>Employment areas are generally located in walking distance to public transport stops and an activity centre.</li> <li>Open space areas for workers and visitors to the area are provided.</li> </ul>   |
| Block Sizes, Site Areas and Lot Orientation | <ul style="list-style-type: none"> <li>A range of block and lot sizes are provided that allow for a diversity in form and density of residential uses and for other uses to be accommodated in the area.</li> <li>The layout of streets and lots provide for perimeter blocks of buildings fronting streets and create a relatively continuous street frontage.</li> <li>Lots are oriented to front all streets, major roads, parkland and natural areas to provide good streetscape amenity and surveillance and to contribute to security and deterrence of crime.</li> <li>Smaller lots are to predominate near activity centres and near public transport stops, to allow for pedestrian connectivity.</li> </ul>   |
| Public Open Spaces                          | <ul style="list-style-type: none"> <li>A wide range and diversity of public open spaces is provided.</li> <li>At least one local park is provided per neighbourhood.</li> <li>Most dwellings are within 500 metres of a park.</li> <li>Regional wide and district parks are located on the edge of neighbourhoods to enable sharing amongst two or three neighbourhoods.</li> <li>Parks are overlooked by development rather than backed onto by development to maximise casual surveillance of the park.</li> </ul>  |

## SC6.20.4 Sub-tropical and sustainable design outcomes

### Preliminary

- (1) This section applies to the sub-tropical and sustainable design outcomes in Performance Outcomes PO34 to PO35 in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the Master Planned Area)** of the **Palmview structure plan area code** (sub-tropical and sustainable design outcomes).

### General advice for sub-tropical and sustainable design outcomes

- (2) The following is general advice about satisfying the sub-tropical and sustainable design outcomes:-
- (a) the sub-tropical and sustainable design outcomes seek to ensure that neighbourhoods within the Palmview Master Planned Area:-
- have a distinctive relationship to site and landscape;
  - are characterised by parks and open spaces;
  - have sub-tropical streetscapes;
  - create sites for sub-tropical buildings;
  - have a sub-tropical landscape; and
  - have walkable journeys that are comfortable;

- (b) the sub-tropical and sustainable design outcomes also seek to ensure that development within the Master Planned Area is designed and operated to minimise the production of greenhouse gas emissions ~~and to contribute toward the achievement of zero net carbon emissions for the Master Planned Area by 2020~~; and
- ~~(c) the sub-tropical and sustainable design outcomes are primarily intended to be satisfied by the following:-~~
- ~~(i)(c) the application of best practice sub-tropical and sustainable design at all levels of the development approval process; and~~
- ~~(ii) the implementation of an Energy Management Plan which:-~~
- ~~(A) outlines how the sub-tropical and sustainable design outcomes for the Master Planned Area, particularly as they relate to the achievement of a zero net carbon emissions target for development in the Master Planned Area, are to be achieved;~~
- ~~(B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in Table SC6.20H (Compliance assessment requirements); and~~
- ~~(C) has been approved by a compliance certificate given by the Council.~~

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Advice for sub-tropical design outcomes

- (3) The following is advice about satisfying Performance Outcome PO34(c) in **Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the Master Planned Area)** of the **Palmview structure plan area code**:-
- (a) development should comply with the design outcomes for sub-tropical design specified in **Table SC6.20B (Sub-tropical design outcomes)**.

**Table SC6.20B Sub-tropical design outcomes**

| <b>Column 1<br/>Design principle</b>  | <b>Column 2<br/>Design outcomes</b>  |
|---|--|
| Ensuring a strong presence of nature and water  | <ul style="list-style-type: none"> <li>• Preserve and enhance the sub-tropical character of the region by designing developments in response to the climate while integrating and connecting to the surrounding landscape and other natural elements.</li> <li>• Incorporate significant native vegetation and large shade trees in private and public spaces, along pedestrian and cycle routes and in transport corridors.</li> <li>• Promote public access to any natural or artificial waterways by incorporating their existence into the design for pedestrian and cycle connectivity and recreational activity.</li> </ul>  |
| Creating an open and permeable built environment                                      | <ul style="list-style-type: none"> <li>• Promote an outdoor lifestyle with strong connection between indoor and outdoor living.</li> <li>• Promote an outdoor lifestyle for medium density development and to encourage outdoor recreation oriented lifestyles, development should ensure a diversity of open space is integrated into the urban fabric, connected through the pedestrian and cycle network.</li> <li>• Reflect proximity of the surrounding natural vegetation and open space by creating permeable urban environments and built form that promotes green access and constant engagement with the natural environment.</li> <li>• Support a sub-tropical lifestyle by promoting an open and permeable built form with a climate based outcome by using passive solar design principles such as orientation and solar access, window and awning size and orientation, materials and finishes, ventilation, insulation, thermal mass, natural light, awnings and pedestrian cover.</li> </ul> |
| Incorporating local interpretations of sub-tropical architecture and landscape design | <ul style="list-style-type: none"> <li>• Promote integration with the natural environment through shaded outdoor dining, entertainment and recreation, for both private and public locations, by incorporating appropriately sized balconies, decks, patios, colonnades, awnings, active streets, open space and green streets into the built form and urban fabric.</li> <li>• Provide for a seamless transition between internal and external areas including integration with street activity through appropriate street planting and integration of vegetation with the built form.</li> <li>• Incorporate deep soil planting within town centre locations to reflect the densely landscaped panorama and fauna habitation of the Sunshine Coast.</li> </ul>   |

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| Column 1<br>Design principle | Column 2<br>Design outcomes  |
|------------------------------|--|
|                              | <ul style="list-style-type: none"> <li>• Incorporate the harvesting of rain water to support surrounding vegetation and building inhabitants.</li> <li>• Consider local character and design and recognise how contemporary design and appropriate building materials contribute to the sub-tropical environment's character and diversity. The built form should utilise appropriate materials and colours that diminish detrimental impact of heat gain and reflection and promote durability and serviceability for the subtropical climate.</li> </ul> |

## SC6.20.5 Particular precinct outcomes

### Preliminary

- (1) This section applies to the performance outcomes in the following:-
- (a) **Section 10.3.4.9 (Performance outcomes and acceptable outcomes for the District Activity Centre Precinct)** of the **Palmview structure plan area code**; and
  - (b) **Section 10.3.4.13 (Performance outcomes and acceptable outcomes for the Local Industry and Enterprise Employment Area Precinct)** of the **Palmview structure plan area code**.

### General advice for particular precinct outcomes

- (2) The precinct-based outcomes of the **Palmview Structure Plan** seek to ensure that the Master Planned Area is developed with an appropriate land use pattern that is functionally efficient, effectively integrated with transport and other infrastructure networks and provides for the creation of interesting, attractive, sustainable and desirable places to live, work and recreate.
- (3) The precinct-based outcomes provide a land use and development intent for each precinct and identify specific built form criteria.
- (4) Whilst these criteria are generally self-explanatory and do not require further guidance, it is recognised that in respect to certain performance outcomes for the District Activity Centre Precinct and the Local **Industry and Enterprise Employment** Area Precinct some additional detail is warranted.

### Advice for district activity centre precinct outcomes (main street ~~shared zone~~)

- (5) The following is general advice about satisfying Performance Outcome PO8 in **Section 10.3.4.9 (Performance outcomes and acceptable outcomes for the District Activity Centre Precinct)** of the **Palmview structure plan area code**:-
- (a) development provides for the main street in the District Activity Centre to ~~be established as a shared zone<sup>1</sup> which should:-~~
    - (i) be ~~completely and equally~~ shared between pedestrians, cyclists, public transport and private vehicles; and
    - (ii) comply with the design objectives specified in **Table SC6.20C (Design outcomes for ~~shared zones~~ the main street)**.

**Table SC6.20C Design outcomes for ~~shared zones~~ the main street**

| Design principle                    | Design outcomes                                  | Potential treatments/features to achieve outcome   |
|-------------------------------------|--|--|
| Create a safe environment for users | Lower traffic speed <del>to a walking pace</del> | <ul style="list-style-type: none"> <li>• Provide pedestrian priority crossing at entry point intersections.</li> <li>• Create a gateway feature <del>narrow or angled slow point</del> on entry to the <del>shared zone</del> <b>main street</b>.</li> <li>• Provide clear signage indicating entry into <del>shared zone</del> <b>the main street</b> and <b>10km/hr speed limit</b>.</li> <li>• Use pavement surface materials and colour which clearly distinguish the <del>shared zone</del> <b>main street</b> from regular road surface.</li> <li>• Use multiple materials rather than a large expanse of one material.</li> <li>• Incorporate traffic calming devices,</li> <li>• <del>reduce straight run of carriageway and create alignment shifts to create horizontal deflections for vehicles.</del></li> <li>• <del>Avoid linear distinction between pedestrian</del></li> </ul> |

<sup>1</sup> ~~'Shared zone' means a people-oriented space where walking, cycling, shopping and the driving of vehicles occur as integrated activities within the public domain.~~

| Design principle  | Design outcomes  | Potential treatments/features to achieve outcome  |
|---|--|---|
|   |  | <p><del>paths and vehicular routes (i.e. no kerb).</del></p> <ul style="list-style-type: none"> <li>Restrict vehicle volumes <del>to 100 vehicles/hour.</del></li> <li>Plant street trees <del>to visually reduce carriageway.</del></li> <li>Incorporate lighting sufficient to ensure the safety of pedestrians and cyclists and motor vehicles.</li> </ul>   |
|   | Minimise the physical and visual impact of cars on people and the environment and design for equal priority amongst street users   | <ul style="list-style-type: none"> <li>Use coloured and textural surface contrasts.</li> <li><del>Provide lower parking density to allow for greater provision of public amenity.</del></li> <li>Bring active frontage such as pavement dining to road edge <del>in appropriate locations.</del></li> </ul>   |
|   | Enhance amenity  | <ul style="list-style-type: none"> <li><del>Avoid use of raised kerbs which will extend the pedestrian circulation space extending shopping/commercial ambience into the street environment and increasing convenience of pedestrian movement.</del></li> <li>Provide clear entry and exit statements to reinforce <del>shared zone</del> <u>the main street</u> and enhance visual amenity of street environment.</li> <li>Use alternative pavement surface texture to delineate <del>shared zone</del> <u>the main street</u> and enhance street amenity.</li> </ul>  |
|   | Reduce linear territory ownership created by <del>kerb and channelling</del> <u>street cross-sectional elements</u> to promote <del>shared zone</del> <u>the main street</u> and equality of all end users | <ul style="list-style-type: none"> <li><del>Avoid linear distinction between pedestrian footpaths and vehicular travel routes or angled slow point on entry to the shared zone.</del></li> <li>Use landscaping, parking bays, seating areas and bollards to define the vehicular path without creating significant barriers to pedestrian movement or restricting driver visibility of pedestrian activity.</li> </ul>  |
|   | Reduce proliferation of signs and posts  | <ul style="list-style-type: none"> <li>Provide for pavement marking to delineate parking bays – remove standard signage to reduce visual clutter.</li> <li>No basement access or driveway cross-over to occur along <del>the main street</del> <u>shared zone</u>.</li> <li>Rear lane access only for sites fronting <del>shared zone</del> <u>the main street</u> to reduce pedestrian conflict and need for signage.</li> </ul>   |
| Incorporate environmental infrastructure  | Implement sustainable best practice measures to deal with stormwater runoff and WSUD   | <ul style="list-style-type: none"> <li>Design fall of carriage way and footpath to direct water runoff for collection at grates and / or pits visually integrated into street design.</li> <li>Reduce potential for pooling of water at collection points and velocity of flow to ensure pedestrian and vehicular movement is not unduly affected.</li> <li>Select hard and soft landscapes that will not be unduly affected by the water quantity and movement and to assist with water control and dispersment.</li> <li>Consider the special needs of cyclists and disabled access with respect to material selection and gradients when designing street environment in response to stormwater and WSUD.</li> </ul> |
| Create a high quality of visual and physical amenity to the <del>shared zone</del> <u>main street</u> | Provide shaded pedestrian friendly street environment  | <ul style="list-style-type: none"> <li>Create an attractive streetscape that contributes to the local sense of place, community safety and security.</li> <li>Extend the town centre park into the main street environment.</li> <li>Maximise landscaping along both sides of the street.</li> <li>Retain existing vegetation wherever possible.</li> <li>Space trees at maximum 8m centres to ensure mature canopies establish to provide shade and</li> </ul>   |

| Design principle | Design outcomes   | Potential treatments/features to achieve outcome  |
|------------------|---|---|
|                  |   | <p>enclose the street and ensure the trees are staggered with street lighting.</p> <ul style="list-style-type: none"> <li>• Provide landscaping which reinforces the local context and street orientation.</li> <li>• Enhance the character and amenity of the town centre and <a href="#">shared-zonemain street</a> with attractive, practical and hardy landscaping which retains significant vegetation.</li> <li>• Maximise tree cover along footpaths, streets and in public areas and evokes the landscape character of the Sunshine Coast.</li> </ul>   |
|                  | Create a lively community street and memorable town centre that is fully inclusive of all and safe to play, socialise and travel in | <ul style="list-style-type: none"> <li>• Design space to encourage intended end user activities.</li> <li>• Include social interaction opportunities that aren't reliant of retail / commercial function.</li> <li>• Contribute to overall pedestrian connectivity by creating a series of connected community spaces.</li> <li>• Use the <a href="#">shared-zonemain street</a> landscaped environment to contribute to the creation of a vibrant public space.</li> <li>• Maximise pedestrian activity through reduction in restrictions of conventional street environments such as kerbs, signage and high speed traffic.</li> <li>• Design the street and adjacent spaces as a lively community place that attracts high volumes of pedestrian activity.</li> <li>• Provide active frontages<sup>2</sup> to built form promoting high interaction with pedestrians and street activity.</li> </ul> |

Advice for local [industry and enterprise employment](#) area precinct outcomes

- (6) For the purposes of Performance Outcome PO1(b) in **Section 10.3.4.13 (Performance outcomes and acceptable outcomes for the Local [Industry and Enterprise Employment Area Precinct](#))** of the **Palmview structure plan area code**, the following development may be considered to be low impact industry uses and complementary business and commercial uses in the Local [Industry and Enterprise Employment Area Precinct](#):-
- development for small to medium size service trades outlets and domestic services outlets, including hire outlets, servicing both business and households;
  - development for business and commercial equipment repairs and services outlets (covering computers, office machines, communications equipment, office furniture and fittings, shop fittings);
  - development for small scale manufacturing establishments; and
  - development for incubator business opportunities that contribute to a start-up economy on the Sunshine Coast.

## SC6.20.6 Road transport infrastructure network outcomes

### Preliminary

- (1) This section applies to the road transport infrastructure network outcomes in Performance Outcomes PO11 to PO13 in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**.

<sup>2</sup> 'Active frontage' means a part of a building which forms a close relationship with the street and contains a visually permeable facade such as a shopfront, retail store, cafe, outdoor dining, personal service and other high pedestrian generating use at street level.

General advice for road transport infrastructure network outcomes

- (2) The following is general advice about satisfying the road transport infrastructure network outcomes:-
- (a) the road transport infrastructure network outcomes seek to ensure that the Master Planned Area is developed with a highly interconnected and permeable road network that:-
    - (i) supports high levels of bicycle and pedestrian use and prioritises these modes;
    - (ii) supports high levels of access to public transport; and
    - (iii) effectively services the area;
  - (b) **Other Plans Map OPM P8 (Palmview Master Planned Area road transport infrastructure network)** in **Schedule 2 (Mapping)** identifies conceptually the higher order elements of the road transport infrastructure network planned for the Master Planned Area;
  - (c) **Figure SC6.20B (Specification of transport infrastructure)** identifies the location and extent of the types of sub-arterial road and ~~district trunk~~-collector ~~road-street~~ servicing the Master Planned Area);
  - (d) **Other Plans Map OPM P7 (Palmview Master Planned Area development and transport infrastructure network sequencing)** in **Schedule 2 (Mapping)**, **Figure SC6.20B (Specification of transport infrastructure)** and the applicable infrastructure agreement specifically identify the sequence of the higher order elements of the road transport infrastructure network planned for the Master Planned Area;
  - (e) road transport infrastructure is required to be provided throughout the Master Planned Area in accordance with **Other Plans Map OPM P7 (Palmview Master Planned Area development and transport infrastructure network sequencing)**, **Other Plans Map OPM P8 (Palmview Master Planned Area road transport infrastructure network)** and the requirements of the applicable infrastructure agreement;
  - (f) the road transport infrastructure network is a key structural element that provides a framework for the following:-
    - (i) the pattern of land use;
    - (ii) the arrangement of neighbourhoods; and
    - (iii) the configuration and alignment of local streets and other infrastructure networks;
  - (g) the road transport infrastructure network outcomes are primarily intended to be satisfied by the following:-
    - (i) development ~~providing providing the major~~ road transport infrastructure in accordance with the applicable infrastructure agreement;
    - (ii) development ensuring that the road transport infrastructure to be provided is in accordance with the road transport infrastructure network and the standards for the road transport infrastructure network as specified in the **Palmview structure plan area code**; ~~and~~
    - (iii) the detailed design and construction of the road transport infrastructure network incorporating appropriate urban design, landscape and environmental features and treatments;-
    - ~~(iv) implementing a Sustainable Transport Plan which:-~~
      - ~~(A) outlines how the public and active transport outcomes for the Master Planned Area are to be achieved;~~
      - ~~(B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in Table SC6.20H (Compliance assessment requirements); and~~
      - ~~(C) has been approved by a compliance certificate given by the Council.~~

Standards for road transport infrastructure network outcomes

- (3) For the purposes of Performance Outcome PO11(b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following are the standards identified in the code for the road transport infrastructure network:-
- (a) development accords with the development and transport infrastructure network sequencing specified on **Other Plans Map OPM P7 (Palmview Master Planned Area development and**

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transport infrastructure network sequencing) in particular the specified triggers for vehicle trips and Equivalent Dwellings, which is to be worked out as follows:

Equivalent dwelling or ED means the measure of the demand for the number of vehicle trips equivalent to that generated by a Dwelling calculated for the relevant development type in Table SC6.20D (Applicable uses under the Structure Plan) using the demand generation rates specified in Table SC6.20E (Demand generation rate for development types).

~~(a)~~(b) development provides for major roads which comply with the design characteristics specified in Table SC6.20D-20F (Road transport infrastructure network - summary of design characteristics);

~~(b)~~(c) development provides for roads which comply with the typical cross sections for each road type specified in Figures SC6.20C to SC6.20N20J;

~~(c)~~(d) development provides for roads which comply with the following:-

- (i) cross sections and reserve widths vary to suit intersections, public transport priority treatments, turning lanes, bus stops, pedestrian crossing treatments, sewer pit requirements, lighting and other requirements;
- ~~(iii)~~ bus priority is provided at major intersections;
- ~~(iii)~~(ii) verge areas are paved and landscaped in accordance with the typical cross sections in Figures SC6.20C to SC6.20N20J;
- ~~(iv)~~(iii) where medians are provided, street lighting is accommodated within the median;
- ~~(v)~~(iv) where provided, on road cycle lanes are incorporated into the road shoulder carriageway and continued through intersections with right turn cycle lanes provided along with advance storage boxes at controlled intersections;
- ~~(vi)~~(v) where parking lanes are incorporated, the kerb is built out into the parking lanes to create landscaped kerb build-outs at regular intervals without impinging on cycle lanes;
- ~~(vii)~~ driveways are constructed as part of the development road works for lots with a kerb build out on their frontage;
- ~~(viii)~~(vi) priority channelised intersections (signalised where required) are provided where possible with the use of roundabouts minimised on higher order roads;
- ~~(ix)~~(vii) legible directional and informational signage is to be supplied as necessary;
- ~~(x)~~(viii) landscaping and stormwater treatment on verge areas and medians does not inhibit direct pedestrian access to on street parking or pedestrian movement across streets;
- ~~(xi)~~(ix) landscaping includes appropriate root barrier protection to kerbs and adjacent services;
- ~~(xii)~~(x) medians contain pedestrian refuge areas;
- ~~(xiii)~~(xi) pedestrian refuge areas allow for functioning of stormwater treatments (i.e. median swales) where applicable, are not to impact on the location or functioning of pedestrian refuge areas; and
- ~~(xiv)~~(xii) additional landscaping is provided consistent with the sub-tropical landscape character desired for the Master Planned Area;

~~(d)~~(e) development provides for an infrastructure element within a major road corridor to comply with Table SC6.20E-20G (Minimum widths of infrastructure elements within road corridors); and

~~(e)~~(f) development provides for a road to be designed and constructed in accordance with the Planning scheme policy for the transport and parking code and the Planning scheme policy for development works.

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Table SC6.20D Applicable uses under the Structure Plan

| <u>Column 1</u><br><u>Development category</u> | <u>Column 2</u><br><u>Development type</u> | <u>Column 3</u><br><u>Uses under Structure Plan</u> |
|--|--|---|
| <u>Residential development</u>                 | <u>Attached dwelling</u>                   | <u>Dual occupancy</u>                               |

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| <u>Column 1</u><br><u>Development category</u> | <u>Column 2</u><br><u>Development type</u> | <u>Column 3</u><br><u>Uses under Structure Plan</u>  |
|--|--|--|
|  |  | <a href="#">Dwelling unit</a><br><a href="#">Multiple dwelling</a><br><a href="#">Residential care</a><br><a href="#">Short term accommodation</a><br><a href="#">Rooming accommodation</a><br><a href="#">Caretakers accommodation</a><br><a href="#">Community residence</a>   |
|  | <a href="#">Detached dwelling</a>          | <a href="#">Dwelling house</a>   |
|  | <a href="#">Retirement dwelling</a>        | <a href="#">Retirement facility</a>  |
|  | <a href="#">Other uses</a>                 | <a href="#">Other uses not listed will be determined at the time of the Application</a>  |
| <a href="#">Non-residential development</a>    | <a href="#">Commercial</a>                 | <a href="#">Office</a><br><a href="#">Health care service</a><br><a href="#">Car Wash</a><br><a href="#">Sales Office</a><br><a href="#">Veterinary services</a>   |
|  | <a href="#">Community purpose</a>          | <a href="#">Community use</a><br><a href="#">Place of worship</a><br><a href="#">Educational establishment</a><br><a href="#">Child care centre</a><br><a href="#">Emergency services</a><br><a href="#">Community care centre</a><br><a href="#">Outdoor sport and recreation</a>   |
|  | <a href="#">Industry</a>                   | <a href="#">Low impact industry</a><br><a href="#">Service industry</a><br><a href="#">Bulk landscape supplies</a><br><a href="#">Research and technology industry</a><br><a href="#">Warehouse</a><br><a href="#">Utility installation</a>  |
|  | <a href="#">Retail and entertainment</a>   | <a href="#">Food and drink outlet</a><br><a href="#">Nightclub entertainment facility</a><br><a href="#">Shop</a><br><a href="#">Shopping centre</a><br><a href="#">Showroom</a><br><a href="#">Hotel</a><br><a href="#">Theatre</a><br><a href="#">Club</a><br><a href="#">Indoor sport and recreation</a><br><a href="#">Garden centre</a><br><a href="#">Function facility</a><br><a href="#">Adult store</a><br><a href="#">Service station</a><br><a href="#">Hardware and trade supplies</a><br><a href="#">Market</a> |
|  | <a href="#">Other uses</a>                 | <a href="#">Other uses not listed will be determined at the time of the Application</a>  |

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**Table SC6.20E Demand generation rate for development types**

| <u>Column 1</u><br><u>Development category</u> | <u>Column 2</u><br><u>Development type</u>                       | <u>Column 3</u><br><u>Unit of measure</u> | <u>Column 4</u><br><u>Trips per unit of measure</u> | <u>Column 5</u><br><u>Equivalent Dwelling per unit of measure</u> |
|--|--|---|---|---|
| <u>Residential development</u>                 | <u>Detached dwellings</u>  | <u>Per dwelling</u>                       | <u>9</u>  | <u>1</u>  |
|  | <u>Attached dwellings</u>  | <u>Per dwelling</u>                       | <u>6</u>  | <u>0.67</u>   |
|  | <u>Retirement dwellings</u>                                      | <u>Per dwelling</u>                       | <u>5</u>  | <u>0.56</u>   |
| <u>Non-residential development</u>             | <u>Commercial</u>  | <u>100m<sup>2</sup> GFA</u>               | <u>10</u>   | <u>1.11</u>   |
|  | <u>Community purpose other than an Educational Establishment</u> | <u>100m<sup>2</sup> GFA</u>               | <u>10</u>   | <u>1.11</u>   |
|  | <u>Community purpose for an Educational Establishment</u>        | <u>Per student and staff</u>              | <u>1.46</u>   | <u>0.16</u>   |
|  | <u>Industry</u>  | <u>100m<sup>2</sup> GFA</u>               | <u>5</u>  | <u>0.56</u>   |
|  | <u>Retail and entertainment</u>                                  | <u>100m<sup>2</sup> GFA</u>               | <u>121</u>  | <u>13.44</u>  |

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**Table SC6.20D20F Road transport infrastructure network – summary of design characteristics**

| Road type                     | Minimum road reserve width | Typical features and treatments   | Cross-section reference   |
|-------------------------------|----------------------------|---|---|
| Sub-arterial Road<br>"Type A" | <del>36</del> -29.6 metres | <ul style="list-style-type: none"> <li>Two general movement lanes (one in each direction).</li> <li>On-road dedicated cycle lane each side.</li> <li>Landscaped median (where required by the applicable infrastructure agreement).</li> <li>Indented bus bays.</li> <li>Dual use path (3.0m minimum width) in each verge.</li> <li>Direct property access to major development only.</li> <li>Intersection spacing to be 300m minimum.</li> <li>No on-road car parking generally, but if provided to be in indented parking bays with corresponding increase in minimum road reserve width.</li> <li>Fauna fencing, crossings, and other structural/non-structural treatments as required.</li> <li>Dual carriageway with wide landscaped median and verges.</li> <li>No direct residential access.</li> <li>On-road dedicated bicycle lanes both sides.</li> <li>On-road dedicated transit lanes as specified on <b>Other Plans Map OPM-P9 (Palmview Master Planned Area Public Transport Infrastructure Network)</b>.</li> <li>2 general movement lanes (1 in each direction).</li> <li>Indented bus bays.</li> <li>No on-road car parking.</li> <li>Dual use paths both sides (minimum width 3.5m).</li> <li>Informal boulevard design reinforcing</li> </ul> | Figure SC6.20C, SC20.D and SC6.20E (Sub-arterial road type a-A typical cross section) |

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| Road type   | Minimum road reserve width | Typical features and treatments   | Cross-section reference  |
|---|----------------------------|---|--|
|   |                            | <p>bushland character at edges of the Master Planned Area transitioning to more formal boulevard design within Urban Development Area core.</p> <ul style="list-style-type: none"> <li>• Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul>  |  |
| Sub-arterial Road "Type B" (Note: this road is proposed to be constructed in two stages, as shown on the referenced cross-sections) | 30-37.0 metres             | <ul style="list-style-type: none"> <li>• Four general movement lanes (two in each direction).</li> <li>• On-road dedicated cycle lane each side.</li> <li>• Landscaped median.</li> <li>• Indented bus bays.</li> <li>• Dual use path (3.0m minimum width):- <ul style="list-style-type: none"> <li>o in each verge for the section of road within the Palmview Structure Plan Area boundary; and</li> <li>o in one verge only for the section of road outside the Palmview Structure Plan Area boundary.</li> <li>o Direct property access to major development only.</li> <li>o Intersection spacing to be 300m minimum.</li> </ul> </li> <li>• No on-road car parking generally, but if provided to be in indented parking bays with corresponding increase in minimum road reserve width.</li> <li>• Fauna fencing, crossings, and other structural/non-structural treatments as required. <ul style="list-style-type: none"> <li>• Dual carriageway with wide landscaped median and verges.</li> <li>• No direct residential access.</li> <li>• On-road dedicated bicycle lanes both sides.</li> <li>• 2 general movement lanes (1 in each direction).</li> <li>• Indented bus bays.</li> <li>• No on-road car parking.</li> <li>• Dual use paths both sides (minimum width 3.5m).</li> <li>• Informal boulevard design reinforcing bushland character at edges of the Master Planned Area transitioning to more formal boulevard design within Master Planned Area core.</li> <li>• Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul> </li> </ul> | Figure SC6.20E 20F, SC6.20G and SC6.H (Sub-arterial road type b-B typical cross section)           |
| Trunk-District Collector Street Collector Road "Type A"   | 32-29.6 metres             | <ul style="list-style-type: none"> <li>• Two general movement lanes (one in each direction).</li> <li>• On-street dedicated cycle lane each side.</li> <li>• Landscaped median.</li> <li>• Indented bus bays.</li> <li>• Dual use path (3.0m minimum width) in one verge and footpath (2.0m minimum width) in other verge.</li> <li>• Direct property access to major development only, or alternatively restricted to "left in/left out".</li> <li>• Intersection spacing to be 100m minimum.</li> <li>• Indented parking bays.</li> <li>• Fauna fencing, crossings, and other structural/non-structural treatments as</li> </ul>  | Figure SC6.20G 20I and SC6.20J (Trunk-District Collector road Street type a typical cross section) |

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| Road type                        | Minimum road reserve width | Typical features and treatments   | Cross-section reference   |
|----------------------------------|----------------------------|---|---|
|                                  |                            | <p>required.</p> <ul style="list-style-type: none"> <li>• Dual carriageway with wide landscaped median and verges.</li> <li>• Parking lanes or indented parking both sides.</li> <li>• Indented bus bays.</li> <li>• On road dedicated bicycle lanes both sides.</li> <li>• 1 general traffic lane in each direction.</li> <li>• Dual use paths both sides.</li> <li>• Formal boulevard design.</li> <li>• Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul>  |   |
| Trunk Collector Road "Type B"    | 27 metres                  | <ul style="list-style-type: none"> <li>• Dual carriageway with wide landscaped median and verges.</li> <li>• No on road car parking.</li> <li>• Indented bus bays.</li> <li>• On road dedicated bicycle lanes both sides.</li> <li>• 1 general traffic lane in each direction.</li> <li>• Dual use paths both sides.</li> <li>• Formal boulevard design.</li> <li>• Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul>   | Figure SC6.20H (Trunk collector road type b typical cross section)      |
| Trunk Collector Road "Type C"    | 34 metres                  | <ul style="list-style-type: none"> <li>• Dual carriageway with wide landscaped median and verges.</li> <li>• Indented bus bays.</li> <li>• On road dedicated bicycle lanes both sides.</li> <li>• On road dedicated transit lanes as specified on <b>Other plans Map OPM P9 (Palmview Master Planned Area Public Transport Infrastructure Network)</b>.</li> <li>• 1 general traffic lane in each direction.</li> <li>• Dual use paths both sides.</li> <li>• Formal boulevard design.</li> <li>• Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul>   | Figure SC6.20I (Trunk collector road type c interim cross section)      |
| Main Street                      | 25 metres                  | <ul style="list-style-type: none"> <li>• Pedestrian, cycle and vehicle shared zone designed in accordance with the outcomes identified in <b>Table SC6.20C (Design outcomes for shared zones)</b>.</li> <li>• Pavement treatments which clearly define the extent of the shared zone.</li> <li>• Single level pavement (no kerb).</li> <li>• Minimal signage and line markings.</li> <li>• Lighting for the safety of pedestrians, cyclists and motor vehicles.</li> <li>• Informal landscaping.</li> <li>• Indented parking both sides.</li> <li>• Indented bus bays if required.</li> </ul> <p>Note—further detail in relation to design requirements for the District Activity Centre and the Main Street is provided in <b>Section SC6.20.5 (Particular precinct outcomes)</b>.</p> | Figure SC6.20J (Main street typical cross section)                      |
| Collector Road (Green Boulevard) | 25 metres                  | <ul style="list-style-type: none"> <li>• Single carriageway with wide landscaped verges.</li> <li>• Parking lanes or indented parking both sides.</li> <li>• On road dedicated bicycle lanes.</li> <li>• Dual use paths both sides.</li> <li>• Indented bus bays.</li> </ul>  | Figure SC6.20K (Collector road (green boulevard) typical cross section) |

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| Road type      | Minimum road reserve width | Typical features and treatments  | Cross-section reference                                       |
|----------------|----------------------------|--|---|
|                |                            | <ul style="list-style-type: none"> <li>Informal boulevard design reinforcing bushland character at edges of the Master Planned Area transitioning to more formal boulevard design within Master Planned Area core.</li> <li>Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul>  |   |
| Collector Road | 18 metres                  | <ul style="list-style-type: none"> <li>Single carriageway with landscaped verges.</li> <li>Parking un-marked.</li> <li>Bicycles accommodated in carriageway (no dedicated lanes).</li> <li>2 general movement lanes.</li> <li>Footpaths both sides.</li> <li>Indented bus bays where required.</li> <li>Informal boulevard design reinforcing bushland character at edges of the Master Planned Area transitioning to more formal boulevard design within Master Planned Area core.</li> <li>Fauna fencing, crossings and other structural/non-structural treatments as required.</li> </ul> | Figure SC6.20L (Collector road typical cross section)         |
| Access Street  | 14 metres                  | <ul style="list-style-type: none"> <li>Single carriageway with landscaped verges.</li> <li>Parking un-marked.</li> <li>2 general movement lanes.</li> <li>Footpath one side.</li> <li>Bicycles accommodated on road (shared).</li> </ul>   | Figure SC6.20M (Access street typical cross section)          |
| Access Place   | 14 metres                  | <ul style="list-style-type: none"> <li>Single carriageway with landscaped verges.</li> <li>Parking un-marked.</li> <li>2 general movement lanes.</li> <li>No footpaths.</li> <li>Bicycles accommodated in carriageway (no dedicated lanes).</li> </ul>   | Figure SC6.20N (Access place / laneway typical cross section) |

**Table SC6.20E20G Minimum widths of infrastructure elements within road corridors**

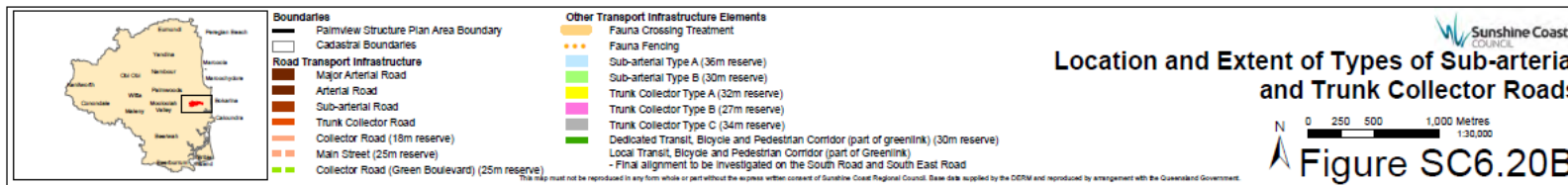
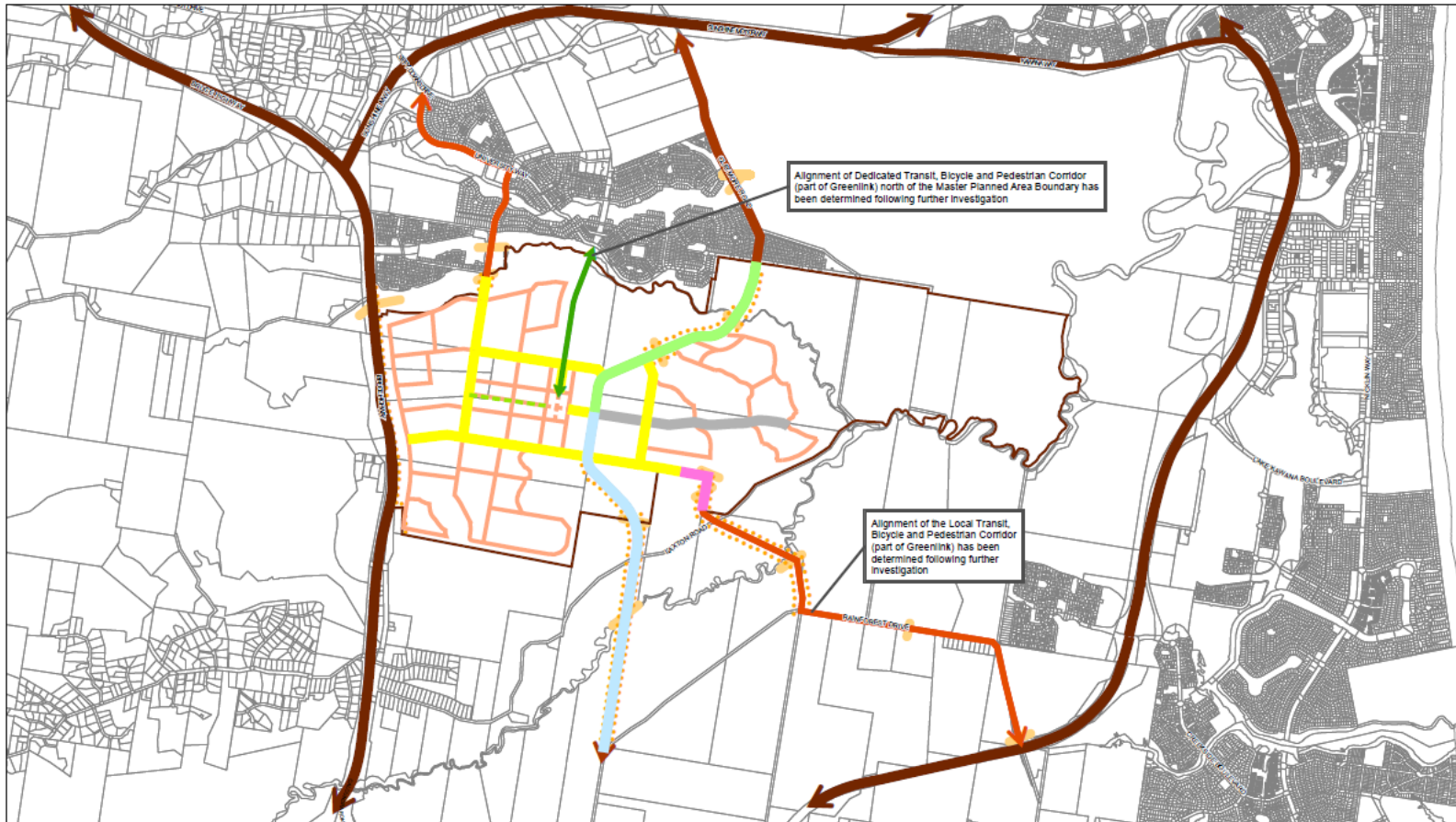
| Infrastructure element                        | Minimum width  |
|---|--|
| Roads (general traffic lanes)                 | 3.5 metres <u>on sub-arterial roads</u><br><u>3.3 metres on district collector streets</u>   |
| Parking lanes                                 | 2.5-3 metres   |
| Parking lanes (where shared with cycle lanes) | 4.5 metres   |
| Parking lanes (where shared with bus bays)    | 2.5 metres   |
| Dual use paths                                | 3.5-0 metres*  |
| Footpaths                                     | 2 metres*  |
| Recreation paths                              | 3.5-0 metres   |
| Commuter paths                                | 3.0 metres   |
| Cycle lanes                                   | 1.5-8 metres (where < 60km/hr)* <u>on district collector streets</u><br>1.8 metres (where >= 60km/hr)*<br>2 metres on sub-arterial roads <u>or where &gt; 80km/hr on other roads)*</u> |
| Bus lane                                      | 3.7 metres   |
| Median  | 4-6 metres (on sub-arterial <u>and trunk collector roads</u><br>3 metres on district collector streets <u>to accommodate turning lanes</u> ).  |

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| Infrastructure element | Minimum width   |
|------------------------|---|
| Verge                  | <a href="#">4.06.5 metres on sub-arterial roads</a><br><a href="#">5.5 metres on district collector streets</a> |

\* Wider provision may be required for these elements for the Collector Road (Green Boulevard), the Main Street, the Dedicated Transit, Bicycle and Pedestrian Corridor (part of Greenlink) and the Local Transit, Bicycle and Pedestrian Corridor (part of Greenlink). Refer to relevant cross sections.

**Figure SC6.20B Specification of transport infrastructure**



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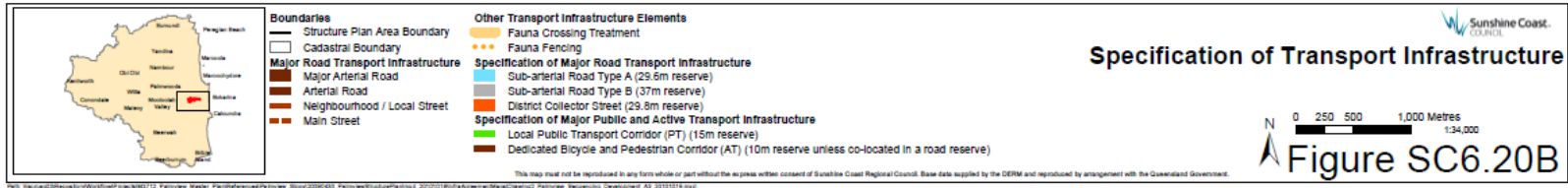
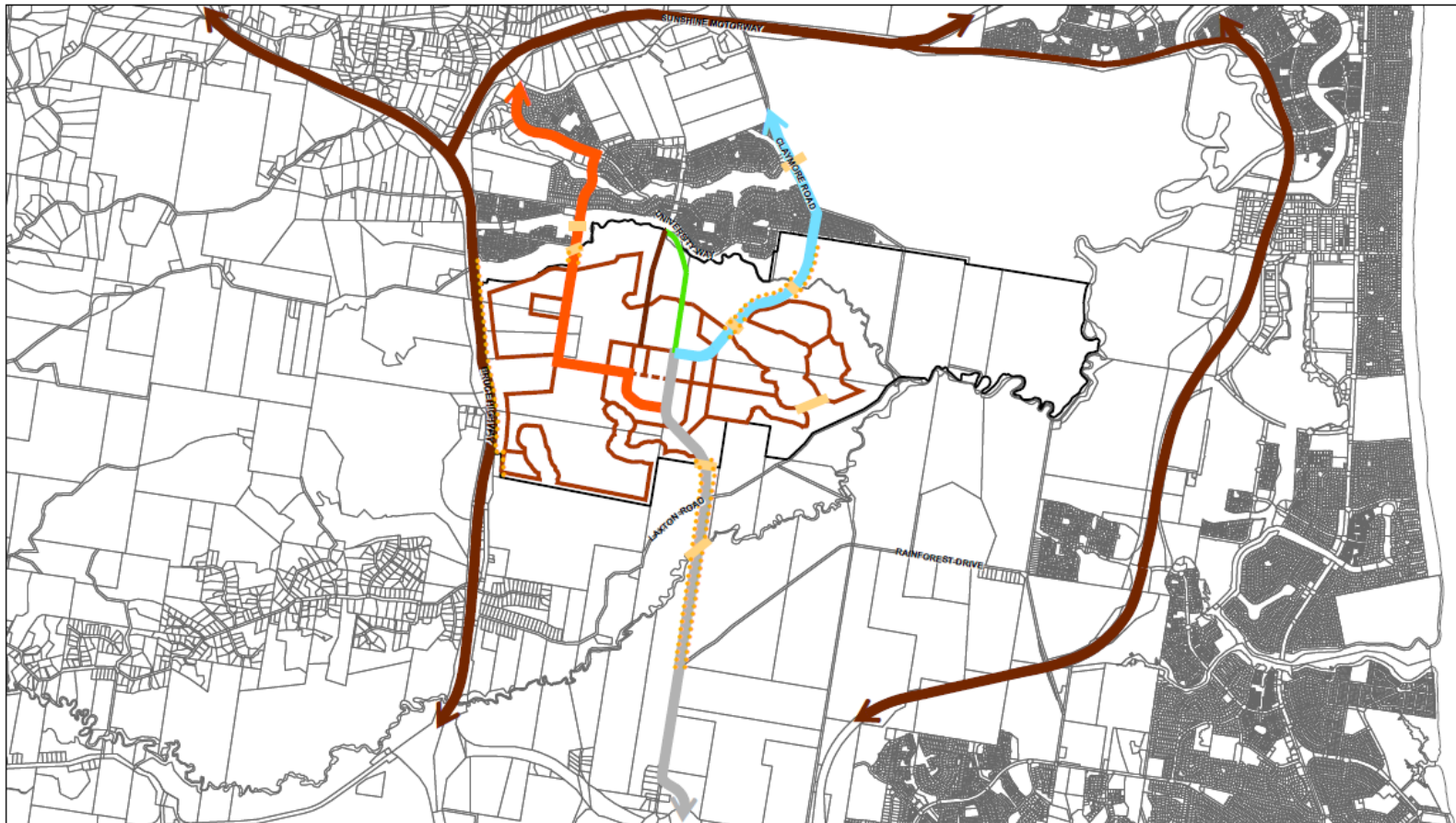
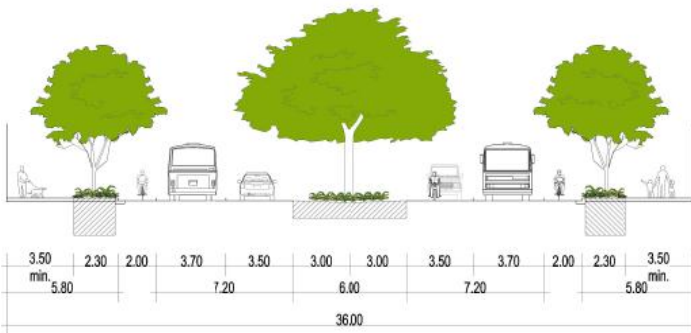
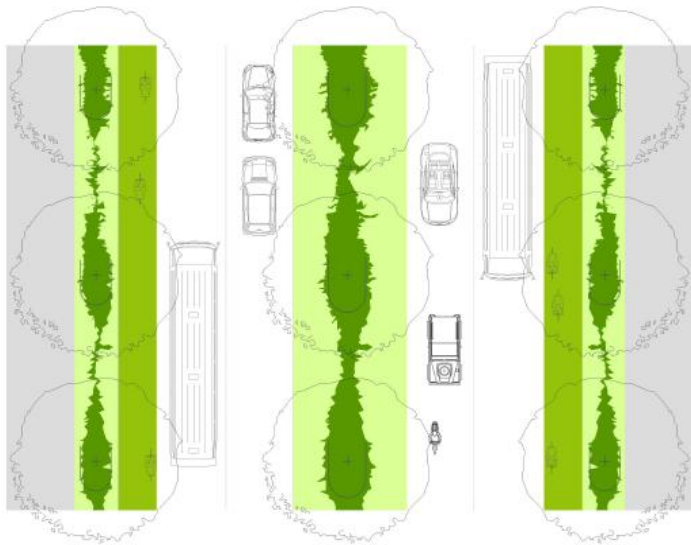


Figure SC6.20C Sub-arterial road type a-A with centre

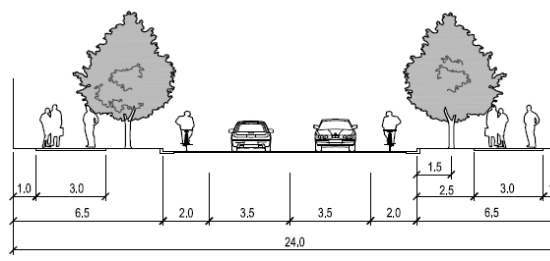
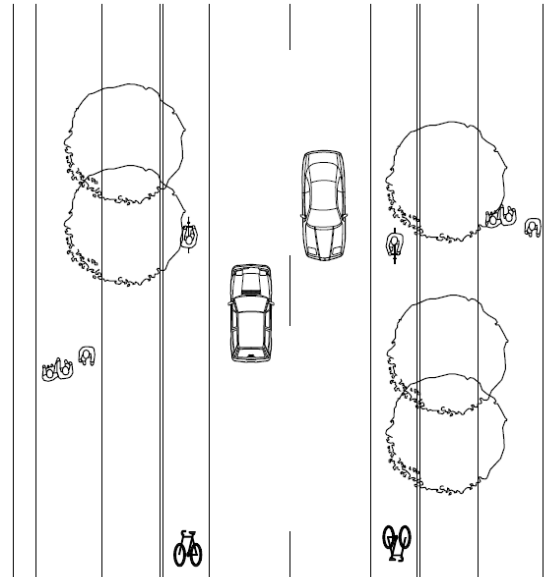
Figure SC6.20D Sub-arterial road type a-A southern link

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median typical cross section

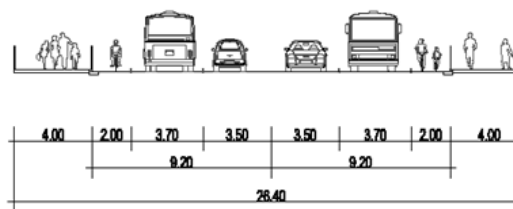
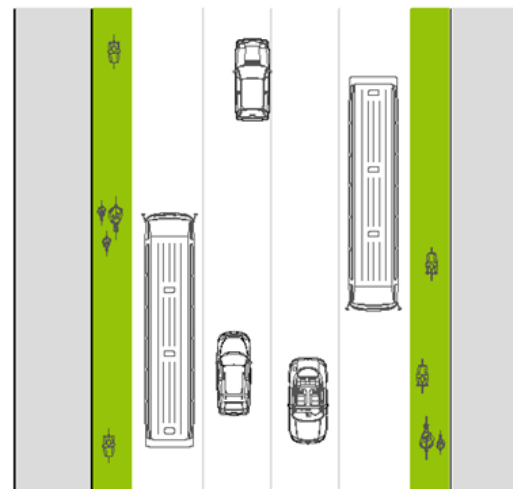


bridge cross-section with no centre median





Sub-Arterial—Type A Claymore Road Link



Southern Link Bridge Claymore Road Link

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Figure SC6.20E Sub-arterial road type Type b\_A typical cross section bridge

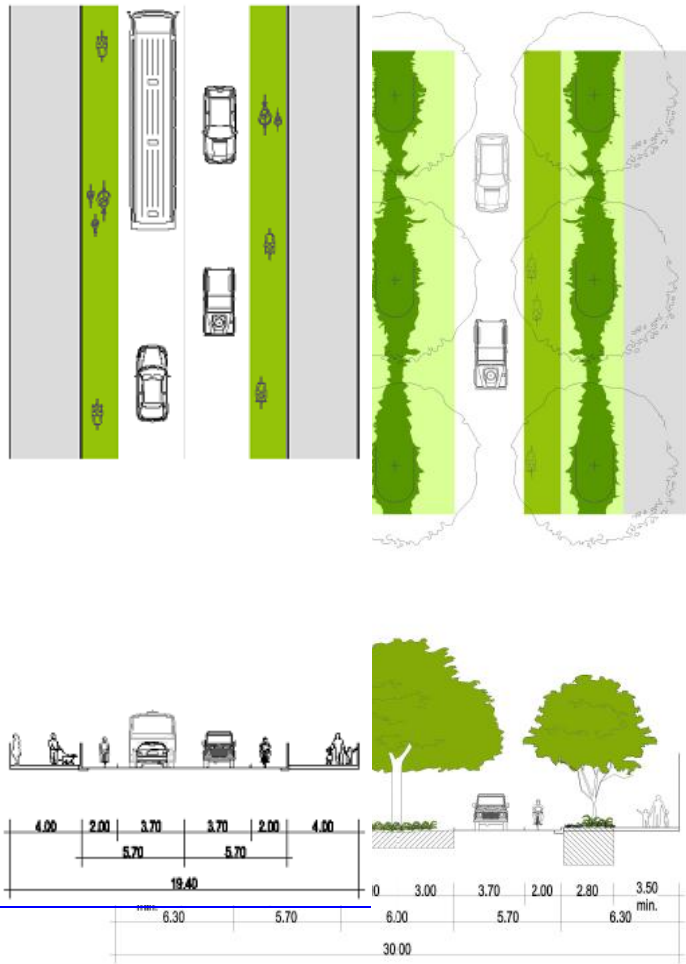
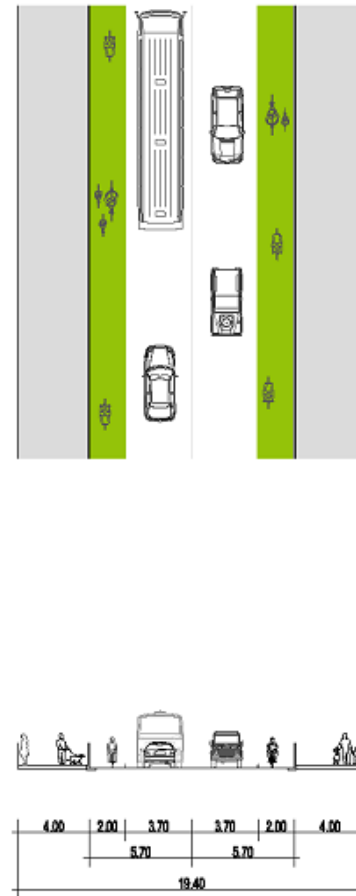
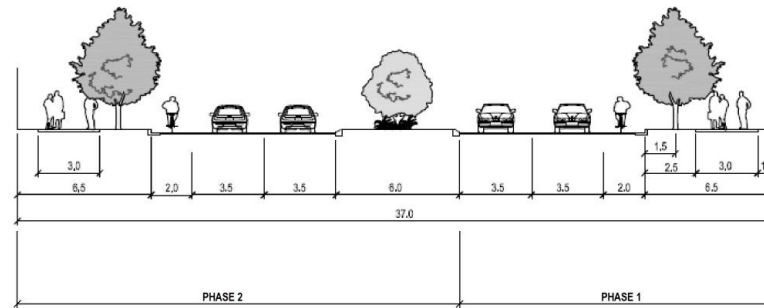
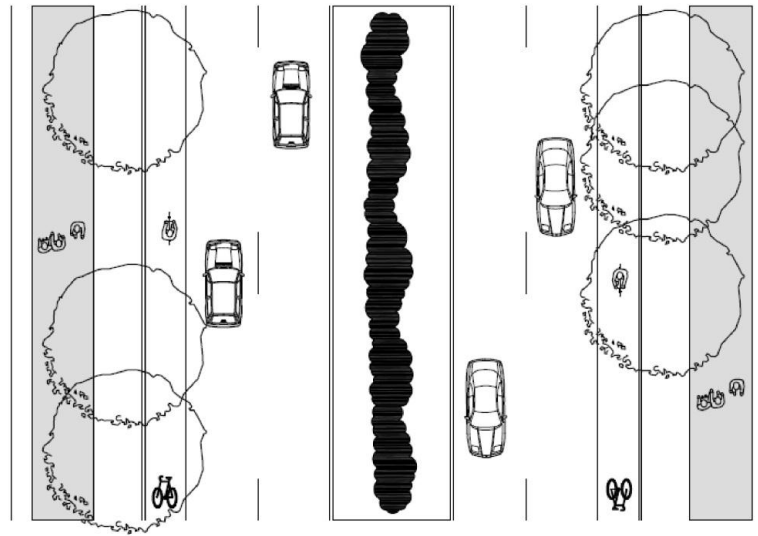


Figure SC6.20F Sub-arterial road type Type b\_B claymore road bridge cross section with kerb and channel



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Schedule 6

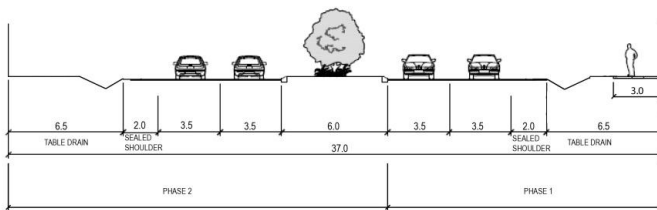
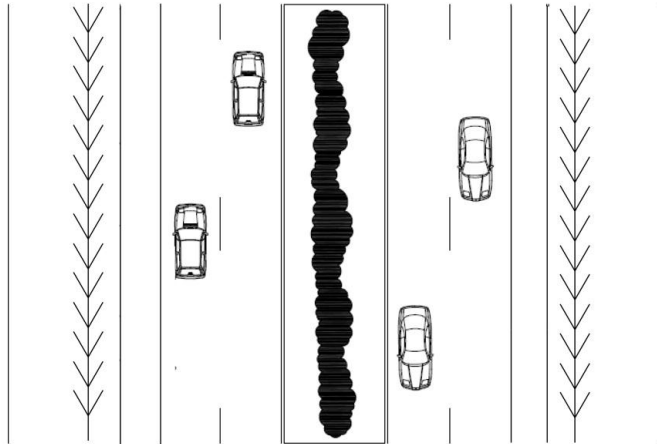


Sub-Arterial—Type B Claymore Road Bridge

Claymore Road Bridge Southern Road Link

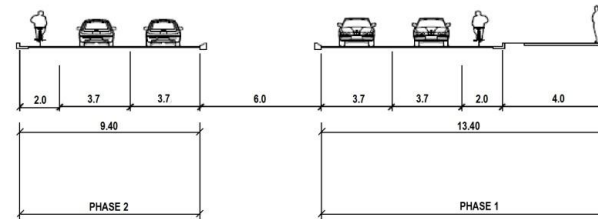
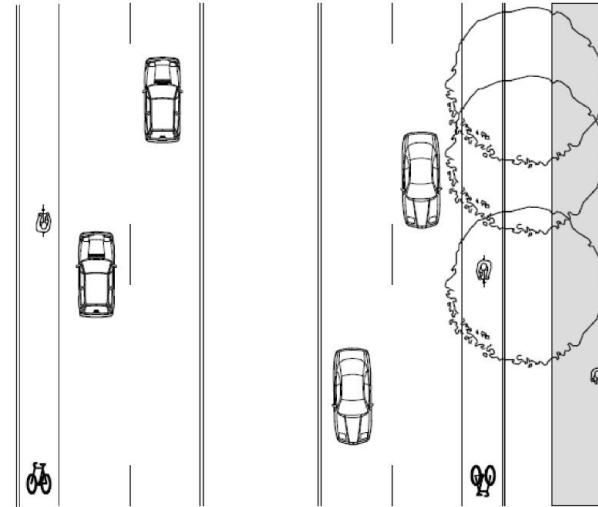
Schedule 6

Figure SC6.20G **Trunk collector road type a typical cross-section**  
Subarterial Road Type B with table drains

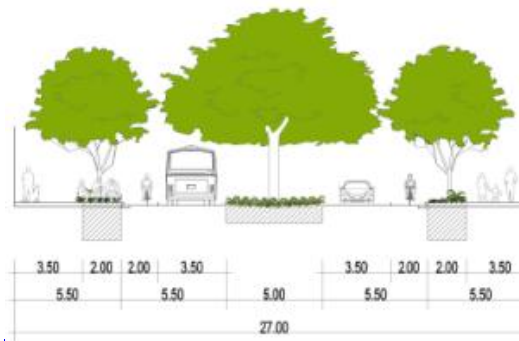
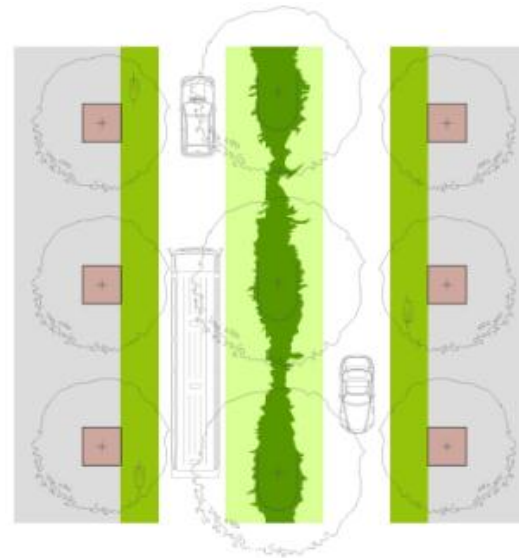


SUBARTERIAL TYPE B WITH TABLE DRAINS

Figure SC6.20H **Trunk collector road type b typical cross-section**  
Subarterial Road Type B bridge



[Trunk Collector—Type A Southern Road Link](#)



[Trunk Collector—Type B Southern Road Link Bridge](#)

# Schedule 6

Figure SC6.20I **Trunk collector road type c interim cross section**  
District Collector Street

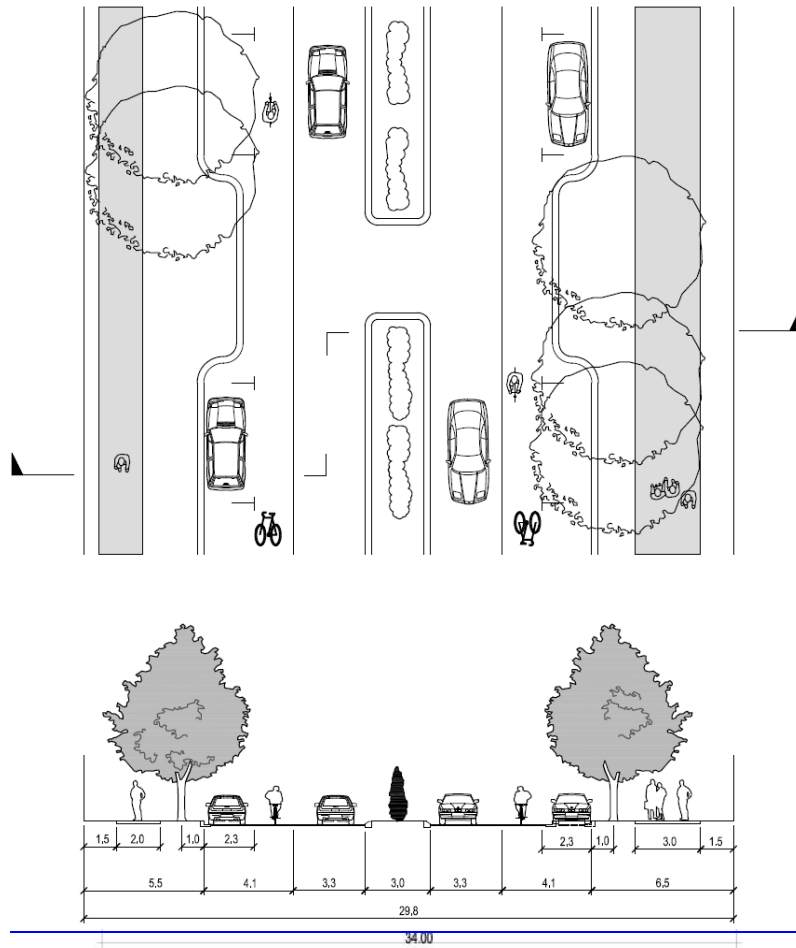
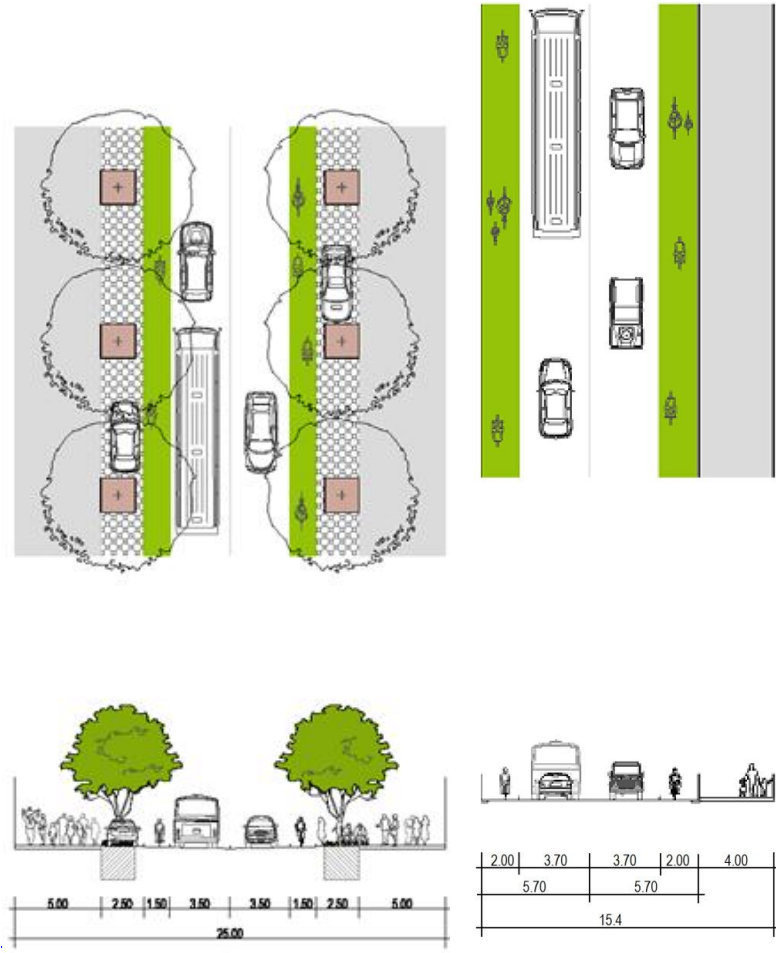


Figure SC6.20J **Main street typical cross section**  
District Collector Street Bridge



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Schedule 6

~~Trunk Collector — Type C~~ District Collector Street

~~Main Street~~ Springhill Drive Bridge

# Schedule 6

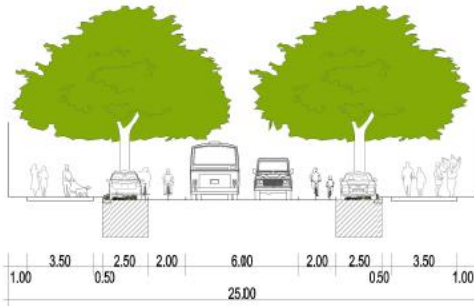
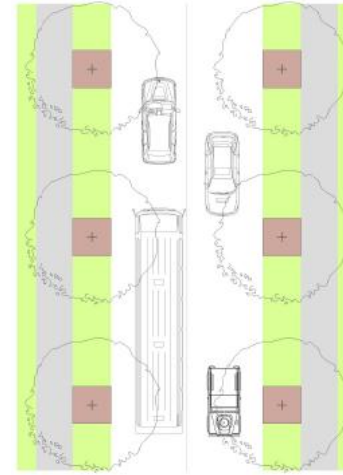
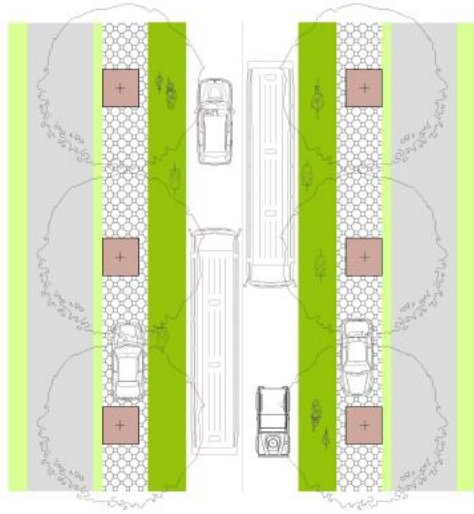


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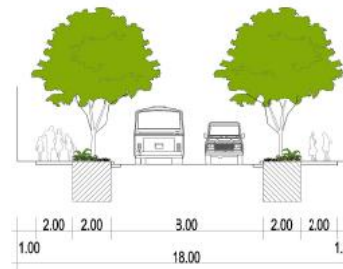
# Schedule 6



Figure SC6.20K—Collector road (green boulevard) typical cross Section      Figure SC6.20L—Collector road typical cross-section



Collector Road—Green Boulevard



Collector Road

Figure SC6.20M—Access street typical cross section

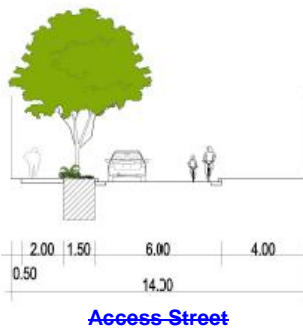
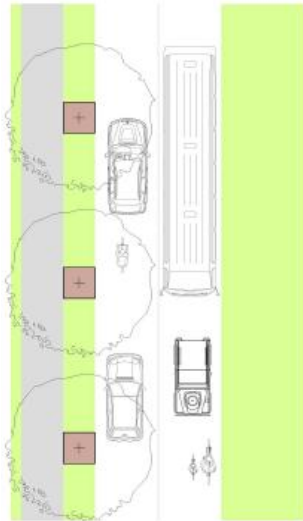
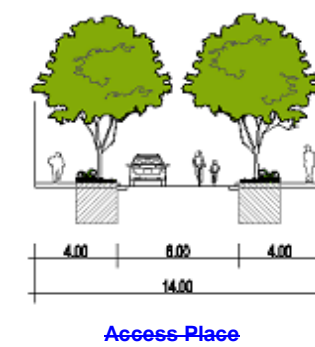
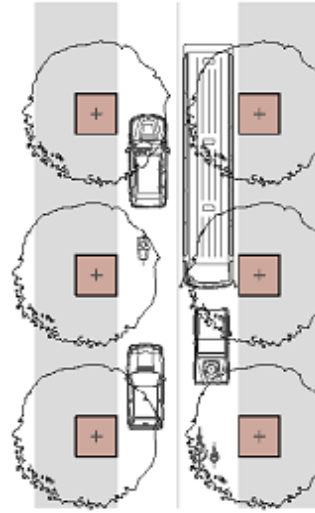


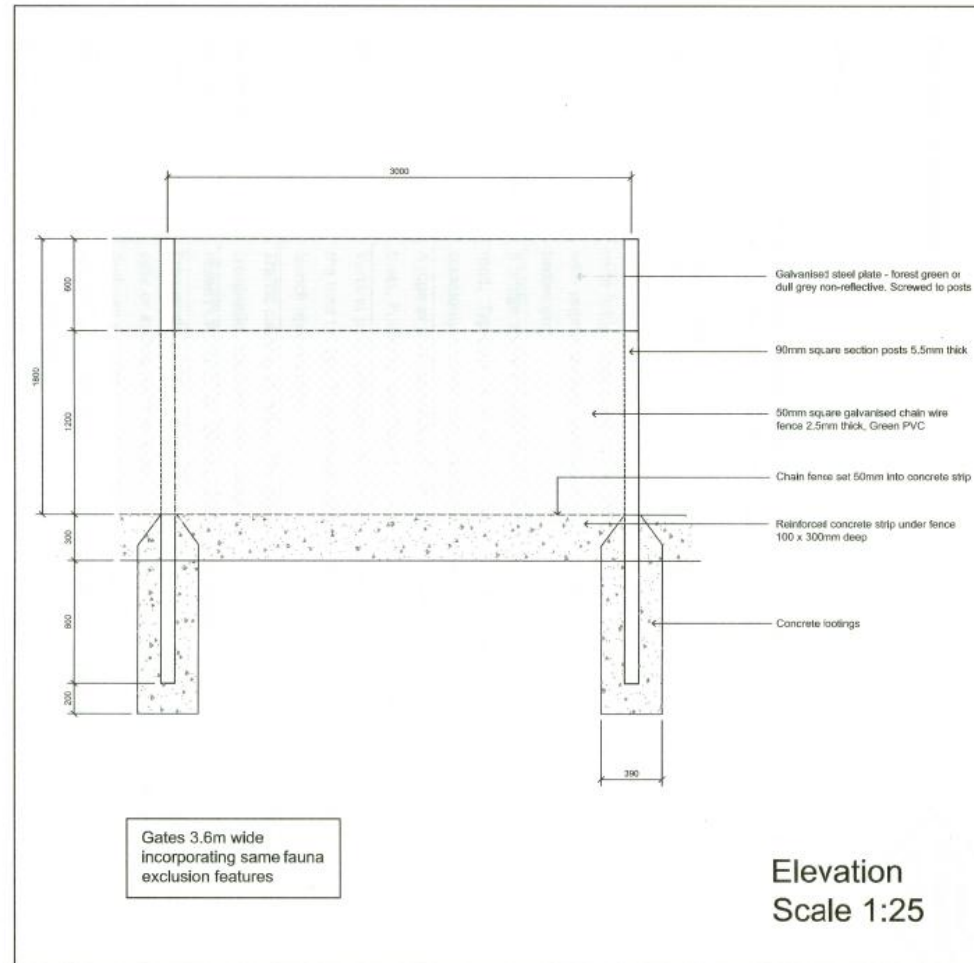
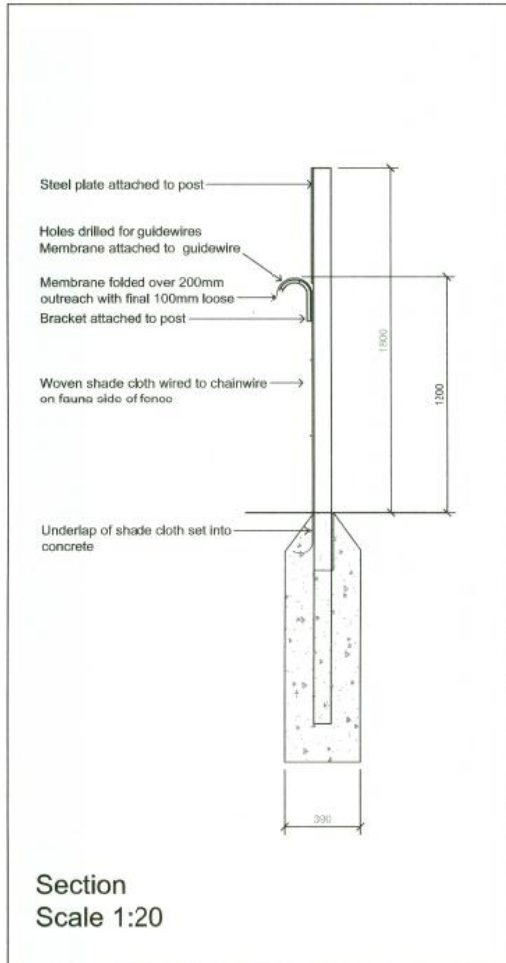
Figure SC6.20N—Access place typical cross section



Standards, guidelines and advice for fauna movement outcomes

- (4) For the purposes of Performance Outcome PO11(b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following are the standards identified in the code for the fauna movement outcomes incorporated as part of the road transport infrastructure network:-
- (a) development provides the fauna fencing in association with the road and public transport corridors in accordance with the specifications in **Figure SC6.20O-20K (Typical fauna fence design)**; and
  - (b) development provides for the other fauna movement measures specified in **Table SC6.20F 20H (Other fauna movement measures)**.
- (5) For the purposes of Performance Outcome PO11(b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following are guidelines about satisfying the standards in the code for the fauna movement outcomes:-
- (a) *Fauna Sensitive Road Design – Volume 1 - Past and Existing Practices* (Queensland Department of Main Roads, 2000);
  - (b) *Fauna Sensitive Road Design Manual – Volume 2– Preferred Practices* (Queensland Department of Transport and Main Roads, 2010);
  - (c) *Fish Passage in Streams – Guidelines for Design of Stream Crossings* (Queensland Department of Primary Industries and Fisheries, 1998); and
  - (d) *Breaking the Barriers – Engineering Solutions to Ecological Problems (Symposium)* (Environment Institute of Australia and New Zealand, 2009).
- (6) For the purposes of Performance Outcome PO11(b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following is advice about satisfying the standards in the code for the fauna movement outcomes:-
- (a) the design of fauna protection measures should reflect landscape context, site conditions and the species being targeted; and
  - (b) an applicant should consult with the Council to determine the most appropriate measures to be implemented.

Figure SC6.20020K Typical fauna fence design



**Table SC6.20F20H Other fauna movement measures**

| Measure                          | Descriptions  |
|----------------------------------|---|
| <b>OVERPASS</b>                  | <b>PERMITS PASSAGE OF ANIMALS ABOVE THE ROAD</b>  |
| Land Bridge                      | Also known as a green bridge, eco-duct or wildlife bridge. Typically a 30 metre wide bridge that spans across the road. The bridge has soil over it, and is planted with vegetation and landscaped with habitat features (e.g. logs, rocks, small water bodies etc.). |
| Overpass (small roads)           | A bridge above a major road, likely to allow human/stock access across the road. Typically of a narrow design and not hour-glass shape. An overpass is commonly a minor road, possibly unsealed or single lane configuration.   |
| Canopy/Rope Bridge               | A rope or pole suspended above traffic, either from vertical poles or roadside trees. Primarily established for arboreal and scansorial species.  |
| Glider Pole                      | Vertical poles positioned in the centre median, on the road verge, or traversing the land bridge. They provide species that glide intermediary landing pads and launch opportunities.   |
| Local Traffic Management         | Traffic calming to reduce the speed or volume of traffic via signage, crosswalks, chicanes, road closures etc.  |
| <b>UNDERPASS</b>                 | <b>PERMITS PASSAGE OF ANIMALS BELOW THE ROAD</b>  |
| Culvert                          | Frequently square, rectangular or semi-circle in shape. Usually pre-cast concrete cells or arches made of steel. They may specifically be built for wildlife passage or stormwater or flood conveyance purposes or a combination of both.                             |
| Tunnel                           | Also known as eco-pipe. Commonly round pipes of reasonably small diameter (i.e. less than 1.5 metres)   |
| Bridge                           | A structure that raises traffic above surrounding land or maintains the grade of the road. Often facilitating water underneath, movement of local traffic or assisting wildlife passage.  |
| <b>NON-STRUCTURAL MITIGATION</b> | <b>INCORPORATES MORE SENSITIVE ROAD DESIGN THAT ASSISTS 'NATURAL' PERMEABILITY</b>  |
| Corridor Plantings               | Strips of vegetation, comprising of similar species either side of the road. Often crossing the road providing corridor movements for animals.  |

## SC6.20.7 Public transport infrastructure network outcomes

### Preliminary

- (1) This section applies to the public transport infrastructure network outcomes in Performance Outcomes PO14 to ~~PO19~~ **PO18** in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**.

### General advice for public transport infrastructure network outcomes

- (2) The following is general advice about satisfying the public transport infrastructure network outcomes:-
- (a) the public transport infrastructure network outcomes seek to ensure that the Palmview Master Planned Area is able to be provided with a high quality public transport service connecting major employment, retail, business, education, recreation, sporting, cultural and health facilities;
- (b) **Other Plans Map OPM P9 (Palmview Master Planned Area public transport infrastructure network)** in **Schedule 2 (Mapping)** conceptually identifies the principal elements of the public transport infrastructure network, including the following:-
- (i) the ~~dedicated transit, bicycle and pedestrian~~ **local public transport** corridor ~~(part of the Greenlink);~~
- (ii) ~~the local transit, bicycle and pedestrian corridor (part of the Greenlink);~~
- (iii) ~~dedicated on road transit lanes;~~
- (iv) ~~(ii)~~ local bus ~~loop~~ **services**; and
- (v) ~~(iii)~~ bus stops and transit stations;

- (c) increasing the proportion of public transport trips both within the Master Planned Area and to locations outside of the Master Planned Area will not only serve to improve the sustainability of the Palmview community but will also contribute to a healthier community;
- (d) public transport services are intended to be bus-based and form part of Translink's Sunshine Coast Network Plan. The higher order road network has been carefully designed to support the efficient circulation of buses and to provide for priority movement along identified key routes;
- (e) there is also a high level of functional integration between the public transport and bicycle and pedestrian infrastructure networks (including end of trip facilities) and it is intended that these networks be developed in unison to support the development of the Master Planned Area as a transit oriented community;
- (f) the requirements for public transport infrastructure are to be complemented with a broader strategy for the provision and use of public transport services and are to deliver a 'seed' program for public transport during the first phases of development has provided for in the applicable infrastructure agreement; and
- (g) the public transport infrastructure network outcomes are primarily intended to be satisfied by the following:-
  - (i) development providing public transport infrastructure in accordance with the applicable infrastructure agreement;
  - (ii) development ensuring that the public transport infrastructure to be provided, ~~and in particular the local transit, bicycle and pedestrian~~ public transport corridor ~~(part of the Greenlink)~~, is in accordance with the public transport infrastructure network and the standards for the public transport infrastructure network as specified in the **Palmview structure plan area code**; ~~and~~
  - (iii) the detailed design and construction of the public transport infrastructure network incorporating appropriate urban design, landscape and environmental features and treatments; ~~and~~
  - (iv) ~~implementing a Sustainable Transport Plan which:-~~
    - (A) ~~outlines how the public and active transport outcomes for the Master Planned Area are to be achieved;~~
    - (B) ~~is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in Table SC6.20H (Compliance Assessment Requirements); and~~
    - (C) ~~has been approved by a compliance certificate given by the Council.~~

Standards for public transport infrastructure outcomes

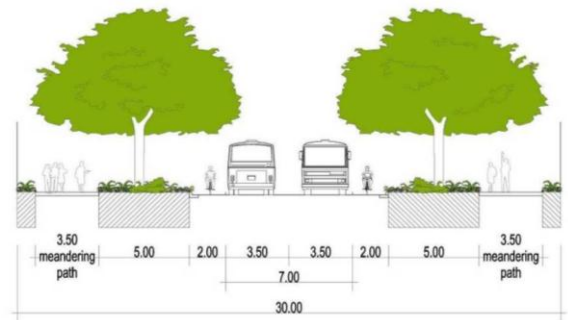
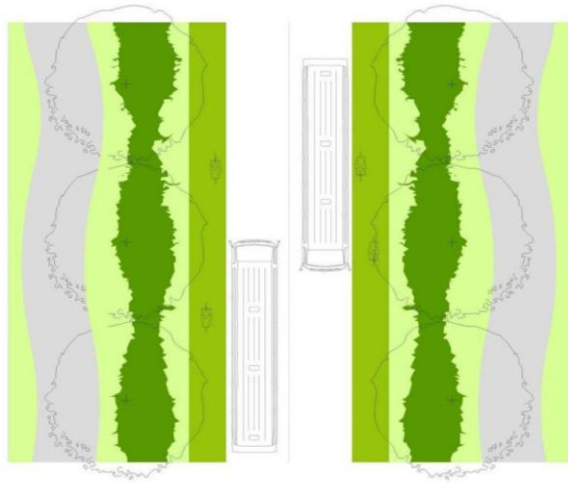
- (3) ~~For the purposes of Performance Outcome PO14(b) in Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services) of the Palmview structure plan area code, the following are the standards identified in the code for the dedicated transit, bicycle and pedestrian corridor (part of Greenlink) and the local transit, bicycle and pedestrian corridor (part of Greenlink) (Greenlink Corridor) incorporated as part of the public transport infrastructure network:-~~
  - (a) ~~development provides for the Greenlink Corridor to be incorporated into the Trunk Collector Road where they share a common alignment;~~
  - (b) ~~development provides for the Greenlink Corridor within the Master Planned Area to incorporate the following elements:-~~
    - (i) ~~a two lane dedicated busway (one lane each way);~~
    - (ii) ~~a 5.5 metre wide dual use path;~~
    - (iii) ~~a two (2) metre wide on road cycle lane;~~
    - (iv) ~~supporting stormwater infrastructure; and~~
    - (v) ~~underground services and street lighting;~~
  - (c) ~~development provides for the bus lane component of that part of the Greenlink which is within and approaches the District Activity Centre to be:-~~
    - (i) ~~transitioned to a shared zone in accordance with Other Plans Map OPM P9 (Palmview Master Planned Area Public Transport Infrastructure Network) in order to maximise urban design outcomes in the District Activity Centre; and~~

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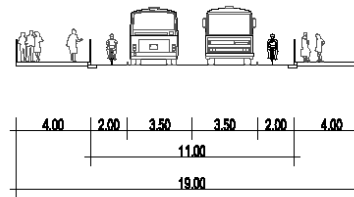
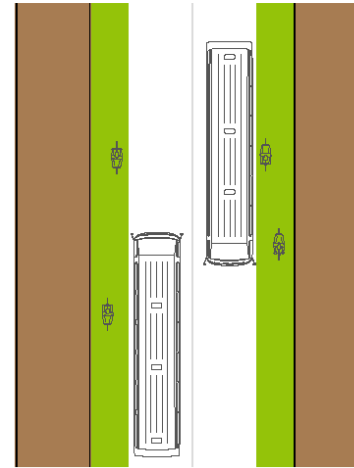
- (ii) designed such that buses, pedestrians and cyclists receive priority at the point of transition to shared lanes and at intersections;
- (d) development provides for the Greenlink Corridor within the Master Planned Area to comply with the typical cross sections specified in **Figure SC6.20P (Greenlink corridor (dedicated alignment) – typical cross section) and Figure SC6.20Q (Greenlink corridor (dedicated alignment) – greenlink bridge cross section)**;
- (e) development provides for safe crossing treatments and intersections;
- (f) development provides noise attenuation to sensitive receiving environments;
- (g) development provides for that part of the Greenlink Corridor traversing Sippy Creek to be on elevated structure or otherwise constructed so as to minimise impacts on hydrological regimes and ecological values, and to comply with the typical cross section specified in **Figure SC6.20Q (Greenlink corridor (dedicated alignment) – greenlink bridge cross section)**; and
- (h) development ensures that the public transport infrastructure is planned, designed and constructed in accordance with the **Planning scheme policy for development works** and the *Public Transport Infrastructure Manual (Translink and DTMR)*;

Figure SC6.20P—Greenlink corridor (dedicated alignment)—typical cross section



Green-Link

Figure SC6.20Q—Greenlink corridor (dedicated alignment)—greenlink bridge cross section



Green-Link Bridge



## SC6.20.8 Bicycle and pedestrian infrastructure network outcomes

### Preliminary

- (1) This section applies to the bicycle and pedestrian infrastructure network outcomes in Performance Outcomes ~~PO20-PO19~~ to ~~PO24-PO23~~ in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code** (bicycle and pedestrian infrastructure network outcomes).

### General advice for bicycle and pedestrian infrastructure network outcomes

- (2) The following is general advice about satisfying the bicycle and pedestrian infrastructure network outcomes:-
- (a) the bicycle and pedestrian infrastructure network outcomes seek to create an urban environment that supports and promotes walking and cycling and those using mobility aids, and thereby reduce demand for private vehicle trips;
  - (b) **Other Plans Map OPM P10 (Palmview Master planned area bicycle and pedestrian infrastructure network)** in **Schedule 2 (Mapping)** identifies conceptually the higher order elements of the bicycle and pedestrian infrastructure network including transit lanes, on-road dedicated bicycle lanes, on-road shared bicycle/parking lanes, off-road shared pedestrian/bicycle paths and off-road dedicated bicycle paths, bridge structures and timber boardwalks;
  - (c) increasing the proportion of 'active' transport trips will not only serve to improve the sustainability of the Palmview urban community but will also contribute to a healthier community in the long term;
  - (d) the Master Planned Area is well suited to walking and cycling because of its relatively flat topography, its relatively compact urban form and its reasonably high level of access to major facilities such as the University of the Sunshine Coast and the ~~planned~~ Sunshine Coast University Hospital. There is also a high level of functional integration between the various infrastructure networks for the Palmview Master Planned Area that underpins and takes maximum advantage of these active transport modes;
  - (e) the environmental and landscape context at Palmview also provides excellent opportunities for recreation trails, with easy access to significant planned recreation trails along the Mooloolah River and Sippy Creek, providing opportunities to use these trails as key links within the active transport network;
  - (f) the bicycle and pedestrian infrastructure network is extensive and is intended to be treated as the priority movement network in the Master Planned Area; and
  - (g) the bicycle and pedestrian infrastructure network outcomes are primarily intended to be satisfied by the following:-
    - (i) development providing bicycle and pedestrian infrastructure in accordance with the applicable infrastructure agreement; and
    - (ii) development ensuring that the bicycle and pedestrian infrastructure to be provided is in accordance with the bicycle and pedestrian infrastructure network and the standards for the bicycle and pedestrian infrastructure network as specified in the **Palmview structure plan area code**; ~~and~~
      - ~~(iii) implementing a Sustainable Transport Plan which-~~
      - ~~(A) outlines how the public and active transport outcomes for the Master Planned Area are to be achieved;~~
      - ~~(B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in **Table SC6.20H (Compliance assessment requirements)**; and~~
      - ~~(C) has been approved by a compliance certificate given by the Council.~~

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Standards and guidelines for bicycle and pedestrian infrastructure network outcomes

(3) For the purposes of Performance Outcome ~~PO20~~PO19(b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following are the standards identified in the code for the bicycle and pedestrian infrastructure network:-

(a) development provides for bicycle and pedestrian infrastructure in road transport infrastructure and public transport infrastructure to be in accordance with the typical road cross sections contained in **Section SC6.20.6 (Road transport infrastructure network outcomes)**, **Section SC6.20.7 (Public transport infrastructure network outcomes)** and the **Planning scheme policy for development works transport and parking**;

~~(b) development provides for appropriate signage and pavement marking (as part of a comprehensive way finding system) for the safe and convenient use of bicycle and pedestrian infrastructure which complies with AustRoads Parts 13 and 14;~~

~~(c) development provides for bicycle and pedestrian infrastructure that includes tactile indicators in accordance with AS1428.4 Design for Access and Mobility – Tactile Indicators; and~~

~~(d) development provides for bicycle and pedestrian infrastructure which leads to, or joins, an existing or proposed public transport facility (such as a bus stop or transit station) to comply with the Disability Standards for Accessible Public Transport Guidelines 2004.~~

~~(4) For the purposes of Performance Outcome PO20(b) of Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services) of the Palmview structure plan area code, the following are guidelines about satisfying the standards in the code for the bicycle and pedestrian infrastructure network:-~~

~~(a) AS1742.10 – Manual of uniform traffic control devices – Pedestrian control and protection;~~

~~(b) Manual of Uniform Traffic Control Devices (Queensland Department of Transport and Main Roads);~~

~~(c) Traffic and Road Use Management Manual (Queensland Department of Transport and Main Roads);~~

~~(d) Design Guidelines for Subdivisional Streetworks – Queensland Streets;~~

~~(e) AustRoads Guide to Traffic Engineering Practice – Part 13 Pedestrians and Part 14 Bicycles;~~

~~(f) New South Wales Bicycle Guidelines (New South Wales Roads and Traffic Authority);~~

~~(g) AS2156.1 – Walking tracks, Classification and signage;~~

~~(h) AS2156.2 – Walking tracks, Infrastructure design;~~

~~(i) AS2890.3 – Parking facilities – Bicycle parking facilities;~~

~~(j) AS1428 – Design for Access and mobility;~~

~~(k) Disability Standards for Accessible Public Transport Guidelines 2004;~~

~~(l) Queensland Cycle Strategy 2003; and~~

~~(m) Easy Steps and Cycle Notes (Queensland Transport);~~

**SC6.20.9 Integrated water cycle management infrastructure network outcomes**

Preliminary

~~(1) This section applies to the water supply infrastructure network outcomes, sewer infrastructure network outcomes and stormwater infrastructure network outcomes in Performance Outcomes PO25 to PO35 in Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services) of the Palmview structure plan area code (integrated water cycle management infrastructure network outcomes).~~

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General advice for integrated water cycle management infrastructure network outcomes

(2) The following is general advice about satisfying the integrated water cycle management infrastructure network outcomes:-

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- (a) the integrated water cycle management infrastructure network outcomes seek to ensure that development within the Master Planned Area achieves the following:-
  - (i) minimises potable water use;
  - (ii) promotes water conservation;
  - (iii) optimises opportunities for water re-use;
  - (iv) protects water quality and natural environments that may be sensitive to changes in the natural water cycle;
  - (v) protects people, property and the built environment from flooding and stormwater damage; and
  - (vi) otherwise exhibits contemporary best practice approaches to integrated water cycle management;
- (b) **Other Plans Map OPM P11 (Palmview Master Planned Area water supply infrastructure network)** in Schedule 2 (Mapping) identifies conceptually the higher order elements of the water supply infrastructure network planned for the Master Planned Area;
- (c) **Other Plans Map OPM P12 (Palmview Master Planned Area sewer infrastructure network)** in Schedule 2 (Mapping) identifies conceptually the higher order elements of the sewer infrastructure network planned for the Master Planned Area; and
- (d) the integrated water cycle management infrastructure network outcomes are primarily intended to be satisfied by the following:-
  - (i) development providing water supply infrastructure, sewer infrastructure and stormwater infrastructure in accordance with the applicable infrastructure agreement;
  - (ii) aiming to achieve an 80% reduction for reticulated water from the SEQ water grid compared with current (2009) average levels of potable water use for the Sunshine Coast;
  - (iii) implementing water recycling and other water saving measures to service the Master Planned Area;
  - (iv) incorporating a comprehensive range of water conservation measures;
  - (v) implementing best practice approaches to stormwater treatment and promotion of water sensitive urban design principles;
  - (vi) limiting the extent of development for urban purposes to a defined area that has been determined to be suitable for urban development which is above the defined flood event or has been determined to be suitable to be filled;
  - (vii) implementing an Integrated Water Cycle Management Plan which:-
    - (A) outlines how the integrated water cycle management infrastructure network outcomes for the Master Planned Area are to be achieved;
    - (B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in Table SC6.20A (**Compliance assessment requirements**);
    - (C) has been approved by a compliance certificate given by the Council; and
  - (viii) implementing a Site Based Stormwater Management Plan which:-
    - (A) is prepared in accordance with the requirements of the **Planning scheme policy for development works** and the approved Integrated Water Cycle Management Plan specified in a master plan or development approval; and
    - (B) has been approved by a compliance certificate given by the Council.

Standards for water supply infrastructure network outcomes

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(3) For the purposes of Performance Outcome PO25(b) in Section 10.3.4.21 (**Performance outcomes and acceptable outcomes for the development of infrastructure and services**) of the Palmview structure plan area code, the following are the standards identified in the code for the water supply infrastructure network:-

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- (a) development ensures that the planning, design and construction of water supply infrastructure is in accordance with the following:-
  - (i) the Planning scheme policy for development works;

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- (ii) the WSA National Codes (as varied by the **Planning scheme policy for development works or this planning scheme policy**); and
  - (iii) the desired standards of service for water supply infrastructure (Appendix **SC6.20B (Desired standards of service for water supply and sewerage infrastructure)**).
- (b) development ensures that the planning, design and construction of recycled water infrastructure is in accordance with the WSA Water Supply Code of Australia WSA-2002 Supplement Dual Water Reticulation Systems; and
  - (c) development provides for recycled water to be treated to a rating which is fit for purpose in accordance with the Water Quality Guidelines for Recycled Water Schemes November 2008.
- (4) However, the Council may approve or require acceptable alternative materials or products to those nominated within the **Planning scheme policy for development works or the WSA National Codes** provided that the materials or products comply with the performance outcomes for the development of infrastructure and services identified in the **Palmview structure plan area code**.

Standards for sewer infrastructure network outcomes

- (5) For the purposes of Performance Outcome PO28(b) in Section **10.3.4.21 (Performance Outcomes and Acceptable Outcomes for the Development of Infrastructure and Services)** of the **Palmview structure plan area code**, the following are the standards identified in the code for the sewer infrastructure network:-
- (a) development ensures that the planning, design and construction of sewer infrastructure is in accordance with the following:-
    - (i) the Planning scheme policy for development works;
    - (ii) the WSA National Codes (as varied by the **Planning scheme policy for development works or this planning scheme policy**); and
    - (iii) the desired standards of service for sewerage infrastructure (Appendix **SC6.20B (Desired standards of service for water supply and sewerage infrastructure)**).
  - (b) development provides for any gravity sewer to be designed as a Reduced Infiltration Gravity System (RIGS) that can demonstrate the PWWF will not exceed 4 x ADWF; and
  - (c) development ensures that the planning, design and construction of recycled water infrastructure is in accordance with the WSA Water Supply Code of Australia WSA-2002 Supplement Dual Water Reticulation Systems.
- (6) However, the Council may approve or require acceptable alternative materials or products to those nominated within the **Planning scheme policy for development works or the WSA National Codes** provided that the materials or products comply with the performance outcomes for the development of infrastructure and services identified in the **Palmview structure plan area code**.

Standards for stormwater infrastructure network outcomes

- (7) For the purposes of Performance Outcome PO31(k) in Section **10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the standards for the planning, design and construction of the stormwater infrastructure network are the following:-
- (a) SEQ Regional Plan Implementation Guideline No. 7 Water sensitive urban design: Design objectives for urban stormwater management (2008);
  - (b) Queensland Urban Drainage Manual (QUDM) (as varied by the **Planning scheme policy for development works** or this planning scheme policy);
  - (c) Healthy Waterways Partnership Water Sensitive Urban Design Technical Design Guidelines for South-East Queensland; and
  - (d) Section **SC6.14.3 (Stormwater Management)** of the **Planning scheme policy for development works**.
- (8) However, Council may approve or require acceptable alternative materials or products to those nominated within the **Planning scheme policy for development works, the QUDM or the Healthy Waterways Partnership Water Sensitive Urban Design Technical Design Guidelines** provided that the

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materials or products comply with the performance outcomes for the development of infrastructure and services identified in the Palmview structure plan area code.

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## ~~SC6.20.10~~ **SC6.20.9 Urban open space infrastructure network outcomes**

### Preliminary

- (1) This section applies to the urban open space infrastructure network outcomes in Performance Outcomes ~~PQ36-PQ2931~~ to ~~PQ44-PQ3739~~ in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code** (urban open space infrastructure network outcomes).

### General Advice for Urban Open Space Infrastructure Network Outcomes

- (2) The following is general advice about satisfying the urban open space infrastructure network outcomes:-
- (a) the urban open space outcomes seek to ensure that the Master Planned Area is provided with an appropriate range of local, district and regional urban open space areas;
  - (b) urban open space plays an important role in supporting the development of social capital and creating a healthy community and is particularly important in new and emerging communities in terms of strengthening social interaction and encouraging a sense of place, providing for recreation activities and contributing to the amenity of their urban form;
  - (c) the urban open space outcomes also seek to ensure the establishment of a legible, accessible, connected open space network while creating public open spaces that respond to each individual neighbourhood;
  - (d) **Other Plans Map OPM ~~P43-P11~~ (Palmview master planned area urban open space infrastructure network)** in **Schedule 2 (Mapping)** identifies conceptually the higher order elements of the urban open space infrastructure network planned for the **Palmview structure plan area code**;
  - (e) local recreation park components of the urban open space infrastructure network are intended to be located so as to ensure all residents and workers of the Master Planned Area are within 500 metre walking distance of a local recreation park; and
  - (f) the urban open space infrastructure network outcomes are primarily intended to be satisfied by the following:-
    - (i) development providing the urban open space infrastructure in accordance with the applicable infrastructure agreement; and
    - (ii) ensuring that detailed design and construction of urban open space has regard to the following:-
      - (A) functional characteristics, user needs (social and recreational), lifecycle costs and incorporates high quality urban and landscape design which complies with CPTED principles; and
      - (B) the standards identified for the non-urban open space infrastructure network in **Appendix SC6.20A (Palmview Master Planned Area ecological and landscape protection and rehabilitation plan)**.

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### Standards for the urban open space infrastructure network outcomes

- (3) For the purposes of Performance Outcome ~~PQ36~~~~PQ31~~ (b) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**, the following are the standards identified in the code for the urban open space infrastructure network:-
- (a) development provides for land for urban open space to be provided in one contiguous parcel which is regular in shape and fit-for-purpose;

Schedule 6

(b) development provides for land for urban open space to be provided to the Council in freehold tenure;

(c) development ensures that urban open space achieves the following levels of flood immunity:-

- (i) regional recreation parks have at least 20% of the total area above the 100 year ARI climate change scenario (defined flood event) and the remaining area above the 20yr ARI climate change scenario;
- (ii) district sport and recreation parks have at least 20% of the total area above the 100 year ARI climate change scenario (defined flood event), with the remaining area above the 20 year ARI climate change scenario; and
- (iii)(c) local recreation parks are located entirely above the 100 year ARI climate change scenario (defined flood event) is above the Q20 flood levels.

(d) development ensures that urban open space is free of hazards and constraints, including the following:-

- (i) land listed on the Contaminated Land Register or Environmental Management Register;
- (ii) land known or suspected as being contaminated;
- (iii)(iii) land required for buffer or esplanade;
- (iii)(iv) land required for or contains an above ground utility installation such as a sewerage pump station, transformer or under high voltage power lines or lies within 50 metres of the line an easement;
- (v) land constrained by easements required as an easement over sewerage/water lines or other underground utilities or services;
- (vi) land required principally for drainage purposes;
- (iv)(vii) land is required for stormwater treatment or detention;
- (viii) land within a road reserve or subject to future proposed transport corridors; and
- (v) -and
- (vi) other infrastructure such as pump stations, sub-stations and the like.

(e) development ensures that local, and district and regional level urban open space has direct access from a public road along one side for at least 2550% of its perimeter; and

(f) development ensures that urban open space infrastructure is provided in accordance with the desired standards of service as stated in the following:-

- (i) Table SC6.20I (Provision of urban open space infrastructure network) which states the provision rate of the urban open space infrastructure network; and
- (ii) Table SC6.20J (Urban open space infrastructure network attributes) which states the attributes of the urban open space infrastructure network).

**Table SC6.20I Provision of urban open space infrastructure network**

| Category         | Park type Catchment | Park characteristics |               | Park catchment  | Park provision          |
|------------------|---------------------|----------------------|---------------|---|-------------------------|
|                  |                     | Minimum area         | Minimum width |   |                         |
| Recreation parks | Local               | 1 ha                 | 50m           | 500m (within 5 min. walk)   | 1 ha per 1,000 people   |
|                  | District            | 5 ha                 | 50m           | 5 km (within 30 min. walk, 20 min. cycle and 10 min. drive)           | 1.3 ha per 1,000 people |
|                  | Regional            | 20 ha                | 100m          | 30 km (public transport routes and cycleway and within 30 min. drive) | 0.7 ha per 1,000 people |
| Sports parks     | District            | 10 ha                | 150m          | 10 km (30min. cycle, 10 min. drive)                                   | 1.5 ha per 1,000 people |

**Table SC6.20J Urban open space infrastructure network attributes**

|  |   |
|--|---|
| <b>Recreation park – Local</b>   |   |
| <b>Description:</b><br>Primarily used by the community for informal recreation, social, cultural and leisure activities and which may provide for other complementary values (e.g. landscape amenity or biodiversity conservation). In community hubs they are visually and physically connected with the community and commercial activities to help activate the locality. |   |
| <b>Size and topography</b>   | <b>Natural assets (vegetation)</b>  |
| <ul style="list-style-type: none"> <li>• Minimum of 1.0 ha.</li> <li>• Where the topography is such that additional land is required to achieve the required facilities and</li> </ul>   | <ul style="list-style-type: none"> <li>• Planting to provide diversity of layers and qualities for wildlife needs – food sources, connection, protection and breeding.</li> </ul> |

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| <p><u>setting, land area can be increased to accommodate these facilities</u></p> <ul style="list-style-type: none"> <li>• Minimum width 50m</li> <li>• Regular shape</li> </ul>  | <ul style="list-style-type: none"> <li>• <u>Planting style allowing for kick about cleared area.</u></li> <li>• <u>Protect and sustain ecologically important areas/ support local biodiversity consistent with primary function.</u></li> </ul>  |
| <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>• <u>A short 5-10 minute walk or less than 500 metres from most residences.</u></li> <li>• <u>At least two sides or approximately 50% of perimeter to have road frontage.</u></li> <li>• <u>Key use areas meet disability access requirements.</u></li> </ul>  | <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>• <u>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk and nature of setting.</u></li> <li>• <u>Play spaces are located in safe areas (good surveillance).</u></li> <li>• <u>Safe access for pedestrians - lighting.</u></li> <li>• <u>Emergency vehicle access.</u></li> </ul>  |
| <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>• <u>Linked by quality recreation trail network or a pedestrian and bicycle network.</u></li> <li>• <u>Pathways networks located within open space not to conflict with primary park use.</u></li> </ul>  | <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>• <u>Open grassed area for passive recreation with shaded spaces for social interaction and provide visual amenity for external users.</u></li> </ul>  |
| <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>• <u>Character reflective of local identity and heritage values/space.</u></li> <li>• <u>Retain existing trees at strategic locations. Plant new trees to contribute to broader amenity of the area.</u></li> <li>• <u>Where a park has been located to provide views, key viewpoints need to be protected.</u></li> </ul> | <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>• <u>above Q20 (defined WSUD/flood event).</u></li> <li>• <u>Buildings are to be above Q100.</u></li> <li>• <u>Kick about and social spaces are well drained.</u></li> </ul> <p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• <u>Land use</u></li> <li>• <u>Community Hubs</u></li> <li>• <u>To meet the DSS of Social Infrastructure Strategy</u></li> </ul> |
| <p><b>Recreation park – Town Park</b></p>   |   |
| <p><b>Description</b><br/>Primarily used by the community for informal recreation, social, cultural and leisure activities. Located in a community hub. A location for events, celebrations and community gatherings of a civic/ community nature.</p>  |   |
| <p><b>Size and topography</b></p> <ul style="list-style-type: none"> <li>• <u>Minimum of 3 ha</u></li> <li>• <u>Minimum width 100m</u></li> </ul>   | <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>• <u>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk</u></li> <li>• <u>Safe access.</u></li> <li>• <u>Emergency vehicle access.</u></li> </ul>   |
| <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>• <u>At least one side or approximately 50% of perimeter to have road frontage.</u></li> <li>• <u>Key use areas meet disability access requirements.</u></li> <li>• <u>Co-located with retail/commercial spaces, community facilities, and/or schools to help activate the locality.</u></li> </ul>                            | <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>• <u>Community meeting spaces for social, cultural and leisure activities and which may provide for other complementary values (eg. Landscape amenity).</u></li> <li>• <u>Civic meeting and gathering space.</u></li> </ul>  |
| <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>• <u>Linked to quality recreation trail network or a pedestrian and bicycle network.</u></li> <li>• <u>Central to key civic and community facilities.</u></li> </ul>  | <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>• <u>Land to be above Q20 (defined flood event).</u></li> <li>• <u>Buildings are to be above Q100.</u></li> <li>• <u>Grassed spaces are well drained.</u></li> </ul>  |
| <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>• <u>Character reflective of local identity and heritage values/space. Designed and managed to support community and social adjoin activities.</u></li> </ul>  | <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>• <u>Provision of space for civic events/celebration</u></li> <li>• <u>Skate/youth facility</u></li> <li>• <u>Diverse range of recreational and social spaces.</u></li> <li>• <u>Space for cultural and community events</u></li> </ul>   |
| <p><b>Recreation park – district</b></p>  |   |
| <p><b>Description</b><br/>Primarily used by the community for recreation, social, cultural and leisure activities and may provide for other complementary values (e.g. landscape amenity or biodiversity conservation). District recreation parks provide more diverse opportunities for recreation experiences and may support nature- based recreational experiences.</p>                             |   |
| <p><b>Size and topography</b></p> <ul style="list-style-type: none"> <li>• <u>5 ha.</u></li> <li>• <u>Where the topography is such that additional land is required to achieve the required facilities and setting, land area can be increased to</u></li> </ul>  | <p><b>Natural assets (vegetation)</b></p> <ul style="list-style-type: none"> <li>• <u>'Bushland' planting style while allowing for kick about cleared area, play spaces, event spaces and community garden areas.</u></li> <li>• <u>Planting to provide diversity of layers and qualities for</u></li> </ul>  |

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| <p><u>accommodate these facilities.</u></p> <ul style="list-style-type: none"> <li>• <u>Minimum width 50m.</u></li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>• <u>5 km from most residences.</u></li> <li>• <u>Generally located in urban areas or areas of special interest and may adjoin other community facilities.</u></li> <li>• <u>On or close to a distributor or arterial road and within walking distance to regular public transport.</u></li> <li>• <u>At least one side or approximately 50% of perimeter to have road frontage.</u></li> <li>• <u>Provision of off street car parking</u></li> </ul> <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>• <u>Located on a recreation trail or on a pedestrian and bicycle network.</u></li> <li>• <u>May provide a trail head for urban and non-urban trails.</u></li> <li>• <u>Pathways networks located within open space not to conflict with primary park uses.</u></li> </ul> <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>• <u>Character reflective of local identity and heritage values.</u></li> <li>• <u>Retain existing trees at strategic location and planting new trees to contribute to broader amenity of the area.</u></li> <li>• <u>Kick about spaces to be retained for passive recreation opportunities and spaces to accommodate events.</u></li> <li>• <u>Consider use of durable materials and more permanent features (e.g. walls).</u></li> <li>• <u>Where a park has been located to provide views, key viewpoints need to be identified and planted with lower vegetation where replanting occurs.</u></li> </ul> | <p><u>wildlife needs – food sources connection, protection and breeding.</u></p> <ul style="list-style-type: none"> <li>• <u>Protect and sustain ecologically important areas/ support local biodiversity consistent with primary function.</u></li> </ul> <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>• <u>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk and nature of setting.</u></li> <li>• <u>Play spaces are located in safe areas.</u></li> <li>• <u>Emergency vehicle access</u></li> <li>• <u>Pedestrian pathways to be lit</u></li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>• <u>District recreation parks provide a more diverse range of passive, social, cultural and recreational experiences through supporting land and infrastructure.</u></li> </ul> <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>• <u>Land (minimum of 70%) to be above Q20 (defined flood event).</u></li> <li>• <u>Buildings are to be above Q100.</u></li> <li>• <u>Kick about and social spaces are well drained.</u></li> <li>• <u>WSUD</u></li> </ul>   |
| <p><b>Recreation park – regional</b></p>  |   |
| <p><b>Description</b></p> <p><u>Primarily used by the community for informal recreation, social, cultural and leisure activities and which may provide for other complementary values (e.g. landscape amenity or conservation). Sunshine Coast wide recreation parks provide a wider range of experiences and opportunities that encourage longer stays for a diverse range of users. Botanic Gardens are contained in this category.</u></p>   |   |
| <p><b>Size and topography</b></p> <ul style="list-style-type: none"> <li>• <u>20 ha.</u></li> <li>• <u>Minimum width 100m.</u></li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>• <u>In urban areas &lt;30 km most residences.</u></li> <li>• <u>On or close to arterial road with regular public transport to the site.</u></li> <li>• <u>At least two sides or approximately 50% of perimeter to have road frontage.</u></li> <li>• <u>Provision of dispersed onsite car parking essential to reduce visual impact.</u></li> <li>• <u>Located on a recreation trail</u></li> </ul> <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>• <u>Located on a recreation trail or on a pedestrian and bicycle network.</u></li> <li>• <u>Provides a trail head for urban and non-urban trails.</u></li> <li>• <u>Pathway networks located within open space not to conflict with primary park uses.</u></li> <li>• <u>Pedestrian pathways link activity areas</u></li> </ul> <p><b>Landscape and character</b></p>  | <p><b>Natural assets (vegetation)</b></p> <ul style="list-style-type: none"> <li>• <u>'Bushland' planting style while allowing for kick about cleared area.</u></li> <li>• <u>Planting to provide diversity of layers and qualities for wildlife needs – food sources connection, protection and breeding.</u></li> <li>• <u>Protect and sustain ecologically important areas/ support local biodiversity consistent with primary function.</u></li> </ul> <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>• <u>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk and nature of setting.</u></li> <li>• <u>Play spaces are located in safe areas.</u></li> <li>• <u>Emergency vehicle access.</u></li> <li>• <u>Safe light areas for night time use and pedestrian linkage</u></li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>• <u>Provides for a large range of outdoor and passive recreational experiences including play spaces, open space and informal kick about area, landscape and amenity and provides BBQ, shelters and major gathering spaces and opportunities for festivals and celebration.</u></li> </ul> |

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| <ul style="list-style-type: none"> <li>Character reflective of local identity and heritage values.</li> <li>Retain existing trees at strategic locations and plant new trees to contribute to broader amenity of the area.</li> <li>Larger open spaces (e.g. kick about space) to be retained for passive recreation and social opportunities (e.g. major events).</li> <li>Consider use of durable materials and more permanent features (e.g. walls).</li> <li>Where a park has been located to provide views, key viewpoints need to be identified and planted with lower vegetation where replanting occurs.</li> </ul>  | <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>Land to be above Q20 (defined flood event).</li> <li>Buildings are to be above Q100.</li> <li>Kick about and social spaces are well drained.</li> </ul>  |
| <p><b>Recreational trails</b></p> <p><b>Description</b></p> <p>Recreation trails are provided for the primary purpose of recreational activities such as walking, horse riding and mountain biking. Recreation trails often traverse through a range of land tenures. These places have a different intent to the pedestrian and bicycle networks co-located with roads infrastructure, which exist primarily to expedite modes of movement.</p>   |  |
| <p><b>Size and topography</b></p> <ul style="list-style-type: none"> <li>12 m wide corridor incorporating a 1.5-3 m wide pathway.</li> <li>A variety of distances and circuits to be provided.</li> <li>Natural contours are to be followed to ensure even trail grades.</li> <li>Ensure local drainage is maintained along water courses.</li> <li>Poorly drained areas and areas with high erosion to be avoided.</li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>Trails to connect to recreation parks, sports grounds, and traverse drainage reserves, appropriate environment reserves, Conservation/national parks to activate the open space network and create a sense of connection and immersion in open space.</li> <li>Trails to be located close to edges of parks to reduce impacts on park users.</li> <li>Trail location to give consideration to the user and service vehicle access requirements for maintenance.</li> </ul> <p><b>Provision</b></p> <ul style="list-style-type: none"> <li>Consider access for residents to be &lt;500 m from a recreation trail.</li> </ul> <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>Trails are linked to community hubs (cafes, community facilities) parks, reserves and sports grounds, active transport networks and the non-urban trail networks.</li> </ul> | <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>Where space allows, without compromising the lands core function, the trail gently meanders to take advantage of natural and constructed features and provide an element of discovery.</li> <li>Desirable for 60 % of trail to have access to shade from vegetation.</li> <li>Trails are to be interesting and routed through different vegetation and landform.</li> <li>Where determined, environmental and cultural features are outlined in interpretive information.</li> <li>Recycled/sustainable construction materials preferred. Where not possible materials that are durable or can be reused are required.</li> </ul> <p><b>Natural assets (vegetation)</b></p> <ul style="list-style-type: none"> <li>Taller trees for shading.</li> <li>Planting to provide diversity of layers and qualities for wildlife needs – food sources connection, protection and breeding.</li> <li>Trails constructed to so as not to impact on existing trees and reduce need for constant pruning.</li> <li>Porous materials to be considered in suitable areas to improve water penetration and reduce sheet flow.</li> </ul> <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk and nature of setting.</li> <li>Trails are located a minimum of 5 m from the constructed road.</li> <li>Safety signage and fencing where necessary.</li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>At planning stage determine what users (e.g. walking, cycling and equestrian) and level of accessibility.</li> </ul> <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>The provision of appropriate drainage must be considered in the trail planning, design and construction process.</li> </ul> |
| <p><b>Sport grounds – district</b></p> <p><b>Description</b></p> <p>Facilities for formal sporting and active recreation activities including ovals, courts and circuits. They may also provide local recreation park facilities outside of formal sporting hours as well as recreation facilities for families attending sporting events. Contribute to amenity and local biodiversity by appropriate vegetation planting on boundaries.</p>  |  |

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| <p><b>Size and topography</b></p> <ul style="list-style-type: none"> <li>10 ha. A number of sports may co-locate or adjoin district recreation parks creating a larger open space.</li> <li>Principally a flat site with 5 % gradient or less.</li> <li>Minimum width 150m.</li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>In urban areas &lt;10 km.</li> <li>Close to a collector road with on-site car parking provided.</li> <li>At least two sides or approximately 50 % of perimeter to have road frontage.</li> <li>In higher density areas co-locate with community infrastructure where possible.</li> <li>Located on public transport routes and stops.</li> </ul> <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>Located on a recreation trail or on a pedestrian and bicycle network.</li> <li>Connected to residential and school/community facilities</li> </ul> <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>Designed to reduce impact of flood lighting on adjacent areas.</li> <li>Use of appropriate design and management principles (e.g. on-site water storage and treatment) to reduce nutrient flow and weed invasion from the site.</li> <li>Designed to positively contribute to the amenity of surrounding areas.</li> <li>Shade trees dividing fields, shaded car parking.</li> </ul> | <p><b>Natural assets (vegetation)</b></p> <ul style="list-style-type: none"> <li>Boundary area and corners of site substantially planted with locally native tree/shrub species.</li> </ul> <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>The use of Crime Prevention through Environmental Design (CPTED) principles relevant to level of risk and nature of setting.</li> <li>Play spaces are located in safe areas.</li> <li>Emergency vehicle access.</li> <li>Perimeter fencing for safety of users</li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>District sports grounds provide community access to a variety of active formal sporting, cultural and recreation facilities.</li> <li>Multi use and multi-function configuration preferred</li> </ul> <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>Buildings and fenced areas above Q100.</li> <li>Playing fields above Q20.</li> <li>Wetland treatment areas above Q10.</li> <li>Playing surfaces are well drained.</li> </ul> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>Assessment of existing facilities within the district to inform preferred layout</li> </ul> |
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(e) —

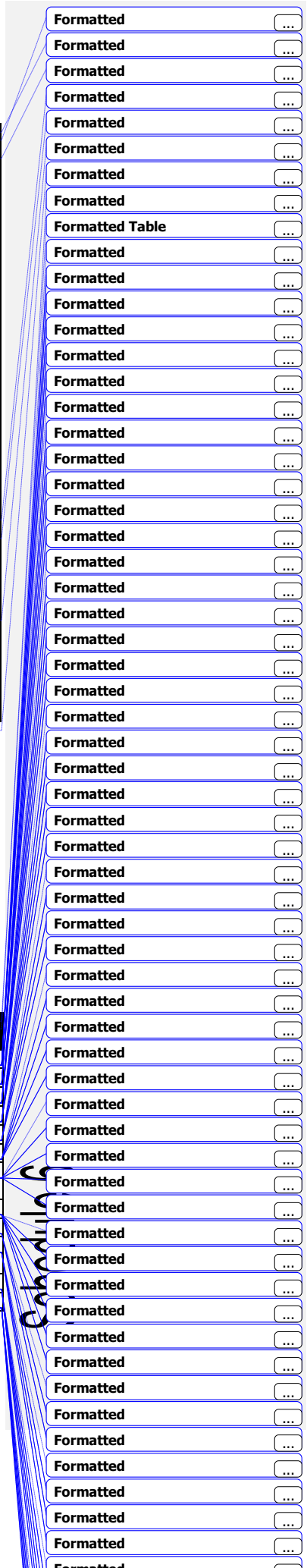
(f) — development ensures that regional urban open space has direct access from a public road along one side for at least 50% of its perimeter.

Standards for embellishments associated with urban open space infrastructure network

(4) For the purposes of Performance Outcome [PO49PO2931\(ab\)](#) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmyra structure plan area code**, the standards identified in the code for the desired level of embellishments for each type of urban open space area are specified in **Table SC6.20G20K (Embellishment standards for urban open space infrastructure)**.

**Table SC6.20G20K Embellishment standards for urban open space infrastructure**

| Embellishments  | Local Recreation | District Recreation | Regional Recreation | District Sport | Town park |
|---|------------------|---------------------|---------------------|----------------|-----------|
| Earthworks (grading, levelling and grassing)  | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Weed free   | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Tree planting   | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Signage (name / info)   | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Interpretive signage  |                  | ✓                   | ✓                   | ✓              | ✓         |
| Road access (external)  |                  | ✓                   | ✓                   | ✓              | ✓         |
| Vehicle access / road (internal / fire management)                                  |                  | ✓                   | ✓                   | ✓              | ✓         |
| Vehicle access (emergency vehicles)   | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Public art  |                  |                     | ✓                   | ✓              | ✓         |
| Car parking (on-site) - (10 formal spaces per ha plus additional on-street parking) |                  | ✓                   | ✓                   | ✓              |           |
| Vehicle barriers/ bollards  | ✓                | ✓                   | ✓                   | ✓              | ✓         |
| Bicycle racks   | ✓                | ✓                   | ✓                   | ✓              | ✓         |





**SC6.20.11 SC6.20.10 Community facilities infrastructure network outcomes**

Preliminary

(1) This section applies to the community facilities infrastructure network outcomes in Performance Outcomes [PO60-PO435](#) to [PO62-PO4547](#) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**.

General advice for community facilities infrastructure network outcomes

- (2) The following is general advice about satisfying the community facilities infrastructure network outcomes:-
- (a) the community facilities infrastructure network outcomes seek to ensure that the Master Planned Area is provided with an appropriate range of community facilities;
  - (b) community facilities and services, and access to those, play an important role in supporting the development of social capital and are particularly important in new and emerging communities that need to establish local connections and a sense of place;
  - (c) **Other Plans Map OPM P45-P13 (Palmview Master Planned Area community facilities infrastructure network)** of the **Palmview Structure Plan** identifies conceptually the higher order elements of the community facilities infrastructure network planned for the Master Planned Area;
  - (d) the community facilities infrastructure outcomes are primarily intended to be satisfied by:-
    - (i) development providing community facilities -infrastructure in accordance with the applicable infrastructure agreement [and Table SC 6.20L \(Attributes of community facilities infrastructure\)](#); and
    - (ii) ensuring that the detailed design and construction of community facilities has regard to functional characteristics, user needs, whole of lifecycle costs and incorporates high quality urban and landscape design; and
  - (e) developers are encouraged to complement requirements for community facilities infrastructure with a broader strategy for developing social capital and work in partnership with the Council to deliver a tailored community development program.

**Table SC6.20L Attributes of community facilities infrastructure**

| Community Facilities – District  |   |
|--|---|
| <b>Description</b><br>General community use facility providing meeting spaces for social, educational and recreational activities, health/ support services and information  |   |
| <b>Size</b>  | <b>Safety and security</b>  |
| <ul style="list-style-type: none"> <li>• 1 ha land</li> <li>• 1,500m<sup>2</sup> GFA</li> </ul>  | <ul style="list-style-type: none"> <li>• Crime Prevention through Environmental Design (CPTED) principles address access, site and building design</li> <li>• Setting, site and building design maximises casual surveillance.</li> <li>• Emergency vehicle access.</li> </ul>  |
| <b>Access and location</b>   | <b>User benefits</b>  |
| <ul style="list-style-type: none"> <li>• At least one side or approximately 25% of perimeter to have road frontage.</li> <li>• Access, site and buildings meet disability access requirements.</li> <li>• Co-located with retail/commercial spaces, other community facilities, open space and/or schools to help activate the locality and create a vibrant civic gathering space.</li> </ul> | <ul style="list-style-type: none"> <li>• Multi-function, flexible spaces that responds to the diverse and changing needs of the community and encourages participation, creativity, healthy lifestyles and community wellbeing.</li> <li>• Encourages community networks and activity, pride and ownership</li> </ul> |
| <b>Linkages</b>  | <b>Flood immunity</b>   |
| Linked to public transport and pedestrian/ bicycle networks.   | <ul style="list-style-type: none"> <li>• Buildings are to be above Q100.</li> </ul>   |
| <b>Landscape and character</b>   |   |
| <ul style="list-style-type: none"> <li>• Location and design responds to the surrounding</li> </ul>  |   |

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| <p><a href="#">natural and built environment and respect and celebrate local identity, character and heritage.</a></p> <ul style="list-style-type: none"> <li>Where a facility has been located to provide views, key viewpoints need to be protected.</li> </ul>   |   |
| <p><b>Community Facilities – Local/meeting space</b></p>  |   |
| <p><b>Description</b><br/>General community use facility providing meeting spaces for social, educational and recreational activities, health/ support services and information</p>   |   |
| <p><b>Size</b></p> <ul style="list-style-type: none"> <li>3,000m<sup>2</sup> land</li> <li>300-800m<sup>2</sup> GFA</li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>At least one side or approximately 25% of perimeter to have road frontage.</li> <li>Access, site and buildings meet disability access requirements.</li> <li>Co-located with retail/commercial spaces, other community facilities, open space and/or schools to help activate the locality and create a vibrant civic gathering space.</li> </ul> <p><b>Linkages</b><br/>Linked to public transport and pedestrian/ bicycle networks.</p>   | <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>Crime Prevention through Environmental Design (CPTED) principles address access, site and building design</li> <li>Setting, site and building design maximises casual surveillance.</li> <li>Emergency vehicle access.</li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>Multi-function, flexible spaces that responds to the diverse and changing needs of the community and encourages participation, creativity, healthy lifestyles and community wellbeing.</li> <li>Encourages community networks and activity, pride and ownership</li> </ul> <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>Buildings are to be above Q100.</li> </ul> |
| <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>Location and design responds to the surrounding natural and built environment and respect and celebrate local identity, character and heritage.</li> <li>Where a facility has been located to provide views, key viewpoints need to be protected.</li> </ul>   |   |
| <p><b>Aquatic Facility – District (minor)</b></p>   |   |
| <p><b>Description</b><br/>An aquatic centre consisting of lap swimming, water play and other ancillary infrastructure to cater for the district.</p>  |   |
| <p><b>Size and topography</b><br/>Minimum 10,000 m<sup>2</sup> usable unconstrained area which includes:</p> <ul style="list-style-type: none"> <li>requirements for car parking</li> <li>emergency vehicle access</li> <li>pedestrian pathways within the complex</li> <li>equitable access designs</li> <li>Landscape buffers</li> <li>space for sustainable initiatives i.e. solar, backwash water recycling.</li> <li>Waterspace approx. 500m<sup>2</sup></li> </ul> <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>Co-location with compatible uses such as other community infrastructure such as libraries, youth spaces, neighbourhood centres, active recreation facilities, skate parks, business centres, schools and shopping centres.</li> </ul> <p><b>Linkages</b></p> <ul style="list-style-type: none"> <li>Linked to public transport and pedestrian/ bicycle networks.</li> </ul> | <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>Crime Prevention through Environmental Design (CPTED) principles address access, site and building design</li> <li>Emergency vehicle access.</li> </ul> <p><b>User benefits</b></p> <ul style="list-style-type: none"> <li>Facility caters for a wide range of compatible experiences and uses and contributes to a physically active and healthy community</li> </ul> <p><b>Flood immunity</b><br/>Site is above Q100</p>   |
| <p><b>Amenity impact</b></p> <ul style="list-style-type: none"> <li>Aquatic facilities can create a level of noise that could be considered excessive in relation to adjoining sensitive land uses. Consideration needs</li> </ul>  |   |

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| to be given to the land uses sharing a boundary with a potential site and if the facility is likely to cause impacts that will not be able to be mitigated.   |   |
| <p><b>Landscape and character</b></p> <ul style="list-style-type: none"> <li>Location and design responds to the surrounding natural and built environment and respects local identity, character and heritage.</li> </ul>  |   |
| <b>Skate/youth facility – District</b>  |   |
| <p><b>Description</b></p> <p>Facilities for skate, bicycle and youth activity to cater for a range of skill and levels to encourage physical activities and social engagement. May include a variety of elements - plaza, bowl, half pipe and street.</p>   |   |
| <p><b>Size</b></p> <ul style="list-style-type: none"> <li>500-1,000m<sup>2</sup> active space</li> <li>Located within the Town park</li> </ul>  | <p><b>Safety and security</b></p> <ul style="list-style-type: none"> <li>The use of CPPTep principles</li> <li>Emergency access to the site</li> <li>Well designed facility</li> <li>Safe access to public toilets, seating and shade</li> </ul>  |
| <p><b>Access and location</b></p> <ul style="list-style-type: none"> <li>On or close to a distributor or arterial road within walking distance to regular public transport</li> <li>Linked to a pedestrian and cycle network</li> <li>Co-located with compatible community purposes/facilities</li> <li>At least 2 sides – 50% road frontage</li> <li>High level of visual surveillance (24 hours)</li> </ul> | <p><b>Flood immunity</b></p> <ul style="list-style-type: none"> <li>Site to be above Q20 and well drained</li> </ul>  |
| <p><b>User benefit</b></p> <ul style="list-style-type: none"> <li>Variety of challenge and skill levels provided for</li> <li>An activity vibrant, physically and healthy</li> </ul>  | <p><b>Amenity impact</b></p> <ul style="list-style-type: none"> <li>Excessive noise levels require compatible adjoining land uses</li> <li>At least 80m from residential land</li> <li>Character and identity of park to be considered</li> </ul> |

(e)

## SC6.20.12 SC6.20.11 Energy infrastructure network outcomes

### Preliminary

- (1) This section applies to the energy infrastructure network outcomes in Performance Outcomes [PO53 PO468](#) to [PO55-PO479](#) in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**; and

### General advice for energy infrastructure network outcomes

- (2) The following is general advice about satisfying the energy infrastructure network outcomes:-
- the energy infrastructure outcomes of the **Palmview structure plan area code** seek to ensure that the Master Planned Area is provided with reliable sources of energy and that opportunities for sustainable energy generation are incorporated into new development so as to reduce reliance on the predominantly coal fired power grid;
  - it is anticipated that an emphasis on energy conservation and the use of alternative sources of energy will result in the Master Planned Area achieving a significant reduction in carbon emissions compared with the efficiency of urban development in 2009;
  - Other Plans Map OPM [P46-P14](#) (Palmview Master Planned Area electricity infrastructure network)** in **Schedule 2 (Mapping)** identifies conceptually the higher order elements of the electricity infrastructure network for the Master Planned Area;
- (d) the energy infrastructure network outcomes are primarily intended to be satisfied by:-
- development providing electricity infrastructure in accordance with an applicable infrastructure agreement and the requirements of the relevant Electricity Supply Authority; and
  - implementing an Energy Management Plan which:-

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- (A) outlines how the energy generation outcomes, and in particular the requirement for sustainable energy generation and use, are to be achieved for the Master Planned Area;
  - (B) is to be assessed against the requirements specified in a preliminary approval to which section 242 of the Act applies or another applicable development approval which may include the matters in **Table SC6.20H (Compliance assessment requirements)**; and
  - (C) has been approved by a compliance certificate given by the Council;
- (e) additional advice regarding the implementation of design measures to minimise energy use in new development is specified in **Section SC6.20.4 (Sub-tropical and sustainable design outcomes)**; and
- (f) additional advice regarding the provision of gas services to the Master Planned Area is specified in **Section SC6.20.14 (Other services outcomes)**.

### **SC6.20.13 Telecommunications infrastructure network outcomes**

#### Preliminary

- (1) This section applies to the telecommunication infrastructure network outcomes in Performance Outcomes PO56 and PO57 in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**.

#### General advice for telecommunication infrastructure network outcomes

- (2) The following is general advice about satisfying the telecommunications infrastructure network outcomes:-
- (a) the telecommunication infrastructure outcomes of the **Palmview structure plan area code** seek to ensure that the Master Planned Area is provided with a world class telecommunications network that allows businesses to compete on a global scale and residents to be connected to global networks;
  - (b) world class telecommunications capability is achieved through the provision of affordable, high bandwidth telecommunication services;
  - (c) high bandwidth is best deployed using optic fibre infrastructure;
  - (d) **Other Plans Map OPM P17 (Palmview Master Planned Area telecommunications infrastructure network)** in **Schedule 2 (Mapping)** identifies conceptually the higher order elements of the telecommunications infrastructure network planned for the Master Planned Area;
  - (e) the telecommunication infrastructure network outcomes are primarily intended to be satisfied by the following:-
    - (i) development providing telecommunications infrastructure in accordance with an applicable infrastructure agreement; and
    - (ii) development ensuring that the telecommunications infrastructure to be provided is in accordance with the telecommunications infrastructure network and the standards for the telecommunications infrastructure network as specified in the **Palmview structure plan area code**.
  - (f) development provides for 'Fibre to the Premises (FttP)' to be provided throughout the Master Planned Area which facilitates the provision of the following telecommunications capabilities to each lot:-
    - (i) optical fibre termination;
    - (ii) free to air television;
    - (iii) pay television;
    - (iv) voice, data and video access via the internet; and
    - (v) internet protocol systems integration;

- (g) ~~developers are encouraged to investigate opportunities for wholesale providers of cable services and sewerage network operators to co-locate services within the gravity sewer network; and~~
- (h) ~~additional information and documentation of relevant telecommunications infrastructure specifications and building arrangements can be obtained from the Council and the relevant Telecommunications Service Authority.~~

#### **SC6.20.14 — Other services outcomes**

##### Preliminary

- (1) ~~This section applies to the other services infrastructure outcome in Performance Outcome PO58 and PO59 in **Section 10.3.4.21 (Performance outcomes and acceptable outcomes for the development of infrastructure and services)** of the **Palmview structure plan area code**.~~

##### General advice for other services outcomes

- (2) ~~The following is general advice about satisfying the other services outcomes:-~~
  - (a) ~~the other services outcome of the **Palmview structure plan area code** seeks to ensure that in addition to the infrastructure specified on the Structure Plan Maps, other services are provided to service development in the Master Planned Area;~~
  - (b) ~~in particular, the provision of gas for water heating is considered an important local service and a key component of a strategy for reducing the carbon emissions generated from new urban development;~~
  - (c) ~~gas is currently only available to the Sunshine Coast Region through bottles and tanker refilling, or by exchange gas bottles. This supply method is inefficient and costly to operate and administer on a site by site basis; and~~
  - (d) ~~as a major new urban growth area, it would be desirable for the Master Planned Area to be connected to a reticulated gas service. However, it is recognised that interim supply arrangements may need to be put in place to supply gas to the reticulated network until such time as gas pipeline to service the Sunshine Coast (the North Coast Pipeline) is constructed.~~

#### **SC6.20.15SC6.20.12 Information requirements**

- (1) **Table SC6.20H.20M (Compliance assessment requirements)** specifies the documents which a preliminary approval to which section 242 of the Act applies or another applicable development approval may require to be prepared and submitted for compliance assessment by the Council.
- (2) **Table SC6.20H.20M (Compliance assessment requirements)** also specifies the anticipated timing of compliance assessment.
- (3) The Council may also require other supporting information in addition to that specified in **Table SC6.20H.20M (Compliance assessment requirements)** depending on the nature of the preliminary approval to which section 242 of the Act applies or another applicable development application and the technical issues involved.
- (4) Supporting information and compliance assessment documents should be prepared by a competent person with a disciplinary background relevant to the area of interest.



Table SC6.20H20M Compliance assessment requirements

| Column 1<br>Description of the compliance assessment document     | Column 2<br>Anticipated timing of compliance assessment  | Column 2<br>Purpose of document   | Column 3<br>Matters against which the document is to be assessed   |
|---|--|---|--|
| Local Ecological and Landscape Protection and Rehabilitation Plan | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate that development in the applicable area will provide for the protection and rehabilitation of ecologically important areas and landscape protection areas in accordance with the provisions of the <b>Palmview Structure Plan</b> , this planning scheme policy and <b>Appendix SC6.20A (Palmview Master Planned Area ecological protection and rehabilitation plan)</b> . | Refer to <b>Section 10 (Requirements for Local Ecological and Landscape Protection and Rehabilitation Plans)</b> in <b>Appendix SC6.20A (Palmview Master Planned Area Ecological and Landscape Protection and Rehabilitation Plan)</b>   |
| Biodiversity Offset Plan  | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate how that the adverse impacts on ecologically important areas associated with providing infrastructure for the Master Planned Area are to be offset.  | <p><u>Project and site description</u></p> <ul style="list-style-type: none"> <li>• Provide a detailed description of the project including project proponent, proposed works schedule, including any temporary works, and timing.</li> <li>• Identify the potential environmental impacts of the project, including any temporary impacts, including impacts arising from vegetation clearing, changes in hydrology, destruction of habitat, impacts on fauna connectivity and movement.</li> <li>• Identify proposed mitigation measures to minimise the environmental impacts of the project.</li> <li>• Clearly identify the area the subject of the Biodiversity Offset Plan and calculate the total land area affected by the project.</li> <li>• Provide a description of the land affected by the project in terms of existing and potential environmental values, including but not limited to existing and potential values identified in the <b>Palmview Structure Plan</b> and/or the Palmview Master Planned Area Ecological and Landscape Protection Plan, in relation to vegetation communities, fauna, rehabilitation potential and habitat and faunal corridors.</li> </ul> |

| Column 1<br>Description of the compliance assessment document | Column 2<br>Anticipated timing of compliance assessment | Column 2<br>Purpose of document | Column 3<br>Matters against which the document is to be assessed   |
|---|---|---------------------------------|--|
|   |   |                                 | <p><u>Environmental offsets proposal</u></p> <ul style="list-style-type: none"> <li>• Provide a detailed description of the proposed environmental offset package including a description of the proposed offset area, rationale for choosing environmental offsets, proposed timing and staging.</li> <li>• Describe how the environmental offset package meets the principles and requirements for environmental offsets detailed in this policy, in particular the requirement to achieve a 'net environmental benefit'.</li> <li>• Justify the selection of the proposed environmental offset site in terms of achieving "like for like or better" with respect to environmental values, vegetation, habitat, species, ecosystem, landscape, hydrology and physical area compared to the impact area.</li> <li>• Outline the relationship between the proposed offset area and the Master Planned Area.</li> <li>• Outline any proposed rehabilitation works to be undertaken as part of the proposal.</li> <li>• Identify the specific roles and responsibilities of all entities involved in the implementation of the Biodiversity Offset Plan.</li> <li>• Outline proposed short and long term tenure arrangements and demonstrate how long term security of tenure will be achieved under the Environmental Offset Plan.</li> </ul> <p><u>Ongoing maintenance</u></p> <ul style="list-style-type: none"> <li>• Provide details of the ongoing management and maintenance measures to be adopted as part of the Biodiversity Offset Plan. Ongoing maintenance measures are to address such issues as signage, fencing, access arrangements, site clean-up and waste removal, fire management, pest control, fauna management, replanting failure, erosion repair and watering.</li> <li>• Identify any potential risks to the long term viability of the environmental offset site such as bushfire and drought and how these risks are proposed to be addressed.</li> </ul> <p><u>Monitoring and reporting</u></p> <ul style="list-style-type: none"> <li>• Specify the indicators for monitoring the success of the environmental offset consistent with the objectives of this policy.</li> <li>• Identify how monitoring is to be reported to Council and the remedial action to be taken where failures are identified.</li> </ul> <p><u>Additional requirements and conditions</u></p> <ul style="list-style-type: none"> <li>• A financial bond may be required by Council as assurance for proposed</li> </ul> |

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| Energy Management Plan  | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate that development in the applicable area will contribute to the achievement of a target of zero net carbon emissions by 2020 for the Master Planned Area. | <p>offset activities.</p> <p><u>Scope and objectives</u></p> <ul style="list-style-type: none"> <li>• Determine the scope of the Energy Management Plan and identify inclusions/exclusions in specific terms.</li> <li>• Identify clear and measurable objectives for how development in the applicable area is to achieve zero net carbon emissions by 2020 taking account of construction and post occupancy development phases.</li> <li>• Specify objectives for energy, waste, water, transport and materials components.</li> </ul> <p><u>Data collection and management</u></p> <ul style="list-style-type: none"> <li>• Identify methods for collecting and documenting carbon emission and abatement data over time, including scope of information, type and level of detail and metrics.</li> <li>• Identify methods for tracking carbon emission and abatement data giving consideration to accessibility, ease of use, maintenance and regular reporting that profiles carbon reduction performance.</li> <li>• Establish baseline and relevant carbon footprint benchmarks for comparable development based on industry average and best practice urban development examples.</li> </ul> <p><u>Strategy and action plan</u></p> <ul style="list-style-type: none"> <li>• Calculate, monitor and forecast the carbon footprint of development in the applicable area for construction and post occupancy and explain calculation methods based on known or proxy data. Highlight any significant gaps, assumptions and limitations.</li> <li>• Document the strategies and actions to be implemented to meet measurable objectives for the target of zero net carbon emissions by 2020.</li> <li>• For each carbon reduction or abatement strategy or action, define priorities, roles and responsibilities, timeframes, resources and funding requirements.</li> <li>• Document a communications plan to be implemented to raise awareness of carbon reduction strategies and actions.</li> <li>• Document other methods for building capacity through training, procedures, technologies, knowledge and information management systems and community education to assist in the success of carbon reduction and abatement strategies and actions.</li> </ul> <p><u>Monitoring and reporting</u></p> |

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|   |  |   | <ul style="list-style-type: none"> <li>Identify methods for analysing and monitoring carbon emissions data over time to determine trends and gain a better understanding of factors that affect performance. Identify steps to improve performance.</li> <li>Document an audit strategy to review performance data based on benchmarks and targets and report findings to key stakeholders.</li> </ul>  |
| Affordable Living Plan  | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate that development in the applicable area will provide affordable living options for a full range of household types and make appropriate provision for a component of affordable housing and supported community housing. | <p><u>General requirements</u></p> <ul style="list-style-type: none"> <li>Demonstrate how the development proposes to meet the affordable living outcomes of the structure plan in relation to the following:- <ul style="list-style-type: none"> <li>neighbourhood structure and design;</li> <li>provision of a variety of housing types and sizes which meet the needs of the emerging community;</li> <li>staging and release of land;</li> <li>provision of land for public and community housing; and</li> <li>sustainable design.</li> </ul> </li> <li>Outline and justify the proposed actions and measures to be implemented in order to meet the affordable living outcomes with specific reference to the following:- <ul style="list-style-type: none"> <li>the <i>Sunshine Coast Housing Needs Assessment</i>;</li> <li>the <i>Sunshine Coast Affordable Living Strategy</i>;</li> <li>ongoing implementation and enforcement.</li> </ul> </li> <li>For each affordable living action, define priorities, role and responsibilities, timeframes, resources and funding requirements.</li> <li>The Affordable Living Plan is to comply with the requirements for the preparation of an Affordable Living Plan in <b>Appendix SC6.20C (Affordable living plan)</b>.</li> </ul> <p><u>Monitoring and reporting</u></p> <ul style="list-style-type: none"> <li>Outline proposed monitoring and reporting arrangements for the implementation of the Affordable Living Plan over time.</li> </ul> |
| Sustainable Transport Plan                                    | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate that development in the applicable area will:- <ul style="list-style-type: none"> <li>Support transit oriented development;</li> <li>Reduce reliance on the private car;</li> <li>Promote walking</li> </ul>             | <p><u>General requirements</u></p> <ul style="list-style-type: none"> <li>Provide details of the proposed measures and actions to be implemented in order to promote sustainable transport within the development. Measures should include, but are not limited to, the following:- <ul style="list-style-type: none"> <li>provision of public transport, cycle and pedestrian infrastructure and services prior to or in the early stages of development;</li> <li>neighbourhood design to promote/encourage sustainable transport modes including land use planning and configuration of transport networks to promote and achieve shorter travel times for active</li> </ul> </li> </ul>   |

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|   |   | <ul style="list-style-type: none"> <li>and cycling;</li> <li>• Achieve a significant mode shift towards sustainable transport modes (public transport, walking and cycling);</li> <li>• Not create undesirable impacts on adjoining development; and</li> <li>• Appropriately manage carparking.</li> </ul> | <ul style="list-style-type: none"> <li>transport modes;</li> <li>○ travel demand management;</li> <li>○ provision of frequent public transport services;</li> <li>○ designing pedestrian and cycle paths and public transport stops/stations to maximise accessibility, safety, comfort and amenity for users;</li> <li>○ incorporation of high quality end of trip facilities for walking/cycling and public transport users;</li> <li>○ education and marketing to promote sustainable transport options within the community.</li> <li>• In preparing the Sustainable Transport Plan, consultation should be undertaken with Council, relevant State Government Departments, service providers and other stakeholders as appropriate.</li> <li>• In determining proposed measures and actions, consideration should be given to the following:- <ul style="list-style-type: none"> <li>○ existing and proposed walking and cycling, public transport and road networks, including the TransLink Network Plan for the sub-region;</li> <li>○ proposed land uses/development to be undertaken within the applicable area and existing and planned land uses/development in the remainder of the master planned area and surrounding areas;</li> <li>○ specific requirements for school/education based travel, work based travel, and recreational use;</li> <li>○ specific requirements for different categories of users (e.g. the elderly);</li> <li>○ land use and sustainable transport integration;</li> <li>○ route planning to ensure integration of pedestrian and cycle networks and public transport networks;</li> <li>○ car parking requirements and locations, including incorporation of shared/consolidated parking facilities where appropriate;</li> <li>○ timing/staging of development and infrastructure/services.</li> </ul> </li> <li>• Provide supporting information and documentation which supports the proposed approach.</li> <li>• Provide an Integrated Movement Network Plan that indicates how the proposed bicycle and pedestrian network achieves the planning requirements and how it is intended to integrate with the proposed road hierarchy and public transport network plans.</li> <li>• Provide a Public Transport Network Plan that indicates how the planning</li> </ul> |

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|   |  |  | <p>requirements for public transport are proposed to be achieved. The Public transport network plan needs to be undertaken in consultation with Translink Network Provider and Council.</p> <ul style="list-style-type: none"> <li>● Provide a Road Hierarchy Plan that indicates the proposed road hierarchy for the applicable area and how it integrates with the existing and planned road hierarchy for the Master Planned Area.</li> <li>● For the District Activity Centre and Local Enterprise Area, provide a Car Parking Strategy which demonstrates how the car parking needs of the development are to be met in line with the objectives of the Structure Plan to reduce private vehicle trips.</li> <li>● For each sustainable transport action, define priorities, role and responsibilities, timeframes, resources and funding requirements.</li> </ul> <p><u>Monitoring and reporting</u></p> <ul style="list-style-type: none"> <li>● Outline proposed monitoring and reporting arrangements for the implementation of the Affordable Living Plan over time.</li> </ul>  |
| Integrated Water Cycle Management Plan                        | Subsequent to the approval of a preliminary approval to which section 242 of the Act applies and prior to the lodgement of another applicable development application. | To demonstrate that development in the applicable area will incorporate an holistic approach to the management of water supply, wastewater and stormwater. | <p><u>General requirements</u></p> <ul style="list-style-type: none"> <li>● Provide details in relation to how the development is to aim to achieve an 80% reduction in use of reticulated water from the SEQ water grid including details of the suite of measures to be adopted. Measures may include a combination of recycled water rainwater and stormwater harvesting as well as water conservation and demand reduction measures.</li> <li>● Provide supporting information including detailed end use modelling and water balance analysis which supports the proposed approach and demonstrate over a 25yr time series, the reliability of any potable substitution that is sourced from rainwater and/or recycled effluent, including and documenting the effects of climate change and how these solutions increase the applicable Sunshine Coast water organisation's desired levels of service.</li> <li>● Outline and justify the proposed measures to be adopted having regard to:- <ul style="list-style-type: none"> <li>○ proven technology;</li> <li>○ documented public health policy at all levels of government;</li> <li>○ operational realities;</li> <li>○ projected trends regarding fixture uptake rates;</li> <li>○ consideration of the likely social acceptance of various measures and means of encouragement;</li> </ul> </li> </ul> |

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|   |   |                                 | <ul style="list-style-type: none"> <li>○ consideration of the provision of measures; and</li> <li>○ sensitivity or likelihood of success of measures or groups of measures.</li> <li>● Provide details of proposed uses for recycled water, potable water, rainwater, and harvested stormwater.</li> <li>● Demonstrate how the Environmental Values and Water Quality Objectives listed for the Mooloolah River Catchment under the Environmental Protection (Water) Policy 1997 are to be protected or enhanced.</li> <li><u>Water supply and sewerage infrastructure</u> <ul style="list-style-type: none"> <li>● Provide dimensions and conceptual layouts for water supply and sewerage networks for the applicable area in accordance with <b>Other Plans Map OPM P11 (Palmview Master Planned Area Water Supply Infrastructure Network)</b> and <b>Other Plans Map OPM P12 (Palmview Master Planned Area Sewer Infrastructure Network)</b>.</li> <li>● Provide supporting reports and tools (models, spread sheets etc.) demonstrating the attainment of the Desired Standards of Service requirements at all stages.</li> </ul> </li> <li><u>Stormwater management and flooding</u> <ul style="list-style-type: none"> <li>● Describe the existing topography, vegetation, soil conditions, and groundwater conditions for the site and identify existing creeks, streams and drainage lines.</li> <li>● Identify the Probable Maximum Flood extent, 100-year ARI climate change flood extent and the 20-year ARI climate change flood extent for the site, in accordance with flood modelling parameters used in the most recent Mooloolah Flood Modelling held by Council.</li> <li>● Provide an overall Master Stormwater Plan for the applicable area which: <ul style="list-style-type: none"> <li>○ identifies the overall drainage catchment having regard to the remainder of the Master Planned Area and surrounding areas;</li> <li>○ identifies existing and proposed drainage sub-catchments within the overall catchment;</li> <li>○ provides a conceptual layout for the overall stormwater network for the development including indicative layouts for conveyance, treatment and storage infrastructure;</li> <li>○ identifies indicative numbers and locations of head-of-line and end-of-line treatment devices; and</li> <li>○ identifies a lawful point/s of discharge for each sub-catchment.</li> </ul> </li> <li>● Outline and justify the proposed stormwater treatment and conveyance</li> </ul> </li> </ul> |

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|   |   |                                 | <p>and storage methods proposed to be utilised within the development with specific reference to the following:-</p> <ul style="list-style-type: none"> <li>○ the achievement of the outcomes identified in the Structure Plan and this policy in relation to stormwater management;</li> <li>○ the intended outcomes for particular land use precincts including urban design outcomes;</li> <li>○ the intended outcomes for other infrastructure networks and the need to co-locate infrastructure and services networks; and</li> <li>○ ongoing maintenance requirements including whole of life costs.</li> <li>● Identify and detail any significant earthworks proposed to be undertaken in relation to stormwater management.</li> <li>● Provide details of any proposed stormwater harvesting including catchment, proposed uses for the water, storage volumes, construction of storage devices, integration of storage devices into the development, water quality and treatment, pumping and distribution requirements.</li> <li>● Outline the proposed water quality monitoring and reporting program to be implemented to ensure the Environmental Values and Water Quality Objectives listed for the Mooloolah River Catchment under the <i>Environmental Protection (Water) Policy 1997</i> are protected or enhanced.</li> </ul> <p><u>Other requirements</u></p> <ul style="list-style-type: none"> <li>● Identify any specific requirements for development applications in relation to water supply, sewerage and stormwater infrastructure and/or management.</li> </ul> |



## Appendix SC6.20A Palmview master planned area ecological and landscape protection and rehabilitation plan

### 1. Short Title

This document may be cited as the Palmview Master Planned Area Ecological and Landscape Protection and Rehabilitation Plan (Plan).

### 2. Purpose

The purpose of the Plan is to provide for the following:-

- (a) the guidelines about satisfying the ecological and landscape protection outcomes (Section 5-9); and
- (b) the requirements for Local Ecological and Landscape Protections and Rehabilitation Plans to be required in a preliminary approval to which section 242 of the Act applies or other applicable development approval (Section 10).

### 3. Application

- (1) The Plan applies to the non-urban open space infrastructure network specifically identified on **Other Plans Map OPMP14-OPMP12 (Palmview Master Planned Area Non-urban Open Space Infrastructure Network)** which includes environmental protection areas, environmental enhancement areas Types A and B, environmental transition areas and the scenic amenity and highway acoustic buffer.
- (2) The non-urban open space infrastructure network comprises the landscape units identified on **Other Plans Map OPMP14-OPMP12 (Palmview Master Planned Area Non-urban Open Space Infrastructure Network)** which are based on the following:-
  - (a) ecological functions and values;
  - (b) existing condition;
  - (c) short and long term land use; and
  - (d) the rehabilitation outcomes for the areas in the non-urban open space infrastructure network.
- (3) An application for a preliminary approval to which section 242 of the Act applies or another applicable development application should demonstrate compliance with the Plan.
- (4) The Council may also require in a preliminary approval to which section 242 of the Act applies or another applicable development approval the preparation of a Local Ecological and Landscape Protection and Rehabilitation Plan for a particular area or landscape unit which is consistent with the Plan.

### 4. Interpretation

In this Plan:-

**Resilience-based condition assessment** means a vegetation condition assessment tool:-

- (a) which measures the inherent ability of the components of a degraded ecosystem to recover and produces condition maps that inform the development of rehabilitation strategies;
- (b) which comprises the following components:-
  - (i) details of the assessment unit;
  - (ii) a suite of vegetation condition attributes that act as surrogates or indicators of biodiversity values;
  - (iii) benchmarks for each of the attributes for each regional ecosystem;
  - (iv) an assessment methodology; and
  - (v) a scoring system which provides a final condition score such as from 0 being no degradation and excellent resilience to 6 being extreme symptoms and nil resilience; and
- (c) such as that outlined in *BioCondition, A Terrestrial Vegetation Condition Assessment Tool for Biodiversity in Queensland, Field Assessment Manual, Version 1.6* (T.J. Eyre, Al. Kelly, V. J Neldner.

Prepared for the Queensland Government, Environmental Protection Agency, Queensland Parks and Wildlife Service, 2008).

**Vegetation** means native grasslands, sedgeland, heathlands, woodlands, forest and wetlands. It includes existing stands of vegetation and areas undergoing natural regeneration, a community of vegetation and a singular plant, shrub or tree.

## 5. Guidelines for the ecological and landscape protection outcomes

The ecological protection and rehabilitation outcomes of the **Palmview Structure Plan** are intended to achieve the following end result for the non-urban open space infrastructure network:-

- (a) the retention and enhancement of all of the existing biodiversity;
- (b) the improvement of the healthy functioning and resilience of ecosystems;
- (c) the maintenance and enhancement of ecosystem services;
- (d) the recreation of wildlife habitat and corridor linkages;
- (e) the improvement of recovery of threatened communities and species;
- (f) the improvement of condition of riparian vegetation and aquatic habitat;
- (g) the improvement of soil conditioning and land and stream bank stability;
- (h) the management of threatening processes including impacts from development, climate change, invasive species and edge effects; and
- (i) the provision of a diverse range of environmental areas and environmental recreation opportunities and outdoor experiences for the community.

## 6. Guidelines for areas and landscape units of the non-urban open space infrastructure network

- (1) Development should provide for the use of the area in the non-urban open space infrastructure network in accordance with **Table 10.3.4.3A (Outcomes for Non-urban Open Space Infrastructure Area)** in the **Palmview Structure Plan**.
- (2) Development should achieve the ecological protection and rehabilitation outcomes and associated management requirements for the landscape units are identified in **Table 10.3.4.3B (Palmview ecological and landscape protection and rehabilitation landscape units)** in the **Palmview structure plan**.

## 7. Guidelines for environmental protection areas and –environmental enhancement areas

- (1) A disturbed or degraded area should be revegetated or regenerated using appropriate indigenous plant species specific to the vegetation community to return it to a representative and largely self sustainable condition.
- (2) Regeneration is the staged removal of weeds and the management of impacts in a natural area to facilitate natural recruitment of indigenous species with minimal planting at the speed of natural processes. Where regeneration will return the area to a representative and largely self sustainable condition within the agreed maintenance period it is the preferred option.
- (3) Only site specific to the specific vegetation community indigenous plant species should be used in a natural area. No hybrid or select plant should be used. Where possible local provenance stock should be used.
- (4) The successful rehabilitation of an environmental protection area occurs where:-
  - (a) all areas are clear of non-indigenous species and demonstrate multi-aged recruitment of indigenous species (to vegetation community species); and
  - (b) any random 1 metre square monitoring area demonstrates indigenous vegetation or multi-aged recruitment occupying at least 95% of the entire area, with bare areas less than 5%.

- (5) The successful rehabilitation of an environmental enhancement area occurs where at the end of 5 years, any random 1 metre square monitoring area demonstrates the following:-
- (a) 40 % ground coverage;
  - (b) 85 % projected foliage coverage in canopy;
  - (c) < 5% failure rate; and
  - (d) no environmental or declared weeds.

## 8. General guidelines

### Fauna and flora translocation

- (1) Any work involving the translocation of flora and fauna should be approved by the Council prior to the commencement of the works.
- (2) All Federal and State government permits and approvals for the translocation of flora and fauna should be obtained and given to the Council prior to the commencement of the works.
- (3) An accredited wildlife spotter should examine the site for presence of fauna and to supervise operations, where required.

### creating or improving movement pathways for native animals

- (4) Site development should complement the management of a non-urban open space area and address the safe movement of native animals through the development site and direct native animals away from those parts of uses and development that potentially cause harm to them. Threats may arise from a variety of sources including machinery, swimming pools, deep sided drains, domestic animals, security fencing, road traffic, lighting and noise.
- (5) Specific consideration should be given to fauna exclusion fencing, fauna "funnelling" fences or structures, underpasses, overpasses, culvert design, fish passage and other fauna sensitive design features, as appropriate.

### Controlling domestic pets and stock

- (6) Development should ensure that domestic pets, especially dogs and cats, and stock do not enter a non-urban open space area. Critical boundaries between wildlife habitat and movement corridors and residential, commercial or industrial areas should be identified and managed appropriately.

### Controlling pest plants and animals

- (7) Development should prevent the introduction or spread or distribution of pest animals on the site and integrate any management requirements for pest animals on the site with other natural resource management activities.
- (8) No equipment or materials (including mulch, soil, etc.) should be brought into a non-urban open space areas unless reasonably believed to be weed seed free.
- (9) All declared plants (*Land Protection (Pest and Stock Route Management) Act 2002 (QLD)*, and Environmental Weeds as identified in **Section SC6.14.7.5 (Management of weeds)** of the **Planning scheme policy for development works** should be removed in a manner that prevents the regrowth of the declared and weed species, prevents damage to non-target species and retains indigenous vegetation and community and conservation values.
- (10) No declared plants (*Land Protection (Pest and Stock Route Management) Act 2002 (QLD)* or Environmental Weeds as identified in **Section SC6.14.7.5 (Management of weeds)** of the **Planning scheme policy for development works** should be planted.
- (11) No native vegetation should be removed or disturbed from a non-urban open space area without the prior approval of the Council;

#### Site clean up and waste management

- (12) Hazards and wastes should be removed from the site, with particular attention paid to the future public access and open space areas. This includes any wastes as defined in the *Environmental Protection Act 1994*, machinery, fencing, and equipment left over from past land uses and items of rubbish and litter.

#### Machinery and access

- (13) No machinery, equipment, materials or personnel should enter a non-urban open space area unless directly and currently undertaking works that are required to meet the conditions of a development approval.
- (14) Trees should be protected from any damage from development.
- (15) No overburden or spoil should be pushed or deposited into a non-urban open space area.
- (16) Vehicle barriers and access gates should be installed on the boundaries of a non-urban open space area, where appropriate to prevent unauthorised vehicle access. The purpose of the fencing is to protect a non-urban open space area against possible unauthorised vehicle damage and prevent unauthorised vehicular access to walking or management tracks via public entrances.

#### Tree hazard assessment

- (17) A qualified arborist should conduct a tree hazard assessment of all trees within a 10 metre distance or within striking distance of a potential or existing residential lot, infrastructure including a retained or constructed footpath or road and the edge of open space and any trees where any disturbance of the earth, drainage or storage of materials has occurred during development.
- (18) The qualified arborist should provide a written report of assessments and resultant hazard mitigation work to make safe for a period of 5 years to the satisfaction of the Council.

#### Fire management plan

- (19) Development should comply with a Fire Management Plan required in a preliminary approval to which section 242 of the Act applies or another applicable development approval which:-
- (a) satisfies the following requirements:-
- (i) address the whole of the proposed development site;
  - (ii) give consideration to the site's context within the broader area, particularly in relation to potential off-site sources of increased fire hazard;
  - (iii) identify the location and severity of potential bushfire hazard by means site-based assessment based on:-
    - (A) detailed data collected at the local level;
    - (B) factors such as vegetation type, slope, aspect, and fire history (if available);
    - (C) address on-and-off site hazard implications of the development, including those posed by any nearby bushland; and
    - (D) future land uses and ecosystem rehabilitation objectives;
  - (iv) recommend remedial measures such as specific features of the development design such as land use type, vehicular access, lot layout and house site location, proposed fire-fighting infrastructure such as water supply and fire maintenance trails, recommended standard of building construction, clearing and landscaping and advice to new residents;
  - (v) clearly state any impact of the chosen mitigation measures on the environmental values of the site and the measures taken to avoid or minimise this impact; and
  - (vi) consider the anticipated future bushfire hazard for the site that might arise as part of revegetation objectives, by allowing for the provision for future assessment in accordance with paragraph (iii); and
- (b) has been approved by a compliance certificate given by the Council.

## **9. Guidelines for management**

- (1) Development should ensure that an environmental protection area and environmental enhancement area is provided in a tenure that complies with a plan required in a preliminary approval to which section 242 of the Act applies or another applicable development approval and approved by the Council identifying the following:-

- (a) the long-term security of tenure such as conservation estate, conservation covenant, nature refuge; and
  - (b) administrative and financial arrangements.
- (2) Development should ensure that any third party contract arrangements relevant to the schedule of works in a Local Ecological and Landscape Protection and Rehabilitation Plan required in a preliminary approval to which section 242 of the Act applies or another applicable development approval are approved by the Council.
  - (3) Development should ensure that a non-urban open space infrastructure area is maintained in a manner that at least maintains and preferably enhances the condition of the ecological areas for a period of 12 months after the Council has determined that the non-urban open space area has been developed in accordance with the approved Local Ecological and Landscape Protection and Rehabilitation Plan (Conditions Met Inspection).
  - (4) Development should ensure that an Ecological Protection and Rehabilitation bond is to be provided to the Council to ensure completion of the approved Local Ecological and Landscape Protection and Rehabilitation Plan and the repair of a non-urban open space area if an activities resulting from construction and development were to impact on the identified non-urban open space areas.

## 10. Requirements for local ecological and landscape protection and rehabilitation plan

- (1) A Local Ecological and Landscape Protection and Rehabilitation Plan should be prepared for a landscape unit identified on **Other Plans Map OPMP14-OPMP12 (Palmview Master Planned Area Non-Urban Open Space Infrastructure Network)**.
- (2) A Local Ecological and Landscape Protection and Rehabilitation Plan should be prepared prior to the commencement of any ecological or landscape protection or rehabilitation work and in accordance with the timing in a preliminary approval to which section 242 of the Act applies or another applicable development application.
- (3) A Local Ecological and Landscape Protection and Rehabilitation Plan should be prepared by a competent person.
- (4) A Local Ecological and Landscape Protection and Rehabilitation Plan should be consistent with:-
  - (a) the ecological protection and rehabilitation outcomes and management requirements for the landscape units identified in **Table 10.3.4.3B (Palmview ecological and landscape protection and rehabilitation landscape units)** of the **Palmview Structure Plan**; and
  - (b) any approved Local Ecological and Landscape Protection and Rehabilitation Plan for a surrounding area.
- (5) A Local Ecological and Landscape Protection and Rehabilitation Plan should incorporate the following:-
  - (a) site description details, and in particular:-
    - (i) a definition of the site boundaries of the ecological area by reference to a plan showing the land subject to the Local Ecological and Landscape Protection and Rehabilitation Plan;
    - (ii) a description of the site, including geology, soils, acid sulphate soils, topography and drainage (including surface and groundwater), vegetation communities, significant wildlife habitat and corridor factors; and
    - (iii) a description of land use including the following:-
      - (A) past land use and management and any implications for proposed ecological protection and rehabilitation activities; and
      - (B) any current and future aspects of adjacent land that are likely to impact on the long term sustainability of the land and proposed ecological protection and rehabilitation activities.
  - (b) a resilience based condition assessment of the land the subject of the Local Ecological and Landscape Protection and Rehabilitation Plan, including an established and well documented photo-monitoring program;

- (c) the proposed rehabilitation technique to be utilised within each non-urban open space area and any resultant secondary management zones with reference to the specific ecological protection and rehabilitation outcomes in **Table 10.3.4.3B (Palmview ecological and landscape protection and rehabilitation landscape units)** of the **Palmview Structure Plan**, including the following:-
- (i) soil management – the measures proposed to ensure an adequate quantity of topsoil is obtained for rehabilitation which should entail procedures for stripping and stockpiling (if suitable material is on site), soil amendment and fertiliser requirements and management of noxious plant seed material (if soil is infected);
  - (ii) drainage, erosion and sediment control – the requirements for managing drainage, erosion (in particular active erosion) and sediment during rehabilitation consistent with the overall drainage, erosion and sediment control plan for the site from development to construction and post-occupancy;
  - (iii) waterways and wetlands – requirements for the enhancement of waterways and wetlands including improving bed and bank stability, aquatic habitat, riparian habitat, restoring natural water flows and watercourse processes and restoring natural flushing action to waterways having regard to the hydraulic effect of planting densities with reference to Manning's roughness coefficient;
  - (iv) site preparation techniques – the procedures for preparing the rehabilitation of each non-urban open space area and subsequent secondary management zone to demonstrate that suitable measures are to be undertaken to ensure that the seed bed and planting soil is in a condition which is able to support the rehabilitation and that soil moisture preparation, aeration, weed removal and mulching is adequate;
  - (v) slashing regime – the frequency and timing of slashing to achieve ecological and water quality outcomes;
  - (vi) species selection and planting – the procedures for sourcing and selecting species for revegetation, identification of suitable suppliers, quantity and timing of plant deliveries, types of plant stock to be used, planting procedures and drawings and protection measures from fauna and human activities and the like;
  - (vii) creation of fauna habitat and corridors – the procedures for enhancement of wildlife habitat and corridors including any requirements for the retainment of existing habitat features, creating or improving existing movement pathways for native animals, the use of fauna friendly fences or fauna "funneling" techniques and fauna translocation; and
  - (viii) threatened species - where threatened species are present, background information on the species describing the current conservation status, demonstrating how the rehabilitation techniques selected will protect, manage and enhance the species and its habitat on the land (including individuals on the land) and including management actions that are in keeping with species recovery plans or conservation plans;
- (d) a schedule of works including project duration, timing, stages and key milestones which is to be revised at each stage of development with reasons given for any delay in the schedule;
- (e) the organisational structure, roles and responsibilities and reporting requirements for the schedule of works, including any third party contract arrangements;
- (f) the materials and resources required, including equipment, supplies, plant material and other materials and estimate labour days required to carry out works for each stage as identified in the schedule of works;
- (g) the on-going maintenance measures to ensure non-urban open space areas are properly maintained over the establishment phase and in the long-term having regard to the long term ownership and in particular the measures relating to the following matters:-
- (i) signage;
  - (ii) fencing;
  - (iii) access management;
  - (iv) site clean-up, removal and management of rubbish, wastes and pollutants;
  - (v) fire management, including firebreaks and fire management access tracks;
  - (vi) pest animal and weed control;
  - (vii) fauna management;
  - (viii) the slashing regime, including slashing frequency and timing;
  - (ix) replanting failure;
  - (x) erosion repair;
  - (xi) watering; and
  - (xii) any other relevant maintenance requirement;
- (h) details of all approvals necessary to carry out the work outlined in the Local Ecological and Landscape Protection and Rehabilitation Plan;

- (i) indicators for monitoring the success of the ecological protection and rehabilitation in terms of the outcomes in **Table 10.3.4.3B (Palmview ecological and landscape protection and rehabilitation landscape units)** of the **Palmview Structure Plan** and in the resilience based condition assessment;
- (j) reporting arrangements including details of the process for identifying and rectifying failures;
- (k) the requirement for a progress report to be provided to the Council at the completion of each stage of works as identified in the schedule of works detailing the following:-
  - (i) the areas worked, rehabilitation methodologies undertaken, on-going maintenance requirements and estimated costs;
  - (ii) how outcomes have been met; and
  - (iii) as constructed plans of non-urban open space areas including accurate master plans, rehabilitation treatments, above and below ground land improvements, irrigation and any other infrastructure;
- (l) mapping where necessary to complement or support the Local Ecological and Landscape Protection and Rehabilitation Plan which:-
  - (i) is accurate;
  - (ii) is easy to read and understandable,
  - (iii) is appropriately scaled;
  - (iv) provides an appropriate level of detail for site-specific assessment and management; and
  - (v) shows the direction of north and includes a scale, legend and title.

**Appendix SC6.20B – Desired standards of service for water supply and sewerage infrastructure**

**1. Introduction**

(1) ~~This document contains the desired standards of service for potable water supply, recycled water supply and waste water infrastructure networks for the Master Planned Area. Standards are both performance and demand based.~~

(2) ~~Planning for the water supply and sewer infrastructure networks for the Master Planned Area have been based on the assumptions and standards detailed in this document.~~

**2. Application**

(1) ~~The standards contained within this document apply to the planning and design of water supply infrastructure and sewer infrastructure related to the development of the Master Planned Area.~~

(2) ~~The standards should be read in conjunction with the following:-~~

(a) ~~the Palmview Structure Plan;~~

(b) ~~the Planning scheme policy for development works; and~~

(c) ~~the terms of the infrastructure arrangement applicable to the Master Planned Area.~~

**3. Compliance**

(1) ~~Compliance to the performance based standards of service contained in Table SC6.20L (Potable water standards of service summary table), Table SC6.20M (Recycled water standards of service summary table) and Table SC6.20N (Waste water standards of service summary table) is to be demonstrated for existing, ultimate and intermediate planning horizons. Assessment under intermediate planning horizons is required to demonstrate staging of the bring forward requirements for ultimate infrastructure.~~

(2) ~~Evidence of attainment of all criteria is to be in provided in both graphical and tabular formats.~~

(3) ~~Performance criteria that are labelled as “Target” do not require strict compliance. However, if “Target” performance criteria are not achieved explanation regarding the decision for not pursuing the specified target is to be provided.~~

**4. Desired standards of service for water supply infrastructure**

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~~(1) The standards of service for water supply for the Palmview Master Planned Area are based on properties being serviced through the following:-~~

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~~(a) a potable water supply infrastructure network as specified on Other Plans Map OPM P11 (Palmview Master Planned Area Water Supply Infrastructure Network) in Schedule 2 (Mapping); and~~

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~~(b) a rainwater tank.~~

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~~(2) Achievement of the standards of service for potable water and recycled water supply is to be demonstrated under the minimum performance testing scenarios specified in Table SC6.20I (Minimum performance testing scenarios for water networks) below.~~

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~~Table SC6.20I Minimum performance testing scenarios for water networks~~

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| Scenario   | Details   |
|--|---|
| <del>1. 3 days at MDMM</del><br><del>d</del><br><del>e</del><br><del>m</del><br><del>a</del><br><del>n</del><br><del>d</del>   | <del>This scenario is necessary for demonstration of compliance to bulk supply, storage and pumping requirements. Reservoir levels are to commence at 90% full at midnight on the 1st day (i.e. at the start of the analysis). All reservoirs are to have a positive net inflow at the end of each day.</del> |
| <del>2. Scenario 1 to be</del><br><del>f</del><br><del>e</del><br><del>l</del><br><del>i</del><br><del>e</del><br><del>w</del><br><del>e</del><br><del>d</del><br><del>y</del><br><del>t</del><br><del>h</del><br><del>r</del><br><del>e</del><br><del>e</del><br><del>c</del><br><del>e</del><br><del>n</del><br><del>s</del><br><del>e</del><br><del>c</del> | <del>This scenario is necessary for demonstration of compliance to storage, MH pressure, velocity and pumping requirements. No reservoir should fail according to standards P13, P14 and P15 below during this analysis.</del>  |

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| Scenario  | Details   |
|---|---|
| u<br>t<br>i<br>v<br>e<br>d<br>a<br>y<br>s<br>e<br>f<br>M<br>D<br><br>d<br>e<br>m<br>a<br>n<br>d |   |
| 3. 7 days at AD<br><br>d<br>e<br>m<br>a<br>n<br>d   | This scenario is necessary for demonstration of compliance to maximum pressure criteria and is useful for testing of water quality parameters such as reservoir turnover. Longer runs (e.g. 30 days x AD demand) may be required to test water quality parameters such as water age and chlorine decay. |
| 4. Fire Flow  | This scenario is necessary for assessment of the water supply network's capacity to deliver fire flow demands. Refer to standards P19, P20 and P21 for details relating to the water supply network's required fire flow performance capacity.  |

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(3) The assumed end use breakdown for water use in the Master Planned Area is specified in Table SC6.20J (Assumed allocation of end uses).

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**Table SC6.20J Assumed allocation of end uses**

| Potable water  | Non-Potable water   | Rainwater         | Other  |
|--|---------------------|-------------------|--------|
| Taps/Sinks<br>Showers<br>Hot Water<br>Dishwashers<br>Baths | Toilets<br>External | Cold water tap to | Demand |

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| Potable water | Non Potable water | Rainwater | Other |
|---------------|-------------------|-----------|-------|
|               |                   |           |       |

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| Potable water | Non Potable water | Rainwater | Other |
|---------------|-------------------|-----------|-------|
|               |                   |           |       |

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(4) ~~The standards of service for potable water supply infrastructure are specified in Table SC6.20K (Potable water standards of service summary table).~~

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~~Table SC6.20K Potable water standards of service summary table~~

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| Standar | Referen | Criteria |
|---------|---------|----------|
|         |         |          |

| Demand Unit | P01   | 2.7 EP / 1 ET       |          |      |      |      |      |          |
|-------------|-------|---------------------|----------|------|------|------|------|----------|
| Average Day |       | Dwellings L/ET/day# |          |      |      |      |      |          |
|             |       | Land use group*     | Existing | 2011 | 2016 | 2021 | 2031 | Ultimate |
|             |       | Single Family       | 367      | 353  | 331  | 318  | 306  | 303      |
|             | P02-3 | Multiple Family     | 377      | 364  | 343  | 332  | 325  | 322      |
|             |       | Commercial (COM)    | 603      | 589  | 575  | 569  | 566  | 563      |
|             |       | Industrial (IND)    | 603      | 589  | 575  | 569  | 566  | 563      |

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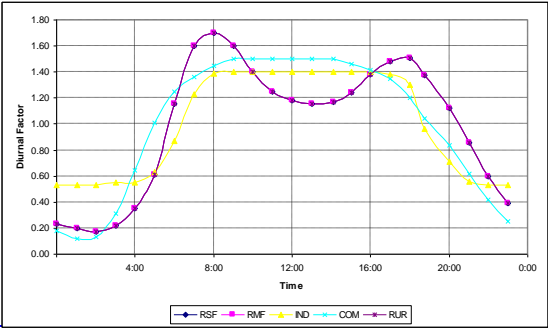
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| (L/ET/day)                        |        | <p># Demand figures represented in this table are specifications for the provision of infrastructure and do not represent targets for water use.</p> <p>*Land Use Group – As defined in issued population model or equivalent</p>  |                |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
|-----------------------------------|--------|--|----------------|------|----|----|---------------------------------|-----|-----|-----|-----------------------------------|-----|-----|-----|------------------|-----|-----|-----|------------------|-----|-----|-----|
| Potable water                     | P03-3  | <table border="1"> <thead> <tr> <th>Land-use-group</th> <th>MDMM</th> <th>MD</th> <th>MH</th> </tr> </thead> <tbody> <tr> <td>Single Family Residential (SFR)</td> <td>2.0</td> <td>2.5</td> <td>4.2</td> </tr> <tr> <td>Multiple Family Residential (MFR)</td> <td>1.9</td> <td>2.4</td> <td>4.1</td> </tr> <tr> <td>Commercial (COM)</td> <td>1.5</td> <td>1.8</td> <td>2.7</td> </tr> <tr> <td>Industrial (IND)</td> <td>1.5</td> <td>1.8</td> <td>2.5</td> </tr> </tbody> </table> | Land-use-group | MDMM | MD | MH | Single Family Residential (SFR) | 2.0 | 2.5 | 4.2 | Multiple Family Residential (MFR) | 1.9 | 2.4 | 4.1 | Commercial (COM) | 1.5 | 1.8 | 2.7 | Industrial (IND) | 1.5 | 1.8 | 2.5 |
| Land-use-group                    | MDMM   | MD   | MH             |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
| Single Family Residential (SFR)   | 2.0    | 2.5  | 4.2            |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
| Multiple Family Residential (MFR) | 1.9    | 2.4  | 4.1            |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
| Commercial (COM)                  | 1.5    | 1.8  | 2.7            |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
| Industrial (IND)                  | 1.5    | 1.8  | 2.5            |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |
| (-x-AD)<br>AD Diurnal             | P04-3a |  <p>^See Table SC6.20N for diurnal profiles in tabular format</p>  |                |      |    |    |                                 |     |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |     |

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Standar Referen Criteria

| Pressure |     | Criteria | Performance | Details   |
|----------|-----|----------|-------------|---|
|          | P06 |          |             |   |
|          | P07 |          |             |   |
|          | P08 |          |             |   |
|          |     | Minimum  | 20          | Minimum pressure of 20 m at the street level is to be maintained at all times. Compliance should be demonstrated under maximum hour demand conditions with zonal reservoirs at their minimum operating level.           |
|          |     | Minimum  | 16          | Any use of this relaxed minimum service pressure criteria for areas considered small, remote and elevated by external professionals in network analysis activities must first be agreed upon with Sunshine Coast Water. |

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Schedule 6

| Standard | Reference                | Criteria   |         |    |   |
|----------|--------------------------|--|---------|----|---|
|          |                          | <table border="1"> <tr> <td>Maximum</td> <td>80</td> <td>Compliance should be demonstrated during minimum demand periods with reservoirs at their maximum operating level.</td> </tr> </table> <p><del>^The 16 m rule was adopted in the previous Caloundra City Council standards of service (DDPSP) and was generally in place due to areas originally serviced prior to the adoption of priority infrastructure areas or regulated planning.</del></p> <p><del>*Due to SCW's current commitment to pressure and leakage management maximum pressures must be minimised where possible</del></p> | Maximum | 80 | Compliance should be demonstrated during minimum demand periods with reservoirs at their maximum operating level. |
| Maximum  | 80                       | Compliance should be demonstrated during minimum demand periods with reservoirs at their maximum operating level.  |         |    |   |
| Water    | P09<br>P10<br>P11<br>P12 |  |         |    |   |

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Schedule A

| Standard |                   | Reference  | Criteria   |
|----------|-------------------|--|--|
|          |                   | <b>Criteria</b>                                    | <b>Performance specification</b>   |
|          |                   | Bulk supply pipeline operating under gravity       | Capacity to transport MDMM demand over 24 hours  |
|          |                   | Bulk supply pipeline operating under pumped supply | Capacity to transport MDMM demand over 20 hours per day  |
|          |                   | Zonal and reticulation water supplies              | Sized for the maintenance of pressure meeting both maximum hour and fire flow performance criteria |
|          |                   | <b>Maximum Velocity in all mains</b>               | 2.5 m/s  |
| Potable  | P13<br>P14<br>P15 |  |  |

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Schedule 6



| Standard   |   | Reference | Criteria  |          |                           |   |                                  |  |          |                     |   |
|--|---|-----------|---|----------|---------------------------|---|----------------------------------|--|----------|---------------------|---|
|  |   |           | <table border="1"> <thead> <tr> <th>Criteria</th> <th>Performance specification</th> </tr> </thead> <tbody> <tr> <td>Potable-ground level reservoirs<br/>i<br/>n<br/>t<br/>r<br/>a<br/>d<br/>i<br/>t<br/>i<br/>o<br/>n<br/>a<br/>l<br/>n<br/>e<br/>t<br/>w<br/>o<br/>r<br/>k</td> <td>1 x MD + 30% contingency storage</td> </tr> <tr> <td>Potable-ground level reservoirs<br/>i<br/>n<br/>d<br/>u<br/>a<br/>l<br/>r<br/>e<br/>t<br/>i<br/>c<br/>u<br/>l<br/>a<br/>t<br/>i<br/>o<br/>n<br/>n<br/>e<br/>t<br/>w<br/>o<br/>r<br/>k</td> <td>1.8 x MD</td> </tr> <tr> <td>Elevated reservoirs</td> <td>           6 x (MH – 1/12 MDMM) + 150 kL fire storage (statistical analysis);<br/><br/>           Or<br/>           Maintenance of storage to a minimum of 30% full is demonstrated at existing elevated reservoirs through dynamic modelling where the operation of the supply         </td> </tr> </tbody> </table> | Criteria | Performance specification | Potable-ground level reservoirs<br>i<br>n<br>t<br>r<br>a<br>d<br>i<br>t<br>i<br>o<br>n<br>a<br>l<br>n<br>e<br>t<br>w<br>o<br>r<br>k | 1 x MD + 30% contingency storage | Potable-ground level reservoirs<br>i<br>n<br>d<br>u<br>a<br>l<br>r<br>e<br>t<br>i<br>c<br>u<br>l<br>a<br>t<br>i<br>o<br>n<br>n<br>e<br>t<br>w<br>o<br>r<br>k | 1.8 x MD | Elevated reservoirs | 6 x (MH – 1/12 MDMM) + 150 kL fire storage (statistical analysis);<br><br>Or<br>Maintenance of storage to a minimum of 30% full is demonstrated at existing elevated reservoirs through dynamic modelling where the operation of the supply |
| Criteria   | Performance specification   |           |   |          |                           |   |                                  |  |          |                     |   |
| Potable-ground level reservoirs<br>i<br>n<br>t<br>r<br>a<br>d<br>i<br>t<br>i<br>o<br>n<br>a<br>l<br>n<br>e<br>t<br>w<br>o<br>r<br>k                          | 1 x MD + 30% contingency storage  |           |   |          |                           |   |                                  |  |          |                     |   |
| Potable-ground level reservoirs<br>i<br>n<br>d<br>u<br>a<br>l<br>r<br>e<br>t<br>i<br>c<br>u<br>l<br>a<br>t<br>i<br>o<br>n<br>n<br>e<br>t<br>w<br>o<br>r<br>k | 1.8 x MD  |           |   |          |                           |   |                                  |  |          |                     |   |
| Elevated reservoirs  | 6 x (MH – 1/12 MDMM) + 150 kL fire storage (statistical analysis);<br><br>Or<br>Maintenance of storage to a minimum of 30% full is demonstrated at existing elevated reservoirs through dynamic modelling where the operation of the supply |           |   |          |                           |   |                                  |  |          |                     |   |

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| Standar | Referen                       | Criteria   |
|---------|-------------------------------|--|
|         |                               | <p>pumping station is acceptable and the pumping station contains adequate security against power failure. Performance is to be tested using dynamic modelling under performance testing scenarios 2 and 4 (see Table B2).</p> |
| Potable | <p>P16<br/>P17</p> <p>P18</p> | <p>^ See P19, P20 and P21 for fire flow standards</p>  |

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# Schedule 6

Standar Referen Criteria

|  |  | Criteria         | Duty-pump   | Standby-pump  | Other |
|--|--|------------------|-------------|---------------|-------|
|  |  | Pumping stations | MDMM demand | Equivalent to |       |
|  |  | Pumping stations | ((6 x MH –  | Equivalent to |       |

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Standar Referen Criteria

|  |  | Booster pumping | MH demand | Equivalent to | FF pump set |
|--|--|-----------------|-----------|---------------|-------------|

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# Schedule 6

| Standar Referen Criteria |   |   |  |  |  |
|--------------------------|---|---|--|--|--|
|                          |   |   |  |  |  |
| Fire Flow                | P19<br><br>P20a<br>P20b<br>P20c<br>P20d | Fire Flow Assessment Background Demand = 2/3 MH |  |  |  |

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# Schedule 6

| Standard  |              | Reference                                    |                 | Criteria                                |                 |
|-----------|--------------|--|-----------------|---|-----------------|
|           |              | <b>Property type</b>                         | <b>Total FF</b> | <b>Flow sourced from number</b>         | <b>Duration</b> |
|           |              | Detached residential                         | 15              | 2 hydrants (7.5 l/s each)               | 2               |
|           |              | Multiple Level residential <                 | 15              | 2 hydrants (7.5 l/s each)               | 2               |
|           |              | Multiple level residential =>                | 30              | 3 hydrants (10 L/s each)                | 4               |
|           |              | Commercial / Industrial                      | 30              | 3 hydrants (10 L/s each)                | 4               |
| Fire-Flow | P21a<br>P21b | <b>Location</b>                              |                 | <b>Minimum pressure requirement (m)</b> |                 |
|           |              | At hydrants in use                           |                 | 12 m                                    |                 |
|           |              | To all of network other than hydrants in use |                 | 6 m                                     |                 |

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| Water Main                                 | <p>Hydraulic equation for water supply modelling = Hazen-Williams</p> <p>Hazen-Williams roughness coefficients (C-Values)</p> <table border="1"> <thead> <tr> <th rowspan="2">Material</th> <th colspan="5">Diameter (mm)</th> </tr> <tr> <th>100</th> <th>150-</th> <th>250-</th> <th>375-</th> <th>&gt;600</th> </tr> </thead> <tbody> <tr> <td>Mild steel concrete lined<br/>( M S C L )</td> <td>110</td> <td>120</td> <td>125</td> <td>130</td> <td>135</td> </tr> <tr> <td>Ductile iron concrete lined<br/>( D I C L )</td> <td>100</td> <td>110</td> <td>120</td> <td>125</td> <td>130</td> </tr> <tr> <td>Ductile iron (DI)</td> <td>100</td> <td>110</td> <td>115</td> <td>120</td> <td>125</td> </tr> <tr> <td>Cast iron concrete lined (CICL)</td> <td>100</td> <td>110</td> <td>120</td> <td>125</td> <td>130</td> </tr> <tr> <td>Cast iron (CI)</td> <td>100</td> <td>110</td> <td>115</td> <td>120</td> <td>125</td> </tr> <tr> <td>UPVC</td> <td>110</td> <td>120</td> <td>125</td> <td>130</td> <td>135</td> </tr> <tr> <td>Asbestos cement (AC)</td> <td>100</td> <td>110</td> <td>115</td> <td>120</td> <td>125</td> </tr> <tr> <td>Other</td> <td>100</td> <td>110</td> <td>115</td> <td>120</td> <td>125</td> </tr> </tbody> </table> | Material | Diameter (mm) |      |      |  |  | 100 | 150- | 250- | 375- | >600 | Mild steel concrete lined<br>( M S C L ) | 110 | 120 | 125 | 130 | 135 | Ductile iron concrete lined<br>( D I C L ) | 100 | 110 | 120 | 125 | 130 | Ductile iron (DI) | 100 | 110 | 115 | 120 | 125 | Cast iron concrete lined (CICL) | 100 | 110 | 120 | 125 | 130 | Cast iron (CI) | 100 | 110 | 115 | 120 | 125 | UPVC | 110 | 120 | 125 | 130 | 135 | Asbestos cement (AC) | 100 | 110 | 115 | 120 | 125 | Other | 100 | 110 | 115 | 120 | 125 |
|--|---|----------|---------------|------|------|--|--|-----|------|------|------|------|--|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|-----|-------------------|-----|-----|-----|-----|-----|---------------------------------|-----|-----|-----|-----|-----|----------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|----------------------|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|
| Material                                   | Diameter (mm)   |          |               |      |      |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
|  | 100   | 150-     | 250-          | 375- | >600 |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Mild steel concrete lined<br>( M S C L )   | 110   | 120      | 125           | 130  | 135  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Ductile iron concrete lined<br>( D I C L ) | 100   | 110      | 120           | 125  | 130  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Ductile iron (DI)                          | 100   | 110      | 115           | 120  | 125  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Cast iron concrete lined (CICL)            | 100   | 110      | 120           | 125  | 130  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Cast iron (CI)                             | 100   | 110      | 115           | 120  | 125  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| UPVC                                       | 110   | 120      | 125           | 130  | 135  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Asbestos cement (AC)                       | 100   | 110      | 115           | 120  | 125  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |
| Other                                      | 100   | 110      | 115           | 120  | 125  |  |  |     |      |      |      |      |  |     |     |     |     |     |  |     |     |     |     |     |                   |     |     |     |     |     |                                 |     |     |     |     |     |                |     |     |     |     |     |      |     |     |     |     |     |                      |     |     |     |     |     |       |     |     |     |     |     |

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(5) The standards of service for recycled water supply infrastructure are specified in Table 6.20L (Recycled water standards of service summary table).

Table SC6.20L Recycled water standards of service summary table

Schedule 6

| Standard                          | Reference | Criteria   |                 |  |                |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|-----------------------------------|-----------|--|-----------------|--|----------------|------|------|----------|---------------------------------|---------------|-----|-----|-----------------------------------|-----|-----|-----|------------------|-----|-----|-----|------------------|-----|-----|------------------|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|-----|
| Demand Unit Recycled              | R01       | <b>2.7 EP / 1 ET</b>   |                 |  |                |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | <b>L/ET/day – Recycled Water</b>   |                 |  |                |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | <table border="1"> <thead> <tr> <th>Land-use group*</th> <th>Existing</th> <th>2011</th> <th>2016</th> <th>2021</th> <th>2031</th> <th>Ultimate</th> </tr> </thead> <tbody> <tr> <td>Single Family</td> <td>216</td> <td>211</td> <td>203</td> <td>199</td> <td>194</td> <td>192</td> </tr> <tr> <td>Multiple Family</td> <td>116</td> <td>113</td> <td>107</td> <td>104</td> <td>100</td> <td>99</td> </tr> <tr> <td>Commercial (COM)</td> <td>201</td> <td>196</td> <td>192</td> <td>190</td> <td>189</td> <td>188</td> </tr> <tr> <td>Industrial (IND)</td> <td>201</td> <td>196</td> <td>192</td> <td>190</td> <td>189</td> <td>188</td> </tr> </tbody> </table> | Land-use group* | Existing   | 2011           | 2016 | 2021 | 2031     | Ultimate                        | Single Family | 216 | 211 | 203                               | 199 | 194 | 192 | Multiple Family  | 116 | 113 | 107 | 104              | 100 | 99  | Commercial (COM) | 201 | 196 | 192 | 190 | 189 | 188 | Industrial (IND) | 201 | 196 | 192 | 190 | 189 | 188 |
|                                   |           | Land-use group*  | Existing        | 2011   | 2016           | 2021 | 2031 | Ultimate |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | Single Family  | 216             | 211  | 203            | 199  | 194  | 192      |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | Multiple Family  | 116             | 113  | 107            | 104  | 100  | 99       |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | Commercial (COM)   | 201             | 196  | 192            | 190  | 189  | 188      |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | Industrial (IND)   | 201             | 196  | 192            | 190  | 189  | 188      |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           | (L/ET/day)   | R02             | <b>*Land Use Group – As defined in issued population model or equivalent</b>   |                |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
|                                   |           |  |                 | <table border="1"> <thead> <tr> <th>Land-use group</th> <th>MDMM</th> <th>MD</th> <th>MH</th> </tr> </thead> <tbody> <tr> <td>Single Family Residential (SFR)</td> <td>1.5</td> <td>2.5</td> <td>7.1</td> </tr> <tr> <td>Multiple Family Residential (MFR)</td> <td>1.5</td> <td>2.6</td> <td>5.9</td> </tr> <tr> <td>Commercial (COM)</td> <td>1.5</td> <td>2.2</td> <td>3.3</td> </tr> <tr> <td>Industrial (IND)</td> <td>1.5</td> <td>2.2</td> <td>3.1</td> </tr> </tbody> </table> | Land-use group | MDMM | MD   | MH       | Single Family Residential (SFR) | 1.5           | 2.5 | 7.1 | Multiple Family Residential (MFR) | 1.5 | 2.6 | 5.9 | Commercial (COM) | 1.5 | 2.2 | 3.3 | Industrial (IND) | 1.5 | 2.2 | 3.1              |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Land-use group                    | MDMM      |  |                 | MD   | MH             |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Single Family Residential (SFR)   | 1.5       |  |                 | 2.5  | 7.1            |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Multiple Family Residential (MFR) | 1.5       |  |                 | 2.6  | 5.9            |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Commercial (COM)                  | 1.5       |  |                 | 2.2  | 3.3            |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Industrial (IND)                  | 1.5       |  |                 | 2.2  | 3.1            |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |
| Recycled                          | R03       |  |                 |  |                |      |      |          |                                 |               |     |     |                                   |     |     |     |                  |     |     |     |                  |     |     |                  |     |     |     |     |     |     |                  |     |     |     |     |     |     |

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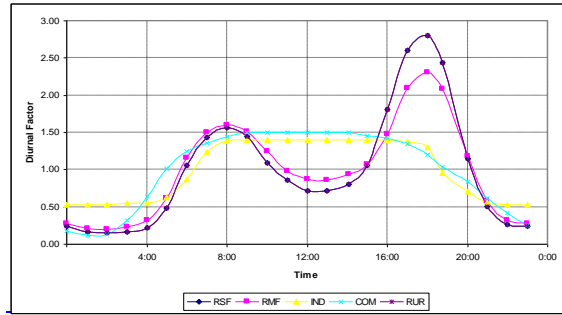
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Schedule 6



AD-Recycled

R04a



^See Table 6 for diurnal profiles in tabular format

Recycled

R05  
R06  
R07  
R08

| Criteria | Performance | Details  |
|----------|-------------|--|
| Minimum  | 17 m        | Minimum pressure of 17 m at the property boundary is to be maintained at all times. Compliance should be demonstrated under maximum hour demand conditions with zonal reservoirs at their minimum operating level. |
| Maximum  | 70 m        | Compliance should be demonstrated during minimum demand periods with reservoirs at their maximum operating level.  |
| Minimum  | 5 m         | Minimum pressure differential (Potable water supply pressure – recycled water supply)  |

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| Standard | Reference                                    | Criteria |      |  |
|----------|--|----------|------|--|
|          |  |          |      | <p>pressure). 5 m is acceptable during demand conditions such as MH where a 10 m differential may not be possible to maintain.</p> |
|          |  | Target   | 10 m | <p>Targeted pressure differential (Potable water supply pressure— recycled water supply pressure) at all hydraulic time steps.</p> |
| Recycled | <p>R09<br/>R10<br/><br/>R11<br/><br/>R12</p> |          |      |  |

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# Schedule 6

| Standard | Reference  | Criteria   |  |
|----------|------------|--|--|
|          |            | <b>Criteria</b>                                    | <b>Performance specification</b>   |
|          |            | Bulk supply pipeline operating under gravity       | Capacity to transport MDMM demand over 24 hours  |
|          |            | Bulk supply pipeline operating under pumped supply | Capacity to transport MDMM demand over 20 hours per day  |
|          |            | Zonal and reticulation water supply mains          | Sized for the maintenance of pressure meeting both maximum hour and fire flow performance criteria |
|          |            | Maximum Velocity in all mains                      | 2.5 m/s  |
| Recycled | R16<br>R17 | <b>Criteria</b>                                    | <b>Performance specification</b>   |
|          |            | Recycled water ground level                        | 1.5 x MD + 30% emergency storage   |
|          |            | Recycled water elevated                            | 6 x (MH - 1/12 MDMM) + 150 kL fire storage;  |

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Schedule 6

| Standard | Reference         | Criteria         |             |               |       |
|----------|-------------------|------------------|-------------|---------------|-------|
|          |                   | F<br>S           |             |               |       |
| Recycled | R13<br>R14<br>R15 | Criteria         | Duty pump   | Standby pump  | Other |
|          |                   | Pumping stations | MDMM demand | Equivalent to |       |
|          |                   | Pumping stations | (6 x MH-    | Equivalent to |       |

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Schedule 6

| Standard        | Reference | Criteria  |             |  |  |  |                 |           |               |             |
|-----------------|-----------|---|-------------|--|--|--|-----------------|-----------|---------------|-------------|
|                 |           | <table border="1"> <tr> <td data-bbox="459 495 651 1120"></td> <td data-bbox="651 495 826 1120"></td> <td data-bbox="826 495 1002 1120"></td> <td data-bbox="1002 495 1197 1120"></td> </tr> <tr> <td data-bbox="459 1120 651 1930">Booster pumping</td> <td data-bbox="651 1120 826 1930">MH demand</td> <td data-bbox="826 1120 1002 1930">Equivalent to</td> <td data-bbox="1002 1120 1197 1930">FF pump set</td> </tr> </table> |             |  |  |  | Booster pumping | MH demand | Equivalent to | FF pump set |
|                 |           |   |             |  |  |  |                 |           |               |             |
| Booster pumping | MH demand | Equivalent to   | FF pump set |  |  |  |                 |           |               |             |

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| Standard                     | Reference  | Criteria   |               |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
|------------------------------|------------|--|---------------|----------|-------------------|----------|----------------------|----|---------------------------|---|----------------------------|----|---------------------------|---|----------------------------|----|--------------------------|---|
|                              |            |  |               |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
| <b>Fire Flow</b>             | <b>R18</b> | <b>Fire Flow Assessment Background Demand = 2/3 MH</b>   |               |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
| R19a<br>R19b<br>R19c<br>R19d |            | <table border="1"> <thead> <tr> <th>Property type</th> <th>Total FF</th> <th>Flow sourced from</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>Detached residential</td> <td>15</td> <td>2 hydrants (7.5 l/s each)</td> <td>2</td> </tr> <tr> <td>Multiple Level residential</td> <td>15</td> <td>2 hydrants (7.5 l/s each)</td> <td>2</td> </tr> <tr> <td>Multiple level residential</td> <td>30</td> <td>3 hydrants (10 L/s each)</td> <td>4</td> </tr> </tbody> </table> | Property type | Total FF | Flow sourced from | Duration | Detached residential | 15 | 2 hydrants (7.5 l/s each) | 2 | Multiple Level residential | 15 | 2 hydrants (7.5 l/s each) | 2 | Multiple level residential | 30 | 3 hydrants (10 L/s each) | 4 |
| Property type                | Total FF   | Flow sourced from  | Duration      |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
| Detached residential         | 15         | 2 hydrants (7.5 l/s each)  | 2             |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
| Multiple Level residential   | 15         | 2 hydrants (7.5 l/s each)  | 2             |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |
| Multiple level residential   | 30         | 3 hydrants (10 L/s each)   | 4             |          |                   |          |                      |    |                           |   |                            |    |                           |   |                            |    |                          |   |

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| Standard                                     | Reference    | Criteria  |                                  |                                  |                          |      |  |     |
|--|--------------|---|----------------------------------|----------------------------------|--------------------------|------|--|-----|
|  |              | <table border="1"> <tr> <td>Commercial / Industrial</td> <td>30</td> <td>3 hydrants (10 L/s each)</td> <td>4</td> </tr> </table>  | Commercial / Industrial          | 30                               | 3 hydrants (10 L/s each) | 4    |  |     |
| Commercial / Industrial                      | 30           | 3 hydrants (10 L/s each)  | 4                                |                                  |                          |      |  |     |
| Fire Flow                                    | R20a<br>R20b | <table border="1"> <tr> <th>Location</th> <th>Minimum pressure requirement (m)</th> </tr> <tr> <td>At hydrants in use</td> <td>12 m</td> </tr> <tr> <td>To all of network other than hydrants in use</td> <td>6 m</td> </tr> </table> | Location                         | Minimum pressure requirement (m) | At hydrants in use       | 12 m | To all of network other than hydrants in use | 6 m |
|  |              | Location  | Minimum pressure requirement (m) |                                  |                          |      |  |     |
|  |              | At hydrants in use  | 12 m                             |                                  |                          |      |  |     |
| To all of network other than hydrants in use | 6 m          |   |                                  |                                  |                          |      |  |     |

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## 5. Desired Standards of Service for Sewer Infrastructure

(1) The standards of service for sewer infrastructure are specified in Table SC6.20M (Waste water standards of service summary table).

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**Table SC6.20M — Waste water standards of service summary table**

| Standard    | Reference | Criteria  |
|-------------|-----------|---|
| Demand Unit | S01       | 2.7 EP/ET   |
| Average-Dry |           | 600 L/ET/day <sup>Δ</sup>   |
|             | S02       | <sup>Δ</sup> Catchment specific criteria will be developed in the future to reflect unique operating environments and customer end use efficiencies |

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| Standard | Reference | Criteria  |
|----------|-----------|---|
| PWWF for | S03       | 5 x ADWF <sup>^</sup><br>^ Catchment specific criteria will be developed in the future to reflect unique operating environments and customer end use efficiencies |
| PWWF for | S04       | 4 x ADWF  |

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| Standard                           | Reference | Criteria   |
|------------------------------------|-----------|--|
| Peak Dry                           | S06       | $PDWF = C_z \times ADWF$<br>Where, $C_z = 4.7 \times (2.7 \times ET)^{-0.105}$ |
| Gravity sewer performance criteria |           |  |
| Minimum                            | S07       | 150 mm   |
| Maximum                            | S08       | $\leq 0.75 \times \text{pipe diameter}$  |
| (New Pipes)<br>Maximum             | S09       | Pipe full and surcharge of manholes to a maximum of 1 m below manhole lid      |

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# Schedule 6

| Standard                           | Reference | Criteria  |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
|------------------------------------|-----------|---|---------------|---------|------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| (Existing)                         |           |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| Minimum                            | S10       | 0.7 m/s   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| Minimum                            | S11       | <table border="1"> <thead> <tr> <th>Diameter (mm)</th> <th>Grade %</th> </tr> </thead> <tbody> <tr> <td>150<sup>±</sup></td> <td>0.55</td> </tr> <tr> <td>225</td> <td>0.33</td> </tr> <tr> <td>300</td> <td>0.25</td> </tr> <tr> <td>375</td> <td>0.17</td> </tr> <tr> <td>450</td> <td>0.14</td> </tr> <tr> <td>525</td> <td>0.12</td> </tr> <tr> <td>600</td> <td>0.10</td> </tr> <tr> <td>750</td> <td>0.08</td> </tr> </tbody> </table> <p>* For ETs &lt; 2 the minimum grade for a 150 mm diameter main = 1.25 %</p> <p>* For ETs 2-5 the minimum grade for a 150 mm diameter main = 1.00 %</p> | Diameter (mm) | Grade % | 150 <sup>±</sup> | 0.55 | 225 | 0.33 | 300 | 0.25 | 375 | 0.17 | 450 | 0.14 | 525 | 0.12 | 600 | 0.10 | 750 | 0.08 |
| Diameter (mm)                      | Grade %   |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 150 <sup>±</sup>                   | 0.55      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 225                                | 0.33      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 300                                | 0.25      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 375                                | 0.17      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 450                                | 0.14      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 525                                | 0.12      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 600                                | 0.10      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| 750                                | 0.08      |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| Pressure main performance criteria |           |   |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |
| Maximum                            | S12       | 2 m/s (1.5 m/s target)  |               |         |                  |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |

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# Schedule 6

| Standard               | Reference | Criteria                                    |
|------------------------|-----------|---|
|                        |           |   |
| Maximum                | S13       | 2.5 m/s                                     |
| (new mains)<br>Maximum | S14       | 2.5 m/s (single pump) and 3 m/s (all pumps) |

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| Standard  | Reference      | Criteria  |               |   |       |                    |               |   |                  |       |  |
|---|----------------|---|---------------|---|-------|--------------------|---------------|---|------------------|-------|--|
| (existing)  |                |   |               |   |       |                    |               |   |                  |       |  |
| <b>Wet well performance criteria</b>                    |                |   |               |   |       |                    |               |   |                  |       |  |
| Wet Well  | S15<br><br>S16 | <table border="1"> <thead> <tr> <th>Criteria</th> <th>Performance</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Wet well operating</td> <td>(0.9 x Single</td> <td>           N = number of pump starts<br/>           N = 12 starts for motors less than 50 kW<math>\Delta</math><br/>           N = 5 starts for motors greater than 50 kW<math>\Delta</math><br/>           Operating storage is between pump start and pump stop levels         </td> </tr> <tr> <td>Minimum wet well</td> <td>2.4 m</td> <td></td> </tr> </tbody> </table> | Criteria      | Performance   | Other | Wet well operating | (0.9 x Single | N = number of pump starts<br>N = 12 starts for motors less than 50 kW $\Delta$<br>N = 5 starts for motors greater than 50 kW $\Delta$<br>Operating storage is between pump start and pump stop levels | Minimum wet well | 2.4 m |  |
|   |                | Criteria  | Performance   | Other   |       |                    |               |   |                  |       |  |
|   |                | Wet well operating  | (0.9 x Single | N = number of pump starts<br>N = 12 starts for motors less than 50 kW $\Delta$<br>N = 5 starts for motors greater than 50 kW $\Delta$<br>Operating storage is between pump start and pump stop levels |       |                    |               |   |                  |       |  |
| Minimum wet well  | 2.4 m          |   |               |   |       |                    |               |   |                  |       |  |
| <b>Waste water pumping station performance criteria</b> |                |   |               |   |       |                    |               |   |                  |       |  |

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| Standard |                          | Reference             |                          | Criteria  |
|----------|--------------------------|-----------------------|--------------------------|---|
| Pumping  |                          | Criteria              | Performance              | Other   |
|          |                          | Minimum duty pump     | $C_1 \times \text{ADWF}$ | $C_1 = 15 \times (2.7 \times \text{ET})^{0.1587}$<br>Minimum value of $C_1 = 3.5$ |
|          | S17<br>S18<br>S19<br>S20 | All pump capacity for | PWWF =                   |   |

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| Standard           | Reference | Criteria  |                    |          |  |
|--------------------|-----------|---|--------------------|----------|--|
|                    |           | <table border="1"> <tr> <td data-bbox="459 495 692 633">Duty pump capacity</td> <td data-bbox="692 495 826 633">5 x ADWF</td> <td data-bbox="826 495 1197 633">Standby pump of equivalent duty is to be provided.</td> </tr> </table> | Duty pump capacity | 5 x ADWF | Standby pump of equivalent duty is to be provided. |
| Duty pump capacity | 5 x ADWF  | Standby pump of equivalent duty is to be provided.  |                    |          |  |

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| Standard           | Reference | Criteria  |                    |          |   |
|--------------------|-----------|---|--------------------|----------|---|
|                    |           | <table border="1"> <tr> <td data-bbox="459 495 692 1930">Duty pump capacity</td> <td data-bbox="692 495 826 1930">4-x ADWF</td> <td data-bbox="826 495 1197 1930">Standby pump of equivalent duty is to be provided</td> </tr> </table> | Duty pump capacity | 4-x ADWF | Standby pump of equivalent duty is to be provided |
| Duty pump capacity | 4-x ADWF  | Standby pump of equivalent duty is to be provided   |                    |          |   |

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| Standard                                      | Reference   | Criteria  |                  |             |       |                            |           |  |                             |            |  |
|---|-------------|---|------------------|-------------|-------|----------------------------|-----------|--|-----------------------------|------------|--|
|   |             |   |                  |             |       |                            |           |  |                             |            |  |
| <b>Emergency Storage Performance Criteria</b> |             |   |                  |             |       |                            |           |  |                             |            |  |
| <b>Emergency</b>                              |             | <table border="1"> <thead> <tr> <th data-bbox="475 891 689 958">Sewer Technology</th> <th data-bbox="689 891 826 958">Performance</th> <th data-bbox="826 891 1177 958">Other</th> </tr> </thead> <tbody> <tr> <td data-bbox="475 1182 689 1279">S21<br/>Conventional Sewers</td> <td data-bbox="689 1182 826 1279">6 hours x</td> <td data-bbox="826 1182 1177 1279">Can include system storage below the wet well overflow level</td> </tr> <tr> <td data-bbox="475 1279 689 1429">S22<br/>Reduced Infiltration</td> <td data-bbox="689 1279 826 1429">12 hours x</td> <td data-bbox="826 1279 1177 1429">Can include system storage below the wet well overflow level</td> </tr> </tbody> </table>   | Sewer Technology | Performance | Other | S21<br>Conventional Sewers | 6 hours x | Can include system storage below the wet well overflow level | S22<br>Reduced Infiltration | 12 hours x | Can include system storage below the wet well overflow level |
| Sewer Technology                              | Performance | Other   |                  |             |       |                            |           |  |                             |            |  |
| S21<br>Conventional Sewers                    | 6 hours x   | Can include system storage below the wet well overflow level  |                  |             |       |                            |           |  |                             |            |  |
| S22<br>Reduced Infiltration                   | 12 hours x  | Can include system storage below the wet well overflow level  |                  |             |       |                            |           |  |                             |            |  |
| <b>Septicity and odour</b>                    |             |   |                  |             |       |                            |           |  |                             |            |  |
| <b>Septicity and</b>                          |             | <p data-bbox="464 1563 1177 1686">Criteria for the control of septicity and odour will be identified through a risk evaluation process. The risk identification process is provided below in <a href="#">Table SC6.20P</a> of this Appendix. The actions for odour control that are triggered for each of the risk categories in <a href="#">Table SC6.20C</a> of are as follows:-</p> <ul data-bbox="464 1686 1177 1816" style="list-style-type: none"> <li>• Low Risk – No additional treatment required;</li> <li>• Medium (Single) Risk – No additional treatment required;</li> <li>• Medium (Multiple) Risk – Further investigation may be required including investigation into Septicity/Odour control facilities at the discretion of Sunshine Coast Water;</li> <li>• High Risk – Septicity/odour control facilities will be required.</li> </ul> |                  |             |       |                            |           |  |                             |            |  |

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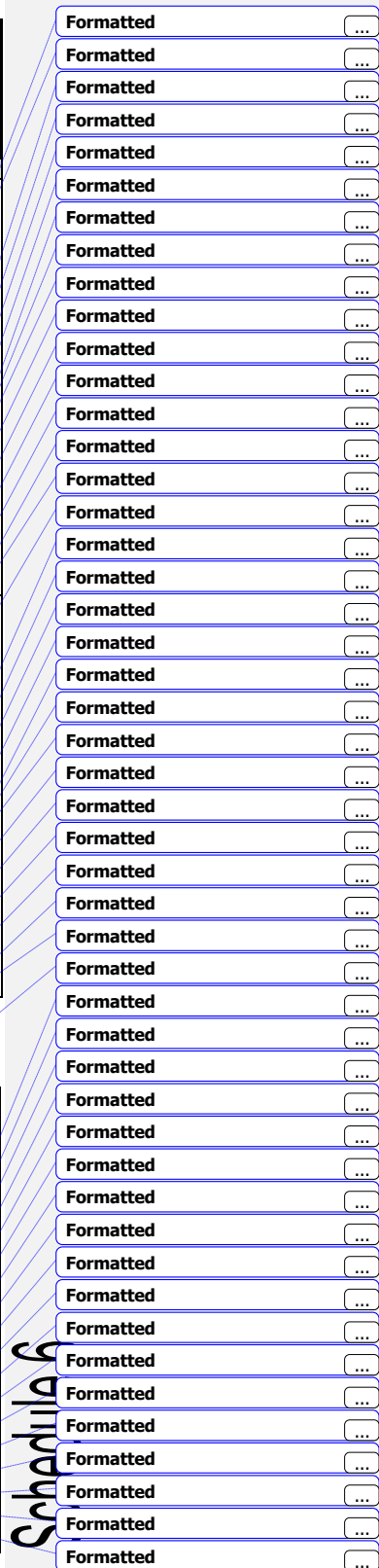
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| Standard            | Reference | Criteria  |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|---------------------|-----------|---|---------------------|---------------------|---------------|-------|----------|-------|-----------------|-------|-----------------|-------|----------------|-------|-------------|-------|----------------|-------|--------------------|-------|-------|-------|----------------|-------|
| Hydraulic equations |           |   |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
| Gravity             | S24       | <b>Flow Equation for Gravity Sewers = Mannings</b><br><b>Mannings Hydraulic Roughness Coefficient (n-Value)</b>   |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | <table border="1"> <thead> <tr> <th>Material</th> <th>Mannings's n</th> </tr> </thead> <tbody> <tr> <td>Cement Mortar</td> <td>0.013</td> </tr> <tr> <td>Ceramics</td> <td>0.014</td> </tr> <tr> <td>Smooth Concrete</td> <td>0.012</td> </tr> <tr> <td>Normal Concrete</td> <td>0.013</td> </tr> <tr> <td>Rough Concrete</td> <td>0.015</td> </tr> <tr> <td>Iron (cast)</td> <td>0.014</td> </tr> <tr> <td>Iron (wrought)</td> <td>0.015</td> </tr> <tr> <td>PVC / Plastic / PE</td> <td>0.013</td> </tr> <tr> <td>Stone</td> <td>0.013</td> </tr> <tr> <td>Vitrified Clay</td> <td>0.014</td> </tr> </tbody> </table> | Material            | Mannings's n        | Cement Mortar | 0.013 | Ceramics | 0.014 | Smooth Concrete | 0.012 | Normal Concrete | 0.013 | Rough Concrete | 0.015 | Iron (cast) | 0.014 | Iron (wrought) | 0.015 | PVC / Plastic / PE | 0.013 | Stone | 0.013 | Vitrified Clay | 0.014 |
|                     |           | Material  | Mannings's n        |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Cement Mortar   | 0.013               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Ceramics  | 0.014               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Smooth Concrete   | 0.012               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Normal Concrete   | 0.013               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Rough Concrete  | 0.015               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Iron (cast)   | 0.014               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Iron (wrought)  | 0.015               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | PVC / Plastic / PE  | 0.013               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Stone   | 0.013               |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
| Vitrified Clay      | 0.014     |   |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
| Pressure            | S25       | <b>Flow Equation for Sewer Pressure Mains = Hazen-Williams</b><br><b>Hazen-Williams Roughness Coefficient (C-Value)</b>   |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | <table border="1"> <thead> <tr> <th>Material</th> <th>Roughness (C-Value)</th> </tr> </thead> <tbody> <tr> <td>Cement Mortar</td> <td>130</td> </tr> <tr> <td>Ceramics</td> <td>140</td> </tr> <tr> <td>Smooth Concrete</td> <td>140</td> </tr> <tr> <td>Normal Concrete</td> <td>130</td> </tr> <tr> <td>Rough Concrete</td> <td>100</td> </tr> <tr> <td>Iron (cast)</td> <td>110</td> </tr> <tr> <td>Iron (wrought)</td> <td>100</td> </tr> <tr> <td>PVC / Plastic / PE</td> <td>130</td> </tr> <tr> <td>Stone</td> <td>130</td> </tr> <tr> <td>Vitrified Clay</td> <td>140</td> </tr> </tbody> </table>              | Material            | Roughness (C-Value) | Cement Mortar | 130   | Ceramics | 140   | Smooth Concrete | 140   | Normal Concrete | 130   | Rough Concrete | 100   | Iron (cast) | 110   | Iron (wrought) | 100   | PVC / Plastic / PE | 130   | Stone | 130   | Vitrified Clay | 140   |
|                     |           | Material  | Roughness (C-Value) |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Cement Mortar   | 130                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Ceramics  | 140                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Smooth Concrete   | 140                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Normal Concrete   | 130                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Rough Concrete  | 100                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Iron (cast)   | 110                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Iron (wrought)  | 100                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | PVC / Plastic / PE  | 130                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
|                     |           | Stone   | 130                 |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |
| Vitrified Clay      | 140       |   |                     |                     |               |       |          |       |                 |       |                 |       |                |       |             |       |                |       |                    |       |       |       |                |       |

**Table SC6.20N Average day diurnal profiles (tabular format)**

| Properties AD Diurnal Profiles (Potable Water)<br>ref - P04-3a |      |      |      |      |      | Properties AD Diurnal Profiles (Recycled Water)<br>ref - R04a |      |      |      |      |      |
|--|------|------|------|------|------|---|------|------|------|------|------|
| Time   | SFR  | MFR  | COM  | IND  | RUR  | Time  | SFR  | MFR  | COM  | IND  | RUR  |
| 0:00   | 0.23 | 0.23 | 0.53 | 0.18 | 0.23 | 0:00  | 0.24 | 0.28 | 0.53 | 0.18 | 0.24 |
| 1:00   | 0.20 | 0.20 | 0.53 | 0.12 | 0.20 | 1:00  | 0.16 | 0.21 | 0.53 | 0.12 | 0.16 |
| 2:00   | 0.17 | 0.17 | 0.53 | 0.13 | 0.17 | 2:00  | 0.15 | 0.20 | 0.53 | 0.13 | 0.15 |
| 3:00   | 0.22 | 0.22 | 0.55 | 0.32 | 0.22 | 3:00  | 0.16 | 0.23 | 0.55 | 0.32 | 0.16 |
| 4:00   | 0.35 | 0.35 | 0.55 | 0.64 | 0.35 | 4:00  | 0.22 | 0.32 | 0.55 | 0.64 | 0.22 |
| 5:00   | 0.61 | 0.61 | 0.63 | 1.01 | 0.61 | 5:00  | 0.49 | 0.62 | 0.63 | 1.01 | 0.49 |
| 6:00   | 1.15 | 1.15 | 0.87 | 1.25 | 1.15 | 6:00  | 1.06 | 1.16 | 0.87 | 1.25 | 1.06 |
| 7:00   | 1.60 | 1.60 | 1.23 | 1.36 | 1.60 | 7:00  | 1.43 | 1.50 | 1.23 | 1.36 | 1.43 |
| 8:00   | 1.70 | 1.70 | 1.39 | 1.45 | 1.70 | 8:00  | 1.57 | 1.60 | 1.39 | 1.45 | 1.57 |
| 9:00   | 1.60 | 1.60 | 1.40 | 1.50 | 1.60 | 9:00  | 1.44 | 1.51 | 1.40 | 1.50 | 1.44 |
| 10:00  | 1.40 | 1.40 | 1.40 | 1.50 | 1.40 | 10:00   | 1.09 | 1.25 | 1.40 | 1.50 | 1.09 |
| 11:00  | 1.25 | 1.25 | 1.40 | 1.50 | 1.25 | 11:00   | 0.86 | 0.98 | 1.40 | 1.50 | 0.86 |
| 12:00  | 1.19 | 1.19 | 1.40 | 1.50 | 1.19 | 12:00   | 0.72 | 0.87 | 1.40 | 1.50 | 0.72 |
| 13:00  | 1.15 | 1.15 | 1.40 | 1.50 | 1.15 | 13:00   | 0.72 | 0.86 | 1.40 | 1.50 | 0.72 |
| 14:00  | 1.17 | 1.17 | 1.40 | 1.50 | 1.17 | 14:00   | 0.81 | 0.94 | 1.40 | 1.50 | 0.81 |
| 15:00  | 1.24 | 1.24 | 1.40 | 1.46 | 1.24 | 15:00   | 1.06 | 1.07 | 1.40 | 1.46 | 1.06 |
| 16:00  | 1.38 | 1.38 | 1.40 | 1.42 | 1.38 | 16:00   | 1.81 | 1.48 | 1.40 | 1.42 | 1.81 |



| Properties AD Diurnal Profiles (Potable Water)<br>ref - P04-3a |      |      |      |      |      | Properties AD Diurnal Profiles (Recycled Water)<br>ref - R04a |      |      |      |      |      |
|--|------|------|------|------|------|---|------|------|------|------|------|
| Time   | SFR  | MFR  | COM  | IND  | RUR  | Time  | SFR  | MFR  | COM  | IND  | RUR  |
| 17:00  | 1.48 | 1.48 | 1.38 | 1.35 | 1.48 | 17:00   | 2.60 | 2.10 | 1.38 | 1.35 | 2.60 |
| 18:00  | 1.51 | 1.51 | 1.30 | 1.20 | 1.51 | 18:00   | 2.80 | 2.30 | 1.30 | 1.20 | 2.80 |
| 19:00  | 1.37 | 1.37 | 0.96 | 1.04 | 1.37 | 19:00   | 2.44 | 2.08 | 0.96 | 1.04 | 2.44 |
| 20:00  | 1.12 | 1.12 | 0.71 | 0.84 | 1.12 | 20:00   | 1.15 | 1.18 | 0.71 | 0.84 | 1.15 |
| 21:00  | 0.86 | 0.86 | 0.56 | 0.62 | 0.86 | 21:00   | 0.51 | 0.57 | 0.56 | 0.62 | 0.51 |
| 22:00  | 0.60 | 0.60 | 0.53 | 0.42 | 0.60 | 22:00   | 0.27 | 0.32 | 0.53 | 0.42 | 0.27 |
| 23:00  | 0.39 | 0.39 | 0.53 | 0.26 | 0.39 | 23:00   | 0.24 | 0.28 | 0.53 | 0.26 | 0.24 |
| Averag   | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | Averag  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

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**Table SC6.200 — Odour parameter risk classification**

| Risk Category | Odour Parameter<br>Buffer Distance | Retention Time                | Sewage Characteristics     |
|---------------|------------------------------------|-------------------------------|----------------------------|
|               | Distance between source and        | Amount of time that sewage is | Quality of Sewage          |
| Low           | Greater than 50 m                  | Less than 1 hour              | Domestic only              |
| Medium        | Between 20 m and 50 m              | Between 1 and 2 hours         | Mostly domestic with minor |

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| Risk Category | Odour Parameter<br>Buffer Distance | Retention Time                | Sewage Characteristics      |
|---------------|------------------------------------|-------------------------------|-----------------------------|
|               | Distance between source and        | Amount of time that sewage is | Quality of Sewage           |
| High          | Less than 20 m                     | Greater than 2 hours          | Higher strength sewage e.g. |

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| Risk Category | Odour Parameter<br>Buffer Distance | Retention Time                | Sewage Characteristics |
|---------------|------------------------------------|-------------------------------|------------------------|
|               | Distance between source and        | Amount of time that sewage is | Quality of Sewage      |
|               |                                    |                               |                        |

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# Schedule 6

**Appendix SC6.20C Affordable living plan**

**Part 1 Preliminary**

**1.1 Structure**

~~(1) This document which specifies instructions for the preparation of the Affordable Living Plan is structured as follows:-~~

~~(a) Part 2 provides an overview of the requirements for the proposed Affordable Living Plan; and~~

~~(b) Part 3 specifies the required content and information to be included in the proposed Affordable Living Plan, and the preferred format for an Affordable Living Plan.~~

**Part 2 Overview and requirements for an affordable living plan**

**2.1 Purpose**

~~(1) The purpose of the Affordable Living Plan is to demonstrate that development undertaken in accordance with a preliminary approval application to which section 242 of the Act applies, if approved, will provide Affordable Living options for a full range of household types and make appropriate provision for a component of Affordable Housing and supported community housing.~~

**2.2 General requirements**

~~(1) The Affordable Living Plan is to demonstrate how development proposed to be undertaken by the Landowner will meet the Affordable Living Outcomes specified in the Palmview Structure Plan in relation to the following matters (Affordable Living Actions):-~~

~~(a) neighbourhood structure and design;~~

~~(b) provision of a variety of housing types and sizes which meet the needs of the emerging community;~~

~~(c) staging and release of land;~~

~~(d) provision of land for public housing and community housing; and~~

~~(e) sustainable design.~~

~~(2) The Affordable Living Plan is to describe and provide justification and reasoning for the proposed Affordable Living Actions, with specific reference to the following:-~~

~~(a) the Sunshine Coast Housing Needs Assessment;~~

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- (b) ~~the Sunshine Coast Affordable Living Strategy; and~~
- (c) ~~the ongoing implementation and enforcement of the Affordable Living Actions.~~

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~~(3) For each proposed Affordable Living Action, the Affordable Living Plan is to describe the following:-~~

~~(a) the purpose and priority objective of the Affordable Living Action;~~

~~(b) the roles and responsibilities of the Landowner in implementing the Affordable Living Actions in accordance with the Affordable Living Plan;~~

~~(c) all timeframes associated with the implementation of the Affordable Living Actions in accordance Affordable Living Plan;~~

~~(d) how the Affordable Living Actions are to be resourced; and~~

~~(e) any funding requirements or arrangements under the Affordable Living Plan.~~

~~2.3 Drafting guidelines and preferred table of contents for affordable living plan~~

~~(1) An Affordable Living Plan is to comply with the Council's drafting guidelines in Table SC6.20P (Affordable living plan drafting guidelines) and the structure for an Affordable Living Plan specified in Table SC6.20Q (Affordable living plan preferred table of contents).~~

~~(2) The Affordable Living Plan is to be prepared by a competent person with a disciplinary background relevant to the areas of neighbourhood design, housing and density.~~

~~Table SC6.20P Affordable living plan drafting guidelines~~

|                         |   |
|-------------------------|---|
| <del>Structure</del>    | <del>The Affordable Living Plan is to be drafted from the perspective of an applicant and assessment manager</del>  |
|                         | <del>The preferred Affordable Living Plan table of contents is to be utilised as the structure for the Affordable Living Plan</del>                                       |
| <del>Technical</del>    | <del>As far as practicable, rely upon the use and administrative definitions incorporated in the planning scheme</del>  |
|                         | <del>Ensure that maps are appropriately referenced in the Affordable Living Plan and have sufficient detail and clarity to identify how particular provisions apply</del> |
| <del>Presentation</del> | <del>Ensure that the Affordable Living Plan is in attractive and 'user friendly' layout</del>   |
|                         | <del>Utilise aids such as tables, schedules, diagrams and footnotes to aid interpretation without creating confusion or unnecessary clutter</del>                         |

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**Table SC6.20Q Affordable living plan preferred table of contents**

| Column 1<br>Section | Column 2<br>Section heading  |
|---------------------|--|
| <b>1.</b>           | <b>Preliminary</b>   |
| <b>1.1</b>          | <b>Requirement for Affordable Living Plan</b>  |
| <b>1.2</b>          | <b>Land subject to Affordable Living Plan</b>  |
| <b>1.3</b>          | <b>Objectives of Affordable Living Plan</b>  |
| <b>1.4</b>          | <b>Content of Affordable Living Plan</b>   |
| <b>1.5</b>          | <b>Summary of Obligations Under Affordable Living Plan</b>   |
| <b>1.6</b>          | <b>Summary of how the Proposed Development proposes to meet the Affordable Living Outcomes under the Affordable Living Plan</b>                                  |
| <b>1.7</b>          | <b>When development to be undertaken in accordance with Affordable Living Plan is to be completed</b>  |
| <b>2.</b>           | <b>Description of Affordable Living Actions</b>  |
| <b>2.1</b>          | <b>Introduction and Definition of Affordable Living Actions</b>  |
| <b>2.2</b>          | <b>Description of Affordable Living Actions (neighbourhood structure and design)</b>   |
| <b>2.3</b>          | <b>Description of Affordable Living Actions (housing types and sizes)</b>  |
| <b>2.4</b>          | <b>Description of Affordable Living Actions (staging and release of land)</b>  |
| <b>2.5</b>          | <b>Description of Affordable Living Actions (provision of land for Public Housing and community housing)</b>   |
| <b>2.6</b>          | <b>Description of Affordable Living Actions (sustainable design)</b>   |
| <b>3.</b>           | <b>Justification for Affordable Living Actions</b>   |
| <b>3.1</b>          | <b>Introduction</b>  |
| <b>3.2</b>          | <b>Justification for Affordable Living Actions by reference to the Affordable Living Outcomes</b>  |
| <b>3.3</b>          | <b>Justification for Affordable Living Actions by reference to the Sunshine Coast Housing Needs Assessment and the Sunshine Coast Affordable Living Strategy</b> |
| <b>3.4</b>          | <b>Justification for Affordable Living Actions by reference to research undertaken</b>   |
| <b>4.</b>           | <b>Nature of Obligations</b>   |
| <b>4.1</b>          | <b>Introduction</b>  |
| <b>4.2</b>          | <b>Nature of obligations of Affordable Living Plan in respect of applicable area</b>   |
| <b>5.</b>           | <b>Security of Obligations</b>   |
| <b>5.1</b>          | <b>Introduction</b>  |
| <b>5.2</b>          | <b>How Applicant will secure performance of obligations under Affordable Living Plan</b>   |
| <b>6.</b>           | <b>Monitoring and reporting</b>  |

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| Column 1<br>Section | Column 2<br>Section heading   |
|---------------------|---|
| 6.1                 | Introduction  |
| 6.2                 | How Applicant will monitor and report on progress of Affordable Living Actions and compliance with Affordable Living Plan |
| 7.                  | Affordable Living Plan Maps   |
| 8.                  | Other   |

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**Part 3** Specific matters to be addressed in Affordable Living Plan

**3.1** Preliminary

- (1) Requirement for Affordable Living Plan:-
  - (a) describe under what instruments an Affordable Living Plan is required.
  - (2) Land subject to Affordable Living Plan:-
    - (a) describe the Land subject to the Affordable Living Plan.
  - (3) Objectives of Affordable Living Plan:-
    - (a) state the objectives and proposed outcomes of the Affordable Living Plan, with reference to the following:-
      - (i) the Sunshine Coast Housing Needs Assessment;
      - (ii) the Sunshine Coast Affordable Living Strategy;
      - (iii) the Planning scheme policy for the Palmview Structure Plan; and
      - (iv) the Palmview Structure Plan; and
    - (b) for example, Performance Outcome PO30 of 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the Master Planned Area) in the Palmview Structure Plan provides that "Development contributes to housing affordability and promotes affordable living."
  - (4) Content of Affordable Living Plan:-
    - (a) provide an overview of the content of the Affordable Living Plan.
  - (5) Summary of Obligations Under Affordable Living Plan:-
    - (a) provide a summary of the obligations of the Landowner under the Affordable Living Plan.

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~~(6) Summary of how the proposed development proposes to meet the Affordable Living Outcomes under the Affordable Living Plan:-~~

~~(a) provide a summary of how the Proposed Development proposes to meet the Affordable Living Outcomes under the Affordable Living Plan.~~

~~(b) for example, the acceptable outcomes for achieving Performance Outcome PO30 of Section 10.3.4.3 (Performance outcomes and acceptable outcomes for the whole of the master planned area) of the Palmview Structure Plan include the following:-~~

~~(i) Acceptable Outcome AO30.1 Development provides a minimum of 12.5% of housing as affordable housing and may encompass the following:-~~

~~(A) social housing;~~

~~(B) private rental and long term affordable rental through community-based organisations; and~~

~~(C) private purchase.~~

~~(ii) Acceptable Outcome AO30.2 Development provides for affordable housing that is dispersed and not concentrated in any one neighbourhood;~~

~~(iii) Acceptable Outcome AO30.3 Development provides for affordable housing to be located within 800 metres of the District Activity Centre or 400 metres of a Local Activity Centre;~~

~~(iv) Acceptable Outcome AO30.4 Development provides for non-Government community housing. Where advance commitment of funds is not possible, flexibility is retained to permit eventual spot purchase for community housing; and~~

~~(v) Acceptable Outcome AO30.5 Development does not provide for restrictive covenants which specify a minimum floor area for residential uses; and~~

~~(c) when development to be undertaken in accordance with Affordable Living Plan is to be complete:-~~

~~(i) state when the development to be undertaken in accordance with the Affordable Living Plan is to be complete, and within which sub-sectors.~~

### ~~3.2 Description of Affordable Living Actions~~

~~(1) Introduction and definition of Affordable Living Actions:-~~

~~(a) introduce the concept of the Affordable Living Actions (being any of the actions required to give effect to the Affordable Living Plan, including any obligations of the Landowner, as outlined in the Affordable Living Plan);~~

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- (b) provide an overview of how the Landowner proposes to deliver the Affordable Living Actions, and in particular the Affordable Housing; and
- (c) for each Affordable Living Action specified in this section, describe the following:-
  - (i) the purpose and priority objective of the Affordable Living Action;
  - (ii) the roles and responsibilities of the Landowner in implementing the Affordable Living Actions in accordance with the Affordable Living Plan;
  - (iii) all timeframes associated with the implementation of the Affordable Living Actions in accordance with the Affordable Living Plan;
  - (iv) how the Affordable Living Actions are to be resourced; and
  - (v) any funding requirements or arrangements for the Affordable Living Actions.

(2) Description of Affordable Living Actions:-

- (a) provide a detailed description of each of the Affordable Living Actions relating to neighbourhood structure and design, housing types and sizes, staging and release of land, provision of land for community housing and sustainable design.

3.3 Justification for Affordable Living Actions

(1) Introduction:-

- (a) describe the importance of the Affordable Living Actions and how they are significant to meet the objectives and proposed outcomes of the applicable area.

(2) Justification for Affordable Living Actions by reference to the Affordable Living Outcomes, the Palmview Structure Plan and the Planning scheme policy for the Palmview Structure Plan:-

- (a) provide justification for Affordable Living Actions by reference to the objective and proposed outcomes stated in the Affordable Living Outcomes, the Palmview Structure Plan and the planning scheme policy.

(3) Justification for Affordable Living Actions by reference to the Sunshine Coast Housing Needs Assessment and the Sunshine Coast Affordable Living Strategy:-

- (a) provide justification for Affordable Living Actions by reference to the objectives and proposed outcomes of Sunshine Coast

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***Housing Needs Assessment and the Sunshine Coast Affordable Living Strategy.***

~~(4) — Justification for Affordable Living Actions by reference to research undertaken by the Landowner:-~~

~~(a) — provide justification for Affordable Living Actions by reference to any additional research undertaken by the Landowner in respect of housing affordability needs of the area.~~

**3.4 — Nature of obligations**

~~(1) — Introduction:-~~

~~(a) — generally describe how the obligation of the applicant to provide Affordable Living Actions are binding on or attach to the applicant and the Land; and~~

~~(2) — Nature of obligations of Affordable Living Plan in respect of the applicable area:-~~

~~(a) — describe in more detail the nature of the obligations of the Landowner to provide Affordable Living Actions, and if and how these obligations relate to the Landowner, the Land, any subsequent owners of the Land and any parties with interests in the Land, including but not limited to the following matters:-~~

~~(i) — can the Landowner Use or permit to be Used any of the Affordable Housing Units for any purpose other than of the provision of Affordable Housing;~~

~~(ii) — what happens if a chargee (e.g. bank) wants to dispose of Affordable Housing Units in the event of a default – will it have obligations to the Council? Therefore, will the chargee have to have an agreement with the Council to make the obligations binding; and~~

~~(iii) — will an obligation not to use affordable housing units other than for affordable housing be binding on other parties (e.g. what if transferred to Council? Will it be binding on chargees?);~~

**3.5 — Security of obligations**

~~(1) — Introduction:-~~

~~(a) — introduce concept of security and why it is required to be provided by the applicant (for example to ensure that the Affordable Living Plan is delivered in a timely manner in order to meet the stated objectives).~~

~~(2) — How Landowner will secure performance of obligations under Affordable Living Plan:-~~

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~~(a) describe if any additional security to that required under the Infrastructure Agreement will be required to be provided by the Landowner to secure the performance of the Affordable Living Actions by the Landowner. If so, provide details of how the security will operate, for example, amount of security, type of security, when security needs to be provided, when the security will be released, any provision to change the amount of security.~~

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### ~~3.6 Monitoring and Reporting~~

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#### ~~(1) Introduction:-~~

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~~(a) describe why monitoring and reporting on the progress of Affordable Living Actions and compliance with Affordable Living Plan is required.~~

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~~(2) How the Landowner will monitor and report on progress of Affordable Living Actions and compliance with Affordable Living Plan:-~~

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~~(a) outline the proposed monitoring and reporting arrangements for the implementation of the Affordable Living Plan over time.~~

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# Schedule 6