

Subdivision Design Criteria for Penihana North

This part of the Plan sets out the design criteria for subdivision in Penihana North. The criteria will be considered for subdivision in the Living 2 Environment and for subdivision in relation to a preceding or concurrent land use consent involving medium density housing within the land identified as Living Environment (Penihana North). For the avoidance of doubt, where a land use consent application precedes any subdivision, the relevant matters contained in design criteria shall be considered in respect to that application. The design criteria apply in addition to subdivision assessment criteria elsewhere in the Plan.

These criteria are grouped into four Design Elements, which are:

Design Element A: Movement Networks

Design Element B: Block Size and Lot Type

Design Element C: Design of Roads

Design Element D: Design of Reserves

The design criteria listed under each Design Element are intended to give flexibility, enabling site responsive subdivision designs, while ensuring that the subdivision pattern as a whole works towards the urban design framework established by the Penihana North Urban Concept Plan. The criteria are designed to guide the subdivision and development of the land rather than prescribe the exact design and site layout of the development.

In the following pages, four design elements are described with appropriate illustrations. For each design element there is an introductory statement discussing the desired approach and issues to be considered, and reasons behind the design element.

DESIGN ELEMENT A: MOVEMENT NETWORKS

Design Element A relates to the general layout of the networks of roads, reserves and other linkages that make up the public space of any subdivision in Penihana North. These public routes need to be developed as an integrated movement and open space network in order to combine vehicular roads, pedestrian pathways, cycleways and reserves so that a logical structure of connected, safe and visually attractive movement routes can be established within the area. This will promote an integrated public (ie. bus and rail) and private transport network, and also ease of movement from one part of the area to another part.

Connectivity through appropriately designed movement networks enhances choice, supports social cohesion, makes places lively and safe, and facilitates contact among people. This is one of the most important principles of quality urban design. Places with good connections between activities and with careful placement of facilities benefit from reduced travel times and lower environmental impacts.

Under the Penihana North Urban Concept Plan the proposed subdivision of the area should be based on an integrated network of one primary and several secondary roads, and their alignment should be more or less similar to the network shown on the Urban Concept Plan in order to achieve the intended urban design outcome for Penihana North. Minor variations in this respect would be acceptable. The subdivision layout would also include a number of other secondary roads, only some of which are illustrated in an indicative manner on the Urban Concept Plan as “indicative secondary road link through blocks”. These annotations indicate additional connections that should be generally achieved but do not represent specific alignments to be achieved.

Subdivision should provide appropriate walking and cycling routes as well as connections to public transport. This will provide informal opportunities for social and cultural interaction, and will also assist the residents to reduce their private vehicle trips.

Subdivision should accommodate visually attractive movement networks in prominent locations, which will create a pedestrian friendly environment and give the users a sense of security. Local trip distances should be short and residents should be able to walk to the nearby railway station, Swanson shops, reserves and other amenities easily.

Subdivision should utilise reserves and open space (as illustrated on the Penihana North Urban Concept Plan) as part of an integrated and connected pedestrian and cycle network.

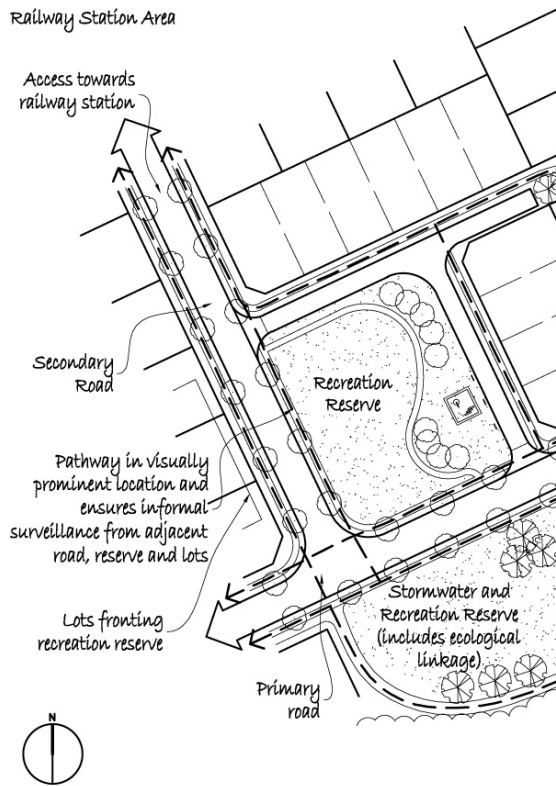


Diagram 1

ASSESSMENT CRITERIA

A1

The roading layout in the proposed subdivision should align with the primary and secondary roads illustrated on the Urban Concept Plan.

A2

The proposed subdivision should maximise secondary roading connections to provide convenient access options to Swanson railway station and the open space network (also refer criterion B2).

A3

The proposed subdivision should provide a safe pedestrian and cycle network consistent with that illustrated on the Urban Concept Plan.

A4

The proposed pedestrian network should be provided mostly on roads, as well as separated routes through the reserves and provide linkages to the railway line crossings at locations shown on the Urban Concept Plan.

A5

Roads and pedestrian and cycle linkages should be vested in the Council.

DESIGN ELEMENT B: BLOCK SIZE AND LOT TYPE

Design Element B describes principles for consideration in designing the block and lot layouts in the subdivision. Where the subdivision consent application is combined with or preceded by a land use consent application, the house designs and layout will determine the lot size and shape, and consequently the block size.

Aligning blocks in a northwest to southeast direction will minimise the number of entirely south facing lots, and achieve dwellings with good solar orientation. A combined land use and subdivision application (ie. for medium density housing) could address the solar orientation issue in a comprehensive way (i.e. by combining the dwelling and lot design).

Except where large comprehensive developments (eg. retirement villages) are planned, subdivision should create small and shallow blocks to minimise rear sites, achieve a permeable road network and a development not dominated by extensive building footprints. As such most blocks will be not more than two lots deep.

Maximising the potential number of dwellings that can front roads and minimising the number of rear sites will ensure safety and amenity of the public streetscape. In limited instances if a road cannot be accommodated, private accessways with adequate width and amenity features (e.g. footpath on one side and street trees on another side) could be utilised to serve a small number of properties.

In the Living 2 Environment a variety of lot sizes will be encouraged to avoid monotony in the housing product. As per Council's growth policy, smaller lot sizes resulting from medium density housing will be expected closer to the railway station so that an increased housing density is achieved in that particular part of the land. Part of Penihana North abuts Christian Road, which is viewed as a long term rural edge for the city. As such, the design of subdivision should address this road boundary by providing a minimum width for each lot. This, in combination with minimising individual driveways and a specifically-developed cross section for Christian Road, will help maintain a transition to the Foothills Environment.

The subdivision layout should ensure the availability of reserves (i.e. both recreation and stormwater reserves) in visually prominent locations of the development, as illustrated on the Penihana North Urban Concept Plan. This will provide reserve users a sense of security and create a pedestrian friendly movement route.

DESIGN ELEMENT B

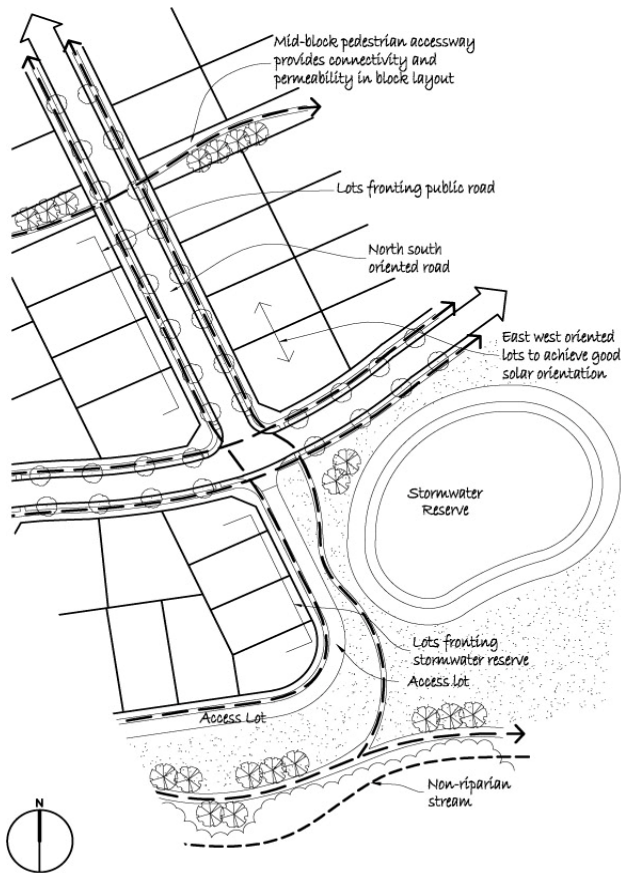


Diagram 2

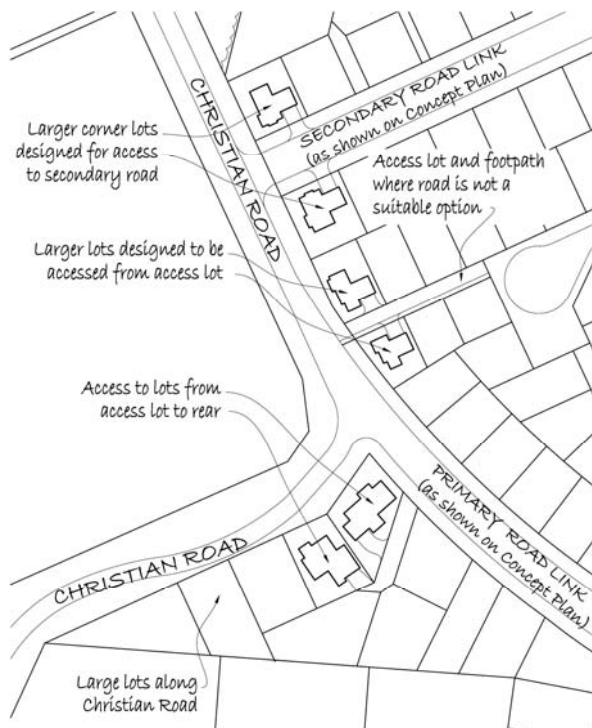


Diagram 3

BLOCK SIZE AND LOT TYPE

ASSESSMENT CRITERIA

B1

The proposed *subdivision* should include blocks elongated generally northwest to southeast (parallel to the secondary road link as illustrated on the *Urban Concept Plan*) and lots to the east west orientation to achieve *dwelling*s with good solar access.

B2

The design of the *subdivision* should create blocks of a scale and shape which achieves a permeable road layout and minimises rear sites.

B3

The lot layout in the proposed *subdivision* should provide:

- As many lots as possible fronting onto and are accessed directly from a public road (such that rear sites are avoided where possible).
- A greater density in *dwelling*s and a transitional density by accommodating smaller lots or blocks to accommodate future medium density housing or other form of comprehensive development (eg. retirement villages) closer to the railway station.
- In the *Living 2 Environment*, where practical lots have access to a road or access lot to avoid lots backing onto stormwater and recreation reserves, as illustrated by Diagram 2.
- Lots with road frontage to Christian Road should minimise individual driveway access to this road (refer Diagram 3), have sufficient width, and sufficient depth to provide for a greater yard set back. *Subdivision* should provide mechanisms to limit fence heights on the road boundary (and within the front yard) of lots abutting Christian Road to generally 1.2 metres.

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Design Element C specifies the design principles for roads and other access within Penihana North. Road design should be appropriate to function and provide practical widths for vehicles, planting and services. In this respect, the minimum width of different types of roads should be consistent with Council's Code of Practice for City Infrastructure and Land Development.

The location of Primary and Secondary Roads are illustrated on the Penihana North Urban Concept Plan. Indicative cross sections are provided for two roads expected to have a unique character, namely a Secondary Road along the railway edge, and Christian Road, which forms the boundary between Penihana North and the Foothills Environment.

All remaining roads of any proposed subdivision for should be considered as Secondary Road Links, and some of their possible locations and orientations are indicated on the Urban Concept Plan to highlight the importance of roading connectivity and good solar orientation in the subdivision design.

Adoption of these design principles will allow the subdivision to achieve other important urban design outcomes (ie. block and lot design, reserve design etc.) expected from the area.

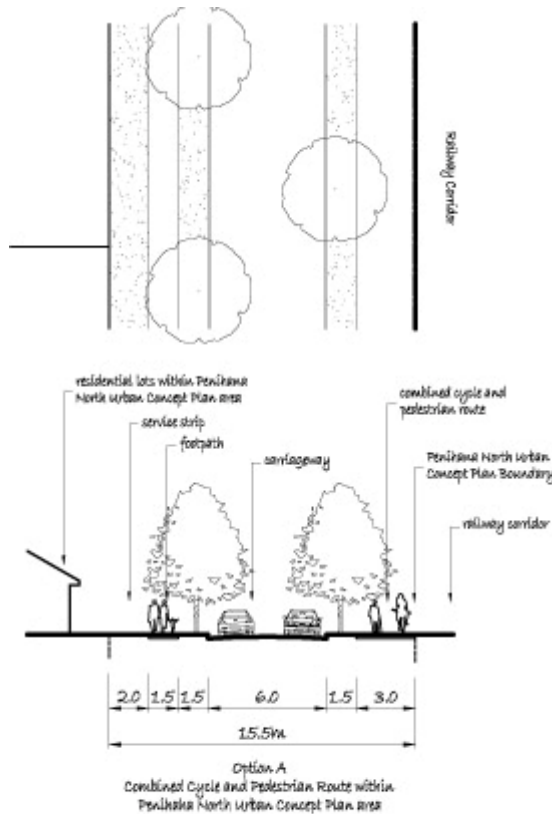


Diagram 4

ASSESSMENT CRITERIA

C1

The *Primary Road* identified on the *Urban Concept Plan* should be suitable for accommodating a possible bus route.

C2

The character and physical form of the *Secondary Road* shown along the railway edge on the *Urban Concept Plan* should complement the edge treatment and provide a pedestrian and cycle network through this particular area (refer to Diagram 4). Proposals should also address potential issues of commuter *car parking* demand on roads in proximity to the railway station. This may result in refinements to the outcomes illustrated in Diagram 4, which could include a *car parking* lane on the railway line side of the road with *car parking* restrictions on the other.

C3

The character and physical form of *Christian Road* where it abuts *Penihana North* should reinforce the location of the road along the rural edge and provide a transition between rural and urban (refer to Diagrams 5 and 6).

C4

Pedestrian and cycleway widths, alignment and location should allow for a short, straight, safe and attractive movement network.

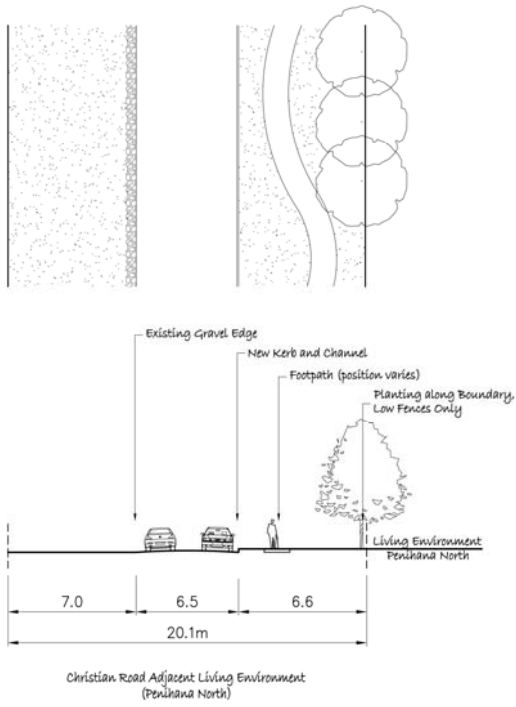


Diagram 5

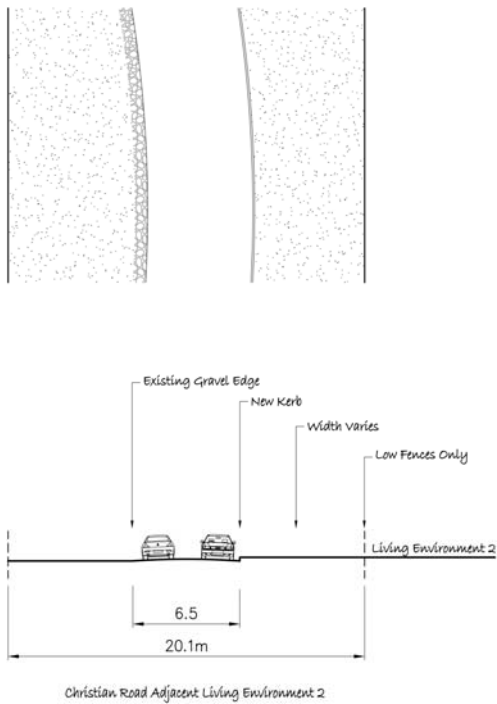


Diagram 6

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DESIGN ELEMENT D: DESIGN OF RESERVES

Design Element D identifies design matters for consideration in locating, sizing and designing of recreation and stormwater reserves within the subdivision. In this regard, the assessment criteria of greenfields subdivision need to be considered when designing stormwater and recreation reserves which include ecological linkages and incorporate riparian and non-riparian margins.

The importance of an interconnected open space network and especially its utilisation to establish appropriate visual linkages towards the Waitakere Ranges foothills and railway station have been recognised specifically for Penihana North. At the same time, the open space network is also considered as a crucial element to establish an appropriate interface between the urban and rural environment.

Designing public open spaces in strategic locations overlooked by adjacent residential blocks and where possible bounded by streets is considered essential for a good urban design outcome from any subdivision layout. Again, creation of open spaces with size and shape appropriate to its users is also critical in this respect. Reserves that are mainly bounded by public roads are more secure, because of informal surveillance from the road and from the houses nearby, and are thus likely to discourage crimes against the person, vandalism, burglary, dumping and littering. In a visually prominent location with clear visibility from as many properties as possible, a reserve is likely to attract the maximum of number of users. As a guide, not less than half the total length of legal boundary of any recreation reserve should adjoin public roads.

The Penihana North Urban Concept Plan identifies a number of different types of open spaces including stormwater and recreation reserves which includes ecological linkage within the area. The location and purpose of these open spaces are defined by the Urban Concept Plan. However, the actual size and design details of these open spaces need to be finalised during the subdivision design stage.

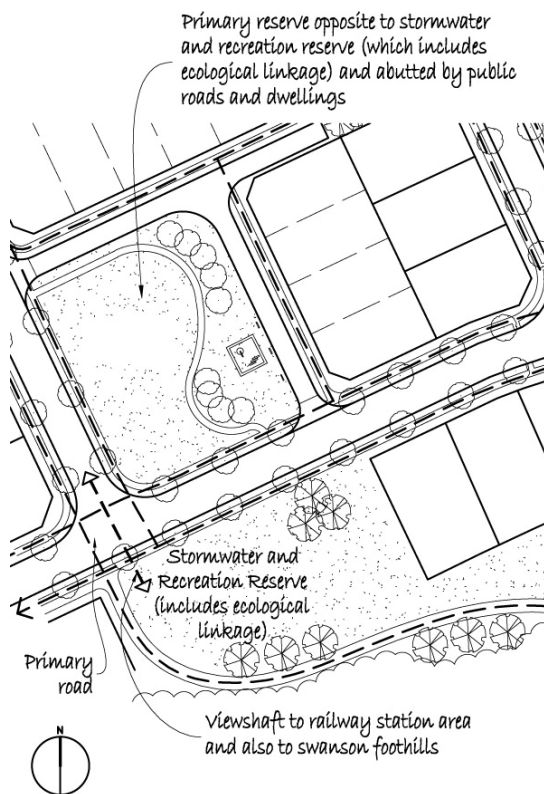


Diagram 7

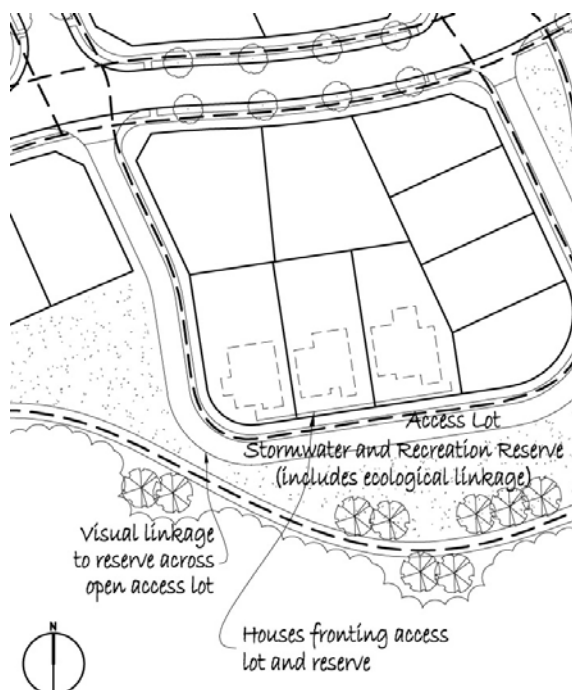


Diagram 8

ASSESSMENT CRITERIA

D1

Proposed reserves should be designed and located to ensure that the primary reserve in the layout is opposite to and lines up with edges of the stormwater and recreation reserve (which includes ecological linkage).

D2

The proposed stormwater and recreation reserve (which includes ecological linkage and is identified on the Urban Concept Plan as “Drainage / Ecological Open Space and Proposed Open Space”) should allow appropriate viewshafts from both identified Secondary Roads to the Swanson foothills.

D3

The primary and secondary reserves should be physically linked by the secondary road with a view to the railway station area.

D4

The primary, secondary, and stormwater and recreation reserve (which includes ecological linkage) should be designed and positioned to be largely abutted by roads or fronted onto (across open access lots where necessary) by dwellings. Where this cannot be practically achieved, subdivision should provide mechanisms to limit fence heights to generally 1.2 metres where lots abut reserves.