

**54.10 Pukekohe North Structure Plan (Beatty Road)****54.10.1 DESCRIPTION OF THE AREA**

The Pukekohe North Structure Plan Area is located on the northern boundary of the Pukekohe township (refer to District Plan Map 58) and measures approximately 16.7 hectares in extent.

The area is bounded by Beatty Road in the west, unformed portions of Birdwood Road East and Keith Roads in the south and north respectively and is immediately to the west of the residential Eastfields Structure Plan area accessed via Lough Bourne Drive.

The Structure Plan area has a flat to southerly aspect with views and contains two southwest to north easterly trending gully systems, located in close proximity to the southern and north western boundaries respectively. Both gully systems are tributaries of the Whangapouri Stream. Very little native vegetation remains on the site.

The bulk of the Structure Plan area is currently in pastoral and horticultural usage however, there are a small number of residential dwellings located primarily along Beatty Road and small areas of glasshouse and sheds located elsewhere on the site.

**54.10.2 KEY RESOURCE MANAGEMENT ISSUES, OBJECTIVES AND POLICIES****54.10.2.1 Resource Scarcity - Issues**

Pukekohe is one of a limited number of areas that have been identified by the Auckland Regional Growth Forum as an appropriate location to accommodate population growth within the Auckland Region through 'greenfield' development and in particular within the Sector Southern. Urban land at Pukekohe is part of a limited and scarce resource in which to accommodate a share of the Region's projected population growth in an efficient and effective manner.

Equally Franklin needs to comply with the Southern Sector Agreement that it is a party to with the Auckland Regional Council in respect of the Regional Growth Forum.

**54.10.2.2 Resource Scarcity - Objectives**

To achieve the efficient subdivision and development of the Pukekohe North Structure Plan Area in a way which:

- accommodates its share of projected population growth; and
- makes provision for a choice of living environments.

**54.10.2.3 Resource Scarcity - Policies**

By ensuring that subdivision and development is of a density, design and layout that is consistent with Regional objectives of accommodating population growth and that provides opportunities for a choice of residential environments, and social and community facilities.

By rezoning the Pukekohe North Structure Plan Area as shown in Diagram 54.E to Residential and Recreation Zone with provision for different densities and housing types.

#### **54.10.2.4 Transport - Issues**

Extensive lower density urban development places increased reliance on the private motor vehicle as the main transport mode.

Private motor vehicle useage results in a range of adverse environmental effects in relation to air and water quality and inefficient utilisation of land that can adversely affect the amenity values of residential areas.

#### **54.10.2.5 Transport – Objectives**

To achieve forms of development which are supportive of pedestrian, cycle and public transport, and reduce reliance on private motor vehicles.

#### **54.10.2.6 Transport - Policies**

By ensuring that subdivision and development is of a density, layout and design which encourages increased pedestrian, cycle and public transport options.

#### **54.10.2.7 Stormwater - Issues**

Urbanisation can give rise to adverse effects on natural resources. While the Pukekohe North Structure Plan Area is relatively unconstrained in terms of environmental values, the topography and gullies do direct where residential development is best located.

Urban development also has the potential to adversely affect water quality through excessive peak stream flows, a reduction in aquifer recharge and sediment discharges during the development process, and through contaminated stormwater runoff from impervious surfaces arising from development.

#### **54.10.2.8 Stormwater - Objectives**

To achieve development which avoids, remedies or mitigates adverse effects on the natural environment, particularly in relation to water quality and in relation to the area's hydrological constraints.

#### **54.10.2.9 Stormwater - Policies**

By ensuring that subdivision and development is undertaken in a manner which is consistent with an approved Catchment Management Plan or Integrated Catchment Management Plan.

By ensuring that subdivision and development avoids significant adverse effects in relation to water quality, the area's hydrological regime, flooding and maintains geotechnical stability.

#### **54.10.2.10 Amenity Values - Issues**

The quality, layout and design of a neighbourhood can strongly influence the amenity, attractiveness and functioning of that area and the safety and wellbeing of people living in that area.

The Pukekohe North Structure Plan Area provides an opportunity for the establishment of a new neighbourhood with a positive local identity, high levels of amenity, enhanced pedestrian and cycle safety and convenience.

#### **54.10.2.11 Amenity Values - Objectives**

To achieve subdivision and development which provides a high standard of amenity and pedestrian and cycle safety and convenience, and contributes to the creation of a positive sense of place and identity.

#### **54.10.2.12 Amenity Values - Policies**

By ensuring that subdivision and development layout and design achieves a high standard of amenity, pedestrian and cycle safety and convenience, and contribute to a positive sense of place and identity.

#### **54.10.2.13 Activities with inappropriate effects - Issues**

Some activities have the potential to create significant adverse effects on the quality of the environment, amenity values and the ability to develop a quality neighbourhood.

The establishment of activities with inappropriate effects could compromise the opportunity within the Structure Plan Area to accommodate residential growth in a manner that is consistent with the Auckland Regional Growth Strategy.

#### **54.10.2.14 Activities with inappropriate effects – Objectives**

To ensure that activities which have the potential to significantly adversely affect; amenity values, the quality of the environment, the neighbourhood, or compromise the Structure Plan Area's potential to accommodate residential growth are not established within the Pukekohe North Structure Plan.

#### **54.10.2.15 Activities with inappropriate effects - Policies**

By ensuring that activities are compatible, and that they are located in such a way that ensures a high standard of amenity and environmental quality appropriate to new residential and public open space.

By ensuring that activities that have potentially significant objectionable, noxious or dangerous effects do not undermine the amenity and environmental quality, or compromise the residential character and amenity of those areas.

#### **54.10.2.16 Expected Environmental Results**

The expected environmental results for the Pukekohe North Structure Plan Area are as follows:

- The establishment of a choice of housing types, and social and community facilities.
- Accommodation of a resident population of approximately 500 upon the ultimate development of the Structure Plan Area.
- Maintenance & enhancement (as far as is practicable) of water quality and hydrological regimes.
- Establishment of residential development that is compatible with topographical and geotechnical constraints.
- The higher density and intensity residential development in close proximity to the Neighbourhood Green.
- Maintenance and enhancement of any significant heritage values.
- Maintenance and enhancement of urban amenity values.
- Establishment of a high standard of amenity.

Aspects of the urban form anticipated are as follows:

- Higher dwelling densities centred on well connected transport routes and the Neighbourhood Green.
- Accessible, walkable, and convenient community facilities and parks.
- A highly connected street network, providing footpaths, cycle routes and vehicular access to, and infrastructure for, future passenger transport.
- Complementary, consistent and legible landscaping themes within the road reserve, stormwater reserves and open spaces throughout the Structure Plan Area.
- Quality public open spaces in locations that provide opportunities for passive surveillance (e.g. adjacent to streets rather than backing onto residential sections).
- Attractive wetland areas for stormwater treatment and detention that also provide reserve and amenity opportunities.
- Development that addresses and engages the street and public realm through quality urban design at the interface.
- Absence of activities with potentially significant objectionable, noxious or dangerous effects.

#### 54.10.2.17 Procedures for Monitoring

In order to assess the suitability and effectiveness of the objectives, policies and methods for achieving the anticipated environmental results for the Pukekohe North Structure Plan Area, the Council will develop a monitoring programme which may include the following monitoring procedures:

- Monitoring complaints and enforcement actions regarding the nuisance aspects of activities in residential areas;
- Undertaking surveys of residents to ascertain the level of satisfaction with the facilities available in choice of housing stock, the useability and quality of the public open space network, the level of amenity and environmental quality being achieved and the availability of transport options;
- Monitoring resource consents in residential areas, including the number of applications granted consent, diversity of housing types, compliance with consent conditions, and the effectiveness of those conditions.
- Undertaking safety audits of public spaces (e.g. residential streets, neighbourhood parks and walkways) and analysing crime and traffic accident statistics to assess the impacts of design and planning on the sense of personal safety people might experience in residential areas;
- Undertaking streetscape assessments of the level of visual amenity being attained in residential areas.
- Monitoring the level of uptake of vacant land and the density to which it is developed.
- Monitoring the diversity of housing types by assessing building consents and census data.

#### 54.10.3 IMPLEMENTATION

The objectives and policies set out above will be implemented through the application of zones within the Structure Plan Area and with rules applying to the zones. Each of the zones may have more specific objectives and policies which apply in addition to those set out above. The initial proposed zones within the Structure Plan Area are as follows:

- **Residential Zone:** This zone provides for typical density housing in general areas of the Pukekohe North Structure Plan Area.
- **Residential Zone - Park Frontage Housing Area:** This area is within the Residential Zone of the Pukekohe North Structure Plan Area but has a special classification for medium density housing the extent of which is shown in Diagram 54.E.
- **Recreation Zone:** This zone will be applied to the Neighbourhood Green, Stormwater Reserves and other pedestrian and cycling areas within the Pukekohe North Structure Plan Area as shown in Diagram 54.E.

#### **54.10.4 RESIDENTIAL ZONE – OBJECTIVES AND POLICIES**

In addition to the general objectives and policies set out in 54.10.2 above, the following specific objectives and policies apply to the Residential zone.

##### **54.10.4.1 Density - Objectives**

To achieve forms of low and medium density residential development that are supportive of pedestrian, cycle and public transport and which take advantage of the zone's proximity to a potential future public transport routes, the Park Frontage Housing Area and the Neighbourhood Green.

##### **54.10.4.2 Density - Policy**

By ensuring that residential subdivision and development is of a density and form which is supportive of pedestrian, cycle and public transport and is consistent with Auckland Regional Growth Strategy objectives.

- By ensuring that the medium density development, proposed around the Park Frontage Housing Area is not compromised by lower density development.
- By specifying a range of amenity outcomes to ensure that these are achieved,

These objective and policies relate to Issues 54.10.2.1 and 54.10.2.4.

##### **54.10.4.3 Expected Environmental Results**

In addition to the expected environmental results set out in 54.10.2.16, the following more specific outcomes are expected:

- The establishment of low and medium density residential development.
- Utilisation of pedestrian and cycle transport modes by the residents of the zone.
- Establishment of a positive sense of place and identity, high standard of amenity and pedestrian safety.

Aspects of the urban form that are anticipated are as follows:

- A highly connected street network, providing footpaths, cycle routes and vehicular access to passenger transport and to the facilities of nearby areas.
- Innovative residential street design in terms of widths, traffic calming measures and hard and soft landscaping.
- Quality public open spaces which generally abut streets and provide opportunities for passive surveillance.
- Complementary, consistent and legible landscaping themes within the road reserve and open spaces.
- Residential development that addresses and engages the street and public realm through quality urban design at the interface, and building in close proximity to site frontages.
- Residential development that achieves a high standard of on-site amenity in terms of privacy, sunlight and daylight access, and appropriate design of private open space.

## 54.10.5 GENERAL REQUIREMENTS

### 54.10.5.1 Definition of Area of Residential Zone

The location and boundaries of the Residential Zone and the Park Frontage Hosing Area are shown in Diagram 54.E.

#### 54.10.5.1A Definitions of 54.10

COMPREHENSIVE DEVELOPMENT PLAN means plan which is comprehensively designed to ensure a satisfactory relationship between individual lots, buildings, open space, and neighbouring sites to achieve a high level of amenity which includes consideration of:

- the amount of daylight and sunlight penetration,
- visual and acoustic privacy,
- access and vehicle circulation,
- provision of public open space and connectivity,
- the shape and layout of buildings,
- Site topography, and
- Public and other infrastructure, roads and utilities.

LANE means any road laid out or constructed in compliance with diagram 54F for the purpose of providing the public with side or road access for vehicular traffic to any land in a one way direction.

#### 54.10.5.2 Other Relevant Rules

In addition to the relevant rules specified in Part 54 rules in the following parts of the District Plan may apply:

- Part 19 Objectives, Policies and Methods: Urban.
- Part 26 Subdivision: Urban.
- Part 27 Residential Zone.
- Part 53 Assessment Criteria for Resource Consent Applications.

#### 54.10.5.3 Comprehensive Development Plans

COMPREHENSIVE DEVELOPMENT PLANS will be required for subdivision and land use development within the Park Frontage Housing Area and for all non complying activities. The COMPREHENSIVE DEVELOPMENT PLAN will demonstrate how the proposed activity will give effect to the land use and Subdivision Design Criteria and the Objectives and Policies of Part 54.10.7 and 54.10.8.

Note: The COMPREHENSIVE DEVELOPMENT PLAN is to show how the Park Frontage Housing functions within the site and in relation to adjacent dwellings. The Comprehensive Development Plan may be referred to via a Consent Notice.

## 54.10.6 RULES: SUBDIVISION

Notwithstanding the rules on Part 26 of the District Plan the following rules shall apply within the Pukekohe North Structure Plan Area.

### 54.10.6.1 Notification:

- a. Where discretionary activity subdivision applications meet the performance criteria in rule 54.10.7 and 54.10.8 the application may proceed on a non-notified basis.
- b. Where a subdivision in the Residential Zone meets the controlled subdivision performance criteria in rule 54.10.7.1 the application may proceed on a non-notified basis.

#### **54.10.6.2 Discretionary Activities**

- a. All subdivision applications within the Park Frontage Housing Area.

#### **54.10.6.3 Non-complying Activities**

- a. Subdivision activities that do not comply with the General Performance Standard of Part 54.10.7.
- b. Subdivision applications that are not covered by an existing Integrated Catchment Management Plan or a separate a Stormwater Discharge Consent

#### **54.10.6.4 Prohibited Activities**

Notwithstanding the above or Part 26 the following activities are prohibited:

- a. Single lot subdivision within the Park Frontage Housing Area.

### **54.10.7 GENERAL PERFORMANCE STANDARDS**

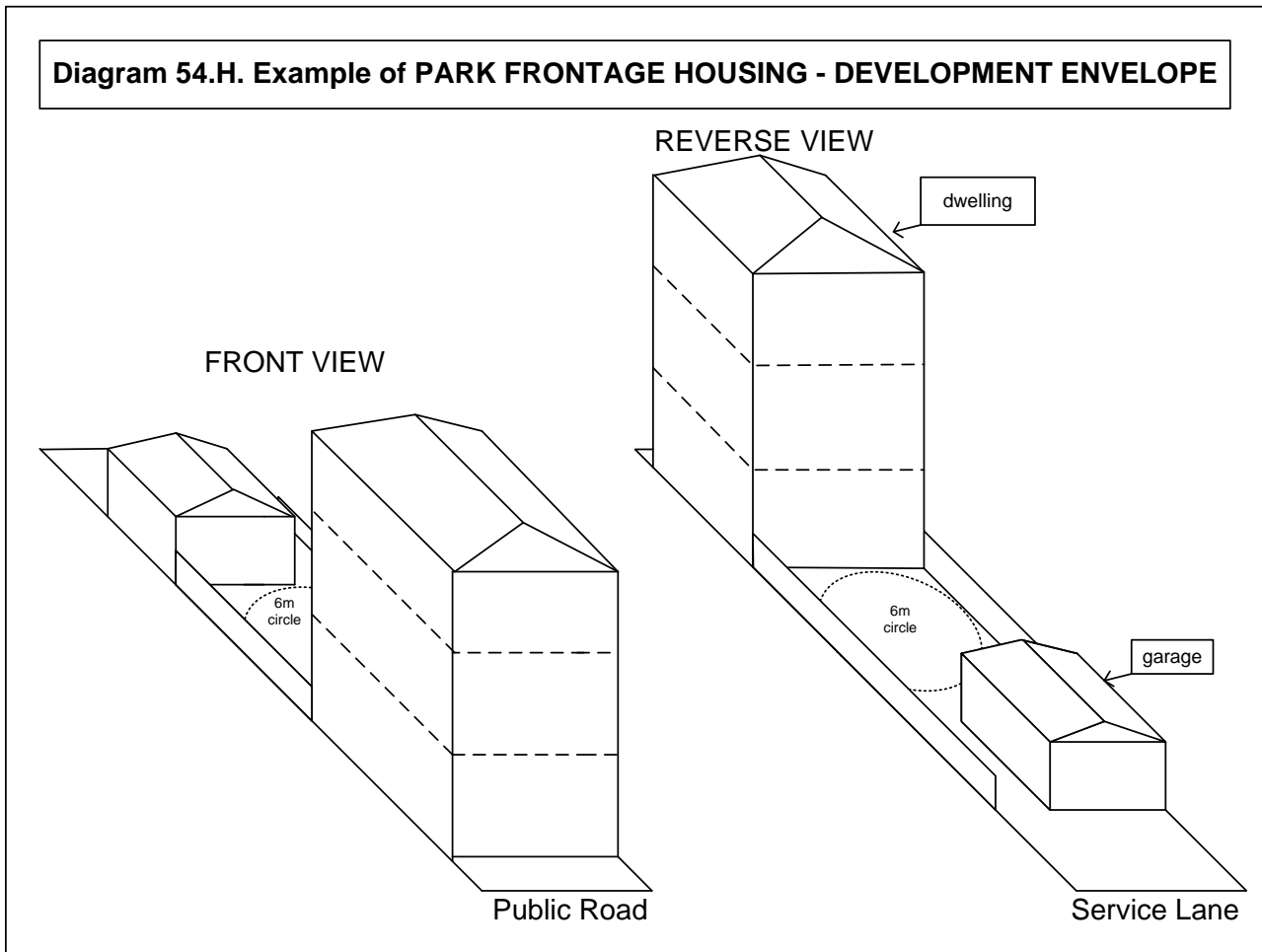
#### **54.10.7.1 Residential Zone**

- a. For the avoidance of doubt all subdivision in the Residential area that complies with the rules below is a controlled activity
- b. All residential subdivision within the Pukekohe North Structure Plan Area (excluding the Park Frontage Housing Area) shall:
  - i. Have a minimum lot size of not less than 450m<sup>2</sup>.
  - ii. Have an average area of 550m<sup>2</sup>.
  - iii. Have no more than three dwellings served by a PRIVATE WAY.
  - iv. Where boundaries abut public spaces, boundary fences and hedges shall not exceed one metre in height and vegetation shall not impede the ability for passive surveillance.
  - v. Not have fences and hedges that exceed 1 m in height and/or vegetation that impedes passive surveillance when on boundaries abutting public open spaces.

#### **54.10.7.2 Park Frontage Housing Area**

- a. All subdivision in the Park Frontage Housing Area shall be by way of a COMPREHENSIVE DEVELOPMENT PLAN.
- b. All subdivision shall have:
  - i. A minimum lot size of 210 m<sup>2</sup>.
  - ii. A maximum lot size of 240 m<sup>2</sup>.
- c. All development on lots shall meet the following requirements, (with an example of the development envelope shown in Diagram 54 H):
  - i. A maximum BUILDING height of 9 metres.
  - ii. A dwelling house shall be placed 2 metres from the front boundary with the exception of those lots to the south side of the Neighbourhood Green where a variation to the depth of the front yard may be considered in order to design for sunlight to outdoor space provided a continuous façade is maintained.
  - iii. Zero metre side yards (Buildings will have common walls to adjacent dwellings) with the exception of corner sites.

- iv. An OUTDOOR LIVING COURT able to accommodate a circle with a 6 metre diameter.
- v. Living areas of the dwelling to overlook the Neighbourhood Green.
- vi. No fencing or hedge planting along any boundary of the front yard.
- vii. No garaging, storage or other utilities are to be contained in or accessed from front facades.
- viii. All garaging, storage or other utilities to be accessed via the Lane, at the rear of the sites.
- ix. Garaging for a minimum of two motor vehicles to be provided at the rear of the site and accessed from the Lane.
- x. A minimum set back of 5 metre to be provided between any garage and the Lane.



### 54.10.7.3 Consent Notices

- a. Consent Notices (or such other mechanisms as Council deems appropriate) may be imposed as a condition of subdivision consent to prevent further subdivision once the initial layout and size of lots has been achieved.
- b. Consent Notices, or other mechanisms as Council deems appropriate, may be incorporated as a condition of subdivision consent in respect of:
  - i. Stormwater management.
  - ii. Geotechnical or engineering constraints and requirements.
  - iii. Landscaping and maintenance of landscaping.
  - iv. Protection of riparian planting and re-vegetation.



- v. Maintenance of landscaping, riparian planting.
- vi. Comprehensive Development Plans for Park Frontage Housing.
- vii. Other significant resource management/issues that require ongoing protection or control.
- viii. Prohibition of further subdivision.

#### **54.10.7.4 Rooding**

- a. All rooding within the Pukekohe North Structure Plan Area shall be consistent with the rooding layout contained in Diagrams 54.E, 54F and 54G and shall ensure that rooding options remain available to adjoining owners.
- b. Roads B and C shall have a minimum legal width of 20 metres.
- c. Road A shall have a minimum legal width of 12 metres.
- d. There shall be no vehicular access to or from the Residential zone into or from the Lane that services the Park Frontage Housing Area.
- e. Traffic calming mechanisms shall be developed.
- f. A landscape plan outlining proposals for Landscape Treatment will be submitted to Council for the three roads that enter the Structure Plan area.

#### **54.10.7.5 Stormwater**

- a. Consent shall not be granted for urban subdivision within the Pukekohe North Structure Plan until comprehensive stormwater discharge consent has been obtained from the Auckland Regional Council or concurrent to any subdivision application separate stormwater consent is sought and granted by the Auckland Regional Council Subdivision and development shall comply with the conditions of the discharge consent (permit).
- b. Subject to the outcome of the above discharge consent, the following aspects are to be an integral expected part of the stormwater management plan:
  - i. Water courses will remain open and enhanced for stormwater treatment and disposal purposes. Stormwater treatment will occur offline in accordance with best practice.
  - ii. On site detention will also be required unless either the stormwater discharge consent from the Auckland Regional Council stipulates otherwise, or some other integrated solution is approved (such as by way of consent notices on new certificates of titles).
- c. At the engineering design stage of development consideration will be given to:
  - i. Biofiltration practices such as swales and vegetative filter strips.
  - ii. Infiltration practices such as infiltration trenches, soakage pits and porous blocks pavements.
  - iii. Protection and enhancements/revegetation of riparian margins.
  - iv. Use of low impact design which incorporates existing site features and reduction of earthworks and impervious surfaces, where possible.
  - v. Any proposed stormwater quality treatment devices such as wetlands, wet ponds, rain gardens, and so should conform to the Auckland Regional Council's Technical Publication 10 – Stormwater Treatment Device Design Manual.
- d. Any subdivision consent will have conditions attached to ensure that stormwater reserves are revegetated to the satisfaction of Council.
- e. Provision shall be made for the construction of a stormwater detention pond of minimum capacity 5260m<sup>3</sup> in the 1% AEP event as provided for in the Pukekohe North Catchment Management Plan (PNCMP). Actual capacity to be provided will be greater than 5260m<sup>3</sup> due to increased imperviousness than provided for in the PNCMP in order to maintain hydraulic neutrality in the 1% AEP event. Further, this pond shall not be a wet pond. Stormwater quality shall be addressed by methods other than an online wet pond. The above detention pond is to be located upstream of the existing Highland Park Ponds (Ponds 2a and 2b in PNCMP). Location shown in Diagram 54E is approximate and is not indicative of the land area required for the pond. Exact location to be determined at the detailed design stage.

**54.10.7.6 Building Platform**

- a. All subdivision plans shall identify building platforms/sites on each proposed allotment and be accompanied by an engineering or geotechnical report, where required for reasons of site stability, erosion and sediment problems and shall include mitigation measures.
- b. The earthworks to develop any road, LANE or building platform will be kept to a minimum and shall be sympathetic with the topography.

**54.10.7.7 Neighbourhood Green and Stormwater Reserves**

- a. The total area of recreation reserve to be provided within the Pukekohe North Structure Plan area is not less than 5,000m<sup>2</sup> in accordance with the Franklin Community Plan 2004 - 2014, and as shown on Diagram 54E.
- b. All reserve areas adjacent to existing gullies are to be classified as stormwater reserves and shall not contribute to any calculation of the recreation reserve requirements.
- c. Pedestrian and cycling paths shown in Diagram 54.E shall be developed with a 2 metre wide sealed-surface shared facility.
- d. No fencing of any form over 1 metre in height is permitted along the edge of any Recreation Reserve.

**54.10.7.8 Park Frontage Housing - Lanes**

- a. Park Frontage Housing lanes are to be designed to ensure a high standard of amenity and safety, including adequate lighting and provision for vehicles.

**54.10.7.9 Lighting Plan**

- a. All subdivision plans shall include a street lighting plan.

**54.10.8 RULES: LANDUSE**

In addition to the rule contained in Part 19 and 27 the following shall apply:

**54.10.8.1 Permitted Activities**

- a. Dwellings and BUILDINGS that meet the General Performance Standards of Part 54.10 and relevant parts of Part 27 (not overruled by 54.10).
- b. Dwellings and BUILDINGS within the Park Frontage Housing Area that are developed in accordance the General Performance Standards of Part 54.10, relevant parts of Part 27 (not overruled by 54.10), and with the COMPREHENSIVE DEVELOPMENT PLAN developed at the time of subdivision.

**54.10.8.2 Discretionary Activities**

- a) For the purposes of clarification any land use activity that is a discretionary activity under the rules of Part 27 of the District Plan remains a discretionary activity under the rules of the Pukekohe North Structure Plan.

### 54.10.8.3 Non-complying Activities

- a. Dwellings and BUILDINGS that do not meet the Performance Standards of Part 54.10, relevant parts of Part 27 (not overruled by 54.10) or the COMPREHENSIVE DEVELOPMENT PLAN developed at the time of subdivision.
- b. More than one dwelling per lot in the Park Frontage Housing Area.

### 54.10.9 ASSESSMENT CRITERIA

- a. The following Assessment Criteria will be considered in respect of any Discretionary and Non Complying Activity applications :
  - i. The degree to which the proposed layout conforms to the layout of the Pukekohe North Structure Plan as shown on diagram 54.E.
  - ii. The degree to which the Growth Concept of the Auckland Regional Growth Strategy, the objectives and policies of the Franklin District Plan and the objectives and policies specific to this Structure Plan are met.
  - iii. The degree to which the subdivision layout conforms to modern Urban Design principles (including the New Zealand Urban Design Protocol).
  - iv. The degree to which amenity values are provided for and enhanced within the development over time.
  - v. The degree to which the subdivision layout conforms to the Subdivision Design Criteria and the Comprehensive Development Plan.
  - vi. The degree to which provisions listed in 54.10.5.1 are considered.
  - vii. Any other relevant effect on the environment and how these are avoided, remedy or mitigated.

### 54.10.10 SUBDIVISION DESIGN CRITERIA – PUKEKOHE NORTH STRUCTURE PLAN AREA

The following Subdivision Design Criteria apply to proposed subdivision and development for the Pukekohe North Structure Plan Area.

#### 54.10.10.1 Design Element 1: Location and Layout of Road, Reserve and Access Networks

- a. Subdivision design should achieve connectivity within and between neighbourhoods.
- b. Street patterns should maximise convenient and direct access to passenger transport stops, reserves and community facilities.
- c. Street patterns should be logical and contribute to the legibility of the area.
- d. Street patterns should include roads which front the edge of proposed park(s) and reserves as shown in the Structure Plan.
- e. Roads and other public spaces which front the parks or extend up to its boundary should be designed to recognise, incorporate and extend walking, running and cycling routes into and out of the park.
- f. Street alignments should maximise opportunity for lots with good solar access.
- g. Subdivision design should help achieve an interconnected open space network.
- h. Safe pedestrian and cycle routes should be generally integrated with road and reserve design.
- i. Where desirable layouts should retain any existing mature trees, preferably in road or reserve, where these contribute to existing site amenity.
- j. The use of Cul-de-sacs will be limited to serving 20 dwellings and may need pedestrian and cycling connections from the head of the Cul-de-sac to another public area.

**54.10.10.2 Design Elements 2: Block Size and Lot Type**

- a. Blocks should be of a scale and shape to achieve a permeable street layout.
- b. As many lots as possible should front onto and be accessed directly from a legal road. Rear lots should generally be avoided.
- c. Through lots (lots with dual road frontage) should be avoided and corner lots should be designed to maximise opportunities to create private outdoor space on site without the need for high front fences.

**54.10.10.3 Design Element 3: Design of Roads and Access Routes**

- a. Road cross-sections should be appropriate to the nature of the service they provide.
- b. Parking should be provided on at least one side of local residential roads and angle parking provided around the Neighbourhood Green as shown in Diagram 54.E.
- c. A footpath on at least one side of local roads and minor links.
- d. A sealed-surface shared walking/cycling path of 2 metres as shown in Diagram 54.E.
- e. Local traffic management measures should be applied to limit the speed of vehicles in local residential roads and minor links, and to enhance safety, movement and amenity for pedestrians and cyclists.
- f. Road and road design should be appropriate to function and provide practical widths for vehicles, planting, and services. Useful dimensions to have regard to in assembling a suitable road cross section formation width are as follows with reserve widths as per Diagrams 54.F and 54G:

	<b>Formation Width</b>
two lanes of traffic on a residential collector road (to cater for buses or trucks) (ROAD B and C)	8.0 metres
two lanes of traffic on a local street ROAD ON NORTH SIDE OF SQUARE (ROAD A )	6.0 metres
cycle path or cycle lane	2.0 metres
parallel parking lane	2.5 metres
LANE = LEGAL AND SEAL + DRAIN IN CENTRE = STORMWATER DETENTION	6.0 metres
Footpath	1.4 metres
kerbside verge	1.0 metres
planting strip	1.5 metres

Kerbside parking lanes may be defined and delineated with planting bays if desired. Pedestrian and cycle paths should generally be integrated with road and reserve design. Paths which are separate from vehicle routes should be designed to ensure personal security for users. Where paths are not part of an open reserve they should generally be short (not more than 50 metres in length), and wide (not less than 6 metres legal width) and there should be clear visibility from one end to the other, and street lighting at both ends.

Tree planting in the road reserve should be regarded as a requirement, as it provides character and, particularly in more intensive subdivisions, may be the only place for trees to grow to maturity. Grassed service strips (separate from planting strips) are generally required along any road boundaries where properties are accessed, (though other solutions for services location may be considered, for example a single service strip with connections under the carriageway on minor links and lanes).

**54.10.10.4 Design Element 4: Public Interface and External Appearance**

- a. When viewed from any public space groups of buildings should create visual interest through articulation, roof form, openings, and variation.
- b. Fences or walls along any road or reserve boundary and between the road and the front face of the closest building should be generally avoided or limited in height.
- c. Having no side yard in the Park Frontage Housing Area seeks to connect terrace style housing with well insulated party walls and appropriate and compact development that contain private space amenity.
- d. Soft landscaping proposals should be concentrated along all public space boundaries, with species selected to maintain views between the dwellings and public space.
- e. Household units adjacent to a road or reserve should have windows from a living room, or dining room or kitchen that enables views to the road and the reserves, especially the Neighbourhood Green.

**54.10.10.5 Design Element 5: Dwelling Design, Position and Orientation**

- a. Where possible buildings should be oriented and located to define external spaces that allow adequate daylight to dwellings and sunlight to main living rooms and private outdoor spaces.
- b. All of the Park Frontage Housing units will front onto and be accessed from the road and located with the 2 metre minimal setback, with the exception of lots on the south side of the Neighbourhood Green where a larger setback may be entertained.
- c. Household units should be positioned with openings designed to capitalise any views that are available.
- d. Site layouts should retain any existing mature trees on site where these contribute to existing site amenity.

**54.10.10.6 Design Element 6: Private Outdoor Spaces**

- a. Every household unit should be provided with flat private outdoor space with direct access to it from the dwelling, and preferably via the living areas of the dwelling.
- b. Private outdoor space should be at ground level. However outdoor space may be provided on balconies or roof decks, while avoiding the overlooking of private outdoor space of other units.
- c. The main areas of private outdoor space will be positioned at the back of the household unit to increase household privacy. Refer to Diagram 54.H for Park Frontage Housing.

**54.10.10.7 Design Element 7: Visual and Acoustic Privacy**

- a. Ground level private outdoor space should be protected from being overlooked from windows and private outdoor spaces of adjacent household units through the use of the following design devices:
  - i. the shape and position of buildings, spaces and windows;
  - ii. separation distance;
  - iii. intervening screening, e.g.:
    - a. fences 1.6 metres to 1.8 metres high; (not on the front boundary within the Park Frontage Housing Area)
    - b. dense trees, planting or hedges;
  - iv. screening devices on balconies;
  - v. offset and high sill windows;
  - vi. obscured and restricted-opening windows (service rooms only).

- b. Direct views from the windows of one household unit into the windows of another should be avoided or minimised, through the use of the design devices, as outlined in a above..
- c. Acoustic privacy between household units should be enhanced by separation between openings, effective solid acoustic screening, and by separating the noise sensitive spaces (such as bedrooms) of one unit from the service rooms, garages and parking areas of another.

#### **54.10.10.8 Design Element 8: Parking and Access**

- a. The LANES, shown in Diagram 54.E, will be used for one-way traffic and the turning and manoeuvring of vehicles.
- b. Garages will be located off the LANE.
- c. Outdoor parking spaces, shared vehicle access routes and any pedestrian routes on site should be well lit for night time visibility and security.
- d. Outdoor parking spaces on the front of any site abutting a road will be designed and positioned to minimise visual impact on the streetscape.

#### **54.10.10.9 Design Element 9: Design of Reserves**

- a. Public roads should be located adjacent to parks and reserves. Clear sight lines into all areas of reserves should be available from public roads and nearby dwellings and along cycle and pedestrian routes.
- b. Reserves should be designed for a particular purpose and to provide a focal point for the neighbourhood, and be located such that as many lots as possible have a direct physical or visual connection with the reserve.
- c. Trees and any structures should be positioned for winter shelter and summer shade, to maximise the focal qualities of any reserve, and to reinforce any linkages from the reserve to other areas.

#### **54.10.10.10 Design Element 10: Design of the LANES**

- a. The LANES are to be lower level public roading, within the roading hierarchy, and are to be suitably designed and landscaped.
- b. The design of the Lane will be in accordance with Diagram 54.F