

## Appendix 1. Masterplans

### A) Churton Park District Centre – Concept Plan

#### 1.0 Introduction

This Concept Plan is made up of a map, a set of standards and a set of guiding principles. Together these are intended to guide the development of a village centre. All resource consent applications made under Rules 7.3.6 (development in Churton Park District Centre Concept Plan area), 7.3.13 (subdivision), and 7.4.2 (development in Churton Park District Centre Concept Plan area that does not comply with standards in 7.6.5) must be assessed against all three parts of the Concept Plan. Any development or subdivision that departs from the standards of the Concept Plan, as stated in Rule 7.6.5, will be considered as a Non-Complying Activity. Any application for a resource consent will need to demonstrate, in the accompanying Assessment of Effects, how proposals meet the guiding principles, attached as Appendix 4 to the Centres Design Guide.

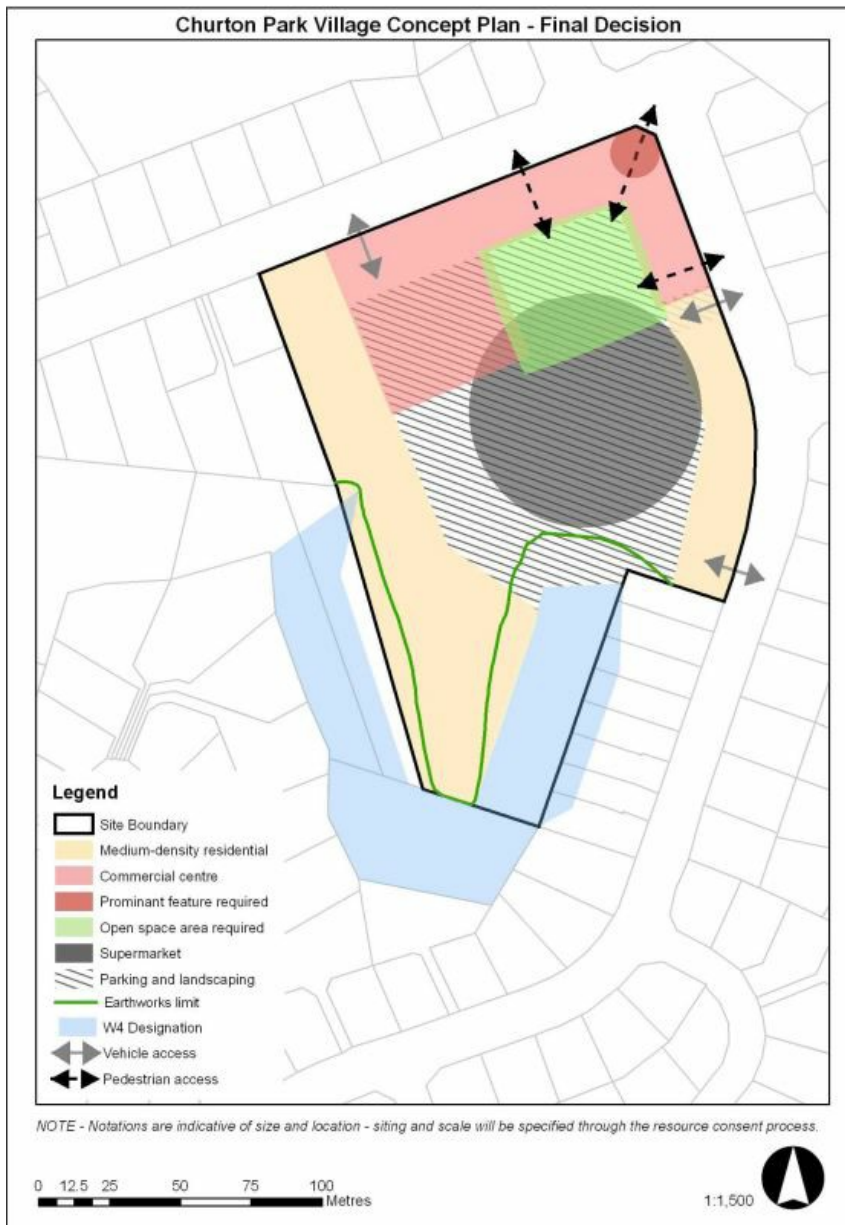
The map illustrates a flexible framework for development, indicating the general location within the village where activities should be located. The accompanying text reinforces the map with standards and the guiding principles are there to reinforce urban design principles that are to be achieved but do not fix the actual design for village or the individual buildings.

#### 2.0 Introduction

This Concept Plan is made up of a map, a set of standards and a set of guiding principles. Together these are for their day-to-day needs. Quality of development is essential in delivering such a place. Buildings will create a degree of critical mass balanced by park and open space to ensure a sense of place is established. Accessibility for public transport, private vehicles and pedestrians is made easy though balanced against pedestrian amenity. The Village will be an inviting and safe place to be in at all times of the day and night.

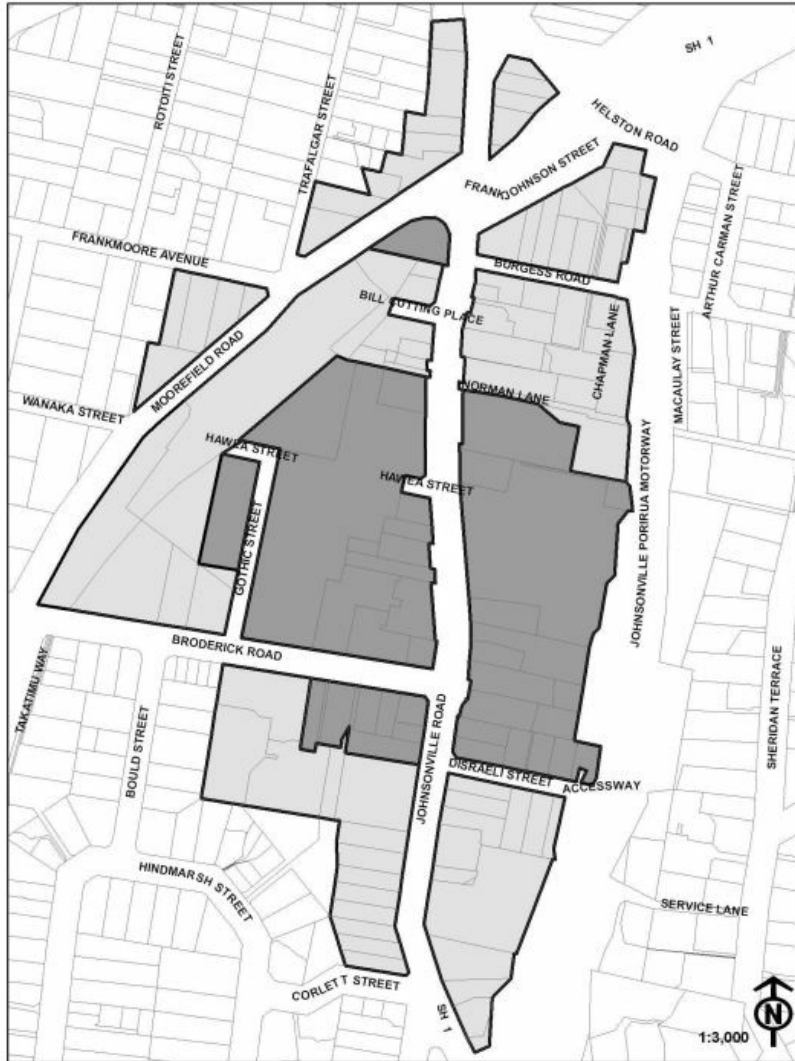
#### 3.0 Map

The different activity areas shown on the map do not represent the absolute location, footprint or specific land area to be used. Rather, these are diagrammatic representations of the general locations for buildings and activities. There is no specific requirement to either develop adjoined or separate buildings in any one part of the village. The final size, location and design of any component of the village required by the Concept Plan and shown on the map will be assessed through the resource consent process. Any subdivision will also be assessed through the resource consent process for compliance with the standards in 7.6.5 and compatibility with the map of the Concept Plan. Additionally, given that timing of development or subdivision of any part of the village is uncertain, the Concept Plan anticipates any balance areas not being developed, remain in grass cover or be landscape planted awaiting development. In particular, the plan does not intend that undeveloped areas be temporarily developed or used for car parking.



## B) Johnsonville Height Zones

Johnsonville



Johnsonville Height Zones

- Height Zone 1: 12m
- Height Zone 2: 18m

### C) Mt Cook (Adelaide Road) Height Zones



## D) Kilbirnie Bus Barns – Concept plan

### 1.0 Introduction

The provisions contained in this appendix will guide the future comprehensive redevelopment of the Kilbirnie Bus Barns site from its current use as a bus depot to a high quality mixed use development.

The provisions do not affect the current use of the site as a bus depot. In the event that the site is redeveloped for use as a bus depot the 'concept plan' provisions would not apply. In those circumstances the provisions otherwise applying to development in Centres would apply.

The bus barns site and the wider Kilbirnie town centre have a Centres zoning, which provides for a wide range of residential and non-residential activities, subject to urban design controls. In 2010, Council approved the non-statutory Kilbirnie Town Centre Revitalisation Plan (the Town Centre Plan), which seeks to revitalise the Kilbirnie town centre. The Town Centre Plan helps give effect to the Urban Development Strategy (UDS) which recognises the Kilbirnie town centre as a key node on the Johnsonville to Kilbirnie 'growth spine'. It is also recognised in the Regional Policy Statement as a regionally significant centre.

The Town Centre Plan identifies the redevelopment of the 'Bus Barns' site as a key opportunity for Kilbirnie, with potential for the land to be developed for high quality mixed-use development.

The Town Centre Plan contains an action to review the provisions of the District Plan to ensure consistency with the Town Centre Plan aims (Action A16, page 39). This review process has taken place as part of the resolution of the appeal by Infratil on Plan Change 73, and the outcome of this process is set out in the vision statement, development principles, Concept Plan, and rules contained in this Appendix.

### 2.0 Site Plan and Concept Plan

#### 2.1 Zoning and application of the appendix provisions

Land containing the Kilbirnie Bus Barns is zoned Centres in the District Plan. Eight residential zoned properties (52-58, 62-64 and 85 Ross St and 47 Endeavour Street (zoned Residential (Outer) Area), and 73 Onepu Road (zoned Kilbirnie Medium Density Residential Area)) are also part of the current Kilbirnie Bus Barn operations.

All provisions contained in this appendix apply **only** to the Centres zoned Kilbirnie Bus Barns site identified in the site plan below.



**2.2 Concept Plan**

The concept plan below applies to all of the Centres zoned Kilbirnie Bus Barns land identified in the site plan and the eight residential properties mentioned above. Development associated with these residential zoned properties will be subject to the relevant residential area zone provisions.



### 3.0 Vision statement

This Kilbirnie Bus Barns site will be comprehensively redeveloped to create a high quality mixed use development that will:

- a. create a positive precedent for medium and high density residential development in the town centre;
- b. provide opportunities for live/work, office and some retailing; and
- c. add to the vitality and viability for the Kilbirnie town centre and surrounding residential environment.

### 4.0 Design principles

The implementation of the concept plan shall be guided by the following design principles.

#### 4.1 Comprehensive development

The site should be re-developed in a manner consistent with the concept plan. If the site is to be developed in stages the developer/s will be required to show how the proposed development is consistent with the concept plan, and the development principles contained in this appendix.

Council and landowner investment in infrastructure, public realm enhancements, and roading will be used to improve the quality of the local environment, and help create better physical and visual connections with the Kilbirnie town centre and adjacent residential areas.

The transition of the site from a bus depot to a mixed use development will be managed to ensure

the quality of existing bus services for the public are not compromised.

#### **4.2 Redevelopment and construction phases**

Demolition and redevelopment phases shall be managed to avoid any potential risks associated with site contamination and hazardous substances.

The site, or parts of the site, should not be left vacant in order to:

- a. avoid negative impacts on the amenity of adjacent residential areas and the Kilbirnie town centre;
- b. maintain the vitality and viability of the town centre as an attractive place in which to invest and undertake shopping and other community related activities;
- c. avoid risks associated with vandalism and tagging, fire, or other hazardous activities.

The effects on the surrounding neighbourhood from site de-commissioning and construction phases shall be carefully managed through the resource consent process.

#### **4.3 Mix of uses**

##### **Residential**

The Kilbirnie Bus Barns site will be developed predominantly for residential purposes and provide for 1-4 bedroom residential units to ensure a range of different lifestyle options.

##### **Retailing and employment**

Provision shall be made for live/work accommodation that is compatible with the future residential amenities and character of the Kilbirnie Bus Barns site.

Retail activities comprising 'comparison shopping' shall not significantly affect the viability and vitality of the retail 'core' of the Kilbirnie town centre, which comprises retail premises fronting Bay Road, Coutts Street, and Rongotai Roads (the 'retail core').

Large format retail activities shall not be provided on the Kilbirnie Bus Barns site due to their potential to negatively impact on the viability and vitality of the retail core.

A large speciality food outlet could be developed in the northern part of the site, provided sufficient on-site carparking and adverse traffic impacts are minimised.

##### **Explanation**

The Town Centre Plan, and current and future public space upgrades will recognise and enhance the primacy of the retail core. These principles are consistent with this approach as they allow some retail activities within the Kilbirnie Bus Barns site provided they do not significantly affect viability and vitality of the retail core.

For the purpose of clarification, 'comparison shopping' comprises small speciality retail units which together provide a range of retail products to the public. This definition also includes department stores which sell a similar range of retail products in separate departments or sections within the store, with customer service, accounting etc undertaken on a departmentalised basis.

#### **4.4 Building height and urban form**

##### **Height**

All development undertaken in accordance with the provisions contained in this appendix (including the concept plan) require a discretionary activity (restricted) resource consent in accordance with Rule 5.1 below.

In assessing such developments an 18 metre maximum building height is provided for in the 'blue' area identified on the Kilbirnie Bus Barns Concept Plan (see section 2.2 of this Appendix).

A 12 metre building height is provided for over the remainder of the site, with potential for a maximum building height up to 18 metres as part of a discretionary activity (restricted) resource consent assessment.

Developments which exceed the 18 metre maximum building height will be assessed as a discretionary (unrestricted) activity in accordance with Rule 5.2 below.

##### **Explanation**



The 18 metre maximum building height will allow a concentration of activities and development in the centre of the Kilbirnie Bus Barns site and act as a focal point for development of the whole site. Lower building heights on the remainder of the site will ensure a 'stepping down' from the centre of the site and will create an appropriate scale and urban form consistent with the rest of the town centre. The building height limits together with the building recession plane requirements will also manage amenity impacts on adjoining land-uses.

#### **4.5 Residential amenity, privacy and massing**

##### **Amenities of adjacent land-uses**

The relevant building recession planes applying in the Residential (Outer) Area, the Medium Density residential Area, and the Centres, shall apply at the boundaries of the Kilbirnie Bus Barns site, unless existing buildings are retained.

Building mass adjacent to existing residential properties on Ross Street, Endeavour Street and Onepu Road shall be designed to protect the residential amenity and privacy of these properties.

Developments which contravene the building recession plane standards will be assessed as a discretionary (unrestricted) activity in accordance with Rule 5.2 below.

##### **Amenities of residents within the bus barns site**

Throughout the Kilbirnie Bus Barns site, buildings shall be designed to respect the privacy of adjacent residential properties through massing, building setbacks, the careful design and location of windows and living areas, screening and landscaping.

New buildings should:

- a. avoid undue shading of adjacent dwellings and private outdoor spaces
- b. have living areas that optimise sun exposure and natural light
- c. provide easily accessible private open space for each new residential unit either at ground level or on balconies/decks. Locate private open space to have good sun access and direct access from the dwelling.

##### **Centre Design Guide**

In addition to the matters in 4.7 (below), Sections 1 Design Coherence to Section 7 Materials and Detail of the Centres Design Guide will be applied to the assessment of proposals to redevelop the site.

#### **4.6 Natural hazards**

Buildings and open space shall be designed to ensure any risks posed by natural events such as sea level rise and earthquakes are appropriately mitigated.

##### **Explanation**

The Kilbirnie Bus Barns site and the wider Kilbirnie area is low lying and may be susceptible, over time, to climate change effects such as sea level rise. The site is also identified in the District Plan as being within the Hazard (Ground Shaking) Area. These potential risks should be addressed when redeveloping the land.

#### **4.7 Urban design**

##### **High quality building design**

A range of housing unit types shall be developed using varied massing, materials and forms (such as roof form, balconies, verandahs', etc) in order to provide a vibrant and visually attractive urban environment.

##### **Active edges**

The concept plan identifies those parts of the site identified as secondary frontages which require active building edges. Along these secondary frontages the entire ground floor of all new buildings shall be occupied by non-residential activities.

New buildings at ground floor level must not create a featureless façade more than 4 metres wide on any wall that faces a public space, and extends from a height of 1m above ground level up to a

maximum height of 2.5 metres. A featureless façade will be considered to be one that lacks windows, doors, columns, recesses, stairs, niches or other architectural detailing.

### **Building facades**

The western façade of Barns 2 and 3 (towards Onepu Road) and three sides of the southern-most bay of the main workshop (that is, the façade which abuts the drainage easement and associated east and west facades) should be retained and incorporated into the design of the new development. These protected facades are indicated on the Concept Plan in section 2.2 of this appendix.

#### **4.8 Open space and landscaping**

A public open space area for passive recreation activities shall be provided adjacent to the Onepu Road frontage or in a location that is easily accessible to the public. This public open space shall

- a. be designed to a high standard to enable all year around recreational use
- b. have good access to sunlight
- c. incorporate tree planting and/or other features to provide wind protection
- d. be adjacent to buildings with active edges (see section 4.6 above)

Public open space and landscaping shall be used throughout the site to provide outdoor amenity areas for residents, and soften the visual impact of new buildings on adjoining properties and the public realm.

#### **4.9 Environmental sustainability**

##### **Water use**

The design and layout of streets, open space and buildings shall promote the on-site storage, use and recycling of water, with stormwater run-off treated through vegetative swales where possible before discharging to the stormwater network.

##### **Energy and waste**

Green building technologies and waste minimisation facilities should be included as an integral part of the design of buildings and open spaces.

#### **4.10 Safety and accessibility**

Crime Prevention through Environmental Design (CPTED) principles shall be employed when designing and siting buildings and open spaces for the benefit of residents, workers and members of the general public.

Buildings, open spaces, roads, footpaths and accessways area should be accessible to all people, including people with disabilities.

#### **4.11 Roading and traffic**

##### **Connectivity**

A public, mid-block pedestrian and vehicular link shall be provided to connect Onepu Road and Ross Street, and to provide access to commercial and residential units as indicated in the Concept Plan (see Section 2.2 of this appendix).

The layout and design of the internal road and pedestrian link shall be in general accordance with the Concept Plan, but depending on the final design and layout of development on the site it may not be possible to provide 'active edges' strictly in accordance with District Plan definition along the full length of the internal road.

Access into and from the site shall be confined to the points indicated on the concept plan in order to ensure traffic, cyclist, and pedestrian safety and efficiency.

#### **4.12 Car parking, public transport, pedestrian and cycle access**

##### **Carparking**

Carparking shall be provided to meet the demands for carparking associated with uses within the site.

Carparking areas should in the main not be visible from public spaces including public roads and through-site links.

The majority of carparking should be located in underground carparks, in undercrofts, garages or in carparking building(s).

### **Public transport**

The landowner, Wellington City Council and Greater Wellington Regional Council will work together to ensure facilities and services are available for accessing public transport.

### **Pedestrian and cyclists**

Facilities for pedestrians and cyclists (including bicycle racks) will be provided within the site, and enable access into and through all parts of the site.

### **Drainage reserve**

Development should be designed to allow good quality pedestrian and cycle only access to the Council's drainage easement, which will be developed as a community recreational space.

No vehicular access will be permitted across the drainage reserve.

- 5.0 Rules relating to the Kilbirnie Bus Barns site identified on the site plan in section 2.1 of the appendix
- 5.1 New buildings, and alterations and additions to existing buildings within the Kilbirnie Bus Barns site that are used for purposes other than a 'bus depot' and that are consistent with the concept plan in 2.2 of this Appendix, are Discretionary Activities (Restricted) in respect of:
- The design principles in 4.1 – 4.12 of the Appendix

### **Explanation**

Ongoing use and redevelopment of the site for bus depot operations will not be subject to this rule, but will continue to be subject to the Centres provisions.

### **Non-notification**

In respect of Rule 5.1 applications will not be publicly notified (unless special circumstances exist) or limited notified.

- 5.2 New buildings, and alterations and additions to existing buildings within the Kilbirnie Bus Barns site that are used for purposes other than a 'bus depot' and that:
- Are not consistent with the Concept Plan in 2.2 of this Appendix; or
  - Exceed 18 metres in height; or
  - Contravene the relevant building recession plane on the boundaries of the site are a Discretionary Activity (Unrestricted).

## Appendix 2. Wind

This Appendix describes the form and content of wind assessment reports, and details the requirements for wind tunnel tests and reports, as required by Rule 7.3.7.1.

### 1. Form of Wind Assessment Report

A wind assessment report is not based on the results of a wind tunnel test and so ultimately relies on the expert knowledge and opinion of the qualified wind specialist. However, it must contain the following:

- 1.1 A description of the existing wind conditions, including sources and limitations of information used in the assessment.
- 1.2 A description of the likely interaction of the existing buildings with the wind that leads to the existing wind conditions.
- 1.3 A review of the design of the development, and its appropriateness for a windy environment. The WCC Wind Design Guide should be used as a basis for a design evaluation checklist for this review.
- 1.4 A description of the expected influence of the proposed development on pedestrian level wind speeds in areas open to the public. The WCC Wind Design Guide should be used as the basis for a design evaluation checklist for this review. The review should also examine the role of amelioration measures, including large setbacks of upper levels from the street façade, deep balconies and full-width verandahs.
- 1.5 A discussion of the building design, including the effectiveness of ameliorative measures or major design changes that are recommended. It is intended that the wind assessment should provide clear evidence that the proposed building is the best practical aerodynamic design with respect to achieving the wind standards.
- 1.6 A statement at the conclusion of the report that, in the professional opinion of the expert, the proposal is unlikely to result in more than minor adverse effects on the wind environment at ground level.

### 2. Aims of the Wind Tunnel Test

The aims of a wind tunnel test are:

- 2.1 to quantify the effect of a building proposal on the surrounding pedestrian level wind environment by measuring and comparing the existing and proposed wind conditions, and
- 2.2 where wind conditions deteriorate as a result of the proposed building, to test alternative designs to it, and
- 2.3 to provide documentary evidence, of the proposed building's positive effect on the wind environment, emphasising measures taken to improve the wind environment, and demonstrating, where required, that every reasonable alternative design has been explored and that the proposed building is the best practical aerodynamic design arising from the other options that have been tested.

### 3. Form of the Wind Tunnel Test

Wind tunnel studies must meet the following conditions:

- 3.1 Wind studies should comply with the requirements of Australasian Wind Engineering Society Quality Assurance Manual, Wind Engineering Studies of Buildings, AWES-QAM-1-2001, except where the rules and requirements of the Wellington City District Plan supersede them.
- 3.2 The model scale used in the wind tunnel test must not produce models that are smaller than those obtained using a 1:500 scale.
- 3.3 The atmospheric boundary-layer simulation should be equivalent to Category 3 or Category 4 terrain, as defined in the Australia/New Zealand Loading Standard,

AS/NZS 1170.2:2002.

- 3.4 Where there is no site wind speed data of sufficient quality, the reference wind speeds shall be derived using wind data from Wellington Airport, with the following corrections;
- winds at a height of 10 m at Wellington Airport have equivalent mean speed to winds at a height of 150 m above Wellington City, and wind directions over Wellington City are the same as those at Wellington Airport, except that the northerly wind directions (i.e. 0°-80° & 280°-360°) are rotated to the west by 10° (e.g. 360° at the airport becomes 350° over the city).
- 3.5 Wind speeds shall be measured for the reference wind directions (degrees clockwise with respect to true North) 150°, 170°, 190°, 210°, 320°, 340°, 360° and 020°.
- 3.6 3.6 The gust speeds shall be calculated as:  

$$\text{gust} = v + 3.7\sigma$$
 where  $v$  = the annual maximum hourly mean wind speed for all wind directions combined, and  
 $\sigma$  = the corresponding standard deviation of the wind speed.  
 This overall gust speed will be used to assess the compliance with the safety criteria given in standard 13.6.3.5.2 (a).
- 3.7 All wind speeds shall be measured at a full-scale height of 2 metres.
- 3.8 The percentage change in hours shall be calculated by dividing the change in the number of hours by 8760 (i.e. the total hours in one year).
- 3.9 Flow visualisation tests that show the spatial extent of windy areas throughout public areas that surrounding the development shall be made for the existing situation and for the proposed development. Flow visualisation testing will include at least six different wind speeds, and be undertaken for at least two representative northerly wind directions and two representative southerly wind directions.
- 3.10 Where Council Officers consider that any effects of the proposed development will be significant in nature, additional wind tunnel testing may be required to be undertaken to quantify the effects of alternative building designs and/or modifications. Clear evidence should be gathered to show that the proposed building is the best practical aerodynamic design with respect to achieving these standards. The recording and measurement of wind speeds for this investigation of alternatives need only be for those areas around the proposed building, and for those wind directions, where problems have been identified. However, sufficient measurements must be taken to quantify all the changes with the alternative designs.

#### 4. Form of Wind Tunnel Test Report

A wind tunnel test report must contain:

- 4.1 A description of the atmospheric boundary layer simulation that is used in the wind tunnel. This will include plots of the mean wind speed profile and turbulence intensity profile.
- 4.2 A description of the reference wind speeds that have been used to derive the wind speeds listed in the wind report. Any assumptions and limitations of the reference wind speed analysis and a description of the meteorological data used must be provided.
- 4.3 A calibration section, which contains images of the flow visualisation tests when applied to an isolated building model, subjected to the same wind tunnel test conditions as those used in the wind study. The building model shall be a square prism, 15 metres square in plan and 60 metres high, at the scale used in the test. Images of the flow visualisation test shall be taken for at least six different reference wind speeds. The final wind speed should correspond to an area of influence, that is identified by the flow visualisation, that is equal to 80% of a diameter of 50 metres (at the scale of the model), centred on the back face of the model. The intermediate speeds will be chosen to divide this maximum speed into

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equal parts.

- 4.4 An analysis of the errors limits and the precision that is achievable in the wind speeds and their frequency of occurrence that are listed in the body of the report. The relationship of the model (wind tunnel) to full-scale Wellington conditions, as far as it is known, should also be documented through reference to externally refereed papers or reports.
- 4.5 A diagram that clearly shows and identifies the locations/areas that were measured during testing
- 4.6 A table of the gust wind speeds for each wind direction and for each of the locations measured during testing. This will include listings for both the existing situation and for the proposed development.
- 4.7 A table of hours that the mean wind speeds of 2.5 m/s and 3.5 m/s are equalled or exceeded each year, for each of the locations measured during testing.
- 4.8 Records/diagrams of the flow visualisation tests.
- 4.9 A description of the effects of the proposed development on wind conditions in the surrounding area.
- 4.10 An analysis of the 3-dimensional wind flows around the proposed building indicating the way in which its effect on the air flow affects pedestrian-level winds. This should clarify:
- 4.10.1 the cause(s) of any observed problems;
- 4.10.2 the ways in which the problems might be avoided; and
- 4.10.3 the ways in which these wind problems might be mitigated.
- At its simplest this might mean stating (for example):
- that the root cause is the downwash caused by the building being very much bigger in scale than its neighbours;
  - that reducing the size of the proposed building would remove this root cause;
  - that large canopies around the building could provide shelter from the downwash in the immediate vicinity of the entry ways, although this may result in the carparking area beyond the canopy being made uncomfortable.
- 4.11 Where Council Officers consider that any effects of the proposed development will be significant in nature, an assessment of alternative designs and modifications including the results of additional wind tunnel testing that quantify the wind effects may be required to be provided. Clear evidence should be provided that the proposed building is the best practical aerodynamic design with respect to achieving these standards. Existing wind speeds and hours of occurrence shall be reported only at the locations / wind directions where alternative designs have been tested.

### **Appendix 3. Indicative list of activities under Schedule 3 of the Health Act 1956**

*The following list is indicative of the activities contained under Schedule 3 of the Health Act 1956:*

- Blood or offal treating,
- Bone boiling or crushing,
- Collection and storage of used bottles for sale,
- Dag crushing,
- Fellmongering,
- Fish cleaning,
- Fish curing,
- Flax pulping,
- Flock manufacturing, or teasing of textile materials for any purpose,
- Tanning,
- Gut scraping and treating,
- Nightsoil collection and disposal,
- Refuse disposal,
- Septic tank desludging and disposal of sludge,
- Slaughtering of animals for any purpose other than human consumption,
- Storage, drying, or preserving of bones, hides, hoofs, or skins,
- Tallow melting,
- Wood pulping, and
- Wool scouring.