

DISTRICT PLAN TEXT AMENDMENTS

COUNCIL KEY:

Bold underline light blue text/~~Bold strikethrough light blue text~~ – Consequential minor corrections: either directed by the IHP Recommendation for the chapter or a minor amendment under Clause 20A of the First Schedule of the Resource Management Act 1991.

Bold black underline text – Text reinstated by the IHP as directed in their Minute 57 (paragraph 7) and Addendum 3 to Part 3 Recommendations Report 8 November 2024.

*Note that in the above, any **green text** represents a defined word or term, and any **blue text** represents a hyperlink.*

6.12 Radiocommunication Pathway Protection Corridors

6.12.1 Introduction

- a. This introduction is to assist the lay reader to understand how this sub-chapter works and what it applies to. It is not an aid to interpretation in a legal sense.
- b. Sub-chapter 6.12 Radio Pathways Protection relates to the management of adverse effects on radiocommunication pathways, recognising the effects on strategic infrastructure (including its role and function) of buildings, structures, and utilities intruding into the pathways.
- c. In radiocommunication networks, information is carried across space using radio waves that travel through the air in a straight line. There is a certain volume of airspace around the straight line through which the radio waves need to pass, and the straight line and the surrounding airspace comprise a radiocommunication pathway. The more intrusions into this pathway, the less resilient the pathway becomes (because signals are reduced and become unreliable) and a pathway may even be blocked.
- d. A radiocommunication facility is installed on the roof of the Christchurch Justice and Emergency Services Precinct (CJESP), which provides fixed radiocommunication pathways to key radiocommunication sites (such as Mt Pleasant, Cashmere/Victoria Park and Sugarloaf).
- e. These pathways provide emergency and day-to-day coverage for Police, Fire and Emergency New Zealand (FENZ) and St John operational vehicles, communication services and Civil Defence services. Disruption of the network can have serious implications for life, property and the environment.
- f. Effects on radiocommunication pathways are managed by defining a radiocommunication pathway protection corridor for each radiocommunication link (for example, the pathway between the CJESP and Mt Pleasant) and restricting activities that protrude above certain heights and into the pathways (see Central City Planning Maps 39) are restricted to ensure that vital radiocommunication links are not disrupted.
- g. These protection pathways are designed in accordance with the International Telecommunications Union (ITU) recommendations. The ITU is an international treaty organisation that coordinates radio spectrum internationally and also issues recommendations which form international benchmarks for the design and implementation of radio links. ITU recommendation P.530 is the international benchmark for the design of terrestrial radio links.
- h. The provisions in this sub-chapter give effect to the Chapter 3 Strategic Directions Objectives.

6.12.2 Objective and policies

6.12.2.1 Objective — Protection of radiocommunication pathway corridors

- a. Radiocommunication pathway protection corridors are protected from activities that would disrupt or block the radiocommunications network associated with the Christchurch Justice and Emergency Services Precinct.

6.12.2.1.1 Policy - Avoidance of physical obstructions - Cashmere/Victoria Park, Sugarloaf and Mt Pleasant

- a. Avoid physical obstructions by any **building**, structure (including cranes) or **utility** associated with any activity, including construction or temporary activity, in the radiocommunication pathway protection corridors for Cashmere/Victoria Park, Sugarloaf and Mt Pleasant to maintain **radio communication** for emergency and day-to-day operations of emergency services.

Advice note:

Refer to [6.12.4.2 Radiocommunication pathway protection corridors](#) and [Central City Planning Maps 39](#) for a description of the radiocommunication pathway protection corridors.

6.12.3 How to interpret and apply the rules

- a. The rules that apply to activities within the **radiocommunication** pathway protection corridors are contained in the activity status tables (including activity specific standards) in Rule [6.12.4.1](#).
- b. Activities within the **radiocommunication** pathway protection corridors are also subject to the rules in the relevant zone chapters.
- c. The activity status tables, rules and standards in the following chapters also apply to activities within the areas covered by the **radiocommunication** pathway protection corridors (where relevant):
 - [4 Hazardous Substances and Contaminated Land](#);
 - [5 Natural Hazards](#);
 - [6 The other sub-chapters of General Rules and Procedures](#);
 - [7 Transport](#);
 - [8 Subdivision, Development and Earthworks](#);
 - [9 Natural and Cultural Heritage](#); and
 - [11 Utilities and Energy](#).
- d. The maximum **height** of **buildings**, structures and **utilities** permitted in the **radiocommunication** pathway protection corridors are set out in Tables [6.12.4.2.1 Cashmere/Victoria Park](#), [6.12.4.2.2 Sugarloaf](#), and [6.12.4.2.3 Mt Pleasant](#). The maximum **height** of **buildings**, structures and **utilities** depends on the distance of the activity from the [Christchurch Justice and Emergency Services Precinct](#), measured in 20m intervals. If an activity falls between two measurements, the most restrictive maximum **height** will apply.
- e. Tables [6.12.4.2.1](#) – [6.12.4.2.3](#) set out the maximum **height** in metres [above ground level](#).

6.12.4 Rules - Radiocommunication Pathway Protection Corridors

6.12.4.1 Activity status tables - Radiocommunication Pathway Protection Corridors

6.12.4.1.1 Permitted activities

- a. Within the radiocommunication pathway protection corridors as specified in Rule 6.12.4.2 and shown on Central City Planning Maps 39, the activities listed below are permitted activities.
- b. Activities may be controlled, restricted discretionary, discretionary, non-complying or prohibited as specified in Rules 6.12.4.1.2, 6.12.4.1.3, 6.12.4.1.4, 6.12.4.1.5 and 6.12.4.1.6.

Activity		Activity specific standards
P1	Any part of a building, structure (including a crane) or utility that is lower than the maximum height limits specified in Rule 6.12.4.2, Table 1 Cashmere/Victoria Park, Table 2 Sugarloaf and/or Table 3 Mt Pleasant.	Nil

Advice note: On the planning maps, the western most pathway is Cashmere/Victoria Park (Table 1), the middle pathway is Sugarloaf (Table 2) and the eastern most pathway is Mt Pleasant (Table 3).

6.12.4.1.2 Controlled activities

There are no controlled activities

6.12.4.1.3 Restricted discretionary activities

- a. Within the radiocommunication pathway protection corridors shown on the Central City Planning Maps 39, the activities listed below are restricted discretionary activities.
- b. Discretion to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 6.12.5.1.

<u>Activity</u>		<u>The Council's discretion shall be limited to the following matters:</u>
<u>RD1</u>	<p>a. <u>Any part of a building, structure (including a crane) or utility that does not comply with Rule 6.12.4.1.1 P1.</u></p> <p>b. <u>Any application arising from this rule shall not be publicly notified and shall be limited notified only to the Ministry of Justice (absent its written approval).</u></p>	<p>a. <u>Radiocommunication pathways intrusions – Rule 6.12.5.1</u></p>

- c. An assessment of the effects of the exceedance of the maximum height limit should be undertaken in accordance with ITU-R P.530, *Propagation data and prediction methods required for the design of terrestrial line-of-sight systems* (latest revision), with reference to ITU-R P.526 *Propagation by Diffraction*, by a Ministry of Business, Innovation and Employment Approved Radio Engineer.

Advice notes:

- On the planning maps, the western most pathway is Cashmere/Victoria Park (Table 1), the middle pathway is Sugarloaf (Table 2) and the eastern most pathway is Mt Pleasant (Table 3).
- See rsm.govt.nz for a list of Approved Radio Engineers.

6.12.4.1.4 Discretionary activities

There are no discretionary activities.

6.12.4.1.5 Non-complying activities

There are no non-complying activities.

6.12.4.1.6 Prohibited activities

There are no prohibited activities.

6.12.4.2 Radiocommunication pathway protection corridors

6.12.4.2.1 Cashmere/Victoria Park

- a. Table 1 specifies the radiocommunication pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see [Central City Planning Maps 39](#), western most pathway)

and the maximum **height** limit for any part of a **building**, structure (**including a crane**) or **utility** within the Cashmere/Victoria Park **radiocommunication** pathway protection corridor.

Advice note: Council can provide relevant LiDAR data information from 2020 on request.

Table 1: Cashmere/Victoria Park

<u>Radio Path</u>	<u>CJESP - Cashmere/Victoria Park</u>	
<u>Path Length (km)</u>	<u>5.5</u>	
<u>Azimuth from CJESP (degrees True North)</u>	<u>176</u>	
<u>Distance from CJESP</u>	<u>Horizontal width of Clearance Zone centred on Radio Link axis</u>	<u>Maximum height limit above existing ground level as determined using 2020 LiDAR</u>
<u>(km)</u>	<u>(m)</u>	<u>(m)</u>
<u>0</u>	<u>0.0</u>	<u>33.2</u>
<u>0.02</u>	<u>0.7</u>	<u>34.3</u>
<u>0.04</u>	<u>1.0</u>	<u>34.7</u>
<u>0.06</u>	<u>1.3</u>	<u>35.6</u>
<u>0.08</u>	<u>1.5</u>	<u>36.6</u>
<u>0.1</u>	<u>1.6</u>	<u>37.1</u>
<u>0.12</u>	<u>1.8</u>	<u>37.8</u>
<u>0.14</u>	<u>1.9</u>	<u>38.6</u>
<u>0.16</u>	<u>2.1</u>	<u>38.9</u>
<u>0.18</u>	<u>2.2</u>	<u>39.6</u>
<u>0.2</u>	<u>2.3</u>	<u>40.3</u>
<u>0.22</u>	<u>2.4</u>	<u>40.9</u>
<u>0.24</u>	<u>2.5</u>	<u>41.7</u>
<u>0.26</u>	<u>2.6</u>	<u>43.3</u>
<u>0.28</u>	<u>2.7</u>	<u>44.0</u>
<u>0.3</u>	<u>2.8</u>	<u>44.7</u>
<u>0.32</u>	<u>2.9</u>	<u>45.2</u>
<u>0.34</u>	<u>3.0</u>	<u>45.8</u>
<u>0.36</u>	<u>3.0</u>	<u>46.7</u>
<u>0.38</u>	<u>3.1</u>	<u>47.5</u>
<u>0.4</u>	<u>3.2</u>	<u>48.3</u>
<u>0.42</u>	<u>3.3</u>	<u>49.3</u>

0.44	3.3	50.0
0.46	3.4	50.4
0.48	3.5	51.3
0.5	3.5	52.0
0.52	3.6	53.1
0.54 (Moorhouse Ave)	3.6	53.1

6.12.4.2.2 Sugarloaf

- a. Table 2 specifies the [radiocommunication](#) pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see [Central City Planning Maps 39](#), middle pathway) and the maximum [height](#) limit for any part of a [building](#), structure (including a crane) or [utility](#) within the Sugarloaf [radiocommunication](#) pathway protection corridor.

[Advice note: Council can provide relevant LiDAR data information from 2020 on request.](#)

Table 2: Sugarloaf

Radio Path	CJESP - Sugarloaf	
Path Length (km)	7.7	
Azimuth from CJESP (degrees True North)	171.3	
Distance from CJESP	Horizontal width of Clearance Zone centred on Radio Link axis	Maximum height limit above existing ground level as determined using 2020 LiDAR
(km)	(m)	(m)
0	0.00	33.5
0.02	0.74	34.9
0.04	1.04	35.7
0.06	1.27	37.0
0.08	1.47	38.2
0.1	1.64	39.1
0.12	1.79	40.2
0.14	1.94	41.3
0.16	2.07	42.1
0.18	2.19	42.9
0.2	2.30	44.0

<u>0.22</u>	<u>2.41</u>	<u>44.9</u>
<u>0.24</u>	<u>2.52</u>	<u>46.4</u>
<u>0.26</u>	<u>2.62</u>	<u>47.8</u>
<u>0.28</u>	<u>2.71</u>	<u>48.9</u>
<u>0.3</u>	<u>2.80</u>	<u>49.9</u>
<u>0.32</u>	<u>2.89</u>	<u>50.9</u>
<u>0.34</u>	<u>2.98</u>	<u>52.0</u>
<u>0.36</u>	<u>3.06</u>	<u>53.1</u>
<u>0.38</u>	<u>3.14</u>	<u>54.2</u>
<u>0.4</u>	<u>3.22</u>	<u>55.3</u>
<u>0.42</u>	<u>3.29</u>	<u>56.6</u>
<u>0.44</u>	<u>3.36</u>	<u>57.8</u>
<u>0.46</u>	<u>3.43</u>	<u>58.6</u>
<u>0.48</u>	<u>3.50</u>	<u>59.6</u>
<u>0.5</u>	<u>3.57</u>	<u>60.5</u>
<u>0.52</u>	<u>3.64</u>	<u>62.0</u>
<u>0.54</u> (Moorhouse Ave)	<u>3.70</u>	<u>62.8</u>

6.12.4.2.3 Mt Pleasant

- a. Table 3 specifies the **radiocommunication** pathway protection corridor (horizontal width of clearance zone centred on radio link axis – see [Central City Planning Maps 39](#), eastern most pathway) and the maximum **height** limit for any part of a **building**, structure (including a crane) or **utility** within the Mt Pleasant radiocommunication pathway protection corridor.

[Advice note: Council can provide relevant LiDAR data information from 2020 on request.](#)

Table 3: Mt Pleasant

<u>Radio Path</u>	<u>CJESP - Mt Pleasant</u>	
<u>Path Length (km)</u>	<u>9.5</u>	
<u>Azimuth from CJESP (degrees True North)</u>	<u>128.7</u>	
<u>Distance from CJESP</u>	<u>Horizontal width of Clearance Zone centred on Radio Link axis</u>	<u>Maximum height limit above existing ground level as determined using 2020 LiDAR</u>
<u>(km)</u>	<u>(m)</u>	<u>(m)</u>

<u>0</u>	<u>0.0</u>	<u>33.4</u>
<u>0.02</u>	<u>0.7</u>	<u>34.5</u>
<u>0.04</u>	<u>1.0</u>	<u>35</u>
<u>0.06</u>	<u>1.3</u>	<u>36.1</u>
<u>0.08</u>	<u>1.5</u>	<u>37.2</u>
<u>0.1</u>	<u>1.6</u>	<u>38.1</u>
<u>0.12</u>	<u>1.8</u>	<u>38.9</u>
<u>0.14</u>	<u>1.9</u>	<u>39.8</u>
<u>0.16</u>	<u>2.1</u>	<u>40.7</u>
<u>0.18</u>	<u>2.2</u>	<u>41.4</u>
<u>0.2</u>	<u>2.3</u>	<u>42.2</u>
<u>0.22</u>	<u>2.4</u>	<u>43</u>
<u>0.24</u>	<u>2.5</u>	<u>43.8</u>
<u>0.26</u>	<u>2.6</u>	<u>44.8</u>
<u>0.28</u>	<u>2.7</u>	<u>45.8</u>
<u>0.3</u>	<u>2.8</u>	<u>46.7</u>
<u>0.32</u>	<u>2.9</u>	<u>47.5</u>
<u>0.34</u>	<u>3.0</u>	<u>48.4</u>
<u>0.36</u>	<u>3.1</u>	<u>49.3</u>
<u>0.38</u>	<u>3.2</u>	<u>50.5</u>
<u>0.4</u>	<u>3.2</u>	<u>51.3</u>
<u>0.42</u>	<u>3.3</u>	<u>52.2</u>
<u>0.44</u>	<u>3.4</u>	<u>53.1</u>
<u>0.46</u>	<u>3.5</u>	<u>53.8</u>
<u>0.48</u>	<u>3.5</u>	<u>54.8</u>
<u>0.5</u>	<u>3.6</u>	<u>55.8</u>
<u>0.52</u>	<u>3.7</u>	<u>56.7</u>
<u>0.54</u>	<u>3.7</u>	<u>57.7</u>
<u>0.56</u>	<u>3.8</u>	<u>58.9</u>
<u>0.58</u>	<u>3.9</u>	<u>59.6</u>
<u>0.6</u>	<u>3.9</u>	<u>60.5</u>
<u>0.62</u>	<u>4.0</u>	<u>61.4</u>
<u>0.64</u>	<u>4.0</u>	<u>62.8</u>
<u>0.66</u>	<u>4.1</u>	<u>63.5</u>

<u>0.68</u>	<u>4.2</u>	<u>64.4</u>
<u>0.7</u>	<u>4.2</u>	<u>65.3</u>
<u>0.72</u>	<u>4.3</u>	<u>65.9</u>
<u>0.74</u>	<u>4.3</u>	<u>66.7</u>
<u>0.76</u>	<u>4.4</u>	<u>67.8</u>
<u>0.78</u>	<u>4.4</u>	<u>69.1</u>
<u>0.8</u>	<u>4.5</u>	<u>70</u>
<u>0.82</u>	<u>4.5</u>	<u>70.8</u>
<u>0.84</u>	<u>4.6</u>	<u>71.3</u>
<u>0.86</u>	<u>4.6</u>	<u>72.5</u>
<u>0.88</u>	<u>4.7</u>	<u>73.6</u>
<u>0.9</u>	<u>4.7</u>	<u>74.2</u>
<u>0.92</u> <u>(Moorhouse Ave)</u>	<u>4.8</u>	<u>75.1</u>

[6.12.5 Rules – Matters of discretion](#)

[6.12.5.1 Radiocommunication pathways intrusions](#)

- [a. The extent to which the height of a building or other structures \(including cranes\) or utility, associated with any permanent or temporary activity, adversely affects the operation, maintenance, upgrading and development of continuous radiocommunication between the Christchurch Justice and Emergency Services Precinct and the Cashmere/Victoria Park, Sugarloaf, and Mt Pleasant radiocommunication sites.](#)
- [b. Whether the International Telecommunications Union \(ITU\) recommendations are maintained for the Christchurch Justice and Emergency Services Precinct, notably ITU recommendation P.530.](#)
- [c. The outcomes of any consultation with the Ministry of Justice in relation to a. and b, above.](#)