# Design and Location of Primary Pedestrian Access in Residential Zones

2026-03-10
**Version 1**

# Purpose of Design Guidance

This design guide supports applicants and their design teams, in achieving the Auckland Unitary Plan (AUP) policy outcomes for safe and convenient pedestrian access and functional access for emergency responders, in residential zones. It also serves as a reference for design assessment and review by Auckland Council for relevant resource consent applications. This guidance should be read in conjunction with all relevant provisions of the AUP, and the Auckland Design Manual (ADM).

The AUP provisions relevant to pedestrian access in residential zones are:

| | AUP Objectives & Policies | AUP Standard | AUP Assessment Criteria |
|---|---|---|---|
| **Primary Pedestrian Access** | E27.2.(5A)<br>E27.3.(20A)<br>E27.3.(20AA)<br>E27.3.(20B) | E27.6.6 (Design and location of pedestrian access in residential zones)<br>E38.8.1.2 (Access to rear sites) | E27.8.2(15)<br>E27.8.2(16)<br>E27.8.2(17)<br>E27.8.2(18) |

## Context

Recent amendments to the AUP introduced by Plan Change 79 (PC79)[1] recognise the increasing occurrence, scale, and intensity of residential development that is accessed from private vehicle and pedestrian accessways rather than public roads. These changes acknowledge that private pedestrian and vehicle accessways must perform many of the same functions as a public road, including accommodating the movement of pedestrians, cyclists, micro-mobility users, vehicles, couriers, delivery trucks, waste management, and emergency responders (Fire and Emergency New Zealand, Hato Hone St John and NZ Police). The new requirements are intended to ensure that access is equitable, functional and safe for all transport modes including walking, cycling and mobility aids, for all ages and abilities.

## New AUP Requirements

Developments of six or more dwellings in residential zones that do not have direct pedestrian access to the road, must provide Primary Pedestrian Access[2] (PPA) from the public footpath to dwellings, that is physically separated from vehicle accessways. This requirement responds to the high risk of serious injury or fatality, particularly to children and disabled people, when sharing the same space and exposed to vehicle conflict.

[1] PC79 Decision [2026] NZEnvC 038

[2] PPA is defined as “The main pedestrian route serving two or more dwellings in any residential zone, including any segment that serves only the final dwelling, providing pedestrian and micro-mobility access from the road to the individual paths accessing the front doors of the dwellings (or, where applicable, the shared front door serving more than one dwelling).” (PC79 Decision [2026] NZEnvC 038).

In Auckland, over a ten-year period, 15 children between 0 and 14 years of age, died as a result of driveway runover[3]. A further 67 children between 0-14 years of age, were hospitalised with non-fatal driveway injuries[4].

A number of built environment factors have been shown to contribute to an increased risk of driveway runover injuries, including shared vehicle accessways; accessway lengths exceeding 12 metres; the presence of parking areas; and the absence of separate pedestrian paths[5]. Provision of pedestrian paths separate from the vehicle accessway have been shown to result in a more than two-fold reduction in the risk of driveway injury[6]. Other built environment risk factors are more difficult to avoid, such as shared vehicle accessways and length.

Where a PPA is located adjacent to a vehicle accessway a minimum formed width of 1.4m should be provided where serving 6-19 dwellings, and a minimum formed width of 1.8m where serving 20 or more dwellings.

Where two or more homes are only accessible on foot, a minimum footpath width of 1.8m and maximum gradient apply to ensure that two-way movement of a range of pedestrians (e.g. walking, pushing a pram, wheeling a bike, moving waste bins, carrying groceries) can be accommodated, as well as moving furniture and oversized deliveries. A minimum clear width and height standard also applies to ensure that emergency responders who are unable to access properties by vehicle, have sufficient functional space to undertake their rescue operations in a timely and safe manner.

## Further Guidance

Applicants are encouraged to consult the Accessible Space Dimension and Universal Design Personas on the ADM for additional advice on designing residential developments that are accessible to all people.

Further guidance will be developed to support other aspects of the PC79 Transport provisions, including lighting.

[3]A 'driveway runover' is the description given to an event when a pedestrian is injured or killed by a vehicle moving forward, or in reverse, within private property.

[4]Evidence of Dr Julie Chambers. Pedestrian Safety Report to contribute to Council's s42A report for Plan Change 79. Dated 29.08.2023. Figures 1 and 2. Data supplied by Otago University, Injury Prevention Unit, Department of Preventative and Social Medicine, University of Otago

[5] Shepherd, M, Austin, P and Chambers J. 2010. 'Driveway Runover, the Influence of the Built Environment: A Case Control Study', Journal of Paediatrics and Child Health, vol 46, no.12, p766.

[6]Ibid.

# General Site Design Guidance


Figure 1

# General Site Design Guidance

## 1 Prioritise orienting dwellings to public roads

a. Minimise the number of rear lots within the development by orienting as many dwellings as possible to public roads and providing direct pedestrian access. Where appropriate pair individual pedestrian paths to minimise impact on public berm and maximise space for street trees.

b. Consider providing publicly vested roads within developments, where appropriate, as primary means of pedestrian and vehicle access.


Figure 2: Where possible, orient dwelling entries towards public roads.

## 2 Develop appropriate vehicle access and parking solutions for site specific constraints

a. Consider different approaches to providing vehicle access and parking within a site to prioritise pedestrian access and safety. This could include garage and on-lot parking or grouped parking areas (either directly adjacent to dwellings or separated).

b. Consider other site factors such as stormwater mitigation, visual amenity and topography when designing the separation of pedestrian access from vehicles. This could include wheel stops, bollards or planters, grade separation with vertical kerbs (150mm) or horizontal separation with adequate landscape buffers or rain gardens (minimum 1m width).

c. For steep sites consider the appropriateness of pedestrian-only developments. If topography necessitates steps, this could adversely impact on the range of users who can access the site, including people with reduced mobility, cyclists, servicing functions, deliveries and emergency responder access.

d. Consider providing secondary pedestrian routes (1.2m in width) between dwellings, parking areas and communal facilities (such as communal open space, bin storage or bike parking) which is convenient, safe and minimises potential conflict with vehicles.


Figure 3: Different approaches providing vehicle access within the site while prioritising pedestrian safety.


Figure 4: Secondary pedestrian access to grouped parking and communal open space from dwellings which is safe and accessible.

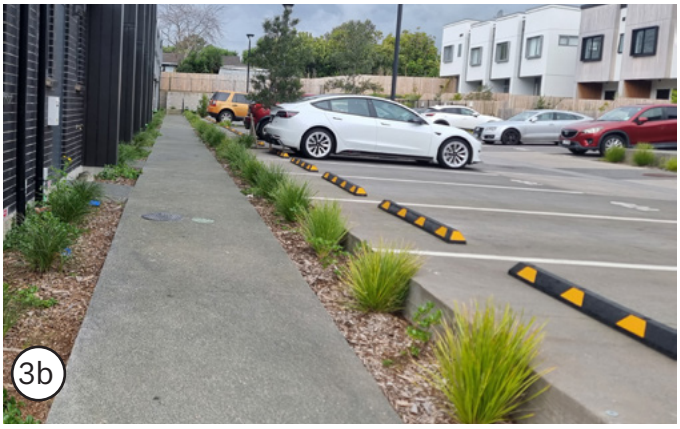


Figure 5: Development utilises a variety of approaches to separate pedestrians and vehicle access including wheel stops, landscape buffers and grade separation.


Figure 6: Steep sites that require steps may not be appropriate for pedestrian-only developments. Ensure ramp gradients do not exceed 1:12.

## 3 Prioritise pedestrian safety, convenience and accessibility

a. Design developments to minimise conflict between vehicles, pedestrians and other users.

b. Prioritise physical separation of PPAs from vehicle access areas through the use of vertical non-mountable kerbs (150mm), wheel stops or similar barriers and/or landscape buffers (minimum 1m width).

c. Minimise gradients to a maximum of 1 in 12 to safely accommodate different users and abilities, where primary pedestrian access is not adjacent to vehicle access.

# General Site Design Guidance

d. Where vehicle routes need to cross PPAs to access car parking, ensure pedestrian safety, accessibility and legibility are prioritised. This could include a range of design solutions including pairing/grouping vehicle crossing points and dwelling entrances; providing adequate pedestrian refuge space between crossing points; landscape buffers; raised tables; pedestrian crossing markings; surface treatment changes; signage and wayfinding and speed management measures. See specific design guidance for vehicle access that crosses a PPA

e. Consider Crime Prevention Through Environmental Design (CPTED) principles in the design of pedestrian access, including passive surveillance from active ground floor rooms of adjacent dwellings, clear wayfinding and legibility, and sightlines with no concealed areas or entrapment spots.


Figure 7: Prioritise pedestrian safety where PPA is adjacent to vehicle access by using physical separation measures such as landscape buffers and vertical kerbs.


Figure 8: Raised table with painted pedestrian crossing used to give priority to pedestrians where vehicle route crosses PPA


Figure 9: Pair vehicle access to minimise conflicts with PPA route.


Figure 10: Wayfinding and active ground floors help create legible pathways with passive surveillance, aligning with CPTED principles.

## 4 Provide functional and convenient pedestrian access between rear dwellings and public roads

a. Ensure PPA to the front door of dwellings is safe, convenient and continuous. Consider the legibility of access for visitors and consider additional wayfinding signage for larger developments.

b. Ensure the width of the PPA is appropriate for all potential users including people with reduced mobility, cyclists, servicing functions, deliveries and emergency responder access. As the scale of development increases, so too does the intensity of pedestrian and vehicle movement, requiring wider PPAs for larger-scale projects. To support safe, functional two-way movement, PPAs adjacent to vehicle accessways should be sized according to the number of dwellings (excluding dwellings that directly front and have direct pedestrian access from a road), with a minimum formed path width of:

- 1.4m when serving 6–19 dwellings,
- 1.8m when serving 20 or more dwellings.

c. For two or more dwellings, where a PPA is not adjacent to a vehicle access way, a minimum formed PPA width of 1.8m is required, with a minimum clear width of 3.0m.

d. Ensure that PPA is clear of any site facilities or infrastructure such as light poles/ bollards, letterboxes, gas meters, rubbish bins, heat pump units etc.


Figure 11: PPA length directly visible from street with clear line of sight to ensure safety and legibility for residents and visitors.


Figure 12: Provide PPA widths that correspond to the scale and intensity of residential development, to accommodate a wide range of potential users.


Figure 13: Ensure a minimum 3.0m clear width where only pedestrian access is provided.


Figure 14: Development utilising communal bin stores within landscape buffers to ensure the PPA is clear and providing separation from vehicles.

# General Site Design Guidance

## 5 Ensure private and communal outdoor space are separated from vehicle routes

a. When providing private and/or communal outdoor living space, where children are likely to play, ensure these areas are appropriately separated or fenced from vehicle movement areas, to minimise the risk of children playing in vehicle access or parking areas.


Figure 15: Provide appropriate fencing to communal areas where adjacent to vehicle movement areas or parking courts.

# General Site Design Guidance

Figure 16: Grade separation incorporating landscape strip between PPA and carriageway provides pedestrian protection.

Figure 17: Lack of physical separation between PPA and carriageway servicing more than 6 dwellings.

Figure 18: Wide landscape buffer use to separate PPA from vehicle access. Light bollards protected within the buffer.

Figure 19: Continuous mountable kerbs encourage vehicles to park over the PPA.

Figure 20: Wheel-stops, planting and vertical separation are utilised to protect PPA from grouped car parking.

Figure 21: No separation measures incorporated to protect PPA from grouped parking area. This results in a lack of clarity for appropriate vehicle parking.

# Specific Design Guidance Examples:
## Vehicle Access across PPAs


Figure 22: When designing the site layout, always look to avoid conflicts by minimising the instances of vehicle crossing points. Where vehicles must cross PPAs to provide access to on-lot (parking pads) or internal (garage or carport) parking, consider the width of crossing points, the number of parking spaces and volume of vehicle traffic, and reduce the risk of conflict by considering the following:

1. **Pair vehicle access to minimise the number and length of crossing points.**

   Limit means of vehicle access across PPA to vehicle access width only. This includes driveway ramps or mountable kerbs.

2. **Maximise areas for pedestrian refuge between vehicle access points.**

   Provide sufficient space between vehicle crossing points for pedestrians to safely pause while vehicles enter/exit parking spaces. Separation of PPAs from vehicle access should be maintained in these areas through the use of vertical kerbs, landscape treatment or other means.

3. **Ensure that the extent of mountable kerb does not compromise pedestrian safety.**

   Where the proximity of vehicle crossing points over a PPA warrants the use of a continuous mountable kerb between crossings, consider incorporating additional physical design measures to discourage or restrict, where appropriate, vehicles from parking or manoeuvring over the PPA.

# Specific Design Guidance - Vehicle access across PPAs

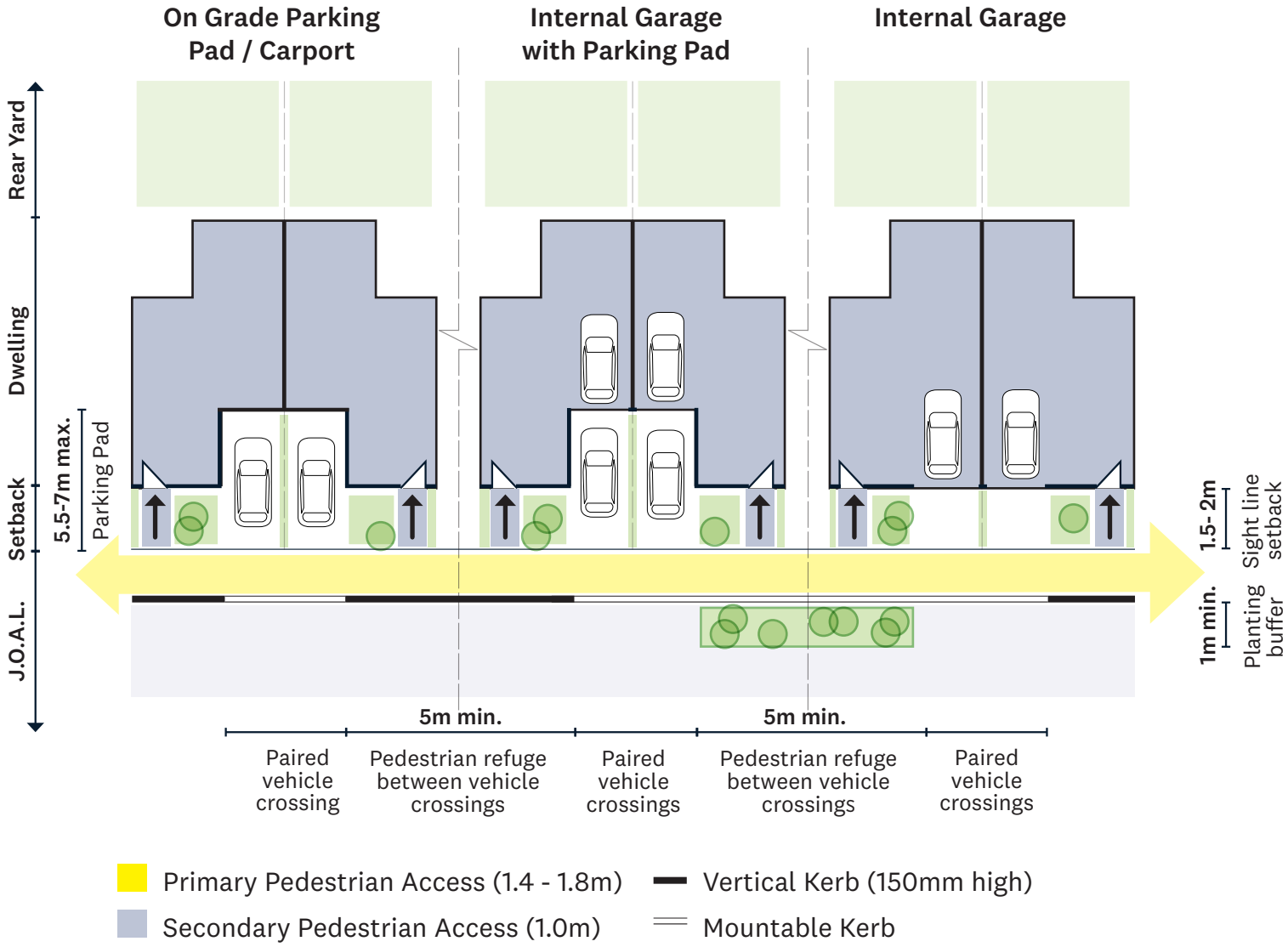


Figure 23: Minimum dimensions when a PPA is crossed by vehicles accessing parking areas.

4 **Ensure clear visibility between pedestrians and vehicle users where vehicles cross a PPA**

Ensure any structures such as fences, walls or landscape treatment do not obstruct clear sight lines between drivers and pedestrians. Provide a 1.5-2 metre setback between the PPA and garage or carport openings to provide a buffer between the parking space and the PPA and improve the visibility between drivers and pedestrians.

5 **Consider the length of parking pads or driveway access to ensure vehicles don't inadvertently park over PPAs.**

Provide a maximum depth of 2m in front of a garage door to prevent a second car from parking and overhanging the PPA Alternatively, provide a minimum depth of 5.5m between the garage door and PPA to accommodate a second parked vehicle.

6 **Consider separation of secondary access paths to front doors, from vehicle access or parking areas to improve safety.**

This can be achieved through fencing, landscape strips, letter boxes, bin storage, bike parking or other means.

# Specific Design Guidance Examples:
## Vehicle Access across PPAs

Figure 24: Pair vehicle crossing points across PPAs with physical separation measures where mountable kerbs extend beyond crossing point.

Figure 25: Vehicle crossing points are not paired across the PPA and no physical protection for pedestrians is provided.

Figure 26: Pedestrian access to front door protected by low fencing from parking pad and garage access.

Figure 27: Narrow planting strip with low planting between parking pad and pedestrian access to front door is ineffective in preventing poor parking behaviour. Use shrubbery/low hedge to achieve more effective separation.

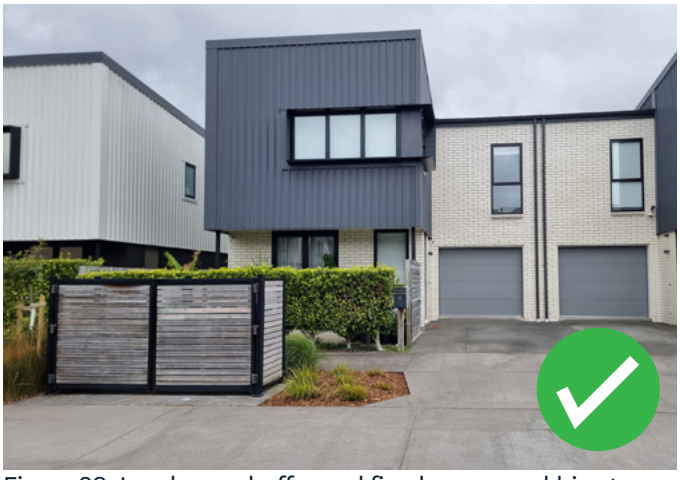

Figure 28: Landscape buffer and fixed communal bin store provide physical protection to PPA where no grade separation achieved. Paired car parking minimises vehicle crossings along PPA.

Figure 29: Continuous garage doors with no areas of pedestrian refuge, no setback to garage openings to enable safe sightlines.

Figure 30: Protection of PPA using a mix of planting buffers, fixtures (cycle racks) and fencing. Wayfinding signage for legibility.

Figure 31: A high level of design consideration but the lack of physical separation has failed to discourage vehicles from parking over the PPA.

# Pedestrian-Only Access

The removal of car parking minimums from the AUP residential zones has enabled developments that rely entirely on pedestrian access to dwellings, as well as hybrid developments where vehicle access is only provided to part of the site. The design of these Primary Pedestrian Accessways (PPAs) is critical to ensuring that more intensive housing caters for people with diverse needs and abilities and enables them to participate in day-to-day activities including access to education, employment and recreational opportunities.

## Formed Primary Pedestrian Access Width

Where no vehicle access is provided to a dwelling, PPAs must accommodate a wide range of activities and user groups to achieve a well-functioning urban environment. This includes walking, cycling, mobility devices (e.g. walking frames, mobility scooters, e-scooters), caregivers with prams, wheelchair users, transporting or moving goods (ranging from carrying groceries, moving refuse/recycling bins to furniture deliveries) and emergency responder access (Fire and Emergency NZ, Hato Hone St Johns and NZ Police). These activities should also be possible for users of different ages and abilities, including children, elderly, people with mobility or sensory impairments, care givers, etc. The widths necessary for access for different user groups can be found on the Universal Design Hub[7] of the Auckland Design Manual.

A minimum PPA width of 1.8m is required to ensure that a wide range of users can be safely accommodated, including two-way movements. However, this width still excludes the one-way movement of emergency responders such as paramedics moving alongside stretchers to continue providing lifesaving care and firefighters carrying a ladder. Any reduction in formed PPA width will further restrict user and emergency access and undermine a well-functioning urban environment with good accessibility for all people.[8]

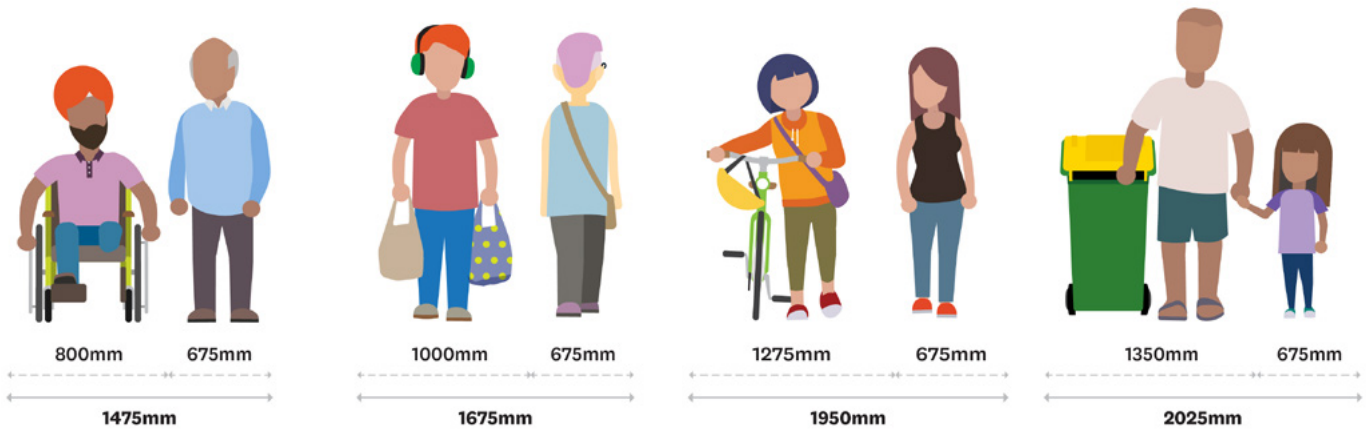


Figure 32: Common users of pedestrian-only access ways and their space requirements.

[7] https://www.aucklanddesignmanual.co.nz/en/design-guidance/universal-design/accessible-space-dimensions.html

[8] National Policy Statement on Urban Development, Policy 1.

## Clear Width Requirements for Emergency Responders

Emergency responder access by Fire and Emergency New Zealand ('FENZ'), Hato Hone St John ('St John') and NZ Police is required to residential dwellings in a wide range of situations including fire, medical events, severe weather events, urban search and rescue, and hazardous substances. The ability of emergency responders to access a property in a timely manner is a critical part of a well-functioning urban environment and provides for communities' health, safety and wellbeing.

For every minute that goes by without CPR or in the event of a heart attack, the use of an automated external defibrillator, the chance of survival is reduced by 10 -15%.[9]

A house fire becomes un-survivable in approximately 3 minutes.[10]

In pedestrian access-only developments where there is no vehicle access to dwellings, sufficient space must be provided for the manual deployment of emergency responder equipment (e.g. manual ladders, hoses and stretchers), and the movement of emergency responders - including firefighters in full breathing apparatus - and evacuees. A minimum clear width of 3m is required to allow timely access, within which a 1.8m wide PPA may be located.

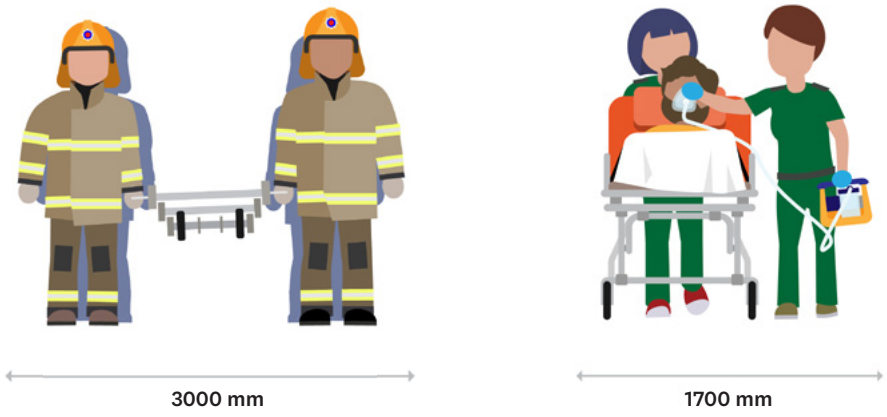


Figure 33: Emergency responder access width requirements

[9] https://www.stjohn.org.nz/news--info/news--articles/whats-your-chance-of-surviving-a-cardiac-arrest/

[10] https://www.fireandemergency.nz/home-fire-safety/in-the-event-of-a-fire/

## Manual Ladder Operations

The FENZ manual ladders require:

- Minimum clear width for access to incident site: 3 metres
- Turning arc around corners: 6.2 metres
- Minimum building setback for operational use: 4.5 metres

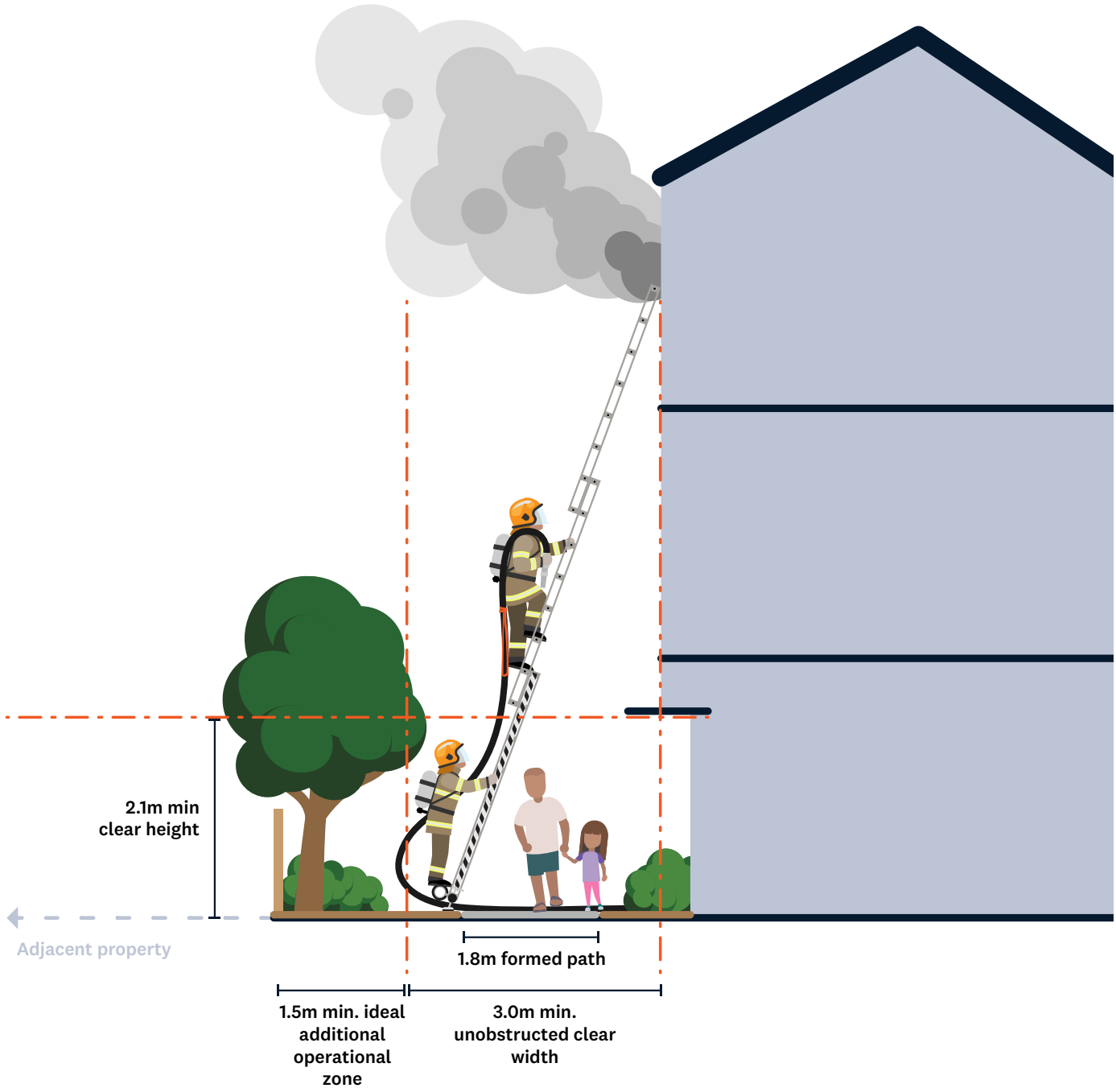


Figure 34: Cross sectional diagram of minimum required clear widths.

The Angus 464 ladder is the preferred and increasingly necessary ladder for Auckland's growing residential intensities and heights as it is suitable for three-storey and taller buildings. It provides improved stability and reach and is also used for two-storey buildings requiring roof access. As a result, the Angus 464 ladder is being made available to more of Auckland's fire stations. The Angus 464 requires four firefighters to carry and position. Other available ladders have the same spatial requirements for building setback and turning arcs.

## Operational Efficiency and Safety

The ideal minimum operational zone of 4.5m provides the stability required for ladder placement (based on a 4:1 ratio) and enables emergency responders to operate safely, including climbing with hoses and assisting rescued persons.

It is common for multiple emergency responders (e.g. FENZ and St John) to operate within the same area. The required 3m clear width therefore represents a compromised absolute minimum. Any encroachment or obstruction within this width is likely to further compromise operational efficiency, delay emergency response times, and increase risks to life and property (including injury to emergency responders).

Figure 35: Angus 464 ladder set out 3.5m from base of building when fully extended.

Figure 36: Angus 464 ladder.

Figure 37: 10.5m ladder.

# Design Principles for Pedestrian-Only Access

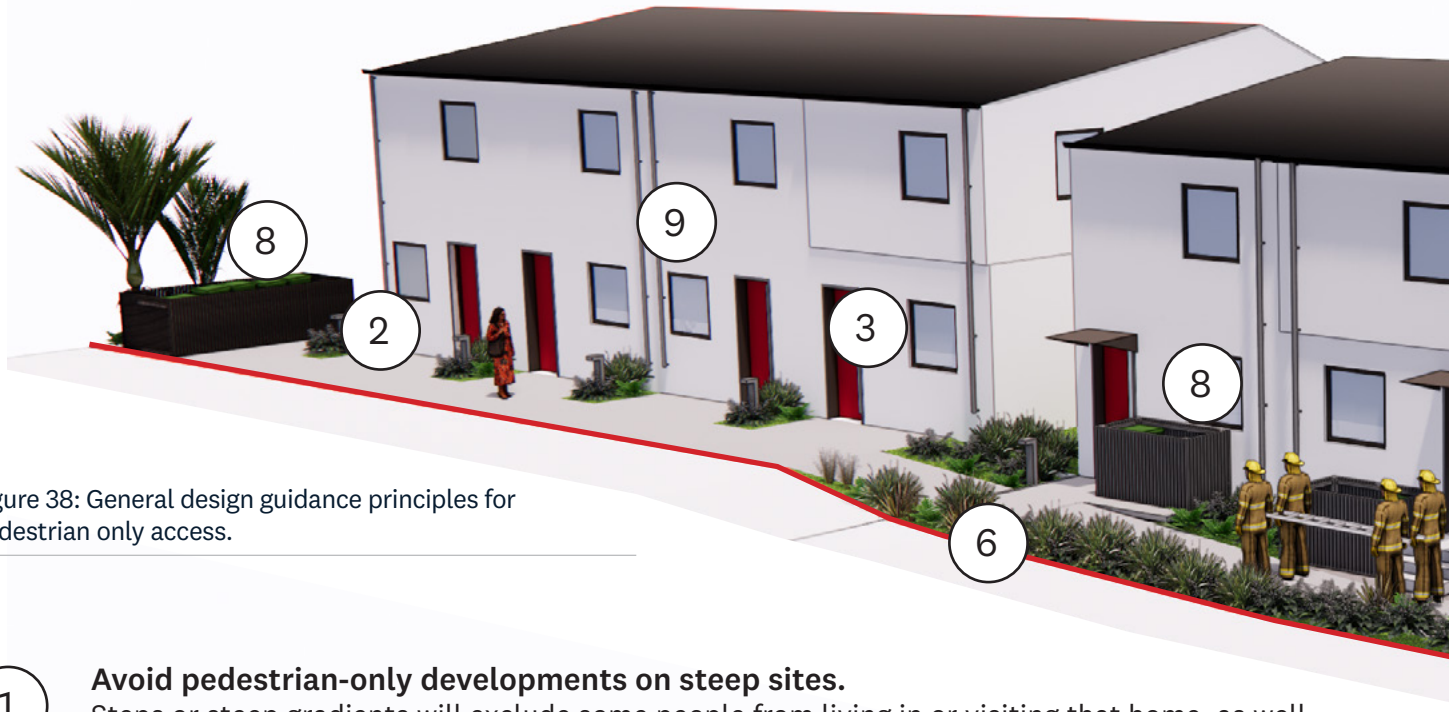


Figure 38: General design guidance principles for pedestrian only access.

1 **Avoid pedestrian-only developments on steep sites.**
Steps or steep gradients will exclude some people from living in or visiting that home, as well as affecting many other users including people with temporary injuries, residents moving wheelie bins, delivery personnel, people pushing prams, cyclists, and emergency responders.

2 **Consider CPTED principles in the design and layout of pedestrian-only access.**
Ensure access routes are logical and have clear sightlines. Avoid blind corners, sudden level changes, and narrow or enclosed spaces that could create entrapment risks or make users feel unsafe. Paths should be wide, well-lit, and overlooked by adjoining dwellings to provide good visibility, passive surveillance, and a welcoming environment.

3 **Consider the internal layout of dwellings facing a PPA and any privacy or safety effects that need to be managed.**
Avoid more sensitive uses such as bedrooms facing the PPA and full height windows. Instead locate rooms such as kitchens with windows above waist height which also provide passive surveillance.

4 **Provide continuous, direct and convenient access from a public road to rear dwellings.**

5 **Provide a minimum formed footpath width of 1.8m which is firm, stable and slip resistant in all weather conditions.**
Suitable materials include concrete, asphalt and paving stones with appropriate slip resistance. Paving stones are to be avoided unless laid as a continuous, connected, and stable surface.

6 **Ensure accessibility for all users particularly where level changes are required.**
Avoid the use of stairs along the PPA and ensure all ramps are preferably 1:14 – 1:20, with a maximum gradient of 1:12. Provide level landing areas at intervals no more than 9m in length and with a minimum depth of 1200mm to enable a space for people to rest along longer footpaths. Further guidance on ramp design can be found on the ADM Universal Design hub[11].

[11] https://www.aucklanddesignmanual.co.nz/en/design-guidance/universal-design/universal-design-checklist-for-ramps.html


7 **Provide a minimum clear width of 3.0m from the public street to dwellings.**
This needs to be free of permanent obstructions including steps/stairs, handrails, retaining walls, fences, gates, light bollards/poles, letterboxes, waste bin storage, heat pump units and planting over 0.6m in height. These elements will obstruct emergency responder access, create trip hazards for emergency responders and delay response times.

8 **Provide additional space outside of the required 3m clear width for permanent elements.**

a. This may include elements such as waste bin storage, lighting, entry stairs, heat pump units, cantilevered structures such as first floor overhangs, awnings or canopies.
b. If space does not allow for permanent elements in front of dwelling entries, look for opportunities to cluster bins, bike storage and other elements in convenient areas which are outside of 3m access clear width, such as at the end of the PPA or between building blocks.

9 **Within the 3m emergency access clear width, provide a minimum clear height of 2.1m, and ideally up to the full height of the building.**
Consider entrance canopies and avoid upper floor overhangs which will restrict or prevent stable ladder access to windows, balconies, or roofs above.

# Specific Design Guidance Examples:
## Pedestrian-Only access

Figure 39: A gentle ramp from the street.

Figure 40: A ramp has been provided next to steps but the gradient is too steep to be safely used.

Figure 41: Kitchen and bedroom windows overlooking the PPA providing passive surveillance.

Figure 42: PPA with no overlooking at ground floor.

Figure 43: Continuous pedestrian access from public footpath to rear dwellings.

Figure 44: Uncontinuous pedestrian access to public footpath.

Figure 45: PPA with a firm, stable and slip-resistant surface. AUP requires trees outside of the 3m clear width.

Figure 46: Example of PPA laid with paving stones in a barked area, which does not provide a stable or continuous treatment.

Figure 47: This PPA provides for at least a 3m clear width by incorporating outlooks and landscape treatment. Planting heights and light locations would need to comply with new standards.

Figure 48: PPA is obstructed by bin enclosures, fencing and architectural features which will hinder emergency responder access.

Figure 49: 6m pedestrian only access with good sight lines and accessibility. Trees and light poles would need to be moved outside of 3m clear width under new rules.

Figure 50: This PPA is obstructed by light poles and fencing.

# Specific Design Guidance Examples:
## Pedestrian-Only access

Figure 51: Communal cycle storage located outside of the required 3m clear width.

Figure 52: Communal bin storage located outside of the required 3m clear width. Low frangible planting within 3m clear width.

Figure 53: Formed footpath and low planted areas to provide pedestrian only PPA to rear dwellings. Bin storage in communal areas.

Figure 54: Pedestrian only access to dwellings compromised by bin stores, retaining and clutter.


Figure 55: Use of graphics, maps and signage at PPA entries (outside of the 3m clear width) to improve wayfinding.

Figure 56: Entry to PPA obscured and illegible. Mail boxes and addresses not visible from street. PPA formed and clear widths not achieved.

# Planting Design Principles

**Planting Within the 3m Clear Width**

Planting is permitted within the 3m clear width subject to the species being soft and frangible with a maximum mature height of 600mm.

**Planting Design Principles**

1. **Balance passive surveillance, safety and privacy with minimum access requirements.**

   Ensure any planting within the 3m clear width is soft and frangible (easily breakable) with a maximum mature height of 600mm. Select species with a canopy spread that will not obstruct the 1.8m formed PPA.

2. **Provide a 1m wide planted buffer on the side of the PPA closest to dwelling frontages to create separation, safety and privacy between path users and dwelling occupants whilst enabling passive surveillance.**

3. **Avoid high retaining walls and fencing on the boundary adjacent to the PPA.**

   Allow greater space for retaining walls to be stepped and softened with planting, outside of the 3m clear width.

# Planting Design Principles

Figure 61: Planted buffer provides privacy and separation to dwellings, and consists of soft, low growing plant species that will not grow over the PPA.

Figure 62: Planting with a wide canopy spread reduces the available formed PPA width.

Figure 63: Planting in front of the dwellings is low and allows emergency responder access. However, fence line planting should not cover the PPA.

Figure 64: Hedge planting is too high, and letterboxes and planters are located within the 3m clear width.

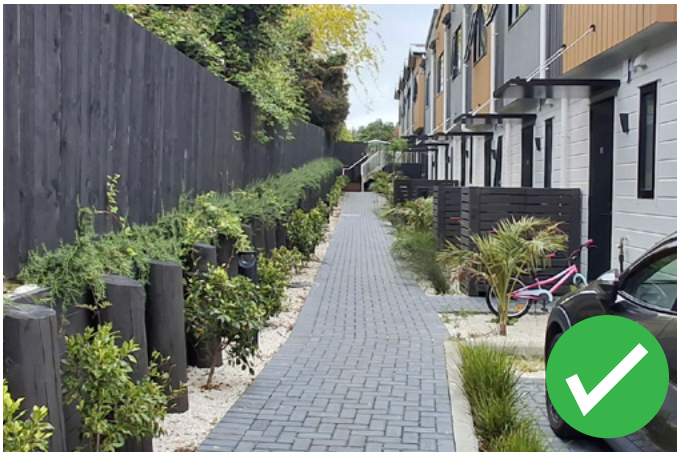

Figure 61: Retaining wall and fence are stepped to allow planting that further softens the wall. The dwellings are set back 4.5m from the fence, which would allow for bin enclosures to be shifted parallel to the dwelling frontage to achieve a 3m clear width.

Figure 62: Retaining wall and fence dominate PPA.

# Suggested Plant Species for within Clear Width

The following suggested species are suitable for landscape buffers within the 3m clear width, each with a maximum mature height of 600mm. This height limit is to ensure that emergency responders and residents can walk through this space in the event of an emergency.

These species are provided as a guide only. Other species may be suitable provided they are of low flammability[12], with consideration for sunlight access and long term survival.

## Small Growing Native Shrubs and Groundcovers

| Botanical Name (Common Name) | Reference Image | Planting Notes |
|---|---|---|
| *Arthropodium "Parnell"* (Rengarenga Lily) |  | Smaller variety. Prefers shady to partial sun position. Prefers free draining fertile soil. Able to withstand dry conditions once established. Grows 0.5m high x 0.5m wide. |
| *Carex "Bronze"* or similar sized Carex species |  | Hardy small grass variety. Prefers full sun and well-draining soil. 0.4m high x 0.4m high. |
| *Coprosma acerosa "Hawera"* (Sand Coprosma) or similar Coprosma species. |  | Hardy groundcover that tolerates drought conditions. Prefers full sun to partial shade and poor, well drained sites. Excellent for erosion control on banks. Grows to 0.2m high x 1.0m wide. |
| *Dianella "Breeze"* (Turutu) |  | Hardy plant that prefers full sun to part shade. Requires well-drained soil. Tolerates frost, wind, salt spray, and drought. Grows to 0.6m high x 0.6m wide. |
| *Hebe "Wiri Mist'* or similar sized Hebe species. |  | Hardy, compact Hebe that prefers full sun to partial shade. Requires free draining soil conditions. Grows to 0.6m high x 0.6m wide. |
| *Libertia ixiodes* (Mikoikoi or NZ Iris). |  | Hardy and drought tolerant plant. Prefers full sun to semi shade position. Grows to 0.5m high x 0.5m wide. |

[12] https://checkitsalright.nz/reduce-your-risk/low-flammability-plants

| | | |
|---|---|---|
| *Muelenbeckia axillaris* |  | Hardy dense groundcover. Prefers full sun. Tolerant of hot and dry conditions. Grows to 0.2m high x 1.0m wide. |
| *Phormium "Jack Spratt"* |  | Small flax variety. Prefers full sun to partial shade and well-draining soil. Drought tolerant (once established), salt spray and windy conditions. Grows to 0.6m high x 0.6m wide. |
| *Pimelea prostrata* (Pinatoro or NZ Daphne) |  | Hardy groundcover suited to coastal conditions. Prefers full sun but will tolerate partial shade. Prefers well-draining soil, including sandy loam. Grows to 0.1m high x 1.0m wide. |

## Small Growing Exotic Shrubs and Groundcovers

| Botanical Name (Common Name) | Reference Image | Planting Notes |
|---|---|---|
| *Ajuga reptens* (Bugle) |  | Hardy groundcover that prefers shady conditions though will tolerate partial sun. Requires moisture. Grows to 0.1m high x 1.0m width. |
| *Clivia miniata* (Kaffir Lily). |  | Clump forming and hardy plant that prefers shade to partial shade positions. Tolerates poor and dry soil conditions. Grows to 0.6m high x 0.6m width. |
| *Convolvulus cneorum* |  | Hardy shrub that does well in full sun. Preforms well in dry, coastal, or exposed positions. Grows to 0.5m high x 0.8m wide. |
| *Dymondia margaretae* |  | Hardy groundcover that prefers full sun and well drained soil. Tolerates foot traffic, chalky soils, drought periods, and salt spray. Grows to 0.1m high x 0.6m wide. |
| *Gardenia radicans* |  | Hardy evergreen shrub. Prefers full sun to partial shade and well-drained soil. Grows to 0.4m high x 0.7m width. |
| *Grevillea "Bronze Rambler"* |  | Hardy groundcover. Prefers full sun and well drained soil. Tolerates poor soils and drought (once established). Grows to 0.2m high x 1.2m wide |

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| *Liriope muscari* |  | Hardy clump forming plant that grows in both sunny and shady positions. Grows in most soil types. Grows to 0.2m high x 0.2m wide. |
| *Lomandra "Lime Tuff"* or similar sized Lomandra species. |  | Extremely hardy plant. Prefers full sun to partial shade position. Tolerant of salt spray, dry and windy conditions. Grows to 0.5m high x 0.6m wide. |
| *Westringia "Grey Box".* |  | Hardy small shrub that prefers full sun. Drought and frost hardy. Grows well in poor soils. Grows to 0.4m high x 0.4m wide. |

## Climbers (Native and Exotic)

*Note: Climbers will require additional width beyond the 3m clear width due to their height.*

| Botanical Name (Common Name) | Reference Image | Planting Notes |
|---|---|---|
| *Clematis paniculata* (Puawhanaga) |  | Hardy native evergreen climber. Prefers full sun, sheltered position and free-draining soil. Needs support to carry the twining stems such as wire or trellis. Grows to 3m high x 3m wide. |
| *Mandevillea "Sun Parasol Red'* (Chilean Jasmine) or other variety |  | Evergreen climber. Prefers full sun, sheltered site on free-draining soils. Needs support to carry the twining stems such as wire or trellis. Grows to 3.0m high x 1.5-2m wide. |
| *Pandorea rosea superba* (Pink Bower Plant) or similar variety |  | Evergreen climber. Prefers full sun to partial shade in well-draining soil. Best in a warm and sheltered position. Does not do well in frosty areas. Needs support to carry the twining stems such as wire or trellis. Grows to 3m high x 1.5-2m wide. |
| *Trachelospermum jasminoides* (Star Jasmine) |  | Hardy climber that grows well in full sun or semi shade. Prefers free-draining soil conditions. Once established tolerates dry conditions. Needs support to carry the twining stems such as wire or trellis. Grows to 2m high x 2m wide. |