

# Urban Design Case Study

Addison Housing Development



**URBAN DESIGN PROTOCOL** 

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### Introduction

This urban design case study examines the Addison housing development in Takanini, a suburb of Papakura, Auckland. Addison is part of a series of case studies that demonstrate the value of quality urban design for communities, the environment and the local economy.

Addison has been chosen because it is a good example of a medium density, greenfield residential development in New Zealand. The Addison development incorporates best practice urban design principles with a range of housing typologies aimed at creating a sense of place and community. Addison also demonstrates the practical application of urban design principles that use the *New Zealand Urban Design Protocol's* 'Seven Cs': context, character, choice, connections, creativity, custodianship, and collaboration. The design process, issues, challenges and lessons learnt from creating this type of development are also detailed.

This case study discusses several challenges that were faced during the design process and development of Addison. These included changes to the masterplan to meet the requirements of the Papakura District Council Takanini Structure Plan.

Unique design elements of Addison include:

- the use of Crime Prevention Through Environmental Design (CPTED) principles in the masterplan
- the creation of highly connected road networks that are both transport and pedestrian friendly
- two-storeyed houses situated on compact sites that face the street or communal open spaces
- low impact stormwater treatment.

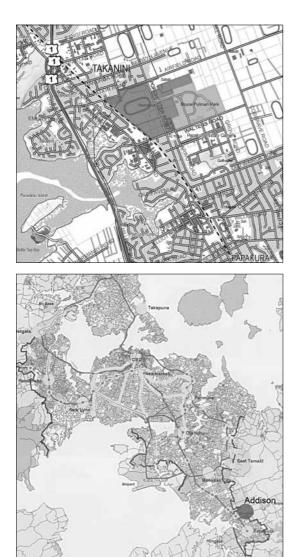
This case study shows that the Addison development has been successful in establishing a strong sense of community, and is attracting an increased diversity of people to Takanini. Recent questionnaires conducted with the residents of Addison indicate they enjoy the strong sense of community that is present and the interaction with other residents. Economic studies on Addison show the property values of houses are much higher than that of similar houses in the Takanini area. Sales records show prices for complete house and land packages in Addison have exceeded expectations, and are well above the initial sales prices of \$300,000.

This case study strongly suggests that the incorporation of quality urban design principles into the design and planning of subdivisions can result in:

- significant economic returns
- more cohesive communities
- high levels of amenity and satisfaction amongst residents.

The case study also highlights the importance of having mutual consensus between developers and councils to ensure the smooth running of a project of this type and scale.

This case study was written by consultants who are external to the Ministry for the Environment, with input from those involved in the Addison development project. Therefore, the views expressed here do not necessarily represent those of the Ministry.





# Addison Housing Development -Auckland

#### Fast Facts

**Location:** Takanini, Papakura, Auckland **Construction:** 2003 - 2011 (ongoing; 20 percent complete at June 2007)

**Owner:** Addison Developments Ltd

Design: Stage 1: Masterplan - Ian Craig (Harrison Grierson Consultants) Stage 2: Bob Earle (Oculus)

**Case study researcher:** Lisa Mein, Boffa Miskell Ltd

#### **KEY STATISTICS**

Site area: 84 hectares

**Dwellings:** 1500 (terraced and detached) units. The majority are three-, four- and fivebedroom homes (from 140m<sup>2</sup> to 160m<sup>2</sup> gross floor area, up to 220m<sup>2</sup> gross floor area)

**Gross density:** Average of 20 per hectare (ie, gross average density of 1:500m<sup>2</sup>, including roads and pocket parks)

**Average lot size:** Around 270m<sup>2</sup> over the entire development

Range of lot sizes: 120m<sup>2</sup> to 400m<sup>2</sup>, made up of:

- rear loaded attached/terrace housing of 120m<sup>2</sup> to 180m<sup>2</sup> lots (approximately 35 percent)
- predominately detached housing of 270m<sup>2</sup> to 400m<sup>2</sup> lots (approximately 65 percent)

Images from top to bottom

- 1 Addison within its wider context.
- 2 The metropolitan urban limit (the thick black line) at the edge of urban areas and Addison development in the wider context of the Auckland region.
- 3 Site within the context of the Structure Plan (depicting an outline of the site and Areas 1a and 1b).

# The Addison Development

Addison is an innovative, intensive residential development located just north of the Papakura town centre, Takanini, and to the east of Great South Road and the Southern motorway (see figure 1). The development site is bounded by the main trunk railway to the west, Airfield Road to the north and Walters Road to the south. Porchester Road bisects the development, connecting it with the proposed new transit-oriented centre of Takanini and the existing Papakura town centre to the south.

The development process was initiated in 1999 when Hawkins Property Ltd (partly owned by McConnell Ltd at the time) saw an opportunity to aggregate greenfields land on the edges of the metropolitan urban limit of the Auckland region for residential development (see figure 2). This was a direct response to the Auckland Regional Growth Strategy that identified Takanini as a future growth centre because of its proximity to current and proposed public transport (road and rail) connections.

Hawkins Property and, subsequently, McConnell Property made a decision to construct an intensive residential development that incorporated a range of housing typologies and communal open spaces.

Hawkins selected a design team comprising Harrison Grierson Consultants (as urban designers / master planners), Cook Sargisson & Pirie Architects (as architects for the dwellings), and Isthmus Group (as landscape architects). This team developed the original masterplan concept. Harrison Grierson Consultants were later engaged by the Papakura District Council to prepare the Plan Change for the Takanini Structure Plan area.

When McConnell Property took over the development in late 2002 they changed the design team, opting to use a designer they were familiar with. Thus, Bob Earl from the Australia-based Oculus took over. Alan Shanahan from Shanahan Architects was engaged to provide housing architecture and to refine and execute the masterplan. Isthmus was retained for the design of the streetscape and open spaces.

The concept for the development is to create a community with a residential neighbourhood core.

#### The key design elements of the masterplan include:

- a community gathering place that includes a children's playground, restaurant, café, six-unit retail space and childcare centre
- a matrix of parks to link the development with the existing Takanini railway station (and a proposed station at Glenora, now unlikely to happen) and the community to Takanini's commercial core
- an overall landscape concept that integrates Bruce Pulman Park, some 63 hectares of large, centralised open space, sport and recreation facilities, into the development through a tiered level of reserves and parks
- two-storeyed houses, on compact sites, to create extra living and outdoor space
- dwellings that front onto the street or communal open space
- 'Crime Prevention Through Environmental Design' (CPTED) principles, to ensure a safe living environment. As a rule, houses that front onto commons and neighbourhood parks encourage good, passive surveillance of these open spaces.

## Design Process

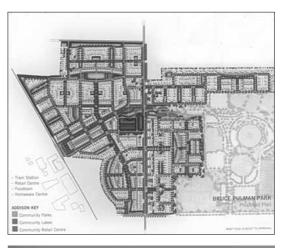
A number of key steps have lead to the creation of the guiding masterplan for the Addison development.

#### TAKANINI STRUCTURE PLAN

The Southern Sector Agreement (an agreement between the Auckland Regional Council, Manukau City Council, and Papakura and Franklin District Councils as to the form and timing of urban growth) provides for an additional 35,000 persons for Papakura. Twenty thousand of these people are expected to locate within the greenfields settlement of Takanini. The Papakura District Council identified an opportunity for a new urban area (Takanini) with a positive local identity, high levels of amenity, pedestrian safety and convenience.

To best facilitate the growth and development within the Takanini area, a structure plan was developed. In 2000, the Papakura District Council initiated a charrette planning process for Takanini. This was designed to identify the constraints and opportunities of the land. The process established an overall framework for the planned growth and development of the Takanini area. The Takanini Structure Plan was approved in draft form by Papakura District Council in May 2000 and adopted in November 2000. The Structure Plan anticipates a high level of residential growth (an additional 20,000 people) and job creation (an additional 3000 jobs) for Takanini over a 50-year timescale.

The Addison development is set within the context of the Takanini Structure Plan (see figure 3). The Structure Plan area has been broken into three sub-areas for staged implementation. The first stage is referred to as the Glenora Structure Plan (Areas 1a and 1b). Area 1a is a mixed-use (retail/residential) and medium- to high density residential living area along the southern rail corridor at Glenora and was subject to another Plan







Images from top to bottom

- 4 Addison housing development masterplan (2006).
- 5 6 Houses fronting Bruce Pulman Park.

Change that was notified in March 2007. The Addison site forms part of development Area 1b. Development Area 1b also includes adjacent land to the north and west of Addison.

From the point of view of the Papakura District Council, the Addison development will help support the planned centre of Takanini (Area 1a). Similarly, the growth of the commercial centre of Takanini will provide local services to the enlarged residential community.

#### **Residential 8 Zone**

In 2000, the Papakura District Council engaged Harrison Grierson Consultants to prepare Plan Change 3 to facilitate growth within Area 1b (including the Addison development site). The Plan Change was based on growth strategy principles, and applied a new Residential 8 zone to Area 1b. The objectives of the Residential 8 zone are specifically to achieve medium density residential development within close proximity to public transport routes, Bruce Pulman Park and the proposed mixed-use node in the Takanini Structure Plan area. The Plan Change was adopted in 2003.

Within the zone medium density housing development (defined as a residential development comprising four or more household units on a site with a minimum area of 1400m<sup>2</sup> and at a density of greater than one household unit per 350m<sup>2</sup> net site area) is a restricted discretionary activity.

The Residential 8 zone includes detailed design assessment criteria for subdivision and medium density residential development. The assessment criteria are set out under the five design matters to which the Papakura District Council's discretion is restricted:

- public interface and external appearance
- dwelling design, position and orientation
- private outdoor spaces
- visual and acoustic privacy
- parking and access.

The criteria have guided the development of the Addison masterplan and provided the Papakura District Council with a tool for assessing each resource consent application, as the development progresses through its stages over a ten-year timescale. However, the criteria do not provide adequate assessment of rear terrace housing, and this was of particular concern to the Papakura District Council.

#### THE MASTERPLAN

A non-statutory masterplan for the Addison housing development was initially prepared in 2000 by Harrison Grierson Consultants for Hawkins Property. This plan has been refined several times and is still evolving.

The concept masterplan was developed according to the following urban design principles:

- transit-oriented development (TOD)
- highly connected network of roads
- pedestrian-oriented development good connectivity and permeability
- quality public open spaces
- streetscape amenity

- landscape themes street tree planting that reinforces road hierarchy, and reserve planting that provides character for the neighbourhoods
- solar orientation
- innovative, low impact solutions for treatment of stormwater.

The masterplanning of the Addison development has been based on defined neighbourhoods, each with its own neighbourhood-scale reserve (1500m<sup>2</sup>). A concept of 'neighbourhood commons' was also developed. These are small neighbourhood parks or open spaces of 500m<sup>2</sup> to 800m<sup>2</sup>, fronted by a small cluster of houses.

The concept masterplan was instrumental in testing the anticipated yield at an average of 20 households per hectare over the entire site (compared with around 10 to 12 households per hectare in the surrounding, established residential neighbourhoods) and for ensuring the development would meet the basic urban design principles, such as good connectivity and solar orientation.

The Papakura District Council was not involved in the development of the masterplan, so it varies from the Takanini Structure Plan. For example, the masterplan has omitted an east–west arterial connection under the railway line, favouring, instead, a network of inter-connected, local roads. The most notable departure, however, is that there is no mixed-use nodal area in the masterplan.

The Addison project was the first, comprehensive medium density residential development of this magnitude within the Papakura district. The Papakura District Council has been generally supportive of an intensive housing development within this location, because it meets its objectives of growth focused along a transit corridor within an inter-connected open space network. Addison does, however, present challenges, because the Papakura District Council must assess and approve all the different approaches to density, the shape and size of reserves, narrower road widths and road reserves, and the new approaches to stormwater management that are present in the development.

The staging of the development evolved in response to market demands in house sizes and as supporting infrastructure has become available. The first stage of the Addison project was deliberately developed adjacent to Bruce Pulman Park to create value from the outset. A road was also located around the perimeter of the park (see figures 5-6) to create a link, or interaction/engagement, between the park and private dwellings and to provide surveillance and security. The project staging has been challenging for both the Papakura District Council and McConnell Property, because infrastructure issues were not resolved before the development began.

The masterplan indicates a highly connected network of local streets and larger distributor roads. Porchester Road forms a central spine, from which the local roads connect, linking the development to the existing road network to the north and south. McConnell Property found they needed to negotiate road standards at an early stage with the Papakura District Council to create an appropriate urban environment that still allowed substantial usable open space. The design team wanted to create roads with a more pedestrian and community focus rather than for vehicle passage.

Wes Edwards Consulting was engaged to produce a report entitled *Local Roads for Liveable Neighbourhoods* that examined street function and form, and set out appropriate engineering standards. The local streets in the development are generally much narrower than the accepted standard of the Papakura District Council, but provide appropriate engineering solutions.







Images from top to bottom 7 - 9 Terraces fronting onto parks. The Addison dwellings are all two-storeys high, and set on compact sites that range from 120m<sup>2</sup> to 400m<sup>2</sup>. This layout departs from other conventional subdivisions in the area, which consist of singlestorey, detached dwellings on sites that range from 500m<sup>2</sup> to 1000m<sup>2</sup>. The range of housing typologies includes:

- terraces that front onto pocket parks, with access lanes at the rear (see figures 7-9)
- large terraced homes that front onto the street
- large detached family homes, with double garages and gardens (see figures 10-12)
- detached compact dwellings on small sections.

In all instances, the compact terrace dwellings front onto open space to create amenity within this higher density environment. This layout requires the homes to have access through rear lanes.

The houses are designed and built to a high standard because the Addison development employs strict guidelines for the use of quality materials, construction and finishes. Furthermore, covenants are in place on the land to help maintain the residential environment in its current state. These include covenants to:

- prevent homeowners from materially changing the external appearance, including the colour, of their houses
- prevent the construction of fences in, or around, front yards
- prevent hedge planting in front yards
- control the height and appearance of frontage planting.

McConnell Property has established an incorporated residents' society, to ensure ongoing maintenance of access lots, reserve lots and commons; to enforce the covenants; and to protect and maintain standards. All new and future homeowners are required to be members of the society, and existing homeowners within the development have the opportunity of becoming a member. This initiative is a response to the lack of community titles that bind similar free-hold developments in Australia. The residents' society can levy members for costs associated with the expenses of the society. Currently, the annual membership fee ranges from \$375–\$475 per annum for the first three years.

### Urban Design Issues

The whole focus of the Addison housing development has been on place-making and trying to create something essentially 'urban' in a traditional suburban environment. The housing density is greater than a more conventional subdivision, with a gross density of around 20 dwellings per hectare, as opposed to 12 to 14 dwellings per hectare. Physically and visually, it succeeds in presenting an alternative to the conventional subdivision, and provides a greater degree of residential choice to homebuyers.

One of the early motivators for the intensive development of this site was the location of a proposed new railway station at Glenora. This is unlikely to occur in the foreseeable future because of a regional decision to pursue other transport options, rather than light rail, which means the area can support only one railway station, rather than the two envisaged, within the Takanini Structure Plan. The Takanini railway station is a five-minute walk from the north-western part of the site, but it is not easily accessible to those living to the east of Porchester Road. Bus connections are also poor. Thus, while the intent was to be transit-oriented, this aspect of the development has not materialised.

The Addison development contains a range of road types and sizes. The narrowest of these are the shared surfaces that service groups of up to 16 dwellings. They have a carriageway width of 2.4m to 5m, with no footpaths or parking, and give the appearance of a driveway. These streets need to be short so all residences are within reach of a fire hydrant. Road reserves increase incrementally in width (although retain traffic lanes at a maximum of 5.5m to 7.5m) to provide increased access to houses, and include parking and footpaths on both sides. However, as a consequence of the low impact solutions to stormwater management and the addition of cycle lanes, some of the major distributor roads through the development, such as Porchester Road, are significantly wider than originally planned (Porchester Road is 28m in width from boundary to boundary).

In contrast, the rear lanes (typically 6.5m wide) have been used as access to the terrace houses that front onto the reserves. The lanes were introduced by McConnell Property to remove garages from the street frontage, thus allowing a narrow site frontage and an improved connection to the open space. The Papakura District Council has concerns about the appropriateness and safety of the rear access lanes but has had difficulty in assessing them, because the Residential 8 zone assessment criteria do not refer to them specifically.

The dwellings are all two-storey to make efficient use of land (resources), and generally cannot support additional levels because of the peat sub-surface ground conditions. There are some limited three-storey apartments planned in proximity to the retail centre. However, the construction of these will be dependent on engineering issues. This solution has been undertaken at the expense of the external appearance of the buildings and of internal ground-floor living space.

Emphasis has been placed on the streetscape and open spaces, to create a sense of place and good urban form. The Addison development presents an intimate scale of houses that are clustered around open spaces, and a hierarchy of parks and reserves that includes:

- a central town park that is located adjacent to the Takanini commercial core
- a series of neighbourhood parks of a size that enables the opportunity for active recreation and play (1500m<sup>2</sup>)
- community commons for the houses that surround the parks
- link commons
- reserves that connect open spaces and walking routes.

Most of the parks are vested with the Papakura District Council, however, the Council has reservations about the establishment of small reserves and links in future development stages. It has not yet been established how the Addison residents' society will maintain such open spaces.

The development incorporates Crime Prevention Through Environmental Design principles for safety and security, including:

- no front fences
- all the houses overlooking the street and/or other properties
- ensuring rear access lanes have good sightlines
- eliminating entrapment spots, and monitored security.

The proposed retail centre within the Addison development deviates in location from earlier versions of the masterplan, and from the centre anticipated by the Takanini Structure Plan. Papakura District Council's Structure Plan seeks consolidation of commercial development within a new (greenfields) Takanini centre, located 200m from the proposed retail centre and is scheduled for a council hearing (no date had been set at the time of writing). A community gathering place, within walking distance of the central part of the community, is seen as being essential for the health and interaction of the people who live within the Addison development.

#### **EVALUATION OF URBAN DESIGN PRINCIPLES**

Context	The Addison residential development lies between Takanini's retail centre and agricultural land to the east. It is located within an area identified by the Auckland Regional Growth Strategy for residential intensification.
	The site is well located, and within five to 10 minutes walking distance of the Southgate shopping centre. It is also within a five-minute walk of the open space provided by Bruce Pulman Park and its associated recreation centre; primary schools and a proposed secondary school; and rail links.
	The suburban nature of much of the surrounding area means there are limited employment opportunities within walking distance of the site, so most residents are required to travel to work. However, the majority of the 3000 jobs anticipated within the Takanini Structure Plan are likely to be generated within close proximity to the site by 2020.
Character	The existing character of the area is low-lying peatlands, and therefore, lacks any distinguishing landforms. The distinctive character of development – clusters of homes fronting inter-connected common green spaces – fosters an identity that would not otherwise exist. Addison's location, being adjacent to Bruce Pulman Park, coupled with the staging of development (the homes adjoining the park have been built first), has helped anchor the development to its environs.
	The Addison development is designed to a high standard by experienced architects and urban designers. Strict guidelines ensure a high quality of construction and finish. Dwellings respond well to both the street and open spaces.
	The street planting and colour palette are distinctive to the development and covenants prevent these elements being altered materially.
Сноісе	Takanini is currently one of the more reasonably priced areas for first homebuyers within the Auckland region. For all homebuyers, the Addison housing development provides an alternative to the traditional suburban environment by presenting two styles of terrace houses and two styles of detached homes to suit different household types.
	The housing choice was deliberately limited in the initial stages of the development to meet the needs of the market.
	Stage one – detached three- and four-bedroom houses.
	Stage two – detached and attached three-, four- and five-bedroom houses.
	Stage three – detached and attached one-, three-, four- and five-bedroom houses.

House prices range from \$200,000 for a one-bedroom house to \$500,000 for a five-bedroom house.

The varying types of housing encourage a mix of residents, from professionals without children, to families to post-family couples. However, despite the development providing alternatives to the existing area, there could have been further choice in housing types, particularly in size and in the number of bedrooms they had in the initial stages of development. The housing all comprises three to five bedrooms. The covenants in place prevent housing being leased to Housing New Zealand Corporation, thereby not allowing any social housing within Addison.

CONNECTIONS The narrow roads, combined with inter-connected reserves, create a pedestrian-friendly environment, enabling residents and visitors to walk freely and safely throughout the development and neighbouring streets. Around 40 percent of the Addison development is open space, which consists of walkways, commons, linear parks and roads. Cycle lanes are incorporated into the wide shared paths along major routes, including Porchester Road. There is also a dedicated cycleway along High Street. This was designed to link Addison residents to the proposed Glenora Station. Now that the railway station is unlikely to go ahead, connections between Addison and the Takanini station will be modified to foster improved pedestrian/cycle linkages. As stated in 'Context' above, Bruce Pulman Park, the Southgate shopping

As stated in Context above, Bruce Pulman Park, the Southgate snopping centre, two schools and a proposed secondary school are within 500 metres of Addison. The proposed new commercial/retail core of Takanini, enabled through the Plan Change, will also be within walking distance of Addison.

The development is well connected to the rail network, being within a 20minute walk of Takanini rail station, one of Auckland's more regular services between the city and Papakura. However, bus services and choice of routes are still deficient, although these should improve as the demand for such services increases as a result of the influx of people from the Addison development.

Addison is also well connected to major arterial roads (including Great South Road) and the Takanini Motorway interchange. Until regional transport improves, these roads provide the best transportation options for journeys.

CREATIVITY

The Addison development brings to South Auckland a design philosophy that emphasises quality of environment and, in particular, pedestrian spaces and connections.

The development provides an alternative environment to the conventional suburban subdivision. It also shows that alternative housing typologies are acceptable and, indeed, attractive to buyers when they are of a high quality and well-designed architecture.

Custodianship	Addison has, overall, employed an efficient approach to land-use through the clustering of two-storeyed dwellings around usable, open spaces and narrow roads. This has resulted in more usable open space than is available in many similar housing developments and conventional subdivisions. The visual amenity has also been increased through high levels of visual connectivity between dwellings and the public realm.
	Roads generally orient north–south to create east–west oriented dwellings. This maximises solar access into the principal, habitable rooms.
	The design of the development has incorporated Crime Prevention Through Environmental Design principles.
	The ownership status of the private rear access lanes, and whether they contribute to, or detract from, liveable neighbourhoods, are issues still being debated between the Papakura District Council and McConnell Property. To clarify these issues, McConnell Property and the Papakura District Council have jointly developed a set of 13 design criteria to endeavour to ensure the best design outcome for the rear access lanes.
	Low impact design methods for stormwater management and disposal, such as rain gardens and swales, are being investigated and will be employed in the development, where possible. However, there are issues relating to these solutions in this particular environment (eg, it is low-lying land with a high water table) in terms of cost of both the operation and ongoing maintenance, both of which will require particular input from the Papakura District Council. The Council and McConnell Property are working co-operatively to address such environmental and financial issues.
Collaboration	Addison has developed through a collaborative working approach between McConnell Property and the Papakura District Council, and in particular, through the Plan Change that has been guiding the development. The Papakura District Council has become increasingly involved in the project as it has progressed, largely because it has been developing its own urban design capacity and capability.
	The two parties have a good working relationship and hold weekly meetings to discuss progress on this large and complex development. A project manager, who is based at the Papakura District Council but funded by McConnell Property, has been employed (since mid-2005) to handle all ongoing requirements of the project. This has significantly improved the level and detail of communication between the two parties, and has helped with the early identification, resolution and management of any issues.



Images from top to bottom 10 - 12 Detached family homes.

### Lessons Learnt

As with any large-scale development, knowledge is gained as the project progresses. One of the lessons learnt from this project, from the perspective of the developer, was that the masterplan should be completed before construction begins. In this project, the first stage of the development began before the masterplan had been finalised. As a result, many issues required greater input and negotiation than the developer had first appreciated. On a project of this significance, communication is critical and must involve an open, collaborative process between the developer and the council. In this instance, it would have been more transparent and straightforward for both parties (the developer and the Council) if the masterplan had been finalised and used to form the structure for resource consent from the outset of the development.

McConnell Property realise they under-estimated the complexity of this type of development and this was a major learning experience. This was in part because of Resource Management Act 1991 consenting issues and current thinking in urban design, versus standard practice in subdivision. Had some of the critical infrastructure issues, like stormwater management and the location of roads, been addressed at the beginning of the development, the regulatory processes would have been more efficient. These elements require both the developer and council to agree on research and works programmes early on and to work together to achieve them.

The Papakura District Council has been expanding its urban design capacity and capability to respond to the intensive residential development of Addison. From the beginning of the project, they did not have a clear idea of all the issues pertaining to medium–high density housing. The Papakura District Council standards have thus been formed in tandem with the development process. For example, the Council now has a clear idea of the size and scale of parks and reserves that work as usable public spaces in housing developments of this nature, and generally is much more able to provide input into the process. In a medium-density development, public open space needs to function, not only for amenity but also as an extension of private outdoor space, therefore the size, shape and location of such space is important.

From an urban design perspective, the developers feel they could have created better physical connections through to Porchester Road at the beginning of the development. While in the long term, Porchester Road will be the principal north–south central spine road, at this stage it forms the western edge of the site. At present, a fence fronts Porchester Road, beyond which is the rear of a row of houses. From a development and more specifically an urban design perspective, it would have been better to build some of the proposed houses fronting the road at an early stage in the development process. Similarly, some of the first houses built back onto Walters Road, rather than fronting the road. This has been a poor outcome in urban design terms because the rear fences are presented to the Walters Road street frontage.

Rear lanes are used widely for accessing the terrace houses. The Papakura District Council has expressed concern about whether these lanes are an appropriate urban design solution in the New Zealand context. As stated in 'Custodianship' above, both parties have subsequently developed a set of 13 criteria that help assess rear lane access to terrace housing.

The Addison development was designed as a transit-oriented development. The cycle lanes provided throughout were intended to connect to the once proposed Glenora railway station. This is great in principle, but fails because the development has preceded viable public transport by several years, thereby creating a car dependency that will be difficult to change in the future.

Although it is still early in the development process (with only 255 dwellings either completed or under construction), some people perceive the development and, the buildings especially, as being too uniform. From an urban design perspective, the 'legibility' (ability to read) of the development could be improved through increased choices in the design, housing typology, and materials and colour of the built form.

The Papakura District Council is still working on how the 'public' spaces, such as parks, streets and roads, will be managed in the future as a result of the number and size of these spaces. The Council is particularly interested in managing the equity in services for the district as a whole.

# Value Gained

In general, the Addison housing development is succeeding in establishing a community. It is attracting a greater diversity of people to Takanini (and the Papakura district) than would otherwise have chosen to locate there. Residents have indicated they enjoy the strong sense of community and interaction that occurs at Addison. Children play together on the commons and reserves.

The standard of housing is superior to anything else on offer in Takanini, and this is reflected in the property values. Sales prices for the complete house and land packages have exceeded expectations, and are well above the initial sales prices of \$300,000. The latest house sales are between \$380,000 (for a three-bedroom terrace house) to \$480,000 (for a large, stand-alone house). These figures are about \$80,000 more than other properties selling in the local market.

The Addison development generally adheres to recognised principles of good urban design, such as including walkable neighbourhoods with inter-connected streets and open spaces that create good connections and encourage residents to walk to local facilities. A residential neighbourhood of this scale will increase the viability of local shops, services and facilities.

Interestingly, the charrette focus groups noted the lack of bus stops within the development. Medium-density developments such as Addison should serve to increase the viability of public transport services by creating an intense population base around transit nodes. In turn, such developments then require a frequent and reliable transport network to provide a genuine alternative to the private vehicle.

### Conclusions

The Addison residential development is not only of interest to Auckland, but also to the rest of the country, because it is a large-scale, high-quality, medium-density, greenfields residential development that has been based on clear urban design principles. It is already adding considerable economic, social and environmental value to Takanini and the wider Papakura district.

In terms of medium-density housing in the New Zealand context, there is certainly much to be learnt from the Addison development. It has adopted best practice from high-quality examples of Australian new urbanism. However, we now need to learn from the Addison project to evolve a housing development solution that is uniquely New Zealand in character and feel.

McConnell Property and the Papakura District Council have both faced many challenges in advancing this development. Both are equally committed to quality outcomes, but have different, and sometimes conflicting, approaches. The practicalities involved in addressing the low-impact, contemporary solutions to infrastructure in this particular environment, is one such debate. The ownership and ongoing maintenance of public space areas and rear access lanes is another. The lessons learnt from this process will be invaluable for informing best practice in the New Zealand context for future medium - and high-density residential developments.

Finally, because less than 20 percent of the development has been constructed to date, just how the development will fit into its landscape, once 1500 homes are constructed, will need to be examined. The effect of the Addison housing development on the economic, social and environmental values in the area will also require re-evaluation once the development is complete.

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See also: www.mip.co.nz/developments/project/addison • www.papakura.govt.nz • www.arc.govt.nz



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