

# Central Area Housing Project

## Inner-city medium density housing choices for New Plymouth

“Make full use of the space that is there – make a worthwhile place”

“People will buy into a vision”

“We are a city by the sea, and we shouldn’t forget that”

“The linkages that the city has to unique green environments are fantastic”

“A tight and compact city – with greater interaction of the CBD and natural environment”

“Housing in the Central Area will only work if it is cool”

“New Plymouth has a sense of place – don’t try and make it feel like somewhere else”

“Try to create opportunity – have a blank slate discussion before tens of thousands are spent”

“Pukekura Park – it can be everyone’s back yard, everyone’s garden, and everyone’s vision”

Ashleigh Pearce

2014

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*Note: A complementary summary document of this housing project has been developed. It summarised the key points that are discussed in depth within this report.*

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## Preface

This Central Area housing report has stemmed from the New Plymouth Central Area Urban Design Framework, actioning commitment to improving the liveability, competitiveness and vibrancy of New Plymouth city. The research report has been produced for the New Plymouth District Council to inform the 2015 District Plan Review, and complements the Central Area Building Heights project. Opportunities exist to improve the understanding of the housing market across the Central Area. The project objectives, background, context and housing trends are discussed within the first sections of this report (chapters 2, 3, and 4). Introductions to the terms of density and medium density housing are provided in chapters 6 and 7, as well as further discussions on demand, affordability and demographic patterns (chapters 9, 10 and 11). This report has then investigated the barriers that prevent good quality medium density housing (chapter 12). This allows solutions and incentives to be explored and tailored to the New Plymouth context to ensure they are the most effective for encouraging high quality design (chapter 13). This is accompanied by sections on urban design principles that can contribute to making successful medium density housing developments used in New Zealand and overseas (chapter 14). The final sections of this report involve a residential character, pedestrian experiences and energy efficiency analysis as part of informing a comprehensive site survey (chapters 15, 16 and 17). This analysis provides the understandings to produce a couple of case study examples of medium density housing developments that are appropriately suited to the New Plymouth Central Area context and character (chapter 18).

## Executive Summary

The success of New Plymouth District is closely linked with the success of the New Plymouth Central Area. A vibrant, efficient and accessible Central Area is key to achieving success. New Zealanders are discovering that living close to good quality open spaces, community facilities, schools, libraries, banks and shops and at the same time being close to work makes life easier and more enjoyable. In some places developers are capitalising on this and building a range of housing types in and near to city centres increasing the range of housing choices for people. Until now the focus for this medium density housing has been on the large cities of New Zealand while the provincial cities have quietly assumed inner city living is not really for them. There is a lack of knowledge on medium density housing in provincial urban environments.

The New Plymouth Central Area Urban Design Framework sets a shared vision for the area and highlights Central Area residents as a major part of that vision. The popular view is that more residents in the Central Area equals a better place! This project adds more detail to the space between what we have today and the future vision.

It is acknowledged inner city living is not likely to be an attractive option for the majority of New Plymouth residents. However, this project concentrates on the proportion of current and future New Plymouth residents that it would work well for. This project looks at New Plymouth's Central Area and its liveability and how increased residents would influence the life of the Central Area. It investigates what might work to encourage those residents, property owners and developers who recognising an opportunity need an extra incentive to act on it.

The project shows New Plymouth Central Area has the necessary bones in place to cater for increased housing in the Central Area.

Cities are actively encouraging ways to make safe, healthy, attractive urban spaces. As cities grapple with how to become more sustainable and achieve a compact urban form, housing typologies, inner-city redevelopment and intensification are evolving as ways to combat suburban sprawl. Encouraging inner city mixed use development is important for the vibrancy of the Central Area of New Plymouth, as a place to live, work and play, but also an economic imperative to keep business thriving in the city centre.

Like the majority of New Zealand's towns and cities there is a strong tradition of detached family homes in the New Plymouth urban environment. This project does not seek to change this preferred housing type for the majority of residents. This study focuses on good quality, well designed housing choices that take advantage of the benefits of living in the city. Due to the status quo of housing, there are negative public perceptions of medium density living and intensification. Research into medium density housing shows a lack of awareness surrounding what well designed medium density looks like and what it's like to live in. Intensification in the Central Area will remain relatively conservative, while the potential demand of new housing choices currently remains unrealised.

There are a complex mix of barriers that are preventing the development of medium density and inner city living. One barrier to medium density housing is the abundance of land available for residential development on the periphery of the urban environment. The New Plymouth district does not operate with a 'town belt' or 'urban limit'. Ample land has been rezoned to cater for residential growth. This is in contrast with some larger cities in New Zealand that have experienced higher growth rates and had a stronger rationale for implementing urban growth limits. In these other cities there is more incentive for medium density housing because of this urban limit and the demand for housing. In addition, for the next

four to five years there will continue to be development of older, single unit detached dwellings in the Central Area undergoing gentrification that will continue to affect housing demand and the uptake for medium density housing. For medium density housing to work in New Plymouth it must be because it's simply the best option for people.

Another barrier in the New Plymouth context is the unfounded perception that Greenfield development is cheaper and more straight forward to develop. The low hanging fruit for development is actually found in the inner city and the residential fringe rather than in Greenfield development. Established urban environments are already serviced. Existing infrastructure including roads, water and waste services, telecom cables and the ultra fast fibre networks and stormwater systems are up and running which means 100% of an individual lot can go towards the desired development. Frequently Greenfield development requires so much land for servicing that expected lot yields may halve during the development process. In addition, an established residential environment has neighbours that expect to have neighbours. Unfortunately, Greenfield development can suffer from some of the most vehement opposition from neighbours that have moved to the quiet open spaces on the city fringes.

Letting the market decide demand will not cater for unrealised opportunities and housing options. There is a range of incentives that New Plymouth District Council could use to support developers and encourage more suitable housing projects. Of the incentives discussed, education, advocacy, advice, collaboration and process smoothing show most potential for the New Plymouth Central Area. This is because processes of placemaking work on a long term scale. Developing the understanding and visions now will translate to better inner-city places and a flexible housing stock in the future. Establishing an Urban Design Panel and developing Medium Density Housing Guidelines offer opportunities for increasing densities and ensuring good design. Leadership and vision has been highlighted by local developers as vital for the long term success of the Central Area, driven by a visionary, future focussed champion. The coast, Pukekura Park, Cultural Precinct and high quality outdoor spaces will be central to guiding this public vision, while a stronger private vision for business and residential development success needs to be explored.

People will choose to live in a place that is attractive and inviting, and is in close proximity to amenities and services. Parts of the Central Area are not ready to embrace inner city living. Attention is required to make these areas investment ready, and demonstrate a willingness to grow and support private and public development. Ensuring the streetscape, private and public spaces can accommodate high quality inner city living as a nice place to live lays the foundations to allow vibrant mixed use spaces to thrive. Only then will medium density housing development be seen as a viable, alternative housing choice. This is made difficult by the current period of fiscal restraint, where council is challenged to do more, with less. It is however, a good time to explore the issues and make a plan for the future so that when a development opportunity arises there is a shared basis for a conversation around how that development may best be supported and guided through the necessary processes.

Projects on individual lots can be the small scale start that encourages inner city living. We may not be in a climate of large scale high end development. Our attention is focussed on medium sized developments that overtime and collectively will make a significant contribution to the vibrancy and life of New Plymouth Central Area. Three case study best practice medium density examples have been illustrated in this project, based on a comprehensive analysis of the existing situation, and with urban design principles in mind. They represent that vast opportunities and potential that New Plymouth has locked up behind the 'business as usual' mindset.

## 1. Introduction

Cities are actively encouraging ways to promote healthy, safe and attractive urban spaces where business, social and cultural life can flourish. Commonly known as the liveability of cities, it involves environmental quality, neighbourhood amenity and individual wellbeing. Liveability also includes elements of attractive public spaces, walkable, mixed use, higher density housing, vibrancy, and human scaled pedestrian experiences<sup>1</sup>. However, *life* in the city is a relative concept. It is not measured by the number of people, but the feeling that the place is populated and being used. The potential for this lively city atmosphere is strengthened when more people are invited to walk, bike, stay and live in city space<sup>2</sup>.

In the New Zealand context, a press release by Hon. Nick Smith in 2010 commented that there are major question marks over the way the Resource Management Act 1991 (RMA) is working in urban areas, and whether we have the right incentives for developers to do the best urban design in large cities<sup>3</sup>. The RMA is not working well in the built environment to achieve the goal of creating competitive, liveable and affordable cities. Urban design has therefore become a highly topical subject for technical advisory groups, discussion documents, frameworks and strategies, in an effort to facilitate high quality housing and design.

Medium density housing development is emerging as a means to contribute to sustainable, vibrant communities that are places where people want to live and work, now and in the future. When built with best practice urban design principles in mind, they have the flexibility to meet the diverse needs of existing and future residents, are sensitive to environment and sustainability goals and contribute to a high quality of urban life<sup>4</sup>. Furthermore they are safe, clean, well designed and offer great opportunities and facilities for all.

This report draws on the potential of high quality medium density housing to positively contribute not only to the housing stock within the New Plymouth city, but to the mixed use, vibrant atmosphere of the Central Area (city centre). The quality of the design is paramount to the success and acceptance of higher density developments within the district.



<sup>1</sup> (Yuen & Ooi, 2010)

<sup>2</sup> (Gehl, Cities for people, 2010)

<sup>3</sup> (Ministry for the Environment, 2010)

<sup>4</sup> (McDonald, Malys, & Maliene, 2009)

## 2. Project rationale and objectives

The New Plymouth District Council has signalled its commitment to making New Plymouth city more successful through quality urban design as a signatory of the New Zealand Urban Design Protocol since 2011. This has required developing an Action Plan, which has led to the formulation of the Central Area Urban Design Framework developed over 2012 and 2013. This strategy has identified overarching vision and intended outcome for the Central Area, guiding council staff and elected representatives to influence their project work, plans and policies. This Central Area housing report has stemmed from the Central Area Urban Design Framework, supporting one of the five top priorities and actions- investigating creative, attractive central living, and increased housing choices.

The purpose of this research is to investigate how inner city housing can contribute towards the vision of a vibrant, efficient and accessible public living room and business hub for the people of New Plymouth District. The Central Area is not experiencing the same investment and growth of the recent past, raising questions regarding whether it still has a thriving and lively atmosphere. One of the main objectives for this report is to investigate what is stopping development, and what might help to bring mixed use vibrancy back into the heart of the city. Creating good quality medium density housing choices in the Central Area is one avenue to encourage a more lively and attractive atmosphere.

It is also an economic imperative to encourage living in the Central Area. Recently we have seen the loss of some retail businesses from the Central Area, by the way of competition with online buying, or competition with the Waiwhakaiho Valley Mega Centre. Long standing New Plymouth shops such as Benny's Books, Treefish Connections, Etcetera, Infusion Cafe, The Garlic Press, and soon CC Wards, are recent closures<sup>5</sup>. As found in the Central Area survey, both the Council and public strongly agree that having prime retail vacant buildings is unacceptable within the Central Area, as well as strong support for a larger resident population living in the Central Area. Encouraging people to live and work back in the Central Area is an opportunity to provide housing choices, and an economic necessity for the heart of the city. These new housing choices do not look to replace the status quo of the sought after Kiwi detached family home out in the suburb, but rather to provide diversity in high quality housing choices that are both sustainable and contribute to the coastal urban fabric.

After reviewing the existing Central Area housing situation, this report highlights the most appropriate mechanisms to encourage housing in the New Plymouth Central Area involving education, process smoothing, collaboration and guidelines. Getting the concept of medium density housing and inner city living into the public domain and educating the community on what good quality design can do for New Plymouth is a first major step. Showing leadership, vision and smoothing the planning process in collaboration with developers also holds potential for inner city development. When the appropriate support for medium density housing has been drummed up, specific design guidelines and rule incentives become other avenues to support and guide the development community.

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<sup>5</sup> (Batten, 2014)

### 3. The 7 C's- guiding principles

The 7 C's that the Central Area Urban Design Framework has drawn from the New Zealand Urban Design Protocol help to achieve the vision of a vibrant city centre, and attractive inner city living. These principles guide this report research, but also frame the elements needed to achieve the Central Area vision of a vibrant, efficient and accessible public living room and business hub.

The 7 C's	How this housing report contributes towards the 7 principles and Central Area vision
Context	<ul style="list-style-type: none"> <li>- Housing options that fit within the New Plymouth context, celebrating the District's unique identity</li> <li>- Understanding the barriers to housing within the Central Area context</li> <li>- Use case study examples of how new medium density housing development can fit and connect within the neighbourhood and surrounding context</li> </ul>
Character	<ul style="list-style-type: none"> <li>- Exploring the previous and current character of the residential fringe areas, distinguishing the differing character to mixed use housing in the inner commercial area.</li> <li>- Utilising New Plymouth's coastal city character and connecting this sense of place with residential areas</li> </ul>
Choice	<ul style="list-style-type: none"> <li>- Providing diversity and choices of density, urban form, building types, and activities</li> <li>- Providing choices that are inclusive of differing age groups and changing demographics, including age friendly design</li> </ul>
Connection	<ul style="list-style-type: none"> <li>- Investigating how the residential fringe connects with the city centre, and the pedestrian experiences of residents</li> <li>- Connections of the foreshore walkway and cycle ways</li> </ul>
Creativity	<ul style="list-style-type: none"> <li>- Innovative options for housing in the Central Area contributing to attractiveness and vibrancy</li> </ul>
Custodianship	<ul style="list-style-type: none"> <li>- Investigating energy efficiency of housing stock and exploring new medium density developments that are low impact and energy efficient</li> <li>- Utilising infill development to protect rural land and make the most of current infrastructure</li> </ul>
Collaboration	<ul style="list-style-type: none"> <li>- Drawing on information from resident surveys, council staff, developers, Statistics NZ and valuers to contribute to successful outcomes and visions of the Central Area</li> </ul>

## 4. History of the Central Area

New Zealand cities are uniquely Kiwi and are very different, even from each other. Geography, landscape and history strongly influence the distinctive flavour of each city and gives them their own identity<sup>6</sup>. This is especially true in New Plymouth, as a unique coastal town, beneath the mountain and beside the sea. There is a long history associated with the land that is now the New Plymouth city. In pre European times, the Puke Ariki Pā site was a prominent feature on the landscape, situated on the coast beside the mouth of the Huatoki Stream. European settlers began arriving from early 1840s, and the New Zealand Company bought large blocks of land in 1841 in what was to become New Plymouth. The classical grid layout that was applied to New Plymouth is a characteristic of urban design concepts at the time.

In the 1960s, the first multi-storied building constructed in the Central Area was to replace the two-storied Tasman Hotel that had passed its due by date. The Riddick Bros and Still Company have undertaken a great deal of inner city development over the years and were successfully contracted to undertake a multi-story building development within the Central Area, as the first lift-slab method in New Zealand<sup>7</sup>. (The Tasman Hotel has now been redeveloped into 10 apartments and named the Richmond Estate).

New Plymouth has had a lot of boom years, attributed to the dairying and oil and gas industries. Through the 1960s and 1970s gas exploration off the Taranaki coast was attracting big companies to the district, giving rise to new industries. Buildings were being torn down and redeveloped on Brougham and Devon Street. However, the central New Plymouth downtown was subject to major flooding from the Huatoki Stream. Rapid development along these streets increased surface runoff, and Devon Street shops were frequently flooded. This was also partly due to the small capacity of the arch stone culvert built in 1875. Replacement of this culvert in the 1970s provided greater security and developments such as the Devon Mall were soon underway. By the 1980s, New Plymouth central had a very motley collection of buildings and railway yards, and city development continued to ignore the sea, with most of the central foreshore being occupied by rail yards, council gasworks, and other commercial areas<sup>8</sup>. The 1980s city master plan began to change this, and through the 1990s there was an active effort to turn the city towards the sea.



<sup>6</sup> (Department of Internal Affairs, 2008)

<sup>7</sup> (Still, 2011)

<sup>8</sup> (Moffat, 2012)

## 5. The Central Area housing and growth trends

New Plymouth is following the national trend of population growth, and therefore urban growth. Like other New Zealand cities, New Plymouth is also grappling with how urban growth is best accommodated. The New Plymouth Framework for Growth (2008) is providing for future urban growth both in the form of infill development and land zoned on the city fringes. Planning for urban growth has raised many questions around housing choices, density, affordability and urban form.

The Central Area is the heart of New Plymouth's commercial hub. The residential fringe population wraps around the commercial and retail core CBD, which is the site for this report. As of 2013, there are around 354 occupied dwellings within the Central Area, which around 675 residents reside. The predominant lot size is approximately 12m x 40m.

Historically, the outer streets of the Central Area were block residential areas that follow the classical rectangular grid layout of the city centre. Based on the City of New Plymouth District Scheme Planning Maps, dating from 1973, it is clear that the overall zoning of residential and commercial land uses have remained largely unchanged. However, by looking at gaps within residential blocks, it is evident that commercial uses are expanding outwards and becoming more mixed use. Notably, the residential area along the one way streets have been particularly converted to other uses, with large blocks of lots converted to office space along Vivian Street. Parallel to this, we are seeing residential apartment blocks developing within the inner commercial areas that would not have been allowed in the stricter 1970s plans/schemes.

The 'main street' style urban development of the area is typical of many provincial towns and cities. Because the Central Area sits in a basin between the Tasman Sea and the one-way system/Marsland Hill, commercial land use has been squeezed and elongated along the western and eastern sides of the city centre. Pukekura Park is also a dominant feature adjacent to the southern side of Central Area, and is another reason why commercial growth cannot move southward. This report does not seek to replace commercial space with residential, but provide an analysis of how inner-city living choices in particular, strategic areas can contribute to a sought after, vibrant, mixed use space.



Figure 1 Comparing current residential areas to 1973 Scheme Planning Map

The Central Area is still seeing growth, however the CBD is not developing as a thriving and vibrant place to live, work and play. Internet shopping and the development of the Valley Mega Centre for big-box retailing have been described as ripping the heart out of the city<sup>9</sup>. In the 1980s there was a real threat of new city development being located away from the city centre, with concerns around large scale suburban shopping centres, drawing away the core functions of the CBD<sup>10</sup>. This was partly prevented by the construction of the Centre City Shopping Centre on a block of properties located next to the coastal railway. The Centre City Shopping Centre building has been criticised as ugly and inappropriately situated, highlighted by many members of the public as their least favourite building in the Central Area survey. However, the building has served one main positive purpose for the Central Area, by anchoring people and businesses. This report is investigating the potential for Central Area housing as part of a wider application to keep people living and working in the heart of the city.

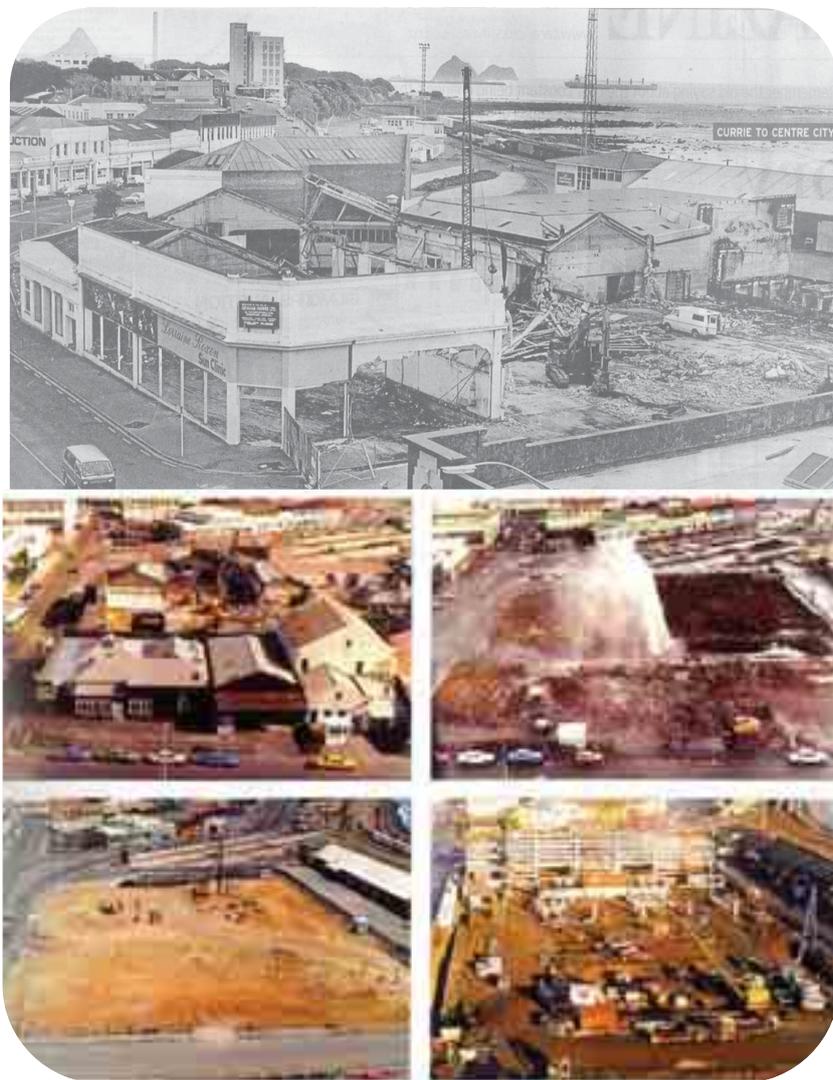


Figure 2 Demolition of Currie Street buildings for Centre City Shopping Centre- 1985<sup>11</sup>

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<sup>9</sup> (Foy, 2009)

<sup>10</sup> (Moffat, 2012)

<sup>11</sup> (Kete New Plymouth, 2012); (Moffat, 2012)

Some of most recent large scale developments within the Central Area have been commercial redevelopments and upgrades. These include the New Plymouth Police Station, and the newly constructed King and Queens Hotel. In relation to future city developments, it has been announced that the construction of a \$22 million four star hotel on Hobson Street will commence in March 2014 after going through the planning and consent phase, and to be complete around mid- 2015<sup>12</sup>. Also, there are future plans for a \$55 million retirement village on a four hectare site on Carrington Road, containing about 150 homes run by Summerset Group<sup>13</sup>.



Figure 3 Sketches for the Hobson Street Hotel

These developments have a different demand and nature to housing. There is a natural demand for accommodation, backpackers and aged care facilities in the Central Area, which can contribute to higher densities in the city. There is no natural demand for medium density housing but rather an unrealised niche of development that has opportunity to expand housing choices.

It is only recently that there were promising levels of new residential development within the Central Area, most of which are new single dwellings in areas that are going through gradual gentrification, for example Hobson and Buller Street. Encouraging housing in the Central Area has been included as a recommendation in previous plans. The Urban Design sub-committee Strategic Plan for New Plymouth Central Area in 1998 recommended encouraging central area residential development, as well as establishing Central Area residential housing design guidelines. However, this recommendation was never implemented. The Central Area Urban Design Framework is a document that has brought inner city living and housing choices back in forefront of priorities.

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<sup>12</sup> (Strongman, 2014)

<sup>13</sup> (Harvey, 2013)

## 6. Higher Density Living- Combating urban sprawl

### *A definition:*

Although the word ‘density’ appears familiar at first, it is a very complex concept. The term has a multitude of definitions, which leads to different understandings in different disciplines<sup>14</sup>. It loosely refers to the number of units (people or dwellings) in a given area. Specific density measures can be expressed as the physical density of people, residential, occupancy or buildings. Concepts of density are also entangled by *perceived density* measures, involving the interaction between the individual, space and architecture/urban form<sup>15</sup>. In recent years urban intensification and increasing the densities of dwellings in existing built areas has become an important planning and policy tool around the globe. In the New Zealand context, many cities are characterised by urban sprawl and low density cities, evolving from a predominantly rural nation of detached family homes. The historic Kiwi aspiration for suburbia is a difficulty in promoting visions for a compact, higher density city.

### *Why is higher density living so important?*

*“We shape our buildings, and afterwards our buildings shape us”*

- Winston Churchill

We have shaped our cities so that we develop to favour the car rather than the person, we reward cheap building costs rather than long term sustainable benefits, and developers can only make a profit on small lots rather than well designed master plans<sup>16</sup>. The way towns and cities have developed is a result of both deliberate planning, and the choices and decisions made by investors, property developers and home buyers<sup>17</sup>. The progression of the status quo has contributed to the contemporary urban issues that we are currently facing. Global concerns surrounding climate change, rising fuel prices, sustainability agendas, green house gas emissions, energy consumption, sprawl and of course population growth and demographic change are now issues under scrutiny. The change over the next 40 years will be unlike anything we have seen in the recent past. The demographic composition is changing (aging); the number of households is rapidly rising but the average number of people per household is declining. Housing demand still remains strong, however the size and nature of this housing will not be the big family four bedroom suburban home. There is a need to incentivise and instigate new forms of housing *now*, to provide for future demand of smaller housing types. A continued decline in household size is projected for all regions and territorial authority areas between 2006 and 2031<sup>18</sup>. Fortunately over the last decade many people (in cities such as Auckland and Wellington) have concluded that they prefer different sets of choices and housing, and cities are rediscovering the virtues of encouraging change and broadening choices in their down towns<sup>19</sup>. The built form has become central to creating compact, pedestrian-friendly and mixed use communities, to meet future housing needs and alleviate global challenges. A

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<sup>14</sup> (Hinshaw, 2007)

<sup>15</sup> (Cheng, 2010)

<sup>16</sup> (Stevenson, 2011)

<sup>17</sup> (Department of Internal Affairs, 2008)

<sup>18</sup> (Statistics New Zealand, 2011)

<sup>19</sup> (Hinshaw, 2007)

growing selection of literature is highlighting the importance of increasing population density to solve problems associated with growth. However before lurching from a low density to a higher density city structure, careful consideration is needed in relation to the potential health and social impacts to avoid unintended consequences<sup>20</sup>. This report investigates ways to both maximise the benefits of a dense urban residential population within the Central Area, while also looking at ways to overcome barriers and minimise the perceived negative effects of urban intensification.

## 7. Medium density living: A definition

Housing is a basic human requirement, and good design contributes to the functionality and pleasantness of the home. Providing new good quality housing must be high on the planning agenda to benefit all of society in making good places<sup>21</sup>. Local Government does not actually provide the majority of housing but provides the planning framework for provision of residential housing. The development of medium density housing in New Zealand is a relatively new trend. Research and literature on medium density housing in the New Zealand context is limited.

Medium density housing loosely refers to housing developments with four or more dwellings per lot, including stand alone, semi detached, terraced housing or apartments with four stories or less. In New Zealand, the most common definition used by Housing NZ Corporation and a majority of city councils is “housing at densities of more than 150m<sup>2</sup> per unit, and less than 350m<sup>2</sup> per unit, or 30-66 dwellings per hectare”<sup>22</sup>.

In the 21<sup>st</sup> century, the way in which we live, work and play is changing. The housing preference in New Zealand has tended to be large, detached housing with suburbs. Two bedroom standalone houses and three bedroom family homes are in most demand<sup>23</sup>. However, we are seeing a growth in demand of well sized semi-detached housing, on a slightly smaller section that is easy-care and located close to services. New Plymouth is a city with a historic distaste of small sections, but some are cottoning on to the benefits of smaller, central locations and moving back into the centre of the city<sup>24</sup>. This report does not seek to change the status quo of the preferred detached suburban home. Rather, this analysis seeks to investigate ways to create choice and diversity within the Central Area housing stock. The diversity of high quality housing choices contributes to the overall vibrancy and liveability of the inner city.

Christchurch City Council has produced a comprehensive document exploring high quality housing choices for their district. Below are some of the examples of how to successfully lay out medium density housing arrangements, from the “*Exploring new Housing Choices for changing lifestyles*” document<sup>25</sup>.

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<sup>20</sup> (Giles-Corti, 2011)

<sup>21</sup> (Ansell & Thompson-Fawcett, 2008)

<sup>22</sup> (Turner, Hewitt, Wagner, Su, & Davies, 2004)

<sup>23</sup> (Landlords, 2010)

<sup>24</sup> (Rilkoff, 2012)

<sup>25</sup> (Christchurch City Council, 2011)



Figure 4 Detached laneway



Figure 5 Terraced housing



Figure 6 Apartments



(1) DETACHED HOUSING AT THE 1:300 DENSITY RANGE.



(2) SEMI-DETACHED HOUSING AT THE 1:250 DENSITY RANGE.



(3) TERRACED HOUSING AT THE 1:250 DENSITY RANGE.

*(Density Ratio:  $xm^2$  per unit)*

Figure 7 Housing types from the KCDC medium density housing design guidelines



(4) TERRACED (ROW) HOUSING AT THE 1:150 DENSITY RANGE - GENERALLY INCOMPATIBLE WITH KAPITI COAST CHARACTER AND AMENITY VALUES.

## 8. Methodology

This research explores the existing housing stock in the Central Area, the housing demand and the barriers to higher density living in order to consider what solutions and incentives could encourage housing development.

### 8.1. Desktop analysis

Phase one of this research analysis included the assimilation of information, literature and council documents, discussing medium density housing in the New Zealand and overseas context. This has involved looking at the barriers to higher density living, and best practice urban design principles and case studies of housing arrangements and developments. This desk top analysis is vital in understanding the wider scholarly context in which this research sits, and has been coupled with a series of observational studies of the Central Area.

### 8.2. Observational analysis

Observational analysis of the Central Area gives the foundational data and understanding of the existing physical urban form, as well as the current use of the space. Character assessments, pedestrian experience assessments and energy efficiency typologies have been undertaken to better understand the New Plymouth context. The rationale for undertaking observational analysis is highlighted by Crawford who recognises the opportunities observations offer in understanding users and their needs, enabling sensitive design that is responsive to the site<sup>26</sup>.

### 8.3. Local interviews

The Central Area Urban Design Framework has undertaken a site survey 2012, which has provided a snap shot of what the public think about their city centre. This involved questions surrounding what should and should not be located in the Central Area, safety, materials and built form, the most favourite, and the least favourite locations in the Central Area. For this report, a handful of interviews with local developers, valuers, architects and property owners have been undertaken. The rationale for interviewing these people was that they are the individuals and professions who play an important role of contributing to and shaping the urban form of the Central Area. Learning from their personal experiences and engaging with them offers opportunities to receive recommendations that offer the most potential in making a real difference to the vibrancy of the Central Area.

### 8.4. Data limitations

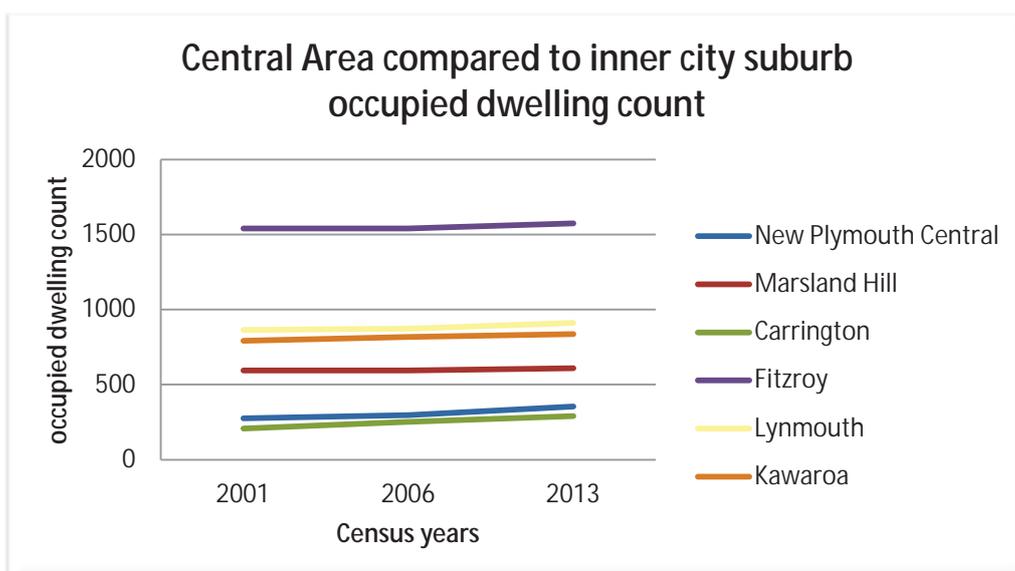
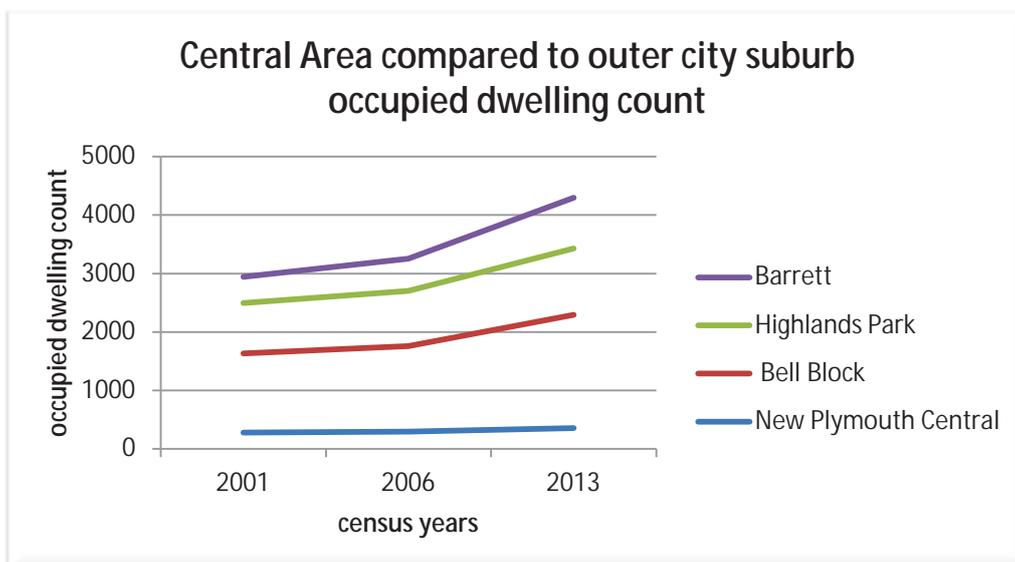
It is important to acknowledge potential limitations of data collection within this report. There are gaps in housing data within the Central Area because ratings data will not recognise illegal tenants living above shops or mixed use commercial sites that mask the residential land use above. Building consents, site visits, ratings and census data help to portray a general overview of dwellings within the Central Area.

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<sup>26</sup> (Crawford, 2009)

## 9. What demand exists for Central Area living?

The number of occupied residential dwellings has only slightly increased over the past 12 years. Census data indicates a slight rise in the number of dwellings within New Plymouth Central since 2001. The residential population of the Central Area has also slightly increased. In comparing the rate of growth in the Central Area to outer suburbs and other inner suburbs, there is a consistent pattern. The number of occupied dwellings in the outer suburbs such as Bell Block, Highlands and Barrett are growing rapidly, compared to the Central Area that is seeing slower growth. However in comparing the Central Area to surrounding inner city suburbs, all trends are showing similar minimal growth.



In relation to the growth trends of medium density and apartments, it is a volatile market that has a boom-bust cyclical demand. When apartment living is in demand, developers rush to cater for this

demand and when the demand is taken up, the demand falls. For those developers that build apartments too late in the demand cycle means they may struggle to sell.

For example, in the mid 2000s, there was a boom in apartment development within the Central Area. By 2007 this boom began to decline as apartment demand slumped, resulting in the Liardet Street apartments (Government Life Building) not selling as fast as some of the previous apartment complexes in the city. Since then, there has been a real lack in apartment development in the Central Area, narrowing opportunities to buy or rent apartments. It is speculated that New Plymouth is currently in a growing demand stage of housing in general. Demand for inner city apartments partially correlates to immigration and returning New Zealander's from living overseas. Higher density, easy care, inner city living is normal for many European and Asian countries, and immigrants look for that lifestyle.



**Who is migrating to New Plymouth? Ethnicity and immigration**

The ethnic diversity of the Central Area community in the 2006 census had grown since 2001, especially in relation to other/minority ethnic groups. This is consistent with wider New Plymouth district trends. In a university study on transnationalism in New Plymouth, there is evidence that the city will develop as a transnational place, however at a much smaller scale than diverse cities such as Auckland<sup>27</sup>. Family connections and employment opportunities in the District attract migrants, especially in the oil and gas industry. Notably, there is a small diversity of ethnically based food and products compared to Auckland, however Thai and other Asian restaurants are popping up around the Central Area as other shops vacate.

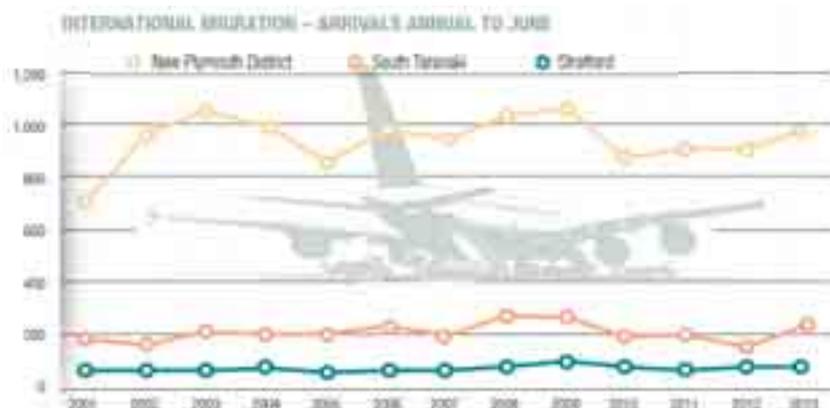


Figure 8 Long term international migration arrivals to New Plymouth 2013

<sup>27</sup> (Aalbers, 2006)

Venture Taranaki supports migrants living and working in New Plymouth and has many case study examples of migrants moving to New Plymouth or returning to the city from O.E's<sup>28</sup>. Anywhere between 800-1000 long term international migrants arrive per year. Many of these families have come from areas in the UK such as Doncaster, Yorkshire, London, Solihull as well as the others from the US, India and Australia, all of which have much larger metropolitan centres and urban forms. Not only do they bring new demands and ideas about housing, many of them are highly qualified and contribute skills and overseas innovations to the city. Immigrants from the United Kingdom are relatively high because a Taranaki contingent travelled to Leeds, Aberdeen and Birmingham holding functions designed to entice Britons to emigrate<sup>29</sup>. There is evidence to suggest this has been successful on the Venture Taranaki's website, of case study examples of UK households 'swapping sides' to live and work in Taranaki.

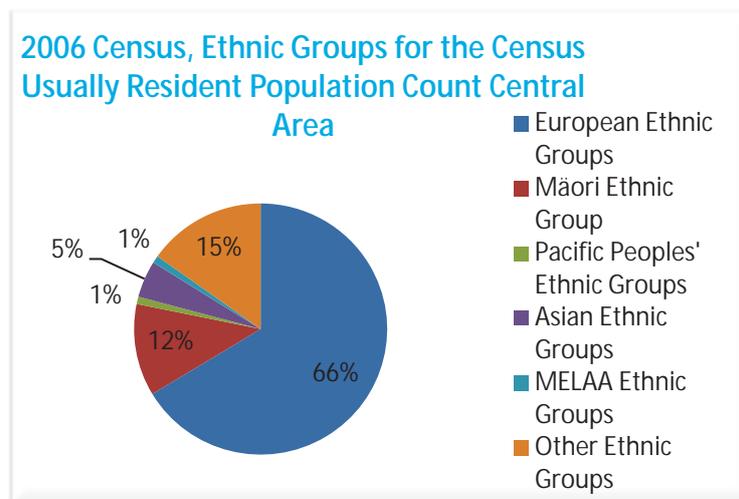


Figure 9 Ethnic diversity of the usually resident population of the Central Area (2006 Census)

### *Framework for growth*

The Framework for Growth/ Land Supply Review 2007-2027 sets out recommended growth direction for the District, and progressively rezones the supply of immediately available land for residential development. The majority of future growth is anticipated to occur in areas such as Bell Block and Airport Drive, as well as south and west of New Plymouth in areas such as Barrett, Cowling, and Frankley Road. The review predicts a continued demand for infill housing, assumed to be about one third of total growth. The Central Area has an opportunity to slightly increase densities in the heart of the city, and allow suburbs to retain their residential character. This also helps to protect valuable, fertile soils in farm-based rural areas, which is important to New Plymouth because the Taranaki Region largely relies on natural and physical resources for its economic and social wellbeing<sup>30</sup>. However, the rate of change and residential development within the Central Area is likely to be reasonably conservative. New Central Area housing choices will not satisfy the housing demand in New Plymouth, but rather offer high quality housing choices for those wanting to take advantage of the urban downtown lifestyle. Articles in the paper have expressed that residents living in the

<sup>28</sup> (Venture Taranaki, 2013)

<sup>29</sup> (Skyscapercity.com, 2008)

<sup>30</sup> (Taranaki Regional Council, 2009)

Central Area Quarterdeck apartments with their seafront setting and quality elevated lifestyles is a rare opportunity in New Plymouth<sup>31</sup>.

Trends in residential subdivision and development have been monitored in the New Plymouth district. Since 1993 there have been 4858 new dwellings in the district, averaging 243 per year, with the most growth recorded through 2006 and 2007. As at 2012, there were 1156 sites available for residential development, that were either subdivided, serviced vacant sites, or in the process of obtaining services. Analysis of available sites that have, or are being subdivided for residential development shows that there are currently over six and a half year's supply of lots that are available for future. This is based on the current demand of 174 sites per year for new dwellings that are residentially zoned (excluding rural), illustrated below.

	Hectares	Available Sites
A. Existing residential zoned vacant sites. These are subdivided and serviced sites that are available for development.	242	802
B. Subdivision applications that have been approved on residential zoned land but that awaits section 224 approval.	36	354
<b>TOTAL Available lots residential development</b>	<b>241</b>	<b>1156</b>

Figure 10 Sites available for residential development in New Plymouth<sup>32</sup>

Furthermore, there are 3390 future Greenfield potential sites (but not yet subdivided), and a total of 772 hectares that are zoned rural with a Future Urban Development Overlay that could be developed and zoned residential, illustrated below. They have been calculated by typical Residential A densities of 10 lots per hectare. They will only be available for more intensive development when the landowner or a developer subdivides.

**Table 2: Land that could be developed into residential sites**

	Hectares	Sites	Potential Sites
C. Greenfield sites zoned residential but not yet subdivided and serviced for residential use. Although these are available from a zoning perspective they have not been subdivided for residential use.	339	220	3390
D. Total hectares for urban growth areas (identified as future urban growth areas) that are zoned rural with a Future Urban Development Overlay.	772	-	7720

Figure 11 Land that could be developed into residential sites in New Plymouth<sup>33</sup>

As demonstrated above, there is currently a sufficient supply of residentially zoned land, even though much of this land is currently not subdivided and available in the market. The supply of land, is a potential constraint to medium density housing and intensification because there is more than enough land available to subdivide for many years to come.

This is important data in analysing land available for new development, however, it does not take into account the potential of infill sites for development. The majority of housing development

<sup>31</sup> (Shaw, 2014)

<sup>32</sup> (Hickford, 2013)

<sup>33</sup> (Hickford, 2013)

within the Central Area will be accommodated by infill development and demolishing existing buildings. Therefore, this is a limitation for analysing the ‘whole picture’ of new land development across the District, as it may not register as a new dwelling. If a single dwelling is replaced by a new single dwelling, it is renewing the housing stock, but not increasing (or affecting) density.

## 10. Affordability

Housing affordability has been a growing issue discussed extensively especially within the Auckland context. The nature of housing markets has come under much scrutiny in the past decade due to the concerns of diminishing affordability<sup>34</sup>. Many factors affect housing affordability including house prices, interest rates, credit availability, after tax incomes and the costs of essential purchases<sup>35</sup>. Figure 12 highlights the variables, and positive and negative feedback loops of housing models<sup>36</sup>.

Some costs can be controlled by Local Government, others cannot. Traditional land use regulations and the effects of housing demand can significantly impact on housing prices<sup>37</sup>. Over the past 20 years, Auckland has seen rising housing prices, high housing demand, and restrictions on land supply from the Metropolitan Urban Limit. However in the New Plymouth District context property is at a lesser demand and is readily available. The median housing price in New Plymouth city as of June 2013 was \$349,280, compared with the national average of \$394,000<sup>38</sup>. As discussed previously, outer fringe Greenfield development has provided options for residential expansion over a 20 year period (2007-2027). This long term strategic growth strategy allows for a mixture of both infill and new future residential areas. This provides certainty for future housing demand and growth.

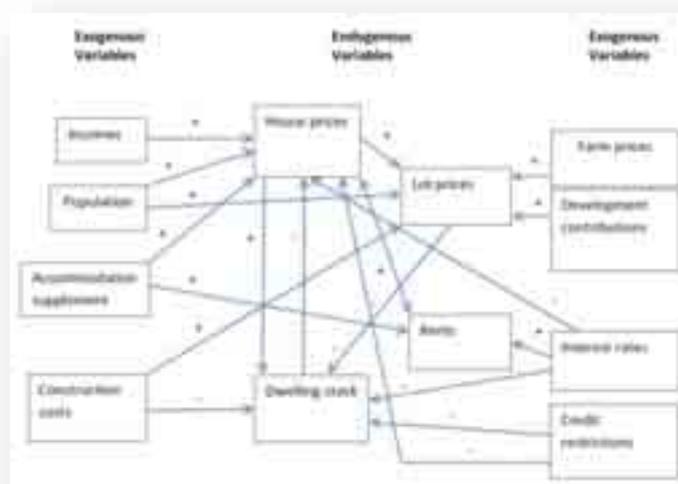


Figure 12 Schematic representation of housing model

The majority of housing developments within the Central Area will generally remain highly priced. Development cost is driven up in the down town area, and this generally translates to high spec developments that are ‘different’ and stand apart. Therefore, it is the choice of the developer to develop this high cost housing to get returns from high costs of development. For example, of the six apartments sold in the last quarter of 2013, four of those were sold within New Plymouth Central, with a median price of \$568,500<sup>39</sup>.

<sup>34</sup> (CityScope Consultants, 2011)

<sup>35</sup> (Ministry for the Environment, 2010)

<sup>36</sup> (Grimes, Hyland, Coleman, Kerr, & Collier, 2013)

<sup>37</sup> (Goble, 2012)

<sup>38</sup> (Venture Taranaki, 2013)

<sup>39</sup> (QV, 2013)

There is also a second tier of older housing stock available in the Central Area that makes up a lower price bracket in the market, including the Devonport flats and 1970s multi unit complexes. Lower cost or more affordable flats were also available in New Plymouth Central in that same three month period, with 5 of 33 flats sold. They also had a cheaper median price at \$192,000 compared to some of the surrounding suburbs. It is estimated that small pockets of single unit detached dwellings on separate lots remain in the fringes of the Central Area, and will gradually be taken up over the next four or five years. These pockets of housing are generally on small side streets off main city streets, and most of the remaining lower priced ones are left on the western side of the Central Area, as the ones towards Strandon and Fitzroy have already been gentrified. This housing typology for redevelopment will therefore affect demand for the next half a decade before medium density housing redevelopment is looked more seriously as a housing approach, which is in itself a barrier for encouraging this type of housing in the meantime.

As illustrated by the 2006 census data below, a large percentage of residents renting in the Central Area have an average weekly rent cost of between \$200-\$249, with a range of rent prices either side of this. This is generally on par with district trends.

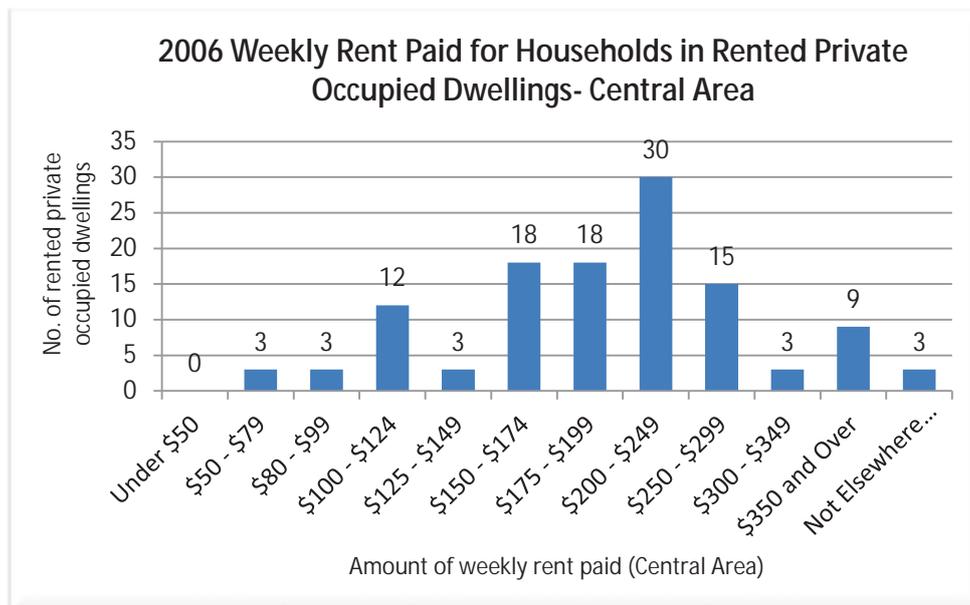


Figure 13 Weekly rent paid in the Central Area (2006 census data)

In light of this discussion of affordability, the general issue is that there is a lack of *new* affordable housing in the Central Area. The older housing stock in many pockets around the Central Area and residential fringe is reasonably affordable. However, new housing is high spec and aimed at the higher end of the market. In providing new inner-city housing options, there are opportunities for larger housing developments to supply a variety of sizes and prices. For example, a mixture of high-end, middle income and lower cost dwellings provides diversity and a mixed neighbourhood. This housing mixture caters for the city workforce, younger first home buyers, and more affluent residents. Providing ways for developers to continue making money at lower priced thresholds requires incentives, many of which are discussed later within this report.

## 11. Demographic

Based on 2006 census data the Central Area residential population has a reasonably even spread of age groups. In 2006 the number of people living in New Plymouth central was 639, with a median age of 36, although, the area has a very high number of 20-24 and 25-29 groups, as illustrated in the graph below. This is contrasted with the New Plymouth District data which is relatively balanced out. The spike in the 20 to 30 year old age groups are most likely to be part of the working population, with varying qualification levels.

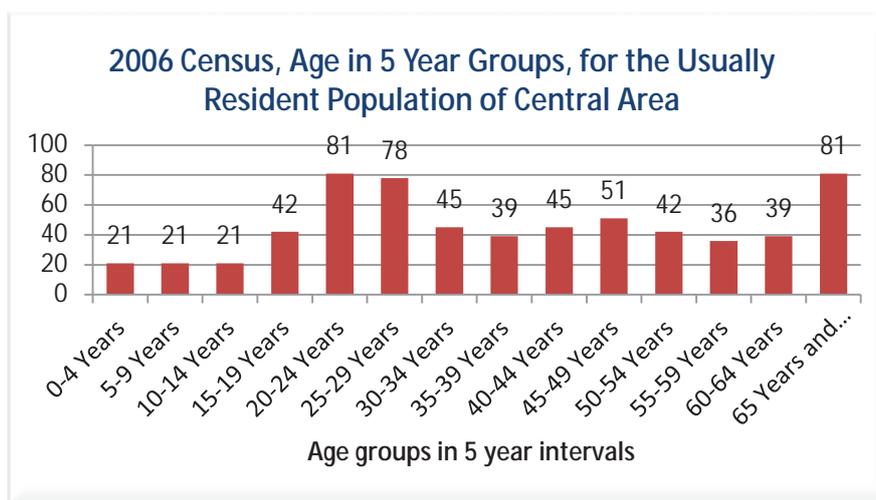


Figure 14 Age groups of the usually resident population of the Central Area (2006 census data)

### *Elderly*

There is a high number of the 65 and over age group living in the Central Area. This can partly be attributed to the Chalmers rest home cottages located on Buller Street. Appropriately designed living arrangements close to town allow elderly to walk to their destinations, to shop and run errands, access health care, and be part of the community and society, while remaining active, mobile and independent. Recreational and social opportunities are less common in the rural, outer urban areas. Where elderly live is generally an indicator of amenity. If they have the ability and freedom to choose where they move to, they will generally not want to live somewhere that lacks amenity. Future housing provision for elderly is important because the Taranaki region is aging, and growth will be seen in the 65 plus age group. This 65 plus group is estimated to increase from 16% of residents now, to 21% by 2021, and 27% by 2031<sup>40</sup>. Elderly are not a homogenous group. There are those that have finished full time employment, but are not at the stage of being in care. Many are looking to down size from the large family home, and move into a smaller home. This housing niche has not been well provided through the housing market, rather purpose built retirement complexes



<sup>40</sup> (Rilkoff, 2012)

have been the approach to supplying this demand. Designing housing that is flexible for changing demographic trends over time is important for an appropriate future stock. Age inclusive housing is explored later in this report.

### *Children*

There is a notable low number of children 14 years or younger residing in the Central Area. Trends show that there is a large percentage of couples without children living in the Central Area, rising to 58% without children in 2006. This is contrasted with Bell Block households that have around 40% of households without children. Even though there are a low number of younger children living in the Central Area, there is a huge range of day-care and educational facilities to cater for them. Since suburbanisation, cities (especially high rise buildings) have not been designed as suitable living arrangements for children. This is coupled with a view that children should have a suburban childhood in a detached family home on a big section with a back yard, and go to the nearby suburban school<sup>41</sup>. Trends show medium density housing generally targets segments of society including older singles, couples, empty nesters and young single adults, although small families with children who value the close location to the CBD were also included<sup>42</sup>. Regardless of the trends, best practice shows well designed housing arrangements can accommodate comfortable family living in the Central Area, in a decent sized house, albeit on a smaller lot, and receive the benefits and facilities of the Central Area. Children and families in an area can also be indicative of a good place to live. Children require safety, walkability, recreational facilities, access to schools and nearby green space, which represents what many other people in society appreciate and desire.



Figure 15 Rainbow education and care centre, Lemon Street

The reason why we want to encourage elderly and children to live in the Central Area and residential fringe is because they are commonly indicative of quality space. Gehl states there is a test for assessing good places to live. Can a young person have a good childhood here? And can elderly have a good time here? If the answer is yes to the two questions then no more questions need to be asked<sup>43</sup>. Nicer places to live are those with a mix of demographics that form a sense of community, while fostering a sense of stewardship and ownership. Meanwhile, the city benefits by residents supporting all kinds of businesses. Housing choices can enable people at different stages of life to find appropriate accommodation without moving too far. Hence, meeting house hold needs of bringing up children and caring for the elderly is important for successful, sustainable communities.

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<sup>41</sup> (Hinshaw, 2007)

<sup>42</sup> (CityScope Consultants, 2011)

<sup>43</sup> (Gehl, Cities for people, 2010)

## 12. Overcoming barriers: What is stopping good design?

*"It is nice in theory to put housing developments in the city, but it is just too hard and too complicated"*

- New Plymouth property developer

One of the main outcomes for good urban design is places for people to live, work and play. This is at the heart of creating successful neighbourhoods, suburbs and cities. New Plymouth has opportunities to create high quality designed housing within walking distance to great civic facilities, Devon Street shops, the Coastal Walkway, beaches and Pukekura Park. Overcoming the barriers of medium density provides high quality housing choices, while encouraging other economic activities to stay within the Central Area.

The following sections outline the barriers and solutions for housing options in the New Plymouth Central Area context. Within New Plymouth, the Central Area survey shows there is strong support for more people living in the Central Area, there are people that want to design housing differently, and there are people with the skill sets to make this happen. However, there is a real complex mix of barriers that prevent this innovation flourishing within the Central Area. Because of this complexity, many are choosing the readily available and easy road of developing a timber frame family home out on a Greenfield site, within all of the permitted rules of the District Plan. Understanding and addressing these barriers will open up opportunities, leading to successful housing and a built environment of the Central Area. Successful design needs to be assessed within the local economic, social, cultural and environmental contexts. Change is inevitable, and cities need to be adaptable and resilient to a changing urban form, while celebrating local character and diversity<sup>44</sup>.

### 12.1. Perceptions of medium density living

*"The 'D-word' – density – generates quite polarised and emotive reactions."*<sup>45</sup>

- Andy Ralph, Environmental Policy Planner

A major barrier to medium density housing is the negative perceptions that public have associated with higher density living and infill development. There is a perceived stigma associated with the phrases medium *density* and higher *density* living. Negative media coverage has also reinforced this public resistance. Particularly there is a lack of conceptual clarity on the nature of sustainable medium density housing, and a lack of understanding surrounding what quality medium density housing looks like. There are many historical (and unfortunately contemporary) examples of density done badly, not only in relation to the construction, but also the location. In New Zealand, most cities have examples of State Housing estates that are for the majority, situated in lower socio-economic areas. There is a belief that adding medium density living couldn't add value as a better

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<sup>44</sup> (Ministry for the Environment, 2010)

<sup>45</sup> (Ralph, 2011)

place to live<sup>46</sup>. International studies have indicated that the way higher density inner city living is presented to people can influence how this housing type is perceived and possibly accepted by the public. Qualitative research has highlighted that public commonly associate medium density living with sky-rise apartments, slums, leaky buildings, small boxy rooms, complicated cross hold leases, non-English speaking immigrants, too close living and inferior. However, when given best practice examples and better understanding about urban design principles of medium density living, respondents had an improved response. Once the stigma was overcome, these studies showed there is support towards intensification in the form of smaller sections, low level terrace housing and town house dwellings in subdivisions, infill in older suburbs, and modern apartment buildings in the Central Area<sup>47</sup>.

An implication of these perceptions associated with medium density housing, is that not understanding what good design can offer, leads to an unrealised demand. Developers do not develop medium density in New Plymouth because there is no obvious major demand for it. The challenge lies in leading people to develop medium density, when the option is non-existent. The demand is unrealised and the perception detracts from what medium density housing actually is.

Better marketing of medium density housing is fundamental in conveying a more positive message about inner city living. Visual images are a really useful way to illustrate how medium density housing could fit within a neighbourhood. Little work has been done to build community support for more intensive urban living. Local government can play a key role in revitalising inner city areas with good quality medium density housing. A coordinated approach with private sector marketing can be very effective in changing pre-existing attitudes towards housing redevelopment and housing typologies<sup>48</sup>. The Central Area has a lot of positive things going for it, and promoting and marketing inner city living as a unique proposition will increase interest.

Identifying strategic areas for potential future development is important because medium housing development within the Central Area will be relatively conservative. Encouraging well designed medium density housing is not trying to change the status quo from the detached family home out in the suburbs. It is merely providing a greater range of options and prices for a range of people within the New Plymouth District. New Plymouth is not suited to sky-rise complexes but rather low rise medium density including older suburb infill, two to four level town houses and attached units. Central to its success is ensuring high quality design through urban design principles outlined within subsequent sections of this report.

## **12.2. Abundance of periphery land and the perception of Greenfield development being easier**

An inherited difficulty of encouraging development within the Central Area is the cost of development within the Central Area, coupled with an abundance of land and property available on the periphery. There are no controls to stop development and businesses locating outside the

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<sup>46</sup> (Benge, 2007)

<sup>47</sup> (CityScope Consultants, 2011)

<sup>48</sup> (Backhouse, 2013)

Central Area. Because Greenfield sites are perceived as easy, readily available and sought after, this has resulted in a lack of demand in inner city redevelopment.

The development costs associated with the higher spec developments within the Central Area are different to that of a single dwelling development available on outskirts of the city, for example in areas like Bell Block. In January 2014, New Plymouth District's average property value was \$345,571. A brand new large three or four bedroom home and land package in Bell Block commonly anywhere between \$300,000 to \$600,000. You can get a cheap 1960s -1970s multiunit or town house in the Central Area, but a pent house on Liardet Street with three bedrooms has a rateable value of \$960,000, and a Quarterdeck apartment will cost you anywhere from \$600,000 upwards. The more expensive price of the Central Area reflects development costs, and high quality fittings, furnishings and appliances used within these high end apartments. This is compared to the minimal finishing's that are included in the house and land package spec home.



**Bell Block 4bdrm House and Land Package**



**Floor Area: 175m<sup>2</sup>**

*(G.J. Gardner)*

VS



**Quarterdeck 3bdrm Apartment**



**Floor Area: 135m<sup>2</sup>**  
**(Penthouses: 175m<sup>2</sup>)**

*(Shaw, 2014)*




Also, notifying resource consent within a well established residential area is perceived as generating a lot of neighbourhood opposition. The perception of a medium density development imposed on their community could spark a NIMBYism (Not In My Back Yard) response if not appropriately discussed with residents. Public scrutiny causes delay. Greenfield development are perceived as the easier approach because there are fewer participants, equating to less potential opposition and giving the developer more control over the process. However, there can be high opposition from the rural community because new Greenfield subdivisions can impact on the character of the rural hinterland.

Unconstrained development on the urban periphery increases pressures and costs of supplying new infrastructure and social services, increase unsustainable commuting patterns, impose on productive rural land and encroach into ecological habitats. In infrastructure terms, inner city development is half the price to that of Greenfield development. The amount of land and costs required for

infrastructure and services of a new subdivision are underestimated and commonly not considered. There are built in costs that are split across the landowner, developer and clients, and the perception is that it is easy and well worth providing new infrastructure to service a few houses. There is inadequate emphasis in housing policy on sustainable inner-city development as a viable alternative to Greenfield development. Some regions are beginning to require Greenfield developments to make a case for why they contribute positively to the area, or required to illustrate that alternative inner city sites have been investigated, and justify why Greenfield is required. New Plymouth would benefit from these discussions. Inner city revitalisation and housing developments are an effective means to achieve sustainable community, economic, and environmental objectives, but just lacks motivation and incentives in comparison with Greenfield development.

To overcome this barrier, the Central Area needs to become better prepared for intensive living, and preparing private and public spaces to accommodate high quality inner city living lays the foundations to allow vibrant mixed use spaces to thrive. As discussed later within this report, capital and lead investment is essential to preparing the streetscape for housing development, because the infrastructure and services are already in place. Intensification and medium density housing is currently at the stage of suggestion rather than requirement. Therefore the incentives required to overcome this barrier include encouragement of education and advice, rather than regulations which would most likely equate to strong resistance.

Also, as discussed previously, affordable single unit detached properties on the Central Area residential fringe will be alternative development options for the next four to five years and affect the demand of other housing choices. We need to start enticing people to live and work in the city centre, and express the benefits associated with inner city living. Because you can drive to most places in New Plymouth in 5, 10 or 15 minutes, inner city living will only work if it is ‘cool’ and vibrant, providing the freedom for residents to walk to destinations. The ‘hipness’ of area has been expressed as being both stylish and able to establish an ‘in’ neighbourhood that has enduring staying power. Those that want to live in and be part of the excitement create centres of coolness and gives the neighbourhood its buzz<sup>49</sup>. There are a range of benefits that add value and vibrancy to inner-city lifestyles that are not experienceable in a suburban cul de sac, some of which are illustrated below.

### 12.2.1. Benefits

Benefits	How inner city living contribute to enhancing quality of life
Access to facilities and utilities	Residents experience convenient access to premium public spaces, cultural facilities, dining and entertainment venues. The scale of the Central Area means that they can enjoy the benefits of inner city living without sacrificing amenity, especially with beaches and Pukekura Park within a few minutes’ walk. The Central Area is situated between the Mountain and the sea, and well connected to the Coastal Walkway.
Extending day into night	Extending the hours of the Central Area and creating a nightlife atmosphere is one way to reinvigorate the city centre while making an exciting lifestyle option. Extending the day into night with activities after 6pm, exhibitions, artistic displays, concerts, cafes, bars or restaurants adds to the vibrant atmosphere of the Central Area. This benefit works both ways, as after dark activities entice people to live central, while economically it will attract

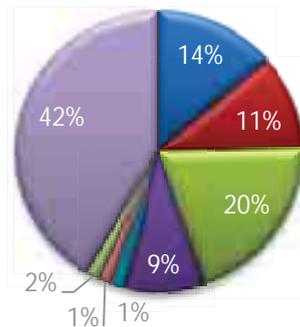
<sup>49</sup> (Breen & Rigby, 2004)

	<p>business into the city. This increases demand for local retail services and a denser local labour market of employees<sup>50</sup>.</p>
<p><b>Character and attractiveness</b></p>	<p>Urban form and streetscape makes for a much more walkable neighbourhood and a higher quality experience for walking and cycling. The photos below compare Bell Block suburbs with Devon Street</p> <div style="display: flex; justify-content: space-around;">   </div>
<p><b>Low maintenance</b></p>	<p>Inner city living is easy care, and the lock-up-and-leave nature appeals to many people. There are no large grounds or lawns to maintain and manage as the quarter acres section requires. This provides more recreational time for residents to take kids to sports and engage in their own interests<sup>51</sup>.</p>
<p><b>Better safety and security</b> <b>Better energy efficiency</b></p>	<p>More eyes on the street contributes to safer streets and crime prevention.</p> <p>As discussed within the latter section on housing type energy efficiency, modern medium density living has added benefits of higher energy efficiency. They are better thermally insulated and have lower heating loss because of the wall and floor connections within the building. Encouraging above standards insulation contributes to a healthy, warm living environment.</p>
<p><b>Active transport</b></p>	<p>Rising oil prices equate to high economic and social costs of commuting. Active transport becomes a much more viable transport option for short trips in and around the Central Area, while impacting positively on health. Living out on the periphery forces residents to drive to their destination.</p>
<p><b>Close proximity to work</b></p>	<p>Close proximity to work is also an added benefit to living centrally. Surveys have been collected on the usual residence of the New Plymouth Central Area in 2013. This illustrated that of the 372 people surveyed that lived in the Central Area, 53% (198) also worked in the Central Area. Of these residents that worked and lived within the CBD, the graph below illustrates the main means of travel to get to their work in the Central Area. The most popular way was to walk or jog. However the Central Area has an interesting benefit in allowing a group of residents to work from their home.</p>

<sup>50</sup> (Morrison & McMurray, 1999)

<sup>51</sup> (Rilkoff, 2012)

### Central Area Usual Residents who also work in the Central Area



- Worked at Home
- Did Not Go to Work Today
- Drove a Private Car, Truck or Van
- Drove a Company Car, Truck or Van
- Passenger in a Car, Truck, Van or Company Bus
- Motor Cycle or Power Cycle
- Bicycle
- Walked or Jogged

In terms of social, health and environmental sustainability, it is positive to observe that many Central Area residents have the option to walk or cycle to work, with active transport making up approximately 44% of all trips to work.

### 12.3. The District Plan

The purpose of a District Plan is to assist territorial authorities in carrying out their functions under the Resource Management Act 1991 [RMA]. The RMA 1991 directs district plan content and the ability to consider design and sustainability. Is local legislation sufficient to achieve quality urban design outcomes? District plans have a limited impact on influencing and directing the development process, especially in terms of achieving high quality medium density housing<sup>52</sup>. The New Plymouth District Plan neither encourages nor discourages housing types within the Central Area, and fails to clearly articulate an urban plan vision.

The issue of sustainable buildings is one that district plans are only just beginning to grapple with, generally being silent on sustainability features. Apart from noise and sunlight, the quality of the internal living environments is generally something that district plans have not directly addressed. Instead it is covered by the Building Code<sup>53</sup>. There are a lack of incentives in the New Plymouth District Plan process for innovation. The effects based approach adopted by the New Plymouth District Plan employs rules on lot size, building height, and site coverage in different zones. However, specific housing types are not identified as either appropriate or inappropriate; rather, they are all permitted as long as they meet the permitted activity standards<sup>54</sup>. The District Plan is not restrictive of activities, allowing residential activities to be permitted in all Business Zones. In contrast to other District Plans in New Zealand, many districts have prescriptive planning documents that make it more difficult for housing and mixed use. Therefore, there is already opportunity for higher density, mixed use development in the Central Area, however efforts towards sustainable and high quality design need to be further addressed.

<sup>52</sup> (Haarhoff, et al., 2012)

<sup>53</sup> (Trenouth & Mead, 2007)

<sup>54</sup> (Laurenson, 2010)

### 12.3.1. District Plan minimum lot sizes

The New Plymouth District Plan includes objectives, policies and rules to manage adverse effects of activities on the environment. There are associated rules with the minimum requirements for a unit size. The Central Area residential fringe is zoned within Residential Environment B, which is characterised by having a slightly denser built form and has a smaller minimum lot size than Residential Environment A and C. The Residential Environment B minimum size for allotment is set at 250m<sup>2</sup> as a discretionary activity and is quite big in relation to typical medium density housing unit size. This rule has been written into the plan to provide a minimum standard of amenity. It ensures the effects of allotment size and shape does not adversely affect the character of the area, amenity values of the neighbourhood or existing activities of the area.

Best practice medium density case studies unit sizes range from 150m<sup>2</sup> to 350m<sup>2</sup>. There needs to be more flexibility in the unit floor space requirements, so housing can be designed to best suit a particular site/section that development could occur on. Does the plan rules that control residential floor ratio, minimum lot size per unit size and minimum unit size ensure the appropriate density and the level of internal amenity is retained? Or can best practice urban design principles and guidelines be applied during consent process instead? - Guidelines are becoming a common approach to contribute to improving urban form and design, and are discussed within this report.

## 12.4. Site selection

Selecting an appropriate site is one of the most important considerations in the process of providing housing. This is not only in relation to the location and size, but the effects and opportunities on the wider context and neighbourhood it will be situated within<sup>55</sup>. There are difficulties of acquiring sites in existing urban areas that enable amalgamation of sites at appropriate locations large enough to deliver high quality, high environmental performance medium density developments<sup>56</sup>. Projects need enough land in common ownership to create purpose built, higher density mixed use development, roading network, public space, and repackaging the land and assets to improve utilisation/performance<sup>57</sup>. The typical sites that are selected for redevelopment commonly contain one single dwelling. The classic rectangular site constrains the options for housing, and generally lends itself to building a row of houses at right angles to the street<sup>58</sup>. However case studies have illustrated that achieving small scale medium density on an average sized lot is also possible.

Unique opportunities also exist in the Central Area surrounding Brownfield redevelopment of industrial and commercial properties. Some of these properties have large lot sizes and provide more opportunity for a wider range of housing arrangements.

Guidelines from Christchurch's *Exploring New Housing Choices* document<sup>59</sup> consider designing a range of medium density housing developments are using one or two sections that are 20m x 50m each. Encouraging the amalgamation of sites increases the likelihood of possible solutions and comprehensive development for that site. In doing so, this offers great opportunities in creating

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<sup>55</sup> (Department of the Environment, Heritage and Local Government, 2007)

<sup>56</sup> (Thompson-Fawcett, 2011)

<sup>57</sup> (Department of Internal Affairs, 2008)

<sup>58</sup> (Christchurch City Council, 1999)

<sup>59</sup> (Christchurch City Council, 2011)

medium density housing options that work for that particular piece of land, allow for comfortable living and protect residents and neighbours quality of life.

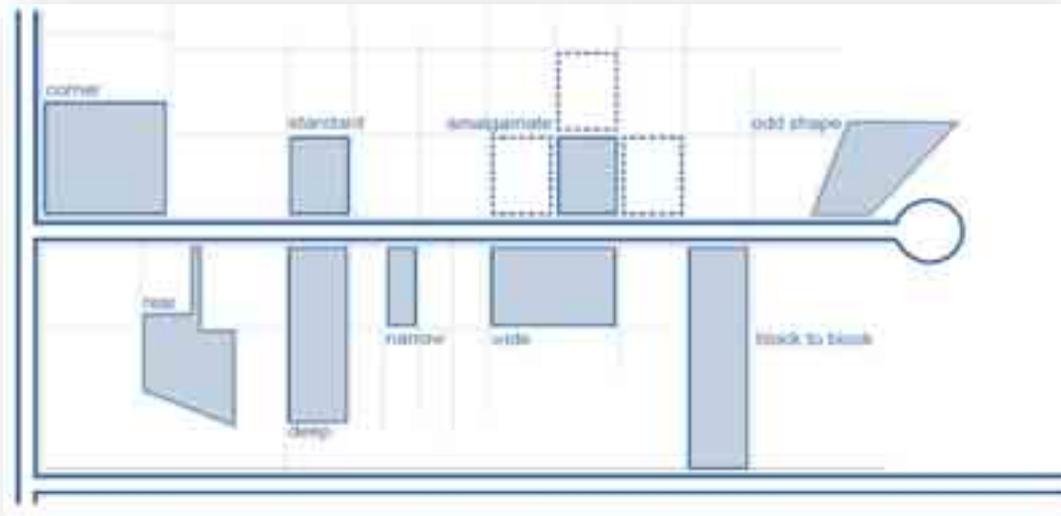


Figure 16 Examples of site arrangements (from Christchurch's Exploring New Housing Choices document)

Meanwhile, small, odd or awkward sites should not be so easily dismissed during site selection phases. The skills and imagination of developers and architects can result in the formation of some very successful housing schemes<sup>60</sup>.

## 12.5. Business as usual

One barrier that could be contributing to the residential area of the Central Area is that the housing stock is slowly aging. This type of slow deterioration is evident in some of the older streets such as Lemon Street. Some of the most recent developments within the Central Area have been associated with the revamping of outdated or deteriorating buildings such as the White Hart and Police Station. It appears buildings are repaired or renovated when needed, and this is a classic trend of gradual redevelopment over time. This has resulted in the buildings in New Plymouth comprising of a range of types and ages, reflecting steady development over the last 100 years, from unreinforced masonry buildings, to modern multi-storey steel and concrete buildings. There is an economic cost associated with 'doing nothing'. Literature suggests that the external costs generated by the status quo disperse development and infrastructure, and without the flexibility to change, creates inequality and urban deprivation<sup>61</sup>.

Many of the overseas cities that have developed great city centre urban design policies and housing development strategies are because they have essentially hit rock bottom and must reinvent their centre radically. Newcastle, Australia is a successful example of this. In 2008 their retail centre was empty and radically began DIY urban design initiatives to bring people and businesses back into the city centre. By 2011 the city was one of the top 10 tourist destinations in the world, and is now a sought after place to live.

<sup>60</sup> (Department of the Environment, Heritage and Local Government, 2007)

<sup>61</sup> (Department of Internal Affairs, 2008)

New Plymouth is by no means in this 'rock bottom' situation, in fact the District and the Central Area is still seeing growth. The census night population count has risen from 876 in 2006 to 930 in 2013. In relation to the commercial sector, the number of employees in the Central Area has steadily increased until 2006, and since then numbers have been fluctuating below and above this. At its peak, employee numbers were at 10,800 in 2009. In 2012 employee numbers were at 9,920. Although, the number of business start ups has declined. In 2004 business start ups peaked at 123, and since 2008 have been steadily declining to only 75 in 2012. Waiwhakaiho Valley mega centre has played a part in drawing retail businesses away from the Central Area. A recent survey of retail in the District has found that the Valley is at full capacity with no vacant shops. Devon Street currently has 14 vacant shops, down from 16 vacancies the year prior<sup>62</sup>.

There has been no urgency to investigate major redevelopment. Therefore, development and the housing stock will continue 'business as usual' and slowly age, with some areas seeing private housing developments in sought after areas. What will be the effect of business as usual? Although there has been money and effort put into the Central Area and Urban Design Framework, the investment in the Long Term Plan does not reflect focus on the Central Area. Investment and incentives required to encourage inner city development and make inner city housing investment ready in the near future is hampered by the current fiscal restraints.

## 12.6. Earthquake prone buildings

Since the Christchurch earthquakes, there has been a strong national focus on assessing earthquake prone buildings, risk management and getting buildings to safe standards. Seismic assessments are currently being undertaken in the District. The New Plymouth Earthquake-Prone Building Policy identifies potential earthquake prone buildings (buildings built before the 1976 new building standard) and records them on a public register. Around 80 buildings within the Central Area are part of this assessment. Depending on the use of the building, and risk to public, the timeframe for completing earthquake prone strengthening or removal ranges from 15 to 30 years. Landlords that lease their buildings to businesses may not be aware of the earthquake prone buildings list or the status of their buildings.



Figure 17 Construction work on Currie Street

Figure 18 maps the earthquake prone buildings that are recorded on the public earthquake prone building list, as at January 2014. Only four buildings have been confirmed as earthquake prone. The rest of the identified buildings have been earmarked as potentially earthquake prone and are subject to detailed further assessment to either clear them, or confirm them as requiring strengthening. Being on the buildings register does not mean that each building is earthquake prone.

<sup>62</sup> (Batten, 2014)

The preliminary assessment that has defined this list of buildings looks for specific design techniques and exterior features, building age, and facades etc. This mapped data does not imply that these buildings are dangerous and will have to be demolished. Rather, it illustrates the areas that may require key directions on future policy support for the Central Area, as well as potential future change and redevelopment, but it is equally possible that nothing will change over the next couple of decades. Many landlords have been advised to do nothing in the interim and see how the issue pans out.

“Owners of these buildings had spent significant sums to strengthen their buildings required by previous legislation (unreinforced masonry buildings strengthen 2/3 of NZSS 1900). It is disappointing for them to know that the building in which was strengthened just a few years ago is again an earthquake prone building and they have to spend yet again a significant amount of money to revoke the status”<sup>63</sup>

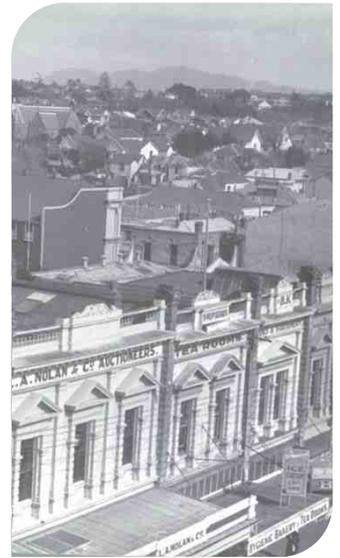
Regardless of what happens to these buildings, it is important to investigate the potential future implications of earthquake prone buildings in the Central Area. In worst case scenario, if confirmed earthquake prone, businesses and landlords that cannot afford the expensive process of strengthening their buildings can be forced out of the Central Area. This can lead to a percentage of retail buildings, especially along Devon Street left empty. Meanwhile, there are future opportunities to pull down or redevelop earthquake prone buildings and put in mixed use buildings with good quality housing. For example, along the main street of Devon Street, blocks of abandoned earthquake prone retail shops can be rebuilt with an active frontage of retail remaining on the ground floor and two or three stories of well designed apartments situated above. This would work especially well on the North facing side of Devon Street because the apartments would get long sunlight hours. However, buildings with heritage character should be actively encouraged to retain heritage values if at all possible during redevelopment or strengthening. Council support is vital to tackling the issue of earthquake prone buildings.

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<sup>63</sup> (Bothara & Sharpe, 2010)

## Heritage

Cultural and building heritage is important to New Plymouth. It is a physical reminder, connecting the past with the present and future, while shaping the character of the places in which we live, work and play. Heritage buildings and many of the second story facades along Devon Street have a unique heritage charm. They are part of the Central Area character and are appreciated by many in the community. The Central Area survey found that many of the public's favourite buildings were heritage buildings, buildings and restored character buildings, such as the White Hart. Earthquake prone buildings could have negative implications for heritage buildings in the Central Area. Active encouragement of strengthening and refurbishing character buildings is important in retaining the link to place in the Central Area, and fostering identity. Heritage protection funding is available to help private landowners manage, preserve and strengthening heritage values of buildings. Because of their inner city location, they are ideally suited to intense and integrated development and adaptive reuse that restores and incorporates them as part of the future city fabric.



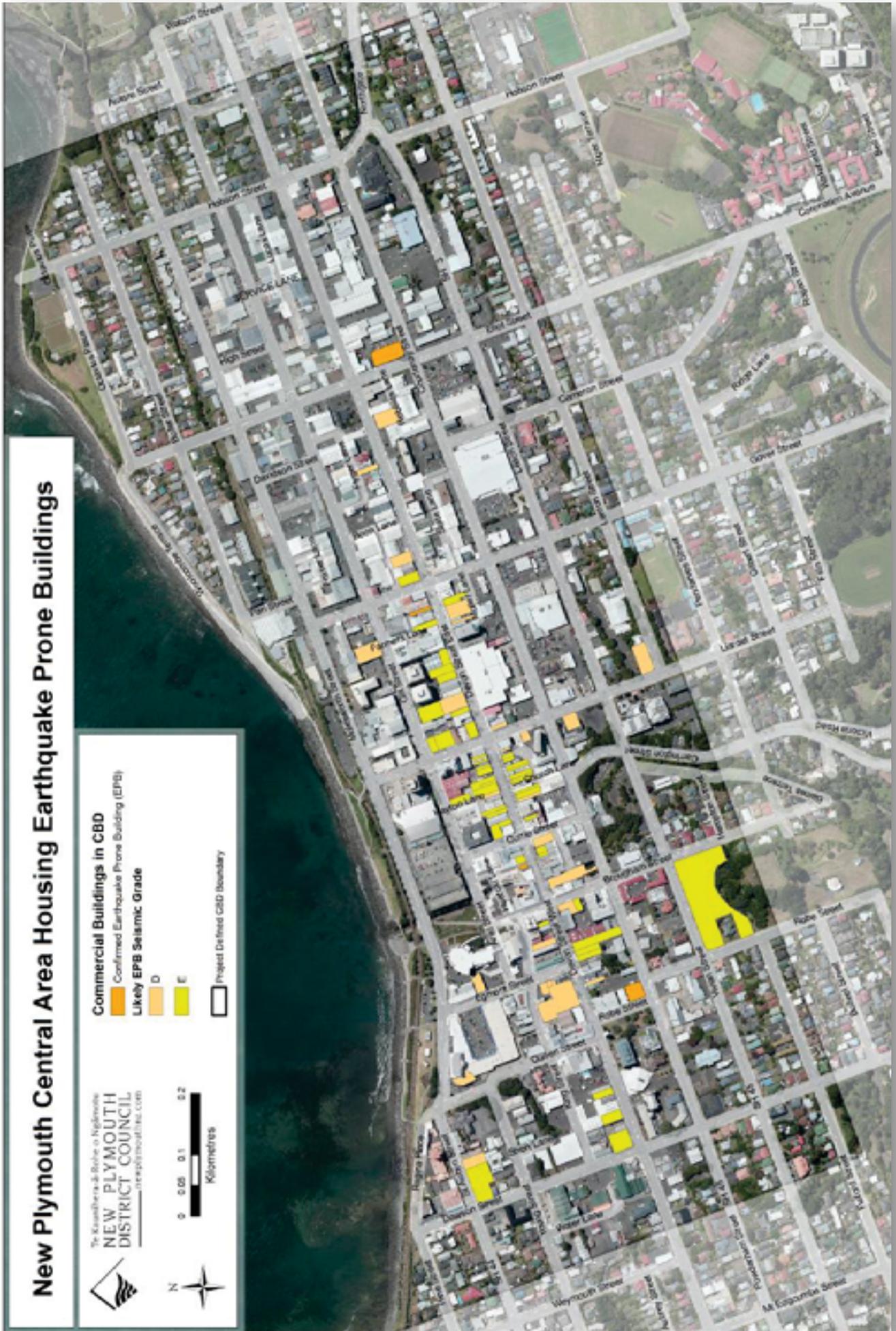


Figure 18 Central Area Earthquake Prone Building Register mapped



Figure 19 Four confirmed earthquake prone buildings within the Central Area

## 12.7. Perceived noise nuisance

The noise associated with living in a busy inner-city environment can be a perceived barrier for encouraging medium density housing within the Central Area. Current residential areas of the Central Area are within close proximity to train tracks on the northern coastal side, and main arterial routes and busy one way streets on the southern side. Close proximity to other urban activities may also be a noise nuisance factor. Contrary to perception, there are design provisions that can mitigate these factors. The Business zones are designed for the nature of core activities central to the function of the city centre, and housing cannot impose on the zone's normal levels of noise. It is the developer and resident responsibility to protect the dwelling from noise by reverse sensitivity measures for the residents' quality of life. Features such as construction materials, sound proofing walls, ceiling and floors, and double or triple glazing reduce excessive noise. Passive ventilation means windows that open onto busy roads do not need to be open to let in fresh air. Also, setting back bedrooms from busy road boundaries or driveways, avoiding abutting bedrooms to noisier rooms such as living rooms and garages, and landscaping/plantings to muffle sound all minimise the transmission of noise. Because of the nature of the activities in the Central Area, there is a responsibility to design housing within this area well so it mitigates any noise.

For mixed use arrangements, podiums and balconies can be a design attribute that self-protects the building from external noise. Building forms that have commercial use on the ground floor with residential above can use a bottom floor podium to diffract environmental noise on the street, as illustrated below<sup>64</sup>:

<sup>64</sup> (Kang, 2010)

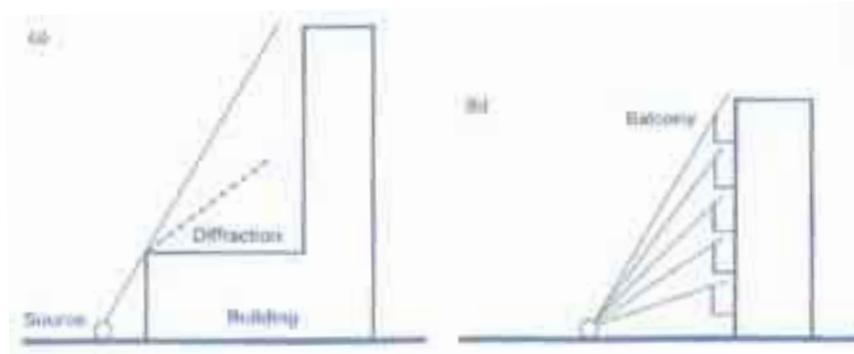


Figure 20 Examples of self-protection buildings using podiums and balconies as noise barriers

## 12.8. Parking

Living and working within the Central Area has associated parking issues. On some inner city residential streets, on street parking can be acceptable and to be relied upon to some extent. However, requirements for parking cannot be entirely accommodated on the streets where there is high demand for space from different users. The District Plan rules sets out the required amount of off street parking spaces in the New Plymouth Central Area. This requires all sites to provide at least two parking spaces per dwelling. This requirement does not have the flexibility to take into account parking already available around the site, it only sets the minimum number that the new activity (dwelling) must provide. This has implications for how design is implemented on the ground, commonly compensating vibrant street active frontages for parking provisions. Rather than buildings being positioned in the optimum orientation, car parking and manoeuvring requirements push development to be designed around the car<sup>65</sup>. A selection of apartments in the Central Area have blank facades because the bottom level has been utilised for parking requirements. Examples include the Liardet Street apartments, the Quarterdeck, and the Reef apartments near the foreshore. These central apartment complexes sit on prime inner-city sites and have been constructed with in-active, blank facades. Loss of great opportunity is especially evident in the Reef apartment's development because there is central focus on adding to the great asset of the foreshore and walkway. The Coastal Strategy encourages commercial and residential connections to the walkway that enhance the coastal access, streetscene and atmosphere. As illustrated in the figures below, the Reef and other Central Area apartments have missed the vision of integrating the street level to the coast. These developments are situated along streets that link the Central Area to the Coastal Walkway, but with no active frontages, they do not contribute anything to the pedestrian experience or coastal amenity.

<sup>65</sup> (Easton, Howell, & Birchfield, 2008)



Figure 21 Apartments with blank street level facades

These examples illustrate that some developers experience real difficulties in providing the required number of parking spaces for developments, which has traded off the vibrant streetscene of shops, cafes and restaurants for parking spaces required by the District Plan. This can discourage well designed mixed-use developments.

We are currently seeing changes in the parking strategy within the Central Area. The New Plymouth Parking Strategy 2013-2023 has proposed a plan change to the District Plan to remove minimum requirements for private off-street parking in a defined geographical area in the Central Area. Developers are no longer legally required to provide parking within a set zone, allowing greater development opportunities. This plan change is currently out for further submissions, and will create a Parking Exemption Area inside the main business centre. This will encourage people that think it is too hard, or are put off by consents, especially when they may not need or have a car.



Figure 22 Proposed Parking Exemption Area in comparison to District Plan Environment Area

Because parking demand will continue, parking options must be designed and landscaped in a way that does not dominate public areas. More importantly, if vehicle parking is not going to be (over) provided for as readily as it has been, then there must be enhancement of other types of transport to compensate for this. For example, active and public transport provides more sustainable alternatives to private vehicles, but requires high quality services to facilitate behaviour change.

## 12.9. Developers and the planning process

*“There are too many sticks, and not enough carrots. You won’t get the development you want without some incentives”<sup>66</sup>*

- New Zealand property developer

There is a vast range of constraints and barriers to developers participating more in intensification and medium density housing. This section explores some of the most commonly identified ones.

### ***Planning processes and procedures***

Planning processes have associated uncertainty and time delays caused by notified applications. A key factor in the economics of development projects is being unable to control costs due to planning uncertainties and process delays<sup>67</sup>. One common way for developers to avoid extra costs is to choose a design that fits within the plan and avoid requiring resource consent- the tradition of ‘designing to comply’. If there was more guidance in the District Plan then this would not be a problem. Similarly, unfamiliarity with the processes involved mean that many people stick to working within the rules<sup>68</sup>. This stems from a view that resource consents are a hassle and an expensive, red-tape ordeal to go through, and they may not see the value in it. Developing in a way that ensures compliance will not necessarily lead to the best outcome for the site, the adjoining neighbours nor the surrounding community. The fear of publically notified consents and the cost, uncertainty and delays associated with that process puts clients or developers off. However, there is value within the process. It means that they have to express the value that their consent will contribute to the area, the community and the city. This requires both finance and the aptitude to develop good places.

### ***Less competitive than Greenfield***

Overall, there are more challenges associated with inner city redevelopment than new Greenfield and subdivisions development. Greenfield development is attractive because it is perceived as straight forward, and in New Plymouth, it is readily available on the outskirts, therefore, dominating housing development. Because of the size of New Plymouth, you can live in a Greenfield suburb and only be a 10 to 15 minute drive to work. City and residential redevelopment can be less economically competitive, and New Plymouth’s development and financial contributions are even across the District which means Greenfield development prevails as the dominant development. There are

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<sup>66</sup> (Waghorn, 2011)

<sup>67</sup> (Department of Internal Affairs, 2008)

<sup>68</sup> (Trenouth & Mead, 2007)

costs associated with Greenfield sprawl, especially in relation to infrastructure provision. Inner city redevelopment has the advantage of utilising existing infrastructure systems.

Land development, particularly in urban areas, is a complex and time consuming process, and this complexity is particularly acute in redevelopment projects with associated remedial and demolition works. Furthermore, there are more upfront financial costs, and building housing complexes such as multi-units commonly means construction occurs all at once. Developers have to understand the benefits and opportunities of going ahead with a redevelopment. There are costs of demolition but get returns from the prime spot that you have developed on.

### *Knowledge and expertise*

Is there experience, knowledge and drive to undertake inner-city redevelopment and higher density housing in New Plymouth? A potential issue for New Plymouth is a lack of confidence and specialisation medium density developments. New Plymouth has attracted people to develop play centres, retirement villages and hotels in the District, however, the city has not been as successful in attracting out of town skills and experience of inner city redevelopment and higher density housing. Venture Taranaki plays an important role as Taranaki's Regional Development agency for business migration to New Plymouth. Developing incentives to draw in knowledge and expertise from further afield is an avenue worth investigating.

BRANZ (Building Research Association of New Zealand) has found that small firms (mostly 5 persons or less) do mainly alterations, additions and repairs, with a smaller percentage of new housing. Medium-sized firms (6-50 persons) do a variety of housing and non-residential buildings, both new developments or alteration work. Large firms (over 50 persons) mainly do commercial work<sup>69</sup>. New Plymouth has a range of development and building firms that fall into each of these three categories, whether they employ builders or contract out to construction companies. It will generally be the small to medium size firms that will undertake smaller medium density projects in New Plymouth, not necessarily large scale housing projects. Figure 23 below illustrates the some of the typical areas where small and medium-large firms get their business advice. Accountant and lawyer advice is important for financial and legal advice. Building guidelines can be passed down through trade associations, however there is opportunity for design advice or sustainability advice to play a bigger role in mainstream businesses.

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<sup>69</sup> (Building Research Association of New Zealand, 2013)

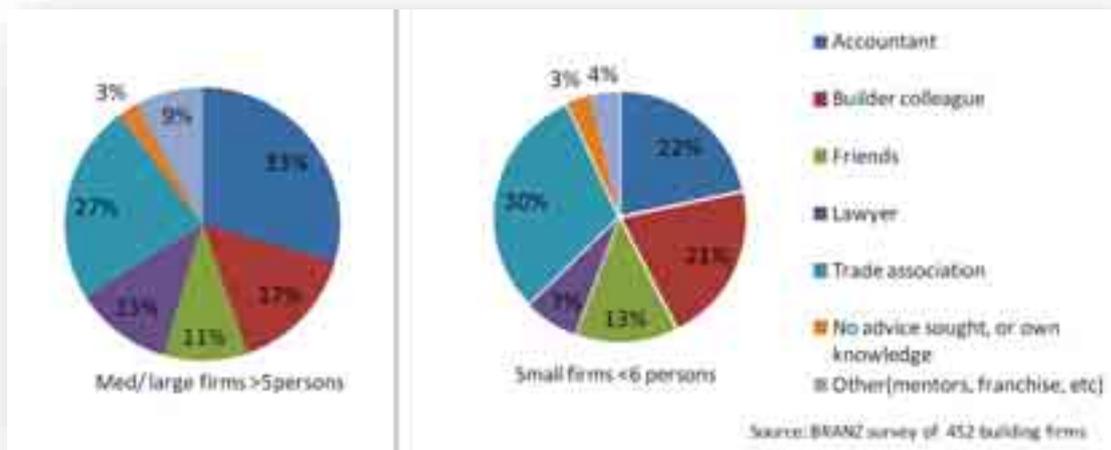


Figure 23 Where business advice is obtained

Along with this, is the limitation to incorporating eco-friendly design into housing developments purely cost related, or is there also limited knowledge and guidance on eco products or green building techniques? Time and cost pressures can mean that those unfamiliar with alternative approaches are discouraged. Eco-friendly, high density options are generally portrayed to be much more expensive and clients can disregard these products to ensure costs are kept down. In many cases, this is combined with a high degree of scepticism surrounding the performance and compliance of green housing products, both within councils and the development community<sup>70</sup>. Consenting processes may require new sustainable products to undergo extra assessment and testing compared to the typical building techniques that have passed the test of time. This has been described as the “disconnection between urban design aspirations and the consent process”<sup>71</sup>. It is so much easier to stick with the tried and true methods and materials. Fear of failure and liability creates a reluctance to experiment with new systems and products, leading to the business as usual techniques prevailing. Essentially these barriers stem from an inadequate emphasis in housing policy, both national and local, on sustainable construction, design and use within inner city areas.

Other challenges to inner-city redevelopment include fear of low rental or sale revenues, social problems in distressed neighbourhoods, and potentially contaminated sites. Client expectation and their lack of acceptance also pose a potential barrier. Are they willing to embrace the conceptual urban design principles for greater streetscene and neighbourhood coherence? Amenity values are important and people want good amenity, however the extra details at the human scale can be seen as irrelevant costs to the client. Some may see it as their responsibility to the surrounding community, others may not. Looking beyond the boundaries of the site is the type of mind frame that creates great neighbourhoods, and regulatory and guideline incentives discussed within the following section work towards this.

<sup>70</sup> (Winston, 2010)  
<sup>71</sup> (Waghorn, 2011)

### 13. Incentives

*“If we cannot make older neighbourhoods and inner city areas more attractive and viable as alternative housing choices to spread out, new subdivisions, then we are never going to be able to put the brakes on uncontrollable sprawl”*

– Ann Breen and Dick Rigby- Waterfront Center

International experience strongly suggests a linkage between more successful housing intensification outcomes and various incentives promoted by local and regional authorities<sup>72</sup>. In New Zealand, local government incentives to promote comfortable, healthy and sustainable housing are relatively new. There are some examples of incentives being used in New Zealand, but they are generally underutilised and the greater potential of incentives has been largely unrealised<sup>73</sup>.

In an effort to encourage inner city redevelopment and medium density housing in New Plymouth, seven types of incentives are discussed below. Some incentives focus on removing barriers, others are focuses on promoting and supporting sustainable medium density housing choices and can be staged over time. However developers are not necessarily just looking for a hand out, they are looking for council support, and a planning process that supports good development. Education, collaboration, and process smoothing offer the greatest opportunity to encourage medium density housing. Combining numerous small opportunities and incentives into a package of tools can offer prospects for local government to encourage investment on particular developments in particular geographical areas. Underpinning their successful implementation requires aligning planning and political, developer and community aspirations, and spanning time frames of decades, not years<sup>74</sup>.



Figure 24 Seven types of development incentives

<sup>72</sup> (Haarhoff, et al., 2012)

<sup>73</sup> (Sinner & Salmon, 2003)

<sup>74</sup> (Witten & Abrahamse, 2011)

### 13.1.1. Education, Advocacy and Advice

*“Do not expect positive feedback or political support without building people’s understanding of the issues, constraints and opportunities, and generating willingness to embrace urban change”*

- Andy Ralph, Environmental Policy Planner

A New Zealand study has found that the council role in promoting sustainable residential buildings was hindered by limited resources, knowledge gaps and a generally piecemeal approach to policy initiatives towards sustainable housing<sup>75</sup>. This was coupled with a lack of knowledge within the public domain. By clearly and consistently communicating issues through publications and engagement with communities, councils can help to build understanding and desire for change and new ideas. Education, advocacy and advice raises awareness and increases certainty for development. Traditional forms of consultation such as draft plan changes, maps and open days can lead to negative community responses in the feedback process. In contrast, Tauranga City Council has found that several facilitated hands on workshops built on two-way communication led to good discussion and information exchange on issues and options<sup>76</sup>. During this process, this may reveal an unrealised demand of housing choices that has not been discussed or comprehended previously, as the demand to provide it has not manifested.

Offering training, presentations and workshops is a good way to strengthen connections with the public and the industries that contribute to housing and urban development in New Plymouth. This is important because with new medium density housing and sustainability techniques results in new skill requirements. For example, many large organisations are providing better information to firms and assisting them with guidance. Ensuring businesses have the confidence to undertake such housing projects also increases regulatory confidence and market confidence. Eco Advisors are currently within a number of local authorities around the country giving funding and support to local housing builders on good quality, sustainable building practices. These include Kapiti Coast District Council, Hamilton City Council and Waitakere City Council. Meanwhile other councils such as North Shore City Council (now amalgamated into Auckland Council) and Christchurch City Council have undertaken work on developing best practice and good solutions guides for apartment and medium density housing choices for inner city development. These documents encourage best practice and building excellence, rather than providing minimum standards to avoid bad building. Readily available exhibitions and training courses that are reasonably cheap to attend, can contribute positively to the uptake of sustainable housing techniques, high density acceptance, and new housing choices.

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<sup>75</sup> (Howell, 2010)

<sup>76</sup> (Ralph, 2011)

### 13.1.2. Collaboration

There are opportunities surrounding cooperative ventures, including collaborative projects and pooled research with local developers to draw in experienced inner city housing developers from further afield. Innovation carries risk and costs that stakeholders such as the building industry cannot afford, or is not prepared to cover, especially small scale operations. Multi-disciplinary learning and up-skilling across industries that have a stake in development provides strong communication channels. This can include learning about materials, techniques, urban manners, building design, engineering systems, and other industry innovations. This also results in feedback communication to help each other make the most of resources and ideas, hence “innovation-by-integration”<sup>77</sup>. Personally reaching out to people by recognising and inviting stakeholders to meetings, projects and workshops can go a long way. Local investors and professionals have the local vested passion in New Plymouth and it is these people that need to be encouraged. These individuals can share their visions and talents as an urban collective. If this is to be a viable option then we need to ask; who will take notice of these Central Area visions and aspirations? And how would it be implemented?

There are overseas examples of private-public partnerships producing successful medium density housing in Europe, notably in Cambridge (England) and Hammarby Sjostad (Stockholm). They involved a high level of public and private sector coordination and cooperation. This is likely to be much difficult in the New Zealand context, because investment was upfront (council bought up brownfield sites), and there is little New Zealand experience of these partnerships or appropriate funding mechanisms for investment<sup>78</sup>. Local government could build a partnership with developers on development-related activities, especially for larger scale intensification projects. Urban development agencies or revitalisation authorities have been used overseas to direct and actively manage higher density developments. There is potential for councils to co-fund initiatives with other parties at local and national levels. For example, co-funding initiatives with EECA Energywise subsidies, DHBs, Eco Design, BRANZ, and the Ministry for the Environment’s Sustainable Management Fund<sup>79</sup>. Partnerships with other agencies can help councils meet shared goals and leverage greater social, economic and environmental benefits from their investment.

### 13.1.3. Process

#### *Urban Design Panels*

New Plymouth will benefit greatly from the establishment of an Urban Design Panel. These independent panels of external experts offer real opportunities to improve the quality of design and provide specific urban design advice on development proposals. We are currently in a period of increased fiscal restraint, which runs the risk of stifling opportunities that offer vital opportunities for the *future* urban form of the heart of New Plymouth city. These panels offer pre-application advice and reassurance to the development community that good quality design is important and valued in New Plymouth.

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<sup>77</sup> (Buckett, 2013)

<sup>78</sup> (Austin, 2011)

<sup>79</sup> (Howell & Birchfield, 2009)

## **Leadership and vision**

*“People want to buy into a vision, and at the start, many don’t believe that their city can be as good as other places and cities. It starts with consciously deciding it is a place people want to live”.*

*“There are three things a city needs: confidence, vision and leadership”*

*“Time is valuable, we can’t just wait around. Share the talent and the vision”*

*“We have to have visionaries, do-ers, and leadership. Maintaining the momentum as a collective to make a worthwhile place”*

- New Plymouth Developers and Professionals

Leadership and vision has been identified by a handful of New Plymouth developers/professionals as vital for the Central Area. This involves setting a clear vision that the council and development community wants to achieve, spearheaded by a visionary champion. The Central Area Urban Design Framework has laid down the foundations for envisioning a vibrant city centre for New Plymouth. This document has outlined what goals and opportunities exist for the Central Area, especially for the public realm, but further prescriptive advice and vision for private space is needed to drive business and residential success. The vision coordinates and pulls together existing activities already underway to improve the city centre, as well as identifying new opportunities for improvement. New Plymouth has opportunities to develop common understandings of the Central Area to guide future development and investment options.

### **Process smoothing**

Council officers need to understand and be receptive of new sustainable building options to make it easier for developments to include these techniques that contribute to good quality housing. Without this, any new policies and methods on paper could lead to frustration for prospective developers by the lack of consistent council position and support<sup>80</sup>. Appropriately balance between certainty and flexibility in the planning process is required. If councils provide the right signals and advice at the right time, it can have a positive influence on decisions made by home owners and land owners<sup>81</sup>.

Prioritising geographically defined areas for more effective, quicker and comprehensive implementation, or fast tracking permitting and consenting are options for incentivising development in a desired area. Meanwhile, urban development agents, case managers and front counter staff can be well educated in helping public and private sector development and aid with connecting them to other professions/businesses. This encourages pre-application discussions about design and possibly council assistance or input. A New Plymouth architect commented that “getting the juicy, creative conversations going with council needs to be done before tens of thousands of dollars are spent”. This all contributes to giving the process a personal face, and reducing a ‘them versus us’ feeling.

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<sup>80</sup> (Howell, 2010)

<sup>81</sup> (Howell, 2010)

Currently there are few incentives and insufficient public recognition to persuade developers to aim for creative higher environmental performance developments in the New Plymouth context. Purposeful discussions based on creating a vision for private space could include themes or key precincts that businesses and residential complexes can cluster around. For example, there is already a cluster of apartments on the western side of the Central Area including the Devonport flats, Richmond Estate, the Reef and St Aubyn Chambers. This area, within close connection to the foreshore could be a starting place to theme thriving housing developments with active street level retail. Also, a coordinated main street programme could be investigated as a way to synchronize Central Area retail and develop further private visions and aspirations.

Visionary placemaking takes time as a long term process; large complex projects can take time to assemble the right stakeholders and bring community to consensus before shovels hit the ground<sup>82</sup>. While getting things happening on the ground within cities is important, it takes time before the true impacts and success of placemaking are seen. The visions of the Central Area must remain a long term goal. In the overseas context, successful cities commonly have a visionary or design ‘champion’ for down town residential development, in a central role as a mayor, urban designer or a management level planner<sup>83</sup>.

#### 13.1.4. Guidelines

New Plymouth has made a great start to improving development standards with the Land Development and Subdivision Infrastructure Standards document. This document sets out the minimum standards of technical performance and quality for all development of land.

Many local authorities are developing their own design standards, practice notes and design guidelines for special precincts or higher density housing typologies. Examples include Christchurch City Council and North Shore City Council. These documents should be short, in plain English and inspire people to do good work<sup>84</sup>. Focus should be mostly put on street level integration, facade design, and other good urban manners criteria.

New Plymouth would benefit from developing a guidelines document. Medium Density Housing Design Guidelines means that the District Plan can specifically incentivise rules and provide bonuses for higher density developments in geographically defined areas without compensating urban design quality. These District Plan incentives are explored in the subsequent regulation incentives section. This design guidelines document would include principles and best practice site layout, internal dwelling layouts, smart use of space, streetscape integration, sustainability/energy efficiency advice, landscaping and durability and adaptability design advice. The seven essential requirements for quality housing illustrates below could be important aspects to discuss within the document also.

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<sup>82</sup> (Silberberg, Lohar, Disbrow, Muessig, & Naparstek, 2013)

<sup>83</sup> (Hinshaw, 2007)

<sup>84</sup> (Hinshaw, 2007)



Figure 25 Seven essential requirements for quality housing

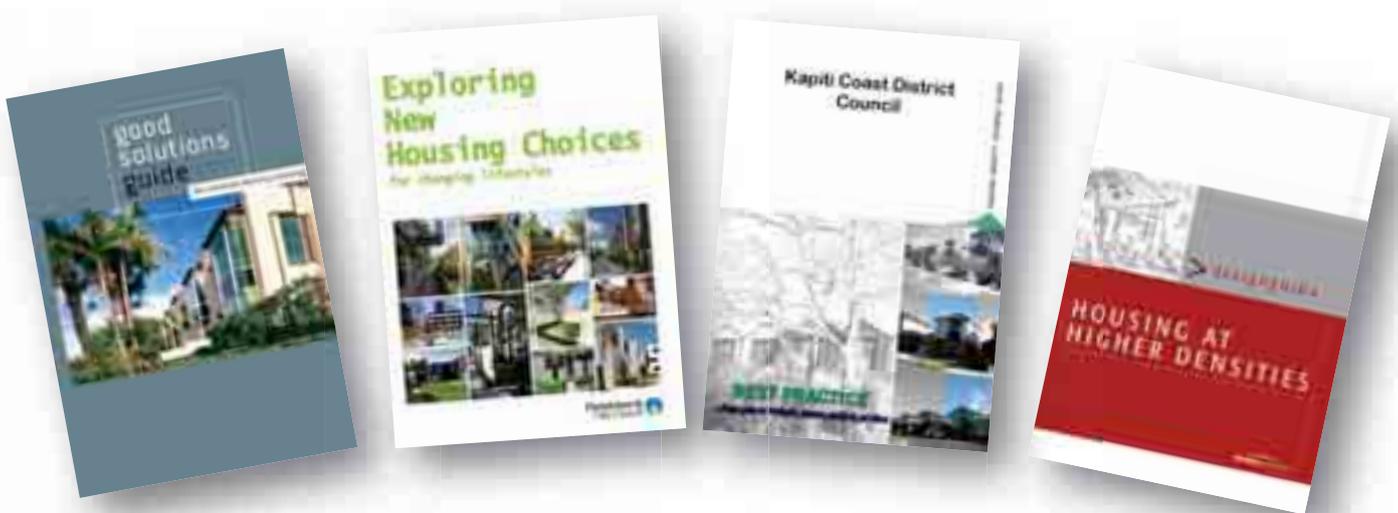


Figure 26 Examples of housing design guidelines in NZ

### 13.1.5. Capital Investment

There are a lot of things in the Central Area that are pleasing, especially the high quality outdoor public spaces, however, it is just not set up to embrace inner city living yet. Capital and lead investment provides certainty and can be a catalyst for development and economic growth. Infrastructure and facilities are important for better living standards, and there is a need to build on, and make the most of what we already have. Increasing investment into the Central Area instead of feeding the growth on the outskirts of town has support from some property developments and designers in New Plymouth. Investment into making inner city areas development ready and attractive to live makes development more likely. Programmes that improve streetscapes, green spaces, open space and amenities in specific areas have a positive effect on the ‘feel’ and

atmosphere of the down town landscape, making them more investment ready and residentially friendly. For example, creating open space on the eastern side of the Central Area can be a catalyst for further development, and housing projects. This involves the city not just being rebuilt, but being reborn and organically moulded into a place the lets people to live, work and play. This is important because rebuilding a series of individual projects results in a collection of tourist and visiting attractions which does not equate to a liveable city.

### 13.1.6. Regulation

Policies are important to set out council priorities and intentions, however policies that promote, support or encourage sustainable home building choices can be soft and generally inconsequential<sup>85</sup>. The challenge remains in delivering effective methods to achieve policies. The strategic direction for residential intensification is fundamental but the hard work comes when transferring that policy into local action of the affected community<sup>86</sup>. Regulations should set the bar high so that good development can feel confident that their investment is protected. However, regulation should be an avenue after other alternative solutions have been explored, as there are legislative constraints as to how much can be achieved through regulatory methods such as rules in district plans and bylaws<sup>87</sup>.

As a couple of District Plan incentives, developments that will contribute to increasing density or encourages mixed use in certain areas could have incentivised bonuses. Further discussion will be required to implement this successfully, but below are a couple of examples:

Bonus Zone	District Plan Incentive
Residential B	<p><b>If you are developing two or more dwelling units on one site (in Residential Environmental Area B) and the development complies with the Medium Density Housing Design Guidelines, the 250m<sup>2</sup> minimum lot size does not apply.</b></p> <p>This incentive means that developments on a section can increase densities with slightly smaller dwellings and do not need to comply with the minimum lot size. Meanwhile, the Design Guidelines set out parameters to ensure that the dwellings are still well designed, have good layout and design, and are of good quality. This could be implemented as a Controlled Activity with no affected parties. Conditions can be imposed, reserved to assessment criteria, with evidence of urban design consideration and in line with Design Guidelines.</p> <p>This incentive will appeal to those that want to work within the plan, and want to avoid the processes of affected parties, notification and submissions. Because the Design Guidelines must be used in order to get the incentive, it works towards increasing inner-city density, while having a positive effect translating best practice urban design into actions</p> <p>If this exemption rule is successful, it could be extended to other areas.</p>

<sup>85</sup> (Howell, 2010)

<sup>86</sup> (Ralph, 2011)

<sup>87</sup> (Howell, 2010)

Bonus Zone	District Plan Incentive
Business A	<p>If the development has an active street frontage, and two or more housing units, and complies with the Medium Density Housing Design guidelines, an extra bonus floor is available.</p> <p>- This allows mixed use buildings to contribute to an active and vibrant streetscape, while providing inner city housing. Floor area bonuses are a tool that allows landowners to build more floor area, more stories or more units per area that would otherwise not be allowed in the plan. Providing floor area bonuses is a regulatory incentive that is moderate/easy to implement, are low cost, and have the potential to have a low to moderate impact.</p>

### 13.1.7. Financial

*“Developers need the vision, not necessarily the cash”*

*“It is not always about the financial incentives, sometimes the financial comes last”*

*“Financial incentives opens the door to help you do it [development], we are not in this for the money solely”*

- New Plymouth developers

Because land value prices in the Central Area are not a major barrier that is holding people back from inner city housing development in New Plymouth, financial incentives are less important than some of the other incentives that work towards building community support for high density living, guidelines and collaboration. Financial incentives such as grants are less likely to be appropriate or supported in the current period of fiscal restraint. Regardless, they still play a part in developing an incentive package for New Plymouth inner-city redevelopment.

Financial incentives seek to lessen the cost and risk of redeveloping for the private sector in inner city areas. Generally a financial incentive needs to be coupled with other incentive types in order to encourage development. There was praise and support demonstrated from the development community for the New Plymouth District Council investing in the development and revitalisation of the Central Area opposed to spending money on feeding the growth on the outskirts. Putting money back into the Central Area is required for becoming both more investable and investment ready, to show developers that the city centre is able to grow, sustain and support economic expansion<sup>88</sup>. Below are some of the financial incentives that have been implemented in cities in New Zealand and around the world.

Financial Incentive	How it works
Reducing permit fees:	(under the Building Act). This incentive reduces fees required for building construction, e.g. exemption or reduced fees for sustainable housing initiatives
Reducing user fees:	(under rates- LGA). The charges for services can be reduced if design helps to reduce the need for council activities

<sup>88</sup> (Clark & Mountford, 2007)

<p><b>Reducing consent fee waivers</b></p>	<p>(RMA 1991 and Building Act). Councils can allow applications for resource/building consent to be waived or reduced. For example, sustainable medium density housing could be considered under these criteria to qualify for this incentive. On their own they may not be an efficient incentive, but can complement other incentives. They do have a secondary benefit of communicating to potential applicants that the council is supportive of sustainable housing efforts, and that obtaining consent will not be a significant hurdle<sup>89</sup>.</p>
<p><b>Development contribution remissions (LGA) and Financial Contribution Remissions (RMA1991).</b></p>	<p>Remissions or a waiver of the requirement for financial contributions have a narrower scope and will be justified where good quality, sustainable design mitigates adverse environmental effects of development. Meanwhile, development contributions can more proactively plan and fund infrastructure provisions, and can help to promote sustainable infrastructure and low impact design. Financial contributions and development contributions have statutory limitations. Neither mechanism is designed to fully “fund growth” or fully “fund infrastructure” per se<sup>90</sup>. This system has been in place since 2002 as provisions for development contributions were incorporated into the Local Government Act 2002. However, the amount which is charged varies greatly across districts. In comparing the New Plymouth development contribution costs with other New Zealand districts, New Plymouth charges a comparably small amount. This cost is to cover the basic services that have become expected by a New Zealander when buying a new house or opening a new business. Currently there is no difference in the costs of infrastructure and development contributions between a unit within the Central Area versus a Greenfield dwelling constructed on a new outer suburb. The standardised cost means there is no incentive to redevelop areas with existing infrastructure. Although reducing this cost could hold potential for other regions in New Zealand, remissions and waivers of development contributions in New Plymouth may not trigger the results and outcomes that urban design and medium density housing is encouraging.</p>
<p><b>Rates rebate and remissions:</b></p>	<p>Rates remission policies set out objectives to be achieved by the remission of rates. This could include an Economic Development rates remission policy to support new businesses and housing within the Central Area, or a Downtown Levy Targeted Rate for sustainable medium density housing development</p>
<p><b>Providing financial assistance and capital building (e.g. loans)</b></p>	<p>Financial assistance can be provided in the form of loans to home owners and landlords for example, for the installation of particular sustainable housing features. There have been good examples of economic tools to promote sustainable housing in New Zealand. Programmes offering a mixture of subsidies and interest free loans for insulation and clean heating. They promote change, and can encourage higher-priced options such as double and triple glazing, solar panels, low impact design and storm water retention.</p>
<p><b>One off grants and</b></p>	<p>Councils can offer one off grants and subsidies to encourage the uptake of</p>

<sup>89</sup> (Howell & Birchfield, 2009)

<sup>90</sup> (Ministry for the Environment, 2010)

**subsidies**

certain products and designs. For example, providing discounts on particular services and products. Contracted purchase rates for particular approved products and services relating to sustainable housing design initiatives is another incentive option. One drawback with subsidies is that they can be changed around and disappear over time because they are not tied into long term plans and processes. They are less attractive in periods of fiscal restraint.

## 14. Urban Design guidelines and principles for housing

If housing density is to increase in the Central Area, urban design principles help to ensure that good quality character of the residential areas is retained. This section looks to apply some of the general international design principles, and applies them to the New Plymouth Central Area residential area. From these design principles, this housing report looks specifically at the scale, density, type and nature of housing that is most suited to the Central Area. Many of these principles will help to guide the Medium Density Housing Design Guidelines document to ensure quality design.

### 14.1. Celebrating diversity

A standardised housing design solution for the Central will not deliver the appropriate housing options and character for the identified inner-city residential areas. The theme of celebrating diversity reverberates in all areas of the Central Area, and the diversity of housing, architecture,

culture, land use and businesses should be embraced. Down towns and the neighbourhoods around them thrive with diversity and changes, being constantly reinvented, reinfused with new people and businesses, and new 'hand prints'<sup>91</sup>. Further diversity in the Central Area public realm can be encouraged through holding more events and activities to create the vibrant diverse atmosphere. For example, one of the biggest events for the Central Area is the Americana classic car carnival. Held recently on Friday 28<sup>th</sup> February and over the weekend, the festival was enjoyed by thousands and "leaving shop keepers very, very happy on Saturday"<sup>92</sup>.



(Strongman & Harper, 2014)

Figure 27 Crowds at the 2014 Americana Carnival

The shared space in front of the Puke Ariki library provides opportunities to hold more events than it currently does. The recently announced Get Up urban street art festival in March holds great opportunity to attract foot traffic into the Central Area<sup>93</sup>. 44 urban canvases in and around the Huatoki Plaza have been selected for this creative art exhibition, and is an inspiring advertisement to other groups of how these spaces are great for urban events.



(Utiger, 2014)

Figure 28 Get Up urban art event organiser Jade Miller

<sup>91</sup> (Hinshaw, 2007)

<sup>92</sup> (Strongman & Harper, 2014)

<sup>93</sup> (Utiger, 2014)

## 14.2. Streetscape

*“The developer wants density, the neighbours want privacy, the resident wants good view and aspect, while the community wants a good relationship to the street”<sup>94</sup> - it is a precarious balancing task.*

Housing developments within the Central Area should have good connection with the surrounding streetscape. Visually transparent, or soft boundaries still protect private space and property, while contributing to the surrounding amenity and streetscene appeal of the area. Hard boundaries such as high wooden fences impose on public space and dissect the connections with the surrounding residential area. For example, fences around housing developments such as Sawyers Way, backing onto Hine Street, have severed the connection with the footpaths and the surrounding suburb. Housing that is well connected within the neighbourhood ensures that there are ‘eyes on the street’ for community safety, while still providing privacy for residents<sup>95</sup>.



Figure 29 Comparing housing connections to the streetscape: Sawyers Way dissects the neighbourhood, Hobson Street is well connected and adds to street amenity

## 14.3. Housing arrangement – the overall vision

In designing medium to large scale housing developments, it is important to lay them out in a way that contributes to the character and amenity of neighbours, while having a high quality, coherent internal living and outdoor private space. Factors such as building orientation, pedestrian entrances, windows, passive surveillance, visual interest and sun light are all important considerations. For medium density housing to be successful, using space smartly can make an area *feel* spacious. As illustrated above, medium density housing needs to be at an intensity in keeping with the surrounding neighbourhood amenities<sup>96</sup>. The Kapiti Coast District Council has set out clear guidance on how intensification should be carried out appropriately.

<sup>94</sup> (Turner, Hewitt, Wagner, Su, & Davies, 2004)

<sup>95</sup> (Giles-Corti, 2011)

<sup>96</sup> (Kapiti Coast District Council, n.d.)

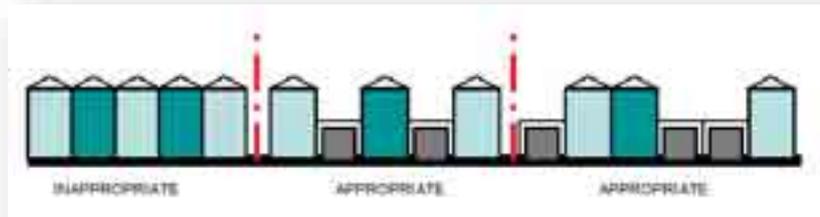


Figure 30 Illustration of the Kapiti Coast District Plan's provision for terraced housing to avoid adverse character and amenity effects

North Shore City Council (now amalgamated into Auckland Council) has developed best practice guidelines for housing developments. One idea that is advocated during the site plan development phase for reasonably large developments is to extend boundaries of the site to cover 400 metres in every direction around the property<sup>97</sup>. This helps to put the development within the wider neighbourhood perspective, and how it contributes to the wide community.

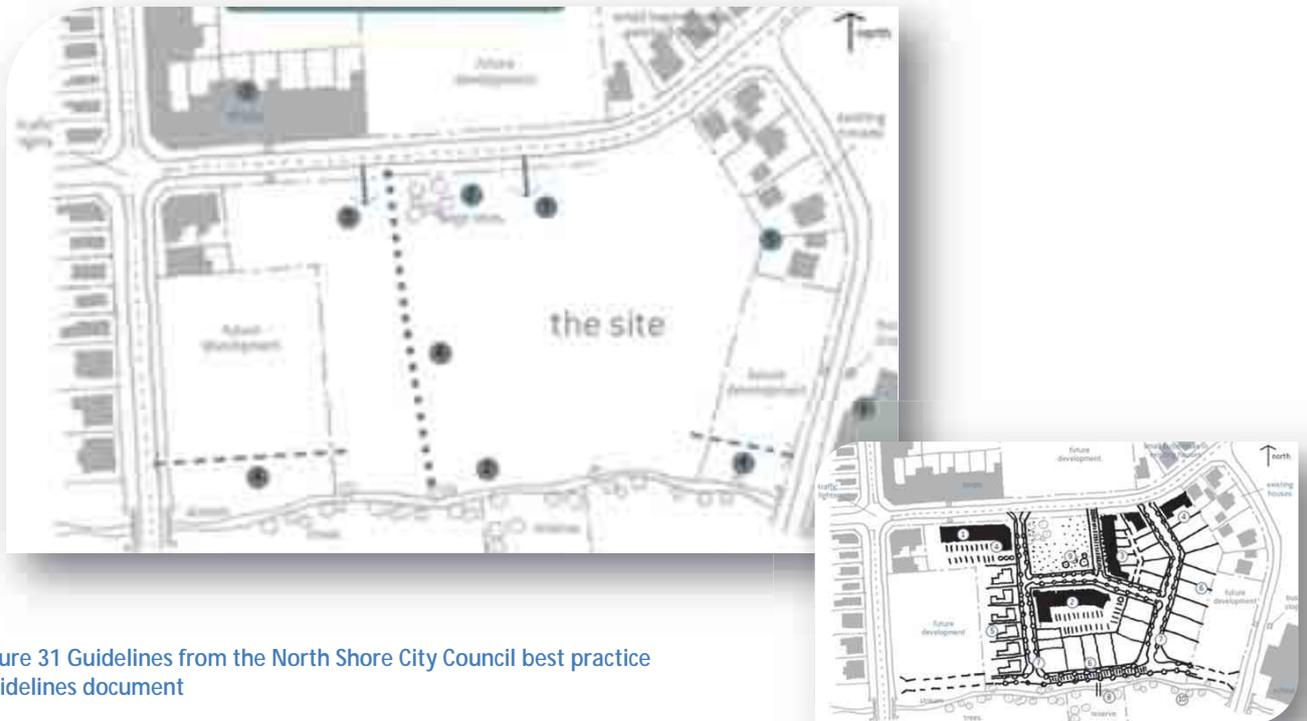


Figure 31 Guidelines from the North Shore City Council best practice guidelines document

<sup>97</sup> (North Shore City Council, 2007)

### 14.3.1. Examples of 'gentle density' housing arrangements

New Plymouth can learn from overseas inner city density projects. Vancouver has shown successful leadership and policies to aid consolidation and reinvestment with Eco-density Charter housing. In order to deal with the stigma and resistance to density in Vancouver, three kinds of density approaches were used<sup>98</sup>. These density approaches are suited to the Central Area residential fringe to fit in with the neighbourhood character. Meanwhile, higher density arrangements are more suited to the inner-city commercial, mixed use area.



Figure 32 Gentle density approaches used in Vancouver

**Invisible density:** a secondary dwelling is added to an existing dwelling and almost no change is seen from the street.

**Hidden density and Gentle density:** a lane cottage is built behind an existing dwelling barely seen from street. These secondary houses are in complementary style to the original dwelling.

For larger developments, two houses on two lots can redevelop into three street front houses and a couple of laneway houses at the rear. Asymmetrical duplexes help to make the development look like one house and in keeping with the scale and character of the neighbourhood. Rows of houses can be constructed in a way that appears as separate houses, each with its own yard, gate etc. They can significantly increase density without dramatically altering the streetscape character. Good urban design principles and attention to architectural and design detail is central.





Figure 33 Hidden density design approaches

#### 14.4. Connections with the foreshore

*“Knitting the waterfront and coast back to the city centre: an intensive and close connection between water and the city is crucial for rejuvenation”*

- S. Lehmann, Professor of Sustainable Design

Connecting New Plymouth Central Area housing with the coast and foreshore walkway is an extremely important link. The area has some high quality public outdoor spaces which have become iconic to the District. Celebrating the water front and natural features has been an idea encouraged by individuals and groups through the city’s history. In 1914, Englishman William Davidge (a member of the NZ Garden Cities and Town Planning Association) created a master plan to make the seafront the principal attraction of the town as a marine parade, and shunting the railway line back from the coast. This ambitious plan was ahead of its time and was shelved for decades. It has only been in the last 25 years that much of Davidge’s thinking about the foreshore has finally been embraced<sup>99</sup>. The New Plymouth District Council Coastal Strategy (2006) has been developed in connection with community consultation and is central in strengthening visions of the foreshore. The strategy has highlighted opportunities and implementation actions that ensure New Plymouth continues to develop as a vibrant coastal city. The strategy aims to guide the planning of coastal settlements and provide for population/development growth with urban design guidelines in mind. Implementation actions include working with the community to develop future plans that promote growth and a vibrant city centre and balancing the needs of people and the environment. The Coastal Strategy also has a vision for buildings along the coast. They should have active edges and frontages on the bottom floors that add to the vibrancy and asset of the foreshore walkway. Essentially, this document ensures that the built environment complements the natural and unique coastline that is so celebrated and symbolic of New Plymouth.

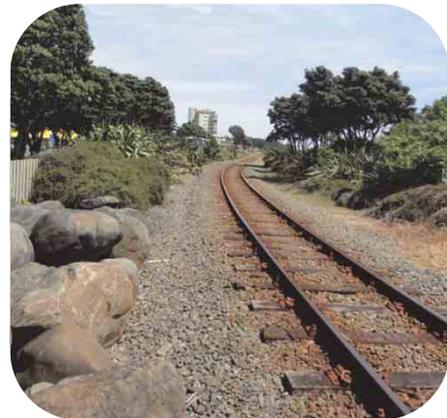
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<sup>99</sup> (Moffat, 2012)



Figure 34 William Davidge's 1914 hand coloured scheme map for New Plymouth<sup>100</sup>

Newcastle, Australia is grappling with a similar barrier to New Plymouth. A heavy railway dissecting between the city and the coast, require active effort to reconcile coastal connections<sup>101</sup>. Whether an alternative road and rail route for transporting shipping containers to the Taranaki Port should be developed is a polarised debate that continues to rear its head over the years.



#### 14.5. Environmental sustainability and low impact design

Many inner-city areas have issues with appropriately dealing with storm water and runoff and New Plymouth is no exception. Over 300 rivers and streams flow from the flanks of Mount Taranaki, flowing downhill in a radial pattern towards the sea. The suburbs surrounding the CBD are elevated, and slope towards the Central Area at sea level. The Huatoki stream has caused flooding issues in the past, as well as the historic riverbeds and tributaries, and reclaimed land over the Huatoki estuary, although is not considered to be a risk nowadays. Storm water engineering techniques have been the traditional solutions in dealing with water and flooding in the Central Area. Given that the existing infrastructure is already in place, it is one of the potential advantages of development locating in the Central Area.

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<sup>100</sup> (Moffat, 2012)

<sup>101</sup> (Lehmann, 2010)

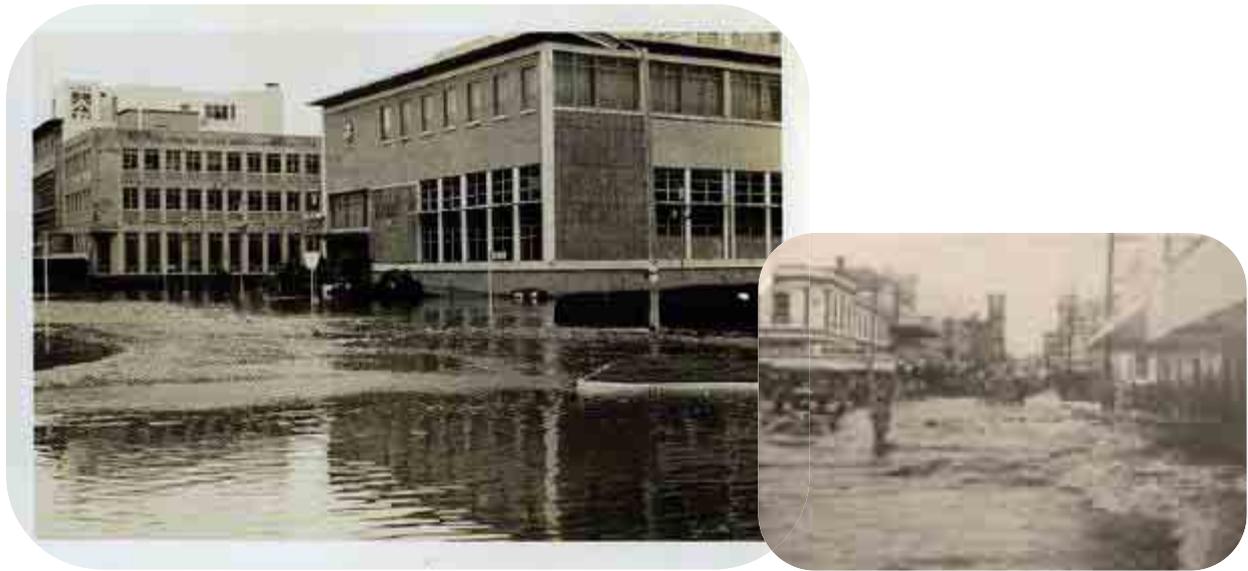


Figure 35 1935 and 1971 flood having devastating effects on the New Plymouth CBD <sup>102</sup>

The urban environment causes significant differences to the natural water cycle. Because of the high percentage of concrete non-permeable surfaces, it prevents filtration and infrastructure must cope with larger volumes of water at quicker speeds. A typical response to dealing with storm water is curb-and-channel guttering that moves the water off the road, into the gutter, down a pipe and into the stream as fast as possible. Because water moves across the urban environment pollutants from roads are also transported, leading to declining water quality<sup>103</sup>.

Best practice design attempts to minimise and mitigate the effect of rainwater runoff and contaminants of land development by dealing with storm water on site. The term low impact has stemmed from reducing the effects of human activities on natural processes linked to land, water, air, animal and plant life<sup>104</sup>. Low impact design approaches treat and manage storm water in an integrated fashion, working with nature rather than against it. These approaches allow new developments to be established within the Central Area without exacerbating storm water issues for the surrounding neighbours, or the wider catchment system.

Low impact design is also about using an existing system and infrastructure. There are ways to retrofit and modify infrastructure with low impact design during redeveloping to use infrastructure more efficiently.

Traditionally, low impact design in New Zealand has been restricted to areas of particular environmental sensitivity<sup>105</sup>. However low impact design has potential to make all cities and neighbourhoods more ecologically sustainable. Essentially low impact design contributes to a greater goal of urban resilience and reducing risk. It also contributes to ecosystem sustainability in New Plymouth by reducing the pollutants entering streams and eventually to the ocean. Waterways and the coast especially, are so central to New Plymouth's sense of place and local identity. The

<sup>102</sup> (Kete Newe Plymouth, 2013); (Lonsdale, 2002)

<sup>103</sup> (Puddephatt, 2006)

<sup>104</sup> (von Roon & von Roon, 2009)

<sup>105</sup> (Easton, Howell, & Birchfield, 2008)



## 14.6. Social Sustainability and Universal Housing design

The Central Area housing should be developed with sustainability principles in mind. The lively city centre should be promoted as an accessible and attractive place to all groups in society<sup>106</sup>. However, it also must be sustainable in terms of achieving urban regeneration thinking about future generations. If tenants or residents see inner-city living as little more than a transient stage of their lives, and stay for a very short amount of time, then it does not contribute towards creating a sustainable urban fabric<sup>107</sup>. Sustainable neighbourhoods are areas that have high quality design, community connection, good integration and accessibility of facilities, schools, and amenities.

New Plymouth must design housing and living environments that are flexible for a varying demographic. Long life buildings must be durable and low maintenance over the whole period of the buildings' existence. Successful design of a good quality suitable housing project depends on the balance struck between a range of factors, meeting the needs of infants, young children, adults and older people. The challenge is to design buildings that can be adaptable to many uses over the life span of the building<sup>108</sup>. New Plymouth has the opportunity to develop housing in the Central Area using universal design techniques that create a flexible housing stock. Neighbourhoods are dynamic and will change over time, including the environment and individuals. Therefore housing policies must be age-friendly, flexible and adaptable to changing demographics of communities and each neighbourhood. Design is central to this because poorly designed housing makes it difficult for the occupants to operate.

Universal or Lifetime design creates homes that are suited for a range of people, including young couples, families, elderly and people with disabilities or injuries. The rationale is that housing requirements of elderly people have been shown to fit most other users, compared to housing requirements for the average, able bodied male, which has unfortunately become the standard product development benchmark<sup>109</sup>.

There are two modifications that enable maximum liveability and accessibility for all of society. Firstly, basic 'functionality modifications' are design considerations when building new or renovating existing housing, including wide doorways and hallway widths (for wheelchair manoeuvrability), light switch and power point position, level access in and out of the home and wet area showers. Secondly, customised adaptations are requirements that can be installed for particular users. In the New Zealand context, the Lifetime Design organisation has developed Lifemark standards drawing on universal design principles such as accessibility, adaptability, usability, safety and life time value

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<sup>106</sup> (Gehl, 2010)

<sup>107</sup> (Haarhoff, et al., 2012)

<sup>108</sup> (Birkeland, 2002)

<sup>109</sup> (Bjork, 2009)

<sup>110</sup> (Lifemark, 2011)

# Residential character description and assessment

The following chapters on residential character and pedestrian experience have been undertaken in order to inform the most appropriate nature, location, density and design of inner city housing in New Plymouth. The purpose of a residential character assessment within the Central Area is to define areas of dwellings that have distinctive character and should be protected from commercial encroachment. This assessment determines what areas have a consistent and notable character, and which areas we want to retain residential character.



## Areas of distinctive residential character in the Central Area

Integrating infill and medium density housing options within the Central Area requires careful integration into the existing neighbourhood character, properties, and streetscape. Therefore successful design is based on a thorough analysis of the residential areas and sites.

The dwellings within the Central Area are primarily single storey detached buildings, of mixed age and style. This is consistent with progression of development over time. Some buildings are quite aged, however there are very minimal heritage dwellings listed within the District Plan within the Central Area. The majority of heritage buildings with recognised heritage values are commercial and function centres.

Most notably, there is a distinct difference between the residential fringe character as established suburbs, contrasted to the mixed use housing character and architecture in the inner commercial area.

## Highly active coastal development

The lower Hobson Street, Octavius Place and Woolcombe Terrace area is currently undergoing a large amount of new redevelopment. The area has gone through significant change, as 20 years ago this residential area was unattractive and undesirable.

These images were taken in February 2010 showing the character of Octavius Place and Woolcombe Terrace with vacant lots and older beach front properties. To illustrate how prices have changed over time, a small stucco home along Octavius Place was brought in the early fifties and constructed for £2764. In 2004 it sold for over one million dollars (Still, 2011).

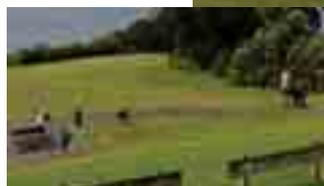


A large amount of development has occurred since 2010. As at 2014, there are currently a handful of remaining older beachfront properties on the eastern end. However it appears this area will eventually gentrify into a growing high-end, sea-side character. A string of beach front properties have been, or currently are, redeveloping into large two and three story modern homes. The general character of these dwellings consists of high quality, architectural modern design, aimed at the high end of the market. These dwellings typically have high site coverage, and are built close to the road frontage.

The high site coverage of these dwellings creates minimal outdoor backyards and private green space. However grassed areas on the coastal side of the Octavius Place, and close access to the Coastal Walkway, and East End beach nearby has partly compensated for this.

The adjacent images show a couple of men boxing and training, and a family walking their dogs on the green space on Octavius Place.

Quality public realm design and green space in the Central Area is therefore very important for a liveable city centre.



# Lemon Street

Lemon Street is located along the southern fringe of the Central Area. Generally this street has retained its older one story building character. The majority of the lots are laid out in uniform rectangular land parcels, and do not appear to have undergone a lot of infill development. This suburb is well established, with large trees and houses are typically set back from the road frontage. A majority of the houses have a very consistent colour scheme of whites, creams and brickwork, but with widely varying styles and typologies.

There is a vast array of housing types along Lemon Street. Villas and bungalows are very common. They would have been built in the centre of developing New Plymouth city, just outside the commercial area. Regardless of their varying condition, they have a unique cultural significance and character that can be easily lost or destroyed.



The street has wide parking bays on either side, and people that work within the city park along the western end of Lemon Street



Non residential land uses are also situated along Lemon Street. The Central Primary School located on the western end of the street caters for this residential area and fits reasonably well into the character of the street. Other commercial uses have fitted within the residential setting including motels, a childcare, and a dentist.



There is a cluster of 12 1960's multi-unit developments along Lemon Street owned by Housing Corporation. These attached units are close to the road frontage.



There is evidence that this area may see future infill redevelopment, with a couple of modern homes recently built. Two subdivided modern mono-pitch town units being constructed on a section midway along the street. Also there are large older houses that either large front or back lawns that can accommodate infill housing development, or small scale medium density housing arrangements.

# Hine Street character

Hine Street is located on North Eastern corner of the Central Area and has retained much of its residential character. This residential area has a very mixed dwelling character including detached, semi-detached and multi unit dwellings, generally one or two stories. The type of these buildings varies between brick homes, bungalows, villas, and flats.



On the western end of residential area, there is a recent development on the intersection of Morley, Hine Street and Bulkeley Terrace. This 7862m<sup>2</sup> block of land used to be a timber yard that did not fit in with the surrounding residential area. It has since been subdivided into Sawyers Way, a cul de sac that contains 17 lots with spec homes constructed by Generation Homes. These small modern houses have a standardised design type and are contained within a fence that dominates the surrounding footpath.



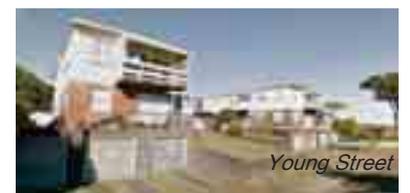
The Hine Street residential area has wide suburban streets, lawn strips and is well established with plantings and trees. This area is becoming sought after due to being located in town and close to the coast and Kawaroa pools.



Two non-residential workshops including the old Taranaki Steelformers building illustrated above remain on Hine Street, while the rest of the street is dominated by housing.



However, the adjacent St Aubyn Street and Young Street have become much more mixed use. St Aubyn Street has become a busy arterial route. There still remain clusters of villas and bungalows, mostly one and two stories, further away from the city centre. Both St Aubyn and Young Street have a diverse range of multi unit complexes and commercial uses. The ITM timber yard is a sharp comparison to the surrounding residential and office character.



# Vivian Street character

Vivian Street has an interesting character. Situated along the main one way route, this area has become very mixed use. The majority of residential dwellings on Vivian Street are set back from the road and have a reasonable amount of plantings. There are three sub-types of residential character along Vivian Street.

The first subgroup: On the western side of Dawson Street, residential area is dominant on the northern side of Vivian Street. The style of housing varies, most of which are set back with a small front yard strip. Only the western side of Dawson Street has a grass verge remaining.



The second subgroup: However on the eastern side of Dawson Street, residential area is only located on the southern side of Vivian Street. Commercial land use now dominates the northern town centre side of Vivian.

The third sub group: There is a small block of residential area on the corner of Vivian and Brougham Street. This housing is surrounded by commercial dominated activity. This residential area is characterised by the large sections and high site coverage. There is a mix of large character homes and two sets of two story multi unit apartments.

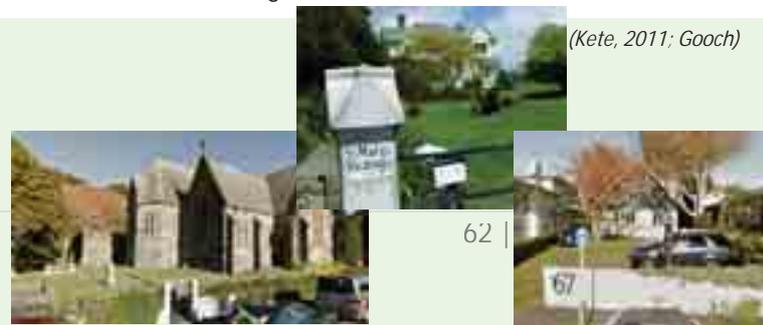


Many commercial activities have developed along this arterial route, some of which have converted residential dwellings into offices, for example insurance companies and health clinics, many of which are renovated, restored character homes. Other commercial buildings have a diverse range of building style, colour and site configuration.



The residential character ceases altogether where Vivian Street turns into Leach Street at the Carrington Street intersection.

There are a number of recorded heritage buildings, many of which have been converted to commercial office space. The most dominant heritage character is notably the Cathedral Church of St Mary.



(Kete, 2011; Gooch)

## Main Streets/Central City

The inner commercial hub of the Central Area has a very different character to that of the residential fringe. The housing is a mixed use space with other retail and commercial uses, and a couple are illustrated below.

Kings Building: mixed use private residence

The Kings Building was originally a two-storied wooden block of retail shops on the corner of Devon and Brougham, built in the 1870s. The building was redeveloped by Newton King in the 1920s, comprised of four floors of retail shops, offices and a small flat on the top floor. In 1995 the building was renovated, modified and upgraded as a mixed use space, and remains a landmark within the city.



This second storey vacant office space was converted into three apartments in 2008. It is unknown how many apartments along Devon Street have been converted to apartments.

# Central Area Apartments

In the mid 2000s, there was a boom in apartment development within the Central Area. By 2007 this boom began to die, and the Liardet Street apartments did not sell as fast as some of the other apartment complexes in the city. Since then, there has not been a lot of central area high rise housing developed.



1965 (Kete, 2013: Photo News)



1964 (Kete, 2013: Photo News)



Known as the Government Life Insurance Building, the Liardet Street Apartments has had an interesting history. Designed in the 1960s, the five story building was design as office space, then in the 1990 was converted to Tasman View– a rest home and private hospital. In early 2000s the building was converted to the Liardet Street Apartments, with four two story penthouse dwellings constructed, which has added interest to the visual form. Despite the apartments eventually all being sold, the apartment buzz appeared to have slumped.



1964 (Kete, 2011: Photo News)



As illustrated in the photo from 1964, the building on the corner of St Aubyn and Queen Streets used to be a mixed use service station and residential flats. Built in the 1920s the Chambers have all been converted to apartments now, and new four story Reef apartments were constructed next to them in 2004-2005. It is an interesting mix of heritage and modern design, and lacks street level connection and interaction



(Kete, 2013: Winder Turnbull Library)

The Richmond Estate apartment building was constructed in 1964 as the Tasman Hotel. It was converted to apartments in 1995, and continues to be a premier seafront apartment development



1965 (Kete, 2013: Whites Aviation, Turnbull Library)  
(Kete, 2011; Moss, Bredin)



(Dave et al, 1987)



The Devonport flats were constructed in the 1920s consisting of three separate blocks of four story buildings. These buildings have a heritage charm about them, and would have been a very large inner city complex for that time in history, on a similar level with government state housing blocks. These flats are Category 2 status heritage buildings and have a high chance of being earthquake prone, constructed entirely from concrete.



There is also a story block of apartments located on the corner of Buller Street. The Quarterdeck apartment complex is a high density housing development within the Central Area. The building has attracted a mix of responses for its design, shape and colour scheme.

# Central Area Apartments



## Clarendon Flats:

The land situated between St Aubyn and Young Street was originally the Ship Hotel, which was developed into the Clarendon House (a private boarding house) in 1876. The Clarendon Apartments were later built in several stages in the late 1930s and 1940s. Today, the building is beginning to look worn and has a very plain, dull and boring facade facing onto St Aubyn Street.



1920s Ship Hotel (Puke Ariki: Wyatt)

## Dolphins on Queen:

Situated on the corner of Queen Street and St Aubyn Street. Formally the Taranaki Gentlemen's club in the 1920s, and a bar centre in the 1970s, the site has been subdivided into four dwellings. These buildings have been renovated and restored, retaining their character features and details.



## GQ Apartments:

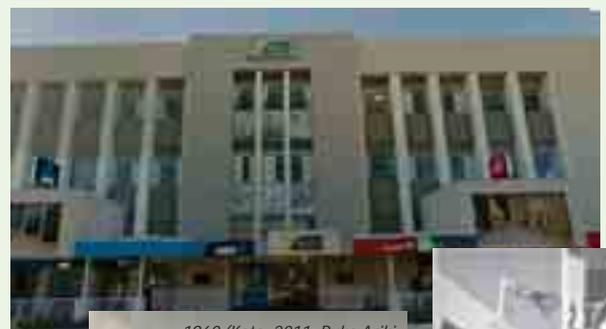
Located on the corner of Brougham and King Streets are modern high spec, fully furnished apartments, available for hire.

- Collier Penthouse– three bedroom apartment
- Huatoki Apartment– two double bedroom apartment



## Quest apartments:

Located on the corner of Brougham and King Streets in the New Plymouth Post Office building are the Quest serviced apartments offering a range of studios, one bedroom, two bedroom and executive apartments. These apartments are generally for short term living arrangements, ranging from days to months. The apartments play a role in accommodating business travellers and guests to New Plymouth. The apartment building has a very bland road frontage, described as a typical 1950s, no-nonsense piece of architecture. It remains inconspicuous from street level in amongst the first floor commercial shops.



1960 (Kete, 2011, Puke Ariki archive)



1959 (Kete, 2013, Photo News)

# Energy Assessment of different housing typologies

Energy consumption is an issue that has gained a lot of international attention, partly due to its connection with sustainability and reducing carbon emissions. Energy consumption is a factor worth considering in light of this housing analysis, because energy for travel and heating is becoming much more expensive. This is compounded by the fact that New Zealand houses are relatively poor quality when compared to countries with similar climates, being typically older, and less likely to be insulated. Studies have found that dwellings built after 1978 generally have lower heat losses, due to minimum insulation requirements introduced in that year. However, post-1978 dwellings have a larger floor area than most pre-1978 so this potential lower energy consumption and warmer dwellings was never realised. The Central Area has a vast range of housing typologies, with varying energy efficiency. Below are some of the main housing types used in New Plymouth Central Area residential fringes. New Zealand's aging stock means that many homes have undergone retrofits and renovations over the years. Without modern retrofitting and insulation, many of these homes remain cold and energy inefficient. A large majority of the dwellings within the Central Area are villas and bungalows. Some are of poorly maintained quality, while many have been cosmetically maintained similar to their original design. Others have been renovated and revamped with modern products<sup>111 112</sup>.

## *Villa:- 1880- 1920s*

Many wooden villas remain as cold and damp as when they were first built. They were the first, simple, early mass housing style in New Zealand and over 85,000 villas around the country have yet to be upgraded and renovated, and are typically cold and draughty. However, since the 1980s, villas have had resurgence in popularity, with growing numbers being extensively renovated. They are commonly single story rectangular or square design with no insulation, and an open veranda facing the street (regardless of solar orientation). There are many villas within the Central Area, and most have their original wooden windows. Without proper maintenance, these windows can be draughty, requiring more demand for heating.



## *Bungalow:- 1910- 1930s*

Bungalows gradually took over from villas and became dominant by the 1920s, still remaining single story and native timber framing/windows but plainer and less ornate. The Californian Bungalow became dominant in the 1920s with a front porch to the street, and a gentler roof pitch than the villa. Today, bungalows have largely survived in their original form, but are commonly draughty and fall well short of current insulation requirements, predating the use of building paper and insulation. They are in need of upgrading to improve energy efficiency and are relatively easy to retrofit.

<sup>111</sup> (Isaacs, Saville-Smith, Camilleri, & Borrough, 2010)

<sup>112</sup> (Byrd & Mathewman, 2012)

### *Art deco:*

[1920s-1930s]: 'Moderne' was a style that arrived in the 1930s marking a change from villas and bungalows. They have classic cubic forms, smooth surfaces, flat roofs, and curved walls. Today they have associated weather tightness issues, little or no solar gain, and cold and draughty without significant heat input. There are very few dwellings within the Central Area that have been built in this style.



### *1930-1960s:*

State housing and mass housing dominated most of this period. Modest, simple, square plan three bedroom designs constructed with brick and tile were very common by the 1960s. By late 1960s, design began to change with new styles, materials and layout, for example multi unit 'sausage flats'. Although insulation was available through the 1950s, it was seldom installed, and the large living rooms with single glazing led to heat loss through glass. Electric radiators were common heating systems from the 1930s onwards, and windows are the only forms of ventilation. State housing marked change from colonial housing facing the street, as many had living spaces orientated to the north to capture sun. Many of these homes have been altered, however very few have been brought up to energy efficiency standards today. Typical 1950s homes are considered to have 'good bones' to retrofit.



### *1970s and 1980s:*

This period saw a second stage of mass housing. Architectural styles and spec houses such as Colonial, Ranch, and Mediterranean grew with suburban expansion. Rectangular multi-unit housing also became common, constructed as cheaply as possible. These houses had little or no insulation, until 1978 when insulation became compulsory. In the 1980s rooms became larger as part of the large suburban house. Today, these houses are generally weather tight and structurally sound, however require work to improve energy efficiency.



### *Modern:*

Dwellings built in the 21<sup>st</sup> century range vastly in style, size and materials. Technological improvements in building elements and construction techniques offer a range of opportunities for new housing developments. Most are airtight and well insulated, but a significant number are also prone to leaky building syndrome. Homes are generally orientated to the street to provide vehicle access to large garages

# Energy Efficient Housing

Buildings generate a large share of green house gas emissions, while consuming a large percentage of energy demand. Creating development that is low impact and energy efficient is important not just for keep heating costs and national energy demand down, but contribute to sustainability<sup>113</sup>.



As illustrated in the diagram, the majority of heat loss in a typical dwelling is through the walls, windows and roof. Medium density housing is a viable and efficient housing choice because shared walls and ceilings help to retain heat within the building.

Examples of different densities within the Central Area



Detached suburban family homes are less efficient. They have the most surface area/ exterior walls exposed, compounded by the fact that a large majority of detached dwellings in the Central Area are old and unlikely to be well insulated.

Town houses that have two shared walls reduce exterior wall exposure.

The most energy efficiency housing typology:  
Low rise medium density developments can be much more energy efficient and sustainable than single detached dwellings. Having well insulated wall and floor connections with neighbouring households increases energy performance. Meanwhile, surrounding trees and other buildings provide shade and shelter from wind and sun.

Apartments have four shared walls reducing exterior wall exposure.

High rise towers can be subjected to more heat losses and gains from climatic factors. Strong winds that increase with height cause building heat loss, while summer radiant heat is also a problem, requiring air conditioning units for cooling.



<sup>113</sup> (Condon, 2010)

# Energy Efficient Medium Density Housing

*“We need solutions for buildings that do more with less energy. This is a good reason why passive design principles are preferred to active systems”<sup>114</sup>.*

The New Plymouth District Plan does not have any requirements for including renewable energy or water saving devices, nor any provisions promoting designs to improve the environmental performance of infrastructure<sup>115</sup>. However, there are a number of non-regulatory methods outside the District Plan, including codes of practice and discounts on building consent fees for solar heating. New housing developments need to be designed for comfortable lifestyle, while minimising the cost of living in the city and cost on the environment<sup>116</sup>. Energy efficient designed homes can also be a selling point for potential buyers, whether they want a healthier home, want cheaper energy bills, or want to contribute to sustainability goals<sup>117</sup>.

Because of the nature and character of New Plymouth, the adoption of medium density housing may occur in a more detached nature than some overseas housing complexes. Therefore, the energy efficiency needs to come down to good design. In fact medium density housing can be so efficient at retaining heat, the trick is actually trying to keep them cooler, rather than warmer. Although design costs, options and styles vary greatly, most energy efficient homes have some basic elements and options in common. Three main areas of energy efficiency are discussed below:<sup>118 119</sup>



(Lehmann, 2010 pg 84)

**Basic building design:** is the basic physical features of a building that contributes to energy efficiency. Examples include the location, site design, landscaping, built form (tightly sealed envelope), insulation, shading, and construction materials. Solar orientation is an important design consideration with exposed thermal mass for winter heat storage and mass cooling in summer. Also windows are an important factor because in a typical home, 25% of heat is lost through glass panels- Double glazing has only become mandatory in the last four or five years. Triple glazing and thermally broken windows are also effective systems.

**Passive systems and design:** harness natural energies to contribute to energy efficiency. Optimising buildings through the application of building and passive design principles dramatically reduces energy demand. This includes controlled, passive ventilation, day lighting, efficient lighting and appliances, passive solar heating and vapour retarders.

**Active mechanical equipment:** Properly sized, high efficiency heating and cooling systems such as heat pumps, solar hot water systems, and solar cooling systems

<sup>114</sup> (Lehmann, 2010)

<sup>115</sup> (Laurenson, 2010)

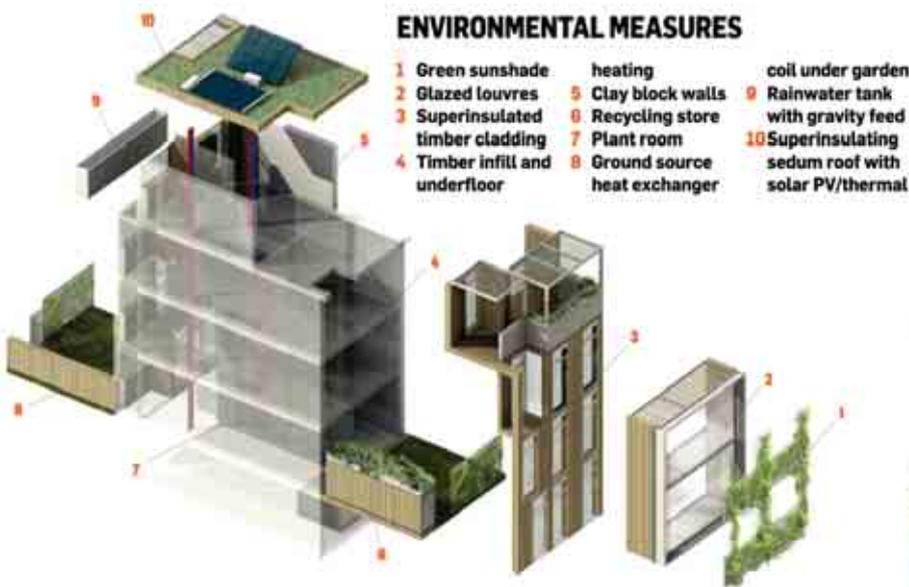
<sup>116</sup> (Christchurch City Council, 2011)

<sup>117</sup> (Dawson, 2008)

<sup>118</sup> (Lehmann, 2010)

<sup>119</sup> (National Renewable Energy Laboratory, 2000)

Energy efficient homes are commonly built with ecological efficiency and sustainability principles in mind. In the past, concentrating on minimising first costs and maximising short term financial return was common, especially in mass housing areas. Now we are looking to use resources materials efficiently and sustainably that may initially cost more during development, but create the best outcomes that have long term financial gains.



**Green Buildings:** While designing warm, well ventilated homes is important for healthy living, commonly the biggest energy consumers in buildings are technical installations for cooling. Higher density living is subject to what's called the heat stack effect, whereas warm air travels up through and around the building and makes it hotter. Green building techniques employ passive design principles utilising efficient shading devices for the facade. The facade decides about 50% of the buildings' energy consumption and vegetation is one way to control room climate. Roof top and facade vegetation improve the micro climate of the building as well as the aesthetics of the structure.



An example of a rooftop garden in the Central Area on top of the Kings Building <sup>120</sup>

<sup>120</sup> (Still, 2011)

# The pedestrian experience of residential areas

Walking is a part of everyday life in cities-

*"A city side walk is nothing by itself. It is an abstraction. ... if a city's streets look interesting, the city looks interesting, if they look dull, the city looks dull"*

- Jane Jacobs<sup>121</sup>

One of the biggest benefits of inner city living is the advantages of accessibility to the Central Area. However, this project has reviewed the pedestrian route that residents experience from the residential area towards the city centre. Distance, amenities and safety varied across the residential areas.



## Main Street/ Central Streets experience

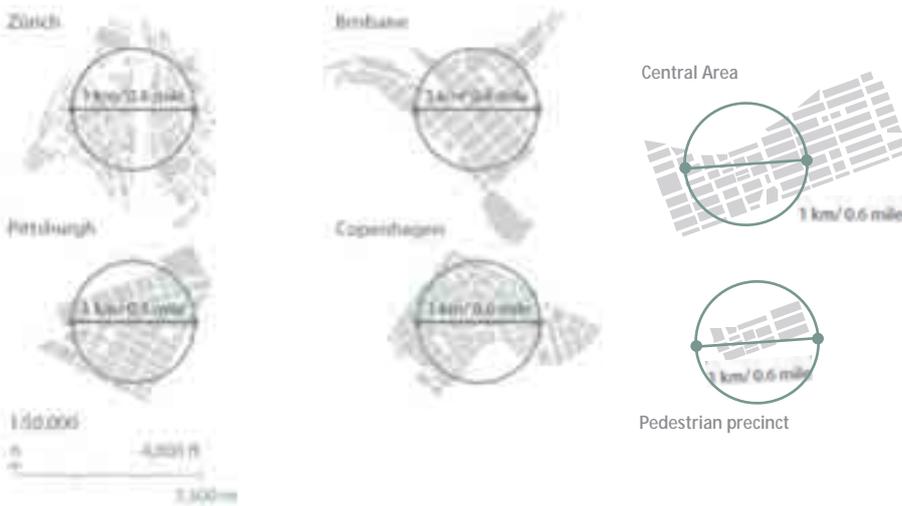


The pedestrian experience of the main commercial streets within the Central Area is generally pleasant. Most of the retail streets (especially Devon Street and Queen Street) have verandas, street trees, art, seating, and active frontages. Devon Street specifically provides a range of high quality street furniture, planting, and mature trees line the Devon Street hill. On the streets away from the main retail and commercial hub along Devon Street, the character and pleasantness of the pedestrian experience starts to rapidly decline. Traffic volumes also increase around the outer streets of the Central Area, with St Aubyn Street to the north, and the one way systems to the south.



<sup>121</sup> (Jacobs, 1961)

The 10 minute/800 metre walking catchment template is based on 'rule of thumb' practice by New Zealand transportation planners, and is determined as the distance people are willing to walk to get to their destination<sup>122</sup>. Some people are happy to walk many kilometres, while short walks can be difficult for elderly, the disabled and children. However, an acceptable distance also depends on the quality of the route<sup>123</sup>. Therefore, increasing the walkability beyond the 800 metre catchment can be achieved when pedestrian experience is improved. One of the biggest benefits of inner city living is the advantage of close proximity and accessibility to the Central Area. However, this analysis has reviewed the pedestrian route that residents experience from their residential areas towards the city centre. Even though distance across and around the Central Area is very small (compared to other large metropolitan centres around the world) the amenities and safety varied across the residential areas.



The Central Area is considerably large relative to the size of New Plymouth. The images to the left illustrate that the New Plymouth Central Area has a similar geographical CBD size to many larger overseas cities (with varying densities), but still remains walkable and connected by linear links. It is possible to walk to many Central Area locations within 5– 10 minutes.

### Hine Street pedestrian experience



Hine Street has a more suburban, residential feel, with established plantings and grass verges. With the option of using the foreshore walkway, it is a pleasant route to walk towards the city centre. Pohutukawa trees in front of Kawaroa Close provide shade and shelter from the sea breeze.



### Vivian Street pedestrian experience

Vivian Street has a very commercial and heavy arterial route feel due to the one way system. This makes traffic quite noisy while walking along the footpath. However, the street appears well vegetated due to the trees and plantings on the well established church and cemetery grounds, Sir Victor Davies Park, and the bush corridor that follows the Carrington Street underpass.



<sup>122</sup> (Wilson, 2013)

<sup>123</sup> (Gehl, Cities for people, 2010)

## Highly active coastal development

-Along Hobson Street, Octavius Place and Woolcombe Terrace

The pedestrian experience along Octavius and Woolcombe is pleasant, with great ocean scenery. The Tasman Sea, grassed reserves and bowls club is located on one side, and modern beach front houses on the other. This area has the advantage of using the foreshore walkway to walk or bike into the city centre. However using Molesworth or Gill Streets are quick routes to walk to the city centre. Gill Street was originally part of the residential fringe until the 1960s when redevelopment commenced in 1968. Because the Central area sits in a basin between the Tasman sea and the one-way system, commercial land use has been squeezed and elongated along the western and eastern sides of the city centre. Gill and Molesworth Streets are now dominated by large block commercial businesses, favouring vehicles. In terms of the streetscape and pedestrian experience, the scenery is dull and dominated by vehicles and car parks. Also, the climate affects the pedestrian experience because the street funnels the coastal winds, which can make walking cold and uncomfortable on windy days, with no vegetation or building protection.



Woolcombe Terrace



Octavius Place



Hobson Street



Gill Street



Hobson Street



Octavius Place



Woolcombe Terrace

## Lemon Street pedestrian experience

Lemon Street stretches about one km along the back of the Central Area, and retains the feel of a quieter street compared to the adjacent Leach Street. Lemon Street is a wide, straight street which provides a large amount of parking, used by many people that work in the centre of town. Apart from large established trees around Central Primary School, most of the vegetation is low level and contained within the front yard of properties.



Lemon Street

# Guidelines to improve the pedestrian experience

The New Plymouth Central Area Urban Design Framework has prioritised the freedom of movement and a core pedestrian precinct as a key area of focus for the Central Area. The pedestrian routes that Central Area residents experience from their homes to the heart of the city are also important to consider. This is because actively planning for walking and cycling creates more opportunities for people to live in places that have easy and enjoyable access to urban services<sup>124</sup>.

The Central Area Framework has also highlighted a future action to create a Central Area Streetscape Plan. This will aim to create streets for people, providing desirable connections between destinations. This report has explored some of the important guidelines in relation to connecting the surrounding residential fringe with good quality pedestrian routes into the city centre that can contribute to a future Streetscape Plan. The quality criteria concerning the pedestrian experience within this section looks at protection, comfort and delight/sensory factors.

## *- New Plymouth District Coastal Strategy:*

Has a strategic direction to enhance a sense of place as a vibrant coastal city, and to promote and ensure the coastal environment is a recreational place to explore and experience. Therefore connecting residential areas to the foreshore and walkway facilities are important to this report.

## *- Let's Go – Walk, Ride, Bus project:*

'Let's Go' project is about getting people walking, riding, or taking the bus for short trips around the New Plymouth District. Since June 2010 Let's Go have played a central part in implementing infrastructure projects aimed to reducing traffic speed, making safer walkways/crossings and removing barriers for cyclists. Cycling is now becoming very well provided for, with the foreshore walkway and cycleway very heavily utilised, cycle lane road marking, and the Bike Pod providing free, secure bike storage on Ariki Street. Walking however has potential to be further enhanced. Currently, New Plymouth has great coastal, domain and bush walkways. However many central streets that lead into the heart of the city centre, such as Gill and Molesworth Streets have been identified as people's least favourite spaces in the Central Area. These guidelines will not only help to transform and enhance the aesthetics and pleasantness of pedestrian routes into town, but also enhance the *feel* and vibrancy of these pedestrian routes.



<sup>124</sup> (New South Wales Government, 2004)

## *The Human Scale: The battle for quality on the small scale*

The public realm has been defined by Gehl (1987)<sup>125</sup> as ‘the life between buildings’ and it is a long studied phenomenon in academic disciplines such as urban and transport planning, geography and travel behaviour. The public realm is problematic from the start because they are subject to the phenomenon of ‘SLOAP’ - the ‘Space Left Over After Planning’<sup>126</sup>. This occurs when the functions and architecture of individual buildings takes precedence over integrating them into their wider surrounding environment. In order to improve these spaces, it requires ‘Place making’ as a transparent, organic and bottom up process that has the potential to turn the public realm into inclusive, enjoyable, sustainable and walkable places<sup>127</sup>.

Commonly, foot paths are boring, ugly and functional spaces. To create safe, accessible and pleasant streets, design must be from the human scale. They must be permeable (free of obstruction) in a functional sense, but also have a lively and animated streetscene that pedestrians enjoy as part of their journey.

*“He aha te mea nui o te ao?  
He tangata,  
he tangata,  
he tangata.”*

*" What is the most important thing in the world?  
It is people,  
it is people,  
it is people."*



## *Connections with the foreshore*

The New Plymouth District Council Coastal Strategy (2006) aims to guide the planning of coastal settlements and provides for population/development growth with urban design guidelines in mind. The strategy has highlighted opportunities and implementation actions that ensure New Plymouth continues to develop as a vibrant coastal city. Implementation actions include working with the community to develop future plans that promote growth and a vibrant city centre, balancing the needs of people and the environment.

<sup>125</sup> (Gehl, Life between buildings: using public spaces, 1987)

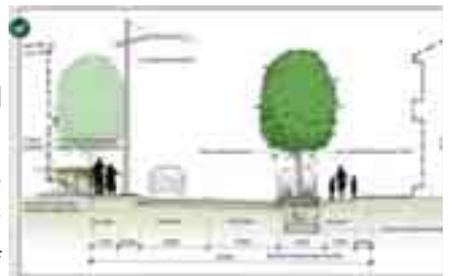
<sup>126</sup> (Shaftoe, 2008)

<sup>127</sup> (United Nations Habitat, 2012)

## Streetscape planting

Trees have the ability to contribute to the aesthetics and pleasantness of a street, while also providing comfort and shade. Plants and vegetation are a natural and normal addition to the public realm, giving the space a soft and warm face<sup>128</sup>. Gehl (1987)<sup>129</sup> has termed this creating ‘soft boundaries’, instead of hard, sharp boundaries of buildings and fences.

Co-ordinated tree plantings contribute to a sense of place and pleasantness in the Central Area, adding texture and colour to a normally dull concrete path. Overseas experiences have demonstrated that regardless of neighbourhood wealth, age, or ethnic makeup, residents are keenly interested in seeing trees planted<sup>130</sup>. Currently, the wider Central Area streets lack trees or planting, with vegetation planted in a few pockets around the area as part of individual projects, and the main retailing area of Devon Street. There is great opportunity to create street trees and gardens that contribute to the character of the residential fringe, and connect the streets and pathways to the main city centre, contributing to a pleasant pedestrian experience at the human scale. There should be consideration of the species planted. Appropriate native species should be encouraged within the Central Area. Many introduced species are deciduous and lose their leaves annually. This could cause maintenance issues due to dead leaves clogging up drains. Storm water is an issue for the Central Area, potentially clogged gutters and drain and should be considered carefully. Streetscaping also provides a secondary ecological function in contributing to a low impact, permeable streetscape. This allows storm water to soak into the soil around and below planted verges. Swales act as a way to soak up and naturally filter run off from the roads.



## Safety and CPTED- Crime Prevention Through Environmental Design

Safety is a vital characteristic that public realm design must strive for. Both UK and US urban planning agenda place heavy emphasis on safety, seeing safety as a measure of liveability (Stevens, 2009).

As part of CPTED principles, using lighting improves quality of life and legitimise the users of the space, while influencing perceptions of security and safety (Ministry of Justice, 2005). Lighting contributes towards the attractiveness of the Central Area as a safe, welcoming and vibrant night time destination. The design should be coherent and consistent, with functional light poles along pedestrian pathways, as well as decorative lighting in key areas such as precincts. Footpaths overlooked by adjacent buildings and residences also contributes to the safety of pedestrians.



<sup>128</sup> (Crawford, 2009)

<sup>129</sup> (Gehl, Life between buildings: using public spaces, 1987)

<sup>130</sup> (Hinshaw, 2007)

## Amenities and street furniture

There is a variety of amenities that positively contribute to the walkability and liveability of the public realm, and the key to successful design is the attention to detail (Burns, 2005). These details include the plants, utilities, the pavement, or the materials used to construct the built environment (Crawford, 2009). Public places that people visit or spend time at affect their minds and senses, being both visual and non-visual (Shaftoe, 2008).

**Foot path furniture:** Amenities and furniture are common additions along footpaths, especially within down town areas. Examples include bus shelters, rubbish bins, pedestrian signage, lamp posts with flags, benches and drinking fountains. Positioned unobtrusively in the public realm will contribute to a higher quality pedestrian experience.

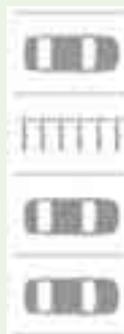


Gardens and planting increase the permeable surface for storm water filtration, while functioning as a pleasant barrier separating pedestrians from the road. Used with bollards, they create soft boundaries to guide pedestrian traffic safely



### Seating:

Because the sitting posture is considered less stressful for the body and mind than a standing one, the availability of seating is a very important principle and design feature in the public realm (Pizzato et al, 2012) Seating is an easy way to provide comfort that not only makes the street age friendly, it also creates linger nodes, offering opportunities for social interaction and casual neighbour encounters. Seating requires careful consideration in relation to its position and orientation to ensure it is sheltered and does not interfere with accessibility and connectivity.



### Cycling infrastructure

Infrastructure like the foreshore walkway and cycleway extend the geographical range of non car travel. Extending active transport throughout the Central Area helps to build the sorts of neighbourhoods that people want to live in and around. Bike racks and cycle lanes mean that residents can ride to work and not have to worry about car parking, and the cost of parking spaces.

*"Site furnishings announce that pedestrians are welcome and that the street is a comfortable place to be. These amenities provide a functional service to the pedestrian and provide visual detail that makes a place comfortable and interesting"*

*-San Francisco Planning Dpt, 2010*



Pedestrian signage: maps, walking distance, walking times and direction provide an informative and interactive pedestrian experience.

## 18. Where are the best places to encourage housing?

*“Even if placemakers can point out successful precedents in other cities, they are often met with a litany of reasons why that would never work here”*

- Department of Urban Studies and Planning

In an effort to overcome the commonly expressed view in the quote above, this report has looked at several site specific examples of housing choices and options in the New Plymouth context with urban design best practice principles in mind. A picture can be worth a thousand words in illustrating how medium density housing would look in an existing neighbourhood. Factors that are important include the existing conditions of the surrounding site that makes medium density housing suitable, neighbourhood character and the infrastructure in order to support higher densities. It is understood that large scale medium density housing projects in New Plymouth may be seen as too risky at present. Therefore the following case studies illustrate smaller medium density housing projects that can be undertaken on a single site. This reduces the cost and risk for developers willing to give it a go until a demand is realised and established as a housing alternative in the future.

### 18.1. Gill and Molesworth Streets

Gill Street and Molesworth Street run parallel along the eastern side of the Central Area. They provide opportunities to become a denser, mixed use, residential and commercial neighbourhood. As discussed in the character and pedestrian experience sections, Gill and Molesworth Streets are currently dull, uninviting and unattractive. However being located so close to the city centre and coastline, the area has great potential for future gentrification. As illustrated below, these two streets have a maximum height 10 meters- around three stories, and the blocks of Gills Street closest to the city centre have a higher maximum building height of 14 meters. These maximum height levels by no means reflect the actual heights and densities of the buildings currently located there. Apart from a few three story developments close to Hobson Street, and a cluster of tall buildings closest to the city centre, the majority of the street is large, low level, single story commercial buildings



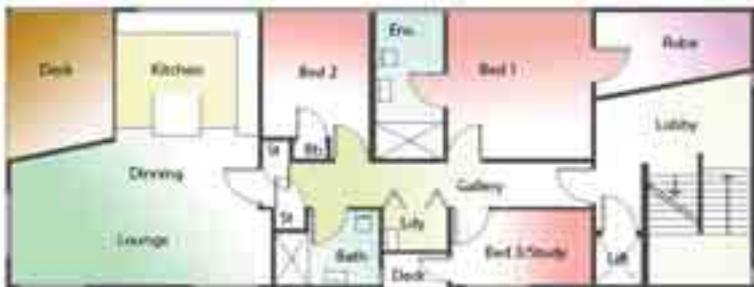
## New Plymouth Case Study Examples

Case study examples of housing can be drawn from all over the world, but there are some good development examples in the Central Area that already illustrate how medium density housing arrangements can be achieved in the New Plymouth context. The two examples below show permitted density levels, site layout on small sections, and features such as parking, all in an area that has potential for future development and growth.



Examples of features		
<b>Access and Privacy</b>	Private balcony	✓
	Vehicle parking and storage	✓
	Internal elevator/wheelchair access	✓
<b>Spaces</b>	Shared outdoor spaces and planting	✓
	Roof garden	✓
	Well laid out internal spaces	✓
<b>Sustainability Features</b>	Solar panels on roof	✓
	Passive solar design	✓
<b>Outlook</b>	Private and public outlook	✓
	Sea view outlook	✓
<b>Location</b>	Single lot site, 20.6m x 12.6m Short walk to beaches, Coastal Walkway, Centre City, main streets, Pukekura Park, Puke Ariki Library and supermarkets	✓

In 2005, a residential development on the eastern end of Molesworth Street illustrates how apartments can be designed to fit in with the existing situation, on a relatively small section, while still providing comfortable living space. This development consists of two dwellings, with one apartment per floor, and features such as a deck facing the sea, and bottom level storage and car parking.





Examples of features	
<b>Access and Privacy</b>	Private balcony and covered lower deck Vehicle parking and storage Internal elevator/wheelchair access Universal design standards
<b>Spaces</b>	Shared outdoor spaces and planting Private outdoor spaces Well laid out internal spaces Detached and semi-detached variation
<b>Sustainability Features</b>	Solar panels on roof Passive solar design
<b>Outlook</b>	Private and public outlook Sea view outlook
<b>Location</b>	Single lot site, 38.24m x 9.67m Short walk to beaches, Coastal Walkway, Centre City, main streets, Pukekura Park, Puke Ariki Library and supermarkets

As a different layout example, around the corner on Hobson Street, three dwellings (two attached and one standalone) have been developed on a long, narrow section. Dwellings are split across the second and third level, with a basement garage that fits below the Hobson hill, bring the second level living floor to street level.



*Other site layout examples:*



*Dpt Environment, Heritage and Local Governmnet, Ireland, 2007*



*Holroyd Gardens, New South Wales*

*Interior details:*

Although the site and building layout is important for successful higher density living, so too is the internal configuration of the home. Residents want rooms that make the best use of space, and feel spacious and liveable. Some areas can be designs sociable, open plan and well connected, while others must remain comfortably private. Connecting the house to outside spaces, whether private or shared is commonly a sought after feature in most New Zealand homes.



*Details featured in the Christchurch's Exploring New Housing Choices guidelines*

In order to encourage medium density housing development, something has to be developed first. For example, as illustrated below, there is a deficiency of open, green space on the eastern side of the Central Area. Research shows that recreation is often an underestimated catalyst for successful urban development<sup>131</sup>. As part of a capital investment incentive, a great pocket park or green spaced area could be the catalyst to promote residential development along these streets. Literature indicates housing developments near good quality public open space and parks helps to maximise benefits associated with inner city, medium density living.



Figure 37 Site survey maps from the New Plymouth Central Area Site Survey showing a lack of open spaces or green space on the eastern side of the Central Area

<sup>131</sup> (Ministry for the Environment, 2014)

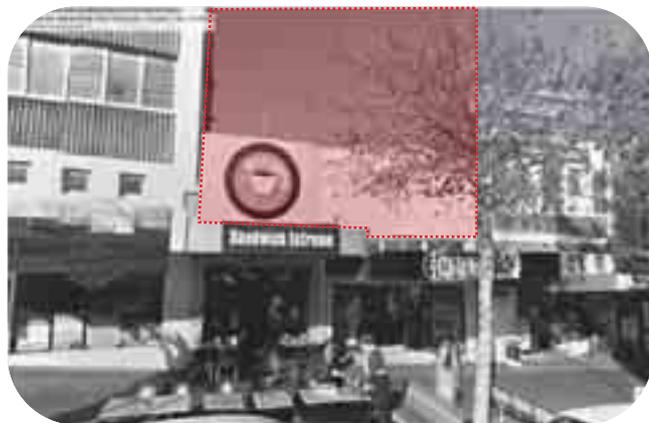
Here are some examples of potential green space integration:



## 18.2. Devon Street

The main retailing strip along Devon Street East and West has opportunities to incorporating housing above the commercial street level. There is a majority of second level buildings that are underutilised or used as storage for businesses. Apartments would fit seamlessly above the verandas of street level retail frontages, and add to the urban charm and vibrancy. Many of the buildings along Devon Street have a heritage features, contributing to a distinctive character.

There are many examples of how to gently increase the density within the Central Area, and the site illustrated below is a block of retail on the south side of Devon Street, just one of the many possible sites. This section of Devon Street is particularly subject to earthquake prone building assessments, containing many character buildings.



Examples of single face apartment features		
<b>Access and Privacy</b>	Generous sized private balcony	
	Vehicle parking	✓
	Internal elevator/wheelchair access	✓
<b>Spaces</b>	Shared outdoor space/courtyard	
	Private outdoor spaces	✓
	Well laid out internal spaces	✓
<b>Sustainability Features</b>	Solar panels on roof	✓
	Passive solar design and passive ventilation	✓
<b>Outlook</b>	Private and public outlook	✓
	City outlook	✓
	North facing for sun orientation	
<b>Location</b>	Short walk to Coastal Walkway, Centre City, main streets, Pukekura Park, Huatoki Plaza, Puke Ariki Library and shops	✓

Below illustrates how a single story site of the Sandwich Extreme can accommodate three stories of housing above.



Because of the height of existing buildings, and the downhill slope of Devon Street, the building fits comfortably in the surrounding urban form without protruding or sticking out.

Targeting streets with good connections is important to make the most of inner-city locations and accessibility. Apartments developed in this area would be so central that residents can enjoy a walk to the foreshore, Pukekura Park, Huatoki walkway, Puke Ariki landing or the library, all within only 5 minutes.



*Potential internal layout*



There are many other examples:



## 19. Conclusion

This report has sought to create a better understanding about the housing market dynamics, housing stock and barriers to inner city housing development in the Central Area. As this report has hopefully illustrated, there is no need to reinvent the wheel. New Plymouth can draw from the various successful international and national examples of urban design and medium density housing guidelines to make the Central Area more vibrant and successful.

Developing solutions to overcoming barriers of inner city development discussed in this report provides real opportunities for high quality, innovative inner-city housing. To summarise, the following solutions and incentives alluded to in this report should be implemented.

Although there is not current realised demand for inner city housing, medium density development is a housing choice that must begin to filter into the development community and public domain, in order to be accepted. Pursuing ways to allow the public to become accustomed and educated to high density living is a starting point to overcoming the stigma of the term, and potentially expose an unrealised demand.

New Plymouth will benefit from the establishment of an Urban Design Panel. This expert advice has the potential to support and inspire developers, and reassure them that good quality is valued in the Central Area and wider district.

Collaborative workshops and discussions need to be held to find out what key landowners are thinking of doing in the next five years, what are the visions of those shaping place in the Central Area, and how the lending institutions could work. Together with the council, Urban Design Panel and development community, spearheaded by a visionary urban design champion, further visions for the Central Area can take shape. Smoothing the planning process and supporting developers during and before resource consent applications also plays a part in overcoming a variety of barriers highlighted in this report.

The Urban Design Panel can also help to create a Medium Density Housing and Urban Design Guidelines to guide good design, with development community input. This will show that the New Plymouth District Council is leading by example to work collaboratively and inspire developers to form a vision of what kind of city centre we want to strive for.

There should also be investigation into a greenspace or pocket park on the eastern side of the Central Area. By using capital investment as an incentive, this may be the catalyst to spark future development and inner city housing.

Two case study best practice medium density typologies have been illustrated in this report, based on a comprehensive analysis of the existing situation, and with urban design principles in mind. They represent the vast opportunities and potential that New Plymouth has locked up behind its current 'business as usual' mindset.

## 20. Works Cited

- Aalbers, D. (2006). *Public summary of student research project: Transnationalism in New Plymouth*. Retrieved from [http://web.env.auckland.ac.nz/course\\_pages/geog315/Aalbers\\_David.pdf](http://web.env.auckland.ac.nz/course_pages/geog315/Aalbers_David.pdf)
- Ancell, S., & Thompson-Fawcett, M. (2008). The social sustainability of medium density housing: a conceptual model and Christchurch case study. *Housing Studies*, 423-442.
- Austin, T. (2011). Planning more sustainable urban districts: lessons from Europe. In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification* (pp. 33-45). Wellington, NZ: New Zealand Centre for Sustainable Cities.
- Backhouse, D. (2013). *Brownfield renewal incentives: tools for Local Government, the British Columbia Experience*. Retrieved from Waste MINZ: [http://www.wasteminz.org.nz%2Fwp-content%2Fuploads%2FWasteMINZ-2013-Brownfield-Renewal-Incentives.pdf&ei=9SD4Ut74LOmSiQerm4Bw&usg=AFQjCNEgq\\_1LEpDZ69\\_CzC](http://www.wasteminz.org.nz%2Fwp-content%2Fuploads%2FWasteMINZ-2013-Brownfield-Renewal-Incentives.pdf&ei=9SD4Ut74LOmSiQerm4Bw&usg=AFQjCNEgq_1LEpDZ69_CzC)
- Batten, Y. (2014, February 12). A great trading summer. *North Taranaki Midweek*, pp. 1-2.
- Benge, R. (2007). Inner city development. *Survey Quarterly*, 6-11.
- Birkeland, J. (2002). *Design for sustainability: a sourcebook of intergrated eco-logical solutions*. London: Earthscan Publications.
- Bjork, E. (2009). May become losers when the Universal Design perspective is neglected: exploring the true cost of ignoring Universal Design Principles. *Technology and Disability*, 117-125.
- Bothara, J. K., & Sharpe, R. D. (2010). *Why do we still tolerate buildings that are unsafe in earthquakes?* Wellington, NZ: Beca.
- Breen, A., & Rigby, D. (2004). *Intown Living: a different American Dream*. USA: Praeger Publishers.
- Buckett, N. R. (2013). *Building Better: advanced residential construction techniques for New Zealand*. Retrieved from BRANZ Study Reports: [http://www.branz.co.nz/cms\\_show\\_download.php?id=47fe92a0b53ce160678f87f6dddde5907fc413fda](http://www.branz.co.nz/cms_show_download.php?id=47fe92a0b53ce160678f87f6dddde5907fc413fda)
- Building Research Association of New Zealand. (2013). *Study Report: Small firm's work types and resources*. BRANZ Building Research Levy.
- Burns, M. (2005). *HiTrans Best Practice guide 3: Public transport and Urban Design*. Norway: Stavanger.
- Byrd, H., & Mathewman, S. (2012). Warm up New Zealand: Heatsmart- a critical overview. *New Zealand Sociology*, 54-75.
- Cheng, V. (2010). Understanding density and high density. In E. Ng, *Designing high-density cities: for social and environmental sustainability* (pp. 3-26). London: Earthscan.
- Christchurch City Council. (2011). *Exploring new housing choices for changing lifestyles*. Christchurch City Council.

- Christchurch City Council. (1999). *New housing in Living 3 Zones: a design guide*. Retrieved from <http://resources.ccc.govt.nz/files/NewHousinginLiving3Zones-docs.pdf>
- CityScope Consultants. (2011). *Improving the design, quality and affordability of residential intensification in New Zealand: Working paper 1, policy and practice literature review*. Retrieved from <http://www.chranz.co.nz/pdfs/working-paper-1-policy-and-practice.pdf>
- CityScope Consultants. (2011). *Improving the design, quality and affordability of residential intensification in New Zealand: Working paper3, buyers talk about medium density housing*. Retrieved from <http://www.chranz.co.nz/pdfs/working-paper-3-buyers-talk-about-medium-density-housing.pdf>
- Clark, G., & Mountford, D. (2007). What are the financial tools and innovations in local development? In G. Clark, & D. Mountford, *Investment strategies and financial tools for local development* (pp. 31-202). Paris: OECD.
- Condon, P. M. (2010). *Seven rules of sustainable communities: design strategies for the post carbon world*. Washington DC: Island Press.
- Crawford, J. H. (2009). *Car free design manual*. Utrecht, Netherlands: International Books.
- Dawson, C. (2008). *Green Property: buying, developing and investing in eco-friendly property and becoming more energy efficient (2 Ed.)*. UK: Kogan Page.
- Department of Internal Affairs. (2008). *Building sustainable urban communities: a discussion document*. Retrieved from [http://www.dia.govt.nz/diawebsite.nsf/Files/BSUCwholedocument/\\$file/BSUCwholedocument.pdf](http://www.dia.govt.nz/diawebsite.nsf/Files/BSUCwholedocument/$file/BSUCwholedocument.pdf)
- Department of Internal Affairs. (2008). *Setting the scene: the background and context to sustainable urban development in New Zealand*. Retrieved from [http://www.dia.govt.nz/diawebsite.nsf/Files/SUDUSettingtheScene/\\$file/SUDUSettingtheScene.pdf](http://www.dia.govt.nz/diawebsite.nsf/Files/SUDUSettingtheScene/$file/SUDUSettingtheScene.pdf)
- Department of the Environment, Heritage and Local Government. (2007). *Quality housing for sustainable communities: best practice guidelines for delivering homes, sustaining communities*. Ireland: DoEHLG.
- Easton, L., Howell, M., & Birchfield, D. (2008). Local Government incentives for sustainable building. *Brightstart Green Buildings and Facilities Conference*. Auckland, New Zealand: Beacon Pathway.
- Easton, L., Mead, D., Trenouth, C., Cooper, H. Y., Fullbrook, D., & Arnold, P. (2006). *Local Council sustainable building barriers and incentives: Auckland City case study*. Auckland, NZ: Beacon Pathway.
- Foy, S. (2009, August 15). *The bad and the ugly*. Retrieved from Taranaki Daily News: <http://www.stuff.co.nz/taranaki-daily-news/lifestyle/2755464/The-bad-and-the-ugly>
- Gehl, J. (2010). *Cities for people*. Washington DC: Island Press.
- Gehl, J. (1987). *Life between buildings: using public spaces*. New York: Van Nostrand Reinhold.

Giles-Corti, B. (2011). Increasing densities in cities: how do we maximise benefits and minimise harm? In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification in New Zealand* (pp. 13-21). Wellington, NZ: New Zealand Centre for Sustainable Cities.

Goble, S. (2012). Is being denser cheaper? *Planning Quarterly*, 12-15.

Grimes, A., Hyland, S., Coleman, A., Kerr, J., & Collier, A. (2013). A New Zealand regional housing model Motu Working Paper 13-02. *Motu Economic and Public Policy Research*, 1-82.

Haarhoff, E., Beattie, L., Dixon, J., Dupuid, A., Lysnar, P., Murphy, L., et al. (2012). *Future intensive: insights for Auckland's housing*. Auckland, NZ: Transforming Cities: Innovations for Sustainable Futures.

Harvey, H. (2013, August 14). *\$55m retirement village in wings: plans for 150 homes on Carrington Rd*. Retrieved from Taranaki Daily News Online: <http://www.stuff.co.nz/taranaki-daily-news/news/9037875/55m-retirement-village-in-wings>

Hickford, J. (2013, August 27). *Meeting Agenda Policy Committee: Item A4 Land development and subdivision trends*. Retrieved from New Plymouth District Council: Agendas and Minutes, Policy Committee: <http://www.newplymouthnz.com/NR/rdonlyres/7359908C-E99D-44CC-9319-38CD1D7B721A/0/PolicyCommitteeagenda27August2013.pdf>

Hinshaw, M. L. (2007). *True Urbanism: living in and near the city centre*. Washington DC: Planners Press.

Howell, M. (2010). *Local Government incentives to promote sustainable building*. Auckland, NZ: Tollemache Consultants and Beacon Pathway.

Howell, M. (2010). *Local Government incentives to promote sustainable building*. Retrieved from BRANZ: [http://www.branz.co.nz/cms\\_show\\_download.php?id=5aecf574336ae7eadd2ba6bdb80674d076bbe49d](http://www.branz.co.nz/cms_show_download.php?id=5aecf574336ae7eadd2ba6bdb80674d076bbe49d)

Howell, M., & Birchfield, D. (2009). *Building sustainable homes: a resource manual for Local Government: Part IV- Options for action, what councils can do*. Retrieved from Beacon Pathway: [http://www.beaconpathway.co.nz/files/docs/Resource\\_Manual\\_Pt\\_IV\\_Section\\_6.doc](http://www.beaconpathway.co.nz/files/docs/Resource_Manual_Pt_IV_Section_6.doc)

Isaacs, N., Saville-Smith, K., Camilleri, M., & Borrough, L. (2010). Energy in New Zealand houses: comfort, physics and consumption. *Building Research and Information*, 470-480.

Isthmus. (2013). *Learning from Vancouver: Gentle density*. Auckland, NZ: Isthmus Research.

Jacobs, J. (1961). *The death and life of Great American Cities*. New York: Random House.

Kang, J. (2010). Sound Environment: high- versus low-density cities. In E. Ng, *Designing high-density cities for social and environmental sustainability* (pp. 163-180). London: Earthscan.

Kapiti Coast District Council. (n.d.). *Medium density housing guide: best practice- a design guide for developers, planners, architects and others*. Retrieved from

<http://www.kapiticoast.govt.nz/Documents/Downloads/Kapiti-Coast-Medium-Density-Housing-Best-Practice-Guide.pdf>

Kete New Plymouth. (2012). *Currie Street Demolition*. Retrieved from Kete: [http://ketenewplymouth.peoplesnetworknz.info/new\\_plymouth\\_buildings/images/show/6856-currie-street-demolition-tdn-07051986](http://ketenewplymouth.peoplesnetworknz.info/new_plymouth_buildings/images/show/6856-currie-street-demolition-tdn-07051986)

Kete New Plymouth. (2014). *New Plymouth Buildings*. Retrieved February 26, 2014, from [http://ketenewplymouth.peoplesnetworknz.info/new\\_plymouth\\_buildings](http://ketenewplymouth.peoplesnetworknz.info/new_plymouth_buildings)

Kete New Plymouth. (2013, October 22). *Lower Brougham Street 1971 Flood*. Retrieved from Kete New Plymouth: <http://ketenewplymouth.peoplesnetworknz.info/site/images/show/12939-lower-brougham-street-1971-flood>

Landlords. (2010, June 18). *New Plymouth: Investing in the 'Naki*. Retrieved from Landlords: for Kiwi Property Investors: <http://www.landlords.co.nz/article/3753/new-plymouth-investing-in-the-naki>

Laurenson, P. (2010). *Stock take of the urban design content of the New Plymouth District Plan*. Wellington, NZ: MWH.

Lehmann, S. (2010). *The principles of green urbanism: transforming the city for sustainability*. Washington DC: Island Press.

Lifemark. (2011). *Lifetime Design: working to improve home design for everyone*. Retrieved from <http://www.lifemark.co.nz/lifetime-design.aspx>

Lonsdale, C. (2002). *Taranaki: Pictures from the past*. Whitcoulls.

McDonald, S., Malys, N., & Maliene, V. (2009). Urban regeneration for sustainable communities: a case study. *Technological and Economic Development of Economy: Baltic Journal on Sustainability*, 49-59.

Ministry for the Environment. (2010). *Building competitive cities: reform of the urban and infrastructure planning system*. Retrieved from <http://www.mfe.govt.nz/publications/rma/building-competitive-cities-technical-working-paper/>

Ministry for the Environment. (2010). *Building competitive cities: Reform of the urban and infrastructure planning system, a discussion document*. Retrieved from Ministry for the Environment: <http://www.mfe.govt.nz/publications/rma/building-competitive-cities-discussion-document/building-competitive-cities.pdf>

Ministry for the Environment. (2010). *Report of the Minister for the Environment's urban technical advisory group*. Retrieved from <http://www.mfe.govt.nz/rma/central/amendments/documents/urban-tag-report.pdf>

Ministry for the Environment. (2014). *Urban Design case studies: New Zealand Urban Design Protocol: New Plymouth Foreshore*. Retrieved from <https://www.mfe.govt.nz/publications/urban/urban-design-case-studies-mar05/html/page15.html>

Moffat, A. (2012). *Flashback: Tales and treasures of Taranaki*. Wellington, NZ: Huia Publishers.

- Morrison, P. S., & McMurray, S. (1999). The inner-city apartment versus the suburb: housing submarkets in New Zealand. *Urban Studies*, 377-397.
- National Renewable Energy Laboratory. (2000). *Elements of an energy-efficient house*. Retrieved from NREL Publications: [www.nrel.gov/docs/fy00osti/27835.pdf](http://www.nrel.gov/docs/fy00osti/27835.pdf)
- New South Wales Government. (2004). *Planning guidelines for walking and cycling*. Retrieved from [http://www.planning.nsw.gov.au/plansforaction/pdf/guide\\_pages.pdf](http://www.planning.nsw.gov.au/plansforaction/pdf/guide_pages.pdf)
- North Shore City Council. (2007). *Good solutions guide: for medium density housing*. Retrieved from <http://www.urbanismplus.com/wp-content/uploads/2011/07/2001-Good-solutions-guide-medium-density-housing.pdf>
- Pizzato, G., Guimaraes, L., & ten Caten, C. (2012). The perception of pleasantness in a product of collective use: the bus shelter. *Work* 41, 282-289.
- Puddephatt, J. (2006). Design for life. *Survey Quarterly*, 10-14.
- QV. (2013). *Residential sales prices by suburb*. Retrieved from QV: <http://www.qv.co.nz/resources/residential-sales-prices-by-suburb>
- Ralph, A. (2011). The challenges of implementing residential intensification. In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification in New Zealand* (pp. 97-107). Wellington, NZ: New Zealand Centre for Sustainable Cities.
- Rilkoff, M. (2012, December 15). *Buyers back, prices flat*. Retrieved from Taranaki Daily News Online: <http://www.stuff.co.nz/taranaki-daily-news/news/8083526/Buyers-back-prices-flat>
- Shaftoe, H. (2008). *Convivial urban spaces: creating effective public spaces*. London: Earthscan.
- Shaw, M. (2014, February 1). *Life in the quarterdeck*. Retrieved from Taranaki Daily News: <http://www.stuff.co.nz/taranaki-daily-news/lifestyle/9675187/Life-in-the-Quarterdeck>
- Silberberg, S., Lohar, K., Disbrow, R., Muessig, A., & Naparstek, A. (2013). *Places in the making: how placemaking builds places and communities*. USA: Massachusetts Institutes of technology.
- Sinner, J., & Salmon, G. (2003). *Creating economic incentives for sustainable development: a report to the New Zealand Business Council for Sustainable Development*. Nelson, NZ: Ecologic Foundation.
- SkyscraperCity.com. (2008, April 7). *New Plymouth Projects: Taranaki population surge tipped*. Retrieved from SkyScraperCity: <http://www.skyscraperCity.com/showthread.php?t=598587>
- Statistics New Zealand. (2011). *Demographic Trends 2011: Subnational demographic projections*. Retrieved from Statistics New Zealand: [http://www.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/demographic-trends-2011/subnational%20demographic%20projections.aspx](http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/demographic-trends-2011/subnational%20demographic%20projections.aspx)
- Stevenson, A. (2011). It's all about me: is sustainable development possible in an anthropocentric society? In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and*

*improving urban intensification in New Zealand* (pp. 179-187). Wellington, NZ: New Zealand Centre for Sustainable Cities.

Still, W. (2011). *Still Building: the Willie and Rosalie Still story*. New Zealand: W. E. Still Publishing.

Strongman, S. (2014, February 17). *Work to begin on \$22m hotel*. Retrieved from Taranaki Daily News Online - Stuff: <http://www.stuff.co.nz/taranaki-daily-news/news/9729060/Work-to-begin-on-22m-hotel>

Strongman, S., & Harper, L. (2014, March 3). *Hot time in the city*. Retrieved from Taranaki Daily News Online - Stuff: <http://www.stuff.co.nz/taranaki-daily-news/news/9781618/Hot-time-in-the-city>

Taranaki Regional Council. (2009). *State of the Environment Report: Chapter 2, Taranaki, the people and the place*. Retrieved from <http://www.trc.govt.nz/assets/Publications/state-of-the-environment-monitoring/state-of-the-environment-report-200/people+place.pdf>

Thompson-Fawcett, M. (2011). Fuzzy futuring? social sustainability and the Lisbjerg vision. In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification in New Zealand* (pp. 23-31). Wellington, NZ: New Zealand Centre for Sustainable Cities.

Trenouth, C., & Mead, D. (2007). *Barriers and incentives to sustainable residential development*. Auckland, NZ: Hill Young Copper Ltd.

Turner, D., Hewitt, J., Wagner, C., Su, B., & Davies, K. (2004). *A report on best practice in medium density housing design for Housing New Zealand Corporation*. Housing New Zealand Corporation.

United Nations Habitat. (2012). *Placemaking and the future of cities*. Retrieved from <http://www.pps.org/wp-content/uploads/2012/09/PPS-Placemaking-and-the-Future-of-Cities.pdf>

Utiger, T. (2014, February 18). *Plaza set for arty makeover*. Retrieved from Taranaki Daily News Online: <http://www.stuff.co.nz/taranaki-daily-news/news/9732724/Plaza-set-for-arty-makeover>

Venture Taranaki. (2013). *Live + work: Case studies*. Retrieved from <http://liveandwork.taranaki.info/casestudy.php/page/case-studies>

Venture Taranaki. (2013). *Trends: Taranaki facts and figures, October 2013 six monthly report*. Retrieved from [http://www.taranaki.info/admin/data/business/taranaki\\_trends\\_\\_october\\_13\\_\\_web.pdf](http://www.taranaki.info/admin/data/business/taranaki_trends__october_13__web.pdf)

Vliet, V. (1998). *The Encyclopedia of housing*. Calif: Sage.

von Roon, M., & von Roon, H. (2009). *Landcare Research Science Series No. 37: Low impact urban design and development- the big picture*. Lincoln, NZ: Manaaki Whenua Press.

Waghorn, B. (2011). Urban Intensification in Auckland: are we growing smarter? In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification in New Zealand* (pp. 47-63). Wellington, NZ: New Zealand Centre for Sustainable Cities.

Wilson, L. (2013). The 800 metre circle: does it best represent transit station walking catchments in Auckland? *Planning Quarterly* , 16-18.

Winston, N. (2010). Regeneration for sustainable communities? barriers to implementing sustainable housing in urban areas. *Sustainable Development* , 319-330.

Witten, K., & Abrahamse, W. (2011). Looking back to look ahead. In K. Witten, W. Abrahamse, & K. Stuart, *Growth misconduct: avoiding sprawl and improving urban intensification in New Zealand* (pp. 189-198). Wellington, NZ: New Zealand Centre for Sustainable Cities.

Yuen, B., & Ooi, G. L. (2010). Introduction: world cities, challenges of liveability, sustainability and vibrancy. In B. Yuen, & G. L. Ooi, *World cities: achieving liveability and vibrancy* (pp. 1-12). Singapore: World Scientific Publishing Co.

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