Improving the Design, Quality and Affordability of Residential Intensification in New Zealand

Working Paper 1: Policy and Practice Literature Review

Prepared for the Centre for Housing Research, Aotearoa New Zealand

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Summary

This summary outlines each of the sections in this report and their main conclusions.

SECTION 1: INTRODUCTION

Purpose

This study is intended to identify features of residential intensification that need to be addressed to make higher density housing a more attractive option for more New Zealanders. The goal is:

"improve the design, quality, and affordability of residential intensification in New Zealand in order to make it a more attractive housing option."

Urban Intensification and Residential Density

Intensification is advanced as a response to the challenge that increasing urbanisation places on both the resources consumed in urban areas and the competitiveness of cities. Increasing residential densities is promoted as one of the package of measures that can help achieve this.

Higher densities can be brought about by limiting the outward expansion of cities, creating zones allowing various forms of multi-unit development, redeveloping brownfield sites, providing for mixed use (encouraging housing, commercial, and service activities to locate close together), infilling underdeveloped sites, promoting increased inner city living, and redeveloping town centres.

The success of policies for residential intensification has been mixed, one issue being market resistance. This working paper is intended to consolidate information about "*what is preventing more New Zealanders from adopting the smaller dwellings or sites associated with higher density housing?*" and identify changes in design, quality and affordability that might lower that resistance.

It sets the context for the research conducted in the balance of the study.

SECTION 2: WHAT IS RESIDENTIAL INTENSIFICATION?

Housing Density

Housing, dwelling, or *residential density* is based usually on dwelling units per hectare (DPH). However, density is not straightforward in terms of technical consistency or perceived meaning.

Perceived density is based on individuals' estimates of people in a given area and the organisation of the space available. Crowding occurs when this perception is negative. The same density can be evaluated differently under different circumstances, by different people, and in different cultures.

The denominator in the equation, the *area of land* may be defined by site, street, suburb, or city. It may exclude non-residential land uses, although this is inconsistent with promoting mixed use where the presence, style, and condition of non-residential buildings will influence perceived density.

Density may also be measured by reference to habitable rooms per hectare (RPH – used as a technical indicator of crowding) or people per hectare (PPH).

Housing density may be divided between *low, medium*, and *high* to help set policy targets. These terms are context specific and associated with different building styles. Intensification can be achieved by promoting different housing styles, from detached through semi-detached and terrace housing, to apartment buildings of varying mass.

For present purposes, we suggest a multi-layered definition that embodies the normative drive for intensification, without referring to the higher order policy objectives behind this:

Higher residential densities are achieved by increasing the number of dwellings in a given neighbourhood through both increasing the land available to housing and lifting the share of multi-unit dwellings in a manner that encourages an increase in the population and thereby contributes to more intensive land use across the city as a whole.

Quality

Quality is subjective and closely related to design. Design, in turn, will influence costs and therefore affordability.

For dwellings quality is likely to refer to the scale and arrangement of internal space (functionality), appearance (aesthetics), arrangement of the site and relationship with other structures and the road; integrity or standard of materials; and the standard of design and construction. Affordability may determine quality defined in these terms.

Quality at the national level is perceived in terms of "*health and safety, amenity, functionality and efficiency*" and therefore can be aligned to a considerable extent to the age of existing stock. Modernisation is seen as an important part of improving quality.

Quality also relates to design at street level, covering the arrangement of dwellings, relationships between lots, streets, and neighbours. At a higher level again, it relates to urban design and the perception of neighbourhood settings, including the arrangement of public and private space.

In each case, the nature of materials employed, the capacity of roads, other infrastructure, amenity and facilities are also be means by which design influences quality.

Affordability

Housing affordability is generally treated as a collective term relating median incomes to house prices. While there are variants on this, defining affordability to reflect the relationship between household earnings and the cost of ownership treats it as a social issue. This may not help understand the role of affordability in the uptake of higher density housing, where the key is the trade-offs made by households between different housing attributes and the capacity to pay.

Ideally, the present research will inform policies that go beyond simple target setting in terms of gross densities and social affordability and provide insight into the aspirations, dwelling preferences, and constraints facing households when they move that might be reflected in the nature of housing of a higher density than associated with a traditional suburb.

The Nature of the Housing Market

In order to understand demand, consideration has to be given to how housing markets operate. Participants are neither fully informed nor fully rational. At the same time, the mechanisms through which housing supply is increased are complex, contested, and drawn out. The differentiated nature of supply and the fragmented nature of demand make it difficult to define markets clearly.

Space plays an important role in defining housing submarkets. Geographic submarkets may be defined at various levels. Economic models treat space as limiting information and thereby confining the bulk of transactions to relatively localised neighbourhoods.

Housing markets are almost always regulated. Largely qualitative regulations are aimed at ensure the structural integrity of dwellings. Planning controls which are more concerned with avoiding or managing externalities rely on more quantitative regulations and influence the supply of land.

Demand

In the long-run, home ownership is a function of income growth and the accumulation of wealth. Tenure (rental versus ownership) may reflect the distribution of wealth, stage of development, community stability, and the rate of growth.

Price as the mediating influence between demand and supply is influenced by the fact that housing is a large capital expense for households, usually funded through long-term borrowing. In addition to the price of housing, the cost of capital, current interest rates and expectations for future rates, and transaction costs influence demand, especially in the short-term.

Diversity of demand is typically described in terms of lifecycle groups based on demographic cohorts. Markets may be better seen as fragmented and complex with a variety of potential paths forward (and backward) through a "housing career". Heterogeneity, leads to "sub-markets" for housing with affordability related to the capacity of different segments to purchase different styles of housing but with households generally operating within sub-regional or neighbourhood-based markets.

SECTION 3: HIGH DENSITY HOUSING IN NEW ZELAND

A History of Detached Housing

A preference for detached housing established in the European settler community in New Zealand was sustained through the 19th and 20th centuries. Even public housing provided through state programmes to cope with rapid growth or meet social needs have long favoured single-unit homes and some diversity of design.

In some instances, local government provided social housing. Councils, more than central government, favoured multi-unit apartment buildings as the most efficient way of doing this.

Either by design or accident the state housing sector has reinforced the sense of entitlement to single unit housing in the public mind. Its early forays into multi-unit housing were not well received. Through them it has created an association among multi-unit housing, low incomes, social deprivation, and rental tenancies.

The Push for Higher Density Cities in New Zealand

Central government began to promote higher density housing in the 1970s and 1980s, mainly in recognition of the demographic promise of smaller households as the population ages. 1997 and 1998 reviews by the Parliamentary Commissioner for the Environment then promoted medium and high density housing to reduce car dependence and associated fuel consumption and emissions.

In 2002 the Ministry for the Environment looked at growth management in the United States and advanced the view that it should take place at a metropolitan-wide level on a comprehensive basis. The Ministry took the lead by developing an urban design guide and protocol. These highlighted the need to design for medium and higher density housing and increasing residential density as contributing to good urban design.

The rationales for lifting residential densities have multiplied over time. The advantages and objectives have progressed from responding to the needs of smaller households, through increasing household densities in the interests of infrastructure efficiency, protecting productive rural land, reducing environmental impacts, enhancing urban design, offering greater housing choice and affordability, improving movement and accessibility, to promoting a greater sense of community.

Auckland

During the 1980s the Auckland Regional Council shifted from promoting growth across the region and investigating satellite settlement to focus on higher densities within the existing built up area. This led to the formalisation of Metropolitan Urban Limits as a method of containing growth and a commitment to the intensification of selected commercial centres, including the CBD.

Other cities followed the Auckland lead, although the scale of the issues is generally much less. The Western Bay of Plenty and Tauranga combined to develop an urban development strategy for the based on increasing the density of housing in Tauranga. The Waikato Regional Council and Hamilton City in the North Island and the Canterbury Regional Council, Waimakariri and Selwyn Districts, and Christchurch City in the South each combined to promote urban limits and intensification.

In each case, the rationale is presented in terms of the reduced resource impacts associated with high rather than low density development, the latter consuming more land and requiring more

transport resources than the former. The promotion of multi-unit housing in close proximity to commercial centres, including but not limited to the CBD, is also seen to increase housing choice.

The Auckland Experience

The Auckland Regional Growth Strategy (ARGS) suggested that over the 50 years from 1996 more than 50% of population growth (465,000 people) would need to be accommodated in multi-unit housing. This represented a significant broadening of housing stock.

However, surveys suggested that planning procedures and development costs hinder intensification. Also, issues around the quality of multi-unit accommodation impact badly on the perception of high density housing.

Nevertheless, the push for residential intensification has continued though a number of initiatives, including the Auckland Sustainable Cities, involving central and local government, and the Sustainable Auckland Region programme involving the local councils.

Despite this policy activity, a review in 2005 noted

> *"that intensified housing is associated with poor quality design and low amenity. ... specific issues raised include poor quality construction; concern about long-term maintenance; poor layout; insufficient space; and lack of integration with surroundings"* (Syme et al, 2005).

A key finding was the strength of community resistance to intensification, and the fear that intensive housing projects become "*the slums of the future*". The authors concluded that sound decision-making, adaptability and flexibility were important if intensification was to win greater acceptance.

Community resistance to high density living, especially away from the city centre, was confirmed in a 2007 update report. Among other things it called for a better understanding of market motivators, clarification of the benefits of intensive housing, and a focus by developers on end users – residents – rather than investors. The review also acknowledged consumer concerns over the urban environment associated with intensification and about the design of the multi- unit dwellings.

There has been some response to barriers to adoption of increased residential density. The Auckland Regional Council committed a website to making the case for higher residential densities and offers guidebooks on purchasing multi-unit housing and on the operation of bodies corporate. The review of the Growth Strategy recommended reinforcing regulations to elicit investment in the intensification of town centres and improving the environment for higher density living.

Despite such initiatives, the tendency has been to identify the suppliers, developers, as "the market" rather than the consumers, residents, with the result that the focus has been on physical parameters and regulations rather than on housing preferences. . Another approach has been to assume that demographic change can be sued to estimate future housing need and provide sufficient insight into the nature of demand to support predictions of housing uptake by type and locality. Changing household character and taste is recognised only by reference to the greater variety of housing style.

Market Perspectives

The lag in the expected uptake of higher density housing suggests that these proxies for market analysis have been inadequate for policy or plan making, overestimating the appetite for smaller dwellings and underestimating resistance to greater densities.

However, there has been some research in New Zealand into residential housing preferences that can be used to inform policies directed at intensification, often of an academic nature. For example, one national survey established that 80% of respondents favoured a detached house and just 4% an apartment (Preval et al, 2010).

Research in Christchurch highlighted strong resistance to infill housing among residents, and the way it was seen to contradict the heritage and history of a "garden city" and undermine an established and valued way of suburban life intimately linked with family and social relations.

Even inner city residents of medium density housing were concerned about the intrusive nature of any further increase in densities and the lower quality of development and standards of living they are associated with. On equity grounds increased density was seen as actually lowering the social sustainability of housing.

Auckland City Council conduced its own research among residents of higher density housing in central Auckland. It noted the youthful age bias associated with inner city living and the large number of single person households. It also noted a reduction in people's sense of security in that housing environment. Other sources of dissatisfaction included noise, small units, lack of outdoor living spaces, and lack of a sense of community.

Work into the roles of bodies corporate and the implications of gated communities in Auckland appears to add to the negative connotations of intensive housing. Surveys of the recently established Flat Bush community indicate that people were attracted there mainly by the capacity to trade up to a detached house with more room. They enjoyed the sense of community and had misgivings over the prospect of higher density development in the next stage of development. Apartments, for example, are associated with crowding, loss of the sense of neighbourhood, and the increased insecurity which comes from more people on the street, and knowing fewer of them.

Overview: New Zealand Experience

Residential intensification has been promoted nationally as a means of reducing the environmental impact of urban development. The benefits cited have progressed from accommodating increased household numbers through achieving enhanced resource management, reducing reliance on private cars and boosting public transport, promoting quality urban design, offering greater housing choice, and increasing the sense of community.

In other words, the rationale for increasing residential densities is a commitment to compact cities. The evidence suggests that relatively limited progress has been made, though, because of:

- Entrenched market resistance to multi-unit housing associated with long-standing cultural preferences and a historical experience.
- A long-standing association of multi-unit developments with inferior housing and a negative social association associated with transiency, poverty, and criminality.
- The difficulty the market faces delivering quality intensive housing that can compete with the alternatives in a suburban environment where multi-unit housing is seen as an inferior good;
- Concerns over bodies corporate and the implications of gated communities;
- The impact of changes to the neighbourhood environment on existing residents and a resistance to urban density generally; i.e., including non-residential uses.

Much of the resistance may simply be a common response to change, and with the appropriate policies might diminish over time. This makes it important, though, to ensure that future higher density living is not contaminated by perceptions of poor design, poor governance, and poor management of "private public" spaces within medium density developments.

There is demand for quality, inner city and coastal apartments. There are issues of supply in these submarkets, though, and they are likely to be limited in size and impact.

The fact that the market for intensification is limited has led to several responses: a search for better (or stronger) regulations; educating developers and consumers about the merits of intensification; and encouraging developers to upgrade a product currently viewed as inferior, without reducing affordability. These responses, though, may not address what the market wants.

SECTION 4: A MARKET PERSPECTIVE

This section reviews international literature dealing with the apparent conflict between the policy preference for high density housing and a consumer preference for lower densities.

Most People Would Prefer Lower Density Housing

The international literature reveals that resistance to increased housing densities is long-standing and widespread, frustrating the proponents of compact cities in Australia, the USA, and the UK.

The slow rate of adoption may be a response to structural factors or misplaced market expectations. Structural constraints occur when the location and character of new housing is out of kilter with market needs. Misplaced market expectations occur when policy objectives do not accord with market preferences. Even when the public at large expresses a preference for density through submissions on planning documents, apparently endorsing compact cities, this does not necessarily follow through into preferences by individual households.

The discord between stated preferences – especially collective preferences – and actual decisions (or revealed preferences) has been noted widely. A review of some 14 analyses (most of which also review a substantial amount of precedent literature) leads to a fundamental finding: *almost universally there is a majority preference for detached housing and resistance to increasing densities.*

This is by no means absolute, with a significant minority preference for inner city, higher density housing, and it could change in the future. In addition, there is a long standing tradition of higher density housing in the United Kingdom and parts of Europe where the response to post-war housing stress was the creation of high or medium rise housing states, either in the city in places like London, Glasgow, or Edinburgh, or in new towns on their fringes or

There is evidence that the way in which higher density living is presented to people today, both the attributes emphasised and the language used, can influence stated preferences. What people say in response to formal surveys or submission seeking based on societal outcomes may be contrary to the core values that inform personal preference and individual choice of lower rather than higher densities. Consequently people belie in their behaviour what they apparently support in principle.

Based on this review it is difficult to envisage a substantial shift in preferences in the foreseeable future sufficient to support the level of intensification required to significantly change urban form.

Targets and Transitions

Nevertheless, the research indicates where "target segments" for density might be drawn from:

- Young single adults or couples who value a location in and around the CBD;
- Disadvantaged minorities, including migrants, needing low cost, social housing;
- Older singles or couples, including empty nesters, with the capacity to purchase the qualities of their established lifestyles (space, privacy, security) in a multi-unit setting.

Of these, only the first group may have a natural preference for centralised housing. The second group may occupy inner city housing to the extent that it is constrained by the distribution of low cost or public housing stock. The third group may accept centralised housing providing it is of sufficient quality. They are more likely, however, to seek to stay in the neighbourhood they are familiar with, perhaps moving into a well appointed, managed, suburban complex (which may be a retirement village).

Families would appear to be "off the radar" for higher density living at the moment, unless they are "in transition" (most often recent migrants) or fall into the social housing category.

Encouraging the uptake of multi-unit housing, therefore, may be more about influencing decisions at the margin than seeking to engender a wholesale change in the values associated with housing

preferences. What may be required is to encourage those with an unfulfilled, perhaps weak, preference for higher density to make a change as and when their circumstances shift. However, this needs to be done in a setting in which most shifts have traditionally been to less centralised locations and larger houses.

Motivation and Values

Understanding the motivations of people in the housing market means understanding the values associated with housing in general. The collection of key attributes –safety, security, space, and ambience (or aesthetics) – which people seek, especially as they move through family formation and raising children, can be encapsulated in the notion of *domain*. This incorporates ownership (security) and control (privacy), a distinctive physical entity or territory (a detached house and yard), aesthetics (a garden, views, open spaces), and a place in the local community (belonging).

As domain strengthens, people are less likely to move out of their current neighbourhood and perhaps surrounding neighbourhoods even when they do shift.

The attributes of domain will differ among groups: young families and older families; young single people or couples, and migrants. Adopting this view of the meaning of housing, though, suggests that apartments in inner city locations are more significant in terms of change and transience in living arrangements, career commencement and progress, and personal relationships, than in terms of attachment to place. As a living arrangement, they are intrinsically unstable. In a sense, one's domain is not fully formed in inner-city (or town centre) high density housing. It may be this sense of impermanence that colours judgements of multi-unit living by other, more settled groups.

(This ignores the top end of the market, however, where high net worth individuals can purchase a high quality apartments and recreate their sense of domain in favoured, usually waterside, apartments in the inner city, even if those apartments are one of two homes).

These conclusions are consistent with the finding that ageing alone is not sufficient to trigger a reduction in house size and a shift towards the "amenity-rich" city and town centres. The assumption that a reduction in household size would be accompanied by relocation into centres might be one reason smaller units have not been taken up as much as anticipated, at least until now.

Broadening the appeal of multi-unit or high density housing, then, may mean ensuring that it can create the same sense of domain that households achieve most readily from suburban living. Because this is likely to be unaffordable for the majority of households in central localities, it is likely to be most easily achieved in the neighbourhoods people are familiar with.

Incidentally, this is consistent with the diverse location of private sector retirement villages, many of which reproduce the attributes of domain (open space, security, diversity of structures, the capacity to create an individual identity around a courtyard or garden) while maintaining reasonable proximity to services and amenities in a suburban environment.

1 Introduction

1.1 Aim

The goal of this study is to identify those features of residential intensification that need to be addressed to make higher density housing a relatively more attractive option for more New Zealanders. It is intended that the results of the research will help to:

"*improve the design, quality, and affordability of residential intensification in New Zealand in order to make it a more attractive housing option*."

1.2 Outline of the Study

This goal has been pursued by several means. The first is a review of some of the extensive literature dealing with this issue in New Zealand and internationally. This is the subject of Working Paper 1. It reveals key areas that might be considered to increase the acceptability of higher density housing. It also helps to refine the issues on which to focus in the balance of the study.

The literature review is accompanied by a closer look at the data to see how plans for increasing residential intensification in New Zealand have progressed using existing evidence. Through this, Working Paper 2 helps to focus the study on the demand side of the supply and demand equation, the focus of the original market-based research reported in subsequent working papers.

Working papers 1 and 2 set the context for the market research into demand that forms the core of this study. Working Paper 3 explores the barriers to adoption of residential housing, reporting on the outcome of qualitative research (focus groups) among people who have not taken up more intensive housing. This contrasts with Working Paper 4 which reports on residents of selected examples of more intensive housing. Working Paper 5 then steps back to reflect the views of stakeholders (designers, developers, and planners) about the ingredients of success (or otherwise) associated with these examples of high density residential development.

The findings of these various working papers will be brought together in a final report on the study.

This is the first report of the study, Working Paper 1, containing the results of the literature review.

1.3 The Solution and the Problem of Higher Density Housing

Urban intensification is advanced as a planning response to the challenge that increasing urbanisation places on both the resources consumed and the competitiveness of cities (Ministry for the Environment, 2005, SGS, 2006; Urban Task Force, 2009). These pressures include the absorption of agricultural land, the efficient provision of infrastructure (Neutze, 1997), consumption of energy, especially in the form of transport fuels, and the generation of exhaust emissions, including the greenhouse gases of carbon dioxide, nitrous oxide and methane, and chlorofluorocarbons. Other benefits have been attributed to higher density living, including a greater capacity to satisfy personal and household needs in the local area, contributing to a sense of community, the promotion of good health by encouraging walking and cycling (e.g., Public Health Advisory Committee, 2008), and improved productivity from agglomeration advantages (e.g. Mare, 2008).

Much is also made of the prospect of increasing housing choice through intensification to reflect demographic shifts in the housing market. These include a growing number of one parent households, on the one hand, and two person no children households (young couples, empty nesters, and retirees), on the other. Having greater choice of smaller units is seen as one way of responding to these changes.

Residential densities can be lifted by limiting the outward expansion of cities, creating zones where higher densities are permitted or encouraged, redeveloping brownfield, inner city sites for

apartment or terrace housing, providing for mixed use (encouraging housing, employment, retailing, services such as schools and medical centres, to locate closer together), infilling undeveloped or underdeveloped tracts and sites, promoting increased inner city living with easy access to central facilities, through conversion of existing commercial buildings and construction on brownfield sites, and redevelopment of town centres to increase the level of local amenity. These sorts of policy span citywide, suburban, and local land use, as well as provisions made for the dwellings themselves.

The success of these policies has, however, been limited to date, with market resistance to residential intensification. This has been the subject of a number of studies. However, they have been general in nature and paid only limited attention to the nature of demand (Mead et al., 2007). This study addresses that gap by identifying what is required to lift the market acceptance of residential intensification and encourage more households to adopt higher density living.

1.4 Scope of this Working Paper

The present report is intended to consolidate the information base behind the implicit question of "*what is preventing more New Zealanders from adopting the smaller dwellings or sites associated with higher density housing?*", and to identify those changes in design, quality and affordability that might lower that resistance.

It is required to cover such things as:

- Relevant definitions;
- The relationship between affordability and density;
- The place of location in the trade-offs made in housing choice;
- Barriers to implementation and responses;
- Anticipated benefits and disadvantages of intensive housing;
- Issues affecting housing for diverse communities;
- The significance of tenure;
- The segmentation of housing demand;
- The role of the body corporate;
- New Zealand example;
- Guidelines, including both overseas and New Zealand examples.

Section 1.5 introduces the source of information considered in the course of this review. It focuses on institutional (relevant housing and research agencies), academic, and policy evaluations in New Zealand, Australia, the United Kingdom and Canada.

The review proper commences with a discussion of definitions to ensure a clear understanding of what is involved in intensification (Section 2). A holistic approach is adopted that suggests the market responds not simply to the design of an individual dwelling, but to the sum of the components that make up the experience of higher density living. Definitions therefore have to cover notions of intensification at an aggregate (regional, metropolitan, suburban) level right through to the sorts of parameters that apply to individual dwellings. Similarly, issues of design, affordability, and quality need to relate to these different levels.

Section 2 also includes a discussion of the nature of housing markets, in terms of their spatial and temporal nature (based on how housing stock is used as it ages, on the one hand, and how dwelling demands for households change as they move through different lifecycle stages, on the other).

Section 3 reviews experience with residential intensification in New Zealand, and analyses that have considered the success or otherwise of intensification policies. Much of this has been prepared under the auspices of the Auckland Regional Council and therefore relates primarily to Auckland, which is considered in more detail in Section 4.

Section 5 deals with international research into the market acceptability of higher density housing. Recent experience in Australia, the United Kingdom, and Canada help to set the New Zealand experience in a wider context. Section 6 considers overseas responses to market resistance by way of guidelines prepared by various agencies that might offer a way forward in New Zealand.

1.5 Sources

There is extensive academic, grey and professional literature that deals with housing demand and supply which has a bearing either directly or indirectly on promoting residential intensification. Our method of dealing with this literature is to focus on those demand issues which appear particularly pertinent to New Zealand and which appear amenable to a policy response.

The academic literature is found in a range of refereed texts and journals dealing with housing, the built environment, regional and urban development.

In addition, there are a number of academic centres focused on housing research. While their output includes books and articles, they also contribute to the grey literature in the field. Grey literature comprises reports and papers disseminated through non-commercial publishing channels, and not necessarily subject to rigorous review or editorial processes. Much of this material comes from literature dealing with social, political, and developmental issues around housing.

There is a cross-over between academic and grey literature to the extent that partial, interim or even final academic papers might be distributed directly by specialist research centres or as occasional papers by academic departments. Indeed, with the advent of web-based publishing, the grey literature probably dominates the housing field in terms of quantity of material published.

The final category is professional literature. This overlaps the other categories, to the extent that "professional" housing and planning material may be published through academic or grey channels, For present purposes, the professional literature is treated mainly as literature published by central or local government departments with a direct responsibility for policy development and implementation.

2 What is Residential Intensification?

Residential intensification is associated with the growth of urban areas and is a process through which the number of dwellings per unit area increases over time. [1] This is generally accompanied by an increase in the number of residents in the area, although given any movement towards smaller household sizes or towards increasing space requirements, the rate of population intensification is unlikely to be as rapid as the rate of housing intensification (Whitehead 2008).

This section reviews definitions underlying and associated with residential intensification, including urban form and dwelling characteristics that are an intrinsic part of it, and some of the associated precepts around urban planning and policy, and then looks at how the housing market operates.

[1] This is not inevitable. Breugmann (2006) documents the long term trend towards lower residential densities as a result of increasing affluence.

2.1 Definitions of Density

Housing, dwelling or *residential density* is the indicator used to assess trends towards or compare differences between housing's contribution to urban intensification. Usually it refers to the number of dwelling units per unit area of land, per hectare (DPH). While on the surface density as a quantitative term is objective and unambiguous, this is not the case, particularly when it comes to how it affects people's lives.

Alexander (1993) distinguished among objective or spatial density (a ratio with area as the denominator), perceived density, and crowding. Perceived density is based on "*an individual's estimate of the number of people present in a given area, the space available, and the organization of that space*", influenced by "*cues in the environment that represent people and their activities*" (Rapoport, 1975).

Crowding occurs when perceived density, a psychological outcome, "is negative". Perceived density and crowding:

> *"are based on the principle that the same density can be perceived and evaluated in very different ways, by different people, under different circumstances, in different cultures and countries" (Churchman, 1999, 390).*

While Forsythe (2003, 4) cautions against confusing density with measures of crowding, which is usually measured as persons per room, bedroom, or unit area (square metre) of housing), there may well be an association between housing density and crowding in both public and private space, which will be mediated by culture and setting.

Indeed, definitions of density may vary with context. Ordinal classifications (e.g., high, medium, low) may be calibrated to quite different densities depending on the country and its level of development. Different disciplines may also adopt different normative positions, psychologists, and public health practitioners having a different response to high density than perhaps environmentalists and sociologists (Churchman, 1999, 392-393).

2.1.1 Land Area

Both sides of the DPH ratio need careful definition when discussing or comparing densities. On the right hand side of the ratio the denominator, the area of land, may be limited to the residential site (in which case density is equivalent to site coverage and subject to bulk and site coverage regulations), the street, the suburb, the city, or the metropolitan area. In each case, dwelling densities will diminish as a result of the inclusion of more non-residential land. Hence, it is important to be specific about the level of comparison, both between areas and over time.

These different levels are related, though: policies facilitating or encouraging higher densities at the level of individual lots, sites, or subdivisions will lead to increased densities at successively higher levels, the neighbourhood, the suburb, and the city. Hence, lifting urban density will need policies that address site, street, suburb, and city-wide influences on adoption of more intensive housing.

There may also be occasions when it is sensible to strip out non-residential land uses in order to create a greater sense of housing density, although transport corridors and local or neighbourhood parks clearly contribute to the sense of intensity or otherwise. A typology of densities might also be recognised within residential areas. Churchman (1999, 391) cites parcel (site) and street density (parcels plus half the public right of way adjacent to parcels) as net measures and contrasts these with gross residential area density which includes those non-residential or public uses that serve local residents, such as parks and schools.

Densities for spatial units beyond residential areas will naturally be lower because of the inclusion of non-residential uses. However, stripping these activities out may be inconsistent with the promotion of mixed use to encourage intensification, when the residential densities may be low

relative to the density of the built environment in which they sit at street or neighbourhood level. Assessing residential densities –and attractiveness – is likely to be particularly difficult in mixed use zones. The presence, style, and condition of other buildings, for example, is likely to significantly influence perceived density and its impacts on the quality of the living environment.

There is another argument for leaving non-residential uses in the ratio to the extent that "*more inclusive densities are important measures* [in their own right] *and have much to say about such issues as the overall walkability of the site*" (Forsythe, 2003, p.3).

2.1.2 Dwelling Units

The numerator in the density ratio need not be limited to dwelling units. It may also be represented as habitable rooms per hectare (RPH) or people per hectare (PPH). These measures will usually move in the same direction although not necessarily at the same rate. Differences in rates of change between different density measures can tell us much about the changing market dynamics. For example; a movement of DPH ahead of PPH indicates a trend towards greater space requirements and/or smaller household sizes, while an increase of PPH ahead of RPH may signal overcrowding or housing stress.

Housing density is often divided between *high, medium and low density* as a means of setting policy targets although, as indicated above, these terms are context specific. The *Auckland Housing Choices* poster (Regional Growth Forum, 2003) guidelines suggested 25 DPH[2] as the boundary between low and medium density and 50 DPH as the boundary between medium and high.

The Housing Choices poster also indicates housing styles that meant to match different densities:

High Density (50+ DPH)

- Mid Rise apartments between 4 and 7 storeys
- High Rise apartments above 7 storeys

Medium Density (25-49 DPH)

- Mixed use developments (e.g. commercial on ground floor with residential above)
- Low Rise apartments less than 3 storeys
- Terraced houses
- Suburban housing

Home units or town houses (16-24 DPH)

Small lot or conventional suburban houses (8-12 DPH)

A key distinction between low rise and medium rise apartments is the requirement for a lift (mandatory in Australia) for apartments four storeys or greater.

Residential intensification may be achieved by moving up a category, the gain depending on both the starting point and the "steps up the ladder". Any such moves will be towards greater densities although the impacts on overall density (for the suburb or the metropolitan area) may be minimal.

Density is illustrated primarily with reference to different housing styles. Hence, the Auckland Housing Choice poster illustrates density shifts through images of buildings. The key shift from traditional or low density housing is represented as a shift away from detached housing. The different categories of multi-unit housing convey an increase in building mass, ranging from town houses (usually semi-detached, with one common wall), through terraces (in rows or around courts,

[2] Gross neighbourhood density including all land uses

each usually with two common walls) through low rise apartments unlikely to require lift facilities, through to multi-storey, lift-dependent blocks.

These physical (or architectural) representations do not refer to numbers of people, the massing of structures within neighbourhoods, or the place of mixed uses. Hence, an increase in housing densities may not be reflected in a commensurate increase in residents. For a start, the increase in RPH may be reduced if larger dwellings give way to smaller ones. In addition, the introduction of higher density apartments may displace families and cater instead cater for a growing number of one or two person households (Whitehead, 2008).

2.1.3 Infill Development

Infill development is defined generally as any new residential development "*on vacant, abandoned and underutilized property within built-up areas of existing communities*" Felt, 2007,1). In New Zealand Bray Sharpin (2006) outlined the different definitions employed by councils which covered:

- Any new dwellings constructed 'within the existing defined area of the city (Wellington)
- Simply increasing density over large suburban areas (Auckland regional Growth Forum)
- Only the construction of a new unit 'added to the section of an existing house (Christchurch)
- Additional dwellings on an individual residential site in an existing built up area (Auckland City
- Adding another house or houses to a site with an existing house (Parliamentary Commissioner for the Environment)

Based on her review, she settled on:

> *"The establishment of new dwellings within an existing suburb, facilitated by the division of existing residential properties into smaller sections by way of cross-easing, or subdivision into fee-simple or unit titles" (Bray Sharpin, 2006, 14).*

On this basis, infill development is one means by which densities might be raised, primarily by increasing the density of detached dwellings in existing suburban areas. It is a more limited form of intensification than others simply because when it takes place largely through the construction of a second dwelling on a site it does not facilitate the greater increase in land occupancy possible with multi-unit structures. Usually, however, these (apartments) require the assembly of tracts of land that are typically four or more times the size of a typical suburban plot. Either way, there is always the possibility that infill based on redeveloping inner city precincts may displace as many people as it houses, or more, when it involves clearance of older, crowded, low income suburbs.

2.2 Quality

Even more than density, perhaps, quality of design is a subjective attribute. With respect to dwellings, they may refer to the arrangement of internal space –architectural and design issues; external appearance of the built structure, an architectural issue; the integrity or standard of materials and construction, building and engineering issues; and the provision and organisation of external space. In all of this, functionality needs to play a formative role, while affordability may place constraints on what level of quality can be delivered and what trade-offs may be needed.

With respect to residential development generally quality may refer to the collective impact of dwellings and the balance between harmony and diversity in their design; the balance and distribution of public and private space; the street and path networks; and the appointment of amenities including gardens and trees, playgrounds, quiet areas and places of assembly. These are areas subject to the urban and landscape design disciplines, although the quality of a neighbourhood may more often than not reflect its evolution and the natural emergence of a sense of place and character as much as it might the application of design principles and practice.

The New Zealand Housing Strategy (Housing NZ Corporation, 2005) promotes an improvement in the quality of the country's housing stock by:

> *"updating regulatory frameworks and housing standards, implementing initiatives focused on energy efficiency and housing related health matters, and encouraging innovation in design and development" (44).*

Quality at the national level is perceived in terms of "*health and safety, amenity, functionality and efficiency*" and associated to a considerable extent to the age of existing stock. Modernisation is seen as an important element in the Strategy, especially as it relates to housing and energy.

Public submissions to the Strategy suggested that:

> *"a house should live up to certain requirements resulting in quality. The first and foremost requirement is sustainability in every aspect of the house: its location, purpose, materials, energy efficiency, self-sufficiency, durability, availability and affordability" (Gravitas, 2004, 55).*

The key initiatives include revision of the regulatory framework through the Building Act and reviews of the Building Code and housing standards, advancing energy efficiency and modernisation, and promoting good design (Housing NZ Corporation, 50).

2.2.1 Affordability

In its review of the Auckland housing market, Darrochs defined housing affordability on the basis of the median gross household income relative to the cost of a median rental for a three bedroom dwelling and the purchase price of a dwelling at the lower quartile price. The affordable price is what a household on the median gross household income can afford to pay "under standard bank lending conditions" (Darroch, 2010, 26-27).

The Massey University Home Affordability Survey uses an index based on relating the cost of ownership (a weighted mortgage interest rate related to the median dwelling price) to average weekly earnings which represent the money available to the family or household unit (Hargreaves and Fong Mee, 2010, 4).

Affordability is usually measured in relative terms, reflecting the relationship between household earnings and the cost of ownership as influenced by house prices. As such, the notion of affordability and its measurement has been focused on the cost of housing as a social issue associated with low cost housing. While there has been debate about the relevance of the median house price (or lower quartile as used by Darroch), the key has been the establishment of benchmarks with which to compare or track collective affordability.

2.3 Targets for Residential Intensification

Where adopted for planning purposes housing densities become the targets through which intensification will be achieved. Dwelling guidelines indicate the sort of housing stock required to achieve them. For example, Auckland City Residential 8 Zone provides for residential densities of 100 DPH or more. These provisions combined with allowance for minimum floor areas of $40m^2$ provide opportunities for increasing the numbers of medium to high-rise apartments in the zone.

Planning targets and typologies do not necessarily deliver the desired intensification however. Rather than simply providing for conditions that allow intensification, policies may need to be more wide-ranging if the desired outcome (at least in terms of densities) is to be achieved. They need to deal with the consequences for physical and social infrastructure, for example, the impact on the quality of the physical environment in an area, and the level of associated amenities. In short, the policies required to bring about a movement towards intensification need to range beyond housing specifications and address factors that might influence households to choose to live in more intensive residential environments.

There has been a suggestion of coercion in policies designed to encourage residential intensification in the past, seeking to limit the outward expansion of metropolitan areas as a means of constraining the alternative of traditional suburban densities. On a more positive note, there has also been concern for enhancing commercial centres to provide the local neighbourhood amenity and to orient public transport service to make areas targeted for intensification more appealing.

The record to date (discussed in Section 3, below, and Working Paper 2) suggests that this has not been enough to substantially shift demand. This research should cast light on the levers that might encourage adoption of higher dwelling densities than has been the case in New Zealand to date.

In this way the research might inform policies that can be directed beyond simple target setting and indicate measures to cater to the aspirations and preferences of the households that make up the demand side of the housing market.

2.4 The Housing Market

The study objective implies that actions can be taken to change the design, quality, and affordability of higher density housing, increasing its uptake. This suggests that the relevant measures might lift demand and increase total market size, or that it might act as a substitute for other forms of housing, thereby changing the composition of the market, or both.

This section addresses the nature of housing markets generally in order to provide a theoretically informed basis for considering the relationship between the supply of and demand for housing and, particularly, the drivers of housing purchasing decisions which will influence the uptake of dwellings at higher than prevailing densities.

2.4.1 The Nature of Housing Markets

The housing market has come under scrutiny over the past ten years because of concerns over diminishing affordability. Under a conventional neoclassical economic model diminishing supply increases costs. This should in turn encourage additional supply, with prices reaching the point at which demand more or less matches supply. Where price adjustments do not induce equilibrium, or where they do not approach uniformity once transport prices are taken into account, Stigler and Sherwin concluded that different markets are in operation (Stigler and Sherwin, 1985) calling for consideration of differentiated markets within the same commodity class.

For all the usual reasons, housing markets do not reach equilibrium. Participants in the market are neither fully informed nor fully rational. The sticky nature of markets over time is particularly relevant as the mechanisms through which supply might be increased are complex, often contested, and can be drawn out. The differentiated nature of supply and the fragmented nature of demand make it difficult to even define markets clearly. In other words, a generic approach to housing markets would fail the Stigler and Sherwin test.

Space plays an important role in defining housing submarkets and has been at the heart of much empirical analysis. Spatial submarkets may be defined at various levels of disaggregation, with economic models treating space as limiting purchasers' information and thereby acting to confine the bulk of transactions to relatively localised neighbourhoods.

Compounding these sources of complexity in housing markets is the fact that they are almost always regulated. In simple terms, housing market regulations can be divided into two groups: largely qualitative regulations are aimed at setting quality standards for materials, engineering, and building to ensure the integrity of dwellings. Planning controls rely on more quantitative regulations; and influence the absolute supply of land. In practice, the two groups are related. High standards may constrain supply if they are difficult to accommodate or force costs up too far. Or planning regulations may call for particular house styles which, in turn, influence building standards.

2.4.2 Supply

In physical terms, the supply of housing stock is influenced by the supply of suitable land and the capacity of the construction sector. In both cases, there may be a significant lag between an increase in demand and an increase in supply, the former through changes to town, city, or district plans and the latter as the sector responds through such things as recruitment and training and stepping up its level of commitment.

The regulations applied to land will also influence supply insofar as they influence the number of dwelling units that can be created.

2.4.3 Demand

In the long-run, home ownership (including investment housing) is a function of income growth and the accumulation of wealth. Housing tenure – the split between renting, partial, and outright ownership – is a different matter. It may reflect the distribution of wealth, the stage of economic development, community coherence (transience being a key indicator), and the growth rate.

Price as the mediating influence between demand and supply is influenced by the fact that housing is a large capital expense for households and usually needs to be funded through long-term borrowing. Hence, the cost of capital, the current interest on home loans and expectations for future rates and not just house prices influence demand, especially in the short-term. Changes in the real costs of housing viz-a-viz household incomes will be influential in the medium term.

Transaction costs in the housing market are also high. These include search costs, legal fees, agent fees, the cost of securing a mortgage, and moving costs. There may be other consequential costs associated with, say increased commuting. There is also the uncertainty associated with participation in two significant market transactions simultaneously for many purchasers – selling and buying – which will impact on the purchase made and may raise its own holding costs.

Bayer et al. (2007) point out that these factors create an inefficient market:

> *[because] the existence of large transaction costs, the predominance of owner-occupancy in large segments of the market, and the inherent difficulty of holding short positions [e.g., aligning often conditional sales and purchase agreements across a chain of properties] limit the ability of professionals to eliminate pricing inefficiencies in the housing market. As a result, housing prices exhibit time-series properties ... that are inconsistent with the standard implications of the efficient market hypothesis. In particular, previous research has consistently documented that prices exhibit positive persistence (inertia) in the short-run (annually) and mean reversion in the longer run (five years)"* (Bayer et al., 3).

Other attributes of the housing market that mean it is unlikely to operate rationally in the short-run include the expectation on the part of purchasers that prices will appreciate. As the single largest purchase for many households, houses have become a significant asset which since the 1950s has come to be seen as subject to more or less continuous appreciation. Even as that expectation has diminished recently, the home remains for most households their most significant repository of wealth and may continue to support further borrowing – for investment or consumption.

Limited spatial search may be characterised as an information failure in economic terms. It is, however, a prevailing behavioural response to the greater knowledge of or certainty provided by familiarity with a given neighbourhood and its amenities, including education and health care facilities, and with membership of a familiar and potentially homogeneous community. It may also reflect the different nature of dwelling type in different areas, with limited substitution discouraging search across and movement between areas.

Limited search behaviour contributes to segregation among different housing areas (housing submarkets or neighbourhoods). Segregation may develop on ethnic or cultural grounds through

various forms of chain migration. These may include arrangements among extended families to encourage settlement of later arrivals close to earlier arrivals in the host city. The emergence of distinctive cultural pockets is reinforced when culturally familiar facilities and institutions (shops, restaurants, schools, and places of worship reflecting the culture at the origin rather than destination) attract settlers to particular localities within otherwise unfamiliar urban environments.

2.4.4 Heterogeneity in Housing Markets

Spatial Submarkets

Housing submarkets are the focus of most analysis of housing demand behaviour. While housing markets might be defined at the regional or urban-wide level (e.g. Meens, 2001; Grimes and Aitken, 2005; Darroch Ltd, 2010), empirical studies demonstrate a strong tendency for buyers to operate in more restricted areas (Jones and Watkins, 2009).

Through much of the 20th century housing markets were analysed in terms of succession, drawing on theories derived from the human ecology movement in sociology at the University of Chicago (Hoyt, 1938). Traditionally, as households mature and age (and by inference become wealthier) they lift the level of housing they consume, defined in terms of dwelling size, space, and quality. This tendency was seen in the past to drive the development of fringe suburbs marked by large lot sizes and detached housing. Later in the century the process was facilitated by increasing personal mobility and the decentralisation of employment.

As established housing stock aged it tended to lose value and pass to lower income households, either as starter housing or as affordable housing for people of lower socio-economic status.

The financial deregulation that took place in the last two decades eroded this simple succession as house prices inflated under pressure from increased money supply, high levels of household formation, and growing constraints on the availability of greenfield land, increasing its cost disproportionately. Consequently, the question of housing low income or starter households moved from a focus on the location and quality of recycled stock to a focus on affordability generally and, increasingly, to the role of social housing.

The model of succession-based housing markets adopts a city-wide view, explaining the emergence of different communities within an urban area in terms of intra-city migration of segments with different housing demands based on lifecycle and income. This is not necessarily in accord with research emphasising the emergence of housing submarkets within the city and relatively limited movement between them.

Housing markets may be analysed more effectively in more localised terms. Jones et al (2001), for example, divided Glasgow into six sub-urban areas (housing submarkets) within which there were high levels of self containment in movement between dwellings. Between 52% and 58% of moves were made within the same submarket, with the exception of the central area where only 32% of moves took place internally (14). House price trends were quite different among submarkets, with a 46% increase between 1985 and 1997 in the north-west compared with 8% in the west (21).

In addition, the majority of movers in a submarket (between 55% and 90%) were trading up or down, suggesting that succession may not occur across the city but does so within submarkets (p20). The implication is that if a move entails a change in dwelling type, a diversity housing stock needs to be available within each submarket to satisfy demand. Interestingly, most households in Jones' study trading across submarkets were trading *down*. These might include ageing households, households seeking refurbishment opportunities, or households in deteriorating economic circumstances. Significant cross-city moves were symptomatic of a decline in housing standards.

Demographic Submarkets

While much of the analysis of housing submarkets has focused on the nature of transactions and movements within and among different categories of housing stock in different localities, there tend to be implicit or explicit socio-demographic associations with different submarkets.

Demographic change has long been treated as a key driver of demand for housing via the increase in household units resulting from a combination of migration and household formation, the latter a function of population ageing. Household formation is most closely associated with early adulthood, the point at which children leave home and unions are formed to create new multi-person households, although household dissolution has become an important supplementary driver, reflected in a growing proportion of single person households among young to middle-aged adults.

A demographic framework provides a basis for estimating trends in dwelling numbers and size, a basis for assessing other attributes related to lifecycle transitions, including changes in mobility. Kendig (1985) described the key lifestyle housing transitions for Australians as moving from the family home (associated with marriage) into rental accommodation followed by partial and ultimately outright purchase of a home (associated with childbirth). This model of demographic transitions in the housing market led to the notion of "housing careers".

Yang (2006) examined the financial constraints on lifecycle housing transitions and concludes that:

> *"Borrowing constraints are essential in explaining the accumulation of housing assets early in life, while transaction costs are crucial in generating the slow downsizing of the housing assets later in life" (1).*

Beer et al (2006) discussed the growing diversity of housing careers reflecting:

> *"demographic change, developments within social institutions such as marriage, change within labour markets and those who participate in labour markets, the impact of multi-culturalism and the de-institutionalisation of persons with a disability" (1).*

The authors see changes in demography as contributing to the complexity of housing careers, including shifts in fertility and mortality, in marriage as an institution, and the varying demographic transitions of different ethnic groups. Moreover, participation in and movement through the labour market has become more closely associated with participation in the housing market.

The relationship between housing and demography is not a simple one, though. Gober as early as 1992 pointed out that it was mediated by different practices across national settings, including attitudes towards home ownership. The implication that cross-national analysis of housing markets will not support the predictable progression implied by housing career analysis carries over into cross-cultural comparisons, where different expectations and practices might lead to different endpoints in terms of housing style and tenure among residents of the same spatial submarket. Again, the issue is the need for diversity of stock to satisfy the diversity of demand, defined according to cultural differences.

Beer and Faulkner (2007) explored the complexity of housing careers, highlighting their non-linear nature as changes in circumstance might see shifts from ownership to renting, or from large to small houses. They conceived of the housing decision as associated with four different paths: employment, demography, health, and aspirations. They relate aspirations to individual histories, goals, location preferences, and identity and identification with community (Beer and Faulkner, 2007, 7).

The major conclusions of a three year research programme into housing careers in Australia undertaken by the Australian Housing and Urban Research Institute (AHURI) were summarised by Beer and Faulkner as follows:

- Housing careers are becoming more diverse and may be best conceived in terms of transitions;

- Demographic processes are important shapers of housing transitions, especially relationship formation and arrival of children. Although critical, they are less so than considered previously;
- Household dissolution has become a more important driver;
- Housing career changes are becoming greater in older age than at any other part of the lifecycle;
- Affordability is a significant impediment to home purchase especially for people at the margins of the labour market even with more liberal access to housing finance;
- Government assistance with entry into home ownership is increasingly important, at least in the Australian markets;
- Most tenants aspire to home ownership but almost half do not think they will able to achieve it in the foreseeable future because of high housing costs;
- The main motivator for movement through the housing market is the prospect of occupying a better dwelling or living in a better neighbourhood;
- Consumption aspirations are increasingly important in housing careers, reflected in the growth of the home renovation sector;
- A majority of Australians report that their housing is part of a broader 'life plan', with most reporting success in achieving their aspirations (Beer and Faulkner, 2007, 1).

The AHURI study also indicated the significance of disabilities, which affected 22% of households in the underlying survey, observing that:

> *"The housing transitions of persons with a disability vary significantly by type and severity but key issues include low participation rates in the formal labour market, reliance upon family support, and the impact of the way in which the disability was acquired in housing"* (ibid, 2).

A recent Californian study into tenure found that ageing per se is not directly related to housing so much as health status and becoming a single-person household, events which may lead to downsizing. The study also makes the point that context is important: downsizing is more likely if the homeowner has wealthy children and less likely if the homeowner lives next to one's children, although the rationale for this is not explained (Painter and Lee, 2009). The former might reflect a greater level of security in the parent household, or a lower need to provide housing resources to offspring. The latter may simply reflect that proximity does not call for a change in the status quo.

Based on Australian evidence 21st century housing transitions reflect changing demographic, social, consumption, and public policy processes; and are subject to a range of constraints, particularly those associated with employment and with disability. While most Australians construct successful and satisfying housing transitions some vulnerable groups are left behind.

Ageing affects housing demand directly though its impact on household size. As households age the departure of children and death of spouse are two events which shrink a household and, in theory, reduce its requirement for housing resources (rooms, area). As populations age and household sizes fall, so the number of residential units required to house a given number of people increases.

The importance of ageing and the transitions associated with older people may become a key focus for future housing, given that baby boomers will make the greatest demands on stock over the coming decades. Understanding the transitions that they might make will be a key to understanding the likelihood of downsizing and ways of encouraging the adoption of more intensive housing styles.

2.5 Implications: Supply, Demand, and Segmentation,

This section has aimed to unravel some of the notions and mechanisms underlying the dynamics of the housing market as it might influence the adoption of housing styles – and lifestyles – associated with increased residential densities.

2.5.1 Density

Despite an apparent objectivity, the idea of density is multi-layered and potentially ambiguous. If not carefully specified there is risk that policy goals and instruments will be misdirected. More to the point, there is a risk that market-based barriers will not be recognised or may be misinterpreted.

For present purposes, we suggest a multi-layered definition that embodies the normative approach to intensification evident in most writing around the notion without referring to higher order policy objectives behind intensification a process:

> *Higher residential densities are achieved by increasing the number of dwellings in a neighbourhood through both increasing the land available to housing and lifting the share of multi-unit dwellings occupying residential land in a manner that encourages an increase in the population of the area and contributes to physical intensification of the city as a whole.*

This definition focuses on the physical changes called for while acknowledging the intended impact by way of increased numbers of people per unit area. It defines area at the suburban level which in our view should include the non-residential land uses that contribute to the character of the suburb. It also acknowledges that the wider impact should be an increase in densities across the city or urban area as a whole, while pitched at the level of the sub-urban housing market.

The more intensive use of land might be through infill (including subdivision of individual sites), redevelopment (including consolidation of multiple sites) or a change in use (from business to housing in mixed use areas, for example). The definition does not exclude greenfield development on the city edge at higher than prevailing densities as a means of increasing density over a city.

Intensive Housing

Increasing density is associated with changing housing forms. Multi-unit housing can be described largely through reference to the categories outlined by the Auckland Regional Council and organised here from the least to the most intensive:

Category	Typical Physical Character	Usual Ownership/ Governance Arrangement	Gross Neighbour-hood Density: DPH	Unit Size: Square metres
Conventional house	Single dwelling on lot	Fee simple	8-12	Site area: 450-1,080
Small Lot House	Single dwelling on small lot	Fee simple (may be cross leased)	12-18	Site Area: 350-450
Town house	Detached or semi-detached, independent street access, courtyards	Fee simple, cross-lease, or unit title	16-24	200-350
Home Unit	Rows of 2-5 units, one or two storeys	Unit titles (may be cross leased)	16-24	200-350
Terraced Houses	Shared wall, street facing, up to 3 storeys, common access	Fee simple or unit title	25-40	150-300
Low Rise Apartment	3 or fewer storeys	Body Corporate	30-50	50-300
Mid Rise Apartment	4 – 7 storeys	Body Corporate	45 – 80	150 or less
High Rise Apartment	7 or more storeys	Body Corporate	80 or more	100 or less

Source: ARC 2003

2.5.2 Quality and design

The notion of quality in relation to housing has multiple layers. In design terms can be identified. The first relates primarily to *urban design* matters and the associated perception of the wider neighbourhood setting influenced by the arrangement of public and private space of various uses. This includes the provision of open and green space for active and passive recreation and as an aesthetic backdrop to day-to-day movement.

The second relates to the design of *subdivisions and developments*, covering the arrangement of dwellings at street level, focusing on the relationship between lots and the street, between structures and neighbours. Again, green space and separation are likely to be important elements of design at this level.

The third focuses on the *dwelling* and involves architectural design considerations impacting on layout, orientation, space, flow (indoors and out), and materials. (This may be further subdivided to distinguish between fixed parameters associated with the structure and elements amenable to modification associated with interior design). All three imply a regard for aesthetics and, perhaps, harmony such that different levels (city, neighbourhood, site, structure) complement one another.

Quality is not solely determined by design, though. It is reflected in the functionality of places and structures, and the functionality imparted by design, construction, and materials. Among other things, integrity covers attributes such as strength, resilience, and durability. At a neighbourhood level, functionality may be reflected in both the availability of amenities relevant and useful to inhabitants and in the level of connectivity to other places.

How quality is experienced in the market place will presumably be reflected in less functional, more experiential (and emotionally loaded) terminology. In this respect, quality is likely to contribute to the perception of density rather than to any instrumental or objective measure.

Design will also impact on affordability insofar as it influences costs. It may do so at the neighbourhood level in which case some of those costs may be recovered from the consumers of new housing through development impact fees. It may occur at the level of neighbourhood design, reflecting the commitment that councils make to local amenities. In this case, costs may be spread over a wider area than that undergoing intensification. Alternatively, an area of benefit rate (or land tax) might be structure to try to align expenditure with where benefits are most expected to accrue.

2.5.3 Affordability

Housing markets are complicated by the dynamics of the purchase process and by geography. Together, these impact on market efficiency. More than this, though, is the influence of the heterogeneity of those markets. This can be described in terms of both the “sub-commodities” of housing and the diversity of demand. Hence, affordability should be related to the capacity of different demand segments to purchase from different categories of housing type.

Diversity has typically been described in terms of lifecycle groups based on demographic cohorts. More recently the analysis of housing demand has moved to consider transitions between lifecycle stages, recognising that these are not necessarily consistent, and the constraints encountered which might influence transitions. Tenure is seen as an important element of the transition which may impact on housing choice, for example.

Markets may be better seen as fragmented and complex with a variety of potential paths forward (and backward) through a housing career, something which undermines a succession-based model of housing.

2.5.4 Conclusion

It can be concluded that research into varying the nature of the supply (design, quality and affordability) of high density housing needed to lift demand might include:

- Decision-making around specific types of housing transition;
- Underlying housing expectations and constraints associated with family and housing history; life cycle; labour force status, income, and wealth; family and community connection and identity; health status; and household status (including age of head);
- Geographic submarkets or neighbourhoods.

In effect, the bundle of attributes that will make up a desirable residence will vary according to both the segment and the context within which housing transition decisions are being undertaken and home purchasing decisions are being made. It is towards this bundle of attributes – varying among places and among market segments – that policies intended to encourage the adoption of higher density housing need to be directed.

3 High Density Housing in New Zealand: the Experience

This section considers the anticipated benefits of and disadvantages of intensification with reference to the New Zealand experience, and with particular regard to the rationale behind its promotion in different cities since the 1980s.

3.1 A History of Detached Housing

New Zealand has a limited history of high density living, with the original settler cottages establishing an early and persistent preference for detached housing, even when this housing was relatively crowded (or high density), as in 19th Century workers' suburbs. Detached housing was predominantly single storey – two storey housing was the preserve of the wealthy.

The state came to play a significant role in New Zealand's housing with the Workers' Housing programme in 1905 although this and a post World War I programme were both discontinued after several years. The state stepped up its role in housing in 1935, building around 5,000 houses during the decade. The early programmes were driven by a desire to avoid the working class ghettos observed in the United Kingdom. This was done by ensuring the quality of housing, maintaining a preference for detached houses, drawing on a wide range of designs and catering for a mix of household types and incomes.

The state stepped up its role following World War II, and at one stage was responsible for 10,000 new homes a year and the construction of entire suburbs[3]. The volume of housing required and escalating costs saw a reduction in quality and variety of housing during this period, however.

Until then the State had favoured detached housing, even as provider of last resort. However, it ventured into multi-unit dwellings, first through semi-detached dwellings each with its own yard in the 1940s. In the 1950s and 1960s, it experimented with two-storey, multi-unit dwellings. These were criticised, however, for standardised design and use of low cost material[4]. The result was the emergence of uniform low income suburbs on the periphery of urban areas with limited amenities (Porirua and South Auckland). A lack of design response to the housing expectations of Maori tenants was another criticism of the trend to uniformity of styles.

The Housing Corporation was formed to take responsibility for all of the state's housing programmes in 1974 (transformed into the Housing New Zealand Corporation in 2001) and this saw a change in philosophy, with a return to a greater variety of locations and designs.

From the 1950s on tenants could purchase their homes, while in the 1990s there was significant sell-off of stock, with only welfare recipients today entitled to a state rental.

In some instances, especially in Auckland and Wellington, local government also stepped into the role of social housing provider to meet the needs of the elderly and the poor. More than central government, councils favoured multi-unit apartment buildings as the most efficient way of doing this and, in the cases of Wellington and Auckland, favoured more central locations.

Local government housing stock has been in decline for some time, however. To some extent, the gap that has left in social housing has been met by an increase in community-based social housing initiatives (www.communityhousing.org.nz). A recent report of the Housing Shareholders Advisor Group (2010) sees a growing role for community based groups in providing access to social housing..

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3 www.hnzc.co.nz/hnzc/web/about-us/history-of-state-housing/history-of-state-housing_home.htm

4 www.nzhistory.net.nz/media/photo/state-houses-in-porirua-east-1950s

While the public housing sector is in a state of transition, away from dominance of the state model of housing for life to a social housing model more responsive to specific needs, it will continue to play an important role in shaping housing stock and expectations.

More importantly from the point of view of the present study, the size of the state housing sector means that it has been influential in at least two ways. First, either by design or accident, it has reinforced the commitment to the merits of and an entitlement to single unit housing in the public mind. Its forays into multi-unit housing have not been particularly well received. Second, it has created an association among multi-unit housing, low incomes, social deprivation, and rental tenancies. Multi-storey social housing provided by local councils may have added poverty and transiency to that association.

Under pressure from the rapid expansion of household numbers from the 1960s the number of privately constructed rental properties increased, especially in Auckland. Some of these were multi-unit low rise dwellings. These were a feature of inner suburbs with their traditionally large sites which leant themselves to redevelopment or infill housing. They were not strongly concentrated, though, and not a particularly conspicuous in the neighbourhoods they were found in.

3.2 The Push for Higher Density Cities

3.2.1 The National Imperative

It was only in the early 1980s, following Ministry of Works and Development urban growth studies (1979, 1984) that developed housing need forecasts based on cohort projection methods that an awareness of the potential demand for higher density housing emerged. This was not seen as a response to housing deprivation, but to the changing composition of housing demand. It was anticipated that the trend to smaller households would increase the stock required more rapidly than population growth, and that older households would progressively seek out smaller units. Reflecting overseas experience, it was recognised that this might favour the amenity of inner city sites. Among other things, the Ministry subsequently commissioned a study of the design opportunities for increasing housing densities in the main metropolitan centres (Sheppard, 1980).

Consequently Auckland City in the mid-1980s reviewed the limitations in its plan on inner city residential development and relaxed restrictions in selected areas, at much the same time as the Auckland Regional Authority looked into the policy implications of increasing densities (Grant, 1987, 1989) in support of a new Auckland Regional Planning Scheme (1988), and subsequently the Auckland Regional Policy Statement (1995).

In a 1998 review of urban issues facing New Zealand the Parliamentary Commissioner for the Environment highlighted the pressures that growth places on resources and the environment. He suggested that "*our per capita demand for land, housing, energy, transport, and goods and services has increased* [and that] *these per capita trends affect the quality of urban life (ie eroding of amenity and heritage values and adverse affects on the health, wealth and well-being of communities)"* (PCE, 1998, Summary)

The report favoured medium and high density housing to reduce car dependence and associated fuel consumption and emissions, suggesting that this has to be promoted alongside an increase in "liveability" (Ibid, Section 5.3.5). This followed from an earlier report from the Commissioner on the challenge of increasing densities and possible ways and means of preserving amenity values in suburbs subject to intensification (PCE, 1997).

In 2000 Lindsay Gow undertook a study tour on behalf of the Ministry for the Environment examining growth management practices in the United States. He proposed lessons for New Zealand but his conclusions were measured and reflected the significant contextual differences between New Zealand and the United States. They included the proposal that growth management

should take place at a metropolitan-wide level on a comprehensive basis, working as far as possible to "shape" the market.

With respect to land supply, he suggested:

> *ensuring that the land available for development reflects the grain and direction of the market, and provides choice, while still shaping but not squeezing development too tightly. If urban limits or tight regulation severely restrict land supply and related choice, especially of housing, then prices rise and land speculation becomes a big problem.*

He also pointed out that lower densities need not have poor environmental outcomes (provided they are designed appropriately), acknowledging that "higher densities and, indeed, ranges of densities and residential types, all have their place" (Gow, 2000, 91-92).

In 2002 the Ministry for the Environment published an urban design guide that highlighted the need to design for medium and higher density housing, mixed development, and the conversion of non-residential structures into apartments. In doing so it clearly established increasing residential density as both a component and an objective of good urban design. It also highlighted the importance of design in making increased density acceptable to communities.

The subsequent New Zealand Urban Design Protocol argued that urban growth issues should be considered as part of applying design disciplines to urban areas. This included "*how to design better suburbs on the edge of towns and cities, how to successfully intensify in our inner suburbs, and how to design liveable apartments in city centres*". It argues that "*quality urban design can help us avoid some of the problems of poorly designed low-density developments that we have experienced in the past*" including:

> *traffic congestion, unsustainable energy use, overloaded urban infrastructure, a lack of distinctive identity, social isolation, and reduced physical activity with its associated problems such as obesity, diabetes and heart disease.*

The Protocol states that design "can help ensure multi-unit developments provide attractive, liveable and affordable options, without impacting on our heritage and distinctive identity, our privacy, or overloading our urban infrastructure" (Ministry for the Environment, 2005, 9). Among the principles it advances are more mixed use development, sustainability, accessibility, walkability, and the promotion of transport alternatives to the private vehicle. The visual illustration focuses heavily on high to medium-density development, particularly with respect to residential development. In essence, increasing densities is presented as a means of achieving quality urban design and "liveablity".

At a national level, then, the advantages of increasing residential densities have progressed from being defined in terms of accommodating increased household numbers and greater diversity of household types through achieving environmental objectives, promoting quality urban design, offering greater housing choice, a greater sense of community, and enhanced movement within the city in part as a result of reduced reliance on car-based transport and more viable public transport.

3.2.2 Auckland

During the 1980s the Auckland Regional Council shifted the focus of its planning away from the promotion of growth dispersed across the four sectors of the region (North, West, Centre, and South, Auckland Regional Authority, 1974, 1982) and the prospects for satellite cities to accommodate growth pressures, by encouraging increased densities more or less within the existing built up area. In revising its approach to metropolitan development the ARC was able to draw on the urban growth boundaries developed in the 1950s and 1960s by the Auckland Regional Metropolitan Planning Authority in association with the Ministry of Works and Development. Those boundaries had been drawn to demarcate and accommodate extensive greenfield development.

They were transformed three decades later into an instrument for containing growth in the Auckland Regional Planning Scheme (1988).

While subject to some modification, these boundaries' were transformed into Metropolitan Urban Limits, an instrument for containing Auckland, alongside a commitment to the intensification of selected centres on the region's arterial corridors. This policy was given expression in the Auckland Regional Growth Strategy (1998) and the Auckland Regional Policy Statement (1999).

These planning instruments provide the framework for residential intensification in Auckland. Their success, however, depends on how far households are prepared to adopt their preferences to higher density suburbs, smaller sites, multi-unit accommodation, and, ultimately, smaller dwellings. In Auckland, this issue has been subject to significant policy research in the face of resistance at the household, developer, and local council level (see Section 4, below).

3.2.3 Other Centres

In the meantime, a number of other cities followed the Auckland lead, although the scale of the issues varies considerably among them. The Western Bay of Plenty and Tauranga, for example, combined to develop an urban development strategy for the Western Bay of Plenty subregion based on increasing the density of housing, while the Waikato Regional Council and Hamilton City and Canterbury Regional Council, Waimakariri and Selwyn Districts, and Christchurch City have combined to develop and strengthen urban limits on Christchurch's expansion.

In each case, the rationale is presented in terms of the reduced resource impacts associated with high rather than low density development, the latter consuming more land and requiring more transport resources than the former. The promotion of multi-unit housing in close proximity to commercial centres, including but not limited to the CBD, is also seen to increase housing choice.

3.2.4 Wellington

In most cases, the range of benefits from increasing housing densities in support of compact cities has been wide ranging and often general in nature. For example, the Wellington Regional Strategy states that

> *"A well-configured and compact community enhances the quality of life for residents and businesses. It's easier to get around, transport costs are lower and suitable housing is available. Each community not only looks good, but also works well and is cohesive. People are proud of belonging.*
>
> *"There are economic spin-offs from having well-configured cities and towns. For example, there are direct correlations between allowing higher density housing near city centres and increased productivity. Less time spent travelling means more time for work and leisure" (Greater Wellington Regional Council, 2007, 32)*

Intensification and the promotion of affordable housing are two of eight key actions areas identified in the strategy.

3.2.5 Christchurch

The *Christchurch Urban Development Strategy* (Christchurch City Council et al., 2007) advanced a wide ranging vision, principles, and strategic directions without reference to compact cities or residential intensification. However, the options for progressing the strategy were defined primarily in terms of alternative spatial plans for the city and nearby towns. Implementation measures are directed at a target for 60% of new development to be through residential intensification (32).

The aims of this settlement pattern are described as:

- Achieve high quality social outcomes for residents in both existing and new urban areas.

- Provide opportunities to minimise journey-to-work trip lengths and maximise public passenger transport, walking and cycling potential.
- Reinforce identified existing activity centres for maximum local economic benefits and social cohesion.
- Ensure that sustainable, safe and integrated transport networks all support growth areas.
- Maintain the character of settled areas in particular rural qualities.
- Reinforce "live, work and play" design principles.
- Allow needs of localities beyond the area to be most effectively served (38).

3.2.6 Western Bay of Plenty

The SmartGrowth strategy for Western Bay of Plenty set out a series of targets for development for both greenfield areas and intensification, with housing styles defined according to the Auckland Regional housing poster typology. The residential strategy is couched within a wider strategy built on five generic "aspects" of a vision for "a unique subregion which has" by 2050:

- "Maintained and improved its natural and cultural environment.
- "Enhanced the lifestyles of its communities and provided for the social needs of the people.
- "Created a thriving sustainable economy.
- "Provided an efficient and affordable infrastructure.
- "Implemented an efficient and integrated planning"(Tauranga City et. al., 2004, 10)

Greenfield housing was anticipated to be at higher densities than previously (up to 15 DPH compared with 10 DPH), with a number of intensification nodes identified to absorb around 25% of the projected population growth. It was proposed that these nodes should typically exceed 40 DPH, on the grounds that:

"A node-based approach is the most sustainable long-term option, compared to alternatives of the status quo and market-led approaches

Provision was also made for general intensification across the board through provision for aggregation of sites and development bonuses (22-27).

3.2.7 Hamilton

The *Hamilton Urban Growth Strategy* (2009) combines a commitment to regeneration in developed parts of the city, including the city hub, transport hubs, town centres, and places of high public amenity. It nominates future areas for expansion but focuses heavily on growth management through lifting residential densities. For example:

- "The way we currently develop land in the city is inefficient. With the majority of section sizes being maintained at 600-800 square metres, we are sprawling. This has impacts for the cost of travel and how we get from A to B.
- "Sprawl is contributing to making land a scarce resource and therefore making it more and more unaffordable.
- "With the world's population also growing, our land is becoming more important for food production. The land surrounding Hamilton is highly productive growing soil" (4).

A strategy was developed for Hamilton City and the adjoining Waipa and Waikato Districts (the western Waikato subregion). *Future Proof* (2009) provides for an increase in densities across the board with the following targets set out:

- 50 households/ha Hamilton city heart
- 30 households/ha Other intensified areas in Hamilton
- 16 households/ha Greenfield in Hamilton
- 12-15 households/ha Greenfield in Waikato and Waipa, and large townships
- 8-10 households/ha Greenfield in Waikato and Waipa serviced rural villages (Hamilton City et al, 2009).

In assessing regional growth allocation, it posits for Hamilton City among other things:;

- Higher density housing close to neighbourhood centres with larger lots on the edges
- Intensified residential development focussing around key nodes including the city heart, transport hubs, town/suburban centres and areas of high public amenity including parks and the river (2009, unnumbered)

A discussion document for the review of the Hamilton District Plan issued in late 2009 made explicit the relationship with the Urban Growth Strategy through, among other things, a commitment to:

- Requiring minimum densities of residential development in new greenfield areas
- Imposing controls to ensure high density developments create high quality, high amenity living environments
- Provisions to enable high density residential development in the city heart balanced with the need to provide for a growing number of retail and commercial businesses (Hamilton City Council, 2009, 8)

Following submissions on three options, the strategy settled on growth through settlement that will

”will involve a significant increase in the number of households within a smaller land area. This is achieved by focusing development into the growth areas.”

The review of the district plan is not yet complete, although a “toolkit” for achieving intensification has been produced, perhaps reflecting the strength of comments against past patterns of residential intensification recorded on the council’s web site discussion forum [5].

3.2.8 Conclusions: Rationale for Intensification

The common theme in all these initiatives is a commitment to increasing local housing densities as a tool for achieving a variety of growth management objectives enunciated primarily at the regional or subregional levels, encompassing urban areas and nearby rural towns. The broader focus is on containing growth by accommodating it through intensification of existing areas, infill within city boundaries, limited edge development, and higher density fringe subdivisions or satellite centres.

The drivers for such policies – the advantages promoted for promoting intensification – include reduced car dependence, greater use and viability of public transport, infrastructure efficiency, reduced consumption of land, lower resource consumption generally, increased diversity and affordability of housing, even enhanced public health, all to be achieved by lifting densities, promoting a greater variety of dwelling types, and encouraging mixed use. The disadvantages are not canvassed in any detail – with little evidence of a systematic balancing of costs and benefits – but tend to be addressed in terms of advocating enhanced urban design, the quality of public spaces and amenities, and promoting the idea of “liveability”.

[5] http://fastforwardhamilton.co.nz/topic/should-people-be-able-to-build-flats-or-high-density-housing-anywhere-next-door-to-you

4 The Auckland Experience

This section looks at in more depth at Auckland, where scale, growth pressures, physical constraints, and a longer-standing interest in compact city policies underlie a longer experience of residential intensification -- and its resistance -- than the other centres. The issue of scale and concerns over congestion, transport, and infrastructure mean that it is may be much more relevant here, also.

4.1 The Auckland Regional Growth Strategy

Auckland has pursued higher urban density since the mid-1980s, giving considerable consideration to how this might be achieved. While the Regional Council strengthened the role of Metropolitan Urban Limits in its 1988 Regional Planning Scheme, the transition from a strategy determined by the capacity of individual councils to a policy of comprehensive regional containment was given its clearest expression in the Auckland Regional Growth Strategy (1999):

"One of the key features is growth will be managed by promoting quality, compact urban environments (intensification). Other features include:

- "most growth within the existing metropolitan area with development outside current urban limits only where environmental, accessibility and community principles can be met
- "most urban growth focused around town centres and major transport routes to create higher density communities, with a variety of housing, jobs, services, recreational and other activities (mixed use)
- "much less emphasis on general infill throughout suburban areas" (Foreword, Auckland Regional Growth Forum, 1999)

The Forum acknowledged that "*modifying and changing current directions and behaviour [was] a big challenge"* (p.8). Implementation was pitched mainly at the planning policies to be adopted by local councils, the investment priorities of infrastructure providers, and the political commitment of the members of the Forum to the vision, outcomes, and principles contained in the strategy (12).

The strategy promoted residential intensification without prescribing it. It did this first through illustrating how growth might take place based on redevelopment around existing centres and suggesting that housing demand would be met in three ways: through centre and corridor intensification, Greenfield expansion, and rural or coastal development

The Strategy suggested that over the 50 years from 1996 there could be a need for a further 200,000 housing units, for a total of 700,000; and that 70% of these would be delivered inside existing urban limits. The Growth Strategy anticipated an additional 900,000 people living in the region in 2050 (in round terms) and that 30% of this population would be living in multi-unit housing, i.e., 600,000 out of to 2,000,000 people. This compared with 125,000 in multi-unit housing in 1996. To achieve the Growth Strategy target, then, over 50% of the population growth (465,000 people) would need to be accommodated in multi-unit housing (38). This represented a significant broadening of housing stock and an even more significant shift in housing preferences.

4.2 The Impact on Housing Preferences

A report prepared on developers' views of residential intensification in support of the Regional Growth Strategy suggested that intensification was "*increasingly dominating residential building activity*". This covered a wide range of unit sizes and costs, and included a large portion of infill development which included detached dwellings. The costs of intensification in Auckland were generally considered high, though. Land costs along with planning procedures, rules and reserve and infrastructure contributions, and consequently low profitability, were seen as constraints on intensification (Auckland Regional Growth Forum 1997, 36).

A subsequent report on implementing the growth strategy (Auckland Regional Growth Forum, 2000) focused on legal and institutional arrangements and dealt with housing simply as one of a set of market mechanisms that might be drawn on to implement the strategy through inclusionary zoning (presumably to facilitate mixed use development) and density bonuses (13).

A follow-up survey of developers suggested that little had changed: with planning procedures and development costs still hindering intensification. The price of land, holding costs (increased by protracted consent procedures), and infrastructure contributions added substantially to costs. Consequently, the main determinants of where to develop were the availability of land and relative costs rather than response to the priorities of the Growth Strategy (centres and corridors). The Metropolitan Urban limits were seen as redirecting demand into new residential types, although some developers saw them as creating a shortage of land suitable to meet the demand for detached dwellings. In addition, issues around the quality of multi-unit accommodation and especially leaky homes were seen as impacting adversely on the perception of high density housing (Auckland Regional Growth Forum, 2006, 5-7).

4.3 Capacity for Growth

Over the period following publication of the Growth Strategy the ARC continued to review Auckland's capacity to accommodate growth on the basis of intensification of housing stock.

The 2003 study of capacity indicated that of:

> *38,500 dwellings consented to between 1996 and 2001, approximately 15,500 (40%) were located on vacant land (largely at the fringe of Auckland), 16,000 (41%) were issued for some kind of infill development, and 7,100 (18%) were issued for developments on business zoned land. (Auckland Regional Growth Forum, 2003, p7).*

This suggested a degree of intensification underway even as the Growth Strategy was prepared.

Vacant and potential vacant residential and business land was identified across the region and residential densities in local council plans applied to it, resulting in an average of 10 dwellings per hectare. The estimate of future capacity resulting (58,800 residences) reflected intensification insofar as it represents uptake of available and potential land without provision for developments outside the current district plans. In addition, some 34,200 dwellings could have theoretically been established through opportunities for residential infill (subdivision of existing sites to facilitate construction of an additional house), and 45,000 from the conversion of business land to residential uses. The result was theoretical capacity of 138,000 additional dwellings and perhaps 25,000 more from the expected introduction of greenfield residential areas.

The study was updated in 2008 and identified residential capacity of around 149,000 to 193,000 units, including:

- 59,000 units on vacant land within the MUL;
- 20,300 from conventional infill or 65,100 under more intensive infill redevelopment;
- Up to 69,370 units from redeveloping business land (Auckland Regional Council, 2008, 8-9).

Again, the implication is that the bulk of development would take place within the built up area, with intensification through a combination of infill and development on business zoned land. Neither study, though, allowed for market barriers, the operation of sub-regional housing markets, or the full expression of housing preferences across different demographic cohorts and market segments.

4.4 Encouraging Intensification

The push for residential intensification has subsequently been supported through several different initiatives. The **Auckland Sustainable Cities** programme was set up by central government as a

collaborative initiative with local government between 2003 and 2006. Urban form was one of the key areas of focus, both by way of the design of sustainable buildings and through intensification.

The programme included a review of the social implications of high density housing (Syme et al, 2005) which concluded

> *"that intensified housing is associated with poor quality design and low amenity. ... specific issues raised include poor quality construction; concern about long-term maintenance; poor layout; insufficient space; and lack of integration with surroundings".*

The findings highlighted on the programme website are that

> *"No clear link (positive or negative) exists between density and social implications. This is contrary to recent surveys and media coverage, which tend to focus on perceived connections between the design of intensive developments and social problems.*
>
> *"The built environment is just one factor in a wide range of economic and social forces influencing social problems.*
>
> *"The quality and diversity of development design, which has not received much attention to date, may be the biggest challenge to intensification"* [6].

A key finding from the review is the strong community resistance to intensification, and the fear that intensive housing projects become "the slums of the future". While general in nature, this fear nevertheless fuels the resistance (Syme et al., 2005, 14-15).

In fact, the report noted a growing body of literature questioning the purported benefits of intensification, suggesting that simply relying on a "social doctrine" espousing benefits may no longer be sufficient to encourage adoption.

By and large the literature reviewed is equivocal about the benefits of intensification. Affordability may have been enhanced, for example, and the opportunity for home purchase increased for new entrants to the market, but this was seen to be at the cost of housing quality. Social segregation is a concern in much of the literature, consequently strengthening an association of crime and poor health status among residents.

On the positive side, accessibility to services and amenities was seen to be enhanced by living in intensive precincts, and transport costs could be reduced. It was not clear how far public transport benefited from them.

The authors concluded that sound decision-making, adaptability and flexibility are important if intensification is to win greater acceptance. They suggested that social problems are likely to be minimised if intensive housing is:

- "Well designed in terms of internal and external living spaces
- "Well located in terms of being accessible to a range of services and activities
- "Meets the needs of a diverse range of households in terms of income and demographics, that is, it is not associated with one particular group in society" (ibid 2).

The **Auckland Sustainability Framework**, a joint project among the local authorities "with the support of the Auckland Regional Growth Forum" revisited the issue of sustainability in 2007. This endorsed the idea of compact urban form as one of eight goals. This would be achieved through, among other things, improvements in urban design and the quality of residential development.

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[6] www.sustainableauckland.govt.nz/urbresearch.html, accessed March 201

Measures of success would be the ratio of high/medium/low density dwellings in growth areas, and the stock, style and location of housing (Auckland Regional Growth Forum, 2007a, 23).

4.5 Auckland Regional Growth Strategy Review

The Auckland Regional Growth Strategy was reviewed in 2007. The review observed that:

> *"Around 18,000 higher-density homes have been built since 2001, comprising over 40% of all residential consents and making up a quarter of the total housing stock. The development in growth centres, as a proportion of all growth, has increased from 14% in 2001 to 35% in 2005" (Auckland Regional Growth Strategy, 2007a, 55).*

While this was below target required to shift multi-unit housing to something like 30% of total housing stock by 2050, it nevertheless represents a significant shift. The report suggested that the expansion of terraced housing, town houses or apartments, was seen as indicative of "*a strong market for more intensive living,*" increasing housing choice in a wide range of areas. (5)

The report also expresses reservations:

> *Much of the development has, however, occurred outside identified growth centres and has been located in business zones or in attractive areas where there is high amenity (due to open space, views, or proximity to water) (ibid, p.5).*

It is argued that this while the numbers show "an increasing acceptance of higher density living ... different approaches will be needed to encourage higher density development in growth centres". The implication is that while households may be prepared to move into multi-unit dwellings, they are not necessarily attracted to higher density urban form in general, or to compact centres within an increasingly compact city.

A fall rather than the expected increase in housing affordability was also a concern raised by the review of the Growth Strategy. The proposition that intensification would increase affordability was not reflected in the rapid escalation of house prices in Auckland generally. The MULs were implicated in this because of the constraint they place on the availability of land for housing (Grimes and Yun Liang, 2007, 2010). Between 1981 and 2004 house prices increased in Auckland by 150% while residential land prices increase almost seven-fold (Motu, 2006).

However, ARC research (Leggatt-Cook, 2007) simply suggested that while MULs and urban consolidation constrain supply, the strength of market demand is the main determinant of housing prices, following the review by Nelson et al (2002). The latter study acknowledged the pressure placed on land and house prices by growth management policies, but found it is difficult to disentangle this from the impact of a buoyant local economy and population growth. One implication of this is simply that growth management policies are more likely to be applied in areas of rapid growth, where they may still contribute to existing upward pressure on prices and create increased housing stress (Leggatt-Cook, 2007, 3).

The impediments to delivering a compact city as a result of barriers to residential intensification underlay a review under taken by the regional council of the experience of growth management processes in six cities in Australia, Canada, and the United States (Auckland Regional Growth Forum, 2007c). It concluded that these cities had consistently pursued their growth management-based visions, relying on multiple mechanisms for implementation, clear directions and priorities, and streamlined planning processes. The review also endorsed a compact urban form and the notion that intensification has the potential to better utilise existing infrastructure, but concedes that "*there is no final agreement on whether sprawled or densified urban form causes the most pressure on the provision of infrastructure"* (11-12).

Changes in travel patterns are "*partly explained by changes in social conditions like attitude and lifestyle*", but factors such as "*density, connectivity/accessibility, mixed use activity, and good public*

transport provision combined with initiatives to increase walkability and encourage cycling all have an effect", although there is no consensus on the magnitude of that effect (12).

Similarly, the review was unable to reach a conclusion on whether a more compact city causes problems of housing affordability, partly because there are multiple contributors to shifts in housing prices. Any adjustments, it is concluded would need to address these multiple factors, only one of which is the MUL (12-13).

It was also unable to determine whether the increased housing choice promoted in the Regional Growth Strategy would impact on urban form. Instead, it suggested that although the proposed urban form will influence housing choice, without implementing the strategy "*in a manner that maximises the factors that make higher density housing attractive, it is probably that the preference for single –family housing will become stronger*" (ibid 13). The implication is that the market for residential intensification or increased multi-unit housing is limited and might only be boosted by intervention, with initiatives to make it more attractive perhaps complementing more coercive (if indirect) land use regulations.

The review also suggested that a compact city favours public health by increasing opportunities for walking or cycling, and encouraging greater activity. Again, the evidence cited was ambiguous though, the downside including the loss of green space, including private green space by way of yards, and the concentration of residents in areas with constraints on physical activity and most subject to pollution cited as potential disadvantages (123).

4.6 Demand and Supply Issues

Syme et al (2005) reported divergent views among residents about the quality of high density neighbourhoods and the sense of community. Another concern among commentators was that high intensity living contributes to social segregation. And to the extent that it is associated with poverty higher density living may be indirectly linked with crime and health issues.

Community resistance to high density living was the subject of a subsequent update report (Mead and McGregor, 2007) suggesting two main product-market associations for apartment style living:

- High demand for a high quality coastal or inner city areas;
- Lower value suburban areas where expectations of lower prices results in a lower quality product, the only alternative to which might be a comprehensively developed product. The report does not indicate the level of demand for the latter.

According to this report the issues facing the expansion of inner city and coastal apartments were related to supply rather than demand. Proposals for rezoning generally meet resistance from local residents. By contrast, the issues facing intensification in the suburbs were said to be more to do with demand and the market's perception of multi-unit housing as an inferior product there.

Among other things, however, the report concluded that:

"*In inland, suburban areas the main issue is how to broaden the market for intensive housing away from investors towards owner occupiers, and to support a better quality product*."

This has to be done in an environment where there is a range of housing choices, with the authors noting, for example, that "*the benefits of being close to rail or a town centre are not valued highly by the market place*" (2)

Several techniques were proposed to reduce barriers to demand, although these dealt as much with issues of supply as with demand:

- Develop a better understanding of the motivators of demand, including liveablity, access to transport and services, and price;

- Restrict “incremental infill type development”,
- Structure and concept planning should provide direction to the market and bring about an upgrading of the environment in selected areas;
- Defining the benefits of intensive housing;
- Encouraging developers to respond to the needs of end users rather than investors (in the quality of apartments built);
- Consider introducing a redevelopment agency to facilitate necessary changes in infrastructure, land assembly and the like, reducing developer risk (3).

The fact that intensification has not been wide-spread in the suburbs is consistent with the earlier observation (Syme et al., 2005) suggesting that the market is limited, at least at present. The challenge highlighted by the second study may not be about finding the right planning techniques to bring about intensification, or countering market resistance by educating users about its merits, or even encouraging developers to provide a product that the market currently views as inferior. Rather, it may be about acknowledging and accommodating consumer concerns over the urban environment associated with intensification, and about the design of the multi- unit dwellings.

Enhancing the quality and design of higher density dwelling options appears to be a necessary precondition to wider acceptance, especially in light of the perception – and the experience away from the harbour-front– that multiple units are an inferior housing product. The number of apartments and units subject to leaky home problems no doubt reinforces concerns about quality.

At the same time, the 2007 report demonstrates some difficulty in attaining the quality that might make higher density living more widely appealing at a cost that will make it affordable, and enable units to compete with detached houses.

To make progress in promoting high density living may mean establishing apartments and units at superior locations subject to a high degree of design and amenity input. Such locations are not likely to be those favoured by a view of urban efficiency based on promoting contiguous commercial and residential uses around individual centres or busy roads. Yet, promoting high housing densities on arterial roads, for example, raises issues for occupants regarding noise and disruption, community severance and security, contributing to their perception as “an inferior product”.

More attention may have to be paid to the quality of the natural and built environments within which higher density housing is located, especially to access to open spaces (including the road corridor itself by way of footpaths, verge, street-scaping, and traffic calming), recreational facilities, and community amenities. The private outdoor space associated with “backyards” in detached suburban living may need to be blended with the quest for an increased sense of community in well designed public spaces in multi-unit, inner city living.

4.7 Responses

There has been some response to barriers to adoption of increased residential density among households. The Auckland Regional Council, for example, has committed a website to residential intensification[7], on which it makes the case for higher residential densities and offers two guidebooks, one on purchasing terrace houses and apartments and the other on the operation of bodies corporate.

The review of the Auckland Regional Growth Strategy also recommended reinforcing regulations to try and elicit investment in the upgrading and intensification of town centres, improving the

[7] (http://www.arc.govt.nz/auckland/aucklands-growth/residential-intensification.cfm)

environment targeted for higher density living, thereby responding to the perception of inferior development associated with intensification.

4.8 Conclusion

The Auckland experience confirms that the advantages of residential intensification are pitched within a wider commitment to a compact city as part of a particular growth management strategy. They are expressed mainly in public policy terms of resource use, accessibility, housing choice, urban form and, latterly, public health. There is not a lot of evidence that these advantages are recognised or embraced by residents or households. Although the level of multi-unit housing is increasing it is not clear whether this is simply a response to diminished availability and affordability of stand-alone residences or an expression of changing housing preferences.

In Auckland, the market tends to have been defined in terms of the developers of housing – who may be the initial targets of policy measures – rather than the consumers. They have identified resource, cost, and institutional barriers to lifting the level of multi-unit development. At the same time, they have alluded to a shortage of opportunities for detached housing.

It appears that through most of the history of policy-driven intensification in Auckland demand has been presumed to exist as a function of demographic change. The notion of increasing diversity of demand is accommodated by reference to the greater variety of housing styles associated with increasing residential densities, but with little obvious analysis of differences in the needs and preferences of the cohorts or segments in the market.

5 Experience on the Ground

This section reviews market research and academic analysis of attitudes to and the experience of residential intensification in New Zealand. [8]

5.1 Market Research

5.1.1 Dwelling Preferences

There has been limited direct research into residential housing preferences that might inform policies promoting greater intensification in New Zealand. This section aims to draw some generalities from diverse professional and academic studies.

One national survey of 3,244 respondents established that 80% favoured a detached house and just 4% an apartment (Preval et al, 2010), while 53% would prefer a larger house further out and 23% a smaller house or apartment in the city. When asked about the trade-off between space and commuting 56% preferred having more space and a longer commuting time and 15% favoured a shorter commute and less space.

Research company UMR undertook a general survey of location preferences as part of its omnibus survey of 750 New Zealanders aged 18 years and over. Respondents were asked if they were happy with where they lived. Some 39% indicated that they would most like to live in a suburb, 11% in the central area of a city, while 22% would refer to live in a small town (UMR, 2009).

Of the 13% who actually do live in a central area, though, only 64% would like to live there. Of 49% living in suburbs 75% indicated that this was their preference.

Jointly these two surveys suggest that a combination of detached dwelling and a suburban location is the most preferred residential option, although there is a significant minority that favours smaller dwellings and central locations.

5.1.2 The Rise of the Inner City Apartment

Morrison and McMurray (1999) addressed the motivations behind the rapid growth of apartment living in the Wellington CBD which took off in the early 1990s, facilitated in large part by the conversion of former commercial office buildings (382-383). The authors explored the nature of the submarket that emerged and the motivations of the new inner city apartment residents using a survey of recent buyers of CBD apartments and buyers of detached suburban dwellings for comparative purposes.

Members of these two submarkets could not be readily separated on the basis of life stage or socio-economic status, although they did differ when bundles of attributes were considered. For example, High income single males were a distinctive group within the CBD (386).

Of greater interest< perhaps, was the analysis of the origins of the buyers in the different submarkets: buyers and renters of CBD apartments tended to come from within the inner city, usually from single-unit dwellings, which were becoming less readily available in the CBD. The growth of this market, then, was attributed by the authors to existing pent-up demand and not by induced movement from the suburbs, as might be expected if residential intensification in the inner city was a counter to urban sprawl (390). The implication is that the choice of an apartment does not reveal a dwelling preference but is simply the logical consequences of a location preference.

Equally, suburban dwellers tended to restrict their search to particular suburban areas (391).

[8] Several demand studies which have a bearing on tenure and market structure are reported in Working Paper 2.

The authors explored the differences in housing preferences between suburban and CBD buyers using only respondents without children, given that few households with children had moved into apartments. The result was a moderate correspondence in preferences across attributes, with the most important for both submarkets being aspect and sunlight. The implication is that an inner city location preference did not reveal a distinctive preference for dwelling attributes. Proximity to work place was also important to both, although those moving into apartments recorded the biggest reduction in travel time plus greater propensity to walk to work. Proximity to restaurants, theatres and cinemas was relatively more important for younger apartment dwellers (392).

Another significant difference observed was the lower commitment to place within the inner city population, which is characterised by its non-family households, youthfulness, limited commitment to place, and consequent impermanence.

This aside, the authors conclude that despite the rise of inner city apartment dwellings, their occupants value much the same attributes as dwellings elsewhere – spaciousness, aspect sun and style. They accept the trade-off of the quality of these attributed for the benefits they are seeking from a central location (394).

5.1.3 Transformation of the Inner City

Murphy examined the forces giving rise to the "gentrification" of Auckland's inner city, arguing that the "*neo-liberal spatial fix*" – or the policies associated with the market-led reforms of the 1980s affecting urban form – "*produced a differentiated landscape of new residential development in which certain spaces were produced as elite/'gentrified' places, while other developments assumed a more downmarket status*" (Murphy, 2008, 2522. He argued that the change in the structure and practice of local government, environmental law (the latter through the Resource Management Act 2001), and the Building Act (1991) jointly created the conditions in which councils could adopt quite different strategies to housing development.

For example, he says, Auckland City adopted a laissez faire approach consistent with a policy context in which "*the state privileged the market as a key solution to housing needs*" (2528). This saw central city "*apartment development take place with little interference from* planners", at least prior to 2007, when urban design protocols and minimum apartment size regulations were introduced. Coupled with a regional planning regime that saw high dwelling densities as a path to sustainability, the way was open for large scale property developments in the central city, in particular. One consequence was relatively poor quality development (2525).

At the same time, the promotion of tourism and large scale leisure events in the CBD (notably the Americas Cup Regatta), coupled with the rapid growth of consumption and the emergence of an export education sector "*produced a distinctive consumption environment*." International students tended to contribute to the numbers of low income individuals, creating a demand for studio and one-bedroom apartments. "*High rise and poorly designed apartments in the CBD contrasted with low-rise, high-quality developments near the waterfront*" (2526). The latter benefited from targeted council expenditure to upgrade the area as a catalyst for private development.

The result of the processes was described was "*a complex mosaic of outcomes reflecting the needs of individual developers*" (2528).

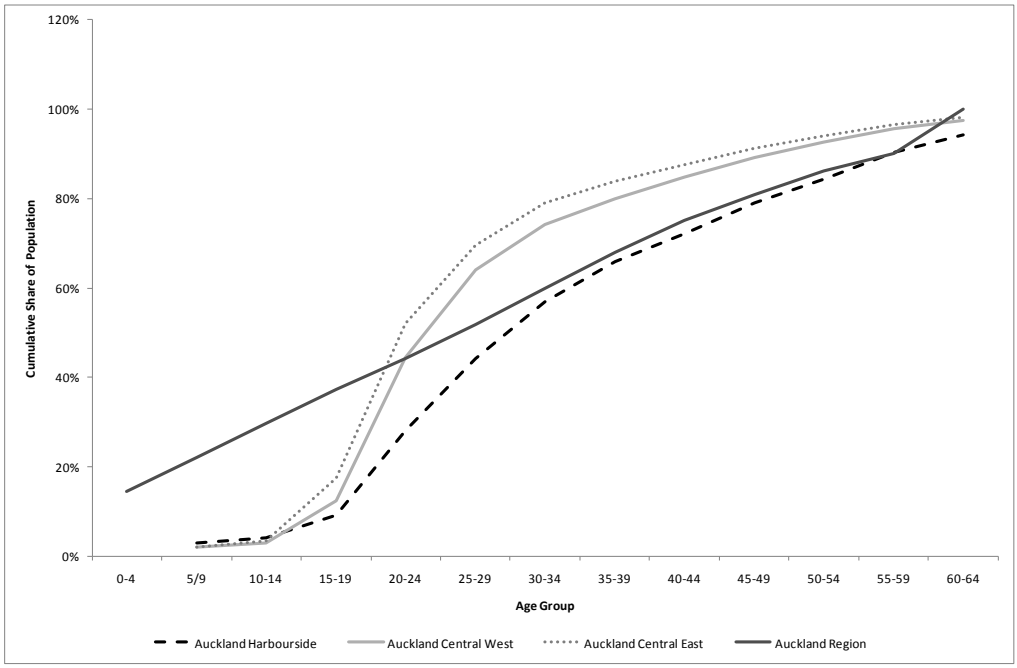
The CBD population nevertheless contrasts strongly with the population of the rest of the region, with many more residents:

- Living in apartments or multi-unit developments;
- Couples without children;
- Asian.

The distinct submarkets within the CBD tend to be organised between Central East, Central West, and Harbourside with the latter, in particular, more likely to be occupied by European couples, with high incomes, a higher proportion of owner occupiers, and those in rental accommodation paying substantially higher rents.

In addition to the attributes identified by Murphy, the Harbourside population is older than residents that of the other two areas (Figure 1). Where 79% of the Central East and 74% of the Central West are under 35 years, only 57% of the Harbourside population is, much closer to that of the region (52%). Interestingly in this respect, Census data reveals that only 67% of private units were occupied in Harbourside on Census night compared with 77% and 81% respectively for Central West and Central East respectively, confirming that residents of the more affluent apartments are more likely to possess two homes.

Figure 1 Age Distribution, CBD Residents 2006



Source: Usually Resident Population, Census of Population, Statistics New Zealand

Murphy argues that state-led improvement to the Harbourside, particularly the Viaduct Harbour area, represents a process of intensification by gentrification. As a result:

> *"The Viaduct occupies a powerfully evocative position in public discourse and the urban imaginery. It represents a very successful development, forged in the context of rapid and at times rapacious property development in the CBD. In contrast the problems and the legacy of the 16-square metre studio apartments in the CBD, the Viaduct projects an image of a successful community construction ... However, its success rests on exclusivity" (2537-2538).*

Murphy, then, explains the contrasting threads of the intensive residential development in the CBD in terms of opportunities created by the changing approach to the area adopted by the state over the past three decades. This covers changes in regulations allowing extensive but often poor quality apartments catering for relatively low income, young, transient populations, on the one hand, and public investment in Harbourside redevelopment which has encouraged much higher quality apartments and the emergence of exclusive dwelling precincts, on the other.

Friesen (2009) uses a different geography frame for analysing the changing character of the inner city population, including the suburbs immediately surrounding the CBD (developed in the period through to 1920) and covering post World War II demographic transitions.

Population in the area declined from 68,000 in 1945 to around 35,000 in 2001. This resulted from rapid post-war suburbanisation and, from the 1950s on, urban renewal (reducing densely populated low income areas of the CBD) and motorway construction (reducing housing stock). The gentrification of inner suburbs began in the 1970s, leading to displacement of lower income immigrant populations with the Polynesian numbers declining in the 1970s, reducing ethnic diversity.

This geographic aggregation disguises somewhat different trends between the CBD and surrounding suburbs. The former experienced repopulation after 1981 while the latter lagged as a consequence of a combination of employment hollowing out and substantial road construction projects.

Friesen describes the repopulation of the CBD as a function of: oversupply of commercial property creating supply opportunities for residential development; changes in the local government approach to planning for inner city living; accelerated immigration from Asia; the influx of international students; and the regional growth strategy. All but the first of these drivers reflect a significant policy shift on the part of government. Changes in immigration policy impacted on demand. The other measures have influenced supply of housing and enabling it respond to what was presumably suppressed demand.

Downtown apartment living was further promoted by the Regional Growth Strategy as a means of reducing travel-to-work distances, although the CBD population continues to be dominated by young people and especially students , with 37% of the 2006 population studying full-time and 7% part-time (Friesen, 2009, 69). Consequently, the CBD resident population is dominated single-person households and couples.

Research undertaken by the Auckland Regional Council confirms the important role of higher rise apartment buildings underlying the distinctive demography of the inner city. In 2006, 56% of such apartments were in the CBD (2,280 units) and 27% in the immediately surrounding areas (2,500), where these types of development are concentrated, and apparently favoured by renters (two thirds of them being rented) and migrants(Reid, 2008). Interestingly, 50%f these had just one bedroom, and 40% two bedrooms, clearly limiting the capacity of families to occupy them.

5.1.4 Living in Central Auckland

Auckland City Council has conducted a range of research among residents of higher density housing in central Auckland. Some of this was drawn together in a "meta-analysis" that concluded that strong recent residential growth was marked by:

- "An increase in single occupancy apartments;
- "A large increase in residents between 15 and 25 years old;
- "A decrease in sense of security and safety; and
- "An increase in satisfaction with access to groceries and household supplies" as more household-oriented retailing became established (No Doubt Research, 2003, 18).

The report also noted significant residential diversity among different precincts within the CBD, with demographic and socio-economic distinctions between the east, west, and harbourside. Most had lived in their current dwelling for less than two years. Motivations for living in the CBD were mainly to do with work and transport rather than the enjoyment of city living.

The study reported several sources of dissatisfaction with inner city apartment living: a diminished sense of security and safety, noise nuisance, small units with lack of outdoor living spaces (offset in part, at least, by increased use of open space and parks), and lack of a sense of community. The latter may be attributable to the rapid turnover of apartments (27).

5.1.5 Living on Auckland's Harbourside

The Auckland City Council commissioned research into the nature of residents of the Wynyard Quarter, an area surrounding the Viaduct Basin with its restaurants, super-yacht and recreational boat marina, proximity to America's Cup bases, and short walk to the harbour edge (Gravitas Research and Strategy, 2005). The 211 respondents displayed the following characteristics: a predominance of one and two person households, a large share of high income earners, and only 11% of households with children. Some 47% had been in their CBD accommodation for less than a year.

Their motivations for living in the CBD were given as proximity to work (43%), "everything" (39%), shops (32%), cafes (22%) and bars (18%). Their main reservations were with respect to roads and traffic noise.

They were highly likely to walk to work (52%) and study (47%). However, 65% drove for recreation and 63% for shopping purposes. Their main recreational activities were walking or rung. Those that participated in casual (32%) or organised (17%) sports activities generally participated outside the CBD.

The majority of respondents enjoyed living there given year round activity and despite most not having lived for long in the area felt a reasonable sense of community based on a sense of influence, fulfilment of needs, and a shared emotional commitment to the area.

While the results corresponded broadly with some of the generalities derived by No Doubt Research in its meta-analysis a year earlier, focusing on the favoured Wynyard Quarter revealed less dissatisfaction or perceived conflict of uses and the residential environment than the earlier study. In many respects the attributes and attitudes of residents of this area correspond with the successful, if exclusive, community which Murphy sees as constructed through the process of gentrification and displacement in the most favoured part of the CBD. This enclave, then, while demonstrating the potential success and satisfactions associated with inner city, is hardly the precedent on which any substantially increase in the uptake of residential densities can be based.

5.1.6 Managing Density on the Ground: Ambrico Place

Ambrico Place was an early initiative in urban regeneration through the promotion of medium density housing adjacent to the New Lynn town centre by Waitakere City Council. It was subject to review through a series of resident interviews by a team from the University of Auckland, Massey University, and Waitakere City Council (2001). Implementation was undertaken by a series of private developers through construction of eight medium-density developments, comprising mainly two and three storey terrace houses.

Residents differed from Auckland norms on a number of counts:

- 56% of residents were of Asian origin, compared with 7% for Auckland City as a whole;
- 63% of adults held tertiary qualifications compared with 6% citywide;
- 45% of personal incomes were over $30,000 compared with 26% citywide;
- 47% of dwellings were rented, compared with 24% citywide;
- 54% used public transport compared with 37% citywide.

The majority of residents (64%) were from Waitakere city itself, 10% directly from overseas. 61% had moved from detached houses into the multi-unit housing provided at Ambrico Place. The reasons for choosing to move into multi-unit housing were safety and security, low maintenance, and proximity to shops and transport. 49% of respondents also mentioned good dwelling design, use of space, bedroom size and warmth as benefits.

Generally positive views were expressed regarding individual dwellings, with reasonable privacy, a sunny environment, a good sense of security, and good access to the adjacent public park. The major negative was inadequate storage space.

Dixon et al reported further on the findings from the resident interviews along with interviews with 30 "other stakeholders, covering developers, architects body corporate managers, designers, off-site owners, local retailers and nearby residents" (Dixon et.al, 2002, 9). They characterise the challenge of implementing medium density as avoiding reducing levels of neighbourhood amenities for existing residents below what is acceptable to them given that they will be faced not just with new housing but also with changing lifestyles. Interestingly, different stakeholders had different views on what might constitute "good" medium density housing. The trade-offs they identified included:

- The quality of the housing versus profitability of development
- Design flexibility versus resident and neighbour desire for certainty;
- Open space versus maximum use of internal space and minimising off-site parking and traffic generation impacts;
- A clear distinction between private and public space.

Given the difficulty of reconciling the interests of different parties, especially as the parties with a stake in a development change over time – the role of the council is seen as critical (bid., 10).

5.1.7 Governance and Gatedness

The research also highlighted the institutional gaps that still exist in the development of multi-unit, medium density dwellings. Five issues were associated with the operations of bodies corporate as the entities representing joint owners and responsible for the management and maintenance of their common property:

- Changes in body corporate rules confuse and frustrate;
- Difficult communications with owners;
- Language difficulties associated with owners for whom English is a second or unknown language;
- The lack of communication about rules between off-site owners (investors) and their tenants;
- The limited financial capacity of the body corporate when developments are relatively small (in this case, fewer than 540 units).

The authors suggested that the solutions might lie in law changes and in separate bodies in a locality working together to develop the critical mass and financial capacity to better manage their affairs.

More generally, the research identifies some of the real and practical difficulties that might reduce the quality of the experience of medium density dwelling, contributing further to the perception that it is an inferior product.

5.1.8 Gating Communities

Related to the governance issue, Dixon et al. (2004) also investigated the impact of "gatedness" on governance and related issues in medium density housing. The emergence of gated communities as an extension of the management of medium density, jointly-owned residential development may be seen as an efficient way of purchasing collectively consumed goods and services associated with housing, reinforcing the view that residential intensification is inherently efficient. As such, gating is simply another manifestation of the long-standing security arrangements pertaining to inner city apartment blocks in many parts of the world.

Alternatively, gated communities may be seen to contribute to socially destructive segregation, acting against the concept of a coherent urban community at the neighbourhood or suburban level, and thereby contributing to the fragmentation of urban space.

Another position cited is that gated communities mat be "*an evolutionary step towards more efficient forms of social organisation*" thereby encouraging "*grass-roots democracy*" (9). The Earthsong eco-Community in west Auckland is perhaps an epitome of a physically contained community which has achieved quality medium density living and strong Democratic governance. It does not however act as a gated community insofar as it seeks to display and educate about the benefits of sustainable, collective living[9].

The authors point out that Auckland has a tradition of placing detached houses behind walls with gates as barriers to the outside world. Their erection even in medium density development may be more about privacy than security. In the New Zealand context, they suggest, gates act as deterrents rather than barriers and may be aimed at restricting cars and parking as much as deterring people. The fact that gatedness is not confined to any particular socio-economic level may reflect this.

They suggest that the increasing development of gated communities does raise issues, however, tied back to questions of governance at the level of the development and the role of councils with respect to issues of relative responsibilities for public space within and beyond the gate. They also increase the prospect of increased "class-based segregation or social splitting" (12).

Again, the issue from a market (as opposed to marketing) perspective may be how far gatedness and its connotations of exclusion and security impact on the adoption of high density housing. While developers may promote gated developments on security grounds, the outstanding questions are whether that image may shift the perception of quality of urban living in medium density developments in a positive way, while creating – or perhaps simply revealing - counter-productive social divisions within a city.

Dixon and Dupuis (2003) see the convergence of governance challenges and gate issues, though, as potentially counterproductive with respect to increasing urban densities. Through increasing gatedeness, they see owners increasing their management of assets and services even in the face of weak legislation pertaining to the roles and operations of bodies corporate. They suggest that this:

> *"creates a risk that, without government intervention, developers will craft new forms of private governance in ad hoc ways. Potentially, this could undermine the role of both central and local government to regulate private property rights and manage the urban environment effectively. Together the issues of inadequate private governance and increased gatedness could exacerbate urban conflict in a context where there is already mounting public concern about the impact of urban intensification. (Dixon and Dupuis, 2003, 1).*

The implication is that any shortcomings in the operations of bodies corporate and negative connotations with respect to gated communities could undermine the appeal and contribution of medium or high density developments.

On the other hand, gated communities may simply illustrate the prospect that people sharing similar values, lifestyles or interests may choose to adopt higher density lifestyles in a shared environment marked by the design and arrangement of dwellings which distinguishes them from other communities. The emergence of distinctive residential enclaves, whether or not they are gated, may be both a response to and mechanism for higher density living, highlighting but not necessarily driving an increasing social segregation of the city generally.

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[9] http://www.earthsong.org.nz/index.html

5.1.9 The Suburbs - Experience of Flat Bush

McDermott (2010) reviewed two pieces of market research into the response of residents in Manukau City to moving into a newly developed suburb, Flat Bush.

Hand Consultants (2008) conducted nine focus groups covering 70 residents recently arrived in the area of "*varied ethnicity, interests, age and length of residence*" and including non-English speaking groups. They generally had an attachment to and enthusiasm for Flat Bush. Those that have dwelt there for some time remain enthusiastic even in the face of substantial change.

The negatives raised were as much to do with the unfinished nature of the area – the lack of intermediate or high school, unfinished roads, and limited public transport options – as any more fundamental dissatisfaction. Community amenities still seemed deficient. There was some concern about road noise and a diminishing sense of security as more young people and people from out of the area appeared on the streets at night.

Most people had moved from nearby and were attracted by the availability of new and for them affordable housing, the feeling of space, recreational facilities, and proximity to Manukau City Centre and Botany Downs. They appreciated their back yards – although some expressed disappointment with the smaller sections that they encountered and a number felt that the quality of finished homes was poor.

Flat Bush was described as a friendly place, but there was a concern that this could change for the worse - "under conditions of decay of poorly built homes, overcrowded apartments, a more transient population living in poorer housing or renting apartments…" (13). In effect, the experience of residents of the first stage of Flat Bush was positive but mixed with apprehension about the impact of higher density housing in future development

A face-to-face survey of 250 residents (Gravitas, 2008) confirmed an appreciation of an area with newer house and good amenities. However, 94% of respondents lived in a "single house on a section" and 3% in a terraced house. 85% had previously lived in a detached house, the implication being that the move to Flat Bush enables slightly more people to achieve this housing outcome; 34% said that a new and better home played an important part in their move to Flat Bush; 14% cited the need for a bigger home and 11% mentioned housing affordability

Housing and neighbourhood character – friendly, nice neighbours – were among the things people like about living in Flat Bush. Although not high on the list (with only 10% of respondents nominating it) one of the negatives cited was the move towards more dense housing (apartment-style) and consequent crowding.

Both original surveys underscore the significance of "upgrading" housing to new residents, their interest in detached dwellings with yards, and some aversion to apartments. The latter is associated with crowding, with a loss of the sense of neighbourhood, and the increased insecurity which comes from seeing more people on the street, and knowing fewer of them.

5.1.10 Quantifying Quality

A recent study adopted international indices for respondent-based assessment of neighbourhood quality to Auckland. Some 369 respondents were drawn from low, medium, and high density areas and completed a mail-out attitudinal survey using Likert scaling to reflect their experience and preferences (Walton, et.al., 2008). Multivariate analysis indicated that the structure of the dimensions summarising attitudes towards residential quality in Auckland (i.e., the combination of scores by scale item making up each dimension) were consistent with those revealed by earlier Italian and American precedent studies

The results suggested that;

"... high density households had better perceived building aesthetics compared with medium density households and better external conditions and transport services compared with low density neighbourhoods. ... Medium density neighbourhoods were perceived to have better building volume, internal practicability, school services and commercial services than low density households, and better security and tolerance and upkeep and care compared with high density neighbourhoods. ... Overall, medium density neighbourhoods are perceived as more satisfactory, but this was not a significant differences."

The data was analysed for significant differences in perception and behaviour across densities, with little systematic variation evident. The few variations of note were:

- The tendency for residents of high density areas to travel more frequently to socialise; a lower tendency to travel by residents in medium density neighbourhoods; and a greater tendency to travel for shopping in low density neighbourhoods;
- Residents from low density neighbourhoods were more likely to nominate reserves, parks or bush as present in the areas in which they lived, while respondents in high density areas were more likely to report attached flats and apartments; and respondents in medium density areas least likely to report proximity of industry.

The methods used did not reveal substantial differences in satisfaction with the quality of life according to neighbourhood densities In part this may be because the relative importance of different attribute of locality to a respondent was not brought into the analysis. It may also reflect a degree of post ipso facto rationalisation and people justifying in their attitudes a satisfaction with their current lot. Where there are items of indifference there is tendency to score towards the middle of the scale, although this is often a problem across all scales. There were, however, minor and generally predictable variations in perceived accessibility to different activities according to neighbourhood density.

5.1.11 Transforming the Garden City

Vallance et al. (2005) examined the response of Christchurch residents to the development of "infill housing" in their neighbourhoods. Infill housing was described as subdivision of existing sections to accommodate a new house; construction of two or three townhouses on a site previously occupied by a single home; or the creation of several three-storey attached townhouses.

They emphasised the historical and cultural context into which these new forms were inserted, reflecting a heritage which reached back to the city's original settlement and which promoted detached housing on substantial (typically quarter acre) sections to combat the "social ills" of "urban industrial England". Promotion of the ideal of owner-occupied, detached dwellings persisted through the 20th Century and underlies Christchurch's "enduring image" as a garden city of international standing (Vallance et al., 717). Consequently:

"current interpretations of infill housing are significantly influenced by New Zealand's history of widespread owner-occupation of detached 'family' homes on residential quarter acre sections ... [and] representational spaces bolstered by a culture that values spatial practices such as backyard cricket, vegetable growing, flower gardens, outdoor barbecues, playing with pets, and so on" (730).

A survey of attitudes among neighbours, non-neighbours, and occupants of ¼ acre sections revealed slightly different responses between groups, although common and overwhelming reactions against:

- Loss of privacy, which compromises how space is used within one's own residence;
- Loss of neighbourhood character through loss of character homes, open space, and greenery and birdlife; crowding, large houses on small sites, placement of garages in front of houses; and a less orderly and understandable neighbourhood inconsistent with suburbs in a Garden City,

- Social changes through which the nature of buildings reduced neighbourliness, neighbourhood identity, and familiarity with other residents;
- Increased levels of activity accompanied by more noise and traffic, a sense of overcrowding and a significant increase in car use, all to the detriment of the "*feel of the street as a social space*".

Resistance to infill tended to be greater among people living on quarter acre sections and among longer-established residents. The pervasive view emerged "*that those in infill housing had 'different' (that is, slightly peculiar) lifestyles and were 'not like us*'". In fact, there were significant differences in such things as "*income, age, marital status, living zone, ethnicity, and housing tenure*", with infill housing seen to be "*against the New Zealand way of life*" (727, 729).

The authors conclude that "*the strong family, social, and way-of-life senses traditionally linked to the suburbs have been significantly affected by infill housing ... [so that] changes in planning orthodoxies and praxis , inherent in , for example, urban consolidation policies, have affected the daily lives and everyday habits of many Christchurch residents in deeply-felt ways*".

Consequently many see infill housing as constituting the "*slums of the future*", a belief related to "*the suburban identify residents have accepted and perpetuated since European Settlement in New Zealand ...* [They] *are therefore unlikely to change with the same rapidity as amendments to the City plan*" (731).

5.1.12 In Pursuit of Social Sustainability

Christchurch-based research into higher density development on the inner-city periphery by Ancell and Thompson-Fawcett (2007) complements the suburban emphasis in the research by Vallance et al. (2005). The 2007 paper focused on the relationship between social sustainability, emphasising social justice and social equity outcomes, and urban form. Based on a literature review they proposed a model in which social sustainability was defined at three levels: *fundamental needs* are defined in terms of the affordability and housing quality housing; *intermediate needs* refer to transport and access to facilities; and *ultimate needs* are based on neighbourhood quality and relationships within communities.

Qualitative research among 21 households living in medium density central city housing was used to explore each level of this model. In terms of fundamental needs residential intensification was being driven in large part by gentrification. This reduced affordability for low income and transport disadvantaged groups (households without cars which relied on the accessibility of centrality), increasing rents and reducing security of tenure, with displacement one of the outcomes (433). On equity and choice grounds, then, increased density may be seen as lowering the social sustainability of housing, with one sign noted by DTZ New Zealand (2005) being the increasing association between location and tenure.

Ancell and Thompson-Fawcett identified concerns among respondents about the proliferation of poor quality medium density housing related to construction standards and a perception of its low durability. Lower standards were associated with the transmission of internal noise. The intrusiveness associated with hearing the activities of neighbours "*were prominent in the minds of many respondents, even causing some* [residents] *to leave*" (434).

In terms of intermediate needs, medium density housing was associated with proximity to most facilities and the capacity, especially, to save time getting to work. However, there were concerns about an absence of supermarkets and lack of green space in the area respondents came from. The authors saw provision of equitable access to such facilities as "*an important part of ensuring that housing is socially sustainable*", and as "*problematic with the current planning system*" (435).

Even more problematic was the difficulty of meeting ultimate needs as defined in their model of social sustainability. Hence, medium density housing was associated with external noise and anti-

social behaviour. Consequently, although living in medium density housing, residents were wary of continuing intensification and the crowding it would bring.

A lack of community spirit seems consistent with this. People did not necessarily know their neighbours. This reflected in part the proximity of people of different ethnicities. It may also reflect design issues – a lack of backyards and internal access garaging. Transience is another reason why "everyone keeps to themselves". Consequently, ownership plays a role in defining community and community relations, with owner operators recognising that they have a greater stake in and commitment to the community than renters, although across the board few residents intended to stay in their current dwellings long-term. There is also a sense of separation, although not necessarily animosity, between Asian and non-Asian residents.

While transience may be a feature of the inner city community, the markets recognised by developers whom the authors spoke to point to the relatively well-to-do segments they are catering for: empty nesters or pre-retirees from some of the older, inner suburbs; young professionals still enjoying the freedoms of not owning a home, accessing the bars of the central city and the recreational opportunities of Hagley Park; people with a particular desire to be close to the city; and investors who appreciate leaving responsibility for a property with the body corporate.

The authors drew on their research to assess how far plans for consolidation were consistent with social sustainability. Because the city plan allows for poor design and quality, they felt that it does not facilitate socially sustainable housing design or neighbourhood amenity, concluding that:

"the current provision of medium density housing in the city is far from socially sustainable" (438)

In particular:

"the overall social sustainability of housing in the central city will not progress if lower income groups continue to be pushed out of the area via compact city policies that encourage intensification of sites that are currently housing lower-income groups who become adversely affected by gentrification and displacement".

5.1.13 Real Estate Agents as Mediators in the Market

The analyses of higher density housing in Christchurch summarised above highlight the importance of the impact of intensification on the image of places, and hint at the prospect that policies for intensification may be resisted because of the transformation they effect, or may give rise to undesirable consequences to the extent that existing residents may be displaced and others excluded by the form of housing introduced.

It is interesting, then, to consider how images of places within the city may be crystallised or reinforced within the housing market by the role of the real estate sector. Perkins et al. (2008) examined this in the context of Christchurch through analysis of advertising by sales agents to "*reinvigorate the meaning of suburbs and other urban localities*". They examined the presentation of five different sales areas within or adjacent to the city and the presentation of both the dwellings advertised and the land surrounding them, noting how the relationship between them and other aspects of the social and physical environment were blended in the construction of advertisements. Hence, in the high density area of Richmond with established high density dwellings with their negative housing connotations and low land values, agents added "*economic value to the land and buildings through representing the built environment as an investment proposition*". Advertisements emphasised material rather than sentimental value by focusing on price, ease of maintenance, affordability and accessibility, built around location close to the centre of the city.

By contrast, in nearby Wainoni with a stock of low value 1940s and 1950s bungalows the emphasis was on the quality of life associated with detached, family houses, emphasising privacy, security and warmth. Small section size is countered by presenting the properties as low maintenance (2,071).

By contrast, housing in the prestigious suburb of Fendalton is presented as well maintained and modernised, comprising character housing and family homes, reinforced by emphasis on reputable local schools. The upgrading of interior spaces is also pushed along with capacity for entertaining.

Increasing infill in Fendalton, with older Georgian homes replaced by townhouses, has created a state of flux in the suburb's identity, though. The authors observed that agents were presenting new forms in terms of the old. For example, townhouses were interpreted and marketed "i*n terms of entrenched historical ideals attaching to the original physical form*" (2,073).

The implication of this analysis is that through the images they promote real estate agents might reinforce a particular vision of an area, helping "*to stabilise and incrementally shift intraurban place meanings*". Moreover, by "*reworking aspects of the past symbolically ..* [they] *project visions of new possibilities based on old forms*" (2,075), potentially reinforcing the market's essentially conservative view of desirable housing and neighbourhood attributes.

In short, agents influence the perception of the material and emotional value of different forms of housing, reinforcing the differentiation of suburban character and potentially slowing down any transformation in the character of housing stock. Hence they promote higher density forms in the centre in instrumental terms (value for money, function) and in more traditional suburbs in terms of the quality of existing detached housing and surrounds. In this way, the analysis highlights the market differentiation of higher density housing relative to locality and history. Unless the essential character of the suburb can be imparted to them, even well appointed townhouses in suburbs like Fendalton may be perceived as an inferior product by the market.

5.2 Policy Analysis

The lessons from research into the acceptability of medium density housing in New Zealand suggest a need for polices to be context specific, acknowledging the likely resistance of existing residents, and the time that it takes for entrenched values, images and expectations to adapt to a new urban/suburban milieu. It is important, therefore, to see how far policy initiatives to increase housing densities have been founded on an understanding of the nature of demand at the level of the household and the likely impact on existing communities.

There has been only limited analysis in Auckland and the other centres implementing plans for higher density dwellings of the motivations and experiences of households with respect to residential choice. Consultation with developers has provided one, albeit limited, window on the market. In other instances, submissions have been sought from the public, but these have generally been by way of response to options devised and articulated by the policy makers.

In **Hamilton**, for example, the public preference for a compact option was elicited in terms of agreement or otherwise with a question expressing its merits in planning and procedural terms:

Feedback on what we are thinking so far:

Option 2 would best ensure that target densities are met; areas of intensifi cation can be properly planned; future infrastructure can be programmed in advance of development; and the quality and amenity of existing residential areas can be protected.

Answer Options	Agree	Disagree	Skipped Question	Response Count
Response Percent	68.3%	21.7%	10%	60

The questions that are not asked are: (1) whether the planning process and instruments at the disposal of the market can deliver the bundle of benefits promised; properly planned intensification that does not impact adversely on the quality and amenity of existing residential areas; and (2) whether people will actually opt to live in more intensively development urban settings (which by definition will change "the quality and amenity of existing areas")?

In similar vein the Urban Development Strategy Partners in Canterbury issued a document entitled *So Many Options* in April 2005. This elicited submissions on four options for **Christchurch** set out in the September 2004 Report #2 of the Greater Christchurch Urban Development Strategy Forum. The content had already been assessed by staff and ratified by the political forum. A December 2004 document, *Assessment of Options*, reported an evaluation of the four options against 18 criteria grouped under five headings (economic, social, cultural, and environmental well-being, and "other"). According to the assessment report, this exercise "*proved to be a reasonably robust approach for comparing options*" concluding that for "*the criteria tested, Consolidation and Concentration perform better than either the Business as Usual or the Dispersal options*" (6).

The discussion document, *So Many Options*, outlined generic growth management options, focusing at the city-wide level on land consumed, congestion, infrastructure and transport costs, and housing mix. Some 3,250 feedback forms were received with responses to stylised multi-choice questionnaires, although written submissions were also received.

Options were not expressed in terms of the possible different experiences of individual households nor were individuals surveyed about aspects of intensification that they may like or dislike. In any case, self-selected submissions hardly provide an insight into the likely response of the housing market to changes in the nature of housing stock. It does not address community preferences. Instead, it is ultimately a dialogue between those in the position to set the limits to discussion and those with the knowledge, capacity and motivation to respond.

It is equally difficult to identify where in the SmartGrowth **Western Bay of Plenty** analysis public preferences for housing may have been considered (SmartGrowth, 2007). Some attention was paid to migration in and out of the study area as an important area of uncertainty (e.g., Bedford, 2002), but projections of future housing demand relied primarily on demographic projections.

The resulting strategy for accommodating growth projected that 33% of new dwellings would fall into the medium-density, largely multi-unit category. This has not been the case to date, with just 13% of new residential permits issued from 2005 to 2010 (inclusive) being for multiple units. This share was down to just 4% and 2% respectively in 2009 and 2010 as the level of activity in the housing market dipped. Such a lag in uptake of higher density housing obviously puts pressure on the proportion of new multi-unit dwellings in the future if any progress is to be made towards the SmartGrowth target. The prospect of lifting the share consistently above 33% looks remote.

Yet in a 2009 review of the SmartGrowth strategy analyst Neil Gray suggested that even this share of multi-unit housing was too low, although this conclusion was not made through reference to the possible nature of future housing demand. His analysis suggests that

> *" (including proposed new greenfields developments) at least 60% of all new housing needs to be medium or high density to achieve SmartGrowth targets".*

Consequently, he concluded that the Council needed a firmer implementation strategy based on a better understanding of the drivers of demand. Looking ahead he described the drivers as follows:

> *"Currently consumer demand for intensive housing in Tauranga is confined to niche markets. There are insufficient price-point differentials between intensive housing and stand-alone dwellings to expect a significant uplift in demand from the wider market in the short term. ... Longer term growth in demand for intensive housing will be driven by factors like affordability, changing household composition (in particular the aging population), and changing tenure patterns"* (29).

Gray did not explore market preferences, demographic character, or lifestyle choices that might support lifting density targets. Instead he offered anecdotal evidence from developers which pointed to:

"considerable resistance to intensive housing forms in Tauranga, with most buyers still preferring single lot, single story dwellings with amongst other things 'room for the boat' and two cars. Those most likely to opt for apartments or attached housing include:

- *Retirement complex occupants*
- *Other post-family or non-family single or couple households*
- *Investors targeting the holiday market*
- *Households whose choice is limited by affordability*

Gray's response to the evidence of a limited market for intensive housing was to suggest that there is an insufficient price difference between new intensive compared with stand-alone housing to bridge the affordability gap (55).

Given the relatively slow uptake of higher density housing noted in the centres discussed above subject to intensification policies the absence of significant research defining advantages and disadvantages in terms of what households want and their decision-making process and constraints is surprising. The market has been treated as more or less homogeneous, with needs and wants determined by demographics even though what market research has been undertaken and reported demonstrates that demand segments and their motivations are not so easily determined.

There appears to have been little policy research into market composition, segments differentiated on behavioural and psychographic grounds, or the divergent preferences associated with differences in experience, circumstance, expectations, and broad location within the city.

5.3 Conclusion: Paths to Increased Adoption of High Density Housing

Apart from recognition and acknowledgement of likely changes in demands on housing stock as a result of long-term changes in population structure, residential intensification has not been treated as a basis for responding to particular demands for new housing or changing housing preferences. In essence, the character and behaviour of the market has been overlooked in a policy area that has focused instead on achieving particular outcomes in the built environment.

Residential intensification has been promoted nationally as a means of reducing the physical impact of urban development. Consequently the benefits of increasing residential densities propounded by national policy analysts and regional and local planners have progressed from accommodating increased household numbers, through efficient infrastructure delivery, enhanced resource management, to promoting quality urban design, and enhancing movement within the city by reducing reliance on private cars and boosting public transport.

At the regional or city-wide level these high level objectives are reflected in a common commitment to increasing housing densities to achieve various growth management outcomes. As part of the planning toolbox, residential intensification is seen as a key to containing growth largely within existing urban areas through a combination of infill within city boundaries, limited edge development, and higher density subdivisions.

In short, the rationale for increasing residential densities is implementing a commitment to compact cities. The advantages of intensification are those espoused for compact cities with the preferences of households or benefits and disadvantages that might be defined by different market segments largely falling outside the equation. Indeed, the policies for residential intensification appear inconsistent with what little independent research does exist into housing preferences. What

demand does exist for higher densities is limited to highly specific segments, the youthful, non-family or two person households, and the transient, including recent immigrants.

In light of this, it is hardly surprising that only limited progress has yet been made in residential intensification for compact cities. From the material reviewed, it appears that this reflects:

- An entrenched market resistance to multi-unit housing that may be associated with long-standing cultural preferences and a historical experience of such housing as both inferior in quality and directed towards people in need (social housing) rather than to the market generally.
- A similarly long-standing association of multi-unit developments with inferior housing (compounded even for "superior" homes by the leaky building debacle associated with the promotion of higher density housing over the past one to two decades) and a negative social association associated with transience, poverty, and criminality.
- The difficulty the market faces delivering quality intensive housing that can compete with the alternatives in a suburban environment where multi-unit housing is seen as an inferior good;
- Concerns over the nature and operation of bodies corporate and over the implications of gated communities;
- The impact of changes to the neighbourhood environment on existing residents and a resistance to urban density generally, including non-residential uses. This raises a question over the appropriateness of promoting multi-unit housing as part of a mixed use development, even if there is an acceptance of reduced private living space.
- The capacity of the residents of the higher income, long-established suburbs that may be appropriate for intensification to hold out against medium density housing, supported by the high cost of assembling sufficient land to undertake significant intensification in such areas.

This is consistent with questioning the benefits of intensification, suggesting that simply relying on a "social doctrine" is insufficient. Listing the purported advantages in policy documents alone seems unlikely to encourage adoption. While affordability may be enhanced by the construction of smaller houses, medium density houses, this appears to be at the cost of housing quality.

Social segregation remains a concern in much of the literature, consequently strengthening an association between higher density housing, crime, and poor health status, although this may be a reflection on the traditional role of social housing in higher density suburbs.

Much of the resistance may simply be a common response to change, and with the appropriate policies might be expected to diminish over time. This makes it important, though, to ensure that future higher density living is not contaminated by perceptions of poor design and poor governance.

There is nevertheless a demonstrable if finite demand for quality, high amenity inner city and coastal apartments, although there are constraints of issues of supply at work in this submarket. Even if additional land could be made available the capacity to deliver the higher densities prescribed at the urban or regional level is constrained by the likely marginal gains in population densities that may be achieved, and the small size of the relevant segment. While lessons might be learned from high end apartments, they need not be the focus of any policy initiatives to lift the uptake of higher density housing. Even the lessons that can be drawn are likely to be limited given the likelihood that the market for them is very different from the markets for affordable and suburban housing.

The fact that intensification has not been wide-spread in the suburbs suggests that the market outside the inner city may be more limited in scale, undeveloped in terms of demand, or frustrated by lack of supply. This may in turn lead to several responses: a search for better or stronger methods of intervening through land use regulation; educating developers and consumers of

housing about the merits of intensification; or encouraging developers to upgrade a product that the market currently views as inferior (without reducing its affordability). More than these responses though, it may be most useful to first identify, acknowledge, and respond to consumer concerns over urban intensification and multi- unit dwellings.

As a further step in this task, the following section reviews overseas experience, focusing mainly on the results of independent academic research sector.

6 Why Live in High Density Suburbs? A Market Perspective

6.1 From Policy Expectations to Market Preference

The literature generally confirms that resistance to increased housing densities is a long-standing issue, frustrating the proponents of compact cities internationally.

The slow rate of adoption of higher residential densities may be a response to structural factors or misplaced market expectations. Structural constraints occur when the location and character of new housing is out of kilter with the needs of the community. This might be in terms of house size or proximity to employment opportunities, for example. A case in point is the development of housing for an ageing population at some distance from their existing residences when there is evidence that older households are not particularly mobile (Davey, 2007). Another structural constraint arises when the price of the higher density housing exceeds the capacity of the "target market" to pay.

Misplaced market expectations refer to the failure to align policy expectations with market preferences. Even when the public at large expresses an apparent preference for density through submissions on planning documents, seeming to endorse compact cities policy, this does not necessarily follow through in preferences by individual households for higher density environments.

The discord between stated preferences, especially collective preferences, and actual decisions (or revealed preferences) in growth management and has been examined in a range of international settings. This section considers overseas literature that has focused on the residential preferences of consumers of housing where policy makers and planners have promoted intensification. It summarises the findings of some of those studies and what they reveal that may be relevant to the increased adoption of high density housing in New Zealand.

6.2 Market Perspectives on Residential Density

Given the size of the field, the following discussion is inevitably selective.

6.2.1 Urban sprawl and the quest for space

Bruegmann (2005) places the preference for low density housing in a historical context: "*in almost every era in human history*" a transitional zone between town and country would include:

> *"the houses of the affluent or powerful families who had the means to build and maintain working farms or villas or second houses where they could escape the congestion, noise, contagion, and social unrest that have characterized the centre of larger cities from the beginning of time until our own day" (Bruegmann, 2005, 21).*

He documents the evolution of suburbs and exurbs, or their equivalents from the time of Ancient Rome until the present. The reasons given for urban sprawl have been varied and often contradictory. He discusses a range of causes for this, including attitudinal factors – anti-urban attitudes and racism – and affluence. The latter, he suggests, provided people the ability to achieve what they wanted, to move out of "the very unnatural condition" of living on top of each other (partly for defensive purposes) at the same time as it broke down the social control of non-democratic institutions – priest kings, religious associations, workers' guilds – and gave citizens the rights and the capacity to take control of their own surroundings, one component of which was the ability to exercise greater choice over their living arrangements. This increased choice was resisted by cultural elite.

Bruegmann concludes that:

> *"The most convincing answer to the question of why sprawl has persisted over so many centuries seems to be that a growing number of people have believed it to be the surest way to obtain some*

of the privacy, mobility, and choice that once were available only to the wealthiest and most powerful members of society" (Ibid, 111-112).

In effect, affluence and democracy enhance choices, and for many – usually the majority –high density living is not their first choice. And, Bruegmann suggests, at certain levels of affluence inner city living may become more attractive to some people, especially if they can enjoy well positioned and fitted, secure apartments while taking advantage of opportunities for enhanced consumption in revitalised downtown areas. Yet others may come to enjoy the accessibility to work, entertainment, and culture associated with living in the centre of a city and the privacy, tranquillity and space of a small town, coastal, or the mountains through ownership of two homes (221-222).

It is against this background of a preference for space, privacy, and security that we can consider some of the more detailed investigations of residential preferences as they have been seen to impact on residential intensification over the past thirty years.

6.2.2 Urban form and visions of the good life

A lack of empirical underpinnings has been a concern of growth management practitioners for decades (e.g., Reiner, 1963). Audirac et al. (1989) summarise a number of **North American** studies undertaken in the 1970s and 1980s dealing with residential preferences, which they see as having been ignored by the proponents of compact cities. These preferences, documented in both planning and sociological literature, included the ideal of family home ownership, the environment preferred for raising a family, a strong desire for privacy, and the "appeal of rural ambience".

Increasing racial diversity in inner cities has played a "push" role in "the flight to the suburbs" in North America. Dislike of racial diversity was also shown to underpin residents' dislike of higher densities. So did proximity to retail establishments because it brought "*increased numbers of unfamiliar others ... interfered with residents' ability to regulate contacts outside their homes and generated perceptions of crowding and loss of social control*" (Audirac et al., 473-4).

The authors' own survey of residents of **Florida** in 1989 demonstrated a duality in preferences, with the downtowns of major cities preferred by some residents, but a stronger overall preference for low density rural or semi-rural environments. This was reflected in a willingness to undertake a relatively long commuting journey. They concluded that a state and local government commitment to intensification was at odds with the bulk of residents' preferences and that redirecting growth to more compact urban form was at once "*nostalgic imagery of the good life in 'compactness'*" and a threat to environmental values as it undermined the emphasis on more costly but direct methods of protection (Ibid, 478). There is also an implication that the cost of creating more intensive residential environments may have been underestimated to the extent that their liveability and desirability would require significant investment in lifting the level of local amenity.

6.2.3 Questioning compact cities

Gordon and Richardson (1997) tackled the proposition that the low cost of automobility (which reflected an effective government subsidy to car use), the treatment of mortgages, and other government planning interventions, including zoning, underpinned a revealed preference for low density, suburban living in the **United States**. They cited a 1986 study concluding that "*in evaluating the desirability of existing spatial patterns, revealed preferences of consumers, especially when they have persisted as long as they have in the is, must be given some weight*" (Dyckman, 1976, A-2). They also give weight to the preferences of developers for low density dwellings even where high density options are feasible, given that the development sector is "very market-conscious".

6.2.4 Communities Holding Out

Gordon and Richardson raised mainly technical questions over the efficacy of higher density housing in achieving the hoped-for outcomes in the light of evidence that people did not want to live in high density developments and that this was reflected in developers' preferences. It was – and is – also

reflected in the responses of potential host communities. One such response was described for the town of Chapel Hill, North Carolina in some detail by Perkins (1988). Here opposition was mobilised in the context of resistance to rapid urban growth, a phenomena with some longstanding precedents (e.g., the preservation of Boston's historical Beacon Hill Beacon; Firey, 1947).

Perkins describes the opposition mounted by an Alliance of Neighbourhoods to the town council's approach to growth management. Members perceived council ordinances were left largely in the hands of developers. This opposition grew largely from a sense that "*rapid urban growth threatened Alliance members' landscape, nostalgic, platform/stage, and family senses of place*" (436). The 1977 land use plan for Chapel Hill was driven by expectations of continued steady growth and favoured compact based in large part on areas of high density housing, with provisions for areas of different density set out in a 1981 ordinance. This led to the rapid development of multi-unit dwellings.

The result was an obvious loss of character in areas where developments took place as residents found that the ordinance made opposition to plans for comprehensive development, which needed to take place on a case-by-case basis, difficult.

The development of a citizens' alliance enabled more organised and effective community opposition to come into play. At the same time the council commissioned a taskforce to examine the nature of current growth. The taskforce called for more community inclusion in town policies and a Public Facilities Ordinance that would recover the cost of infrastructure from the projects, and withhold approvals where capacity was exceeded. This was largely welcomed by the Alliance, although it was not satisfied with the level of council commitment to the outcomes. Consequently it publicly endorsed candidates favourable to a more measured approach to growth in the 1985 council elections, several of whom were successful.

While reserved about how effective the Alliance was, Perkins described two distinctive phases in its defence of place, the first as an urban social movement and the second as a political movement. It contested the Town Council election when lobbying had little apparent effect on policy. He concluded, however, that there was a limit to how far the Alliance could succeed in preventing the transformation of place for a number of reasons: je power of institutionalised capital, the discontinuities – and limits – to the planning process, the limited resources of the town council to implement effective growth management strategies, and a lack of evidence that neighboring jurisdictions would accept such an approach (454-455).

6.2.5 Current preferences and future demand

Myers and Gearin (2001) sought to associate different preferences for housing with different demographic groups. They noted the generalised results from most surveys and the difficulties of reconciling them because of quite different terms of reference, language, and samples, as well as the array of alternative development types which contrast with "*the conventional, low-density, auto-oriented suburb*"

Their extensive review of mainly **US** survey data suggests five major criteria were favoured, confirmed in surveys: "*suburban location and design; single-family detached unit style, location within a low density neighbourhood; ease of automobile use, including driving and parking; and lowest cost given these criteria*" (Myer and Gearin, 2001, 636) In elaborating these criteria they note a willingness to undertake a longer commute to achieve a larger lot; opposition to non-single housing in single family home neighbourhoods; a preference for Euclidean zoning; separation of housing types (uniformity); and larger homes in keeping with larger lots (Ibid 636-7).

The authors note, though, a substantial minority demand for alternative housing. Some prefer an "urban or town residential style", including small town features such as narrow streets; others prefer townhouses, duplexes and condominiums to detached dwellings, and some actually prefer higher density and clustered development. Some of these results were from surveys regarding ideal neighbourhood types and not necessarily personal residential preferences. Nevertheless, they point

out the diversity among preferences (Ibid, 639). They also indicate some conflict. Households might nominally favour walking and large lots, for example, options which most likely mutually exclusive.

This raises three related propositions. The first is that the bundling up of housing types as a result of zoning requirements, design criteria, and industry development packages result in "lumpy" choices (Ibid, 639). The second, which follows from the first, is that purchasers are likely to be confronted with the need to make a trade-off among their preferences. And, third, "*often what buyers want is NOT what they get*" (LIVES, 1999, 6).

Myers and Gearin note differences between new home buyers and those in the resale market. Those in the former market favoured single, family, car-oriented, contemporary-style housing with the privacy and landscape associated with conventional suburban development. Those in the latter market favoured natural open space, walking paths, easy access to parks and shopping, and in-place community services. The issue this raises, though, is that the new home market determines through its preferences the character of the future resale market. The implication is that the new home minority will over a period of time shape the stock available to the resale market, housing which does not currently meet the resale market preferences (Myers and Gearin, 640).

Consideration of a survey by the National Association of Home Builders led Meyers and Guerin to conclude that housing preferences begin to change after around age 45. They indicate at least four groupings based on demography (Ibid, 642):

- Households with children: pedestrian-oriented design, conventional suburban streets, large yards, quiet and privacy;
- Other householders under around 50 years: open space, pedestrian orientation, larger lots, low density;
- Householders 50 years and over: smaller lots, easy auto access to shops,
- Older households: easy access to public transport, walking distance of shops.

Despite the implied shifts in housing consumption, the authors acknowledged that the growth in the number of older baby boomers may not be reflected in the housing market "*because many will be simply aging in place in the homes they already own*" (647). Nevertheless, they conclude that the "*aging of the baby boomers is an inexorable force likely to increase the number of households desiring denser residential environments*".

They also acknowledge that changes in the urban environment may shift preferences within cohorts. Among changes they cited as influencing the propensity to move into denser living were increasing traffic congestion, falling crime rates, immigration, urban vitality and the cafe culture, the quality of design for the middle class, and the emergence of positive examples of higher density.

When they applied static propensities to move and housing preferences to projected numbers in individual age cohorts the authors were able to demonstrate a shift which they claimed as a growing preference by home-seekers for compact-city alternatives. This demand is not unconditional: the authors acknowledge the multifaceted nature of decisions and limited detail in preferences given.

To actuate potential demand for higher density housing will require suitably designed and located new supply. They suggest that:

> *Well-designed new projects in turn create new opportunities for consumers to learn about satisfying alternatives to suburban sprawl of auto-dependent, low-density, single-family homes. (Ibid, 657).*

This conclusion was challenged by Carliner (2001) who felt that they authors had in some respects over-interpreted the survey data. He suggested that the resale market did not meet the preferences of baby boomers in their family formation stage and a shortage of family homes drove the new house market. This, he says, could change again towards smaller homes as the baby boomers move

into older age groups, and that the move to the inner city has simply reflected the historical distribution of stock. In other words, he suggests that structural issues account for the apparent differences in preferences between participants in the new housing versus the resale market.

6.2.6 Preferences are strongly held – but easily influenced

Four focus groups of prospective home buyers in **Michigan** explored their preferences for specific types of housing and neighbourhood and the underlying reasons (Russonello, 2003).

Two living options were presented to participants, one emphasising space and sprawl and the other higher density. The second option included more diverse housing choices, a greater capacity to fulfil service and recreational needs locally, a more diverse community, smaller yards and narrower streets. Location was not constrained, so that the high density option could be "i*n an urban area, in a small town, or in an older suburb of a city*." The higher density option also included the statement that "*farmland and other natural areas that are home to wildlife in countryside are preserved*". Not surprisingly, this option tended to be favoured.

The higher density housing option was preferred for the convenience, choice, diversity and sense of community it offered. The lower density option was preferred for the privacy and private space it offered and as a safer environment. Separation from "urban problems" was seen as "*representing a better sense of community and a higher quality of life generally*" (12)

More important outcomes from the discussions, though, were the fact that neighbourhood setting was unanimously considered more important to participants than lot size. A secure neighbourhood with good public space in effect obviated the need for a large lot.

A small number of values were identified as underlying the preferences expressed:

- Freedom: "*the desire for privacy, quiet, space, and having a choice of where and how to live*";
- Security: "*keeping one's family safe from crime*";
- Desire form a high quality of life for the family: convenience, diversity, and "*knowing one's neighbours*"
- Aesthetics: near nature, parks, rivers, lakes as well as "a dislike of 'cookie-cutter' housing developments" (Russonello, 2003, 8).

In discussion over the terms used the author notes resistance among participants to high density housing, with connotations of overcrowded neighbourhoods, was reduced when a benign description of varied housing choices was used. This included single family homes, parks, rivers and other open space, and proximity to public transport and employment areas, a prescription that was clearly favoured.

Despite this, Russonello makes the point that:

> *"Housing choices are intensely personal and derive from the core values of freedom, security, and wanting to provide a high quality of life for one's family. It is completely unrealistic to think that prospective homebuyers would alter these values." (3)*

Promotion of higher density living might emphasise convenience to culture and the city, increased housing choices, a culturally diverse, enriching atmosphere, sidewalks and safe streets, and housing that creates a neighbourhood. Russonello counsels against the use of notions that are abstract to the public, though, or which have diverse connotations: suburban development, walkable communities, sprawl, and liveable communities among them.

6.2.7 Actual and preferred neighbourhoods

The issue of the impact of the structure of housing stock compared with households' preferences was examined by Shwanen and Mokhtarian (2004) in terms of differences among the physical

attributes of the surroundings of dwellings. The authors were particularly interested in the extent to which residents could meet their housing preferences relative to their travel patterns.

Based on the literature, residential trade-offs made are assumed to be between the character of the dwelling, the residential environment, and relative location. Certain attributes are likely to be irreconcilable (such as a large lot in a central location) so that a household's location may not align with the preferences of its members. Changing preferences over time may also increase the incongruity between preferred and actual location. The decision to relocate to reduce any such incongruence cannot be taken lightly (Schawen and Mokhtarian, 2004, 761-763).

Based on a survey of commuters' perceptions of the character of the local physical environment in northern **San Francisco** neighbourhoods in 2001, they suggested that almost 24% of respondents suffered some form of "*neighbourhood type dissonance*" (771). Mismatches appeared to be a function of (1) automobile ownership - high ownership created a mismatch in more central areas; (2) family size – larger families suffered a mismatch in inner city areas; (3) length of residence – the longer a household has been in a neighbourhood (which may be a measure of occupants' age) the greater the likelihood of dissonance. The authors suggest that the latter effect may simply mean that people who have not been there so long are likely to have aligned their needs with their more recent housing choice (Ibid, 773).

Interestingly, the proposition that monetary value would be related negatively to dissonance is not strongly supported. In other words, property price (affordability) was not necessarily a measure of misfit between aspiration and reality. One explanation for this may simply be that expectations are set within the bounds established by the capacity to pay.

Within the structure of the sample it was not obvious that the ability to spend more on housing would necessarily reduce dissonance. The survey did show, however, that people of limited mobility were likely to suffer higher dissonance.

Generally, the factors contributing to dissonance for residents of (inner) urban areas were mirrored in the results for residents of suburban areas where, for example, larger families or longer-standing residents experienced less dissonance.

In trying to draw policy conclusions from their study, the authors suggest that promoting compact, mixed use neighbourhoods to people who clearly favoured suburban locations would increase residential dissatisfaction in an area generally. Residents ill-matched to their physical environment may try to preserve earlier travel patterns, reducing their capacity to take advantage of the benefits of enhanced local opportunities.

Schawen and Mokhtarian suggest that the results of their study call for "less ambitious" approaches to neo-traditional, high density development and that relaxing density provisions in suburban neighbourhoods may be a way of achieving intensification at the city level rather than relying simply on people relocating to longer-established, centralised urban areas. (781-782).

6.2.8 Small households in large dwellings

Wulff et al. (2004) explored changing housing demand associated with falling household size – or at least an increase in the number of small households -- over the thirty years to 2001 in **Australia**. Expectations that this would see a move towards smaller houses had not been met, with private sector housing actually increasing in size. This is despite the fact that the increase in one person households was the most significant contributor to the increase in small household numbers, almost doubling between 1981 and 2001. The number of people in the 35-44 age group living alone increased by almost 220%, reflecting a growing tendency towards dissolution of marriages.

Well over half of single person households owned their own homes, though, reflecting a long-standing and pervasive commitment to home ownership. Housing stock in Australia is dominated by detached dwellings. Hence, multi-unit dwellings grew only slightly from 22% to 24% of the total

between 1991 and 2001, with single person households enjoying the extra space and flexibility offered by spare bedrooms (62).

As in a number **European cities** cited by the authors, smaller dwellings (including semi-detached housing stock) tend to be close to the city centre, indicating that some single people trade off space for accessibility. Consequently, they tend to be the ones that gravitate to residential areas closest to the CBD. For example, nearly 70% of people living in inner Melbourne were aged less than 35 in 2001, compared with 70% aged over 65 on the low density Mornington Peninsula. It was argued, though, that this was potentially a short-term demand, as on marriage or moving into a permanent partnership young people were more likely to shift to outer suburban lifestyles (63).

The growth of single person, apartment-based inner city living was also seen to be stimulated by the expansion of an investment market, and attracted of "*continued political opposition to high density developments*" (O'Connor, 1998).

Another impediment to down-sizing by single person households suggested by Wullf et al. (67) is a natural constraint on household mobility. To fulfil planners' expectations, many more people would be required to move than do so, and the majority would have to involve downsizing. Given the high level of home ownership, mobility rates are naturally low. In any case, one of the key drivers for moving is over-crowding, so that the push from moving tends to favour increasing rather than reducing house size. Reducing space is a lesser imperative for moving than increasing space (68).

The authors conclude that the expectation of an expanding market for smaller residences was, at that time, misplaced. It could not be assumed that "*the rapid growth and marketability of medium- and high-density housing in inner city areas is driven by demography*", although it may well reflect a trade-off within the young, single cohort (including overseas students) for the "*perceived lifestyle attributes of the inner city*". They sound a warning that there is a risk of confusing location preference with housing type preference, and caution against too great a reliance on a demographically driven determination of housing choices (69).

6.2.9 The density dilemma

Flint (2005) examined the capacity for accommodating long-term population growth in the **United States** in the face of what he describes as the density dilemma:

> *"Some people like it. Most people don't. And residents in established neighborhoods resist even the relatively small number of developers trying to accommodate density-friendly consumers"* (Flint, 2005, 1)

He puts this down to a long-standing preference for space and the bad reputation that high density development earned in the United States during the 1950s and 60s. Consequently,

> *"the reach and ubiquity of sprawl has intensified over the last several years, despite the alarms that have been sounded about the pattern's lack of sustainability"* (3).

Flint does note particular niches emerging for high density living, the ageing of the baby boomers being one and the growth of the white collar young professional group another, alongside a growing interest in transit-oriented development by people seeking to cut down commuting times.

The uneven uptake of density raises questions about what makes it acceptable in some places and not others. In large part he attributes success to context: densification of suburban and greenfield sites encounters less resistance but accessing transit and creating a strong sense of place becomes the challenge. Where there is established development which may have the advantage of accessibility and the character, there is likely to be greater resistance from existing residents limiting what can be achieved by way of design with compromise perhaps diluting local character (Ibid, 4-5).

Flint looks at eight examples of transit-oriented or compact development across **five US cities**. While the review highlights differences around physical and social context he draws several general

conclusions: the dominant demographic groups moving into these developments are young singles, couples who have not yet had children, or retiring baby boomers. High density living has to be attractive, urbane, and with all amenities in walking distance. The latter notwithstanding, parking is essential as residents will not give up their cars even though transit stations should ideally be within a quarter of a mile of residences (Ibid, 32).

6.2.10 Residential preferences versus sustainable cities

Senior et al. (2004) noted the well documented conflict between the expectations of the proponents of redeveloping brownfield land and promoting compact cities and the prevailing preference for suburban and rural locations and houses with gardens. This preference is evident even among some young working people and childless couples. For many people the amenities of the central city do not compensate for the loss of space.

Developers have had to move into redevelopment in and around city centres because of limited greenfield opportunities rather than because of market demand, and then find ways of promoting them. As through this the inner city product diversifies and increases in quality there may be a shift of consumer preferences towards them, although there is a need to try to contain the cost of high amenity inner city sites if this is to result in significant uptake.

The authors surveyed residents of 108 **Cardiff** (Wales) households moving in mid-2000. They used a questionnaire covering circumstances and reason for moving, a stated preference experiment, and subsequent interviews on choice and search behaviour (342).

They noted that the reasons for moving were slanted towards less sustainable forms of living – mainly the need or preference for a larger house, usually among households with children. The desire for gardens or off-street parking space also pushes up the demand for more space. A small group were seeking smaller properties, predominantly older adults, although most were seeking properties in their current locality rather than aiming to move to a more central site (344). Perhaps most interesting, though, was that "*a majority of residential movers actually looked for a new house in the suburbs or further out in smaller towns or rural areas*". This included people moving out of inner urban areas. Families in particular favoured suburbs.

Inner areas subject to re-urbanisation appealed only to a few young, career-minded people. One problem with that was a perception of lack of community "*when everyone's out to work*". There were also perceptions that redevelopment properties were over-valued and would date quickly. The relative lack of interest in these areas may have also been because of a majority preference, certainly among families and older people including older people living alone, for detached or semi-detached houses. Terraced (and semi-detached) houses were seen as perhaps a necessary rung on the housing ladder, criticised for lack of garden space and privacy, common walls with neighbours, and shared services and management (347).

The respondents completed a stated preference exercise to establish underlying preferences. This confirmed the prevalence among their preferences of a suburban, detached house, with garage, within walking distance of amenities in a neighbourhood of *mixed* socio-economic status as the ideal. The most favoured inner city option would also be a detached dwelling with a garden in an area of *similar* socio-economic status as the ideal.

Among the least preferred choices were inner city apartments with neighbours of lower socio-economic status. Apartments generally were not favoured, but the busy nature of inner city locations and the prospect of anti-social behaviour among neighbours counted against them in a central location in particular.

The authors acknowledged that the preferences contrasted somewhat with the apparent popularity of city centre living. For those few respondents who did live in the inner area, housing there appeared to be transitional, though, and they had expectations of moving out eventually. Much of

the inner city demand is in fact for private rental accommodation and residents are overwhelmingly young and childless. Although this market was seen as expanding for some time to come, and with demand in Cardiff potentially exceeding supply, the survey suggested that the "*majority of residential preferences are substantially out of alignment with the policies promoted by those preaching the virtues of an urban renaissance*" (354).

The authors acknowledge that the dynamic nature of residential preferences might alter a mindset that favours less sustainable urban design and that there is, in any case, a substantial and expanding minority who will favour higher density living. Nevertheless, they pose the real challenge as one of "*making the favoured suburbs more sustainable*" without significantly reducing their attractiveness and increasing local opposition to infill housing and non-residential land uses (355).

6.2.11 Why don't we walk the talk?

Anthony Downs (2005) addressed the question of why in the United States "*Smart Growth is much more talked about than actually carried out in practice*" (Downs, 2005, 367). He identified six core principles to Smart Growth: limited outward extension of settlements to make them more compact; raising residential densities in new and existing areas; providing for mixed land use and pedestrian-friendly layouts to reduce short car trips; loading development costs onto consumers through impact fees; promoting public transit; and revitalising existing neighbourhoods. He also noted that different interests put different emphases on these principles and in some cases supplementary principles included affordability, reducing obstacles to developers, and more diverse regulations regarding design (ibid, 368).

The promoters of Smart Growth are usually environmental groups opposed to sprawl, local governments seeking to contain costs, and developers promoting large, comprehensive projects. He makes the point that none of these interest groups contain "significant numbers of plain citizens" and that they are "relatively small compared to the general citizenry".

In fact, Downs suggests, because Smart Growth seeks a fundamental change in the status quo – who gains from development and who loses – it inevitably encounters strong opposition, both from land owners and developers who stand to lose, and from citizens committed to the status quo. In particular, he cites the threat to the value of houses associated with the increase in residential densities which lies behind a reluctance among existing residents to allow additional houses, lower cost houses, or rental stock. This is reinforced by "*the widespread American view that it is undesirable for lower-income households to move near them for social, educational, and security reasons*" and the fear that "*higher density would mean more traffic congestion and more crowded schools and other facilities*" (371).

Compared with these issues, Downs cites Fischel's (2001) conclusions that any hostility towards sprawl among citizens is more general with the result that:

> *"many suburban landowners are likely to support Smart Growth in the abstract, but oppose its specific manifestation when the increase in density it calls for are planned near them" (Downs, 2005, 371).*

Hence, even when implemented with general support from homeowners, Smart Growth policies will encounter strong local resistance.

The impact of urban limits on affordability is cited as another reason for its limited uptake. This impact is disputed, partly because Smart Growth policies have coincided with generally high demand and rising prices making it difficult to isolate the effects of land use constraints. However, even proponents have sought to introduce affordable housing into its objectives and introduce measures to enforce them, something which in the US depends "*on local implementation that runs counter to both local home rule principles and local fiscal incentives*" (Nelson and Wachter, 2003, 182).

Other reasons Downs cites for resistance to Smart Growth include a failure to reduce traffic congestion despite substantial investments in transit facilities (Downs, 2004), the increase in regulatory red tape involved, the loss of betterment for owners of outlying land, replacement of local control over land use with regional planning, and a lack of faith in the capacity of regional planners to anticipate "*future trends in population growth, technological change, and the market's locational preferences as well as, or better than, individual entrepreneurs creating particular new subdivisions without any overall plan*" (Downs, 2005, 373).

Based on a general assessment of their impacts, Downs suggested that limiting outward expansion and increasing residential densities were "*very unlikely to be implemented*" because they required authority to be shifted from the local to the regional and "*would generate strong opposition from heavily affected groups"* (ibid, 376). While Smart Growth has strong intellectual and emotional appeal, he concluded, it required intermediary policies which would be resisted locally.

6.2.12 Sustainability versus liveablity

Howley studied the behaviour and motivations of people who had moved into new, relatively high density residential environments in **Dublin**. He excluded people making forced moves or inter-urban migrants, people who have moved into the city as a result of employment needs, for example.

While suburban locations still dominate residential movement, there has been a significant repopulation of inner cities with distinctive demographic connotations, marked by expanding numbers of young adults and a relative absence of children.

Howley surveyed 370 residents of apartments built in Dublin between 1996 and 2006. A large share, 77%, said it was likely that they would move in the next five years, 45% of them into a detached house and another 28% into a semi-detached or terraced house (Howley, 2009, 795). One third were expecting to live in the countryside, a village, small town, or large town.

Significantly, then, the aspirations of a large share of current apartment dwellers were to move on to a lower density form of housing and settlement.

Respondents also nominated the advantages and disadvantages of apartment living. The main benefits were clearly to do with accessibility (nominated by 65% of respondents). Social life (6%), cultural opportunities (3%), and availability of public transport (4%) rated well below accessibility.

On the negative side, the main disadvantages nominated were a little more varied. Cost of living led the way (23% of respondents), followed by lack of space, traffic congestion, poor public transport (17%), noise (10%), and crime (6%).

Analysis of the association between intentions to move, household attributes, and attitudes suggested that relationships with neighbours to be a key indicator: people who did not interact with their neighbours were more likely to move than those that did (Ibid, 796). Satisfaction with the apartment itself was also significant, as was perception of pollution in the area. This was a significant influence on the likelihood of moving. People in larger households and people under 29 years also indicated a greater likelihood of moving than others.

This evidence, then, suggests that a combination of demographics, satisfaction with the dwelling itself, and attitudes to the social and physical environment interact to influence the propensity to move on from an apartment, while the analysis also suggests that for many people that move would be to lower density housing.

6.2.13 The complexity of public attitudes

Unlike some of the other surveys reported here, the survey by Lewis and Baldassare was oriented not so much to householders' experience or the experience of movers, but to public attitudes towards compact growth.

The authors first reviewed prior surveys, and suggested four factors "*associated with opinions on land use, neighbourhood, and growth*":

- **Lifecycle**, with families with children most likely to favour low density settings and young adults and empty nesters "*more amenable to city-style living*".
- A range of **socio-demographic characteristics**, including, gender, race and ethnicity, migrant status, length of residence, and education can all influence attitudes to land use, although the results of different surveys are inconsistent, suggesting a contextual overlay.
- **Attitudes to related matters** such as the environment, physical activity, leisure, neighbourhood, or regional quality. Dissatisfaction with current circumstances and opportunities might lead to a more favourable disposition towards more walkable neighbourhoods, for example.
- **Political ideology** is suggested by the authors as likely to shape attitudes towards land use:

  "In a relatively new and unsettled policy area like smart growth, involving matters of lifestyle, [perceived individual freedom, and government intervention, individuals may draw on ideology to help frame their beliefs and attitudes" (Lewis and Baldassare, 2010, 221).

The authors noted the difficulty of framing attitudinal questions relating to potentially abstract notions like sprawl, smart growth, or transit-oriented development, and the subtlety of attitudes formed around trade-offs. They therefore framed three trade-off questions for inclusion in two telephone surveys, one a wider survey of covering attitudes on land use and growth challenges and the other an omnibus. The former was conducted in English and Spanish in **California** in 2002 and the latter in s**outh-western states** (Texas, Arizona, New Mexico and Nevada) in English only in 2007.

The questions covered: (1) choice between house size and commuting (small house, short commute versus larger house, longer commute), (2) neighbourhood type and car use (mixed use and walkable versus residential-only and car reliant), and (3) density and public transport (high density convenient public transit versus low density car dependent). A fourth question in the Californian survey covered attitudes towards the role of local governments in steering growth into already developed areas "*in order to preserve open space and encourage the use of public transit*" (Ibid, 224).

These statements were not written in a value-free manner and were multi-faceted in the nature of choices offered (e.g., combinations of land use and commuting arrangements), entailed responses to complex questions, and were embodied within quite different surveys dealing with other matters. Consequently, the results need to be treated with caution.

In any case the conclusions that could be drawn are equivocal in the sense that they do not show obvious consistency towards the collective tenets of higher density residential environments (centralised, smaller dwellings, higher use of transit and greater densities). The results suggested that preferences leaned towards smaller, homes with a short commute, especially in the Southwest. But they were more evenly divided on mixed versus single use neighbourhoods, and they favoured low rather than high density suburbs (with two thirds favouring the former). Finally, responses were more or else split over the role of local government in directing development.

The authors concluded from this that "*support for compact development exists among a significant share of the public*" and argued that this is consistent with findings from other surveys (224). Apart from the inconsistencies across answers, the responses do not, however, indicate majority support for the density that comes with greater access to public transit.

An analysis of some of the factors that might influence attitudes revealed some evidence of a life cycle influence, with families tending to favour larger sites in single use residential neighbourhoods. There was less clarity regarding the role of age, though, suggesting that its effects on attitudes are largely subsumed in other variables, like family and employment status.

Women and members of "*historically disadvantaged groups tend to favour compact development*". This group includes renters, immigrants, non-whites, and low income earners. Whether this is a constrained preference based on experience and expectations or not cannot be discerned from the survey method. People with higher educational attainment tend to be supportive of aspects of compact development, although again there is no way of assessing whether this is reflected in their own housing choices.

Perceptions of neighbourhood or region appeared to play only a limited role in attitudes to compact development, providing little support to the proposition that dissatisfaction with suburban life might lead to greater support for compact cities.

In terms of ideology, self-identified conservatives were consistently less supportive of compact development than their moderate or liberal counterparts. Additional analysis drawing on other variables indicated that this is related to racial attitudes, at least in the California survey, where:

> *"the interaction of white and conservative is negatively and significantly related to the preferences for mixed use and transit-oriented development, as well as to the preference for promoting infill policies, indicating that ideology influences Whites more strongly than other Californians in their opposition to compact development" (Ibid, 234).*

The authors concluded that ideology and racial attitudes should be considered alongside life-cycle, socio-demographic and attitudinal factors as influences on residential preferences and attitudes to land use choices.

The analysis revealed inconsistencies across attitudes generally. Assuming this was not simply a function of survey methodology, it suggests that the public (or at least the respondents) may not be making connections among the collective attributes associated by planners and policy makers with compact cities. In other words, their preferences are not a response to an integrated package that encompasses higher densities, better public transport, and infilling areas of the city where previous land uses are now obsolete. While elements of the compact city might find favour in the public mind, the total package may not, something that would explain a relatively low uptake even in the face of intellectual endorsement of the principles underlying the compact city movement.

6.2.14 High density living and public transport

Buys and Miller (2011) explored the relationship between the perceptions and practices of residents of inner city, high density residential developments with respect to transport. The existing literature is ambiguous and contradictory, something they attribute to the complexity of transport choices. Recent literature acknowledges the limited rationality behind such choices and has leaned towards how "*affective-emotional reasons, preferences ,and lifestyles might better explain transport choices*". Leisure trips in particular were dominated by "*affective aspects, particularly flexibility, convenience and relaxation*" (Buys and Miller, 2011, 290).

The survey indicated that time considerations strongly influence choice, with walking the most convenient mode for nearby services, retail, and recreational facilities. Proximity to these facilities was considered "*a major advantage of high density living, although the design of these higher density neighbourhoods often impedes walking*" (ibid, 293). Public transport was generally considered the most time efficient mode for trips into the city centre given the impact of traffic jams on car trips, although waiting time, unreliable services, and lack of a seat (especially for shopping trips) reduced its appeal. The car was preferred to public transport for trips outside the local area, though, for longer trips, cross-town trips, and multi purpose trips.

Probably reflecting the same emphasis on time and convenience, multi-modal travel was not favoured. Even walking to and from a bus-stop was a problem because of the time taken and because of Brisbane's warm climate and hilly terrain. More generally, "*transport convenience is*

critically related to the concept of unbroken travel and the avoidance of using more than a single mode" (296).

The authors conducted both quantitative and qualitative surveys of the residents of multi-unit complexes within 6km of Brisbane CBD. The results led them to question whether "*higher-density living around transit nodes necessarily encourages the use of more sustainable transport means*".

6.3 Conclusion: the Significance of Domain

All the evidence considered from a wide range of examples points to a majority preference for less rather than more density in housing. This is by no means absolute, though, nor is it in fixed. Indeed, there is also a significant and substantial minority preference for inner city, high density housing, although that does not always align with actual choices made and the commitment of members of this group may be ephemeral.

Moreover, there is some evidence that the way in which higher density living is presented for planning purposes, both the attributes emphasised and the language used to present them, can influence stated preferences despite strongly held core values that inform housing choice. The reality may be quite different as people resist in their behaviour what they apparently supported in principle. In essence, submissions may be agreeing with some of the underlying propositions about the environmental outcomes of higher density housing rather than revealing a preference for it.

Based on the evidence reviewed it is difficult to envisage a substantial shift in the foreseeable future that might lead to the level of intensification required to substantially change urban form.

Encouraging the uptake of multi-unit housing, therefore, may be more about influencing decisions at the margin than seeking to engender a wholesale change in the values associated with housing, residential preferences, transport and lifestyle trade-offs, and house purchasing behaviour. What may be required is to encourage those with a commitment to low density housing or with an unfulfilled, perhaps weak, preference for higher density to make the change when they do move.

The research indicates where such "target segments" for higher density might be drawn from:

- Young single adults or couples who value a location in and around the CBD;
- Disadvantaged minorities, including migrants, needing low cost, social housing;
- Older singles or couples, including empty nesters, with the capacity to purchase the qualities of their established lifestyles (space, privacy, security) in a multi-unit setting, ideally located in the areas where they already live.

Families would appear to be "off the radar" for higher density living unless they are "in transition" (migrants) or in the social housing category.

6.3.1 Are there game changers on the horizon?

This somewhat structured or constrained assessment of preferences and behaviour drawn from the literature needs to be placed in context. That population ageing has not yet given rise to the downsizing and relocating envisaged in policies designed to promote higher density and more centralised housing does not mean that circumstances in the future might not encourage it further.

Perhaps more to the point is the possibility that in packaging the regulatory planning tools underlying compact cities, planning promotes relatively unattractive housing options. The expectation that higher density housing should be associated with centralisation, for example, is not necessarily supported by market preferences and behaviour. Similarly, the notion that achieving higher densities by mixing work, commercial recreational and residential uses in mixed use zones is not necessarily consistent with household preferences for security, privacy, and ambience: in short, the house as a place of sanctuary. Households may value proximity to services and employment, but

that does not mean that they will accept contiguity and the nuisance of noise, congestion, pollution, and crowding that come with it.

It is nevertheless possible to envisage circumstances that might see a significant shift in societal values weighing preferences more towards multi-unit housing. However, the evidence suggests that an ageing population alone will not achieve that as some policy makers have anticipated, although it may provide a setting in which an increased uptake is more likely.

The most obvious external events that might facilitate or accelerate a shift to higher densities are those that might increase the real cost of transport substantially and consequently reduce mobility.

Others might include a decline in the social and physical quality of suburbs as a result of the ageing of housing stock, slow economic or population growth, and limited investment in amenities and infrastructure. These could strengthen the appeal of refurbished central areas, and encourage more multi-unit urban village living, perhaps in gated communities.

Equally, of course, there are possible game changers which would support further suburban expansion. Advances in production practices and technology could keep agricultural output expanding well ahead of the rate at which land is lost to urbanisation, facilitating more extensive settlement. Alternative transport modes, smaller and more efficient private vehicles, enhanced and more flexible public transport, could reduce the impacts of distance and free up residential choices. The decentralisation of employment and congestion in city centres may contribute to a reduction in city-wide densities. Equally, increased experience of natural disasters or extreme climate related events, infrastructure disruption, and even terrorism might see a further retreat from city centres.

Either way, achieving higher local densities as a more sustainable option than traditional suburban development means promoting design and quality that reflects market preferences at a price which enables consumers to take up the relevant housing. There is no obvious reason why this should not be associated more strongly with new housing in areas preferred by the majority of households. This would include existing or new suburbs, for example, or even satellite settlements, areas in which market preferences at neighbourhood, street and dwelling levels are more readily delivered.

While it might encounter resistance from existing communities – which would itself impose conditions around the form and quality of higher density housing – decoupling the nexus between density housing and centralisation might be expected to broaden the market appeal of the former.

6.3.2 My Sanctuary, My Domain

Understanding the motivations of people in the housing market means understanding the values associated with the dwellings people live in and with the places where people live, as it is these that underlie their actual behaviour in the housing market.

The distribution and form of housing tends to be treated in highly functional terms by policy makers – associated with shelter and health, at one level, and with access to work, services and leisure opportunities at another.

The collection of key attributes around dwellings revealed consistently across surveys –safety, security, space, and ambience (or aesthetics) – which people seek suggest that its role is more than shelter, but instead a sanctuary. This is especially the case as households form and move through family formation and raising children, although they will hold to that as empty nesters and beyond. This incorporates ownership and control.

A change in the form of the dwelling, from detached to semi-detached, or multi-unit through to apartment – potentially undermines that sense of sanctuary. There is more intrusion from outside noise and nuisance, privacy is compromised, space is reduced, and insecurity increases. The capacity to create individualised spaces through gardening, decoration, and even refurbishment is

diminished. Only the ability to purchase large, well appointed units in might offset the loss of sanctuary. Ideally, this will be in the same neighbourhood, or in policy terms, sub-market.

Similarly, the character of the neighbourhood and the place of the dwelling within it are not defined simply in terms of proximity to public transport, the cafe, or the grocery store. Rather, neighbourhoods are defined by a collection of attributes – which will obviously include such aspects of accessibility – and where within it the house and the household fit. A neighbourhood incorporates social as well as physical relations. For individuals and households within it, a neighbourhood is likely to be shaped around aspect and views, the relationship between dwelling and street, relationships among houses, and among their occupants. The dwelling is an intrinsic part of a wider social territory to which the majority – in the suburbs at least – belong and within which they are connected by overlapping activities and values. Households effectively establish domain within a neighbourhood, creating an attachment which is likely to prevail for the majority when they come to make decisions to relocate for whatever reason.

The attributes of domain will be different for different groups, young families and older families; young single people or couples, and migrants. Adopting this view of the meaning of housing as sanctuary and domain, though, suggests that apartments in inner city locations are most significant in terms of change and transience in living arrangements rather than attachment to locality. They are associated with non-family households, singles, or young couples. Career commencement and progress, and non-stable personal relationships are likely to be characteristic of many inner city occupants. For many their domain is not fully formed in inner-city apartments. It may be this sense of impermanence that colours judgements of multi-unit living by other, more settled groups.

Broadening the appeal of multi-unit or high density housing, then, may mean ensuring that it can create the same sense of domain that households achieve most readily from suburban living.

6.3.3 A Footnote: Retirement Villages

There is evidence that this can be done effectively, and has been done by the private sector. Retirement villages encompass the attributes required to enable older active people to maintain a suburban life-style in a high density environment. Villages may encompass open space, security, diversity of structures, the capacity to create an individual identity (around a courtyard or garden), and proximity to key services and amenities. They also play on and extend the notion of community through the creation of recreational amenities traditionally associated with suburban areas and through which new relationships may be formed. They also remain open to existing relationships, something which is reinforced if residents can move into them in a familiar neighbourhood setting.

7 Where to from here?

This section draws on the preceding discussion to outline the subsequent steps in the current study. While setting out the grounds for and shape of subsequent research steps and addressing the role of guidelines in bringing the results of the different research findings together, this section of Working Paper 1 was prepared simply as a matter of record and for making consultation with the client. It is superseded by subsequent working papers and the final report. .

7.1 Precedents for Guidelines: Design, Quality and Affordability

A key objective of this study is to draw on an understanding of the market for higher density housing to develop guidelines aimed at improving the design, quality, affordability, and relative desirability of additional residential intensification. The original contribution underlying this objective is limited to qualitative research covering current or recent participants in the housing market and five case studies of medium density developments.

There are naturally limits to any guidelines that might be developed from this work. Ideally, the wider experiences canvassed in the literature review in this Working Paper and guidelines developed elsewhere will provide both sufficient context for and confidence in the guidelines developed.

The section explores the responses by way of guidelines internationally to the resistance to intensification by the consumers of housing. It explores options for "the next step" once a commitment has been made by policy makers to intensification. By and large, guidelines sit outside any particular regulatory framework. However, they may reinforce it by indicating how the outcomes sought by particular plans and regulations might be achieved "on the ground

7.1.1 Limitations

Published guidelines aimed at encouraging more intensive (mainly medium density) residential development focus on design and quality issues rather than on the process of implementation. Consequently, they are design- rather than demand-centric, focused on structures and the arrangement and aesthetics of development more than how the community might respond to them.

The implication is that it is through adjustments to or good practice rules for design the uptake of this form of housing can be increased. The studies reviewed in the preceding sections, however, suggest that location and affordability and not just design or aesthetics play important roles in determining the uptake of high density housing. The challenge our review raises is how far design can contribute to continuity in terms of providing sanctuary (the dwelling) and domain (the neighbourhood setting) affordable to a majority of the market.

A study of medium density developments in Melbourne (Alves, 2006) also demonstrated how the planning processes can itself impede uptake, introducing another dimension to the idea of good practice guidance. Poor consultation may intensify neighbourhood opposition, delaying or even derailing projects or plans.

Even prior to that process, ideally, good design (at all levels) should assist the market uptake by reflecting the motivations affecting all sectors of the community and not simply those captured by the submission and plan process.

Two sets of the guidelines considered for the present study specifically focussed on process. With an emphasis on prior consultation and community collaboration the approach proposed in *Enquiry by Design* (the Prince's Foundation for the Built Environment, no date) has the potential to minimise NIMBY issues by involvement of the host community in a master-planning process. The UK "Advisory Team for Large Applications" (ATLAS) is part of the Department of Communities and Local Government and exists to assist local councils manage the development process.

7.1.2 Who's Guidelines?

There is no shortage of guidelines, although the evidence base and the rationale for them are rarely explicit. We found no guidelines obviously founded on market research, with individual survey results in any case often equivocal, pointing to a highly segmented market. This may be because of the difficulty of maintaining the simplicity of presentation and message intended in guideline development when confronted with market heterogeneity.

Most guidelines are presented in the context of a larger strategy (such as the Auckland Regional Growth strategy, the London Plan, Melbourne 2030 and the Metro Plan for Sydney 2036) and the rationale presumed to follow from the growth strategy itself. To the extent that the strategy is founded on a weak evidential base with respect to the behaviour of agents in the market, the associated guidelines may be of limited utility. '

Guidelines prepared for medium density housing in the UK by the Commission for Architecture and the Built Environment (CABE) differed insofar as they were intended to have general applicability rather than being directed at a single strategy or region (Building for Life, 2008).

7.1.3 Categories of Guideline

CABE produced a summary map showing the various categories of guidelines and standards, making a strong visual case for simplification (CABE "Standards" 2010). The categories used map are:

- National standards and guidance;
- Additional standards and guidance (applicable depending on location, type of project and assessment procedure);
- Assessments (including checks and audits as part of the approval process);
- Certification (including planning and building approvals).

These categories are further subdivided according to:

- Processes relating to planning;
- Processes related to Building for Life;
- Processes relating to National Housing Standards;
- Processes relating to building regulations; and
- Processes relating to other regulations.

CABE put forward the Building for Life assessment process as a simplified set of standards.

Classifications used elsewhere include type of housing (flats, medium density housing, affordable or social housing). Others distinguish by location (suburban, activity centres, Greenfield, and Brownfield etc.). CABE has also produced guidelines for housing design, for master planning, and for buyers.

In New Zealand , the Auckland Regional Council, in conjunction with Auckland's territorial councils produced a series of "Good Solutions" Guides for designing mixed use developments in town centres (ARC 2005), apartments (ARC 2007a) and Medium Density Housing (ARC 2010b).

The Housing Corporation also published research into best practices in medium density housing (Turner et al., 2004) and the Ministry for the Environment has published a "toolkit" for urban design.

The focus of most of these guidelines is around activity centres or growth nodes although some new work is beginning to focus more on more suburban settings (MJP Architects, 2010, and RICS, 2007).

7.1.4 Implications for this Study

Consistent with the range of categories is the range of content. The building regulations emphasise the more technical and detailed issues while the design guides and the buyers' guides take a more holistic view. The current review favours the latter, and suggests that emphasis should move towards a comprehensive view that places dwellings in the context of the development, and the development in the context of the neighbourhood.

The study can fill a gap in the literature by representing the range of market perceptions in New Zealand, the strengths and weaknesses of medium density housing and draw conclusions that will be useful for different stakeholders.

The guidelines will not attempt to reproduce the wide range of guidelines for stakeholders identified earlier in this section.

7.2 Next Steps

This section draws on the preceding review to shape the subsequent research steps. The following conclusions are drawn on to inform this subsequent research, including:

- Composition of focus groups of people who do not live in higher density dwellings;
- Selection of case studies to ensure coverage of demand segments;
- Identification of specific issues for investigation in the focus groups and case studies;
- Possible formats for guideline document
- Treatment of location in any subsequent quantitative stage of the research

These issues are discussed in more detail below.

7.2.1 Non-resident focus groups

7.2.1.1 Group composition

The proposal includes just three focus groups to represent the non-user view of intensive housing.

The literature review has pointed to the complexity of the housing market and the existence of sub-markets defined in many different ways. The most fundamental categorisation of intensive housing is the distinction between those sectors where there is a **supply shortage** and those where the policy for intensification has fallen short of expectations due to a **lack of demand.** The former include the CBD, harbour edge environment, and ridges favoured by high levels of neighbourhood amenity or favourable views (generally over the harbour and gulf). Prices for such developments which comprise well appointed apartments, town houses, or terraces, tend to be at the top of the range.

Our suggestion therefore, is that the focus group research should concentrate on the second category, home buyers in the mid to lower end of the market. These are people likely to be looking at inner and outer suburban locations for their housing needs. It appears that this is where there may be greatest capacity for the provision of intensive housing if sufficient uptake is to be achieved to contribute in a substantive way to a compact city. However, it is also the area in which resistance may be greatest.

In studying the barriers (to any market) it is useful to structure the research across categories of different predispositions. The groups should therefore include some people who, having considered intensive housing options, ended up rejecting them through to those who are currently searching for housing and remain open to intensive housing as an option.

Looking for the reasons for these differences in predisposition will be helped if we concentrate on the one market, which we suggest should be the Auckland Region (acknowledging submarkets within it) because of the strategic importance of accommodating the forecast housing needs in this city. Auckland is where the underlying environmental issues are most pronounced and where intensive housing developments may make the biggest contribution.

In making this recommendation, we are conscious that we are leaving out some alternatives which would also be interesting and potentially useful;

- If there is a supply shortage in coastal and CBD areas, it may be useful to explore both how to get more intensive housing into these areas and to make that of a type that might broaden the market without undermining local character. This could take pressure off intensification in other areas. However, it would almost certainly encounter strong resistance as it threatens the gentrification occurring within them. This is bound to encounter the NIMBY and heritage arguments which are well represented in the literature.
- There are compact city strategies in place in several other cities (Wellington, Christchurch, Hamilton and Christchurch for example) where there may be different barriers to market acceptance. The lower density cities may have less emphasis on accessibility because car use and parking is easy and relatively less expensive and, in the case of Wellington, public transport is traditionally more effective
- Christchurch itself would be an interesting study to see how recent events may have impacted on housing demand. However, this is not a priority for this study and with only three focus groups we feel they could be better used in other ways.

Our recommended structure for the focus groups is as follows:

Three group discussions (6 participants, 1 stand-by) will be conducted with people who have either moved in the last 6 months or who are actively looking to move. A range of attitudes re intensive housing, from those who would seriously consider to those who reject, will be included in this research. Groups will be 2-2.5 hours duration.

This research will be conducted in the Auckland region.

The following criteria will define participation in the research:

- All must be non CBD, non coastal properties residents;
- All must be in the market for housing in price (and rent) ranges below the top quartile;
- Excludes students, temporary residents and Housing Corp tenants;
- Renters have to be the person/people who take on the lease (i.e. not just renting a room). Signed a minimum of a 12 month lease.

Group 1: Rejecters

- All have moved into a new rental or bought their home in the last 6 months;
- Quotas set to ensure 3 who never considered an intensive housing option during last move versus 3 who seriously considered an intensive housing option but decided against it.

Group 2: Open to Intensive housing but made another choice

- Seriously considered buying or renting an intensive housing option but could not find what they liked within the timeframe. Would still be open to considering this option for a future rental/purchase.

Group 3: Actively looking and open to intensive

- These people are actively looking to rent or buy (quotas on each);
- Active means looking at properties at the moment;
- Intensive housing is included in their consideration set;

Quotas will be set for:

- Life-stage and household type (single adults, couples with no children, younger families, teen/older families, empty nesters)
- Scale of housing developments considered (5-100+ dwellings);
- Renters versus owner-occupiers in groups 1 & 2 (3 each per group). Group 3 can be all owner occupiers.

7.3 Case Studies

7.3.1 Case study selection criteria

The following criteria are recommended for the selection of case studies:

- Towns and cities: case studies will be drawn from a range of urban and provincial centres in New Zealand. Auckland (2 case studies), Wellington and Tauranga have been agreed as locations with a fifth either in Christchurch or Nelson. We are investigating the feasibility of Christchurch as a location with local planners;
- Suburban setting: we will include a range of suburban settings from central/fringe in a main centre through to more suburban or Greenfield in provincial centres;
- Management style: at least 3 of the cases studies will be drawn from developments where bodies corporate are used for property management;
- Scale: We will aim to have all case studies drawn from developments of 20 or more dwelling units;
- Density; although residential intensification can cover a wide range of densities, the benchmark for medium density seems to be between 30 and 60 dwellings per hectare so this will be our target.
- Price range: we will seek a range of price ranges below the top quartile

In summary we will attempt select case studies to meet the following criteria (note these are targets only and may vary according to what developments we can find):

- Density 30-60 DPH

Town/City	Location	Management/ownership	Scale	Price range
Auckland	Central	Body Corp.	50+	Second quartile
Auckland	Outer suburbs		30-50	Third or fourth quartile
Wellington	Central	Body Corp.	50+	Second quartile
Tauranga	Suburban/greenfield		20-50	Third or fourth quartile
Christchurch or Nelson	Town centre (not CBD)	Body Corp	20-50	

7.3.2 Implications for this study

The scope of this study is limited to a qualitative analysis of 5 case studies and we need to be careful to acknowledge the limitations of this in the production of guidelines.

The study can fill a gap in the literature by representing the range of market perceptions in New Zealand, the strengths and weaknesses of medium density housing and draw conclusions that will be useful for different stakeholders as shown below:

Topic/issue	**Target Audience**
What is important for the market in terms of neighbourhood and city context	Planners
Design: importance of appearance of the development, layout of spaces etc	Designers
House quality issues, internal layout and spaces	Builders and architects
Drivers of satisfaction for residents	Potential buyers
Process constraints and potential solutions	All stakeholders

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