Housing Design and Sustainable Economic Development in the East Midlands

A report prepared for *emda*

Urban Practitioners and Hunt Dobson Stringer

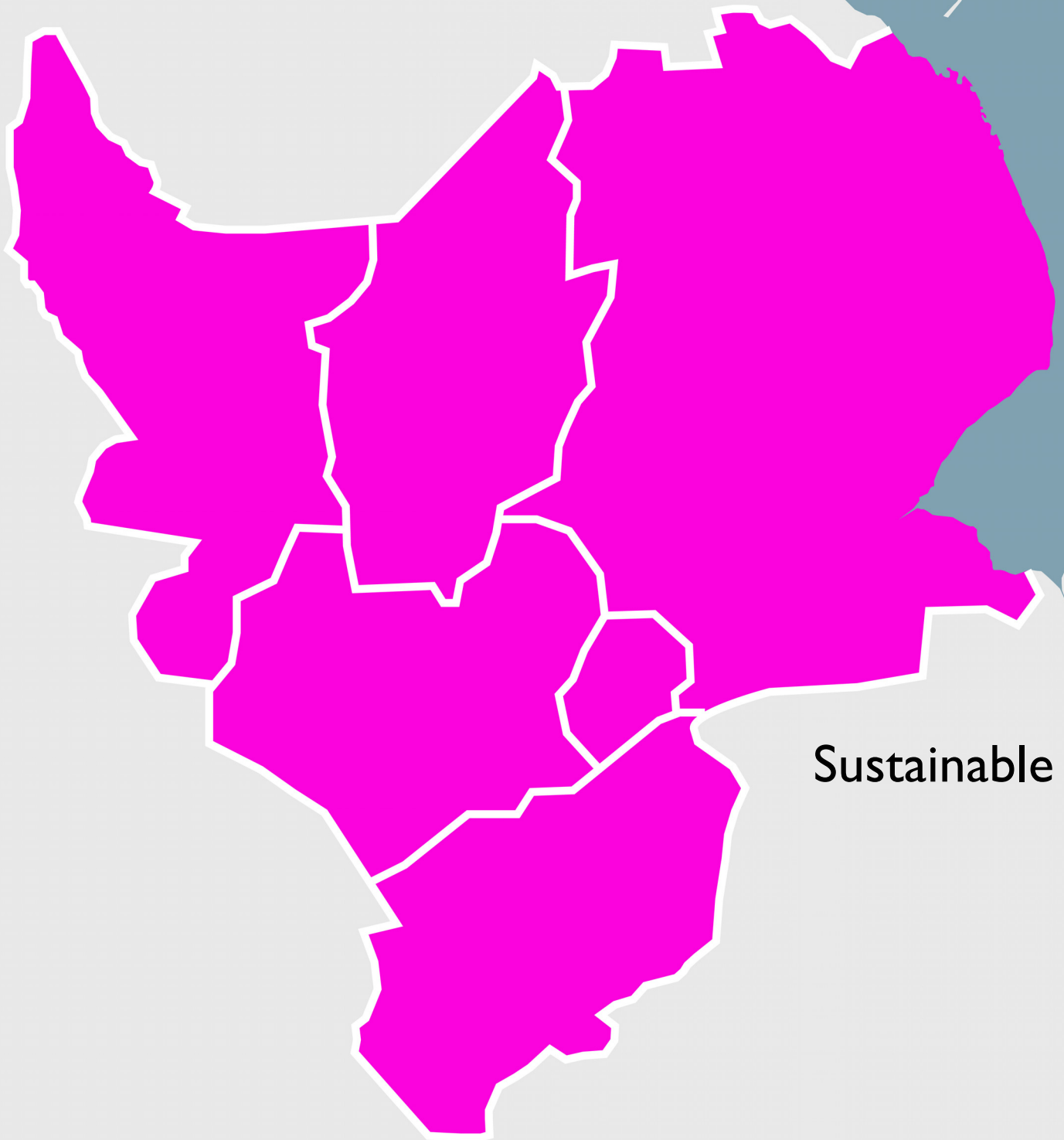
August 2010

This work, with the exception of logos, photographs and images and any other content marked with a separate copyright notice, is licensed under a Creative Commons Attribution 2.0 UK: England & Wales License

The use of logos in the work is licensed for use only on non-derivative copies.
Under this licence you are free to copy this work and to make derivative works as long as you give the original author credit.

The copyright is owned by Nottingham Trent University.

This document forms part of the *emda* Knowledge Bank



Housing Design and Sustainable Economic Development in the East Midlands

Final report | August 2010

urban practitioners UP

urban practitioners UP

HUNT DOBSON STRINGER

Contents

1. Introduction

Introduction

This report considers the importance of housing design quality in the East Midlands region. It considers in particular the evidence of economic benefits of good design and planning, the extent to which these benefits are evident in the region, and ways in which further improvements could be achieved.

The East Midlands region has suffered from poor quality housing design in the past. There is a need to ensure the role that design can play in achieving sustainable economic development is better recognised and design quality is improved.

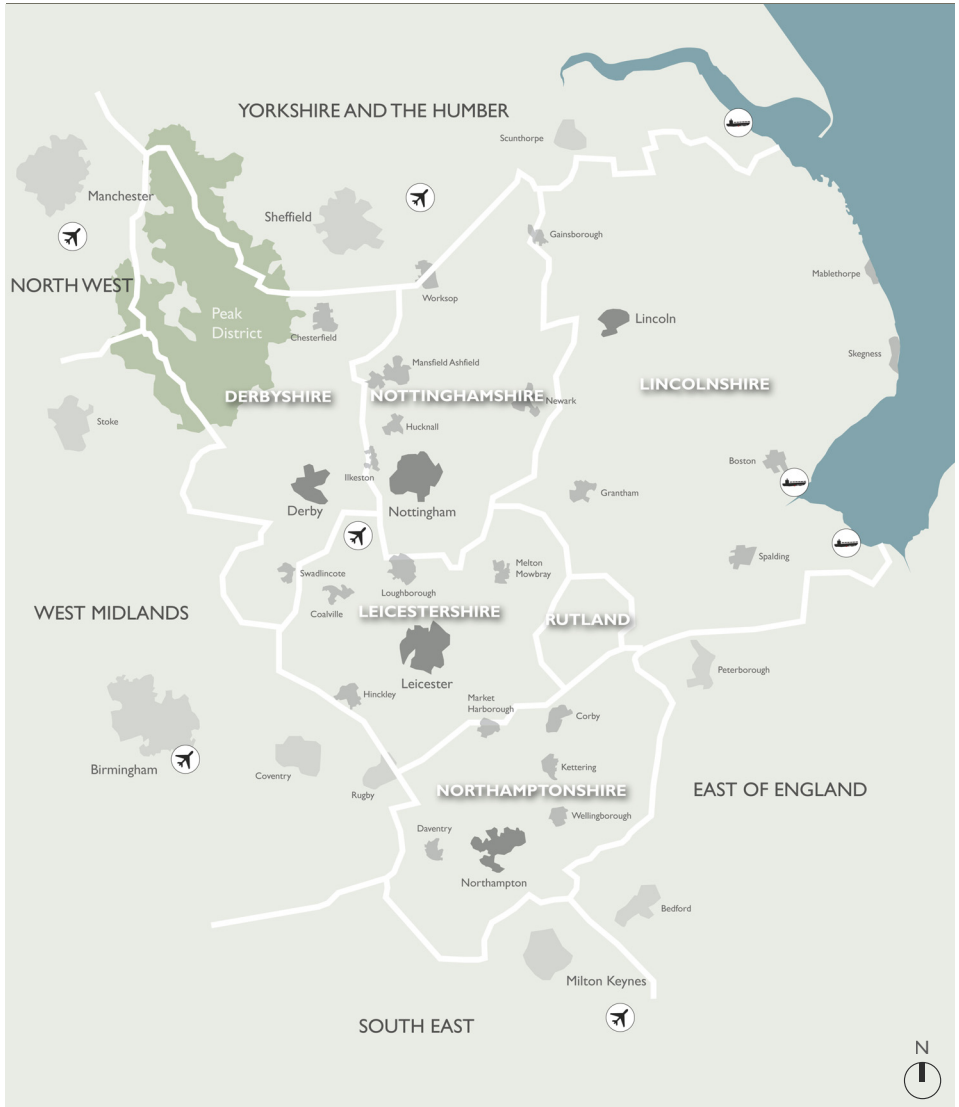
Strategy and policy at a local and regional level relevant to housing development should include a consistent emphasis on design quality.

Background

emda is one of nine English Regional Development Agencies (RDAs) set up by Government in April 1999 to promote sustainable economic development in England.

To help the region achieve its potential, *emda* was tasked with developing and reviewing a Regional Economic Strategy (RES). The RES provides a series of objectives and policy priorities for the region's sustainable economic development. The current strategy, '*A Flourishing Region*', was published in July 2006 and went through a revalidation process in 2009 – with an updated evidence base published in 2010 ('The East Midlands in 2010')..

The housing section of the evidence base provides a detailed discussion of trends in the household population and the size of the region's housing stock and its condition, followed by a discussion of the issues regarding the housing market and affordability. This analysis focussed on published official statistics, and thus primarily described the quantitative aspects of the housing market.



East Midlands region

Building on the statistical portrait provided by 'The East Midlands in 2010', *emda* was keen to explore more qualitative issues related to the region's housing stock. A key area of interest concerns possible linkages between housing design and build quality and a range of sustainable development outcomes, such as innovation and enterprise, environmental protection, community cohesion and place shaping.

emda therefore commissioned Urban Practitioners and Hunt Dobson Stringer to undertake a review of housing design and sustainable economic development in the East Midlands. This research was undertaken with a view to addressing the following key questions:

- What is the current profile of design and build quality of the region's housing stock?
- What evidence is there on the links between design and build quality and opportunities for increased innovation and enterprise activity and higher skills demand and utilisation?
- What are the opportunities for better designed housing stock to contribute to the low carbon agenda?
- What evidence is there that better designed housing stock can improve community identity and cohesion, and contribute to broader place making and neighbourhood renewal objectives?
- Is there any evidence, in literature or case studies, that community participation and consultation, mutual management, etc can improve the design and build quality of housing stock?
- Are there notable differences in relationships between design and build quality and the above outcomes in rural and urban areas?

Purpose of the report

This report summarises the findings of the research. It reviews the evidence of the link between design and sustainable economic development. The report summarises the economic benefits of good housing design and the extent to which these have been achieved in the East Midlands region.

Focus of the research

The research seeks to identify the benefits of good housing design established through previous research, with a view to providing a definitive list of statements which can be supported by the evidence. The study then tests these hypotheses against East Midlands evidence to provide some regionally specific messages on the economic benefits of achieving good quality housing design – both at a local and wider regional level.

The impact of good housing design in the region is illustrated through a selection case studies.

Report structure

This draft report is structured as follows:

- Chapter 2 provides an overview of the policy context relating to housing design;
- Chapter 3 reviews the literature and research addressing the socio-economic benefits of good housing design;
- Chapter 4 outlines the East Midlands context and provides an update on recent trends in housing design quality;
- Chapter 5 outlines the findings of the research into a series of case studies across the region, which explore the degree to which good design has resulted in positive sustainable economic development in the region; and
- Chapter 6 identifies the headline findings of the research as a series of conclusions.

2.

2. Policy context

Introduction

This section provides an overview of the review of policy and guidance documents at the national level. The review has focused on the following areas:

- Housing development strategy;
- Design quality;
- Sustainable design; and
- Housing construction.

Definition of design quality

For the purpose of this study, the definition of 'good housing design' includes a consideration of the quality of individual buildings, as well as a range of other factors. These include layout of streets and public spaces, the extent and quality of green infrastructure, the effectiveness of transport links, and the range of social infrastructure. Design must be considered at a range of scales from the layout of streets to the detail of building facades. This understanding of good quality design, and its place in planning policy, is based on policy set out by the previous Government (including World Class Places, PPS1 and PPS3) and CABE's definition set out in 'By Design'. These statements are likely to be revised following the change of Government, as part of reforms to the planning system that are yet to be enacted. Good quality housing design for the purpose of this study is defined as follows:

- A good range and mix of homes, services and amenities;
- Well designed and maintained buildings and spaces;
- Ample high quality green space and green infrastructure;
- The sensitive treatment of historic buildings and sites;
- Walkable neighbourhoods which are well structured and legible - particularly for walking and cycling;
- Design (both in terms of urban layout and the buildings themselves) which is well informed by local character and appropriate to its setting; and
- Design which responds positively to the challenge of climate change - addressing the need to reduce resource use and adapt to future climate scenarios.

International policy

There are no specific policy documents at the European level on housing design. However, the establishment of strategic policies on sustainable development more generally has been a focus for the European Commission.

The European Sustainable Development Strategy (2006 and 2009 update) provides the European definition and framework for sustainable development, and is therefore of particular relevance. This strategy recognises the need for an integrated approach to social, economic and environmental objectives and the importance of all new developments in contributing to these. The Sustainable Development Strategy particularly emphasises the need to address climate change - both in terms of mitigation and adaptation.

Housing development represents a significant proportion of overall development across Europe and within the region, and therefore offers important opportunities to address sustainability and climate change objectives.

The construction and occupation of homes consumes a significant amount of energy and make a considerable contribution to reducing carbon emissions through designing homes which use more energy efficient materials and require less energy to occupy. At the same time, new developments must be designed to be more resilient to future weather events arising from a changing climate.

National policy

At the national level, there are a number of strategies and statutory policy documents which emphasise the importance of high quality design and placemaking. Some of these make specific reference to the role of design, particularly housing design, in supporting the regeneration of local areas.

UK Sustainable Development Strategy

The UK Sustainable Development Strategy sets out the previous Government's definition of sustainable development, which may be subject to change under the new Coalition Government's legislative programme. The priorities were: sustainable consumption and production, climate change, natural resource protection and

sustainable communities. An indicator set is also established to monitor outcomes.

Planning Policy Statements

The national planning policy framework strongly promotes good design through a series of policy statements and accompanying guidance.

Planning Policy Statement 1 identifies good design as central to sustainable development. Planning authorities are given a significant responsibility to ensure good design of homes and all new development. PPS 1 states "planning authorities should plan positively for the achievement of high quality and inclusive design for all development... design which is inappropriate in its context, or which fails to take the opportunities available for improving the character and quality of an area and the way it functions, should not be accepted." Planning authorities are therefore required to "prepare robust policies on design and access." The Supplement to PPS1 emphasises the link between design and climate change and the need to address both in order to maintain successful places.

Sustainability is increasingly accepted as a necessary attribute of good design, and this is emphasised in the recent Planning Policy Statement consultation on 'Planning for a Low Carbon Future in a Changing Climate'. In addition, the Code for Sustainable Homes, as it becomes integrated into the Building Regulations, will require more resource efficient and sustainable design in housing developments.

Planning Policy Statement 3: Housing provides housing-specific guidance to planning authorities. It identifies a series of specific outcomes that the planning system should deliver including "high quality housing that is well-designed and built to a high standard." The policy statement also states that "good design is fundamental to the development of high quality new housing, which contributes to the creation of sustainable, mixed communities." Local planning authorities should "develop a shared vision with their local communities of the type(s) of residential environments they wish to see and develop design policies that set out the quality of development that will be expected for the local area". In addition, Local Planning Authorities "should encourage applicants to bring forward sustainable and environmentally friendly new housing developments, including affordable housing developments, and in doing so should reflect the approach set out in the PPS on climate change, including on the Code for Sustainable Homes."

To facilitate the delivery of high quality development, PPS 3 suggests Local Planning Authorities should draw on relevant guidance and standards and promote the use of appropriate tools and techniques, such as Design Coding alongside urban design guidelines, detailed masterplans, village design statements, site briefs and community participation techniques.

PPS 1 and PPS 3 provide a clear requirement for local planning authorities to deliver high quality housing through the planning system.

World Class Places (2009)

World Class Places lays out the previous Government's approach to improving quality of place. It addresses the way that places are planned, designed, developed and maintained, and the steps proposed by the previous Government to build on recent progress. It sets a new overarching conceptual framework which places the quality of place agenda at the heart of spatial and economic planning.

The report defines the components of quality of place, and these strongly reflect aspects of good design:

- A good range and mix of homes, services and amenties;
- Well designed and maintained buildings and spaces;
- Ample high quality green space and green infrastructure; and
- The sensitive treatment of historic buildings and sites.

World Class Places provides an important and useful driver for good design in England, making the link between design, local character and local economic prosperity.

The Action Plan which supports the main document sets out a series of headline recommendations, which emphasise the importance of design policy and standards. The approach identifies important links to the Homes and Communities Agency with respect to housing design quality, emphasising its role in supporting skills and delivery of high quality new housing.

Transforming Places (2008)

The current CLG framework 'Transforming Places: Changing Lives' provides a broad structure for sub-national regeneration activity and investment. It widens the scope of regeneration beyond investment to encompass design, character and planning. The regeneration framework advocates an integrated approach which places the quality of local environments and physical character on an equal footing with regeneration objectives such as economic investment, supporting the link between (housing) quality and economic outputs.

National guidance

A series of national guidance documents further emphasise the importance of high quality housing design. By Design (1999) provides the definition of good design which is now universally accepted and emphasises the particular role of housing design. The Urban Design Compendium (2000 and 2009 update) further emphasises the importance of design quality and provides detailed guidance on how to achieve it.

Each of the core national guidance documents define design in relation to a range of scales and do not restrict design to aesthetic or building-specific considerations.

National design standards

Over the past decade a wide range of design standards have been launched, all with emphasis on different aspects of design, from designing out crime to sustainability. The Building for Life standard has sought to bring these standards together into one overarching set of criteria against which all proposals for new development can be assessed.

The Building for Life standard is a set of 20 criteria divided into the following categories:

- Environment and community;
- Character;
- Streets, parking and pedestrianisation; and
- Design and construction.

Building for Life represents the first universal assessment for monitoring design quality in the planning system. It is a recommended tool for use during planning applications and masterplans, and has been made a compulsory monitoring tool by CLG. The Building for Life standard has now been adopted at a national level as a tool for monitoring the design quality of new housing completions. Each local authority is required to assess the quality of completed schemes of ten or more dwellings and provide the scores to CLG via its Annual Monitoring Report.

Other design standards which focus particularly on sustainability and are used extensively across England include BREEAM (Building Research Establishment Environmental Assessment Method) and the Code for Sustainable Homes. The former is a benchmarking tool which measures the environmental design quality and performance of whole schemes and is used to encourage improvements in quality year on year. The Code for Sustainable Homes is now a mandatory measure of sustainability focused on the building unit. It focuses in particular on energy and water, and is linked to mandatory levels for Building Regulations. The Code works towards a 2016 target for all new homes to be zero carbon. The Code will ensure sustainable design is a necessary requirement in order to received planning permission and to pass Building Regulations.

Summary

This policy review illustrates that design quality is firmly embedded as a priority in current regeneration and planning policy, although it is not yet clear whether this emphasis will be maintained with the new Coalition Government's reshaping of planning policy and the abolition of the regional planning tier. The proposed reforms aim to give local authorities far more freedom in planning decisions, reducing the level of guidance. It will therefore be increasingly important for design and planning practitioners to advocate the benefits of good design to local authorities and developers. The quality of places, strongly influenced by design, considered to be central to an area's success and sustainability. The design quality of housing is particularly emphasised in policy documents such as PPS 3.

Good design is about well structured neighbourhoods with a good mix of uses and housing, ample green space, good access to services and facilities and a strong character.

3.

3. Design and sustainable economic objectives

Introduction

This section explores the evidence of links between socio-economic characteristics and design quality, and the extent to which there is evidence of benefits in the East Midlands.

The review focuses on the following:

- Identifying the economic benefits of design quality;
- Exploring the outcomes of improved design quality on the construction industry; and
- Identifying the socio-economic benefits of good design in new housing developments.

CABE has compiled a significant amount of research around the value and benefits of good design. Much of this was prepared before the recent recession, but the findings remain relevant.

Recent research in the North West region by Amion and Taylor Young has specifically explored the value of good design in the context of the recession. This study highlighted the importance of 'good enough' design and the negative economic impact of poor design quality. This research makes a powerful case for prioritising good quality housing design as a means of supporting the economic recovery of the East Midlands region.

Overview of findings

The Barker Review of Housing Supply (2004) highlighted a lack of evidence on the inter-relationship between housing, economic development and productivity. In 2008, a report by the Housing Corporation and the Centre for Cities set out three key reasons why housing was important to economic development[1]:

- The right housing offer is essential to attracting and retaining a skills base that will encourage inward investment;
- Co-ordinating regeneration and economic development interventions maximises the potential for achieving more economic inclusion; and
- Housing investment can, in itself, be a powerful driver of local economic activity.

Evidence of the first can be found in a number of urban extensions. Table 3.1 shows data for an extension to Harlow, a post-war new town in the East of England region, stuck in a low-skill/ low wage equilibrium. The table shows

		Church Langley	Harlow
Tenure	Private	93.7%	65.3%
	Social rented	6.3%	34.7%
Qualifications	No qualifications	16.3%	31.9%
	Level 4+ qualifications	21.0%	11.8%
Occupation	Managers / Professional / Associate Professional	51.0%	33.5%
	Process / Plant / Elementary	13.6%	24.8%
Overcrowding	Overcrowded	3.0%	8.2%
	Overcrowded (Private)	2.8%	5.6%
	Overcrowded (Social)	9.7%	15.9%
NS-SeC	Higher managerial and professional occupations	14.4%	6.8%
	Lower managerial and professional occupations	29.6%	18.5%
	Intermediate occupations	15.4%	11.8%
	Small employers and own account workers	6.3%	6.1%
	Lower supervisory and technical occupations	7.8%	8.7%
	Semi-routine occupations	9.6%	13.5%
	Routine occupations	6.1%	11.4%
	Never worked and long-term unemployed	1.2%	2.6%
Economic activity	Economically active	83.1%	71.7%
	Economically active, unemployed	2.4%	4.7%
Approximated social grade	% Higher and intermediate managerial / administrative / professional	33.4%	17.9%
	% On state benefit, unemployed, lowest grade workers	4.2%	17.3%

Table 3.1: Comparison of indicators between well-designed urban extension (Church Langley ward) and the town average (Harlow)

[1] Housing Corporation and Centre for Cities (2008) *Housing and Economic Development*

that the people who moved to the new housing at Church Langley have very different characteristics to residents in the existing housing stock, exhibiting higher skills levels.

As part of this study a wide ranging literature review has been undertaken in order to identify existing evidence of this inter-relationship and to establish the impact that better housing design has on issues such as economic development and productivity.

The literature review has identified some clear links between good design and the creation of social, economic and environmental benefits. However, the extent of the benefits varied according to the schemes under analysis and some analysts were reluctant to establish direct causal links between benefits and the presence of good quality design: 'while high housing quality alone may not be enough to attract inward investment, a lack of high quality of housing may preclude it'.

A research paper by Sebastian MacMillan in 2006 recognised the multi-faceted nature of 'good design'. He stated that 'good design is not just about the aesthetic improvement of our environment, it is as much about improved economic performance and better image of the area'.

In 2007, a study was produced for the North West Development Agency (NWDA) and its regeneration partner (Renew Northwest) which looked at the economic value of urban design. This publication found that good design can add value. Evidence gathered in the report showed that good urban design can:

- Increase the rental/capital value of a property by up to 15 to 20%;
- Accelerate the lettings/sales rate;
- Reduce whole life costs of a property/scheme;
- Stimulate wider regeneration and improve an area's image; and
- Generate social impacts such as civic pride, place vitality, greater social inclusion and interaction, improved community safety/crime reduction.

The same study was updated in 2009 to assess whether good design is as important or has the same impacts during a recession compared to more buoyant points in the economic cycle. This report concluded that even during a recession the value of good design was still recognised. However, it was also noted that because of increased price sensitivity design quality had to be kept as cost neutral as possible. The report also highlighted that although good design continued to add value, the wider benefits were not as commonly seen.

While it is possible to find numerous research papers and studies setting out the benefits that have been seen to arise from the development of high quality housing, there are other observers who point out that higher quality design will only benefit those who have the financial capacity to make a choice about where they live.

Paul Cheshire makes the argument (in Segregated Neighbourhoods and Mixed Communities, 2007) that the characteristics of neighbourhoods (for example, the quality of the schools, crime rates and levels of private and public amenity) are 'effectively capitalised in house prices and rents' (p.ix). Therefore, it is not the case that people on lower incomes choose to live in areas with higher crime rates, poor housing stock and worse pollution, but that these attributes influence the housing market so it becomes the most affordable. The academic studies reviewed as part of this research suggest that moving lower income families to affluent neighbourhoods does not improve their overall welfare without people based interventions to help with health, employment and other issues.

The degree of importance home buyers place on good design is also of relevance when considering the benefits of good design - particularly with respect to making areas desirable to live in and sustaining house prices. The MORI survey reviewed as part of this research found that nearly three quarters of those interviewed believe well designed houses will increase in value quicker than average. In addition, when asked to list two or three things which they considered important in the design of new houses over half the respondents said security was a key factor; and 56%

said that new homes should be built to last. However, relatively few considered energy efficiency to be important.

The research review has also highlighted the link between the quality of the public realm and housing development. CABE's research has illustrated that well maintained public parks and squares can support stronger local centres and lead to higher property prices in places. Their research has also indicated that high quality environments support better quality life and therefore attract both employees and employers.

In 2008, the Department for Communities and Local Government published its Regeneration Framework, which aims to shape the way that regeneration is carried out in future in England. It focuses on ensuring that regeneration tackles the underlying economic challenges to increase social mobility. The report states that 'regeneration is a sub-set of economic development' (p.8).

The Regeneration Framework sets out three priority outcomes for regeneration: improving economic performance in deprived areas; improving rates of work and enterprise in deprived areas; and creating sustainable places where people want to live and can work and where businesses want to invest.

The focus of the Framework is on aligning regeneration with economic activities that strengthen the wider economy. It advocates assessing the success of regeneration interventions through outcome measures rather than outputs, such as the improved economic performance of an area. Improved economic performance and more people in jobs are necessary but not sufficient success criteria to transform the poorest places. Success in regeneration will also require that improvements in economic outcomes translate to real improvements in the lives of residents of deprived areas, like concerns about anti-social behaviour, cohesion, and the physical characteristics of an area.

In addition to the issues identified by the research set out above, the literature review has also highlighted the impact of design on the construction industry – namely, that design can have an impact on the construction skills required to build a home leading to impacts on the supply chain.

The Building for Life criteria include an assessment of the 'use of advances in construction and technology that enhance [the scheme's] performance quality and attractiveness'. This criterion includes consideration of Modern Methods of Construction (MMC).

The literature reviewed suggests that design quality and construction efficiency can be achieved through both MMC as well as traditional methods. MMC also offer benefits in increased speed of construction. In terms of construction costs, MMC does not result in any significant savings and is also less flexible in accommodating design changes. Although the use of MMC is becoming more common, it is expected that traditional forms of construction will continue to co-exist for some time to come . Increasing use of MMC will, however, be likely to impact on the construction supply chain and the skills required for employees of that sector.

Key messages

Overall, the literature review suggests that design quality generates sustainable economic impacts in three main ways:

1. By creating places that are more attractive to mobile highly skilled workers which boosts the economy;
2. By directly boosting the economic performance of areas; and
3. By initiating changes in construction skills and supply chain.

In summary, the benefits of good design identified through the literature review are:

- Better sustainability - good design encompasses sustainable design which reduces carbon emissions and the use of natural resources;
- Increased use of sustainable modes of transport - neighbourhoods developed at a walkable scale with a good mix of uses and housing support more sustainable movement patterns;
- Cohesive communities - well structured neighbourhoods with well planned and delivered social and community infrastructure support community spirit;
- Reduced crime - well designed neighbourhoods limit the opportunities for crime by enhancing natural surveillance and street activity;
- Innovation - higher standards of housing design support innovation in the design and construction sectors;
- Enterprise - establishing a consistent benchmark of quality and innovative design supports business growth in the design and construction sector;
- Regeneration stimulus - well designed neighbourhoods and developments can help to alter the image and perception of a place and give confidence to the economy; and
- Sustained property prices - well designed homes maintain their value better than poorly designed homes and therefore make areas more resilient to changing economic circumstances.

4.

4. East Midlands context

Introduction

This section sets out the context in which housing development is taking place in the East Midlands. It provides:

- An overview of the context for development in the region - highlighting the scale of growth and the importance of the construction industry to the region.
- A socio-economic summary of the region - emphasising the importance of regeneration;
- A historic look at design quality - with emphasis on the baseline findings established by the regional CABE Housing Audit – Assessing the design quality of new housing in the East Midlands, West Midlands and the South West (2006); and
- An update on design quality improvements since the audit.

Development context

The population of the East Midlands has been growing rapidly and is projected to continue to do so in future. Between 1998 and 2008, the region's population increased from 4.1 to 4.4 million residents, a growth rate of 7.3% compared to 5.4% in England overall[1]. Looking into the future, the East Midlands has the fastest projected growth rate of all English regions between 2006 and 2016, at 10.5% compared to 7.8% in England overall, according to projections based on the 2006 population estimates[2]. This will translate into 289,000 new households, representing a significant demand for new homes over the next 15 years.

The key areas of growth are the southern part of the region and Central Lincolnshire. West Northamptonshire, for example, will see a 20% increase in households, whilst Central Lincolnshire will see a 19% increase in the same time frame.

A step change in the delivery of homes is needed in the region. Over the last few years the region has achieved below average rates of completions each year. A significant increase in this rate will be required to meet the projected demand and targets for growth.

Some indicators suggest that the recession has had a greater impact on the region's housing market compared to elsewhere in the UK. A steeper drop in house prices and a slower rate of recovery has been seen throughout the region. House prices have fallen by 11.9% in the East Midlands compared to 6.6% nationally between 2006 and 2009. The average house prices in the region in the last quarter of 2009 were 2.5% higher than the last quarter in 2008, compared to a 3.4% increase nationally.

Given this context, it is important to note that the construction industry is comparatively more significant in the East Midlands region. Construction companies make up 13% of the business stock compared to 10% nationally. There are a large number of small companies within the construction sector in the East Midlands, but also some major players which have head offices in the region, such as Aggregate Industries in Leicestershire.

[1] ONS Crown Copyright, Mid Year Population Estimates, 1998-2009, July 2009

[2] ONS Crown Copyright, 2006-based Sub-National Population Projections, June 2008

Socio Economic Profile

In order for new homes to benefit economic development in the region, it is important to understand the context within which such development would take place.

This section sets out the current socio-economic baseline for the individual counties that comprise the East Midlands compared against regional and national figures. Data is taken from a variety of sources including 2001 Census, Annual Population Survey and Annual Business Inquiry.

Although the East Midlands is one of the smaller regions in terms of population size, the 2006-based population projections suggested that it could experience a faster growth over the next 25 years than in any other English regions. Recently published 2008-based projections suggest a somewhat slower rate of growth. Notwithstanding uncertainty over the extent and pace of growth, continued population increases will put pressure on housing, which will not be evenly distributed across the region – Northamptonshire, for example, as part of the Milton Keynes East Midlands Growth area, is projected to have a high population growth.

Associated with this population growth, the number of households is also projected to increase, by an even higher rate than population growth. A rise in the number of households of approximately 30% is forecast between 2006 and 2026. Single person households are projected to increase at a particularly high rate. Household size is also expected to decline with the average falling from 2.3 people per household in 2006 to 2.2 in 2026.

The age structure of the East Midlands resident population is also forecast to change. At present, the East Midlands has a lower percentage of residents aged 25 to 35 and a higher percentage between 55 and 65, relative to the UK average. In the years to 2026, the number of elderly people is expected to grow. The population of those aged 65+ is projected to be 59% higher than in 2006 – this is the largest increase of any of the English regions.

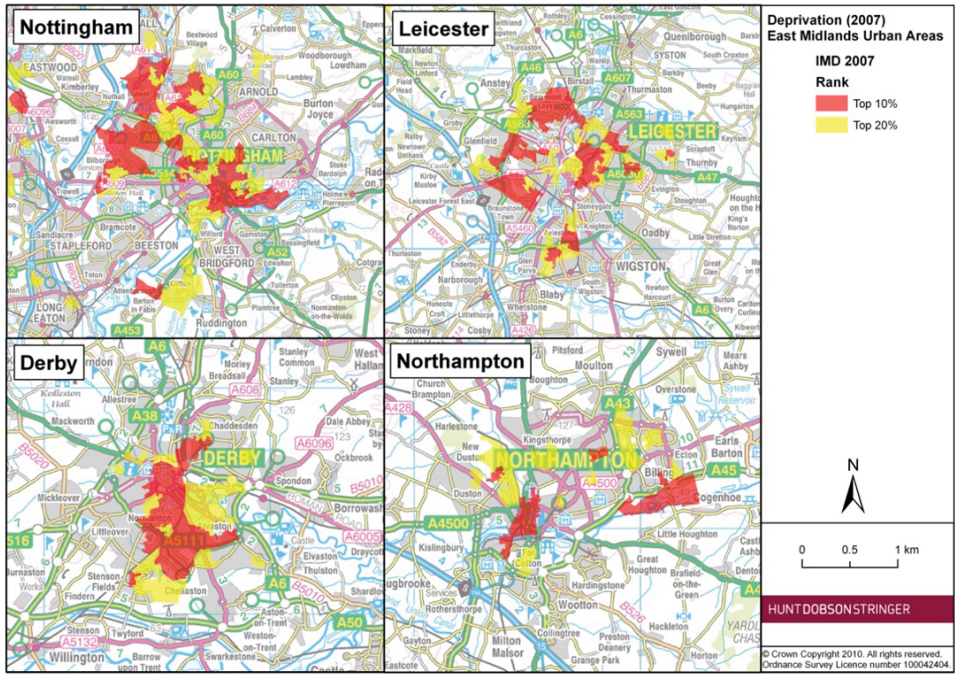
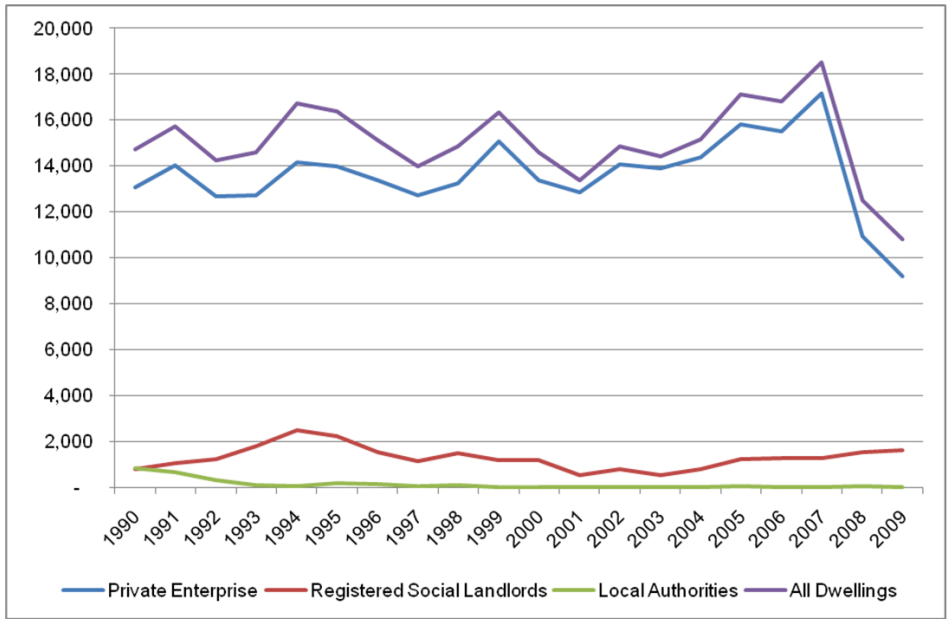


Figure 4.1: Index of Multiple Deprivation for key urban areas in the East Midlands region

Although areas in the south and west of the East Midlands are relatively affluent, there are areas of persistent and significant deprivation in the north of the region, around former coalfields, in the main cities, and to the east along the Lincolnshire coast. The extent of the deprivation experienced by a number of the main cities in the East Midlands is shown in Figure 4.1.



Source: CLG (2010) *Table 217 House building: permanent dwellings started and completed by tenure and by region*

Figure 4.2: Housing completions in the East Midlands between 1990 and 2009 by tenure

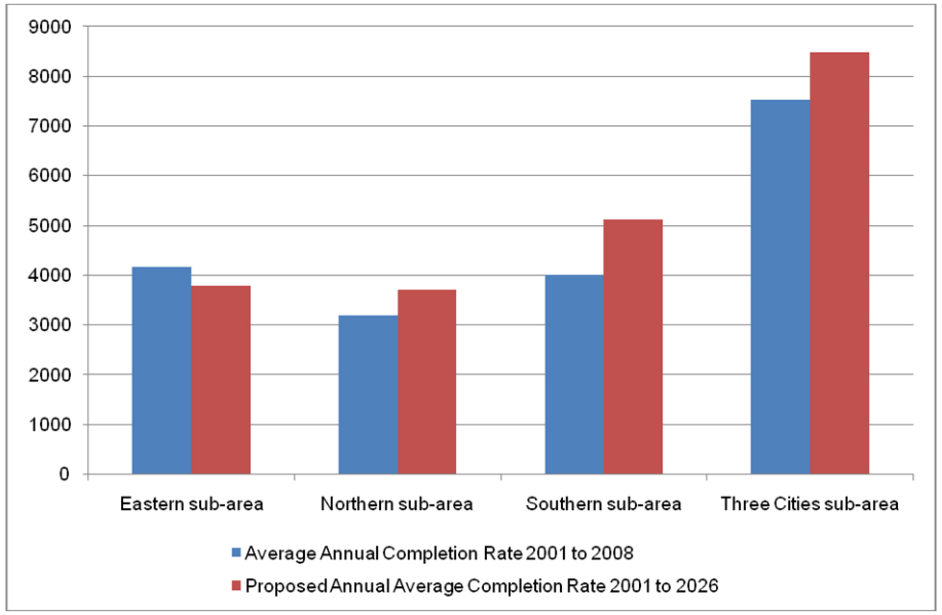


Figure 4.3: Comparison of annual housing completions rate with the proposed completion rate 2001 to 2026

Housing

According to 2001 Census data, houses are the predominant dwelling type across the region accounting for 90% of all dwellings in the East Midlands. That proportion falls in Leicester and Nottingham with 83% and 80% of all dwellings comprising houses, respectively. This compares to the proportion in England as a whole, of 80%.

In terms of tenure, Leicestershire has the highest proportion of owner occupied properties at 81%. This compares to the East Midlands as a whole at 72%. Leicester and Nottingham have the lowest proportion of privately-owned properties at 58% and 50%, respectively. Both of these locations have a comparatively high percentage of properties rented from a Registered Social Landlord (RSL) (28% and 33%, respectively) and private-rented properties (13% and 14%, respectively) when compared to other areas of the East Midlands.

Data from the Department of Communities and Local Government on housing completions for the East Midlands shows that the proportion of housing delivered by private enterprises fell sharply between 2007 and 2009. The peak year for housing completions by private enterprises was in 2007 with 17,180 homes. Prior to 2007, completions by this sector since 1990 averaged around 13,800 dwellings per year.

County/Unitary Authority	Average House Price
City of Derby	£109,611
City of Nottingham	£90.212
Derbyshire	£125,145
Leicester	£112,588
Leicestershire	£148,517
Lincolnshire	£127,204
Northamptonshire	£135,957
Nottinghamshire	£123,494
Rutland	£202,856

Table 4.1: Average house prices for East Midlands County/Unitary Authorities

Housing completion figures also show a steady increase in the number of completions brought forward by housing associations, particularly since 2003. While private enterprise completions were falling between 2007 and 2009, housing association completions continued to rise. A graph showing the number of housing completions between 1990 and 2009 by tenure is displayed in Figure 4.2 below.

The Annual Monitoring Report for 2007/08 produced by the East Midlands Regional Assembly states that the dwelling completion rate for the region in 2007/08 was 'a little below the RSS Proposed Changes' annual average target. In 2009, the East Midlands Regional Plan (RSS8) set a target of 324,100 new homes between 2006 and 2026. This is equivalent to an annual apportionment of 16,810 per year.

Figure 4.3 shows how the different sub-areas, as identified in the East Midlands regional plan, perform in terms of housing completions against policy targets.

Figure 4.3 shows that the highest level of housing delivery is taking place in the Three Cities sub-area which includes Derby Housing Market Area (HMA), Leicester and Leicestershire HMA and Nottingham Core HMA. This sub-area is designated to support 'the continued growth and regeneration of Derby, Leicester and Nottingham'.

On average, house prices in the East Midlands are consistently around 80% of the average for England and Wales. The average house price in January 2010 in the East Midlands was £129,271. This compares to the national house price average of £165,088. Average house prices for January 2010 by county/unitary authority are shown in Table 4.1 below (please note these figures are more up to date than the annual and quarterly land registry data quoted earlier in this report).

NATCEN English Housing Conditions Survey

The National Centre for Social Research (NATCEN) undertook secondary analysis of regional data from various national surveys for *emda* in 2009. The review of housing survey information provides some information on the quality and satisfaction with housing in the region.

In terms of satisfaction, the Survey of English Housing found that the proportion of owner occupiers (with mortgage) very satisfied with their home rose from 63% in 2002/3 to 65% in 2006/7, compared to a national shift down from 64% to 63%.

An analysis of the bedroom standard of overcrowding found that fewer households in the East Midlands lived in overcrowded conditions compared with England as a whole.

The 2002/03, the English Housing Conditions Survey (EHCS) showed that there were fewer households living in non-decent homes in the East Midlands (26%) than in England as a whole (30%). In the 2005/06 EHCS, half of privately renting households in the East Midlands lived in non-decent households, a significantly higher proportion than the 40% of private renters in England as a whole.

In both 2002/03 and 2004/05, a smaller proportion of East Midlands residents would have liked improvements to the quantity and quality of housing (11% in both years) than residents in England as a whole (14% in 2002/03 and 15% in 2004/05).

Economy and Labour Market

Overall, according to Annual Population Survey data for 2008, the East Midlands has a slightly higher proportion of residents with no qualifications (13%) than is the case for England as a whole (12%). Rutland has the lowest rate of residents with no qualifications at 8%. Leicester has the highest proportion of residents without qualifications in the East Midlands at 22%.

Rutland has a relatively high proportion of residents qualified to Level 4+ at 30% when compared to other areas in the East Midlands. This compares to 25% and 29% at the regional and national levels, respectively. Lincolnshire and Leicestershire have the lowest proportions of people qualified to NVQ Level 4+ at 21%.

The rate of economic activity amongst those of working age across the region is fairly high. According to Annual Population Survey figures for July 2008 - June 2009, the regional average was 80% which compares to 79% across England as a whole. Northamptonshire and Rutland, at 83% and 84% - respectively, have the highest economic activity rates across the region. Nottingham on the other hand has a rate of 69% which is significantly below the regional average.

In terms of unemployment, again the region mirrors the national picture, with approximately 4% of economically active residents out of work and claiming Job Seekers Allowance (JSA) (December 2009) in both the East Midlands and across England as a whole.

The occupational structure of employment in the East Midlands differs from the national profile in a number of key areas.

Across the East Midlands, people who are employed as 'Managers and Senior Officials' account for 16% of the working age population (see Annual Population Survey data July 2008 to June 2009). This is the same as the national rate for the same occupation. However, this masks differences within the region. For examples, in Rutland, 20% of the working population are employed as 'Managers and Senior Officials' while in Leicester and Nottingham the rate is 12% and 10%, respectively.

The proportion of people employed as 'Process, Plant and Machine Operative' in the East Midlands is 9% which is above the rate for England as a whole at 7%. In Rutland this figure is 5%. In contrast, for Leicester the proportion of people working in this occupation group is at 12%.

According to Annual Business Inquiry data (2008), the largest proportions of employment (27%) in the East Midlands is in the 'Public Administration, Education & Health' sector. In Rutland, Nottingham and Leicester this sector accounts for 34% of all employment.

The 'Banking, Finance and Insurance' sector accounts for a smaller proportion of all employment in the East Midlands (18%) than across England as a whole (23%). In Nottingham the same sector accounts for 26% of all employment. Manufacturing accounts for 15% and 10% in the East Midlands and across England, respectively. The same sector accounts for 19% and 20% of all employment in Derby and Derbyshire, respectively.

The East Midlands Regional Economic Strategy published in 2006 states that the region is characterised by the persistence of a low pay, low skills equilibrium.

This is a mutually reinforcing state where there is a low demand for skills from employers, due to a concentration of activity in low value sectors. This in turn results in little incentive for workers to 'up-skill', with corresponding lower than average levels of pay. The lower than average income of residents in the region, impacts on the affordability of housing for people employed in the East Midlands.

Design quality baseline

CABE's Regional Housing Audit in 2005 evaluated the East Midlands as having the lowest quality of new development design of all the English regions. Figure 4.4 shows that only 3% of developments audited in the region were considered to be very good (with no schemes scoring as good), while 55% were identified as poor quality. This review has acted as a catalyst for addressing design quality.

Interestingly, both the East and West Midlands scored poorly in the Housing Audit, as shown in Figure 4.4, when compared to other Engligh regions. In both these Midland regions around half of the properties audited were considered to be of poor quality, where less than a fifth were considered poor in the South West region. This may suggest the issue is particularly prevalent in the Midlands area.

The Housing Audit was based on an early set of the Building for Life criteria (14 out of the now 20 criteria). The only scheme to be considered high quality design was Freeman's Meadow in Leicester, also known as Bede Island South. This achieved a score of 84%. In other regions such as the West Midlands, the performance was considerably better. 15% of schemes (4 developments) were considered to be either good or very good, all achieving scores over 70%.

In response to the poor results in the East Midlands the then Housing Corporation and the regional architecture centre, Opun piloted the Local Sustainable Design Forum in 2007. Two years later some progress has been made in the region through this and many other initiatives. The economic downturn means that it continues to be challenging to invest in quality in a context of economic constraints.

CABE and Opun are currently undertaking Building for Life assessment training across the region with a view to enhancing design skills and development quality.

The link between housing design quality and the cost of homes is an important one. The cost of housing in the East Midlands has been shown to be lower than other regions, suggesting the quality of housing may be partly capitalised in house prices. This will be explored further in the case studies later in this report.

Design quality update - 2006 to 2009 trends

Since the 2005 audit, much development has taken place and a significant amount of guidance has been published - both nationally and regionally. The Building for Life standard has been widely adopted across England and is now used as the primary tool for assessing design quality.

Building for Life

Only one scheme, Upton Phase One, has achieved the Building for Life standard in the region, in this case a Silver Standard. This is lowest number for any English region. In comparison the North East has 2, the West Midlands 3, Yorkshire and Humber 4, East of England 5, South West 7, North West 9, South East 14 and London 19). A number of non-residential schemes in the region have been recognised nationally for their design quality, however, anecdotal evidence suggests residential schemes have yet to see a similar step change in design quality.

In 2009, Building for Life assessments of completed schemes became a requirement of local authority annual monitoring. December 2009 saw the first set of CLG returns include this indicator. The results are due to be published in Spring 2010. However, initial indications suggest that very few of the returns included scores against this criteria.

Of those authorities completing this section, only one scheme comes close to achieving a Building for Life Silver Award – Millers Walk in Ravenstone, North West Leicestershire (which scored just under the 14/20 required).

CABE has reviewed a number of schemes which have been entered for the Building for Life awards in the region. No schemes have been given awards, however, two schemes which were reviewed as part of the Housing Audit did come close to achieving the standard. The first was Tinkers Place in Matlock which achieved the equivalent of 9 out of 20, and performed well in terms of character. Waltham House near Matlock also scored 9 out of 20, performing well in terms of location, access, tenure

mix and access to public transport, but less well in terms of character and sustainability features.

Design awards

Other assessment tools and award programmes provide further indications of how the quality of housing design is improving in the region, and these are summarised below.

Housing award shortlisting reveals two recent schemes which have been recognised, both of which are associated with Upton:

- Upton Site C was shortlised for the 2009 Housing Design Awards; and
- One Earth Homes, Upton Square was shortlisted for the 2009 Sustainable Social Housing Project.

The Royal Institute of British Architects (RIBA) identifies examples of good design across the country. The East Midlands regional office and awards scheme has identified the following important housing schemes which have been shortlisted for awards or commended:

2007 The Manor, Beeston, Nottingham designed by Marsh Grochowski Architects, which was highly commended in RIBA East Midlands Awards for Architecture

2007 Derwent Stepping Stones, Derby designed by Redmak Architecture and Urban Design Shortlisted in RIBA East Midlands Awards for Architecture

2005 Arena Apartments , Nottingham, designed by Maber Architects. Commended in RIBA East Midlands Awards for Architecture

2003 Ropewalk Court Apartments, Nottingham designed by Maber Architects Shortlisted in RIBA East Midlands Awards for Architecture

In addition, the Hockerton Housing Project in Nottinghamshire, has been widely admired as an exemplar of sustainable housing.

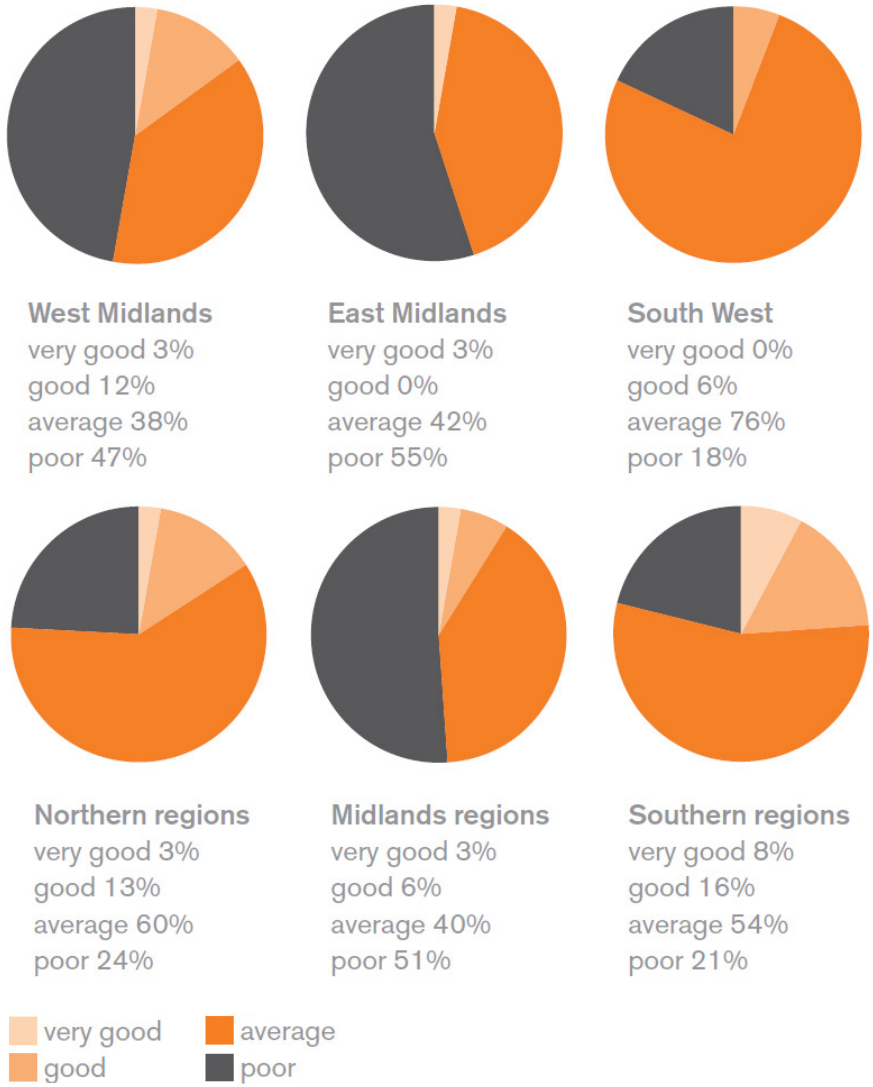


Figure 4.4: CABE Housing design quality audit (2005)

Design Review

The Opun Design Review service has reviewed a large number of housing scheme proposals in the East Midlands. The review service does not generally submit schemes to a full Building for Life assessment, and generally involves a verbal review of the scheme by appointed experts followed by a letter which summarises the recommendations for changes.

Two schemes which have since been completed were commended at the proposed design stage. These were Loughborough Wharf and The Manor, Beeston, Nottinghamshire.

Case studies

The review of recent examples of good practice in the region enabled the identification of a small number of schemes to be explored further as case studies. The examples which were chosen for case studies are:

- Upton Phase One, Northampton
- Bede Island South, Leicester
- The Manor, Beeston
- Arena Apartments, Nottingham

These are explored in the following chapter.

Design and Construction

emda has an interest in the relationship between design and construction, and in particular whether design and build quality offer opportunities for increased innovation and enterprise activity and higher skills demand and utilisation in the construction sector and whether there are opportunities for better designed housing stock to contribute to the low carbon agenda.

The Building for Life criteria include environmental and construction measures that can have implications for the construction supply chain and for construction skills. These are:

- Does the development have any features that reduce its environmental impact?
- Has the scheme made use of advances in construction or technology that enhance its performance, quality and attractiveness?
- Do buildings or spaces outperform statutory minima, such as building regulations?

In this sense, there are clear opportunities for better designed housing to contribute to the low carbon agenda.

Alongside these, there is increasing evidence that use of Modern Methods of Construction (MMC) is increasing and that this could have profound implications for the construction of new flats and houses.

To understand these emerging trends, interviews have been undertaken with a number of experts in the field including:

- Construction training and job brokerage centres;
- Two East Midlands colleges that are Centres of Vocational Excellence (COVE) in construction; and
- Major construction contractors.

Broad Themes

In general, the interviewees thought that there was a limited direct connection between good design and changes in construction processes. For example, use of MMC is no guarantee that a building has been well-designed – MMC can just as easily be used for badly designed buildings.

However, the interviewees felt that a number of changes in building design were having implications for the construction industry and for the colleges and training bodies that support it. The main two were the use of MMC and the increasing inclusion of environmental features that have not previously been part of house-building. It was felt in particular that new houses are being designed to meet

higher environmental standards and that this would increase in future as the requirements under the Code for Sustainable Homes increase over coming years.

In turn these had two further implications – changes in the skills required for house-building and consequently changes in the provision of training.

Changes in Skills

Interviewees found that where MMC were being used they were having a significant impact on construction labour and skills requirements. The impacts vary depending on the precise form of MMC, but in general there is a pattern of skilled trades working in factories and lower skilled people doing installation. Off-site construction means that the wiring and/or plumbing for kitchens and bathrooms is prepared off-site, pressure tested and then delivered to the site where often just a small number of connections are required.

This means that whereas previously five or six different skilled trades would be needed to install a kitchen or bathroom, now only one or two people are required on site and the skilled trades are based in the factories where the pods are manufactured.
This has a number of efficiency advantages in terms of the use of construction materials, testing and snagging.

It also means that on-site installation can be done by lower-skilled people with much less training. The workers just need to learn the sequence of installing components which they can learn from scratch and do not need to be a tradesperson. As a result, the work is better suited for entry-level workers who are more or less able to do the job, and so be paid, from day one.

The inclusion of environmental features means that there are some new skills required, but it was felt that in general the skills were extensions of existing construction skills rather than completely new ones.

Changes in Training

The use of MMC is having some impact on training – both in colleges and in terms of in-work training.

Where MMC involves the use of bathroom or kitchen pods, it is increasingly the case that training is done by the manufacturers of the pods rather than in colleges. However, colleges are increasing the training they offer in MMC, although at present it is limited and focused more on raising awareness of emerging construction techniques. The curriculum that colleges are required to deliver is set by the Construction Skills Sector Skills Council and in some areas it does allow for MMC to be included within a programme but in a very broad context. In part this is because of the pace of change in technology which would mean that if the curriculum design was too specific it would very quickly become dated.

Environmental technologies are also changing how training is delivered. To some extent the skills required are covered by conventional courses. However, colleges are increasingly offering courses in specialist techniques, especially around the retro-fitting of buildings in light of the government's desire to improve the energy efficiency of the country's older housing stock.

Community engagement

A number of research studies and frameworks have considered the link between community engagement and design quality, they include:

- The pan-European APaNGO (Advocacy, Participation and NGOs in Planning) project published its findings and recommendations in 2007. The project was one of the first studies of community engagement and involvement in planning and design at a European scale, and provides a wealth of evidence of best practice.
- CABE's Spaceshaper tool provides a framework for community participation in the re-design and enhancement of neighbourhoods focusing on elements of public realm. A series of case studies illustrate how such involvement has resulted in high quality design.

Whilst it is clear community engagement is important, there are no authoritative reports on the measureable socio-economic impact engagement in housing design can have.

5.

5. Case studies

Introduction

This section analyses a number of case studies in order to identify a link between good housing design and social and economic benefits. The case studies have been approved by *emda* and its stakeholders as examples of high quality development.

The review of housing design quality in the region identified a small number of completed schemes which represented high quality design. These schemes have been further explored to understand their economic impacts.

Each of the schemes identified have been recognised as demonstrating high quality design by CABE or RIBA. In order to assess the economic impacts of the developments, it was essential that they have been completed at least two years' ago.

The case studies are shown on the adjacent plan.

Approach and Methodology

The literature review highlighted a number of ways in which good design can have economic development impacts. The Barker Review stated that:

- The right housing offer is essential to attracting and retaining a skills base that will encourage inward investment;
- Co-ordinating regeneration and economic development interventions maximises the potential for increasing economic inclusion; and
- Housing investment can, in itself, be a powerful driver of local economic activity.

If good design has these impacts one would expect to see this demonstrated through a number of measures. These would include direct impacts e.g. on house prices, changes in demographic characteristics and lower deprivation (including underlying factors such as crime, poor environment etc).

In addition, design issues such as higher environmental standards are combining

Case study locations

with Modern Methods of Construction to change how the housebuilding industry approaches construction with implications for both the supply chain and skills and training.

The assessment involved a two stage process. Firstly identifying appropriate case studies and secondly identifying indicators of economic impact upon which the case studies may have had an effect.

Choice of Case Studies

Schemes were chosen based on their performance in the Building for Life assessments undertaken by CABE.
In order to undertake meaningful assessment of quantitative impacts a number of conditions need to hold. Developments need to be:

- Large enough to impact on relevant indicators;
- Old enough for any impacts to have been picked up in relevant data;
- Distinct in their design quality; and
- Comparable to other (often neighbouring) areas to allow measurement against a control group.

Unfortunately the number of schemes that have been assessed under Building for Life, and performed well, is very limited in the East Midlands.

Furthermore, Building for Life is a relatively new measure, therefore in many cases, not much time had elapsed since they were completed.

Consultation was held with stakeholders including *emda*, RIBA, CABE, GOEM, HCA and local authorities and this led to a further two case studies being identified as appropriate for analysis in this report.

The case studies chosen and analysed in this report are:

- Upton (on the edge of Northampton);
- Bede Island South (in Leicester);
- The Manor (in Beeston, near Nottingham); and
- Arena Apartments (Nottingham).

Choice of Indicators

There were two major constraints imposed by case studies that were available. Firstly, most of the schemes were very small. They were therefore unlikely to have had economic impacts beyond their immediate area. Secondly, most had been completed only in the last three years and therefore there is relatively little time-series data available to assess any impacts.

The case studies therefore include two quantitative measures – house prices and changes in the Indices of Multiple Deprivation (IMD).

As the literature review sets out, the qualities of an area and its housing are effectively capitalised in the value of housing. People will pay for a house what they think it is worth to them to live in that specific house in that specific area.

House prices therefore capture a lot of information about a house. These include internal characteristics such as size, layout and design, but also external factors such as location, access to services (especially schools), transport and proximity to employment and the quality of the local neighbourhood.
In new developments, design quality is therefore both an internal and external characteristic.

Land Registry house price data is an excellent data source. Firstly it includes every transaction so there is no risk of sampling bias and data can be obtained at the level of the individual property, street, postcode sector or other suitable unit of measurement. Secondly, it controls for some of the bigger determinants of house prices – the size and type of unit (number of bedrooms, and whether it is a flat, terraced, semi-detached etc); whether it is freehold or leasehold and whether it is a new-build or re-sold property.

The latter is particularly important in this context as there has traditionally been a premium attached to new-build properties, despite the fact that they often have smaller space standards than older homes. Studies have identified that the premium can be as high as 20% for new-build houses and twice that for flats. If the case studies simply identify that new homes are more expensive than re-sold homes nearby that may just be capturing the new-build premium and nothing else about the qualities of the

case study developments.

However, it should be noted that the data does not distinguish between flats of different sizes. This means that there can be significant differences in floorspace between flats. In some cases this may explain differences in price rather that the other qualities of the property, especially where sample sizes are small.

The approach of this study is to identify any differences between the case study developments and their immediate surrounding areas (as measured at postcode sector level). Whilst this is not perfect, it allows the main variables to be controlled for – directly in the data for factors such as size and type, and by assuming similar locational attributes for the surrounding area, ie the case study has similar access to employment, transport, schools etc as its postcode sector does. In all cases we have controlled for the size and type of unit, and where possible, for the difference between new-build and re-sale housing.

This means that remaining differences in price are explained by a smaller number of factors, of which design would be one.

Two changes have happened in recent years that have complicated the data. Firstly, the recession has meant that housebuilders have behaved more like "forced sellers" and have been prepared to offer discounts on new-build sales, whereas existing homeowners who are not forced to sell are less likely to reduce their asking price. This has the effect of reducing the observed prices of new build when compared to existing. This means prices in the case study areas are likely to have been lower in 2008 and 2009, when compared to their surrounding areas, than they would otherwise have been.

For these reasons, the data for 2007, the last year before the credit crunch started, are probably the most useful.

Secondly, since the credit crunch, mortgage lenders and surveyors have not accepted a premium for new-build over re-sales – valuations have been done on the basis that new-build should be the same price as sales of existing homes. This means that the data for 2007 therefore include a much greater premium for new-build over re-sales which makes comparison between the case studies and their surrounding areas more difficult.

The second measure we have assessed is the IMD. This measures deprivation on seven domains in areas with 1,500 people. The IMD has been updated in 2004 and 2007. Data is available for a number of spatial levels, the smallest of which are Lower Super Output Areas (LSOAs) which are small areas of consistent size across the country, usually comprising a minimum population of 1,000 people. It is at LSOA level that IMD data from 2004 and 2007 has been compared in order to identify any changes that have taken place since the various case studies were completed.

There are some problems of comparability between the IMD 2004 and the IMD 2007, however, these relate mainly to the scores under individual domains, rather than the rankings. By comparing rankings, it is possible to determine relative changes, ie whether one area has improved compared to other areas, rather than whether it has improved in absolute terms.

The introduction to the IMD 2007 states that:

"The methodology underpinning the IMD 2004 and the IMD 2007 are largely the same though there have been small changes to some of the underlying indicators. Comparison between the two Indices is therefore acceptable."

Construction Impacts

The final element for assessment is the extent to which good design is impacting on the supply chain.

Interviews have been undertaken with a number of housebuilders, construction companies, colleges and other training providers. The aim was to understand how elements of good design (mainly higher environmental standards), together with new techniques such as Modern Methods of Construction, were changing the nature of construction work and whether and how this might have broader implications for economic development, and the agencies responsible for promoting it.

Case study: Upton

Case Study One: Upton

Context

Upton (Phase One Site A) is located to the south west of Northampton, which is an urban area in the south of the East Midlands region. A site context map is provided in Figure 5.1 below.

Phase One Site A is just part of a larger urban extension planned for the area. Site A is a 3.7 hectare site which comprises 214 homes including 22% affordable tenures. The scheme was awarded 'Silver' assessed against CABE's Building for Life criteria.

The Upton site was formerly farming land which was acquired by the Northampton Development Corporation (NDC) and was subsequently transferred to English Partnerships (EP) and in 1997 outline planning permission was granted for a conventional, car-dominated scheme.

In 2001, EP in partnership with the Prince's Foundation and Northampton Borough Council appointed a design team to form the Upton Working Group. This Group led a number of 'enquiry by design' events which resulted in the evolution of a radically different scheme based on a design code. The Upton Framework Plan was granted planning permission in 2003 and although the design code was not adopted by the local authority, it became an instrument used by the landowners to achieve the objectives of the Plan.

Paul Newham New Homes was the house-builder chosen to develop the first plot at Upton and the first homes were released for sale in 2005/2006.

Design quality

Upton Phase 1 is the only scheme in the East Midlands to have achieved a Building for Life Silver award. The development is frequently included as an example of good practice, and is included in CABE's set of good practice case studies. The scheme's inclusion of sustainable drainage systems (SUDS) and the general approach to architectural detailing are frequent references in these.

The scheme involved 214 homes, 22% of which are affordable. The home sizes are tailored towards families, with a large number of 4-bed homes. The development has an overall gross density of 58 units per hectare. This includes the SUDS elements and a generous amount of public space.

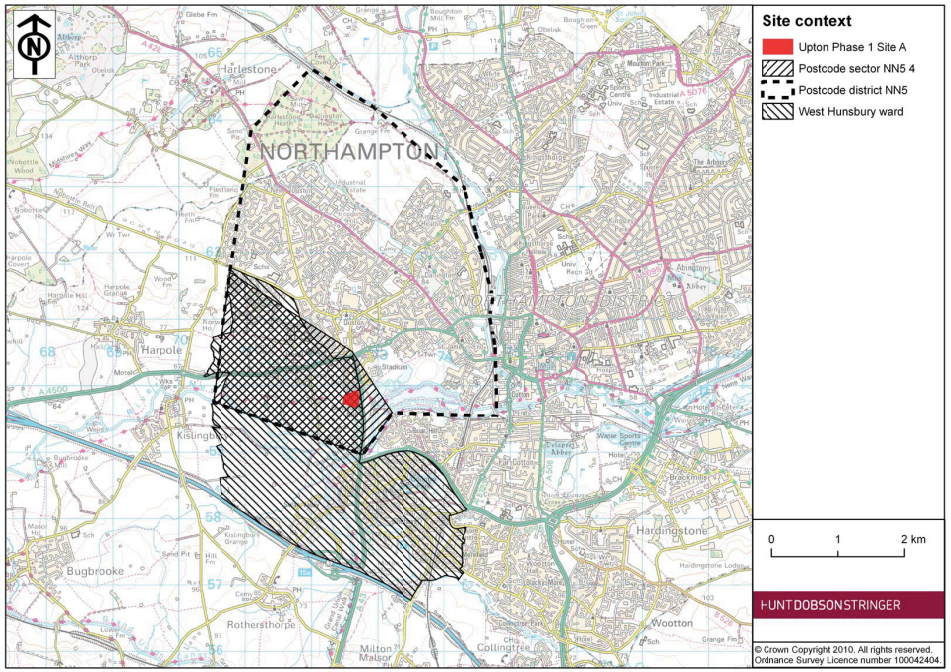


Figure 5.1: Upton site context

House price data analysis

House price data for Upton is limited as it is only relatively recently that units were released onto the market and in the past two years the volume of residential sales has been significantly reduced because of the economic downturn and the restricted availability of mortgages.

In 2007, 18 flats and 18 terraced houses were sold. In the NN5 4## postcode sector 74 flats and 59 terraced houses were sold (excluding Upton). However, data for 2008 and 2009 is much less

	Upton		NN5 4##			
	No. of sales	Average price	No. of sales	Average price	Difference	%
Flats	18	£175,860	74	£149,943	£25,916	17%
Terraced houses	18	£262,586	59	£205,481	£57,105	28%

Table 5.1: Average sale price for 2007

reliable. Only three flats and three terraced houses were sold in Upton in 2008 (compared to 45 and 71 respectively in NN5 4##) and only five terraced houses in 2009 (compared to 41 in NN5 4##).

Table 5.1 shows the average sale prices for 2007. It can be seen that on average properties in Upton are more expensive than similar properties in the postcode sector surrounding the site. This suggests that there is a premium for properties in Upton.

However, some of this is accounted for by the premium for new properties over properties that are being re-sold (see methodology, above). Figure 5.2 shows that new flats in NN5 4## in 2007 sold for 7% more than re-sales and terraced properties sold for 14% more than re-sales.

This suggests up to half of the Upton premium could be accounted for simply by the fact that the properties are new rather than re-sales.

Indices of Multiple Deprivation (IMD)

The Upton site is in the West Hunsbury ward in Northampton. Generally, the ward is fairly affluent compared to Northampton as a whole and the East Midlands region. Qualification attainment is relatively high as is the proportion of the resident population employed in 'upper-tier' occupations. Economic activity rates amongst the working age resident population are also

Upton Phase One masterplan

Upton Phase One neighbourhood - images courtedy of CABE

NB – it should be noted that there are a total of 32,482 LSOAs in England. The lower the rank the higher the deprivation e.g. rank 1 = most deprived / rank 32,482 = least deprived.

LSOAs (comprising the West Hunsbury ward)	IMD Rank 2004	IMD Rank 2007	Change
E01027250	27,423	27,723	300
E01027251	14,845	16,089	1,244
E01027252	13,385	11,386	-1,999
E01027253	29,289	28,741	-548
E01027254	29,104	28,666	-438

Table 5.2: Change in IMD rank between 2004 and 2007

relatively high, whilst unemployment rates are lower than both the average for Northampton district and the East Midlands overall.

The ward comprises five 'lower super output areas' (LSOAs). Table 5.2 shows the change in deprivation in the five LSOAs that make up the West Hunsbury ward between 2004 and 2007. The LSOA within which the Upton site falls is highlighted in green.

Table 5.2 shows that the LSOA within which Upton is located has improved in terms of its deprivation between 2004 and 2007. The overall IMD rank is based on seven domains. An analysis of those seven domains in relation to the LSOAs above, show that the improved IMD rank is due to improvements in the relative deprivation in the income, health, education and housing domains. A breakdown of the measures of these domains is set out in Appendix 1. This provides details of the underlying factors that have caused the improvement in the overall IMD rank.

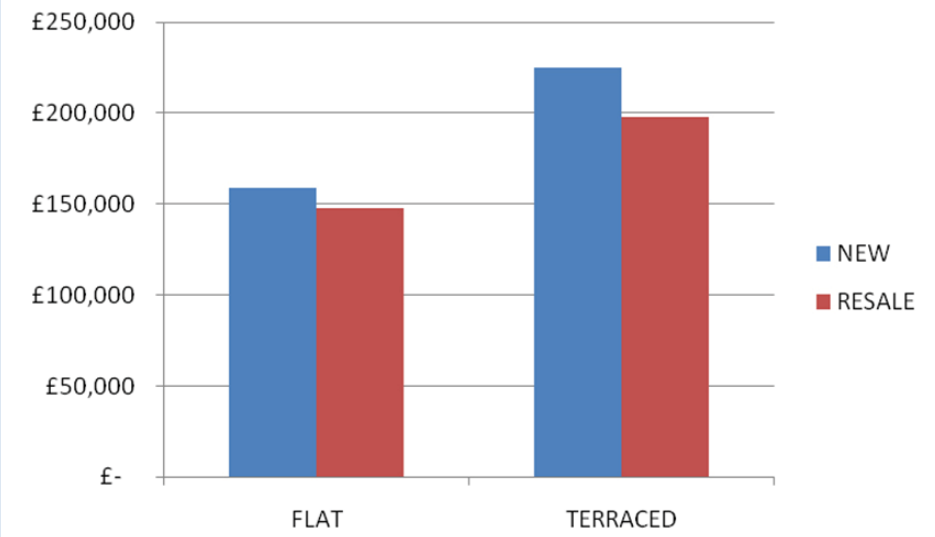


Figure 5.2: Property sales for new and resale properties in postcode sector NN5 4 for 2007

Case study: Bede Island South

Case Study Two: Bede Island South

Context

Bede Island South is located close to Leicester City Centre. Much of the site was used as railway land, including the main line, sidings and a steam locomotive depot. The main part of the site was occupied by a timber yard for many years, with an existing lawful use of Class B2 (General Industrial).

The site is subject to a Supplementary Planning Guidance document (SPG) which requires new buildings to demonstrate good practice in energy efficiency and water conservation. Non-residential development is required to achieve a 'very good' rating in terms of energy efficiency under the BREEAM (Building Research Establishment Environmental Assessment Method).

A total of approximately 1,000 homes are expected to be brought forward on the site over four phases. This will include new homes as well as commercial floorspace and public realm. CABE produced a design review for the scheme masterplan in both 2001 and 2002. These reviews highlighted concerns regarding design aspects. However, overall the scheme was given a score of 84% in CABE's housing audit in 2006.

Development on-site commenced in 2002/03 with a large number of homes coming to the market in 2007.

Design quality

Bede Island South was the only scheme in the region identified as 'very good' in CABE's Housing Audit in 2005. It scores 84% against the criteria used.

The SPG which steered the site's design and development emphasised the importance of a comprehensive design approach and one which fully enhanced the riverside setting. The SPG actively encouraged a city focused approach to the design, rather than a suburban one. The area was therefore to display a modern high quality architectural style in order to create a vibrant cosmopolitan environment with an urban feel.

House price data analysis

House price data for Bede Island South is limited as it is only relatively recently that units were released onto the market. Also, in 2008 the volume of residential sales was significantly lower than either 2007 or 2009.

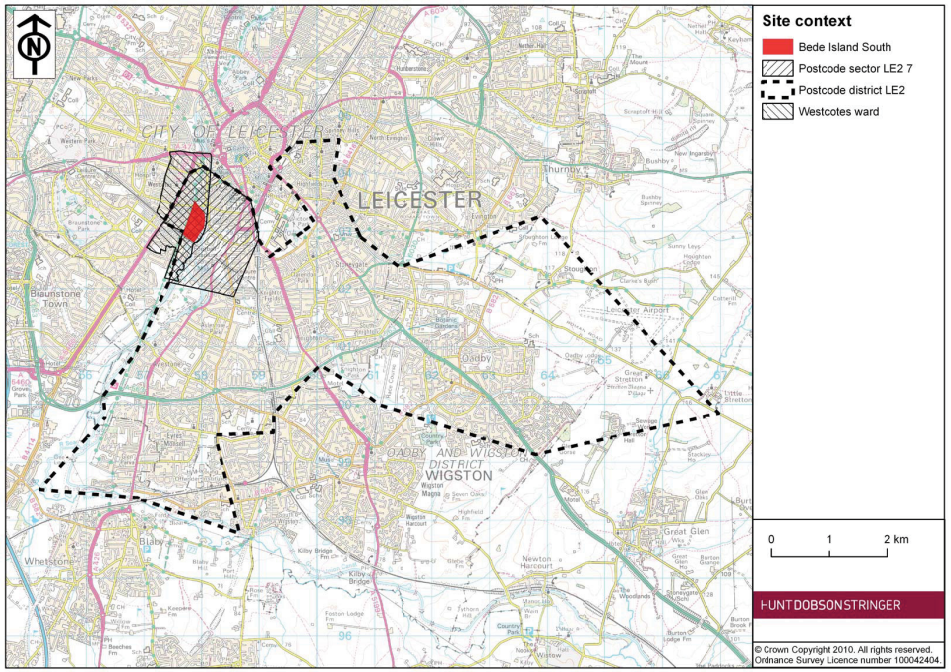


Figure 5.3: Bede Island South site context

In 2007, 28 flats were sold at Bede Island South and 16 flats were sold in the LE2 7## postcode sector (excluding Bede Island South). This provides some basis for comparison, although it is limited.

Data for 2008 and 2009 is less reliable – only eight flats were sold at Bede Island in 2008 and only one flat was sold in the rest of LE2 7## in 2009.

Table 5.3 shows the average sale prices for 2007 and 2008.

These are very small sample sizes and there is no data on the number of

	Bede Island South		LE2 7##			
	No. of sales	Average price	No. of sales	Average price	Difference	%
2007	28	£192,681	16	£181,027	£11,655	6%
2008	8	£150,220	7	£190,000	-£39,779	-21%

Table 5.3:Average sale prices for 2007 and 2008

bedrooms the flats have. Given there can be significant variation in price between a studio flat and three bedroom flat, it is difficult to draw any strong conclusions.

Some of the difference in price may also be accounted for by the premium for new properties over properties that are being re-sold (see Approach and Methodology section above). Figure 5.4 shows that new flats in LE2 7## in 2007 sold for 58% more than re-sales. However, that premium disappeared in 2008 and 2009.

In 2009, 43 of the 44 flats sold were at Bede Island South and 27 were new sales and 17 were re-sales. This allows a more direct comparison and suggests that while there may have been a premium for new flats in 2007, by 2009 this had disappeared, in part because of new valuation practices introduced by mortgage companies and surveyors.

In 2007, prices at Bede Island South were only 6% higher than equivalent properties in the surrounding area in 2007, but there was a large measured premium for new homes over re-sales in the area in that year. In 2008, prices in the wider area were higher than for the development (and re-sales were more expensive than new-build).
On balance, there is little evidence to support the hypothesis that the better design at Bede Island South has yet increased the prices people are willing to pay to live there.

Indices of Multiple Deprivation (IMD)

The Bede Island South site is located in the Westcotes ward of Leicester (see Table 5.4).

Bede Island South image (Source: Flickr)

Bede Island South neighbourhood (Source: Flickr)

NB – it should be noted that there are a total of 32,482 LSOAs in England. The lower the rank the higher the deprivation e.g. rank 1 = most deprived / rank 32,482 = least deprived.

	IMD Rank	IMD Rank	
LSOAs (comprising the Westcotes ward)	2004	2007	Change
E01013774	8,216	9,458	1,242
E01013775	8,177	11,618	3,441
E01013776	6,851	6,920	69
E01013777	10,132	12,014	1,882
E01013778	5,265	4,680	585
E01013779	7,913	8,637	724

Table 5.4: Change in IMD rank between 2004 and 2007

The Westcotes ward displays some social and economic characteristics that are generally representative of Leicester as a whole. For example, economic activity amongst working age residents is in line with the Leicester average but below the national rate. Similarly, the rate of Job Seekers Allowance (JSA) claimants is in line with Leicester as a whole, at 6.8%. However, this rate is above the national average (4.3%).

In other areas, there is more of a contrast between the Westcotes ward and Leicester as whole. Qualification attainment is higher in the ward than across Leicester, while a greater proportion of residents in the Westcotes ward are in upper-tier occupations e.g. Managers & Senior Officials, Professionals, Associate Professionals & Technical compared to Leicester as a whole.

The Westcotes ward comprises six LSOAs. Table 5.3 shows the change in deprivation in the six LSOAs between 2004 and 2007. The LSOA within which the Bede Island South site falls is highlighted in green.

Table 5.4 shows that the LSOA within which Bede Island South is located has improved in terms of its overall deprivation between 2004 and 2007. An analysis of those seven domains in relation to the LSOAs above, show that the improved IMD rank is due to

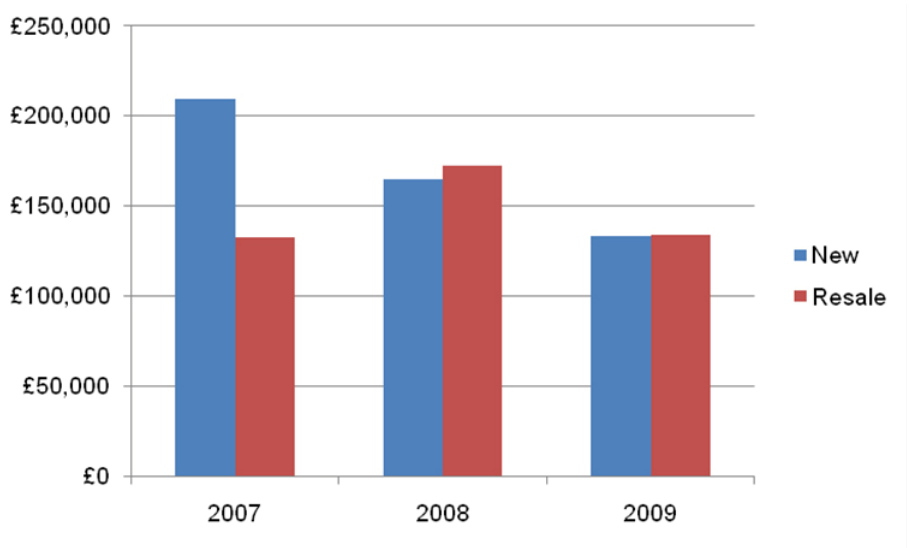


Figure 5.4: Property sales in postcode sector LE2 7 for 2007, 2008 and 2009

improvement in relative deprivation in the income, employment, education, housing, crime and living environment domains. A breakdown of the measures of these domains is set out in Appendix 1. This provides details of the underlying factors that have caused the improvement in the overall IMD rank.

Case study: The Manor, Beeston

Case Study Three: The Manor, Beeston

Context

The Manor is a development on Church Street in Beeston which is a small town to the south west of Nottingham City. The development comprises 97 flats including 15 affordable units. The site was formerly home to the Church Street School, some of the buildings of which have been retained. Each building at The Manor has been named after a prominent person from the old school's history e.g. Carlin, Bromley and Hooton. The developer was Braemore Group who stated that The Manor development was brought forward in order to respond to 'the huge demand for quality housing in Beeston' .

The Manor development is within the Beeston West ward (see Figure 5.5 below) in Broxtowe in the County of Nottinghamshire.

The Beeston West ward, generally displays characteristics that are similar to the Broxtowe district. The ward and Broxtowe are fairly affluent when compared to the East Midlands as a whole.

Qualification attainment amongst working age residents of the ward is high compared to Broxtowe and the East Midlands as a whole with 44% of people achieving higher level qualifications. In Broxtowe and the East Midlands that figure is 21% and 17%, respectively. The economic activity rate in the ward is slightly below those for Broxtowe but above the rate for the East Midlands. Unemployment levels are slightly below Broxtowe and are nearly half the rate for the East Midlands as a whole (JSA, Jan 2010).

Design quality

The Manor was highly commended in the RIBA East Midlands Awards for Architecture in 2007.

The scheme was reviewed by Opun as part of the design process and was considered to a well designed scheme. The design involved the conversion of an ornate Victorian girls' school and required a strong architectural approach to ensure a sensitive outcome.

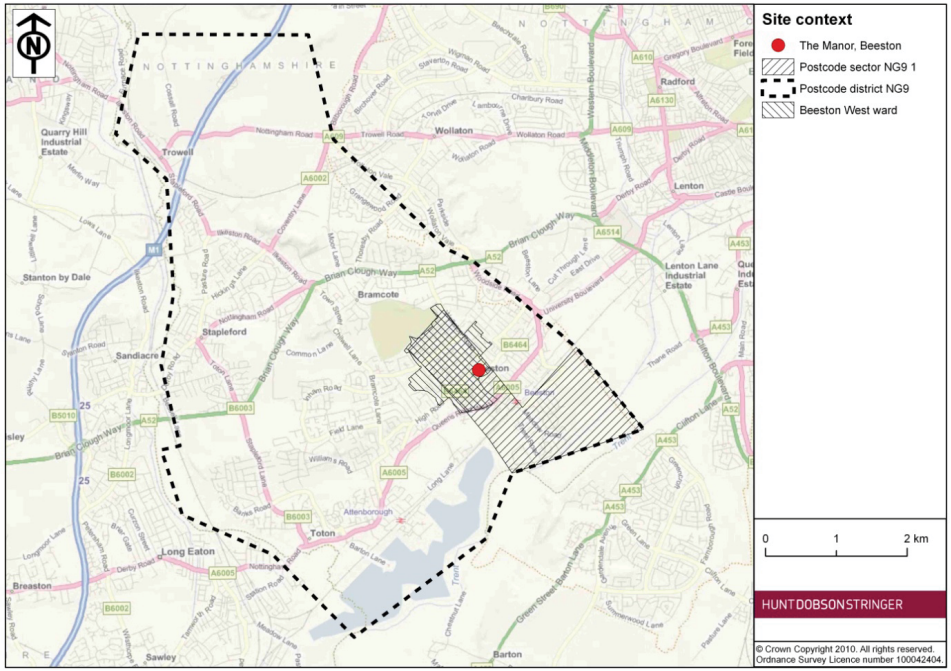


Figure 5.5: The Manor site context

House price data analysis

As with the other case studies, useful house price data is limited to a single year, 2007.

In 2007 24 flats were sold in the Beeston development and seven in the rest of the NG9 1## area. This provides some basis for comparison, although it is limited. Table 5.5 shows the average sale prices for 2007.

These are very small sample sizes and there is no data on the number of bedrooms the flats have. Given there can be significant variation in price between a studio flat and three bedroom flat, it is difficult to draw any strong conclusions. However, the difference between the two areas is so significant it seems likely

	Beeston		NG9 1##		Difference	
	No. of sales	Average price	No. of sales	Average price	Price	%
Flats	24	£202,788	7	£112,643	£90,145	80%

Table 5.5: Average sale prices for 2007

that there are particular reasons why flats in Beeston are more expensive than the wider NG9 1## area.

Some of the difference in price may also be accounted for by the premium for new properties over properties that are being re-sold (see Approach and Methodology section above). In 2007 new properties at Beeston sold for 9% (£18,000) more on average than re-sold properties.

Indices of Deprivation

Beeston West ward comprises three LSOAs. Table 5.6 shows the change in deprivation in the three LSOAs between 2004 and 2007. The LSOA within which The Manor development is located is highlighted in green.

NB – it should be noted that there are a total of 32,482 LSOAs in England. The lower the rank the higher the deprivation e.g. rank 1 = most deprived / rank 32,482 = least deprived.

LSOAs (comprising the Beeston West ward)	IMD Rank 2004	IMD Rank 2007	Change
E010208084	28,449	29,752	1,303
E010208085	16,470	21,110	4,640
E010208086	19,291	21,290	1,999

Table 5.6: Change in IMD rank between 2004 and 2007

Table 5.6 above shows that Beeston West ward is not particularly deprived. However, as has been the case with the other case studies, the LSOA within which the scheme sits has seen a greater improvement in terms of its deprivation than others within the same ward. An analysis of the seven domains that make up overall IMD shows that all but the crime domain have improved their rank.

The Manor homes

Case study: Arena Apartments

Case Study Four: Arena Apartments, Nottingham

Context

The Arena Apartments development is located in one of the most historic areas in the City of Nottingham – the Castle Conservation area and also on the edge of the Park Conservation Area.
The development comprises 97 apartments arranged over nine floors. There are a number of different apartment sizes including studio, one bedroom, 2 bedroom and duplex penthouses.

The five blocks that make up the development have been carefully designed to ensure integration with the surrounding area. On the north and west sides (facing The Ropewalk and City Point) a white render has been used that echoes the finish of rendered Victorian villas and makes optimum use of light. The other frontage is of brick, which reflects the more traditional buildings on the city side of the development.

The Arena Apartments development is in the Radford and Park ward (see Figure 5.# below) in the Nottingham Unitary Authority.

The Radford and Park ward has a comparatively high proportion of working age residents when considered against Nottingham UA. The economic activity rate amongst those residents at 52%, however, is less than the rate across Nottingham as a whole (65%). This is affected by the high proportion of full-time students resident in this area. The proportion of those people in work, with higher-end occupations is above that for Nottingham UA.

According to Claimant Count data from January 2009, those seeking Job Seekers Allowance in the Radford and Park ward was below the Nottingham rate but slightly above that for the East Midlands as a whole.

Attainment for higher level qualifications amongst working age residents of the Radford and Park ward is above that for Nottingham UA. However, the proportion of residents who have no qualifications at all is also above the Nottingham average. This demonstrates the polarised social profile of the area, with affluent young professionals and families in the Park area, and full-time students throughout the ward, living in close proximity to the deprived neighbourhoods of Radford.

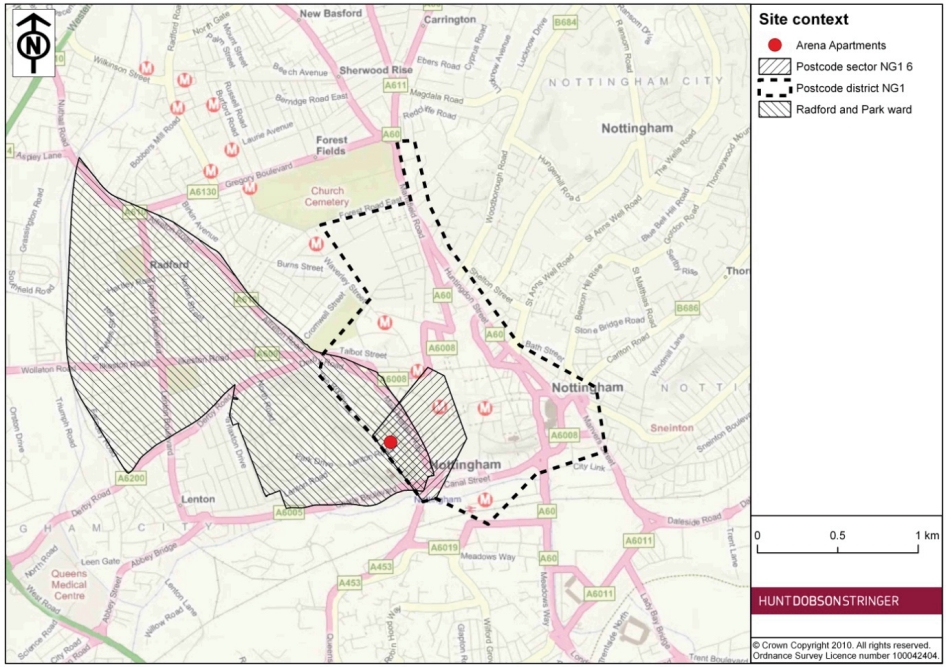


Figure 5.6: Arena Apartments site context

Design quality

The scheme was commended in the RIBA East Midlands Award for Architecture in 2005.

The design of the scheme involved the a sensitive redevelopment approach on this former Nottingham General Hospital site overlooking Nottingham Castle. The design delivers 97 luxury apartments in well considered layout.

	Arena		NG1 6##		Difference	
	No. of sales	Average price	No. of sales	Average price	Price	%
2004	19	£183,445	21	£179,710	£3,735	2%
2006	6	£249,158	16	£164,368	£84,790	52%
2007	9	£200,722	12	£159,417	£41,305	26%

Table 5.7: Average sale prices for 2004, 2006 and 2007

House price data analysis

As with the other case studies, useful house price data is limited to certain years – 2004, 2006 and 2007. Table 5.7 below shows the average sale prices for those years.

These are relatively small sample sizes and there is no data on the number of bedrooms the flats have. Given there can be significant variation in price between a studio flat and three bedroom flat, it is difficult to draw any strong conclusions, especially as the price differential fluctuates so substantially across the years.

All of these flats were re-sales as the scheme was completed in 2000 so there is no new build premium that can explain some or all of the price differences.

Indices of Deprivation

The Radford and Park ward comprises 10 LSOAs. Table 5.8 below shows the change in deprivation in the 10 LSOAs between 2004 and 2007. The LSOA within which the Arena Apartments development are located are highlighted in green.

Table 5.8 shows that Radford and Park ward has a mix in terms of the levels of deprivation experienced across the ward. The LSOA within which the Arena Apartments development is located was the least deprived in the ward in 2004 and remained so in 2007. It also saw a fairly significant improvement in its deprivation rank compared to other LSOAs in the ward. Analysis of the seven domains that make up overall IMD shows that all the domains improved their rank.

NB – it should be noted that there are a total of 32,482 LSOAs in England. The lower the rank the higher the deprivation e.g. rank 1 = most deprived / rank 32,482 = least deprived.

LSOAs (comprising the Radford and Park ward)	IMD Rank 2004	IMD Rank 2007	Change
E010103944	5,905	7,090	1,185
E010103945	2,197	3,423	1,226
E010103946	2,165	7,980	5,815
E010103947	2,313	2,680	367
E010103948	299	226	-73
E010103949	6,548	9,010	2,492
E010103950	8,371	12,232	3,861
E010103951	8,536	14,890	6,354
E010103952	16,559	20,713	4,154
E010103953	11,611	17,662	6,051

Table 5.8: Change in IMD rank between 2004 and 2007

Arena Apartments (images courtesy of RIBA)

6.

6. Conclusions

Benefits of good design

The literature review provides strong evidence that good design can generate social, economic and environmental benefits. A number of statements link the role of housing design to sustainable economic benefits.

Good urban design in residential development can:

- enhance an area's image and reputation and as such stimulate the wider regeneration of an area;
- enhance local pride in places, supporting greater social inclusion, reducing crime and bringing greater stability to an area;
- support higher and more resilient property values; and
- support a low carbon economy by stimulating sustainable design and construction - both in terms of innovation and enterprise.

The review has emphasised that good design can stimulate local economies in a number of ways. It has also indicated that bad design can have a negative economic impact and that it can be bad design that needs to be guarded against most in terms of economic impacts. Some of the research suggests that 'good enough' design could be more important than striving for high quality design. Establishing what defines 'good enough' design for the East Midlands will be important in the future to support positive economic impacts.

Trends in design quality

The trend in housing design quality in the region is an improving one. Since the CABE Housing Audit Upton Phase One has achieved the Building for Life standard and RIBA have commended a number of schemes in the region. However, compared to other regions the East Midlands is still lagging behind.

There is a concern that the average quality of residential design in the region has not historically been 'good enough'. The review highlights the potential for a higher rate of improvement in design quality, and that good quality housing design could be an important support to economic growth of the East Midlands region.

Measuring the impact of good design

The study has also highlighted that many of the benefits of good design are difficult to measure quantitatively.

The choice of case studies was restricted because there are relatively few examples of housing schemes in the East Midlands which have been assessed rigorously and recognised to have good design. Furthermore, the case studies all share a number of characteristics that make assessing their economic impacts challenging.

Firstly, the fact that the schemes are all relatively small (or in the case of Upton have not yet been fully built-out) means that they are unlikely to have had an impact on wider outcome indicators. For this reason, the case studies had to rely on data that is available at more local levels.

Secondly, the schemes were all relatively recent. This reduces the use of any time-series data, but also means that the full impacts of the new schemes are unlikely to have been reached and therefore any impacts on data would not yet be fully visible. This could be exacerbated by the currently subdued housing market conditions.

Thirdly, the schemes did not feature a very wide range of types of houses – mostly they were flats and terraced houses. These tend to attract young people, and couples who are either childless or with young families. This may skew the results.

Data sources below ward level are very limited. For this reason, the case studies were assessed using two measures – house price data, which is available for individual properties, and the IMD, which is available for areas with approximately 500 homes.

However, even the reliability of these data sources is limited. There were relatively few sales on which to base the impact assessment and most sales were of flats or terraced houses, for which there is no breakdown by size.

As set out above, house prices capture

a lot of information about a property, including its design. The aim of the case studies was to try and control for as many of the non-design factors as possible. Some of the main determinants of prices are location and the size and type of property. It is also known that there has historically been a premium for brand new properties compared to second hand ones.

Location was controlled by using the immediately surrounding area as the benchmark. This was defined using postcode sectors. These typically have 125 houses but can cover quite large geographic areas. As such, the control for location is as good as it can be, but can still allow for some significant differences between the locational attributes of the case studies and their comparator areas.

Whilst it was possible to control for the type of property, it was not possible to control for size because the data for flats and terraced houses is not broken down by size.

There were too few sales to control directly for the premium for new-build compared to second hand properties, but it was possible to look at the percentage difference between the two across all sales in the area.

The actual house price results are fairly volatile. Whilst three of the case studies showed higher prices than their surrounding areas, the extent to which that was driven by design factors is unclear. In the fourth case study there was no premium, despite there being a significant premium for new-build flats. Savills estimated that good design can raise values by 15%. It has not been possible to identify such a premium in the case studies. At Upton, there is a price premium, but some of this is explained by the premium for new build properties. At Bede Island South there is no price premium at all.

Supporting a positive economic impact

The case studies therefore suggest that it is unlikely that there is always a significant premium associated with good design in the early years of a development.

It may be that over time, well-designed houses and neighbourhoods hold their value better than less well-designed places, but there is not yet sufficient data from East Midlands schemes that have good Building for Life assessments.

However, early indications from the ID 2004 and the ID 2007 suggest that significant impacts may be visible in terms of relative deprivation. In three of the case studies considered as part of this report, there was a significant improvement in the deprivation rank of each of the LSOAs within which each of the schemes were located. However, it is unclear how much of this change can be attributed to the design of the schemes themselves.

Evidence from elsewhere suggests that good design is critical to economic success and that there are steps that can be taken to ensure it is given greater weight in the planning system and therefore by developers.

The case studies considered had either a design code or an SPG requiring good design principles to be adhered to as a condition of planning permission. Promoting the use of design codes amongst local authorities and developers will help ensure that quality is not something that is thought of as an "add-on" but something that is integral to the scheme from the offset.

This needs to apply to all tenures of housing. The literature review highlights that the characteristics of neighbourhoods are effectively capitalised in house prices and rents. More affluent people choose areas with better qualities and those least able to afford often end up in areas with higher crime rates, poor housing stock and worse pollution, because they cannot afford to go elsewhere. Good design can address the problems of such areas directly, eg by designing out crime, but also by improving the capital value of social housing estates, even if the increased value isn't recognised in rents because they are controlled.

Annex: Literature review

The tables over the next pages summarise each of the documents and research sources reviewed and summarises their findings and any regional sources of evidence that might be relevant.

Research	Key findings	Observations for the East Midlands
CABE The Value of Good Design (2002)	High quality design can attract premium sale prices.	
English Heritage – Heritage Dividend (2002)	Well maintained historic environments support higher land values.	English Heritage – East Midlands Heritage Investment Framework
CABE Paved with Gold (2006)	Illustrated the positive effect that good street design and quality can have on the local economy and general attractiveness of the place.	
CABE Value of Public Space (2004)	Evidence for how well maintained public parks and squares can support stronger local centres. Property prices in places with better environmental quality are often higher than those in poor environments Places with high quality environments support better quality life and therefore attract both employees and employers.	East Midlands Green infrastructure value research - Ecotec
ATCM – Managing Urban Spaces in Town Centres (Good Practice Guide 1997)	Well-planned improvements to public spaces can boost commercial trading by up to 40 per cent and generate significant private sector investment.	Anecdotal evidence e.g. South Holland and former Countryside Agency Market Towns Initiative
CLG / UCL: Design coding (2006)	High quality design added cost outweighed by investment delivered.	West Northamptonshire Design Code
Urban Land Institute (USA) research Eppli, M. and Tu, C. (1999) Valuing the new urbanism. Washington DC: Urban Land Institute.	Average sales premium of $20,000 or 11 per cent on schemes which followed basic urban design principles against those which did not.	

Research	Key findings	Observations for the East Midlands
FPD Savills research study (2002)	Where house builders had invested in higher quality design in residential schemes they could expect to yield a residual land value per hectare of up to 15 per cent more than conventionally designed homes.	
MORI (2002) Public attitudes towards architecture and the built environment. Research carried out by the MORI Social Research Institute for CABE.	Nearly three quarters of those interviewed (72%) said that they believe well designed houses will increase in value quicker than average with less than one in ten (9%) disagreeing with this statement. When asked to list two or three things which they considered important in the design of new houses over half the respondents (59%) said security against crime was a key factor; 56% said that new homes should be built to last; 45% said they should be designed to be safe from accidents and fires; 41% mentioned ease of maintenance; and 35% thought that energy efficiency was important.	Potential source could be post-occupancy surveys CABE audit residential surveys HCA Affordable Housing Quality Survey – resident views from schemes in East Mids
Cooper, M.C. (1982) The aesthetics of family housing: the residents' viewpoint. Landscape Research, Vol 7 (3), pp 9–13.	Extensive international research by the University of California in the 1970s and 1980s using post-occupancy surveys discovered that not only did the overall impression of the exterior of a house and its surrounding dwellings have an impact on how people felt about their homes but also in many cases those residents' personal sense of worth.	

Research	Key findings	Observations for the East Midlands
Forrest R., Kennett T. and Leather P. (1997) Home owners on new estates in the 1990s. Bristol: The Policy Press.	The University of Bristol carried out a survey of 600 households on a large suburban housing estate with little or no distinctive design quality. The researchers found that these residents exhibited more difficulties in selling and experienced more negative equity than those living on more distinctively designed developments.	HCA Affordable Housing Quality Survey – resident views from schemes in East Midlands
Popular Housing Forum (1998) Kerb appeal. Winchester: The Popular Housing Forum.	The Popular Housing Forum used over 800 interviews and discussion groups across the UK to explore public attitudes to the appearance and site layout of new housing. Appearance of the neighbourhood was considered a more important factor than the design of the home itself.	
Poyner, B. and Webb, B. (1991) Crime free housing. Oxford: Butterworth Architecture.	Adopting good design qualities in low-rise housing can lead to lower crime rates. Research in Northampton indicated that to reduce crime, the front windows of houses should face each other across the street to create a system of mutual surveillance.	This research was local to region
Shaftoe, H. (2001) Crime prevention and security in Great Britain. Bristol: University of the West of England.	A comprehensive redesign programme of a 1970s housing estate in Edinburgh which included fundamental changes in the estate layout as well as individual units, reduced housebreaking by 65% and vandalism incidents by 59% with the total number of incidents being lowered overall.	
Armitage, R. (2000) An evaluation of secured by design housing within West Yorkshire. Briefing note 7/00. London: Home Office.	A study of 27 housing estates in West Yorkshire designed according to 'Secured by Design' (SBD) principles, reported that crime rates had dropped by between 54% and 67% since the redesign. Burglary rates were 50% less than those on other West Yorkshire estates and there were 42% fewer vehicle crimes. The average cost of the extra design measures was £440 per new dwelling, compared to estimated average burglary losses of £1,670 per dwelling.	

Research	Key findings	Observations for the East Midlands
CABE The Value of Housing Design and Layout (2002)	This research considers 'what makes a desirable location?' It highlights that there are a series of factors, including the built form, that create a sense of place. It explores a series of case studies which illustrate how design can help support a strong identity for a new development. The research suggests new places can be more desirable, and hence more valuable, than their adjacent neighbours. They also can be more desirable and valuable than they would otherwise have been had standard development house types and layouts been employed. The potential impact on developer profits by enhancing the value of the end product was shown to be far greater than the potential impact of reducing costs. Any R+D that increases development values by 10% will have a greater beneficial impact on profits than effort spent on reducing build costs by an equivalent figure.	
CABE Design and MMC Review (2004)	There was no clear evidence of a relationship between design quality and the use of MMC. No scheme reviewed exhibited outstanding design quality. The majority of schemes used MMC for reasons of speed. No construction cost saving was expected.	East Midlands Centre of Excellence for Construction

Research	Key findings	Observations for the East Midlands
Sector Skills Assessment for the Construction Sector (2009)	The key drivers that will influence the demand of skills to the construction industry are expected to be: • The roll out of zero carbon targets for buildings • The retrofitting of existing buildings to meet the Code for Sustainable Homes • Greater use of modern methods of construction (MMC) • Tougher market forces, regulation, and client attitudes demanding a more skilled workforce • Expanded Health & Safety Legislation and Regulations • Greater use of new construction materials Off-site construction will lead to greater cross-over with manufacturing and a significant change in skills. However, 'future' skills are not entirely new skills – they are often an addition to, or amalgam of existing skills. Many small construction firms will not currently require or utilise innovative methods. It's likely that the traditional parts of the industry will co-exist alongside the emerging 'green' industrial markets.	East Midlands Centre of Excellence for Construction
Housing, Economic Development and Productivity: Literature Review, DTZ (2006)	The quality and range of housing available in an area is an important consideration in attracting skilled labour which is in turn important for attracting high value-added businesses. High housing quality alone may not be enough to attract inward investment but its absence may preclude it. So-called "area effects" are real and do impact on life chances. These effects include poor housing/estates. The advantages of MMC, which are recognised by housebuilders, are a considerably quicker build time and good quality output. The disadvantages are higher costs (although these can be offset) and a need for precision planning and process discipline. Traditional methods are more flexible in accommodating design changes.	East Midlands Centre of Excellence for Construction

Research	Key findings	Observations for the East Midlands
Economic Value of Good Design in a Recession – AMION (2009)	Investigates whether design has increased/ decreased importance in a recession. Risk that the economic climate could mean low cost design takes precedence over good quality design. However, cost neutral design can be achieved by focusing resources and specifically targeting quality. Good design gives housing a competitive edge in a downturn. Review of people in the property market of the importance of design in a recession: • 68% think good design is v imp. /imp. in recession. 10% think it was unimportant; • 74% think design is v. Imp. /imp. in having positive effects on rents; • 75% think the impact of design on occupancy and take up rates is very important/ important; • 71% think design is v.imp./imp. for market attractiveness of local area; • 48% think design is v. Imp./ imp. for obtaining funding for development; and • 32% think design is increasingly imp. during a recession.	
Adding Value through Design – Urban Design Compendium (2009)	Research by The Prince's Foundation, English Partnerships and Savills. Good design makes best use of land and creates value through appropriate densities, public space, uses and distribution of buildings. Efficient planning can create a sense of place.	
CABE – A Sense of Place (2007)	Overall, CABE have found that people value well-designed places and homes with character that create a sense of place. Where developments are well designed: 'Irrespective of tenure, households will want to stay longer in the area or will commit themselves more to the neighbourhood', ensuring greater social cohesion. On the other hand where developments have inadequate community infrastructure, isolation and inadequate social support networks, local community wellbeing is reduced. Furthermore, the ability of low-quality developments to maintain socially and economically sustainable communities is very questionable. Good design ensures new places attract people who would not normally buy into new developments, especially to areas of housing growth where whole new communities will be built and competition will be higher.	

Research	Key findings	Observations for the East Midlands
CABE Fresh Thinking on Housing Quality (2009)	Research on the future of housing quality and ways to ensure that design improves after the downturn. CABE's three priorities are: 1 Encourage developers to take a long-term stake in development and invest in quality; 2 Use the public sector's market power to insist on good design; 3 Invest in planning for good place making through local development frameworks, site preparation and use of non-regulatory methods to achieve good design.	
Design and Quality Standards, Housing Corporation (2007)	Core standards by which housing and design should be regulated include Housing Quality indicators: • Internal environment, • Sustainability; and • External environment. Overall, the development of new homes should be undertaken in a manner which delivers great places to live, creates well-mixed and integrated communities and provides an appropriate balance between private and public open space.	
Added value of good design - Macmillan (2006)	Buildings that are designed well will have improved functionality and lower whole life costs. Good design is not just about the aesthetic improvement of our environment, it is as much about improved quality of life, equality of opportunity and economic growth. Good design does not cost more when measured across the lifetime of the building or place. At best all stakeholders gain. Investors see higher returns, designers see repeat business, commercial occupiers benefit from staff recruitment, everyday users benefit from improved urban environment and enhanced range of amenities that communities value the better quality of life that good design can deliver. No necessary correlation between high building costs and good design for good design depends as much on cleverness as it does on materials.	

Research	Key findings	Observations for the East Midlands
Resident Satisfaction with Space in the Home – CABE (2009)	Minimum space standards have been in place for many years for publicly-subsidised housing but not for private housing. Research has shown that overall dwelling size is seen as less important than no. of bedrooms. Kitchen size and storage space generated the most dissatisfaction.	
English Partnerships' Quality Standards Delivering Quality Places – English Partnerships (2007)	Good design can increase the financial return that landowners and developers receive. The report cites the FPD Savills research of 2002 which states that developments with recognised design principles can deliver 10-15% in capital value and accelerates lettings and sales rates. Methods by which English Partnerships (now HCA) seek to ensure high quality design: design statements, Building for Life, evidence of inclusive design, Secured by Design, integration of tenure.	
Working for the East Midlands – Housing Corporation (2008)	Recognises that the design of homes can underpin whether a neighbourhood succeeds or fails. Well-designed homes make an area more appealing and can add to quality of life by cutting opportunities for crime or nuisance behaviour, improving health and easing transport issues.	
Mixed communities: Success and sustainability – Holmes (2006)	Key findings include: mixed income communities studied were overwhelmingly judged successful; they were not characterised by the problems often linked with exclusively low-income areas; mixed income communities can attract young families; developers engaged in mixing tenures had no major problems in attracting potential buyers; planning tenure mix is only one part of the picture (other issues include: home type and size, and household type).	

Research	Key findings	Observations for the East Midlands
Housing and Economic Development – Housing Corporation & CentreforCities (2008)	Housing can enhance the economic performance and competitiveness of a place, but it can also lead to segregation and spatial concentrations of poverty. The new focus on the links between housing and economic development at the local level is referenced with respect to the Lyon's Review and the CLG Regeneration Framework. The importance of housing to economic development is threefold: getting the right housing offer is essential to attracting and retaining a skills base that will encourage inward investment; co-ordinating regeneration and economic development interventions maximizes the potential for achieving more economic inclusion; and housing investment can in itself be a powerful driver of local economic activity.	
Segregated Neighbourhoods and Mixed Communities – JRF (Paul Cheshire) (2007)	Recent research on housing markets has established a powerful reason why the poor tend to be confined to the most deprived neighbourhoods with the worst schools, highest crime rates and lowest levels of both public and private amenities. All such characteristics of neighbourhoods are effectively capitalised in house prices and rents. It costs more to live in more affluent neighbourhoods. The poor do not choose to live in areas with higher crime rates and worse pollution, they cannot afford not to. That is, the incomes of people determine the character of the neighbourhood they can afford to live in. The problem is poverty, not where poor people live. Poor people are made poorer by the character of the neighbourhood in which they live. Amenities are worse, information about jobs and jobs themselves are less accessible, and peer groups may have negative feedback effects.	
Getting Value for Money from Construction Projects through Design – NAO/ CABE (2004)	Good design has a key role to play in improving the quality of services provided by the public sector. A well designed building can, for example, help patients to recover from illness more quickly or encourage better learning among schoolchildren. It can also benefit the service deliverers who work within it, by contributing to staff recruitment, retention and motivation. In short, good design can increase the value for money that the building provides across its whole life. Lowest capital cost is not a reliable measure of value for money. A good building project must contribute to the environment in which it is located. Describes the Design Quality Indicator which is based on three aspects: impact, building and functionality. The more overlap there is between these, the higher the quality. The document lists a number of indicators to assess the main value drivers (p.8). Looks at a number of case studies but these are largely commercial/community or transport infrastructure projects.	

Research	Key findings	Observations for the East Midlands
Design Quality: Achieving Excellence in Construction Procurement Guide – Office of Government Commerce (2007)	Recognises that the built environment will affect the lives of many people for years to come and influences how people feel about their lives as much as how they carry out their daily tasks. Generally this document looks at how design quality can be improved through the procurement process.	
Improving Housing Quality: Unlocking the Market – RIBA (2009)	Growing concerns that in the current economic climate, design standards may deteriorate as developers struggle to minimise costs. These are particularly worrying circumstance given that even during the boom times only 18% of schemes were rated 'good' or 'very good'. Advocates the adoption of design codes to ensure good levels of quality are achieved and enforced. Makes the point that there is no point in building the three million homes required by policy if nobody wants to live there. Design quality has ramifications for well-being, quality of life and the economy. Comments on the CABE audits of schemes across the country based on the Building for Life criteria which identified developments in the East Midlands as particular black-spots. Highlights research indicating that only a small proportion of the population would consider buying a 'new build' (New Homes Today, 2001). Refers to the English House Survey (CLG, 2006) which looked at attitudes for home-owners on their local area – issues such as crime and traffic can be exacerbated by poor design. Provides some recommendations for enhancing design.	
Delivering Quality Places: Chapter 3 – Delivering Quality and Adding Value – Urban Design Compendium (2000)	Good design can add economic value. Evidence shows that good design can increase the financial reward that landowners and developers can receive from a scheme. Poor design can have continuing costs for both residents and local authorities in terms of higher levels of public investment being required to tackle poor housing, high crime, vandalism and poor health. In 1997, 7.6% of the housing stock was considered to be unfit. This cost £3 billion in health care, £1.8 billion in crime and £120 million for fire services (see The Cost of Bad Design, CABE, 2006 and The Real Cost of Poor Homes: Footing the Bill, RICS, 1997).	

Research	Key findings	Observations for the East Midlands
The Cost of Bad Design – CABE (2006)	Highlights that valuation and accounting methods often give low priority to design quality as a generator of value. This document considers badly designed places and the costs they impose on their occupiers, neighbours and society as a whole. Considers two examples: one in Dalston (London) and the other in Lozells (Birmingham). Further on the document discusses what causes bad design and recognises that good design is often a balancing act between differing needs (e.g. price, quality, location etc).	
Ends and Means: The Future Roles of Social Housing in England – J Hill (2007)	Chapter 3 looks specifically at the issue of housing quality. It points out that there are more people in market housing experiencing 'non-decent' homes than in social rented housing.	
A Tale of Two Cities: Neighbourhood Segregation by Income in Two Urban Case Studies – Bennett (2008)	Recognises that housing policy is increasingly geared towards creating mixed communities. The two case studies: Sunderland and Barking and Dagenham. The key findings from the studies were: areas where house prices are higher are home to people with higher incomes, better education and lower levels of unemployment; linkage between income and house prices is strong; and the key drivers identified of income segregation were linked to social housing investment and the housing choices made by the socially and economically mobile sections of society.	
Segregated Neighbourhoods and Mixed Communities – P. Cheshire (2007)	Mixed communities are not a new concept – can be traced at least back to the 19th century garden city movement. This report argues that policies aimed at mixing communities only treat the symptoms rather than the causes of poverty. It is argued that action should be geared more towards the people themselves. The document comments on the US 'Moving to Opportunity' programme which aimed to move poorer people to more affluent neighbourhoods. Early studies of this project showed no improvement in economic indicators for those moving to the affluent areas. Later studies confirmed this finding. This report does not argue that 'neighbourhood effects' do not exist. While the evidence is overwhelming that poor people are priced into deprived neighbourhoods because they are poor, living in the most deprived neighbourhoods is almost by definition not a life-enhancing experience. The rich can always outbid the poor for better quality neighbourhoods because the desirable attributes are reflected in the prices of houses within them.	

Research	Key findings	Observations for the East Midlands
Economic Segregation in England: Causes, Consequences and Policy – Meen et al (2005)	Looks at the benefits of mixed communities. It notes that a distinction must be made between improvements to the external image of an estate and internal social dynamics. There may be a perception that mixed use tenure reduces the stigma of most deprived areas but there is little evidence of a transformation of the social dynamics. It highlights the experiences of programmes designed to make neighbourhoods more attractive to middle-class households. It notes that this type of programme means target groups suffer from greater exposure to areas of high crime and poor schooling. The document states that any policy must enable a neighbourhood to reach 'take-off point' otherwise private sector support will not be forthcoming. Given deprivation is strongly linked to local unemployment and long-term illness, measures must be in place to reduce these issues. Therefore, area policies need to go hand-in-hand with labour market policies. Area-based policies combined with skills interventions will enable those whose skills improve to remain in these areas. The document goes on to list the 'golden rules for developing mixed communities' (p.56).	
New Deal for Communities: The National Evaluation, Research Report 62 – Employment Strategies in Hull and Newham NDCs – Sanderson et al (2005)	Describes two case studies: West Ham and Plaistow, and Hull – very different labour market contexts. Therefore, there is differing emphasis on demand-side and supply-side issues. The Hull economy is described as being relatively 'sluggish with low levels of growth and relatively low levels of earnings and productivity (some similarities with East Midlands as set out in the *The East Midlands in 2009* above) albeit the East Midlands has maintained consistently high employment rates. Employment initiatives used included: job brokerage and advice services; training and skills development; childcare and pre-school provision; and social enterprise.	
Mixed tenure twenty years on – Nothing out of the Ordinary – Allen et al (2005)	Considers the experiences of 3 'mixed communities'. Generally found not to experience the issues that might be expected in deprived areas.	
Environmental problems and service provision in deprived and more affluent neighbourhoods – Joseph Rowntree Foundation (2005)	Poor quality often associated with more deprived areas. Deprived areas typically suffer from lower rates of employment, lower incomes and poorer health than more affluent areas. The report suggests that deprivation can undermine provision of services (for example gaps in amenity may also reflect variations in service standards and unintentional bias against deprived neighbourhoods in resource allocation). In addition, poor services contribute to a widening gap between deprived and affluent areas. Deprived neighbourhoods tend to have higher population densities – therefore more pressure on the environment.	

Research	Key findings	Observations for the East Midlands
Transforming disadvantaged places: effective strategies for places and people – JRF (2008)	There is no universal model for successful regeneration in terms of an area's recovery from economic decline. High levels of worklessness persist in many areas affected by economic decline – often concentrated amongst social housing tenants. Highlights the findings of a study by Dorling et al (2007) which found that between 1970 and 2000 there was a substantial increase in the geographical concentration and segregation of poverty and wealth and urban clustering of poverty has increased. This period corresponds with major restructuring of the British economy. Poverty rates for people living in social housing are double those of the population as a whole (Hill, 2007). Employment programmes are predominantly people-based rather than place-based. Job creation alone fails to address the economic fortunes of people in deprived neighbourhoods – London being a case in point (Dorling et al, 2007). Therefore connectivity is a major issue and the quantity and quality of local jobs is v important (Green and Owen, 2006). Goes on to discuss whether place attachment is a help or hindrance. Mobility/resident turnover does not appear to be higher in deprived areas. Mobility is actually predominantly linked to 'life stage' (CLG, 2008 and Bailey and Livingston, 2007). Looks at the NDC programme in England. Findings from this research suggests that improvements in housing and the physical environment leads to reduced crime rates and rates of worklessness and improving health outcomes. The success or otherwise of 'mixed communities' is discussed – (see Holmes, 2006). At higher densities the benefits of mixed communities appear to decrease. Makes reference to a CLG paper (2007) which states that there is no single 'area effect' – places affect people, and people affect places in many different ways.	
The Costs of Poor Housing – Urban Regeneration and non-housing outcomes – Peter Ambrose (2002)	Looks at the benefits of investment in better quality housing on health, education and policing. Specifically looks at The Stepney Health Gain Project 1995-2000 and The Stepney Household Costs Projects 2000-2001. Document concludes that for too long the housing issue has been seen as a 'social' one, tied to unhelpful concepts such as 'social exclusion' and 'basic rights'.	
The Geography of Poor Skills and Access to Work – Green and Owen – (2006)	Key findings include: those with fewer skills have fewer opportunities and face more constraints in the labour market; geographical differentials in employment rates persist at regional, local and micro area levels; both people and place-based factors influence participation in work; the majority of people commute only a short distance to work – but those in lower-skilled occupations travel shorter than average distances; both skills mismatch and spatial mismatch play a role in excluding some people from work; increasing polarisation in skills demand and supply across the country.	