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**Urban design theory and practice aimed at sustainability.
The Liverpool Study Cases in the United Kingdom
planning system**

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Publications

During the course of this PhD work, a number of publications have been made which are based on the work presented in this thesis. They are listed here for reference.

- 1) Fareea Shahreen, Angioletta Voghera, Attilia Peano, **Integrates the contemporary theory and practices of Land use plan in the UK cities**, 14th International Planning History Society Conference, "Urban Transformation: Controversies, Contrasts and Challenges" 12-15 July 2010, Istanbul, Turkey
- 2) Fareea Shahreen, Angioletta Voghera, Attilia Peano, **Towards sustainable city development practice: a case study of Liverpool**, Eco city World Summit 2009 the 8th International Eco city Conference Urban Ecological Foundations for Climate Solutions, 13 - 15 December 2009, Istanbul, Turkey
- 3) Fareea Shahreen, Angioletta Voghera, **Urban design in Europe: theoretical approaches for contemporary situation**, Positioning Planning in the Global Crises- An International Conference on Urban & Regional Planning to Celebrate the 50th Anniversary of Planning Education in Indonesia, 12-13th November, 2009, Bandung, Indonesia
- 4) Fareea Shahreen, Sabrina Afrin, Improving the recreation space in Slum, 10th international congress of Asian planning schools association (ASPA), Future of Asian Cities, 24-26th November, 2009, Ahmedabad , Gujarat, India
- 5) Fareea Shahreen, Angioletta Voghera, **Urban planning and design methods for sustainable development**, SUE-MoT Conference 2009, Second International Conference on Whole Life Urban Sustainability and its Assessment, pp.570-584 ISBN:139780947974817, 22-24 April 2009, Loughborough, United Kingdom.

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ABSTRACT

Urban design is the most traditional field of physical planning which focuses more on the physical design of places and deals with fine-tuned design approaches (John Lang, 2005). It is founded upon the social, environmental, political, aesthetic and economical sector, but public realm is also important factor for the urban design, to serve the public interest and to provide opportunities and cultural dimensions.

In present, urban design challenges are very different from the past. In contemporary situation the cities have been facing environmental, social and economic challenges that demand to devise new planning approaches. At the same time, the cities also have been suffering the lack of policies to resolve these problems, and any singular approach is not sufficient to address the new challenges. The design theories applied to city planning are traditional- which are not capable to meet the demand of the growing complexity of the world.

To cope up with the urban design challenges, the main contributions of this thesis are detail evaluation of the urban design methods, analysis of applying these methods in real life practice. The main questions are: *What are the theoretical approaches for the urban design for sustainable changes? And how to react with the sustainable changes in theory to practices?* Firstly, I describe the urban design land-use plan and policies, application fields, participating actors, different types of urban projects, considering related issues and methods for implementation process. Secondly, I have done a case study of contemporary practices in the United Kingdom, specially the Liverpool city's urban regeneration planning approaches toward sustainable developments. In this case study, I analyze the land-use plan and planning rules, urban projects and their context, local and transit oriented development, the decision making and the implementation process. After detail analysis of urban design methods, this thesis bridges the gap between theory and practice, by focusing on how to improve the theoretical approaches and how to use these approaches in contemporary planning practice.

Key words: Urban design, theory, sustainable changes, land-use plan

A preliminary note on urban design:

‘Cities develop gradually from many institutions, skilled person, developers, investors and others, for seeking to fulfill their own interests. Urban design involves co-ordinate and self-conscious actions in designing new cities and other human settlements or redesigning existing ones and the precincts in response to the needs of their inhabitants. Above all it represents acts of will in creating positive changes to the world, physical and social’ (John Lang, 2005).

“The term ‘urban design’ came into currency in North America in the late 1950s, replacing and superseding the more traditional, narrower and somewhat outmoded term ‘civic design’. Typified by the City Beautiful Movement, the latter was associated with a highly artistic and physical (visual and spatial) approach to urban design, focusing on the sitting and design of major civic buildings – city halls, opera houses, and museums – and their relationship to open spaces”(Matthew Carmona and Steve Tiesdell,2007). More recently to find out the appropriate meaning for ‘sustainable urban form’ has become involve many element, from space planning, surrounding environment, adjustment with climate, financial investment, political interruptions, cultural dimension, public interest, etc. ‘Contemporary urban design is more expansive than past. The nature of urban design varies considerably based on the process by which its various product types are implemented’ (Jon Lang, 2005).

The reason of the research:

The aim of this research is to analyze the relationship between urban design theories and practices by examining a real life scenario (Urban design practice in United Kingdom). The urban design theories are directly or indirectly affecting and involving the urban design practices and project development. In this case study, different design approaches are studied and their implementations in the real life have been investigated. The results of the study would lead to bridge the gap between theory and practice, by focusing on how to improve the theoretical approaches and how to use these approaches in contemporary planning practice.

The selection of the case study:

To achieve the goal of this research, I selected Liverpool as a case-study, because it is a lively city that adapts the sustainable changes and problems on the successful planning guideline. Designation as ‘European Capital of Culture’ for 2008 marked another stage in the city’s transformation (Impacts 08 Team, 2009). Planning policies for the Liverpool area focus on an urban regeneration strategy and complementary protection, and also enhance of the natural, built and social environment.

For my research, I concentrate mainly on the Liverpool city center’s urban transformation and regeneration programs and other urban project policies of the city, which influence the land-use regulation policy, sustainable development plan, local environmental plan and so on. Liverpool

city center is the economic hub of the city region. It has experienced a dramatic transformation over the past decade, with £3 billion invested in a far reaching regeneration programs. The city center waterfront, commercial district and retail core had witnessed the most significant changes (Liverpool Vision, 2009). The city center is the city's growing financial and professional services sector, although it is the Europe's largest retail-led regeneration project and a unique concentration of cultural and leisure assets.

Research structure:

I have composed my research structure into five parts:

Chap.-1: Introduce with Urban design, sustainable changes and research objectives.

Chap.-2: A broad literature review about urban design and discuss about some practical situations.

Chap.-3: Contemporary urban design process in United Kingdom.

Chap.-4: Focus on the case study: Liverpool City center

Chap.-5: Find out the contemporary practice and the relation with theories, and discuss about our act on sustainable changes.

The first chapter 'Introduction' describes the concept of urban design and sustainable changes in the context of environmental, economic and social. It also addresses research purpose, aim and objectives, and methodology.

The second chapter titled as 'The theoretical approaches of Urban Design' highlights literature reviews of the urban design. This chapter describes the urban design theories, such as land use plan, application field, types of urban projects, actors involved in implementation and project development methods. The goal of this chapter is not only to describe the bibliography reviews of the urban design theory but also to describe case study analysis. This chapter addresses the research studies to evaluate on the basis of urban design theories and explains with examples how these theories are applied into the policies and planning strategies. The ultimate objective is to understand the impact of these theories in sustainable urban design.

Chapter 3 titled as 'Urban design practice process in United Kingdom' describes the case study of United Kingdom. This chapter describes the planning approaches, policies and guideline related to urban design. The purpose is to show the nature of urban design and practical approaches in UK. This chapter presents a broad discussion of some basic features of the UK planning system.

In chapter four titled as ‘Contemporary urban design in Liverpool’ analyzes the practical case study to understand the urban regeneration strategies in land-use policy, and how to enhance the natural and built environment, particularly focus on city-center development policy. I have selected Liverpool, as it is an exciting, vibrant city that is getting to grips with the problems of changes. The objectives are providing an information base, discussion of the appropriate design and implementation process for tackling the contemporary urban design problems.

The last chapter focuses on the concept of sustainable planning guidelines and urban design practices taking into account of real-world scenarios with their unavoidable existing complexities. The fifth chapter ‘Learning from the analyses’ contains a series of interesting findings such as actual issues, sustainable development concept, design processes, sustainable factors that influence on decision making, implementation methods, people interest, and finally how to deal with the future. This chapter contains concluding remarks of my research, where I would try to outline my findings based on studies and analysis of the urban design theories and practices in contemporary situation.

CHAPTER 1: INTRODUCTION

1.1. Urban design concept:

“The term ‘urban design’ came into currency in North America in the late 1950s, replacing and superseding the more traditional, narrower and somewhat outmoded term ‘civic design’ ” (Matthew Carmona and Steve Tiesdell, 2007).

“Typified by the City Beautiful Movement, the term was associated with a highly artistic and physical (visual and spatial) approach to urban design, focusing on the siting and design of major civic buildings – city halls, opera houses, and museums – and their relationship to open spaces” (Matthew Carmona and Steve Tiesdell, 2007). Contemporary urban design is more expansive than this. It is primarily concerned with the quality of the public realm – both physical and socio-cultural – and the making (and managing) of meaningful ‘places’ for people to enjoy and use.

Almost all definitions of urban design state that it is strictly related to the public spaces project. For example the Jon Lang (2005) definition is:

‘Urban design is the process of shaping the physical setting for life to deal with the three-dimensional space in cities, towns and villages, and its objectives are defined in accordance with the vision of the future that they represent. Urban design involves coordinated and self-conscious actions in designing new cities and other human settlements or redesigning existing ones and/or their precincts in response to the needs of their inhabitants’ (Jon Lang, 2005).

Here are other statements about the urban design:

‘Urban design has evolved into its present form by learning from both the good and the bad examples of the past and through tapping into exciting ideas and innovation taking place in the built environment throughout the world. It is both these positive and negative forces that are driving the enthusiasm to produce exciting urbanism for the future.’ (Malcolm Moor, 2006)

‘Urban design draws together the many strands of place-making - environmental responsibility, social equity and economic viability, for example - into the creation of places of beauty and distinct identity. Urban design is derived from but transcends related matters such as planning and transportation policy, architectural design, development economics, landscape and engineering. It draws these and other strands together. In summary, urban design is about creating a vision for an area and then deploying the skills and resources to realize that vision’ (Llewellyn-Davies, 2000).

'Urban design should be taken to mean the relationship between different buildings; the relationship between buildings and streets, squares, parks and waterways and other open spaces which make up the public domain; the nature and quality of the public domain itself; the relationship of one part of the village, town or city with other parts; and the patterns of movement and activity which are thereby established; in short, the complex relationships between all elements of built and in-built space.' (Department of Environment, 1997: paragraph 14).

'The task of designing of urban places—where the designer is primarily concerned with the sensual, but particularly visual, qualities of these places—has traditionally been termed urban design' (R. Varkki George, 1997).

Urban design is established upon the social, environmental, political, aesthetic and economic condition of a particular area and also public realm, serving the public interest and to provide opportunities. Also modify the character of design spaces for considering the cultural dimensions. It focuses on the intersections among architecture, landscape design, planning, economy and geography. Urban design is related to urban planning, but it focuses more on the physical design of places and deals the more fine-tuned scale and detail design approaches.

Of all the design fields, urban design has the greatest impact on the nature of cities and city life. One of the important characters of towns and cities is their variety, different culture and environment. Different areas have diverse characteristics – different scale of activities, uses and function. Some places are lively and busy. Others are quiet and solitary. The spaces in the cities were composed with various features, such as- dense areas; open, monumental areas; soft areas; hard areas; old areas; new areas; areas of high building; areas of low building; shopping areas; commercial areas; entertainment areas; recreation areas; and so on (Matthew Carmona and Steve Tiesdell, 2007). To recognize the variation of areas –often such spaces will have less distinct edges, these areas are overlap each other, that simply express to the value of the environmental character. But, great care is also required for those spaces.

'What urban design needs to make its theoretical basis complete is a vertical theory of urban design. Urban design must extend from just horizontal considerations to those which rise vertically upwards and into the public and semi-public realms of buildings themselves. Systemically, urban design needs to be integral to interior architecture and to the internal spatial configurations within buildings. This is particularly crucial in the case of many of today's new intensive urban buildings, many of which are literally cities within buildings. We see these dense building types emerging in the increasingly intensifying urban areas in our cities. Whether these structures are simply tall buildings or actual skyscrapers – or are other large mixed-use complexes, such as super-large shopping malls (also found in suburban areas) and public/institutional buildings where people gather in large numbers – we find an increasing provision of enclosed, or partially-enclosed, public spaces within their densely packed and intensively built forms.' (Malcolm Moor, 2006)

For contemporary situation, towns and cities are continuously adapted to accommodating more functional and attractive public and private spaces for the quality of life, landscape and

environment. What is desperately needed- for the new approaches to producing and looking at the good urban spaces. Those spaces composed with public and private components. The distinction is not always clear because there are also semi-public and semi-private behaviors in places. In addition, what is considered to be private and what is considered to be public, varies from culture to culture and over time (Madanipour, 2003).

For a project to implement there may be several designs and designers involved, concept-producing drawings to communicate their ideas. Designer proposed design for particular places, analyses, built, and to set the design with assumptions. This is based on the goals of space designers, their clients, and space managers and most of the time does not address people's actual needs, contemporary changes or the ways that public places can function to serve these needs. In order to have effective design and management of urban spaces it is essential to understand the role that those places play in people's lives, and why spaces are used or ignored (S. Carr, M. Francis, L. G. Rivlin and A. M. Stone, 1992). The urban spaces or projects in cities take a long time to develop and changes, these designs may be implemented but in a very long period of time, with unavoidable changes it should necessary to take account for the sustainable changes, and also adapt, implies and monitor the project from time to time.

Actually there are numerous ways of defining 'urban design'. Some definitions are outdated; some are more complete than others and more specific. It is therefore most realistic to understand to define urban design that, the broad goal is to provide opportunities, behavioral and aesthetic, for all the citizens of and visitors to a city or one of its precincts (John Lang, 2005). Urban design involves in designing new cities and other human settlements or redesigning existing ones and/or their precincts in response to the needs of their inhabitants. Above all it represents acts for creating positive changes to the landscape, environment, and also to the physical and social features of the territory. It is also important to consider the changing situations.

1.2. Sustainable changes and urban design:

The modern city has to experience the changes in its physical form, not only its vast territorial expansion, but also through internal physical transformation. In present community they are adapting many sustainable changes, to ensure its continued existence and development. The best known definition of sustainable development, that of the World Commission on Environment and Development (the Brundtland Commission), dates from the publication in 1987 in 'Our Common Future':

(Sustainable development is)... "development that meets the needs of today's generation without compromising the ability of future generations to meet their needs".

EU directives on Environmental Impact Assessment (EU, 2001) define some environmental issues, that should be considered in evaluating the sustainability of a project; it declared that, "The environmental impact assessment shall identify, describe and assess, in an appropriate manner ... the direct and indirect effects of a project on: human beings, fauna and flora; soil,

water, air, climate and landscape; the interaction between the (se) factors; material assets and the cultural heritage". Economic, environmental and social are the three dimensions of the sustainability issues, considered by literature and they are also identified by the Dow Jones Sustainability Indexes that are the indexes ranking the – ‘financial performance of the individual companies worldwide’ (DJSI- Dow Jones Sustainability Index, 2006; Hotia et al., 2005; Knoepfel, 2001).

In Europe many strategic documents promotes sustainability from the 90’s, such as European Spatial Development Perspectives (1999), VI EU Environment Action Program (2001, 2007, a.s.a.), EU Strategy for sustainable Development (2001), the Management Plan 2011. They promotes integrated actions, within an overall sustainable strategy, at different territorial scales in order to: reduce the fragmentation of ecosystems and the landscape, the impact of human activities on the environment, and to promote compatible transformations and land uses with the need to conserve nature, biodiversity, and the landscape. These actions affect much on urban design and open some aims of Europe 2020.

Europe 2020, EU’s growth strategy for the next 10 years, outlines ambitious objectives to achieve a smart, sustainable and inclusive economy. Specific targets around climate changes and energy uses, to be reached by 2020, will ensure the development of a more resource efficient, green and competitive economy. *‘Sustainable growth means building a **more competitive low-carbon economy** that makes efficient, sustainable use of resources, **protecting the environment**, reducing emissions and preventing biodiversity loss, capitalizing on Europe’s leadership in developing **new green technologies** and production methods and introducing **efficient smart electricity grids**’*(Europe 2020).

‘Sustainable’ growth means (Europe 2020):

- building a more competitive low-carbon economy that makes efficient, sustainable use of resources
- protecting the environment, reducing emissions and preventing biodiversity loss
- capitalizing on Europe’s leadership in developing new green technologies and production methods
- introducing efficient smart electricity grids
- harnessing EU-scale networks to give the businesses - especially small manufacturing firms - an additional competitive advantage
- Helping consumers to make well-informed choices.’

Specific targets relating to sustainable growth are (Europe 2020):

- Reducing greenhouse gas emissions by 20% compared to 1990 levels by 2020. The EU is prepared to go further and reduce by 30% if other developed countries make similar commitments and developing countries contribute according to their abilities, as part of a comprehensive global agreement.
- Increasing the share of renewables in final energy consumption to 20%.
- Moving towards a 20% increase in energy efficiency.

These ambitious targets present an opportunity for ESF (European strategy framework) to work with organizations in the development of new skills and new jobs within the emerging green sector to meet current legislation and future targets. Projects included on ESF-Works addressing the skills implications of a greener economy focus on the following areas:

- Construction and Environmental Services
- Influencing procurement and supply chains
- Raising awareness of green issues
- Working with employers to develop their workforce
- Working with unemployed people to increase employability skills
- Increased demand on more traditional skills.

Environmental impacts	Greenhouse gases emissions Pollution Waste Nuisance Biodiversity Materials Land Water Fossil fuel reserves
Economic impacts	Economic growth Employment Economic capacity
Social impacts	Crime Mobility Education Community participation Satisfaction Health Housing condition Poverty Family

Table 1.1. : Sustainable changes impacts

In order to define the sustainable urban design a contribution can be traced to the documents for the method used to develop urban design in physical, social, economic, environmental and landscape terms and also for the strategic evaluation of plans and projects¹. In this view the publication ‘Energie’ one of a series (Sustainable urban design, 2000) highlight the characterization of these sustainable issues in Europe, raising awareness of these impacts for the damages, are describe (below):

¹ As in the other European Union countries, in the UK, Strategic Environmental Assessment (SEA) is mandatory for plans and programmes. In order to embrace wider sustainability objectives in England and Wales, Sustainability Appraisal (SA) is mandatory for Regional Spatial Strategies and Local Development Documents (ODPM, 2005).

- **Ecological Footprint :**

The ecological footprint is a measure of human demand on the Earth's (Wikipedia, 2012). 'Ecological footprint is an accounting tool that enable us to estimate the resource consumption and waste assimilation requirements of a defined human population or economy in terms of a corresponding productive land area' (Mathis Wackernagel, William E. Rees, 1996). Ecological footprints can be measured at an individual level, or for cities, regions, countries, or the entire planet. Footprints indicate how much "nature" is available for a defined population to use, compared to how much it needs to maintain its current activities. Obviously, the size of a footprint will vary depending on the volume and different types of natural resources consumed by a population, which will in turn depend on lifestyle choices, income levels, and technology. Cities in developed countries generally have a much larger ecological footprint than those in developing countries (Sustainable urban design, 2000). For example, the average ecological footprint in Italy is 4 ha/person, while Switzerland and Germany have ecological footprints greater than 5 ha/person. London's ecological footprint is almost equivalent to the entire area of Britain's farmland. By comparison, the world's average ecological footprint is 2.4 ha/person (Sustainable urban design, 2000).

- **Urban heat islands :**

A heat island is an area of land where surrounding temperature is higher than the land rounding it. Higher urban temperatures increase the demand for electricity for cooling and air conditioning, for creates these warm conditions increase in the production of carbon dioxide and other pollution. These pollution effects to increasing global temperatures due to the 'greenhouse effect' (Sustainable urban design, 2000).

Some of the main factors contributing to increased temperatures in urban areas are:

- Air pollution and heat production from buildings and traffic;
- Building and other hard surfaces which absorb solar radiation and reflect heat;
- Reduction in airflow and humidity caused by the sheltering effect of buildings.

- **Building and land use :**

Buildings are required for almost every urban design activity and are the principal elements of the urban fabric. There are environmental impacts are connected with their construction use and disposal. Land use for buildings and other purposes is an insufficient, finite resource that has in present time often been used wastefully, especially in and near cities and towns and in suburban areas. Future sustainable development needs to address land use and planning according to function to ensure that optimal use had made of the available land resource to serve the needs of society as a whole. (Sustainable urban design, 2000).

- **Traffic :**

Traffic congestion reduces the quality of life in cities, wastes time, money and energy, and increases humiliation on environment. The circulation, placement of the road plan, use of transport pattern such as bus, too much use of car, others, and density of buildings in an urban environment, have a great influence on the result of uncontrolled traffic. The use of the

abundance amount private cars is both a cause and result of inadequate public transport facilities in many European cities.

- **Wastes (solid, liquid, gaseous) :**

The domestic, commercial and industrial waste generated by urban living are concern to local authorities and inhabitants and a major source of environmental pollution. The smells and other emissions connected with sewage treatment plants and landfill sites, traffic and industrial processes are a regular source of irritation, particularly where large numbers of people live close to the pollution

- **Water quality :**

The quality of water is influenced greatly by human development. Acid rain is a common problem in and down-wind of urban communities and industrial facilities. The expanse of hard not allowing fluid surfaces in cities, results in large bodies of rainwater requiring collection and discharge elsewhere. Dust, dirt and other solid pollutants are washed with rainwater into drains, the water sometimes discharged untreated into local waterways. Drinking water from local waterways often requires treatment with chemicals to strive against with bacteria and other micro-organisms from such pollution (Sustainable urban design, 2000).

- **Air quality, ozone depletion, greenhouse gases, solar radiation :**

Many cities have succeeded in reducing the high levels of pollution traditionally caused by large-scale fossil fuel combustion. In London prior to the 1956 Clean Act, air pollution had reduced midwinter solar radiation in the city by 50% compared with the surrounding countryside (Sustainable urban design, 2000). Today, vehicle use is one of the main contributors to air pollution in cities. Despite reductions in individual vehicular emissions, the increasing number of vehicles on the roads in cities ensures the continuing rise of urban air pollution levels.

- **Aerodynamic impact :**

Wind velocities in cities are generally lower than those in the surrounding countryside due to the obstructions to air flow caused by buildings. Wind affects the temperature, rates of evaporative cooling and plant transpiration and an important factor at a micro-climatic level (Sustainable urban design, 2000). Built-up areas with tall buildings may lead to complex air movement through a combination of wind channeling and resistance, and this often results in irregular wind movement in some areas and concentrated pollution where there are wind shadows.

- **Urban dust :**

Urban dust is particulate matter released into the air as a by-product of building works, exhaust fumes from buildings and vehicular traffic, manufacturing and other processes(Sustainable urban design, 2000). Extensive sealed surfaces and insufficient planted areas to increase these problems. Other side, excessive condition to this dust may cause more serious lungs disease.

1.3. Purpose of the research:

The purpose of this research is to understand the sustainable changes and develop the suitable urban design in theories and in the practices.

‘The participants in the development of any urban design project will be arguing with each other and with themselves as they speculate about what the issues are and how best to deal with them’ (John Lang,2005). According to Judith R. Blau et al, 1983, urban design theory may help us to realize and correct for:

- (1) Undeserved resentment and mistrust of planners
- (2) Obstacles to effective design review and democratic planning process, and
- (3) Unintentionally counterproductive technical planning practice.

When I study about the planners’ action (from policy to development), I have realized that real life practices are significantly different from theory. To build an urban project is a long time process, during the lifetime of an urban project, conflicts arise among the challenges, financial supports, people’s interest and more in course of time. Solving these challenges and contemporary changes would mean the adoption and reviewing of the planning theories in more moderate way. This thesis examines in detail the urban design theory and a case study practice in United Kingdom for achieving sustainable development guideline.

1.4. Aim and Objective:

The *aim* of this thesis is to analyze the relationship between urban design theories and practices with an example case study. As a case study, I have selected the Liverpool city of the United Kingdom. I have studied the urban design theories that directly or indirectly affect the urban design practice in Liverpool. This case study reveals real life practices in contemporary urban design and thus helps us to make comparisons between the theory and practice in urban design space.

The *Objectives* are outlined in the following which are coherent with the above mentioned aim:

- To analyze the theoretical approaches of Urban Design
- To understand sustainable changes and their needs in urban areas
- To explore contemporary urban design practice in Europe, specially defining the case-study of Liverpool in United Kingdom.

1.5. Research questions:

The main research questions are:

What are the planners' methods for the urban design?

How to manage the sustainable changes in urban design theory and practices?

1.6. Methodology:

The research develops in two phases.

Phase 1: Understanding the theories of urban design

- a. Analysis of theories of Urban Design, such as applications field, land-use plan and policies, actors involved in the project and its implementation, the participation of social actors, the analysis for the urban projects, issues considered and implementation methods for the urban projects.
- b. The discussion of the theories covers the uses, analysis and their practical cases.

Phase 2: Understanding the real life practice of urban design

- a. Analysis of urban design and planning process of the Liverpool city, which covers understanding of the case study, land use planning policy, spatial planning, applications field, analysis for the urban projects, role of the actors and its implementation, local development frameworks and the methods for project development
- b. Analysis of urban design practical application field- a case of Liverpool city center which includes city center development strategy, outputs, opportunities, positive side and problems.

Phase 3: Compare between theories and practices

Finally, compare the theories with the practices and general guideline for the city planning issues.

Chapter 2: The theoretical approaches to Urban Design

2.1. The theoretical approaches to Urban Design:

In order to understand the urban design theories in contemporary situation, I adopt a method that analyze the urban design tools, applications field, environment, economy and social issues within urban areas, the actors, and the construction of the urban spaces. These are in following:

Urban design theoretical approaches	Planning Tools	Applications field	Type of Urban projects	Actors	Social Actors	Issues consider	Methods of the implementation
	land use plan strategic plan/structural plan operational plan	1)Town or local area planning 2)Part of the city or small areas 3) Urban renewal 4)Projects	Master plan Architecture design Landscape design Transport policy	Institutional actors Social actors Public actors	Developers Investors Occupiers	Physical Functional Cultural Environmental Landscape Economy Time	Objective Survey Analyses ↓ Draw plan Evaluation Alternative Presentation Choice plan ↓ Implementation Monitoring

Table 2.1: Urban design theoretical approaches

2.2. Urban design tools:

‘Urban design tools are specific techniques that can be applied at appropriate stages in the design or project planning process to facilitate quality outcomes. These tools can help in understanding the urban context, encouraging community involvement, increasing the understanding of urban design issues, describing intended design outcomes, establishing design processes, and organizing people and resources. They can be used either individually or collectively in achieving quality urban design outcomes’ (Graeme McIndoe, 2006).

Urban design tools should be used in the first steps of an urban design project. These identify the qualities that make a place special, and instruction design development and decision-making. For raise the policy for land development the policy makers use different tools (land use plan, the strategic plan, and the operational plan).

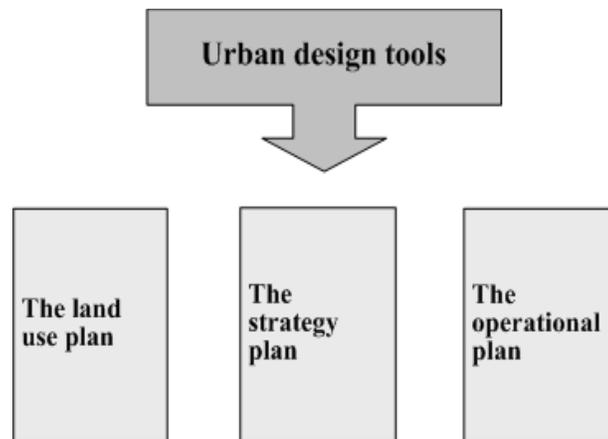


Figure 2.1: Urban design tools

2.2.1. The land use plan:

“Land use plan has been the focus of the traditional physical planning as well as recent general and community development plans. It is quite clear that land use is still one of the key elements of urban design. After all, it determines the basic two-dimensional plans on which three-dimensional spaces are created and functions are performed” (Hamid Shrivani, 1985). Land use decisions establish the relationship between public and private spaces, their uses and organization, their functional features, the mobility situation, the density of building, within urban areas. There are different areas within urban setting with different capacities for intensity, access, parking, transport system availability, and finally demand for individual uses.

‘Individual cities display morphologies and land use patterns which range from the very formal and carefully ordered to apparently haphazard collections of buildings, spaces and activities’ (Philip Kivell, 1993). ‘The precise pattern is determined by a multiplicity of factors including the age, style and scale of development, the needs of different kinds of land and the nature of its ownership. The economic explanation of the land-use pattern must incorporate forces which extend far beyond the city’s local boundaries’ (Philip Kivell, 1993). As Carter suggested (1983:114): ‘ the plan and built form of the town are direct reflections of the nature of culture on the large scale...the town epitomizes in its physical nature the complex of political, economic and social forces which characterized the period of its creation’.

‘The key issues for consideration in future land use decisions and mixing uses in urban areas to promote twenty-four-hour vitality by improving circulation via pedestrian facilities and better use of infrastructure systems, natural environment base analysis and improvement of infrastructure systems with necessary maintenance plans and operations’ (Hamid Shrivani, 1985). ‘Land use policy and planning concern collective decision making aimed at the design and the implementation of courses of action in order to achieve future societal goals to resolve collective problems that actors in a reference system experience and define’ (Alexander, 1992; Faludi, 2000; Huxley and Yiftachel, 2000). ‘Policies and plans embody theories held by those

formulating and implementing them’ (Huxley and Yiftachel, 2000; Pressman and Wildavsky, 1992). ‘Land use policy and planning are not limited to direct physical interventions; they are often exercised indirectly through actions in economic, social, environmental, and other policy and planning arenas’ (Healey, 2003). Summarize, that land use policies and plans serve as instruments to promote economic, social, environmental, and other goals.

A land use plan developed in the combination of the land use policies determines the relationship between plan and policy and provides the appropriate functions to specific area, creating the “context” of urban design.

In contemporary situation we face two major problems of land use plan related to the sustainability, these are,

(1) Urban sprawl:

Urban sprawl is commonly used to describe physically expanding urban areas. The European Environment Agency (EEA) has described, ‘Sprawl as the physical pattern of low-density expansion of large urban areas, under market conditions, mainly into the surrounding agricultural areas. Sprawl is the leading edge of urban growth and implies little planning control of land subdivision. Development is patchy, scattered and strung out, with a tendency for discontinuity. It leap-frogs over areas, leaving agricultural enclaves. Sprawling cities are the opposite of compact cities — full of empty spaces that indicate the inefficiencies in development and highlight the consequences of uncontrolled growth’.

The sprawling nature of Europe's cities is essential matter because of the major impacts that are evident in increased energy, land and soil consumption. These impacts threaten both the natural and rural environments, raising greenhouse gas emissions that cause climate change, elevated air and noise pollution levels which often exceed the agreed human safety limits. Thus, urban sprawl produces many adverse impacts that have direct effects on the quality of life for people living in cities.

(2) Sustainable development:

Urban sprawl and land consumption are part of the general sustainable development strategy. The most widely used definition of sustainable development is “Development which meets the needs of the present without compromising the ability of future generations to meet their own needs” (Bruntland Report 1987). The Government states that sustainable development “Is about ensuring a better quality of life for everyone, now and for generations to come” (A Better Quality of Life, UK Strategy for Sustainable Development, DETR 1999). This strategy contains four objectives:

- Social progress which recognizes the needs of everyone
- Effective protection of the environment
- Prudent use of natural resources
- Maintenance of high and stable levels of economic growth and employment

Fundamental elements of Land Use Planning:

Zoning Ordinances:

‘The land use is identified, in which a municipality may shape its pattern of land use – by zoning regulations. Zoning is the public regulation of land use’ (Dwight Merriam, 2004). Local governments adopt zoning to control the types of uses of land in villages, towns, cities and countries –and the bulk, density and dimensions of those uses. Through zoning, the government provides guideline for the people - what they can and cannot do with their own land. This directly affects the value and utility of their property.

A major part of local planning is zoning, the division of areas into districts. Zones cover most potential uses, such as:

- Residential,
- Commercial,
- Light industry, heavy industry,
- Open space, and
- Transportation infrastructure (such as rail lines or highways),

Residential zones use for the different typologies of private and social housing, such as, single-family detached homes; duplexes or two-family homes; zero-lot-line homes- which are single-family homes with no side yards or only one side yards, multi-family homes, including townhouses and walkup flats; mobile home parks; and apartment building (Dwight Merriam, 2004). Commercial zones uses ranges are from small retail shops to warehouse stores. Industrial zoning use for the industries works, activities and use purpose.

Subdivision Ordinances:

‘The Subdivision Ordinance establishes regulations that govern -how parcels of land are subdivided and developed. While it may include the procedure for the transfer of property titles, as a rule it will not deal with the actual placement of buildings on the lot. This is reserved for the site plan ordinance’ (Kenneth B. Hall, Jr. Gerald A. Porterfield, 2001).

The division of land for the purpose of serving a single lot or parcel to each tenant. Subdivision Ordinance should prepare to analyze all urban objects - street width and road location are carried out according to a municipality’s master street and highway plan, detailed specifications for streets and street signage, streetlights, traffic control devices, sidewalks, alleys, driveway entrances, lot sizes, setbacks, basements, public sites, recreation areas, and so on to ensure for maintained uniform system. The intention of the Ordinance should be presented to the Planning Commission of a preliminary site layout in accordance with the standards guideline.

Site Plan Ordinances:

The Site Plan Ordinance is the set of guidelines that must develop a scheme in order to obtain a building permit. It relates directly to the zoning ordinance, that it establishes the construction specifications (length, width, minimum and maximum square footage) for such things as

parking spaces, lot coverage, storm water management areas, drainage structure, street and curb details, and landscape requirements (Kenneth B. Hall, Jr. Gerald A. Porterfield, 2001).

Overlay District Guidelines:

Overlay district guidelines are usually established within the context of special circumstances. Many municipalities have developed regulations to maintain the quality or condition of historic districts, to protect environmentally sensitive areas, or prevent conflicts between certain land uses. Design review committees must approve proposed changes or improvements exiting projects according to the act of building permits (Kenneth B. Hall, Jr. Gerald A. Porterfield, 2001).

The Liverpool city study Case:

For relate the land use theory in practice I would mention Liverpool city land use practices; that guided the sustainable changes in plan and has been largely successful in its application. The land use policy of Liverpool maintains zones (Liverpool Local Environmental Plan 2008), such as:

- Rural Zones - Primary Production, Rural Landscape, Rural Small Holdings
- Residential Zones- General Residential, Low Density Residential, Medium Density Residential, High Density Residential, Large Lot Residential
- Business Zones- Neighborhood Centre, Local Centre, Commercial Core, Mixed Use, Business Development, Enterprise Corridor
- Industrial Zones- General Industrial, Light Industrial, Heavy Industrial
- Special Purpose Zones- Special Activities, Infrastructure
- Recreation Zones- Public Recreation, Private Recreation
- Environment Protection Zones- National Parks and Nature Reserves, Environmental Conservation, Environmental Management
- Water way Zones- Natural Water ways

There are some difference and similarities comparing land use plan theories and Liverpool practice. According to city character the tool was modify and moderate for serve the best use. Zoning regulate the space for use, shape and size, also define the space for public or private uses. These are usually passed by local authorities. Zoning is the mark as a pollution control technique. As urban writer Jane Jacobs wrote years ago,

“The notion that reek or fumes are to be controlled by zoning and land sorting classifications at all is ridiculous. The air doesn’t know about zoning boundaries. Regulations specifically aimed at the smoke or reek itself are to the point.”

Zoning regulates that how intensively we could use our land. Regulation control in the location of residential, commercial and industrial development in the city or in designated mixed-use developments use for fixed the maximum height, set back, open space area and cover area (Dwight Merriam, 2004). For understand the practical guideline I illustrate the Liverpool city’s ‘Liverpool Local Environmental Plan 2008’ principal development standards of zoning in “Chapter-4”.

2.2.2. The strategy plan:

‘A strategy plan is a document that summaries the purpose of the organization, what it strives to accomplish and how it would accomplish it’s most external and internal scan’ (Alan Robinson, 2003). This is summarized after consideration of the ideas expressed in several dissertations on the topics of Strategic Planning, which only differ in verbiage but not content. Handbook on Strategic planning, (Forbes, 1996), states that strategic planning seeks to answer many questions, the most important of which are,

1. Where we are today? Internal, external and competitive analysis of the organization.
2. Where are we going? Mission statement, long term objectives (vision), measurable goals
3. How do we get there? Strategy formulation involving all stakeholders (directors, staff, clients, NGO’s etc.)

The strategy plan dismisses a predetermined order according to which the planning process is carried out. It rejects the linear sequence and replaces it with a cyclical mode (Abdul Khakee, 1998). It also measures for which the problem situation is less complicated, and uncertainty that are easily manageable, are implemented in the near future; others are postponed to later occasions. ‘Strategic planning tends to be characterized by partial commitment and iterative progress’ (Rosenhead, 1989; Friend and Hickling, 1987).

The strategy plan is a policy document that describes in words and images a vision for developing a neighborhood, town, city or region. These policies are planned to be used for evaluate development proposals to structure the basic pattern of development within each district, including block pattern and site access, streets and public open space, built form, parking, and land use. ‘The strategy shall be applied, as the City determines appropriate, during the review of proposed, new or amended Planned Developments, Master Plans, conditional Uses and variance requests’(Glatting Jackson et al, 2003). The strategy plan also considers the density and /or intensity of the area, or any other support from the City that the applicant planned to make the project more financially feasible. This financial support could potentially incentives such as ‘tax rebates’, ‘deferred permit fee payments’, ‘direct financial development assistance’, ‘public land abandonment’, or any form of post development project management(Glatting Jackson et al, 2003). These policies are targets the urban areas. Urban proper policies have the potential effects on society, economy and environment.

The strategy plan in Liverpool city practice

The Liverpool study case can be traced to UK and EU urban regeneration policies. In fact creativity and creative thinking are the ways by which problems can be properly solved. The methods/policies have been principle guidelines in many cities, particularly in the UK, when approaching urban regeneration policy. In Europe the policies are modify for some reason, such as;

- Departure from existing policies (economic, social, housing, urban and regional) for sustainable changes
- Multiparty/Democratic political system

The EU has its own strategy on sustainable development dealing with most of the challenges covering economic, environmental and social issues. The strategy's basic message is that, ultimately the economic, social and environmental dimensions of sustainability must go hand-in-hand and mutually reinforce one another: *"Sustainable development offers the European Union a positive long-term vision of a society that is more prosperous and more just, and which promises a cleaner, safer, healthier environment - a society which delivers a better quality of life for us, for our children, and for our grandchildren"*(Commission of the European Communities, 2004). Understanding the importance of and the interrelationships between these three pillars of sustainable development is crucial (Europe 2020).

The purpose of this Development Policy Plan in Liverpool is to promote the community, environmental and economy, to preserve the quality of the life and to maintain the function of the land use properly. The main purposes of the land use plan practice in the city are (Liverpool Township development policy plan, 2005):

- To put the land in Liverpool Township to the best use for which it is physically suited,
- To accommodate the desires of individuals while taking into consideration the common good for all residents collectively,
- To ensure growth and development are orderly and harmonious while, at the same time, guarding the general health, safety, and welfare of the community,
- To protect and maintain property values, so as to encourage neighborhood stability,
- To provide an element of stability and consistency to the planning program. To allow the Township to determine its own destiny, and to manage, rather than react, to change, and finally
- To provide a long-range context for decisions concerning short range actions.

2.2.3. The operational plan:

There are no specific definition that could be used to explain 'what is an operational plan?'. According to Act of Planning , *'one could define an Operational plan as the execution of a set clearly stated, practical process, in a predestined order aimed at achieving an end'*. The 'Operational' defines the practical steps and the 'plan' defines the act of performance. 'At this level, the structure of the tasks is defined mainly in terms of concrete physical components rather than abstract managerial considerations. Operational planning lays out major actions the organization needs to carry out in order to activate its strategic objectives and an effective operating plan is a method of translating general statement of intent (from the Strategic Plan) into specific objectives and actions'(Wheelen and Hunger, 1997).

The operational plan is the implementation planning system, the actions regarding land use planning guideline, planning process and plan or implementation revisions and changes. It mostly depends on the financial supports of clients. All the ideas became recorded in connection with implementation research, which started with the seminar work by Pressman and Wildavsky (1973) about the implementation are:

1. The 'top-down' approach emerges from the analyses of defects in goal formulation and the dichotomy between decision making and executive functions within an organization (Hood, 1976; Sabatier and Mazmanian, 1979).
2. The 'bottom-up' mode places its emphasis on the role of field workers in the implementation of the policy. The failure to implement policies was because the values and the preferences of the field personal were not taken into account. And assumption for the latter is that field workers enjoy a certain measure of discretion (Wetherley and Lipsky, 1977; Elmore, 1978).
3. The third category consists of the environmental factors as well as institutional context determine implementation which is regarded as an uninterrupted sequence between policy and action (Lewis and Flynn, 1979; Barrett and Fwdge, 1981).

In spite of these three approaches one proceeds from, the main point about this planning is emphasis the interplay between the making of goals and policy measures on one hand and implementation on the other. This interplay is affected by organization culture, professionalism and the relationship between various interests. It also implies a continuous interest in the formulation and revision of the contents of a plan or policy (Abdul Khakee, 1998). It is recognized above that setting clear objectives is the first step in ensuring that the project team operates as an effective and focused unit. Objectives should therefore be realistic, challenging, sufficiently valuable, agreed and written down. A high level of commitment is best achieved when all members of the team are involved in the setting of clear and measurable objectives.

The written document of strategy plan sometimes faces many difficulties in operational plan. In the implementation stage, the ideas, however, may never be implemented, as the money may run out or the decisions be changed. As these are about cities, and cities take a long time to evolve and changes, these operational plan might be implemented but in a very long period of time, with unavoidable changes and adjustments to take account of changing political and economic context (Ali Madanipour, 1997).

Cliff Moughtin et al, (2003) illustrated some important factors in action plan, such as:

- Financial information; including contracts of authorization, project expenditure, billing, budget and cash-flow records
- Planning and control information; including top-level project plan, master program, schedules and quality control review records
- Standards; including specific project standards and authorization for changes and deviations from agreed standards
- Project personnel information; including details of project personnel with key dates, experience, contact information
- Logs and records; including project diary and log recording position statements, key decisions, key events, review reports and project statistics
- Project documents; including the client's requirements definition (CRD) and project's requirements definition (PRD), design reports, technical specifications, test specifications and correspondence
- Other documentation; including documentation relevant to specific issues not allowed in the above sections.

The implementation of operation plan in Liverpool city:

In Liverpool, all new development and conversions of existing buildings and spaces should have a positive relationship with the physical, social and environmental context of the City and ensure a high quality urban environment. The main objectives are (Information adapted by “Liverpool City Council Core Strategy Preferred Options Report, 2008):

- Delivering high quality architecture;
- Protecting the City's historic fabric and contributing positively towards its identity and character;
- Improving the public realm and providing for public and private spaces that are clearly distinct and contribute to continuity and enclosure;
- Contributing to improvements in safety and the reduction of crime by enhancing natural surveillance, providing active street frontages, and ensuring appropriate enclosure and overlooking of public spaces;
- Supporting increased permeability, strengthening the linkages between places and contributing to a well-defined movement network particularly in relation to walking, cycling and access by public transport;
- Ensuring that buildings and spaces can adapt to changing environmental, social and economic circumstances, particularly climate change;
- Creating variety and choice to support mixed communities, develop the identity of a place and ensure that all new developments are accessible to all; and
- Supporting improvements to air and water quality through good quality landscaping which can increase biodiversity.

The following principles are also proposed for specific circumstances and they are strictly related to urban design practices:

Residential Environments

New residential developments should follow the standards set out in the Code for Sustainable homes and create adaptable residential environments that can accommodate changing needs easily, taking into account ‘Building for Life’ criteria and create places of distinctive character and legibility. Roads, parking and pedestrian routes should be integrated, safe and reflect the needs of the community and the environment.

The Quality of Open Space

New development should contribute towards improving and managing quality open spaces. Multifunctional spaces should be created by including opportunities for both active and passive uses, as well as supporting those natural processes that characterize the space. Public spaces should benefit from a strong relationship with the surrounding built environment by designing for active frontages and natural surveillance.

Improving the Quality of Local and District Centers

New developments inside or adjacent to centers should be well integrated with the existing center by respecting the building line of the existing urban environment and, where

appropriate, building up to the edge of the backyard, providing for linked trips to the remainder of the center and contributing towards improving the environmental quality of the center.(Information adapted by “Liverpool City Council Core Strategy Preferred Options Report, 2008”)

2.3. Applications field:

The broad goal of urban design is to provide opportunities, behavioral and aesthetic, for all the citizens of and visitors to a city or one of its precincts. These opportunities have to be accessible.

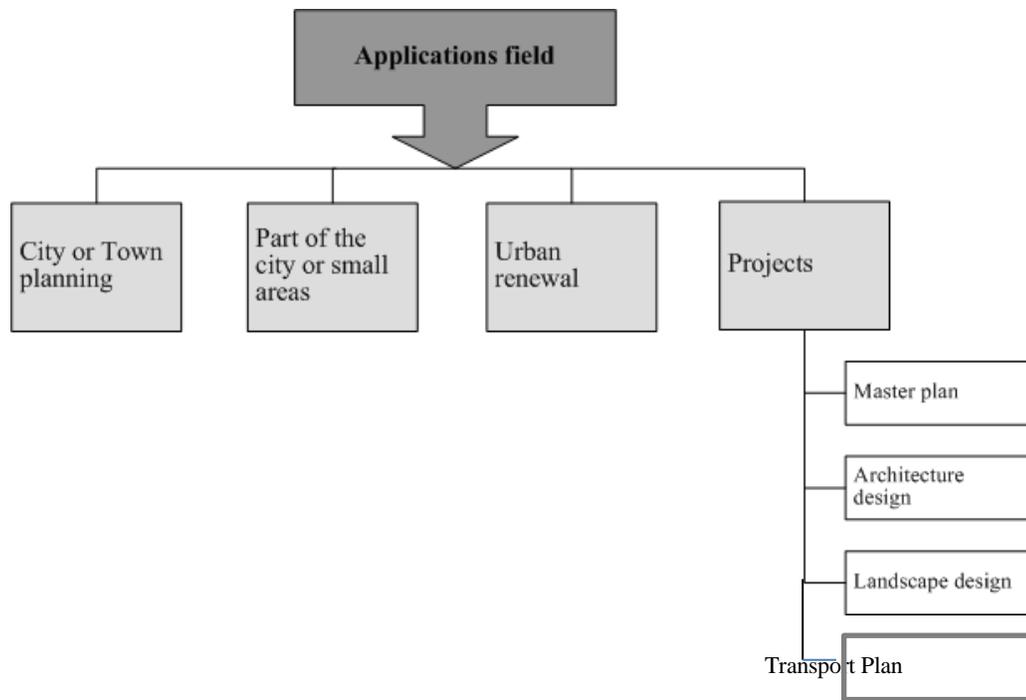


Figure 2.2: Applications field of urban design

2.3.1. City or Town planning:

‘The character of the city has been changing according to the urban dwellers activities. Its diverse functions have included marketplace, theatrical stage, place of execution and the city has been the setting for revolutions, uprisings, coronations, massacres, celebrations . . . the list is long’ (Mike Jenks and Nicola Dempsey,2005).

Most city-planning projects deal with existing cities. If the purpose is to design a new town, the planning objectives are presented in the form of a master plan. ‘The master plan presents a vision of what the city hopes to be at some future date. Often this master plan is a statement allocating land uses to areas based on some image of a transportation network. At other, but

less frequent, times it is a three-dimensional representation of the future state of a city' (Jon Lang, 2005).

'City and regional design is concerned with managing the built, natural and social environment to meet the needs and aspirations of current and future generations. Architects, landscape designers and city planners are to make a positive contribution to the development of city design. City, or town, planning tends to look at urban design as the distribution of land uses in relationship to transportation systems although this view varies from country to country. In some countries urban design is city planning and to some people within all countries city planning is synonymous with urban design' (Jon Lang, 2005).

'The future form of cities and the strategies that they should adopt in global changes and adopt sustainable development' (Mike Jenks and Nicola Dempsey, 2005). 'A highly attractive alternative for cities to the current unregulated, indiscriminate change taking place is urban sustainability' (Wackernagel and Rees, 1996), 'based on the principles of allowing present generations to meet their needs without compromising the ability of future generations to meet theirs' (WCED- World Commission on Environment and Development, 1987). 'Within the present economic framework there is no incentive for cities to take responsibility for the externalized damage of their activities. Redevelopments that only address a superficial image do not provide any socio-economic or environmental solutions. In contrast to the strategy of city-image enhancement, sustainable development offers very different approaches' (Bob Giddings et al., 2005).

'A foundation to urban sustainability is the overriding objective to achieve a high quality of life for the whole community within a socio-economic framework that minimizes the impact of the city on the local and global environment. For it to be successfully realized, the city must tackle the dimensions of sustainability: social, ecological, as well as economic. Sustainable cities ensure well-being and a good quality of life for citizens, are environmentally friendly, and socially integrated and just. There is no shortage of ideas for how environmental sustainability can be achieved' (Bob Giddings et al., 2005):

- Use of renewable energy and a dramatic increase in energy efficiency
- Recycling and reuse of materials
- Food production within cities
- An end to edge-of-town retail, leisure and business development to protect the countryside and retaining jobs in cities

Richard Rogers (1999) suggested that sustainable cities were characterized by:

- A dense and polycentric form
- The presence of overlapping activity
- Equitability for residents
- Ecological services
- An open city
- A beautiful city where art, architecture and landscape move the city.

The ideas of sustainability promoted by town planning aimed at sustainability define many issues that urban design will consider and implement in single projects.

City planning guidelines are published in written document and also in their websites. These policies are changes and modify according to adopt new policies by some legislative body – at the city level it is the municipal council – if they are lead to any action. They have been responsible for determined the budget, development process- government or public developer. ‘If the goal of planning is to create a land-use pattern for the future city, the product will be in the form of a two-dimensional master plan colored according to a code designating the type of activities (industrial, commercial, residential, etc.) that a block of land should house’ (Mike Jenks and Nicola Dempsey, 2005).

‘Sustainable cities need active involvement of the people; they need active citizens’ (Selman and Parker, 1997; Taylor, 2000). ‘Local Agenda 21 recognized that some 70% of the actions required to achieve sustainability needed to be done locally’ (UNCED, 1992). As Camagni et al. (1998) pointed out, ‘policymaking and decision-taking need to be focused at the local level. Active citizen involvement implies a fundamental change to politics and political structures. Local government needs to be more than modernized; it needs to be transformed into a vibrant dynamic and challenging forum of debate, based on public involvement’.



Figure 2.3: Objects influence in City planning

The Liverpool City Development

Liverpool is a city and metropolitan borough of Merseyside, England, along the eastern side of the Mersey Estuary. The City of Liverpool is governed by Liverpool City Council, and is one of five metropolitan boroughs that combine to make up the metropolitan county of Merseyside (Wikipedia, November, 2011).

The growth of Liverpool:

“The development of Liverpool as a major city truly began in the seventeenth century when its port became the main connection between England and Ireland. The first dock in the World was opened in 1719, which assisted the co-ordination of water-based traffic. Further expansion occurred with the onset of industrialization, when the city was pivotal for colonial trade and central to the slave trade with Africa, Europe and North America. To hasten the processes of trade, the River Mersey and associated docks were strategically linked with the manufacturing regions of Lancashire and Yorkshire via the Manchester and Leeds shipping canals. As a result, Liverpool rapidly became the second busiest port in the world. By 1914, one third of all UK exports and 25% of all imports, were dealt with by the port. The Port of Liverpool, the first ‘Freeport’ of its type in the UK, is located on the Northeast shore of the river” (Liverpool City Council, 1999; Mersey guide, 2000a).

City Character:

‘The economic legacy of the past has provided Liverpool with a wealth of fine buildings, monuments and parks and the largest collection of museums and galleries’ (Liverpool City Council, 1999; Mersey guide, 2000a; Mersey guide, 2000b and GONW, 2000). Liverpool's history means that there are a considerable variety of architectural styles found within the city, ranging from 16th century buildings to modern-day contemporary architecture. ‘The majority of buildings in the city date from the late-18th century onwards, the period during which the city grew into one of the foremost powers in the British Empire’ (Liverpool City Council, 1999; Mersey guide, 2000a; Mersey guide, 2000b and GONW, 2000). ‘This richness of architecture has subsequently seen Liverpool described by English Heritage, as England's finest Victorian city. The value of Liverpool's architecture and design was recognized in 2004, when several areas throughout the city were declared a UNESCO World Heritage Site. Known as the Liverpool Maritime Mercantile City, the sites were added in recognition of the city's role in the development of international trade and docking technology’. (Ref: Wikipedia, November2011)

2.3.2. Part of the city or small areas:

‘Most urban designs do not deal with new towns but with smaller areas of cities and new predominantly residential areas on the edge of cities. In order to deal with the complexities of change in a growing community, city should subdivide into smaller units that can be understood in more detail. Residential neighborhoods are the most identifiable areas to community; residents play a significant role in the physical placement of new and expanded residential, commercial and industrial development. Some have been built as total designs; others have been develop by small areas after another small areas’(John Lang, 2005).

‘For designing part of the city or small areas the important element is neighborhoods development. The planning of neighborhoods was a preoccupation of city planners and architects for the entire twentieth century and is still a subject of major attention. Debates on the utility of the concept as a unit in urban design continue’ (Madanipour, 2001).

As an example of the regeneration development of Liverpool housing:

‘Much of the city’s housing stock has suffered historically from low investment; it is in poor condition and is not in demand. Many landlords fall short of their responsibilities to safeguard their tenants in their houses and flats. Some neighborhoods are unpopular and affected by dereliction. Different areas have different circumstances applying. Therefore the Council, Liverpool Partnership Group, and other partners are taking a zoned approach to planning housing renewal and regeneration action with the local communities. This is being backed up with neighborhood management services that include housing and repair services’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005).

‘In 2003, New Heartlands was allocated an initial £95m funding package; offering a catalyst to provide Merseyside with radically transformed housing markets and neighborhoods’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005). It is the City Council’s policy that these works should be completed to high environmental standards for considered the Sustainable Development Plan. ‘The implementation of the city’s Private Sector Renewal Strategy and the City Council’s Stock Options Appraisal to Government in 2004 addresses remaining major housing issues including the Decent Homes Standard by 2010’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005).

‘The current Merseyside "Affordable Warmth Program" combines advice on grants under the Home Energy Efficiency Scheme, information on good practice, and additional initiatives including 'Safe and Warm' and 'Welfare to Work' schemes. Liverpool City Council runs a Fuel Poverty and Warm Homes Strategy which provides complete energy improvement packages to vulnerable households, with a planned maintenance programs installing central heating, new windows, insulation, and low energy lighting’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005).

Since 2001 there has been an increase in the number of new housing projects being brought forward with an emphasis on sustainable development and improved environmental standards. ‘Examples of this include: Liverpool Housing Action Trust eco-friendly homes project in Childwall Valley; Bellways new eco-estate in Halewood, a proposed Everton Valley Green Homes project and the Eldonian Village which was awarded the international World Habitat Award in 2005’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005).

‘Successful completion of the planned maintenance programs for City Council properties and works undertaken via the housing capital energy programs ensured that the 2004/5 SAP (standard assessment procedure) rating target was achieved. Major repairs and planned maintenance schemes targeted 478 properties and an additional 711 were included in the annual Capital Energy Program. 940 properties had insulation installed during the year’ (Liverpool City Council, Sustainable Development plan 2006-2009, 2005).

2.3.3. Urban renewal:

‘Urban renewal, is refers to the process of rebuilding areas of cities that have become obsolete and abandoned, or area in a state of considerable decay. Unless cities become economically static, urban renewal projects will continue to be undertaken. Often the urban renewal occurs in a noninterference policy, just manner without any overall cooperative intention, although some projects might be regarded as part by part urban design’ (John Lang,2005).

‘After the devastation of World War II in Europe, vast segments of cities were rebuilt sometimes replicating the past, but more frequently they were modernized. Cities such as Coventry and Rotterdam acquired new hearts. In European cities, new housing estate projects have been carried out. They have had mixed results because the highly physically deteriorated world they replaced was often socially viable. The new products were unable to provide an environment for the re-creation of that social stability. Many of them have been demolished and rebuilt too. In some cases, such as the Paternoster Square precinct north of St Paul’s cathedral in London, areas were rebuilt only to be later demolished and rebuilt a new’(John Lang,2005).

Some urban design projects have start with new approaches and design for upgrading the existing situation, existing building, open space quality, infrastructure, and others quality. The characters of cities are changes for citizen needs, sustainability, politics and many other reasons. ‘Today, globally about 2.6 billion people live in cities of up to 5 million inhabitants with an additional 400 million living in some 40 large urban areas, often called mega-cities, of over 5 million inhabitants’ (Angotti, 1993; Sassen, 2000). ‘Two-thirds of the population of Europe lives in cities and urban areas that occupy about 1% of the land area’ (Stanners and Bordeau, 1995).

Case study of urban design Docklands redevelopment: The Albert dock, Liverpool, England, UK

‘The Albert Dock is a complex of dock buildings and warehouses in Liverpool, England. Designed by Jesse Hartley and Philip Hardwick, it was opened in 1846, and was the first structure in Britain to be built from cast iron, brick and stone, with no structural wood. As a result, it was the first non-combustible warehouse system in the world’ (Wikipedia, November2011).

Proposal and effect: ‘The creation of the Merseyside Development Corporation (MDC) in 1981 was part of a new initiative launched to regeneration of some 800 acres (3.2 km²) of Liverpool’s south docks, by using public sector investment to create infrastructure within an area that could be used to attract private sector investment. Thus the MDC was not directly responsible for regeneration program but rather acted as a spearhead, guiding the development process. The formation it immediately created an initial strategy for the area placing a high priority on restoring those buildings that could be restored & demolishing the rest, restoring a water regime within the dock system (including the removal of up to 40 ft (12 m) of silt) and general environmental landscaping. As part of the strategy two flagship

schemes were set up: the redevelopment of a site in Otterspool for the International Garden Festival and the regeneration of the Albert Dock' (Merseyside Development Corporation, 2000).



Image 2.1: The Albert Dock

Mapping of project: Today the Albert Dock is one of Liverpool's most important tourist attractions and a vital component of the city's UNESCO world heritage Maritime Mercantile City. As well as being the number one tourist attraction in Liverpool, the Albert Dock is also the most visited multi-use attraction in the United Kingdom outside of London, with in excess of four million visitors per year (visitliverpool.com). Amongst the many attractions at the Albert Dock are the Merseyside Maritime Museum, the Beatles Story and the Tate Liverpool. There are also two hotels within the Albert Dock: a Holiday Inn and Premier Lodge both located in the Britannia Pavilion (Images of England, 2004). All the five warehouses around the dock, they are the former hydraulic pumping station and the swing bridge leading from the dock towards the Pier head (Images of England, 2004). From June 2009 Albert Dock's north-side car park and entrance from Mann Island is closed off and is a building site to build a new museum (Images of England, 2010).

The dock's regeneration in the 1980s a policy had been adopted to try and attract retailers. After many years of struggling to compete with other major shopping areas in the city, the Albert Dock Company Ltd announced in 2007, the project extended more bars and restaurants (Albert Dock, 2011).

2.3.4. Projects:

Urban design composed with multi-building projects that vary in size - from building complexes to precincts of cities, to whole cities. The projects types are- capital complexes, cultural districts, commercial centers, campuses of many types, and simply thousands of housing developments, urban and suburban urban spaces. Many well-known projects

developments in the world that were the responsibility of one authority and designed, by one architect or one team of architects, under a single leader .

Sometimes urban design developed as project basis. The types are classified according of types is the basis for problem solving in all the design fields. For architecture it is building types (e.g. for housing types), for landscape design open space types (e.g. Plazas, parks, courtyard) and for planning it is probably city types (e.g. global cities).

2.4. The analysis for the urban projects

2.4.1. Master plan:

‘The definitive form of an urban design project is including in a master plan. A master plan is a comprehensive plan that describes and maps the overall development concept for the study area, including present and future visualization, land use specification, design guide-lines, landscaping and public spaces, built form, infrastructure and service provision’ (Danilo Palazzo,2008). The level of details include in a master plan will vary according to various elements: the scale at which the project is defined, the character and the requests of the given task, the specificity of the site and of its values and complexity determined by environmental, social and cultural conditions in where the project was developed.

The key characters of the earliest master plan have to maintain the development result to the present date. These characters (Danilo Palazzo, 2008) can be summarized as follows:

- *Visualization* of urban transformation choices effects on the actual situation (before/after).
- *Active involvement* of the inhabitants to achieve a set of mutual values to be used along the design process;
- Volumetric and urban *setting represent* and of urban spaces involved
- Role of the urban designer as director of the spatial rules which generally derive from instances of public, private or character of the subjects and from the analysis of natural, built and social environment.

The general use of master plan (Danilo Palazzo, 2008; Jon Lang, 2005) is as following:

- It *defines*, through meetings and a dialogue with the private and public subjects or potentially interested or co-interested in using the study area or its parts, the functions to develop, the dimensions, the typological and functional characteristics, the facilities to be provided, and the potential combined action with other public and private actors.
- It *recognizes* the potential functions that can be developed in the site’s various portions from private developers, together with public existence or independently, through arrangements and agreements in the forms allowed by the law.
- It *establishes* in a framework contained the urban design and the urban area policies, infrastructural plans already adopted or in the designing phase; the urban transformation policies; the community services and the transportation network, and the decisions included in the land use plan and in regional plan.

- It *offers* a projection and transformation of the area in the urban context
- It *draws up* plan expectations in graphical and cartographic representations in order to show the possible arrangement of the given site. In these ways a great attention is given to public spaces, to the spaces ‘between’ the buildings, to determine of the planned functions, the dwelling units, or on details about the materials, or on architectural suggestions.
- It *specifies* the ‘rules’ to be used in the architectural design and for dealing the master plan. These rules can take the following topics into consideration (Danilo Palazzo, 2008):
 1. Buildings that are to be maintained, demolished, transformed.
 2. Heights of the building and distance between them
 3. Single and mixed functions, their forming for good shape and quality;
 4. Spaces roles and hierarchies.
 5. Positioning and sizes of facilities.
 6. Places and characters of the relations with the city and wider context.

In some circumstances the master plan can also be completed with other contents (Danilo Palazzo, 2008), such as:

- The consideration of typology feasibility of the proposals;
- The economic feasibility and identifying the ways to finance the project’s implementation;
- The activity between the actors involved in the transformation of the site, also through the organization of meetings with publics existence, private stakeholders and/or with the public;
- The definition of implementation means to the design hypotheses included in the master plan.

Liverpool Master plan policy:

Liverpool City Council should dealing with the planning application, important planning issues that will include in master-plan (Liverpool vision,2008):

- Overall mix of uses – civic facilities, housing, offices, retail and leisure.
- Movement and Traffic – the numbers of cars, parking spaces, buses and trams, pedestrian routes and bridges, service vehicles.
- Civic Facilities – their scale, design, uses etc.
- Public Spaces – size, use and quality, and the quality and design of streets and walkways.
- Heritage & Design – relationships with other buildings on the waterfront and the City Centre.
- Environmental Impact – such as noise, traffic and air quality.

The Core Strategy of master plan (Core Strategy Revised Preferred Options Report, 2010):

- The City's housing offer will have been transformed with high quality and well-designed housing within a range of general income people budget and also offer to meet residents' needs and aspirations. District and local center’s will serve as vibrant, dynamic and accessible focal points for communities, providing a range of shops, community services and facilities to meet the day-to-day needs of residents.

- The amount of vacant and abandoned land and buildings will have been significantly reduced. New development will be energy-efficient and of a high design quality, respecting local character and the relationships between buildings and spaces, and will be well adapted to future needs and climate change.
- There will be a strong relationship between the built environment and the open space, to make a vibrant, healthy and sustainable community. Biodiversity will have been enhanced and nature reserves, parks and gardens and other open spaces will have been improved and made more accessible, particularly for residents in the City Centre and Inner Areas.
- The City Centre will remain at the heart of the City's economic and urban renaissance. It will be very lively and profitable regional center for commercial, and retail investment, a showcase for culture and art, and civic, leisure, educational and residential uses, the focus for leisure and tourism activity.
- The Inner Area surrounding the City Centre will have been a focus for population growth. North Liverpool will have been transformed by the benefits of excellent neighborhood design with major investment in housing, new and improved schools, university and other higher education facilities, a rebuilt teaching hospital, transport infrastructure, shopping facilities, out of hospital health facilities, public services and open spaces.
- Within the Outer Areas the City's peripheral housing estates will have a balance of housing types. Important environmental and open space, including the current Green Wedges will have been successfully protected.

2.4.2. Architecture design

Most urban design projects are instructed by architect. The architecture design served the design of individual buildings and, sometimes building complexes. 'A building affords and shelters specific activities but it is also a display of an architect's talents and the best way of displaying a building is as an object in space to be admired. Building is making its surroundings more commodious and interesting. There are four situations in which the design of individual buildings or individual building complexes seems to be regarded by mainstream architects and architectural critics as urban design' (John Lang, 2005).

- The first is when buildings pay some respect to their built contexts – street alignments, ground floor uses and designs, and overall massing (i.e. they have the same 'texture' as their surroundings).
- The second is when a building causes a change for urban development.
- The third is when the facilities that are traditionally in a neighborhood or city are organized and maintained into a single multi-use building, and
- The fourth is when there are a number of buildings in complex – large-scale architectural projects.

Built contexts: The regulation of any new building is to make its surroundings more spacious and interesting. The trouble is that this regulation often gets in the different way to compare

with an architect's desire for self-expression in built form. But the total project was successful where the individuality of building designs is elevated in rank by architects; try to find a suitable situation for project in the marketplace, also pay attention to the public realm.

Building acts as an urban development: Buildings have also been considered in a particular way as urban design when they are combine some mix of those elements that are traditionally related as components of cities. Some individual high-rise buildings contain such elements as a hotel, apartments, shops and a religious facility within them, they are considered to be vertical precincts. Other side, some group of buildings creates an urban development; such as, a city center creates with a group of building.

All buildings shape the activities of people, surrounding structure, site shape, forces of winds; the alignment of streetscape and others. Significant buildings were the form part of the skyline. Housing, education institute, museums, libraries, and new well-located retail space - all are the projection of urban development. They all were parts of a region; result in an improvement of the cityscape in a way that makes it attractive for further development.

Large scale architecture project: Large scale architecture projects are considered as urban design. Today such large single-structure projects tend to be confined to major shopping center's surrounded by parking for cars, also entertainment facilities, restaurant etc. all are parts of the project (John Lang,2005). A major twentieth century building type, such center's make a substantial impact on city forms and life, even the large city center.

Liverpool city center, UK:

Liverpool city center is the commercial, cultural, financial and historical heart of Liverpool, England. Liverpool city center has been transformed over the last few years. The Liverpool 1 and Met Quarter developments have helped push Liverpool into the top five in the national retail league. The Echo Arena and Convention Centre, the Cruise Liner Terminal and the Pier Head Canal Link have added new life to the waterfront, already a UNESCO World Heritage Site, and construction of the Museum of Liverpool is the state of being completed. The commercial sector is also expanding with more than a million square feet of new office space being created since 2000. These additions have been built on Liverpool already impressive architectural heritage; the Liver Buildings, St Georges Hall, the Cathedrals and the largest number of listed buildings outside London (Liverpool vision,2008).

Policy for highest standard of architectural and urban design practices in city center:

The authority must considering the following matters (Liverpool Local Environmental Plan 2008):

- (a) Introduce with a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
- (b) The form and external appearance of the proposed development will improve the quality and amenity of the public domain,
- (c) The proposed development detrimentally impacts on view corridors,

- (d) The proposed development detrimentally overshadows Bigge Park, Liverpool Pioneers' Memorial Park, Apex Park, St Luke's Church Grounds and Macquarie Street Mall (between Elizabeth Street and Memorial Avenue),
- (e) Any relevant requirements of applicable development control plans,
- (f) How the proposed development addresses the following matters:
 - (i) The suitability of the site for development,
 - (ii) Existing and proposed uses and use mix,
 - (iii) Heritage issues and streetscape constraints,
 - (iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighboring sites in terms of separation, setbacks, amenity and urban form,
 - (v) Bulk, massing and modulation of buildings,
 - (vi) Street frontage heights,
 - (vii) Environmental impacts such as sustainable design, overshadowing, wind and reflectivity,
 - (viii) The achievement of the principles of ecologically sustainable development,
 - (ix) Pedestrian, cycle, vehicular and service access, circulation and requirements,
 - (x) The impact on, and any proposed improvements to, the public domain.

2.4.3. Landscape design

'The landscape quality of open spaces is crucial to the experiencing of cities and perceptions of their quality. The squares and parks of cities, such as London form part of their international image. It is difficult to consider Paris without its boulevards. The character of all these places is, however, defined not only by the landscape but also by the buildings that face them and the activities they generate. It is this consideration of the three-dimensional world as experienced in time that is central to urban design work. Much landscape architecture in the city is, however, concerned only with the space between buildings. It is concerned primarily with the horizontal surface' (Jon Lang, 2005).

The design of squares, parks and other public spaces is often mentioned as urban design by landscape designer (Jon Lang, 2005). Sometimes these are the result of work together among architects, planners and landscape designer. 'The design of an open space is, however, really simply landscape design unless designed as a unit with surrounding buildings. The intellectual level at which landscape architects are best placed to make a contribution to urban design is not only at the detailed design level but at the citywide scale' (Bunster-Ossa, 2001). Historically, the buildings that design with many best-known plazas in Europe have been built up piece-by-piece over a long period of time.

More and more city councils recognize the importance of open-space design in creating positive images of their cities. Landscape architects' concern should extend to include the health of the biogenic environment of cities and its side effects on the functioning of the planet, Earth. While there have been expressions of support to design with the argument - 'designing cities with

nature in mind' (e.g. Spiro, 1984), few landscape architects have become deeply involved in urban design.

Squares:

Most of the people who use squares are young office workers from nearby buildings. The effective market radius is about three blocks from squares (William H. Whyte, 1980). The best-used squares are sociable places, with a higher proportion of couples are found in less used places, more people in groups, more people meeting people, or exchanging goodbyes, neighbor residence children come there for play and also adult.

Parks of cities:

Park design has been a way of the work of landscape architects that often merges with urban design. Parks are designed and redesigned as fashion changes. Many new parks are also being built. The spaces vary considerably in size and the roles they play in the city (Matthew Carmona, 2007). The design of the waterfront is very much related to its landscape context, also environmentally and socially. In urban design, park design and architecture design need to be integrated into a single-design approach.

Liverpool Landscape quality of open spaces:

The range and condition of facilities within each open space was determined using activities presented from 'Assessing Needs and Opportunities: A Companion Guide to PPG17'. The assessment identifies that the majority of open spaces are classified as having a poor range and condition of facilities. 'Although 18.5% of spaces rated as good quality and 20.4% were classified as being of fair quality, some 42% of open spaces were considered to be poor and some 19% very poor. The scores relate to all open spaces within the City regardless of ownership or access arrangements. Of 189 sites considered to be either of fair or good quality over half (58%) are either outdoor sports facilities or playing fields or open spaces within the grounds of institutions. This trend is indicative of the overall pattern which shows privately owned and managed sites scoring more favorably than those which are publicly owned and managed' (Liverpool Open Space Study – Executive Summary, 2005).

Public Parks:

The scores relating to public parks can be summarized as follows:

1. *City Parks*: All City Parks were classified as either of fair or good quality with the exception of a small area of Croxteth Country Park;
2. *District Parks*: Around two thirds of district parks were classified as being in poor or very poor condition;
3. *Neighbourhood Parks* : Some 85% of neighbourhood parks were classified as being in either poor condition or in a minority of cases very poor condition;
4. *Small Local Park*: Approximately three quarters of small local parks were classified as being in poor condition or in a minority of cases very poor condition;

Linear Open Space/Green Corridor:

Approximately 83% of linear parks and open spaces and green corridors were identified as being in poor or very poor condition. The relatively high proportion of linear spaces which are roadside verges/landscape strips probably accounts for the high proportion of poor scores;

Playing Pitches:

With regards to playing pitches the study found that the condition of most outdoor sports pitches in Liverpool which are in secure community use are either in “very good” or “good” condition. However 10% were identified as being in “poor” or “very poor” condition and therefore not adequately serving the needs of teams in the city. Additionally, around a third of playing pitch sites in secure community use do not have access to dedicated changing facilities and 65% do not have any social facilities. The study highlighted the fact that levels of participation are sensitive to the quality of pitch and facilities provision.

Children’s Play Provision:

The condition of children’s play provision was scored according to its range and type of play equipment and other facilities including provision of seating, skateboarding facility, rebound wall, hard playing surface, informal games area, absorbing safety surface and play area boundary. Almost half of children’s play provision in Liverpool is considered to be in “fair” condition, the remainder is mostly in “poor” condition. Only 3 sites were considered to be in “good” condition.

2.4.4. Transport Policy:

The major part of the European population is living in cities, thus it is obvious to concentrate on these areas for the implementation of sustainable solutions for transportation in order to improve living conditions for the inhabitants. Moreover, due to the fact that a high traffic volume is identified in European cities the implementation of sustainable transport measures can achieve valuable benefits on the transport system as well as on the environment. Several reasons have been identified why European cities are facing serious transport problems:

- Increase of the total number of population
- Urban sprawl and shape of the city
- Increase of the car ownership rate
- Changing the way of life to a more car-oriented society
- ...

‘Over the last decades the number of people living in urban areas has increased considerably, which causes an augmented traffic volume in certain areas. Moreover, due to the economic development the shapes of the cities have been changed from compact city architecture to sparse settlements mainly in the outskirts. Shopping malls on greenfield areas along arterial roads were built resulting in a more car-oriented society’ [Altrock 2006].

Negative impacts of road traffic: Air pollution is influenced by the traffic volume intensively affecting the quality of life as well as the health of the population. The CO₂ and

the ozone pollution as well as the content of particulate matter are mainly a result of traffic. Compared to other sectors traffic is responsible for almost 1/3 of the CO₂ in the 27 European member states.

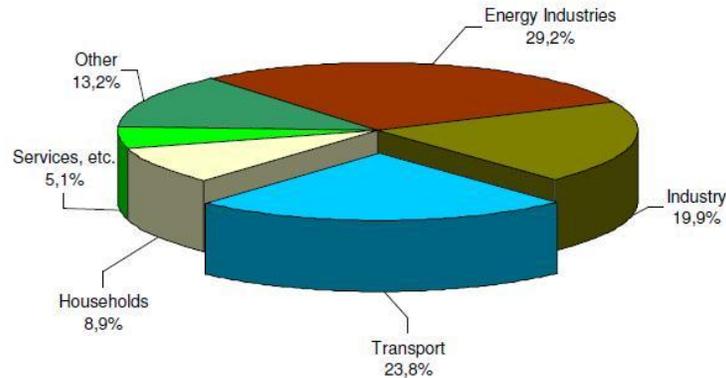


Figure 2.4 : CO₂ emissions by sectors in 2006, EU27 [EEA 2008]

Moreover, since 1990 the CO₂ emission caused by traffic has increased in these countries by about 1/3, whereas all other CO₂ emitting sectors show decreasing emission values. However, this trend differs from country to country. One might expect that the CO₂ emission increases in particular for the growing car-availability for the population and the raise of millage driven (EEA 2008).

EU - CIVITAS Initiative

The Green Paper “Towards a European strategy for the security of energy supply” published by the European Commission in the year 2000 stated already that the CO₂ emissions from transport can be expected to increase by around 50% from 1990 to 2010 within the European Union. Efforts undertaken by the automotive industry was intended to convert this negative trend [European Commission 2000].

“This progress was recognized as being not sufficient enough to reduce or even come close to stabilize the energy demand of the transport sector and its negative impact on the environment. Therefore, it was one of the ambiguous aims of the European Commission to reverse the trend of traffic growth and to reduce the dependence on oil by fostering sustainable transport modes and policies. This included not only technical measures, like the use of clean vehicles or fuels, but also the implementation of adequate transport politics in European cities. Since then several initiatives and directives have been launched by the European Commission [European Commission 2008/1], e.g.

- Directive on the promotion of the use of biofuels or other renewable fuels for transport, setting a target of 5,75% share of biofuels vehicles by 2010 (in a midterm assessment in 2005 it turned out that this value is unlikely to be achieved)

- Directive on promoting market introduction of clean and energy efficient road transport defining public procurement award criteria to take into account operational lifetime impacts of energy consumption, CO2 and pollutant emissions [European Parliament 2008].

In order to achieve a common understanding of sustainable transport measures, eight categories of measures have been defined as the basic building blocks of an integrated strategy within the CIVITAS initiative. Each participating city chooses an appropriate set of measures and combines them to form integrated solutions for clean urban transport in cities:

- 1) *Clean vehicles & fuels for passenger or freight transport* (including the necessary infrastructure)
- 2) *Logistics and goods distribution* includes new concepts for the distribution of goods by means of innovative freight logistic services and the use of clean and energy efficient vehicle fleets
- 3) *Alternative car use* includes measures like carpooling and car sharing
- 4) *Access and parking management* includes demand management strategies for inner city areas and other sensitive zones (green zones)
- 5) *Cycling & walking* includes promotion, new services like city bikes and the integration/extension of the pedestrian and cycle route network
- 6) *Traffic control systems* includes the use of innovative transport telematics systems for traffic management and traveler support, including solutions based upon satellite applications
- 7) *Public transport* includes measures enabling an improved information system for passengers, better reliability as well as acceleration of the public transport
- 8) *Mobility management*: measures influencing travel behavior and modal choice through mobility management plans, marketing, communication, education and information campaigns

2.5. Urban design actors involved in the project and its implementation

2.5.1. Institutional actors

High quality urban design has been shown make to commercial success, enhanced inside investment and reduced crime. ‘It helps deliver regeneration, new jobs, public safety and quality public spaces, and in this sense it lies at the heart of local authorities’ social and economic agenda’ (Sebastian Macmillan,2006). Achieving good design must therefore be a central concern within local government (and increasingly is a requirement imposed by central government guidance). Different authority participates for a project development stage, such as government level, regional level and local level. In these different authorities stages, conflict

situation create in projects development proposal and implementation. Observed the complex relations from local government to local authorities for project development to permission

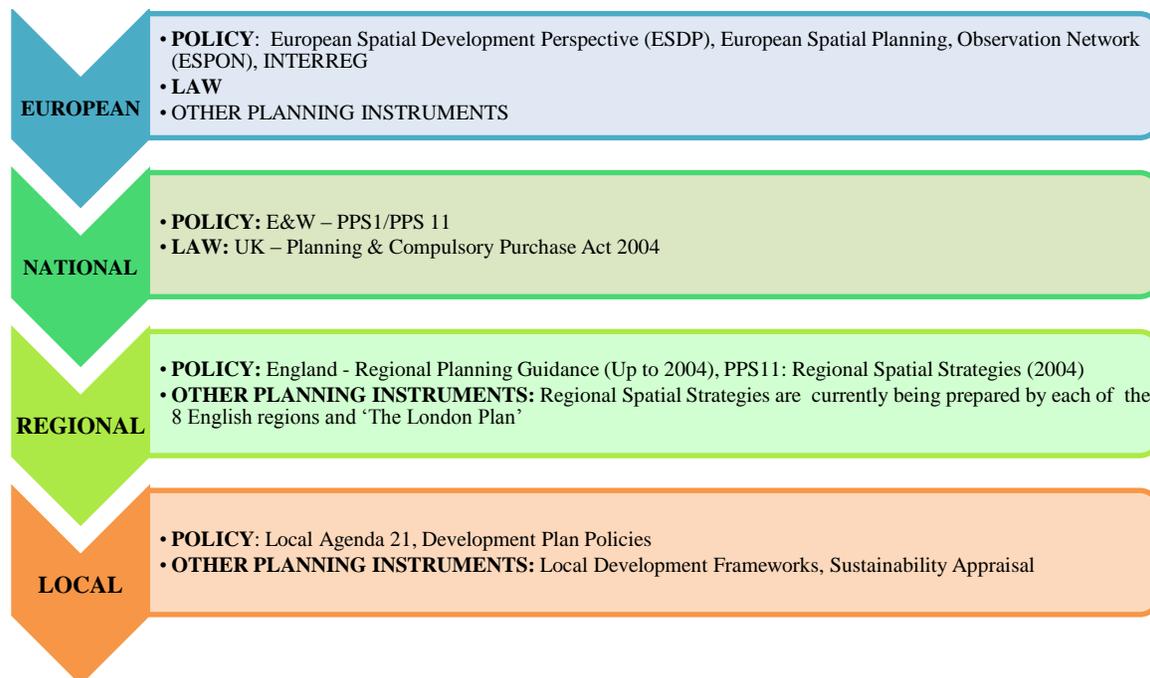


Figure2.5: Laws, policies and other planning instruments in spatial planning, (Royal Haskoning,2006)

Government Department:

The rules and procedures of UK planning and environmental law are derived from a variety of sources. Statutory controls provide the framework for the control of development and land use. Legislation and supporting administrative regulation is now increasingly influenced by European and international environmental law. The specific methodologies of planning law include: making development/environmental plans; granting permissions; issuing directions; setting aside conservation areas on publicly owned or leased land; entering into agreements and prohibiting specified activities.

Parliament at Westminster sets the general policies and the overall policy framework, but land-use planning is a devolved responsibility in the UK. Overall responsibility lies with the relevant devolved Government Departments and Minister for each of the four national territories, and planning legislation is a responsibility of each of the sub-national parliaments and assemblies (Westminster acts as an English parliament in this role). The relevant players are:

- England: Currently Department for Communities and Local Government/Deputy Prime Minister

Role of the Local Planning Authority

The Local Planning Authority has the responsibility for day to day administration and

implementation. This includes the duty to prepare development plans of which there are three main types (as above), depending on the local authority structure in the area concerned. 'The urban design forms a staple of local politics and the focus of a good deal of local policy. Local governments enact building codes and zoning regulations. They also invest heavily in the urban projects (Matthew Carmona and Steve Tiesdell, 2007)..

The Environment Agency:

The Environment Agency is the body responsible for the protection of controlled waters in England and Wales and will be a consulate to the Planning Authority. The Agency can give general advice on the potential for pollution within a catchment and on good practice to concern on the environmental issues

2.5.2. Public Realm

'The public realm consists of those places to which everybody has access, although this access may be controlled at times. It consists of both outdoor and indoor spaces. The outdoor spaces include streets, squares and parks, while the indoor may include arcades, the halls of railway stations and public buildings, and other spaces to which the public has general access such as the interiors of shopping malls'(John lang,2005).

The author and urban planner John Lang wrote about the public actors involvement in urban design are, *'To what extent should the public sector decision-makers intervene in the property development process?' 'Should it be only to control development to ensure public health and safety?' or 'Should it be to promote public amenities?' In other words, should the public sector be concerned with the use of sticks or carrots or both in shaping the nature of human settlements, and their components? 'How far can the public sector support, through legislation or subsidies, private profit making investment actions that are perceived to be in the public interest?'*

'The scope of the public's concern about the cities they inhabit (as represented in a government's rights to make decisions on everybody's behalf) has varied over time. Recently, for instance, it has been seen as the government's role to be concerned about the health of the planet Earth. Inevitably this concern raises questions about the shape of cities, policies for reducing pollution and the heat-island effect of large-scale developments and the use of breezes to flush cities. Dealing with such issues all requires communal action. So do the broad questions about the livability of cities' (John lang,2005).

'Instead of concentrating on the needs of the existing populations of cities the emphasis has been on place marketing and gentrification' (Borja and Castells, 1997). 'Almost universally, the policy aim of cities is to attract international capital to invest, higher-paid executives and professionals to settle and tourists to visit. The main benefit for some city authorities has been an increase in property tax income' (Hackworth and Smith, 2001). 'Almost all cities now have major marketing strategies. For many, this includes the widespread transformation of former docks from places of work into exclusive islands of leisure with expensive flats,

bars and restaurants. Cities are now being sold as a commodity to be consumed, rather than a place where production, living and consumption take place' (Philo and Kearns, 1993).

2.5.3. Social actors

Private-property decision makers—developers, investors and occupiers—exert a powerful influence on the quality of urban design. Analyse that how closely and in what ways property developers—including house builders, investors and occupiers—become involved in the process of urban development and design, and to determine in what ways and to what extent they can and do influence the quality of urban design (Matthew Carmona and Steve Tiesdell, 2007).

In some cases the development has been part of a national policy to redistribute a population. These policies have been implemented through the public acquisition of land, the creation of a development program, the hiring of a designer or set of designers, and the implementing of a design for whole cities. In other cases the whole development process has been entirely privately funded and subject only to standard zoning controls. Many urban development projects have involved the public and private sectors of an economy in a partnership that has set the requirements for a scheme, organized the process of its development and its funding, and then implemented it (Frieden and Sagalyn, 1991; Garvin, 1995).

2.6. The participation of social actors

2.6.1. Developers

The property developer is 'a process that involves changing or intensifying the use of land to produce buildings for occupation'(Richard Reed et al, 2008). 'Property developers must manage a host of financial, logistical and production tasks and resolve the varied, often conflicting, objectives of all the parties involved in the development process' (Alan Rowley, 1998). 'Developers usually bear the immediate responsibility for the financial success or failure of a project; and for many people, it is the developer who is ultimately responsible for the quality and appearance of a development. Property development is a challenging task entailing a network of operations including market research, site acquisition, project financing, securing planning permission and other approvals, design and costing, construction, marketing, letting and disposal' (Alan Rowley,1998). Design is a complex process and developers particular see on design as essentially to a financial matter.

“Developers’ general design concerns include: investor and occupier requirements, preferences and tastes— in particular the ‘price’ they will pay for a product that responds to these; flexibility of both building and site layout to meet changing circumstances; build ability; cost efficiency and value for money; visual impact including the ‘image’ of the completed development as an aid to sale or letting; and the management implications including the ‘running costs’ of the completed development. One challenge for developers is to influence the

design process in a way which maximizes their own goals without stifling their designers' creativity and performance" (Buckley, 1990).

Property development has some very significant impacts on sustainability issues. Urban design issues will depend on the property type and location. 'There are many renewable technologies that can be used, some are more appropriate than others for particular projects. Renewable energy technologies include solar panels, wind turbines, photovoltaic installations, heat exchange systems and micro-scale hydro-generation' (Richard Reed, 2008). 'Capital costs of the majority of renewable technologies are comparatively high at present, but as their use become more widespread economics of scale will drive costs down. Pollution from the constructions process are fly-tipping and mud/silt from sites or lorry wheels are the most common. In addition, many construction materials can pose a pollution risk in their manufacture or in use. Some government such as the UK has grants under the Low Carbon Buildings programs to offset the initial additional cost and to provide incentives to the market' (Richard Reed, 2008).

Property development stage	Potential sustainable issues
Land for development	<ul style="list-style-type: none"> • Loss of bio-diversity • Contamination
Planning	<ul style="list-style-type: none"> • Transport • Ecology and site issues • Zoning and land use issues
Design and construction	<ul style="list-style-type: none"> • Reducing carbon dioxide emissions • Minimizing pollution • Use of life-cycle costing or whole life costing techniques • Uses resources efficiency • Water management on site • Re-use of materials and recycling materials • Specification and selection of material- health and embodied energy issues • Health and well being for uses • Environmental assessment ratings
Market research, promotion and selling	<ul style="list-style-type: none"> • Awareness of changing social and cultural perception towards sustainability

Table 2.2: Property development stages and the key potential sustainable issues (Richard Reed, 2008)

In city development process generate by Local Government authority, private sector or mixture of the both. In formal way, I had classified the developers action in different characters actors, these are following:

- **Governemnet department as a developer:**

‘Local governments use land access to finance social housing, commercial center and infrastructure development, which undercuts broader national goals to improve affordability and increase production. In Liverpool, there are a number of other Council Departments that have an input or are affected by the new contaminated land regime, namely Planning, Land & Development Services, Building Control and Legal. Regular discussions between these departments and Environmental Health have, and are continuing to take place to discuss transfer of information, liaison procedures and the general cascade of information. These departments were also asked to supply an input into the draft strategy. Regular communication and liaison will also be continued during implementation of the Strategy’ (Liverpool City Council –Contaminated Land Inspection Strategy, 2002).

- **Local authorities as a developer:**

In UK the core elements of the planning system are development plan-making and development management. These activities are primarily undertaken at the local level.

Local planning authorities prepare development plans, through consultation with local communities, which set the broad framework for acceptable development in their area.

Authorities are also responsible for development management. This includes statutory requirements on publicizing, consulting on and determining most applications for planning permission, taking into account the opinions of local people and others. They also operate allied discretionary services including pre-application advice to prospective developers and enforcement against breaches of planning legislation.

The Compulsory Competitive Tendering (CCT) and Best Value for money (BV) tools have been very useful to local government in the United Kingdom, promoting transparency and saving cost, hence the achievement of efficiency and effectiveness. Therefore, they should be periodically reviewed to meet prevailing political, social and economic challenges. Not only will transparency allow people to see where their money goes and what it delivers, throwing open the council books will also open the door to new businesses and encourage greater innovation and entrepreneurship. Greater transparency will put voluntary sector and small business in a much stronger position to pitch for contracts and bring new ideas and solutions.

The Department for Communities and Local Government supports plan-making and development management, principally through the provision of planning legislation, national planning policy and guidance.

The Secretary of State has the power to 'call in' planning applications for determination rather than letting the local authority decide (for example, if they conflict with national policies on important matters). Planning request can be 'recovered' for decision by Ministers, for similar reasons(Department for Communities and Local Government, 2011).

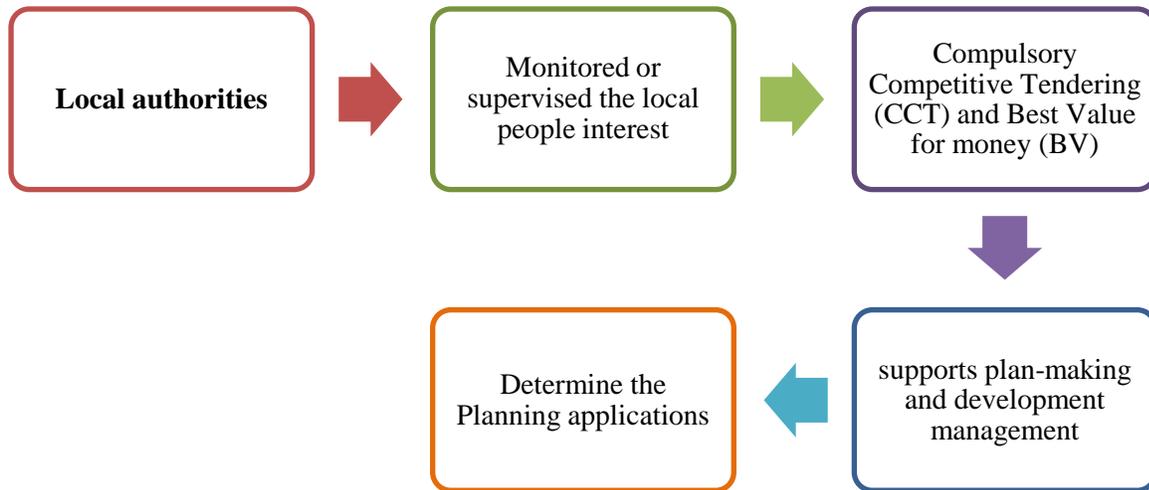


Figure 2.6: Local authorities' role in planning system

2.6.2. Investors

'Property investment funds tend to adopt an useful policy that focuses on properties that are acceptable to a large number of similar institutions. They seek properties that will produce an increasing rental income over a long period of time; be flexible and easily adapted to alternative occupiers; be acceptable to tenants with sound credit ratings; and be acceptable to other investing institutions '(Alan Rowley,1998). In urban design the investors are concentrated their investment to fulfill their financial demand for the target group- assume the maximum byer from these group. Sometimes they had involved in less emphasis on urban design considerations because they do not expect the occupiers to be sensitive to such concerns. Sometimes investors are marked about the importance of good design; it reflects their perception of the design and space arrangement and quality.

The period of invest money in urban design projects is take long time; property investors- specially for privet sector business purpose, they plan to sell investments within a six- to eight-year period, in that time they may be concerned to ensure that the condition of the public realm at the time of sale is well maintained. For that reason they update the design solution and

concern of the sustainable changes. ‘Such investors can justify this level of attention to urban design because it should maximize the profitability of the investment over the holding period’ (Alan Rowley, 1998). The property market are changing character; investors sometimes find that their expectations of rising rents and capital values do not actual expectation. In these situation the quality of urban design were sacrificed for maintain the good quality, cutting costs from the development, investors deal with change in the property market and the ultimate solution was low quality urban design

The investors emphasize their property’s essential qualities, occupant’s interest and the relationship among the spaces, buildings and environment. Privacy and control are stressed in design and also concern the use of occupants’ different activities and personal spaces. ‘The sums needed for major urban design schemes are considerable and much investment has to be made before any financial return is seen. These upfront expenses are for the purchasing of land, planning the development, developing the infrastructure, mapping out sites for development, writing building design guidelines, negotiating the sale of land, and reviewing individual development proposals. The phasing of developments is thus crucial because premature development of infrastructure can be costly. On the other hand, if it is delayed a developer to brief the real costs and the community without potential tax revenues. Large projects have come to a halt during periods of fiscal difficulty. Only changes in economic conditions and/or new injections of public funding or a change in the program or the design controls have started construction moving again’ (John Lang,2005).

Private sector developers and architects made sustainability decisions, it depends on the opinion on clients, landowners, financiers and insurance actors. The level of decision was mostly at the building-level (e.g., use of local building materials) and rarely compassed sustainability decisions at the neighborhood level and more wide space. When the latter decisions were made, local authority often strongly guided decision-makers to do so. Economic feasibility was another reason for private sector decision-makers to consider sustainability (Prof. Rachel Cooper, Dr Christopher Boyko, 2009).

- **Commercial investors :**

Real estate development is a multifaceted industry. They had purchase of vacant or raw land, its subdivision into small parcels, and the construction of residential single-family houses, condominiums, or apartment buildings. It includes construction of retail shopping centers, industrial plants and warehouses, office buildings, schools, prisons, hospitals, and almost any type of structure. Additionally, it includes the renovation or restoration of warehouses to multi stories apartments or offices and the construction of parking garages. Generally land development and subdivision falls into three categories: rural, urban, and suburban.

‘Real estate agents, financiers, and other professionals are essential to the development process as facilitators, intermediaries, and specialized experts. A wide range of professionals is involved, including surveyors, market analysts, advertising companies, lawyers, title insurance companies, appraisers, property managers, engineers, ecologists, and geologists. The most important of them, however, are mortgage financiers and real estate agents, who stand at the center of the magic circle of “exchange professionals.” Their activities go well beyond the

actual creation of the built environment to encompass continuing processes of neighborhood change'(Paul Knox and Peter Ozolins, 2000).

- **Individual investors :**

The individuals developers build their own building. These are householders or individuals who start the process of development to produce a building for personal use and not for market. In this case they arrange the various phases of the production process – purchasing land, organizing the financing and getting the scheme of the building. Many different combinations are possible and many agents may be involved with many different relationships between them. The land plot may already be owned by the user, or purchased for this purpose to built on. Depending on the user activities, such as- households, industrialists, retailers, and so on.

2.6.3. Occupiers

The important social actors are occupiers. 'Occupiers' decisions make a matrix of criteria related to both the general location and the urban project itself. Many of these criteria are easy to quantify: rents, rates, communications, usable floor area and so on. The benefits of good urban design are related to perceptions of cause and effect rather than a clearly definable benefit. The occupiers of urban design are different according to function, such as;

- Commercial space occupiers
- House owner-occupiers or rental purpose

Insurance companies have also developed financial packages to help owner-occupiers' (Barry Goodchild, 1997). The occupiers' demands change due to time change.

Urban designers work with clients to provide the maximum design outcome to suit their needs from the project. The concepts of developments are – how buildings are positioned, how they interact with other structures and how physical elements are augmented by the natural elements. Project type influences how Urban Design can benefit a development. Greenfield master-planned communities require an injection of community spirit and convenient access to a range of elements. Mixed use built form infill projects focus on the design of a robust public space system and must combine with the project structure. Urban Design combines design, planning, environment and urban and social research to create context and meaning for a development - giving people a reason to live, work and play there.

“The main constraints identified by occupiers to giving urban design considerations more attention and priority in their decision making issues. The process by which an organization decides where to locate moves progressively from macro to micro considerations. First, an appropriate location is identified. That location decision is generally driven by questions of access to clients, customers and staff. Once a general location has been identified and accepted, individual buildings or sites which are on the market at the time are identified. Each of these is then assessed in terms of whether it will be 'fit for the purpose' and at what cost. As a consequence there are only a small number of properties which will be considered feasible,

possibly as few as two or three. This lack of real choice is a major constraint and under such circumstances quality of urban design is a factor which would be 'nice to have' but, in practice, is usually seen as an optional extra" (Alan Rowley, 1998).

2.7. Issues consider for the urban design

The basic urban design question is always 'What makes a good city?'. In the 1930s, Le Corbusier wrote that the basic elements of urban design are: 'the sun, sky, trees, steel, and cement, in that order of importance'. (Le Corbusier, 1934). Certainly the sun and sky are of importance everywhere and have been useful influence sector also influence in recent urban design work. The issues are describing below:

2.7.1. Sustainability:

'More than seventy definitions of sustainable development have been identified and interpreted by different organizations, groups and stakeholders to suit their own goals' (Macklely, 2001). Such definitions however, have in common the same concerns of:

- Living within the limits of earth resources.
- Understanding the inter-relationship between economy, society and environment
- Equitable distribution of resources and opportunity.

These statements present that there is growing concern about the long term future, taking into account the utilization of the resources of the planet, the impact on the environment and social condition.

The most popular definition of sustainability is the one presented in the Brundtland Commission on Environment and Development, '*Sustainable Development is development that meets the needs of present generations without compromising the ability of the future generation to meet their needs and aspirations*' (Bruntland Report, 1992, Rio;Bentivegna, et al, 2002, p.85). The key features of the concept are (Meadowcraft, 2000):

- It focuses on promotion of development, or progress;
- It places a priority on the 'needs' of the poor and those of future generations;
- It refers to environmental limits to human activity;
- It defines sustainable development as a process of improvement rather than any particular activity.

'Sustainable development is classically portrayed as the interface between environmental, economic and social sustainability' (Bell and Morse, 2003). 'Achieving a balance design in terms of sustainability is not always easy because there are numerous interactions and many of them may be in conflict with needs which have to be satisfied simultaneously' (Clements Croome , 2004).

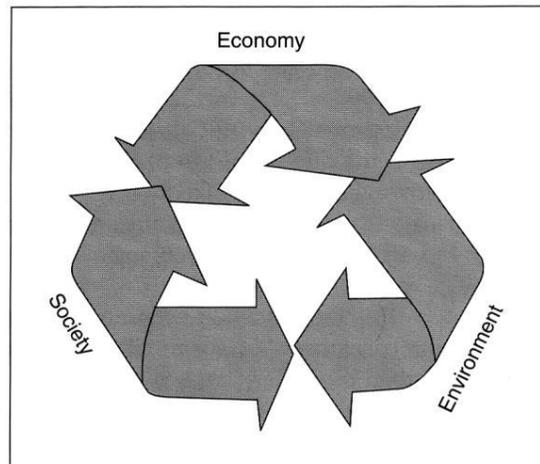


Figure 2.7: The decision making cycle for sustainable development.
Source: Du Plessis, 2004

The concept of sustainability at global scale contains some common consensus on the following issues, (Ibrahim, 2007):

- Sustainable development does not only refer to environmental protection but also embraces the economic and social aspects (WCED-World Commission on Environment and Development, 1987). Sustainable development must encompass the three inter related aspects of the environmental, social and economical aspects.
- Sustainability related to a dynamic, balanced, and adoptive evolutionary process, i.e. a process in which a balanced use and management of the natural environmental basis of economic development is ensured (Camagni et al, 1998).

‘The idea of sustainable urban development has been seminal and highly significant among intellectuals and policy makers in the 1990s’ (Pugh, 2000). While there has been no opinion in what compose the framework about sustainable urban development, the fundamental ideas around which sustainable urban development are (De Plessis, 2005; Voghera, 2004, 2006):

- Meeting basic human needs within environmental limits;
- Through limiting impact and consumption;
- In a cooperative world of networked settlement
- In partnership with nature;
- In solidarity with future generations.

‘While there are certain universals in the five outlined aspects of sustainable urban development, there is considerable divergence in opinion regarding which approaches, priorities and drivers should take precedence’ (Du Plessis, 2005). The application of the five outlined principles of sustainable urban development is determined by local conditions, including local cultural constructs, Community behaviors and preferences, especially value system.

For achieve a sustainable urban design I have analyses the sustainable urban development and the relation with urban design. Several commentators have come close to operational sing such definitions by developing characterizations of ‘sustainable cities’ or ‘sustainable urban development’ (Ieff, 1990; Elkin et al, 1991; WHO, 1992). For example, Elkin et al (1991) states that:

‘.....sustainable urban development must aim to produce a city that is “user-friendly” and resourceful, in terms not only of its form and energy-efficiency, but also its function, as a place for living.’

In this view Cliff Moughtin et al, (2003) states that:

‘Urban design, or the art of building cities, is the method by which man creates a built environment that fulfills his aspirations and represents his values. One value which is becoming increasingly important is care for the natural and built environment for the benefit of future generations. Urban design, therefore, can be described as a people’s use of an accumulated technological knowledge to control and adapt the environment in sustainable ways for social, economic, political and spiritual requirements. It is the method learned and used by people to solve the total program of requirements for city building. The city, therefore, is an element of a people’s spiritual and physical culture and, indeed, is one of the highest expressions of that culture.’

Smith et al, (1998) draw up a list of principles for a sustainable built environment which include:

‘Living off environmental ‘interest’ rather than ‘capital’, not breaching critical environmental thresholds; developing a sense of equity and social justice; and forming inclusive procedures for decision making.’

European social, cultural and economy based on city. In contemporary situations cities attract people for many reasons, but the most significant options for jobs and wealth-creation opportunities. ‘The city is synonymous with proximity, providing the multiple contacts and activities which make it a hub of information and creative center’ (Graham Houghton, 1994). In real life problems in cities in present situation are very different from past. In contemporary situation, rapid urbanization and its sustainable changes require understanding of **various aspects of urban design in order to achieve high sustainable development and urban quality**. On the other side, in contemporary context many cities and urban residents will be directly affected by many of the impacts of environmental, social, economical transformations that have impact on design. These changes are described below:

2.7.1.1. Climate changes

The average global temperatures rose by modest but significant amounts during the twentieth century; such changes are small by comparison with some of the very warring future scenarios. In 2007, the United Nations’ Intergovernmental Panel on Climate Change (IPCC) released the report of its Working Group II, Climate Change 2007: Impacts, Adaptation and Vulnerability.

The report noted the following points, among others, about the impacts of climate change on Europe:

- Impacts of climate change are already being seen in Europe. These include the retreat of glaciers, decreased permafrost area, lengthening of the growing season, shifts of species ranges, the heat wave of 2003, and more. These changes are consistent with past projections of impacts of climate change: that is, scientists successfully predicted that these climate changes would occur (although the exact timing of individual weather events such as the 2003 heat wave cannot be predicted, and scientists have not attempted to do so).
- Climate-related hazards will increase in Europe in the twenty-first century. These include floods, coastal flooding from increased storminess and higher sea levels, more frequent and prolonged droughts, higher wildfire risk (including catastrophic fires on peat lands in central Europe), rock avalanches in the mountains, and more. Health risks from heat, flooding, and some infectious diseases may increase unless adaptive measures are successful. Some impacts may be positive,

The ESPACE Project (European Spatial Planning: Adapting to Climate Events) project:

The concept of ESPACE was borne from recognition that current spatial planning systems need to adapt the potential impacts of climate change. ESPACE was a pioneering project that focused on increasing awareness of the need for spatial planning systems to adapt to the impacts of climate change and to provide some of the necessary policy guidance, tools and mechanisms to incorporate adaptation into spatial planning systems and processes. Through its successful delivery, ESPACE has influenced the philosophy and practice of spatial planning across-Europe.

The ESPACE project was founded by a transnational group of 10 partners (the ‘ESPACE Partnership’), spanning four North West European countries and representing all levels of civic society - Hampshire County Council (Lead Partner), the Environment Agency, South East Climate Change Partnership, South East England Regional Assembly, Surrey County Council and West Sussex County Council from the UK; Regionaal Landschap Zenne, Zuun en Zoniën from Belgium; Waterschap Rivierenland and Ministerie van VROM from the Netherlands; and the Bayerisches Landesamt für Umwelt from Germany.

The strategy – “Planning in a Changing Climate” contains 14 recommendations aimed at all levels of governance, including European institutions, national governments and regional and local authorities. Each of the 14 recommendations is supported by guidance, policies and tools developed during the ESPACE Project that demonstrate how to deliver the key messages.

14 key recommendations:

1. Make climate change adaptation a core objective of spatial planning
2. Look beyond the lifetime of your plan by understanding your climate risks

3. Combine change and risk management approaches for integrating adaptation into spatial planning

The three principles outlined above can be implemented as follows:

4. Ensure an integrated approach to adaptation - both within an organization and in partnership with others
5. Review existing plans, policies, directives, regulations, legislation, codes of practice and guidance related to spatial planning
6. Fund appropriate research on climate risks to inform the spatial planning process at an early stage
7. Assess the vulnerabilities to, and opportunities from changing climate across all spatial planning policy areas
8. Identify spatial planning policies and measures to manage the risks identified in the vulnerability analyses
9. Assess the level of climate adaptation provided by the spatial plan as a whole
10. Implement the adaptation policies in individual planning/development decisions and explain clearly to stakeholders what the residual climate risks will be
11. Develop ambitious long-term solutions to address the challenges that climate change poses to existing, un-adapted development and other land uses
12. Foster 'climate adaptation champions'
13. Politicians must accept that climate change requires long-term perspectives in policy-making - longer than political mandates
14. Concluding remarks - an ongoing process

(source: http://www.espace-project.org/part1/part1_strategy.htm#top)

2.7.1.2. Economical changes

During the last decades, the cities are increase extremely. Urban areas rather than states are the center of the movement of people, ideas, investment, communications and technology. Migration and its effect is an important element in cities. Migration is targeted to cities rather than countries. In the cities of Europe, migration is increasing greatly for the need of work, study purpose, treatment facility and the result is economical crisis, urban sprawl, high density, transport problem, increase energy use and pollution. Not only the migration, but also the changing pattern of the image of the city, financial crisis in global economy, people activities - employment, food security and fiscal space positions are expected more and create distinct pressures per country. Urban mixed use function projects improves access to employment, and enhances job opportunities.

The global financial crisis, started to show its effects in the middle of 2007 and into 2008. Around the world stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems. The UK and Europe are holding on to interest rate sand trying hard to cope with rising prices in a slowing economy. The Confederation of British Industries has downgraded its 2008 outlook for UK growth, and it forecasts even slower growth in 2009 due to continued troubles in the credit markets, rising commodity prices and weak domestic and global demand.

All urban designs are affected by the financing available. Somebody has to pay the bill. There are two major aspects to financing projects(John Lang,2005):

- (1) Their capital costs and
- (2) The cost of operating them once they have been built.

The second is often forgotten in the action to get establish buildings or public spaces created. The fundamental questions are: ‘Where does the money come from?’ and ‘Who pays for what?’ Then the question is: ‘What is the cost of the money?’ Interest rates affect many design decisions.

The viability of any proposal depends on the availability of capital funds. There are two sources of financing –

- public sector through tax revenues and
- The private sector through the money available to be loaned at interest.

In socialist countries the funds have come primarily from the government. In capitalist the funding of projects has sometimes come from taxation income and sometimes from borrowed money but usually a mixture of the two. Each group involved in developing a project negotiates based on its perceptions of the equity necessary to be raised and the financial guarantees it obtains. In totalitarian societies the centralization of power makes funding easier.

It has generally been easier for governments to raise money because their credit is based on their ability to raise revenues from future taxes. Private developers have to raise funds on a project-by project basis and seek loans with the lowest interest rates, the least amount of equity required and, ideally from their viewpoint, with government subsidies. Such subsidies take many forms: paying for the infrastructure development, mortgage guarantees, the leasing of parts of a project, or structuring a pooled commercial paper program. Conversely, the private sector can subsidize government investments by building parts of the infrastructure.

“It has been clear for some time that processes of urban development in the world’s core economies have been responding to a new and distinctive set of economic, social, demographic and political forces. Some of the major influences on this new phase of urbanization are the result of changes which have been developing throughout the postwar period as capitalism has entered a ‘late’ or ‘advanced’ stage” (Mandel, 1975). ‘These changes include a shift away from manufacturing employment to service employment, an increasing dominance of big compact

corporations, and an internationalization of corporate activity. These developments have caused important social transformations' (Carchedi, 1975; Giddens, 1973). For example, these social transformations have an effect on property markets that are both reflected and conditioned by the built environment (Lefebvre, 1974; Gottdiener, 1985).

In common with much of the rest of the UK today, Liverpool's economy is dominated by service sector industries, both public and private. In 2007, over 60% of all employment in the city was in the public administration, education, health, banking, finance and insurance sectors (Liverpool City Council, March 2009). Besides service sector tourism in Liverpool is a major factor in the economy and this has led to a great increase in the provision of high quality services such as hotels, restaurants and clubs. The buildings of Liverpool also attract film makers, who regularly use Liverpool to double for cities around the world and making it the second most filmed city in the UK. Next retail destination Liverpool's status as a major role in the UK with it already being ranked in the national top five (Liverpool vision, 2010). Manufacturing company, computer game developments business sector also influence the economy of Liverpool.

2.7.1.3. Social changes:

Conceptually, the functions of the built environment have not changed over the time. What has changed is what its users, policy-makers and designers consider important. 'Designers seldom consciously include more than a limited set of the potential functions that the built environment can serve in their analyses and designs. The world is too complex for every function of built form to be considered simultaneously. The same patterns of the physical public realm, either as surroundings or as objects, will, almost certainly, serve different functions for different people' (John Lang, 2005). The success or otherwise of a project is a product of understanding the human as well as the physical geography. Above all, places must be inspiring from people, and buildings and open spaces must be comfortable and safe. This requires an appreciation of the local community, including (Llewelyn-Davies, 2000):

- local views and initiatives;
- local history and custom;
- the views of other stakeholder groups and individuals (such as developers, landowners, utility organizations);
- organizational or institutional arrangements;
- The policy context.

Understand the social dynamics

A community-led review process will address a number of key questions.

- What are the perceived problems?
- What is the local image of the place?
- Can the development complement this existing identity, or does it need 're-imaging'?
- What behavioral characteristics are distinguishable on the site and its surrounds?
- Where are the main routes, popular uses and focuses of activity?

In order to answer these questions, it is essential to include local people in the design and development process. It is also useful to develop into local historical archives to understand how the place has work over time.

Urban design and development has long been fixated on the community's hard infrastructure the sewers, the roads and the electrical, gas and water utilities and other aspects of the physical structure that define the community's form. 'In the past decade or two, there has been a growing concern with the environmental changes of the community. This has significant implications for the design and operation of the hard infrastructure ecological management of storm water and sewage; energy, water and other resource conservation; an emphasis on walk / bike / transit- supportive environments and so on' (Trevor Hancock, 1998). The increase of urban areas worldwide has been prompted by industrialization, which thus far has generated severe environmental problems and a development model that is often regarded as unsustainable on the long term. On the other hand, cities have proved to be effective vehicles for the inclusive provision of health services, sanitation, shelter and other infrastructure that are essential to satisfy the basic needs of the world population.

2.7.2. Issues of the surrounding context

Specially consider the character of the context and setting of the area within which a project scheme will sit. It is its natural as well as human history; the forms of the settlements, buildings and spaces; its ecology and archaeology; its location, and the routes that pass through it. Context also includes people, the individuals living in or near an area and how communities are organized so that citizens become real participants in the urban projected development. A thorough appreciation of the overall site context is the starting point for designing a distinct place.

The key priorities to be considered are:

- *Place*– drawing inspiration from indigenous character can strengthen local identity
- *Connections* – understanding existing street and road linkages can help develop an effective and integrated movement framework
- *Feasibility* – ensuring schemes are economically viable and deliverable
- *Vision* – understanding the aspirations of the site
- *Time*- due to time the demand and problems are different of a urban design
- *Risk*- every project has some risk, so it important to analyses the risk of a project.

2.7.2.1. Place:

'Perceptions of a place are made up of layers of understanding – the settlement in the landscape, its overall structure, the district, the street, the building. They arise from understanding the physical and human geography, the history and morphology of past uses, the landscape and buildings, green spaces, both on a site and around it' (Llewelyn-Davies,2000). These analyses are essential for both regeneration and new build schemes to make them

special. An analysis of the roles and relationships of the area or site to its relation with the context should understand the individual characteristics of form and the way a place is used.

‘One of the important characters of towns and cities is their variety. Different areas have different characteristics – of activities, scale, uses and function. Some places are lively and busy. Others are quiet and secluded. There will be intricate, dense areas; open, monumental areas; soft areas; hard areas; old areas; new areas; areas of high building; areas of low building; shopping areas; commercial areas; entertainment areas; recreation areas; and so on and so on’ (Francis Tibbalds, 1992). To recognize this variety – to define areas character. Often such areas will have blurred edges and how the places are overlap. This simply adds to the richness of the environmental character.

The key components to understand a place are (Llewelyn-Davies, 2000):

- *Regional identity*: Start by identifying the common characteristics of the region or sub-region. This may relate to climate and physical geography, as well as to socio-economic profile.
- *Linkages to surroundings*: How do connections define the settlement characteristics - is it a linear structure along a main route or part of a grid of streets?
- *Local character*: Establish the elements of local distinctiveness, both the form of a place and the way it is used. How can these be built into a project? Are there particular local materials, building forms and features that can be used as a source of inspiration?
- *Morphology*: Define what gives shape to the local morphology (historic routes, block patterns, building heights and massing, local vernacular, for instance), and how this provides cues for appropriate design forms.
- *Natural features*: Are there particular ecological or geological characteristics, for instance, that give a place its essential character?
- *Socio-economic profile*: What are the demographics of an area and are there particular local traditions and events to draw influence from?

2.7.2.2. Connections

‘The creation of great civic spaces with strong connections between them was a primary goal of city design from antiquity to the nineteenth century, most famously exemplified in Ancient Greek cities, sixteenth-century Rome of Sixtus V and Domenico Fontana, and nineteenth-century Paris of Napoléon III and Baron Haussmann’ (Nan Ellin, 2006). The mass production and consumption of cars in the early twentieth century, however, transformed city building as it altered the logic and scale of movement.

The importance of circulation has provided connectivity an important theme. Architect Alex Wall (1948) notes that “designers have been interested in providing ‘flexible, multifunctional surfaces,’ creating connective tissue between city fragments and program to support the diversity of uses and users over time”. In order to discover existing networks, architects Ben van Berkel and Caroline Bos (1998) advocate “movement studies” that analyze “the directions

of the various trajectories, their prominence in relation to the forms of transportation on the site, their duration, their links to different programs, and their interconnections.” Applying this method to the Arnheim (Netherlands) train station (1996–99), van Berkel and Bos comment, ‘skillfully accommodate existing vehicular and social networks that also inspired their design’.

‘Successful development depends on good access and connections’(Llewelyn-Davies, 2000). The connections between a site and its surroundings are important for even the smallest developments. A site that comes up for re-development will have existing points of access, but they may not be of the right kind or in the right place. For instance, the entrance to a railway goods yard may be totally inappropriate when the site is made available for a mixed-use development. The contextual analysis that will provide the basis of a movement framework will need to establish(Llewelyn-Davies, 2000):

- how routes from the new site will knit in with the existing infrastructure;
- the provision made for all forms of movement, with positive discrimination in favour of walking, cycling and public transport;
- how the new development can benefit the area as a whole, for instance by the extension of a bus route, or a more direct footpath to the neighbourhood centre;
- how movement will be provided for at all stages in the development.

At project inception, it is a matter of establishing the principles of the movement framework. The structure will be designed later in relation to the overall development scheme.

Understand existing access and linkages: To integrate the site with its surroundings, it is first necessary to analyse existing points of access and linkage for both movement and infrastructure.

Observe the quality of movement: ‘Watching how people move through an existing area reveals the various influences on movement at work. How people move, particularly on foot, is not just a matter of the simplest and most obvious route, but will be influenced by, for example: variety and interest; safety; light and shade; commercial activity; landscape; noise and pollution. Movement analysis will suggest how these considerations can be added to and improved. Remember, how we experience travel also differs according to the particular needs of women, children, the elderly, the disabled etc’(Nan Ellin, 2006, Llewelyn-Davies, 2000).

2.7.2.3. Feasibility

The feasibility of a project, both in economic and practical terms, requires an assessment of (Llewelyn-Davies, 2000):

- community need;
- market supply and demand;
- funding sources;
- site capacity;
- land ownership, assembly and tenure;
- integration with surrounding context;
- construction costs;

- engineering constraints;
- local planning policy context.

The urban project would need to relate to their location and context, and will vary with the type of project, whether infill, brownfield, urban extension or regeneration. All urban projects solutions are not same, the feasibility of urban project will not be appropriate on a suburban edge-of-town site. An early assessment of the factors likely to affect a project's feasibility will form the basis for preliminary designs and testing. These will then require continual repeat and re-evaluation.

2.7.2.4. Visions

'The vision is an amalgamation of hard physical and financial facts and a series of aspirations. The synergy between these is crucial – that how we will get there; who needs to be included and take responsibility; where the money comes from; who will champion the vision; and these are the mechanisms for delivery'(Llewelyn-Davies, 2000) .

Designs that are inherently flexible will enable future changes to be accommodated - such as in household size and composition, lifestyles and movement patterns. It is vital to conceive a master plan as a framework that will enable adaptation over time. The initial context appreciation stage has two key outputs:

1. A SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) that provides a composite of the various 'layers' of consideration by identifying existing strengths and weaknesses, opportunities for improvement and threats to the project's success .
2. Initial concept ideas and strategic options that sketch out the vision, and build in flexibility to the project as it unfolds by ensuring that the process is:
 - Participatory;
 - Capable of incremental implementation - balancing long-term aspirations with short-term improvement or pump-priming initiatives.

2.7.2.5. Time

To build an urban project is a long time process, when an urban project starts to finish, there is far distance among the problems, financial support to people's interest. When an urban design project start from data collection to implementation and to complete the total built up area, all the cases there should be a different problems, demand and financial support due to time. So it is important to monitor the methods for the project implementation in the current situation.

2.7.2.6. Risk

Varieties of people are interested in urban projects and land development uses, whether it be in a general or site-specific sense. In addition to affecting the land use, it may affect people's perception of their local environment. It may also impact upon their personal finances and

livelihood. It is also understood that different people and organizations will have conflicting views regarding contaminated land issues.

The Authority of the project aim is to ensure that any unacceptable risks from land are appropriately managed. This will be achieved by ensuring that all regulatory staff are trained to properly and carefully assess and respond to concerns, anxieties and expectations within a community that may arise in response to a urban projects issue. Such concerns will be addressed seriously and with sensitivity as an integral part of the Authority's risk management program.

2.8. The urban design methods

2.8.1. Definition of Method

Definition of *method* includes a number of key words such as procedure, systematic or orderly arrangement together with the idea of a clearly defined goal as an end product. The Pocket Oxford Dictionary described the definition of *method* as, 'way of doing something, systematic procedure'. The online dictionary *Die.net* defines methods as, 'a way of doing something, especially a systematic one; implies an orderly logical arrangement (usually in steps)'. Urban design method is an iterative process, cyclical in nature, use for procedures, achieve objective and implementation of plan (Cliff Moughtin, 1999).

'Urban projects methods is a way that it guide a project – how to deal. When a project start the methods has guide a designer how to start a project, how to fix a goal, analysis and develop concepts for a particular project. Then the next step of planner is to draw the project, evaluate the drawing and talk with client. Sometimes conflict in designer with client, design with budget, people interest, political situations, etc. Then reviews the plans many times before implementation and when the project is start to imply in a site. May be the plan was change in future, but the planner had carry on the project in that way' (Cliff Moughtin, 1999).

2.8.2. Steps of methods

2.8.2.1. Step-1: Objective:

'Urban design is the visual motif of the city, or a particular part of the city, to achieve a high quality of life for the public. Livability is the goal of urban design' (John Lang, 2005). 'The goal and objective of urban design are social progress that recognizes the need of everyone, facilitating the restructuring and enhancement of the local economy, prudent use of natural resources and protection of the environment, increase the facilities, development the built structure in urban area. It also includes objectives and character of the area, continuity and enclosure, quality of the public realm, ease of movement, legibility, adaptability, diversity' (Tony Hall, 2007).

‘Urban planning and design for sustainable development basic objective is that, to deal with needs for present situation also compromise the future changes and needs’(WCED- World Commission on Environment and Development, 1987). Development should not be confused with growth. Think about what planner want to achieve, the urban environment we are working with, and the community that lives there. The urban projects for sustainability had five objectives. These are(Cliff Moughtin, 1999; John Lang, 2005):

- The urban projects are functionally well adjusted with the local environment.
- It also structurally sounds that for safety and future extension or modification.
- The project development policy always concern with the sustainable changes.
- Concern for public interest
- The project should have landscape quality.

From the starting of an urban design, some basic things need to introduce such as project program or schedule of uses and building floor space for a specific site. The ideal situation for the planner and the developer is to control design development that is already design and planning guidance available for a given site. This advice appears in a number of different places: it can be found in the local plan or in the master plan which may also include planning briefs, design briefs, planning frameworks, specific site guidance (topography, zoning, infrastructures, and community facilities), city centre action plans, planning act etc(Tony Hall,2007). ‘When producing site development guidance a realistic look is important, for example the designer need to have a solid idea of the cost of achieving development and the land value. The title of the project is important as it gives clear ideas about the design requirements for any given site. These whole negotiation development control process was done between the developer and local authority’ (Cliff Moughtin, 1999).

2.8.2.2. Step -2: Survey:

It is essential to understand and examine the site properly. There are three main aspects of city analysis (John M. Levy, 1997; Cliff Moughtin, 1999; Tony Hall, 2007). The first concern is the legibility of the urban structure, that is, the way in which people perceive, understand and react to the environment. It concerns those qualities of a place which give it an immediate identity, one which is quickly perceived or grasped by its users to identify the important public and religious buildings, land mark, district. The second aspect of townscape analysis concerns the permeability of the environment, that is, the choice it presents to the user (like street, paths, edges, and parks, square). The third aspect, the visual analysis includes studies of urban space, the treatment of facades, pavement, roofline, street sculpture and an analysis of the complexity of visual detail which distinguishes one place from another.

For the sustainable changes we understand, “what urban environment we will work with?” and survey the size and characteristics of the urban environment. The surveys for sustainable changes are (Hamid Shirvani, 1985; John M. Levy,1997; Cliff Moughtin, 1999; Tony Hall, 2007):

- *Understanding Place* - Sustainable design development begins with an intimate understanding of place. If we are sensitive to the nuances of place, we can inhabit without destroying it. Understanding place helps determine design practices such as solar orientation of a building on the site, preservation of the natural environment, etc. Also analysis the development of the site (including land in other ownerships, or for later phase) and immediate adjoining sit (Tony Hall, 2007):, these are:
 - Topography
 - Adjoining property boundaries
 - Adjoining building/ uses
 - Frontages to roads or public space
 - Existing or pedestrian access points
 - Existing paths across the site

- *Identification of hard and soft areas:* Hard lands are those types of land which are essentially fixed because they may be occupied. For example, public park near the central business district of a large city. For shortage of open space, it is extremely unlikely that any development will be allowed to take place in that area. Other side, soft areas are may be a neighborhood or business district where there are vacant lands and development will be allowed to increase its quality (John M. Levy,1997).
- *Visual survey:* In ‘The Image of city’ Kevin Lynch describes the concept and key elements of the visual survey. The idea is based on the assumption that as each of us walks around a city, we create in our minds a conceptual map which allows us to be oriented in the urban environment .Visual survey used as a tools for designers because, to communicate their perception of structure and organization of a city or neighborhoods, location and views of landmarks and activity nodes, sequence of space(John M. Levy,1997).
- *Connecting with the Nature* - Whether the design site is a building in the inner city or in a more natural setting, connecting with nature brings the designed environment back to life. Effective design helps inform us of our place within nature.
- *Understanding Natural Processes* - In nature there is not waste. The byproduct of one organism becomes the food for another. In other words, natural systems are made of closed loops. By working with living processes, we respect the needs of all species. Engaging processes that regenerate rather than deplete, we become more alive. Making natural cycles and processes visible bring the designed environment back to life.
- *Understanding Environmental, social and economical Impact* - The design attempts to have an understanding of the sustainable impact of the design by evaluating the site, the embodied energy and toxicity of the materials, the energy efficiency of design, construction techniques, zoning policy and social need.
- *Embracing Co-creative Design Processes* - Sustainable designers are finding it is important to listen to every voice. Collaboration with systems consultants, engineers and other experts happens early in the design process, instead of an afterthought. Designers are also listening to the voices of local communities. Design for all user (neighborhood residents or office employers) are becoming a standard practice.
- *Understanding People* – The project must take into consideration the wide range of cultures, races, religions and habits of the people who are going to be using and inhabiting

the built environment. This requires sensitivity and empathy on the needs of the people and the community.

2.8.2.3. Step -3: Analysis:

When we would start the analysis we clear the steps are as following ((Hamid Shirvani,1985; Cliff Moughtin, 1999; John Lang, 2005):

- **Why** we are analysis – what’s our purpose? Do we want information about specific parts of the urban site? If so, which ones? Or do we want the specific informative data?
- **What** information do we want – and how much? Do other council units want to use it for other projects? Are there any local issues, like long-running zoning, transportation, migration or others?
- **Who** do we want to collect these information? from council and the community?

It all depends on our purpose. When we choose our consultation method, we’ll be consulting with people according of the age, ethnicity, literacy levels, and so on of the community. Asking people, in telephone, questionnaire, or face-to-face surveys, these three open-ended questions:

- What do you like about (place)?
- What don’t you like about (place)?
- What would you like to change about (place)?

For a particular site we should analysis the sustainable data as following:

Environmental sustainability	Economical sustainability	Social sustainability
- average temperatures rise per year, for designing the shading and ventilation process - average sea level rise and rainfall per year, for find out the flood area and design in safe zone and height	-market analysis for economic status position for developing a project	- government policy -zoning -building law -‘compact city’ versus ‘urban sprawl’

Table 2.3: Sustainable data analysis practical policy

I also analysis some general topics (Cliff Moughtin, 1999), such as:

- *Strengths, Weakness, Opportunity and Threats (SWOT)*: SWOT analysis is a useful technique for the collection and structuring the data. The SWOT analysis can assist clearer definition of the design and point the way to design solutions. The major theme in sustainable changes is people realm, environmental change, economical sector (for budget allocation) and government policy. As for example, we find through data collection that the site orientation and climate are very fluctuate situation. So it is guide and aware us, when we develop design.
- *Trend, forecast and scenario*: The analysis of trends, forecast and scenario, making predictions about the future. The plan was then based upon those predictions. It was found from experience that predictions and forecasts about the future can be wildly out when based on such calculations. The major events such as a change in political attitudes; a stock market

crash and many other possible future events can be built into a series of different scenarios. These scenarios can be fed back into the forecasts, which in turn result in a set of different trends for any topic analyzed. As for example migration, we collect the data for particular city that how many people migrate in every year and why, so it could help us to calculate the users rates. For prepare an urban project is a long time process .Sometimes the present data are not appropriate for future, when the project is complete. If we prepare proposal with the concern of present and future data then the project would fulfill the users need.

- *Constraints and possibilities:* The constraints map contains information, for example, on the location and design of any approved projects such as road widening, sites with planning approvals, land use or building height restrictions, buildings designated as of historic interest, together with any important features of the land or its servicing. The possibilities map includes items such as areas ripe for development, possible linkages with adjacent areas in the city, features which are special to the area, groups of buildings of outstanding architectural significance, with a change of use, positions where development would enhance the appearance of the built environment and areas where landscape intervention would be advantageous.

- *Sieve mapping:* Analyzing constraints and possibilities can be expressed graphically as a series of sieve maps.

2.8.2.4. Step-4: Draw plan and design statement:

Drawing is an important element for achieve the destination. If drawing is incomplete or contradictory, builder cannot rely on the quality of the built outcomes. For large, complex and sensitive sites, design statements are needed to help applicants to explain their approach. For all situation some steps of drawing are required, these are (Tony Hall, 2007):

- Site and area diagram
- Constraints-limits to development
- Opportunity- scope for development
- How development will integrate with the town or village and enhance character
- How the site layout of access, buildings, space and parking make the best use of the site and work well.
- How sitting, scale and massing relates to the area
- Reasons for its appearance (elevation, ground surface)
- How the design is sustainable (energy efficient, long lasting, accessible to all, safe and easy to maintenance).

The drawing for any development had required some analysis and some question that is what brings out the issues. A simple check list that could help the proposal, these are(Tony Hall, 2007):

- retention of existing features
- site edges and interfaces
- routes and spaces as key to layout
- building with fronts and backs
- building suiting the street type
- seamless affordable space

- designed –in open space , parking, bins and cycle racks
- public realm as an entity, particularly the treatment of surface

The developments that relate properly to the existing urban structure through an understanding of the relationships of scale and forms. The elements of context (through a specific site example) are to (John M. Levy, 1997; John Lang,2005; Tony Hall, 2007) :

- Understand the site
- Understand connections
- Define the relevant context for the type of development
- Assess the sensitivity and consistency of the immediate context
- Identify key elements of context - from maps ,from site observation
- Are elements of context essential, optional or unimportant?
- Understand the site development objective
- Is the site exceptional?
- Understand other visual influence
- Relate three-dimensional form to the two-dimensional site plan
- Justify design choice

The process site planning should ensure that development actually works within the site. In practical terms, these means assembling the whole things, like building, space, uses and tenures, parking and refuse bins, and making best use of the land available. The way of organizing development on the site will determine the overall density and form more than anything else. For achieving successful intensive development, this is the critical starting point (Tony Hall.2007).

Translate the place into three dimensions. This requires moving from plan to elevation and to a sense of continuity and space – building height, roofs cape, floors cape, walls, street elevation and composition of materials. It means visualizing a walk-through of the townscape and talking account of vistas, corners, containment of space and a feeling of safety for pedestrians(John M. Levy, 1997; Tony Hall.2007).

2.8.2.5. Step-5: Evaluation of plan:

Evaluation occurs at many levels ranging from meeting technical demands to the ability to gain public acceptance. It is the phase in which the preliminary plans generated in the synthesis phase are compared to the original goals and problem definitions. The evaluations are categories two ways (John M. Levy, 1997):

- a) How well the solution fit the problem.
- b) How readily the proposals can be implemented.

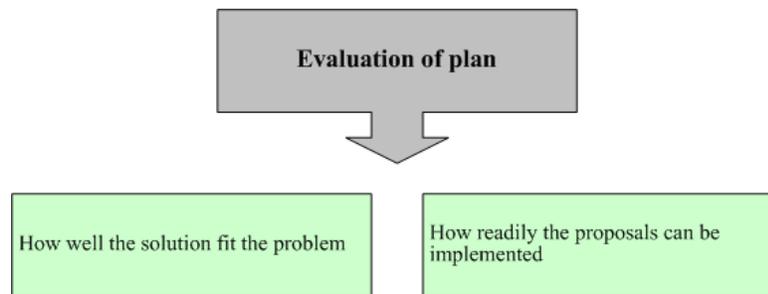


Figure 2.8: Evaluation of plan's main objectives

Moderate to large-scale urban design projects are aimed at improving social, economic and infrastructure conditions rather than focusing on the single objective of physical urban renewal. For that, projects aimed at regenerating inner cities are planned as a series of interrelated actions in which the increase of employment levels is interlinked with sustainable improvement in general (Cliff Moughtin, 1999). For this type of project the issue of methods needs to be considered from an economic and social perspective. Such as (Cliff Moughtin, 1999),

- a. Economic evaluation of urban design: The most important tool used to carry out an economic evaluation of urban design projects is *cost-benefit* analysis.
- b. Environmental impact assessment: Assessment the impact on the physical environment, quality of air, water, soil, cultural heritage conservation areas, animal environment, landscape, climate.
- c. Identification of impacts: Identify the impact on local economy, local environment, landscape impact (UK Visual Design Assessment), aesthetic and cultural values, Infrastructure.

The problems are constantly changing. Developing solution for problems which are in a state of flux is like shooting at a moving target. Problem changes in time as citizen participation has gained important.

2.8.2.6. Step-6: Alternative of plan:

When generating methodology, there should be scope for alternative design solutions. This part emerge design concepts which reflect an understanding of the constraints of the problem and propose optimum solution. In this phase, the data gathered and the analysis of the problem must be translated into proposal for action (Cliff Moughtin, 1999). In these phase, there may be a number of concepts proposed. There is usually more than one way to solve a particular set of problems. Alternative plan is approach the old problem in new way. It analysis and present data in different way. Sometimes the conversation of client and consultant are conflict in one plan. So it is important the alternatives plan that present possible action in given situation.

2.8.2.7. Step-7: Presentation:

Design as a process based on conversation and perception. In essence this means how designers come to understand problems and get ideas about solutions through a process that is

conversation-like. Presentation is the tools available for expressing urban design ideas. Presentation tools depend on the project, its document, skill and audience. It discusses, in particular, the style of report writing, effective public speaking, and the use of drawings, three-dimensional material and the computer in the presentation of the urban design project, etc are describe below:

(i) Report writing: The presentation of urban design proposals often involves reports and sets of documents similar in form and content to those prepared for planning projects. Urban design reports may include a description of the survey, its analysis and a fully evaluated final proposal with its cost. This written material is accompanied by maps, drawings, photographs and models (Cliff Moughtin, 1999). The proposal may then be presented in a number of arenas and defended at Public Inquiries and planning appeals.

The style adopted for report writing is of the utmost importance. One can use this written report as an opportunity to sell the idea to client and public. For this purpose a simple, straightforward text is the most effective. The main reason for any report is 'to get an idea as exactly as possible out of one mind into another'. Sir Ernest Gowers' book '*The Complete Plain Words*' remains one of the best guides to the process of writing: *The Complete Plain Words*, together with *Fowler's Modern English Usage*, *Roget's Thesaurus* and *The Shorter Oxford English Dictionary* should be essential reference material for the report writer. The report writer's job is to convey his or her ideas to others

in the most efficient and economical form. Writing is, for the professional designer, simply, an instrument to make the reader apprehend readily and precisely the meaning of a report. The detailed structure of an urban design project may take a number of forms: it varies to suit the requirements of the type of project. Normally, however, it contains information on three main subject areas (Cliff Moughtin, 1999).

- ┆ The first subject is a description of the survey or investigation.
- ┆ The second main subject area covers the analysis of the survey material.
- ┆ The final subject area is the synthesis of ideas leading to the proposed solution.

(ii) Language : Language is in a state of constant change, possessing a momentum which is quite irresistible. Using the language should be presented in readable prose. Emphasis, in the form of emboldened lettering; asterisks, often referred to as 'bullet points' in some management texts; or underlining, should be used infrequently. Points of emphasis should be evident from the text. Using more words than are needed is a common fault found in the presentation. The art of writing is to express the idea with the utmost economy of words. The basic rules for good writing are (Cliff Moughtin, 1999):

- ┆ to use one word rather than many;
- ┆ to use where possible small words rather than long ones;
- ┆ to avoid both jargon and informal words, since both of these tend to confuse rather than to clarify.

(iii) Computer media:

The presentation media of computer and use of software tools to present in urban design has very much important in contemporary situation. The concept and design of urban projects

change as very fine scale, as 2dimensional CAD drawing and 3dimensional GIS (geographic information systems); also GIS become linked to 3dimensional CAD packages, and as other kinds of photorealistic media are increasingly being fused with these software. Others are slide presentation (power point presentation), 3d studio max, Corel draw, Archi-cad, SketchUp, Revit and so on.

2.8.2.8. Step-8: Choice of plan:

After survey, analysis, review of plan, series of meetings with the client, planner, consultant and others, the discussion address to consider a plan for implementation. All urban designs are ultimately shaped not only by design ideas but also they should consider-

- The sustainable changes concern in plan which consider the needs for future
- Public and private sector marketing decisions and sources of financing.

After choice the plan there are two important steps towards implementation, these are:

Framing the permission: Planning permissions are one of the most sensitive tools available for controlling the quality of design. The plan was grant by the authority with legal law for building and zoning conditions. After all the process was completed there was a question that the design are maintain the law of the country. Different country had different law and building act. Zoning

- system are also particular (like- residential, commercial, etc) or should be mixed use , it depend on the are and their use(John M. Levy, 1997; Tony Hall, 2007).
- *Keeping involve after planning permission:* After permission, the planning is to start practical works, and can be watered down and subcontracted, and the vision lost. In that time the planner job is to keep track on this. The planner often receives a range of requests for changes, many of which need careful scrutiny. Reviewing the scheme on site as it is built, preferably with the developer, is most valuable for picking up critical aspects of detail (Tony Hall,2007).

2.8.2.9. Step-9: Implementation:

When we start to implement a project in a particular site, we need some documents (John M. Levy, 1997),

- *Site layout requirements:* These may include, among other things, minimum setbacks (minimum distance from structure to front, side, or rear lot line), maximum percentage of site that may be covered by structure, placement of driveways or curb cuts, parking requirements, screening requirements and limits on the size or placement of signs.
- *Requirements for structural characteristic:* These may include maximum height of structure, maximum number of stories, and maximum floor area of structure. The last is often cast in

terms of floor area ratio (FAR), which indicates a maximum permissible ratio of floor area to site area.

- *Uses to which structures may be put:* Zoning ordinance will generally specify which uses are permitted and which are not in a particular area. Like residential area, commercial area, etc zones are different from one to another for functional structure.
- *Procedural matters:* A common arrangement is that the building is the permit application. The ordinance will generally also specify an appeals procedure by which an applicant can apply for relief.

Project management is the important factor to the setting-up of the project, implementation at the construction stage of the process. Project management was used as a powerful way of controlling communities and to convince them towards a clearly established goal. The key to successful project management is to actually follow the project planning, monitoring with the current situation and keep track of how the project is progressing. Projects management is an important part of project control and keeping the project plan up-to-date.

Planning is a continuous process that begins with a vision and establishes goals, objectives, policies and recommendations to achieve that vision. Planning must recognize existing conditions to the extent that they affect the future. The results of the implementation process to achieve that vision are evaluated, and the goals, objectives, policies and recommendations are modified and readopted. The planner often receives a range of requests for changes, many of which need careful scrutiny. Reviewing the scheme on site as it is built, preferably with the developer, is most valuable for picking up critical aspects of detail. In practical situation there was lack of project monitoring system, so the project was completed but not a successful design. So for design methods and review systems is very important in practice of urban design.

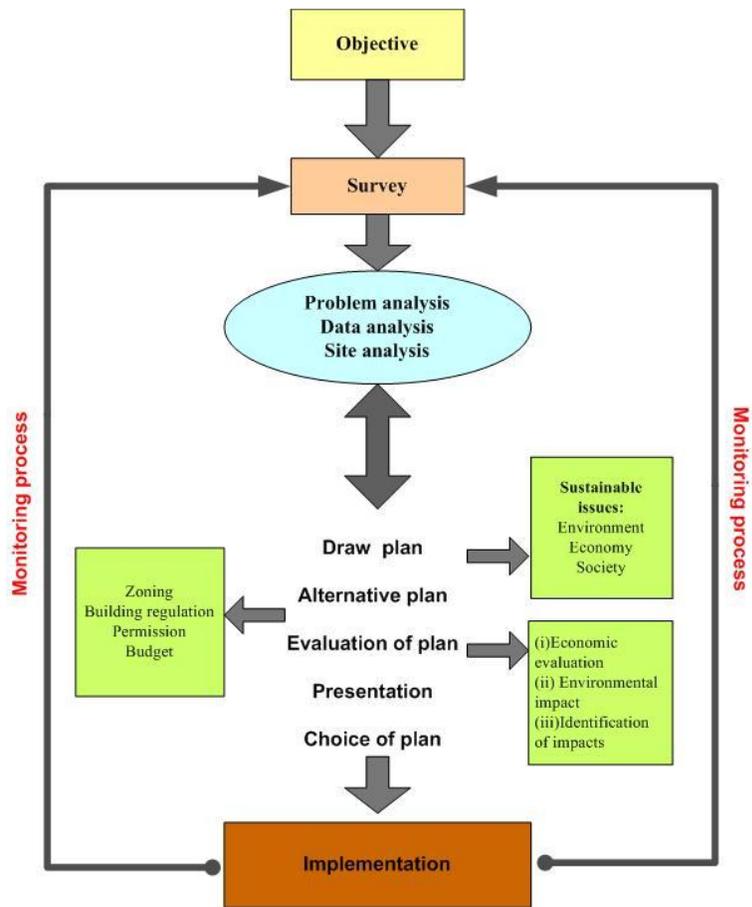


Figure 2.9: Design method for project implementation

Chapter 3: Urban design practical practice process in United Kingdom

3.1. The theoretical approaches of urban design in United Kingdom

In present situation, the main problem for the urban design practice process is to concern about the sustainable changes that may impact on the system. In fact, this is extremely difficult, in past attempts had shown that there are several limitation in the process. In present situation, the sustainable changes are the reasons to modify and adapt act according to the circumstances for the present practice system. Also the next important issue is to take proper decision for upgrade the plan which can be applied automatically to the huge variety of condition that come to concern when action is being taken.

"The solution of every problem is contained within itself. Its plan, form and character are determined by the nature of the site, the nature of the materials used, the nature of the system using them, the nature of the life concerned and the purpose of the building itself." Frank Lloyd Wright (1867-1959)

The purpose of the chapter is to give a general introduction about the United Kingdom, especially about the England's situation; urban design and planning policy, sustainable approaches and decision making process. From previous planning approaches are more modifies and changes for the reason of sustainable changes in UK. To understanding of these contemporary systems is helped to understand the policies and also in 'chapter four' analyze case study – is main concern to specially analyze these policies within the practices.

Planning Policy Statements set out the government's policies on different aspects of spatial planning in England (UK Planning Policy Statements12, 2008). Local authorities have a key role in leading their communities, creating prosperity in the villages, towns and cities, and to promote the growth and development of local identity and civic pride. Communities need civic leadership to help bring together the local public, voluntary and community sectors together with private enterprise in order to create a vision of - how to respond to and address a locality's problems, needs and ambitions and build a strategy to deliver the vision in a coordinated way (UK Planning Policy Statements12,2008). This is what the Government means when it refers to local authorities as "place shapers". In England, Local authorities have been doing this for over 100 years. However, in the conditional statement at one time they would solve problems and provide services themselves, today they are much more likely to discharge their place shaping role through partnership – with the public, private and voluntary sectors within their areas and with neighboring authorities – and with the direct input of their local communities(UK Planning Policy Statements12,2008).

3.2. Planning policy in UK:

3.2.1. National planning Policy

For more than a hundred years UK urban planning concerns have focused on physical planning of land use, transportation systems, housing, open space and other aspects of the built environment which have spatial dimensions. During the last decade spatial planning to inform domestic policy regarding sustainable urban development, health, education, energy use, and a wide variety of other issues that go well beyond physical planning and design has become a required part of UK practice (Faludi, 2006, 2007, 2008).

The Sustainable Development Objective of Planning in England and Wales

The 2004 Act (s. 39) requires

“Bodies responsible for a regional spatial strategy, local development documents or in Wales, the Wales Spatial Plan or local development plan, to ‘exercise that function with the objective of contributing to the achievement of sustainable development’. In doing this they must have regard to national policies and advice contained in guidance issued by the secretary of state or National Assembly for Wales.”

Scope and Content of Development plans in England:

The 2004 Act requires local planning authorities ‘to keep under review’:

- (a) The principal physical, economic, social and environmental characteristics of the area of the authority
- (b) The principal purposes for which land is used in the area
- (c) The size, composition and distribution of the population of the area
- (d) The communications, transport system and traffic of the area
- (e) Any other considerations which may be expected to affect those matters
- (f) Such other matters as may be prescribed . . . (s. 13)

PPS 11, *Regional Spatial Strategies* Annex A gives a list of topics that should be taken into account in the preparation of regional spatial strategies. (It is proposed to keep this up to date with reviews appearing on the government website.) The main topics are:

‘Sectoral policies of the EU that have a spatial impact; and the EU spatial planning documents; air quality and links to land use planning, biodiversity and nature conservation, climate change, the coast, culture, economic development, energy, green belt, local health improvement, delivery of new housing, affordable housing, the government’s Communities Plan, minerals, retail and leisure, rural development and the countryside, soil, transport (roads, rail, freight, ports, aviation, cycling and walking), waste management, and water quality and resources.’

The now superseded Planning Policy Guidance Note 12 provided further information on the ‘other issues that may be addressed in plans, either as land use policies or as considerations which influence policies in the plan’.

- **Environmental considerations:** energy, air quality, water quality, noise and light pollution, biodiversity, habitats, landscape quality, the character and vitality of town centers, tree and hedgerow protection and planting, revitalization of urban areas, conservation of the built and archaeological heritage, coastal protection, flood prevention, land drainage, groundwater resources, environmental impacts of waste and minerals operations, unstable land
- **Economic growth and employment:** revitalization and broadening of the local economy and employment opportunities, encouraging industrial and commercial development, types of economic development; and generally to take account of the needs of businesses while ensuring that proposals are realistic
- **Social progress:** impact of planning policies on different groups, social exclusion, affordable housing, crime prevention, sport, leisure and informal recreation, provision for schools and higher education, places of worship, prisons and other community facilities, accommodation for gypsies; but ‘to limit the plan content to social considerations that are relevant to land use policies’.

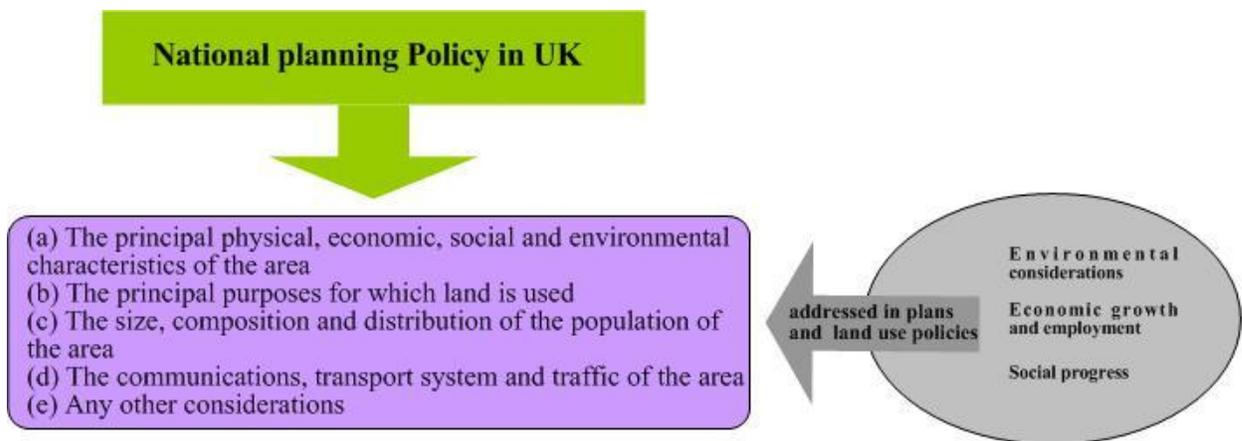


Figure 3.1: UK National planning Policy

3.2.2. Regional Spatial Planning:

“Land use planning is a process concerned with the determination of land uses, the general objectives of which are set out in legislation or in some document of legal or accepted standing. The nature of this process will depend in part on the objectives which it is to serve. The broad objective of the UK system has been for many years to ‘regulate the development and use of land in the public interest’. From 2004 a much wider purpose has been added: to contribute to the achievement of sustainable development” (Barry Cullingworth and Vincent Nadin ,*Town and Country planning in the UK*, page 2, 2006). Current planning legislation for England and Wales is consolidated in the Town and Country Planning Act 1990 (TCPA 1990).

‘It should be emphasized that across Europe spatial planning can be understood in different ways, and the term is often used in a generic sense to describe any land use or physical planning system’ (Barry Cullingworth, 2002). ‘Physical planning describes government action to regular development and land uses in pursuit of agreed objectives. This form of planning is one policy sector within government alongside policy sector such as transport, agriculture, environmental protection, and regional policy. Land use planning may incorporate mechanisms to coordinate other sector policies’ (Barry Cullingworth, 2002). ‘Spatial planning in the Europe sense is more than this and is more centrally concerned with the coordination or integration of the spatial dimension of sectoral policies through a territorially based strategy. The strategy acts as a framework for the formulation and implementation of sectoral policy. One of the sectors will be land use planning. In this sense, spatial planning seeks to identify and address the contradictory effects of sectoral policies, and the opportunities for synergy through the territorial strategy. In practice, all planning systems in Europe tend to be land use system with different degree of coordination, but mostly weak with considerable sectoral compartmentalization’ (Nadin et al.1997). This applies to the UK.

Zoning Policy:

‘Zoning is a fundamental land use elements of the UK system of planning, in that the grant of planning permission is for all practical purposes, to make in advance of the proposal coming forward. *There are two examples of attempts to reintroduce the zoning approach in the UK planning system, and a third is in preparation. They are,*

- 1) *Enterprise zones,*
- 2) *Simplified planning zones and*
- 3) *Business planning zones.*

All reflect economic rather than land use planning objectives.’ (Barry Cullingworth, 2002)

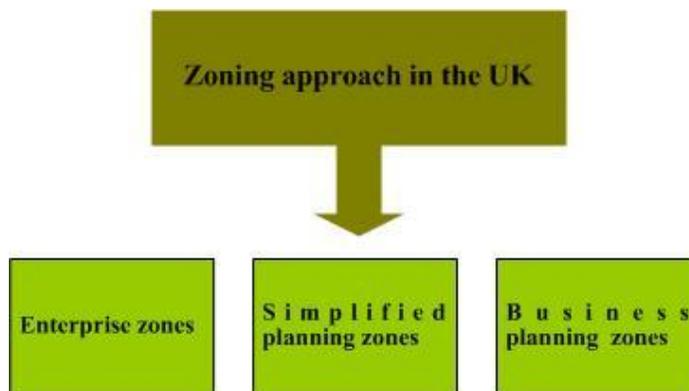


Figure 3.2: UK zoning planning policy

Nature of Local Spatial Planning

Spatial planning plays a central role in the overall task of place shaping and in the delivery of land, uses and associated activities. Spatial planning is a process of place shaping and delivery. It aims to (Planning Policy Statements 12, 2008):

- produce a vision for the future of places that responds to the local challenges and opportunities, and is based on evidence, a sense of local distinctiveness and community derived objectives, within the overall framework of national policy and regional strategies;
- translate this vision into a set of priorities, program, policies, and land allocations together with the public sector resources to deliver them;
- create a framework for private investment and regeneration that promotes economic, environmental and social wellbeing for the area;
- coordinate and deliver the public sector components of this vision with other agencies and processes
- create a positive framework for action on climate change; and
- Contribute to the achievement of Sustainable Development.

Advantages of Spatial Planning to Councils and LSPs (Local Strategic Partnership)

1) Spatial planning underpins the wider corporate strategy of the council and LSP in that it:

- brings together a very wide range of different services, since most require land to operate, so it can help to support the co-ordination of services;
- ensures that strategies can be based on the community's views and obtain community buy-in;
- ensures that other strategies can be fully cognizant of and play their part in respect of issues such as flooding, waste management and transport;
- can assist in providing the evidence base for, and monitoring of, other strategies; and
- a major means of engaging with the private sector

2) Spatial planning plays a central role in the overall task of place shaping and in the delivery of land, uses and associated activities.

3) In relation to housing, it:

- ensures that the necessary land is available at the right time and in the right place to deliver the new housing required;
- orchestrates the necessary social, physical and green³ infrastructure to ensure sustainable communities are delivered; and
- Provides the basis for the private sector facilitating of affordable housing.

4) Spatial planning is also critical in relation to economic growth and regeneration by:

- providing a flexible supply of land for business and identifying suitable locations;

- ensuring business is drawn to the area by providing an attractive environment and a sufficient workforce well housed and able to access employment opportunities easily and sustainably;
- bringing in private funds through incentivising, promoting and coordinating investment by the private sector;
- providing a robust basis for making bids for public funds and for assembling land for projects; and
- Providing a robust basis for assessing the need for, and providing supporting infrastructure and natural resources for economic development.

5) Spatial planning provides a means of safeguarding the area’s environmental assets, both for their intrinsic value and for their contribution to social and economic wellbeing by:

- protection and enhancing designated sites, landscapes, habitats and protected species; and
- Creating a positive framework for environmental enhancement more generally.

6) In relation to land and buildings it:

- helps review the use of land and buildings as public services may be combined on multi-use sites and new operational requirements lead to the release of land;
- co-ordinates the identification and release of land for the provision of the services such as health facilities which form a crucial part of a local authority’s strategic role; and
- provides the justification for the compulsory acquisition of land, where necessary, to allow regeneration schemes to progress.

(Ref: from ‘Planning Policy Statements12’, 2008)

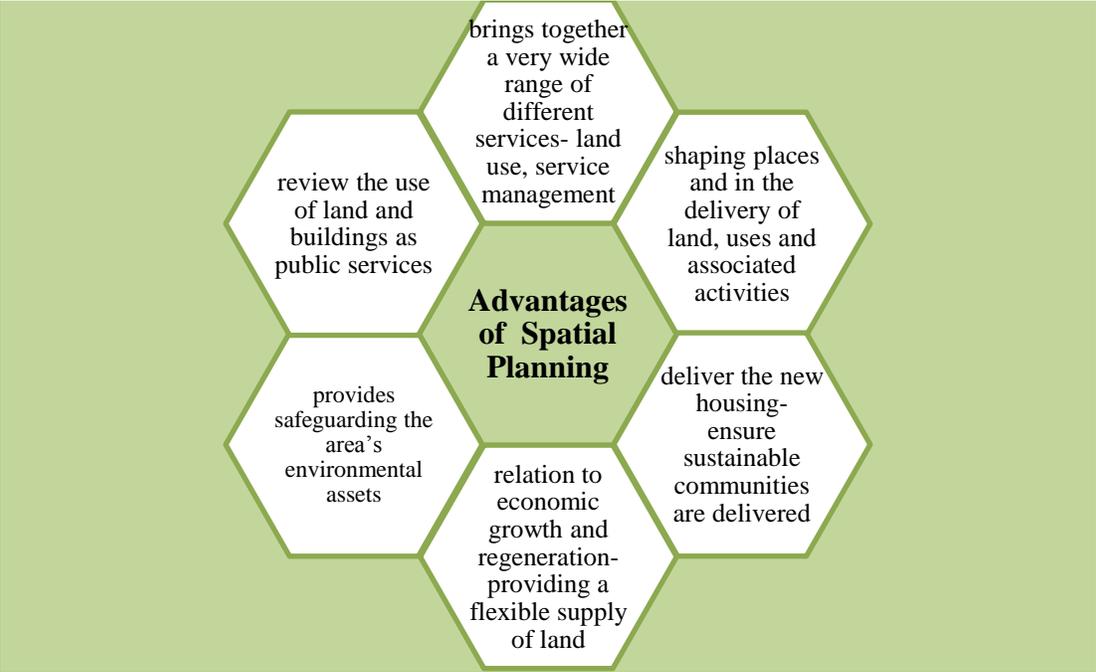


Figure 3.3: Advantages of Spatial planning

3.2.3. Strategic planning

Spatial Strategy Content of the Development Plan:

The government's view of the 'spatial' dimension is given in 'Planning Policy Statement 12, (2008) Local Development Frameworks':

'Local planning authorities should adopt a spatial planning approach to local development frameworks to ensure the most efficient use of land by balancing competing demands within the context of sustainable development. Spatial planning goes beyond traditional land use planning to bring together and integrate policies for the development and use of land with other policies and programs which influence the nature of places and how they function. This will include policies which can impact on land use, for example, by influencing the demands on or needs for development, but which are not capable of being delivered solely or mainly through the granting of planning permission and may be delivered through other means.'(para. 1.8)

The other strategies and plans that local development documents should take account of should include:

'The community strategy and strategies for education, health, social inclusion, waste, biodiversity, recycling and environmental protection. Local development documents should be prepared taking into account urban and rural regeneration strategies, local and regional economic and housing strategies, community development and local transport plans'. ('Planning Policy Statements12', Para. 1.9, 2008)

Planning Policy Guidance:

Local authorities operate the planning system within a framework of policy set by central government. The planning system mainly influences on the design of buildings and spaces. Making the most of the potential for good design depends on understanding these influences and responding to them effectively. In particular, national planning policy guidance, mostly in the form of Planning Policy Guidance Notes (PPGs), issued by the Department of the Environment, Transport and the Regions, needs to be taken into account. The issue of design is covered primarily in PPG1, though most PPGs provide some guidance on design:

PPG1 *General Policy and Principles* – sets out guidance on the role of design considerations in planning, emphasizing that good design is a key aim;

PPG3 *Housing* – calls for high quality design, landscaping and open space in housing development and stresses the value of development briefs in rising design standards;

PPG6 *Town Centers and Retail Development* – promotes town Centre strategies based on urban design analysis, providing a policy framework and the context for development briefs. It calls for improved standards of design of street furniture, paving, signage and car parks;

PPG7 *The Countryside: environmental quality and economic and social development* – promotes high standards of design and points to the role of Countryside Design Summaries, Village Design Statements and landscape character assessments;

PPG13, *Transport* – requires new development to help create places that connect with each other sustainably; the aim is to provide the right conditions to encourage walking, cycling and the use of public transport and to put people before traffic;

PPG15, *Conservation Areas and Listed Buildings* – encourage detailed control of the external appearance of buildings in conservation areas, and emphasize the importance of how a building relates to its surroundings and of the quality of townscape.

Future action on urban matters by European Commission guided by the proposed ‘*Thematic Strategy on the Urban Environment*’(2006-8), which is a commitment of the Sixth Environmental Action programs. Four themes for the Strategy which are related to urban design actively and passively were identified:

- ***Sustainable urban management:*** concerning, for example, the adoption of explicit environmental targets, actions and monitoring by local authorities in an integrated urban management system
- ***Sustainable construction:*** concerning, for example, the minimization of resource inputs to construction, recycling of construction materials, and maximizing energy efficiency in new construction
- ***Sustainable urban design:*** concerning, for example, the appropriate physical form of urban areas for more sustainability, redesigning and retro-fitting existing urban areas and building on brownfield land
- ***Sustainable transport:*** including, for example, the types of measures to promote more sustainable mobility and tools for evaluating the impacts of transport measures.

(In section 4.7.1 describe the sustainable issues briefly)

3.2.3. Area Action plan:

‘Area Action Plans can assist in producing a consensus as to the right strategy for an area and how it might be implemented. They can assist in providing the basis for taking compulsory purchase action where necessary or act as a focus and a catalyst for getting several key agencies and landowners to work together. Authorities may set criteria in their core strategy for identifying locations and priorities for the preparation of area action plans’ (Ref: from ‘Planning Policy Statements 12’; 5.5, 2008)

Area action plans should be used when there is a need to provide the planning framework for areas where significant change or conservation is needed. Area action plans should (Ref: from ‘Planning Policy Statements 12’, 2008):

- Deliver planned growth areas;

- Stimulate regeneration;
- Protect areas particularly sensitive to change;
- Resolve conflicting objectives in areas subject to development pressures; or
- Focus the delivery of area based regeneration initiatives.

In areas where face the changes, area action plans should identify the distribution of uses and their inter-relationships, including specific site allocations, and set out as far as practicable the timetable for the implementation of the proposals. In areas of conservation, area action plans should set out the policies and proposals for action to preserve or enhance the area, including defining areas where specific conservation measures are proposed and areas which will be subject to specific controls over development (Ref: from ‘Planning Policy Statements 12’; 5.6, 2008).

Scope and content of Development Plans in England:

The 2004 Act requires local planning authorities ‘to keep under review’:

- (a) The principal physical, economic, social and environmental characteristics of the area of the authority
- (b) The principal purposes for which land is used in the area
- (c) The size, composition and distribution of the population of the area
- (d) The communications, transport system and traffic of the area
- (e) Any other considerations which may be expected to affect those matters
- (f) Such other matters as may be prescribed

3.3. Applications field

3.3.1. Area Plan - Town planning

Covers whole or most parts of a district council; contains strategic policies providing a framework for the preparation of local plans for 10–15 years period.

‘The planning system plays a crucial role in our national life – a vital tool in the process of change and renewal as well as conservation and environmental care, vital to our national prosperity. The planning system is at the heart of our shared national goals to raise productivity and ensure full employment, to encourage and foster strong vital communities, to help give everyone the opportunity of a decent home, and to achieve truly balanced and sustainable development and growth in every region and nation across the UK’(Gordon Brown, Chancellor, 2003).

Current planning legislation for England is follow the Town and Country Planning Act 1990 (TCPA 1990). The Town and Country Planning Act 1990 remains in force as the principal planning act in the England and Wales but has received a number of revisions and alterations in

the act. “Development control, planning control, or development management is the element of the United Kingdom's system of town and country planning through which local government regulates land use and new building. It relies on a ‘plan-led system’ whereby development plans are formed and the public is consulted. Subsequent development requires planning permission, which is granted or refused with reference to the development plan as a material consideration”(Wikipedia, January 2012).

Key Principles for sustainable town planning:

The following key principles should be applied in the development plans and decisions taken stages on planning applications, for the contribute to the delivery of sustainable development (‘Planning Policy Statement 1: Delivering Sustainable Development’, 2005):

- (i) Development plans should ensure that sustainable development is follow in an integrated manner, with the principles for sustainable development set out in the UK strategy. Regional planning bodies and local planning authorities should make sure that development plans promote the environmental, economic and social objectives in the city planning.
- (ii) Regional planning bodies and local planning authorities should ensure that development plans contribute to global sustainability by addressing the causes and potential impacts of climate change – through policies which reduce energy use, reduce emissions (for example, by encouraging patterns of development which reduce the need to travel by private car, or reduce the impact of moving freight), promote the development of renewable energy resources, and take climate change impacts into account in the location and design of development.
- (iii) A spatial planning approach should be at the heart of planning for sustainable development
- (iv) Planning policies should promote high quality design in the layout of new developments and individual buildings in terms of function and impact, not just for the short term but over the lifetime of the development. Design which fails to take the opportunities available for improving the character and quality of an area should not be accepted.
- (v) Development plans should also contain clear, comprehensive and high quality access policies – in terms of both location and external physical access. Such policies should consider people’s variation of needs and aim to break down unnecessary barriers and also aim at benefits the entire community.
- (vi) Community involvement is an essential element in delivering sustainable development and creating sustainable and safe communities. In developing the vision for their areas, planning authorities should ensure that communities are able to contribute to ideas about how that vision can be achieved, have the opportunity to participate in the process of drawing up the vision, strategy and specific plan policies, and to be involved in development proposals.

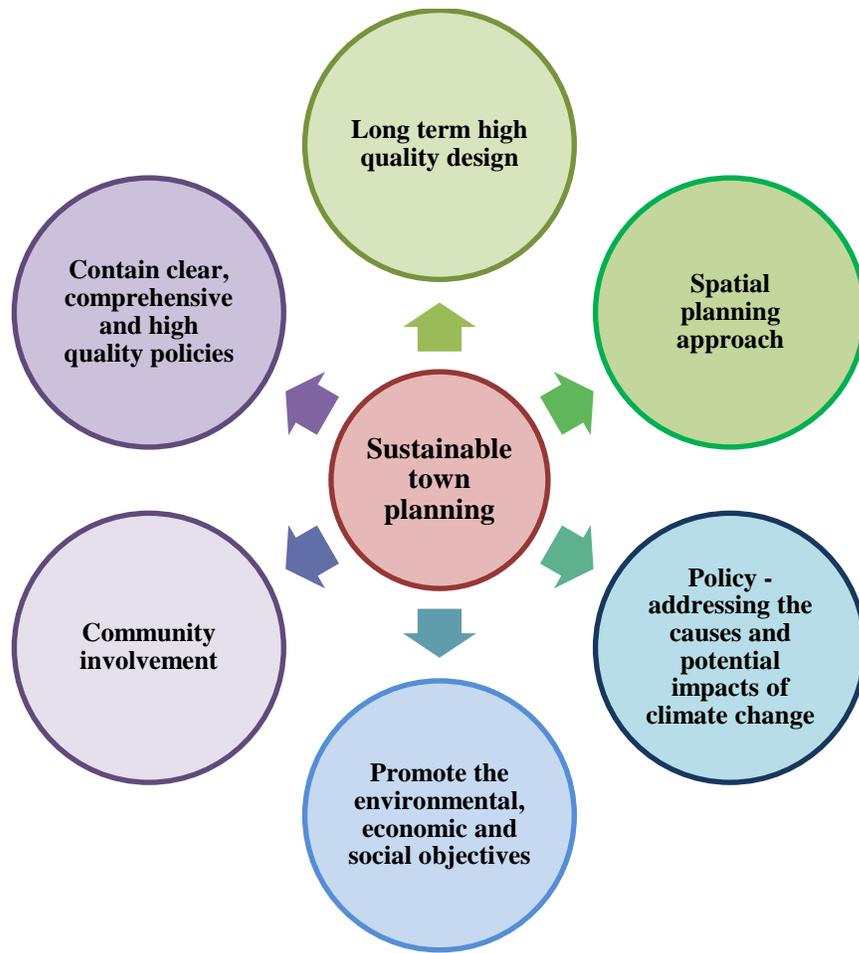


Figure 3.4: Sustainable town planning principles

Facility planning:

Facilities secured by Planning Authority through ‘Planning Agreements’:

	Residential developments	Commercial developments
Direct consequences of development	<ul style="list-style-type: none"> • Offsite highways • Parking • Landscaping • Open space • Sports facilities • Community centers • Health services • Public transport facilities • Waste and recycling facilities • Emergency services • Childcare facilities 	<ul style="list-style-type: none"> • Offsite highways • Parking • Landscaping • Open space • Public transport • Green transport plans

Affordable housing	<ul style="list-style-type: none"> • Social rented housing • Key worker housing • Sheltered housing 	<ul style="list-style-type: none"> • Housing via mixed use policies
Contributions to community needs	<ul style="list-style-type: none"> • Construction, training and recruitment initiatives • Town Centre improvement • Public art • Countryside managements • Contributions to cultural plans, theatres, museums, etc. 	<ul style="list-style-type: none"> • Training and recruitment initiatives • Town Centre improvement • Public art

Table 3.1: Planning authorities category

[Source: GVA Grimley *et al.* (2004: 16), Barry Cullingworth and Vincent Nadin, *Town and Country planning in the UK*, 2006]

3.3.2. Local plan - Part of the city or small areas:

Covers small part of one or more councils; provides detailed guidance for areas.

Local plans provide detailed guidance on land use. They are replaced under the new system introduced in 2004, but many past developments also exist, so explanation is needed. They are composed in a written statement, a proposals map and other appropriate brief description. The written statement sets out the policies- for the control of development, including the allocation of land for specific purposes. The proposals map must be on primary survey base, thus showing the effects of the plan to clearly expressed and identify boundaries.

The main proposals for the plan framework were: (Barry Cullingworth and Vincent Nadin, *Town and Country planning in the UK*, 2006, page-117)

- The system of structure and local plans to be replaced at the strategic level with relating with regional and sub-regional spatial strategies
- At the local level, new local development frameworks offering more flexibility in the production and presentation of planning policy
- a more strategic and selective approach to local planning with more focused general planning policies and more detailed action plans are needed
- Increased requirements for participation and consultation in the interests of ‘engaging the community’ more effectively
- Business planning zones which would ‘lift regulation’ where it is not necessary.

An area-specific policy

A local planning authority may for example to draft an area-specific design policy for a city-center. City centers may be very large, embracing a wide range of activities and different areas

perform different functions. Planning for the future areas can be achieved successful, through the use of area action plans, with master-plans or development briefs for particular sites. For City center the following matters should also be kept under regular review (Planning policy statement 6, 2005):

- The network and hierarchy of centers (at both the regional and local levels);
- The need for further development and
- The vitality and viability of centers (at the local level).

Growth and development policy for city center (Planning policy statement 6, 2005):

- **diversity of main town center uses (by number, type and amount of floor space):** the amount of space in use for different functions – such as offices; shopping; leisure, cultural and entertainment activities; pubs, cafes and restaurants; and, hotels;
- **the amount of retail, leisure and office floor space in edge-of-center and out-of-center locations;**
- **the potential capacity for growth or change of centers in the network:** opportunities
- for centers to expand or consolidate, typically measured in the amount of land available for new or more intensive forms of town center development;
- **retailer representation and intentions to change representation:** existence and changes in representation of types of retailer, including street markets, and the demand of retailers wanting to come into the center, or to change their representation in the center, or to reduce or close their representation;
- **shopping rents:** pattern of movement in primary shopping areas (i.e. the rental value for the first 6 meters depth of floor space in retail units from the shop window);
- **Proportion of vacant street level property:** vacancies can arise even in the strongest town centers, and this indicator must be used with care. Vacancies in secondary frontages and changes to other uses will also be useful indicators;
- **Commercial yields on non-domestic property (i.e. the capital value in relation to the expected market rental):** demonstrates the confidence of investors in the long-term profitability of the center for retail, office and other commercial developments. This indicator should be used with care;
- **pedestrian flows (footfall):** the development of shopping streets, measured by the numbers and movement of people on the streets, in different parts of the center at different times of the day and evening,
- **accessibility:** ease and convenience of access by a choice of means of travel, including – the quality, quantity and type of car parking; the frequency and quality of public transport services and the range of customer origins served; and, the quality of provision for pedestrians, cyclists and disabled people and the ease of access from main arrival points to the main attractions;
- **Customer and residents' views and behavior:** regular surveys will help authorities in monitoring and evaluating the effectiveness of town center improvements and in setting further priorities. Interviews in the town center and at home can be used to establish views of both users and non-users of the center, including the views of residents living in or close to the center. This information could also establish the degree of linked trips;
- **perception of safety and occurrence of crime:** should include views and information on safety and security, and where appropriate, information for monitoring the evening and night-time economy; and

- **state of the town center environmental quality:** should include information on problems (such as air pollution, noise, clutter, litter and graffiti) and positive factors (such as trees, landscaping and open spaces).

3.3.3. Subject plan

To address a particular planning theme or project.

Important design objectives are raise the character, ease of movement, adaptability and diversity. Improving the public realm could also help to promote positive changes. In drafting design policy and SPG (spatial planning guide) thought should proposed some issues, such as:

- how the various aspects of form deliver the important objectives, and in particular,
- how the proposed urban structure responds to the existing settlement pattern and creates a clear hierarchy of routes and spaces;
- subdividing large sites into development blocks and sites can encourage mixed uses;
- density guidelines can be framed to take full advantage of accessibility to local public transport;
- the height of new buildings relates to the existing scale of development in the area, avoiding overshadowing existing residential areas;
- the massing of new development respects the scale and building forms of the historic industrial buildings;
- New development can be successfully integrated into the landscape.

Large sites

In developing design guidance for the proposed development, the objectives of promoting character, continuity and enclosure and accessibility are most important. In drafting design policy and SPG, thought should be given to how the development will be laid out in response to the site's land form and character. It is likely that the design policy would emphasize that,

- (i) the layout and landscape design of development should reinforce a sense of place;
- (ii) The landscape treatment of the site and urban edges should place particular emphasis on how the development relates to its landscape setting.

The design policy could be expanded through SPG to show:

- how the development could respond to the natural features of the site;
- the benefits of planting species that are locally common;
- how structure planning and shelter belts could be created on the rural boundaries of the site to provide a clearly defined urban edge;
- The way the various elements of the street scene could contribute to the identity of the place, including sculpture, lighting, railings, litter bins, paving, hard landscape, seating, bollards, kiosks, cycle racks, signage and water features.

Detailed site appraisals would help in understanding the nature and complexity of the site, enabling more sensitive guidance to be developed.

Neighborhood design guide

In this example a district council wants to promote better housing design and layout through a neighborhood design guide, aimed at volume house builders. Many of the sites identified for development in its local plan and existing residential areas. This suggests it is important to integrate the new with the old.

Most objectives and configuration of project development decision are preparing to follow with the design guide. The layout of the area is particularly important. For sites well-connected to public transport, the council may also want to specify a minimum development density and a mix of uses. Height and massing will also need to be carefully considered. The guide might explain how landscaping and design detail such as the use of appropriate materials can promote local character and a high quality of public realm.

3.4. The analysis for the UK urban projects

3.4.1. Master planning system

Mixed use:

Within town centers, but also elsewhere, mixed-use development can help to develop variety and diversity and reduce the need to travel. Local planning authorities should include policies in their development plans to promote and maintain mixed uses, particularly in town centers and other areas. Major mixed-use developments are attract a significant number of trips should be in locations which are well served by public transport, have adequate infrastructure and are properly integrated, in terms of land use and design, with surrounding areas. Proposals for major mixed-use developments should be included in the local plan.

The planning system can be used to deliver high-quality, mixed-use developments. Built on large sites, usually within urban areas, they are characterised by:

- compactness;
- a mixture of uses and dwelling types, including affordable housing;
- a range of employment, leisure and community facilities;
- appropriate infrastructure and services;
- high standards of urban design;
- access to public open space and green spaces; and
- Ready access to public transport.

Urban regeneration and re-use of previously-developed land are important supporting objectives for creating a more sustainable pattern of development. The Government is committed to:

- concentrating development for uses which generate a large number of trips in places well-served by public transport, especially town centers, rather than in out-of-center locations; and
- Preferring the development of land within urban areas, particularly on previously-developed sites, provided that this creates or maintains a good living environment, before considering the development of greenfield sites.

Design:

The proposed development and its relationship to its surroundings and material considerations determining planning applications and guideline. Such considerations relate to the design of buildings and to urban design. Understanding of the context in which development takes place whether in urban or rural areas.

The purposes of this design Guidance are, ‘urban design should be taken to mean the relationship between different buildings; the relationship between buildings and the streets, squares, parks, waterways and other spaces which make up the public domain; the nature and quality of the public domain itself; the relationship of one part of a village, town or city with other parts; and the patterns of movement and activity which are thereby established: in short, the complex relationships between all the elements of built and unbuilt space. As the appearance and treatment of the spaces between and around buildings is often of comparable importance to the design of the buildings themselves, landscape design should be considered as an integral part of urban design’(National Planning policy, PPG12,2005)

Good design should (National Planning policy, PPG12, 2005):

- address the connections between people and places by considering the needs of people to access jobs and key services;
- be integrated into the existing urban form and the natural and built environments;
- be an integral part of the processes for ensuring successful, safe and inclusive villages, towns and cities;
- create an environment where everyone can access and benefit from the full range of opportunities available to members of society; and,
- Consider the direct and indirect impacts on the natural environment.’

Good design can help promote sustainable development; improve the quality of the existing environment; attract business and investment; and reinforce civic pride and a sense of place. It can help to secure continued public acceptance of necessary new development.

Sustainable development:

Sustainable development seeks to deliver the objective of achieving, now and in the future, economic development to secure higher living standards while protecting and enhancing the environment. The Government is committed to the principles of sustainable development set out in *Sustainable Development: The UK Strategy* (1994).

The *Strategy recognizes* the important role of the planning system in regulating the development and use of land in the public interest. A sustainable planning framework should:

- provide for the nation's needs for commercial and industrial development, food production, minerals extraction, new homes and other buildings, while respecting environmental objectives;
- use already developed areas in the most efficient way, while making them more attractive places in which to live and work;
- conserve both the cultural heritage and natural resources (including wildlife, landscape, water, soil and air quality) taking particular care to safeguard designations of national and international importance; and
- Shape new development patterns in a way which minimizes the need to travel.

The Governments planning guidance notes set out the policy framework within which local planning authorities are required to draw up their development plans and take decisions on individual applications to secure these objectives.

To adopt the sustainable development is to improve the planning system. Planning is main guideline to delivery of new homes, supporting business development, enabling the delivery of infrastructure that provides essential transport, energy and water and creating sustainable communities. Planning also approaches guidelines and principles for tackling the sustainable changes.

The opportunities for integrated approaches to issues of social equity and the delivery of public services, such as:

Examples of climate change related SPDs(supplementary planning document)(Communities and Local Government,London,2010)
<ul style="list-style-type: none"> • Sustainable building design and construction • Design and layout of new developments • Sustainable Residential Design • Delivering a More Sustainable City • Energy Efficiency and Renewable Energy • Climate Change • Residential Design Standards • Renewable Energy Interim Advice Note • Green Design Guide • Reducing the Carbon

Table 3.2: Climate change related SPDs(supplementary planning document)

3.4.2. Architecture design guideline

Permitted development rights in England:

Permitted development rights are granted by the General Permitted Development Order (GPOD), 1995. The application of the Order is complex and this is only a brief summary.

- Development within the curtilage of a dwelling house, limited to 10 per cent of the cubic content of terraced houses and 15 per cent of detached houses, and an overall maximum of 115 cubic meters.
- Minor operations such as painting and erection of walls and fences but not over 2 meters in height
- Temporary buildings and uses in connection with construction, and temporary mineral exploration works.
- Extension of industrial and warehouse development up to 25 per cent of the cubic content of the original building
- Repairs to private driveways and services provided by statutory undertakers and local authorities (including sewerage, drainage, postboxes), maintenance and improvement works to highways by the highway authority
- Limited development by the local authority such as bus shelters and street furniture
- Certain telecommunications apparatus not exceeding 15 metres in height, and closed circuit television cameras, subject to limitations.
- Restoration of historic buildings and monuments
- Limited demolition works

Local requirements for sustainable buildings

Planning authorities, developers and other partners in the provision of new development should engage with the delivery of sustainable buildings. Accordingly, planning policies should support innovation and investment in sustainable buildings. Planning authorities should help to achieve the national policy by provide guideline for reducing carbon emissions from domestic and non-domestic buildings. When proposing any local requirements for sustainable buildings planning authorities must be able to demonstrate clearly the local circumstances that warrant and allow this. These could include, for example are in following(Communities and Local Government,London,2009):

- There are clear opportunities for significant use of de-centralized and renewable or low-carbon energy; or
- Without the requirement, for example on water efficiency, the development consider would be unsatisfactory for its proposed location.

When proposing any local requirement for sustainable buildings planning authorities should (Communities and Local Government,London,2009):

- focus on development area or site-specific opportunities;
- specify the requirement in terms of achievement of nationally described sustainable buildings standards, for example in the case of housing by expecting identified housing proposals to be delivered at a specific level of the Code for Sustainable Homes;

Analyses local requirements:

In planning authorities had specified some guideline for local requirements (Communities and Local Government, London, 2009):

- ‘– ensure what is proposed is evidence-based and viable, having regard to the overall costs of bringing sites to the market (including the costs of any necessary supporting infrastructure) and the need to avoid any adverse impact on the development needs of communities;
- in the case of housing development and when setting development area or site-specific expectations, demonstrate that the proposed approach is consistent with securing the expected supply and pace of housing development shown in the housing trajectory required by planning policy statement, and does not inhibit the provision of affordable housing; and
- set out how they intend to advise potential developers on the implementation of the local requirements, and how these will be monitored and enforced’.

3.4.3. Landscape design

Responding to this challenge, this ‘Position Statement’ for design approach:

- ‘— Demonstrate to stakeholders and government the critical and central role that the landscape architecture profession has to play in the delivery of climate change policy objectives.
- Inspire clients to adopt an holistic, landscape architecture approach to development which reinforces commercial and public objectives whilst delivering resilience in the face of a changing climate and assisting in the reduction of greenhouse gas emissions.
- Provide guiding principles and case studies of the approaches taken by landscape architects to climate change adaptation and mitigation’(Landscape Institute Position statement: Landscape architecture and the challenge of climate change, 2008).

Renewable energy:

‘The expertise that landscape architects have in design and the use of landscape and visual impact assessments ensures that proposals for the development of renewable energy generation, including bioenergy, can respond to and be properly considered in their wider environmental context. The Landscape Institute is fully committed to the maximization of renewable energy capacity as an essential aspect of climate change mitigation, while ensuring the robust protection and enhancement of landscape character and condition. To ensure that renewable and low-carbon energy installations, do not lead to perverse carbon impacts, such as carbon release through the drying of rubbish resulting from inappropriate wind level development’ (Landscape Institute Position statement: Landscape architecture and the challenge of climate change, 2008).

Adaptation :

- a. To place-making approaches of the landscape architect is critical for concern with the sustainable changes that are robust and flexible to climate change. These skills need to be employed at the earliest possible opportunity in the design and delivery of projects.
- b. Green Infrastructure- the concept can be applied at varying scales from the local/neighborhoods to the town/city and the city-region/ region. ‘Green Infrastructure (GI), if planned and managed appropriately, can deliver a wide range of social, environmental and economic benefits. There is no widely accepted definition of GI and it is used to describe social and economic as well as ecological initiatives. In the UK, GI usually refers to green spaces in urban areas such as parks, gardens and canals, road and rail corridors. People who live within 500 metres of accessible green space are 24% more likely to meet recommended levels of physical activity. GI is sometimes given a broader scope reconnecting existing natural areas. The European Commission is developing a strategy for EU-wide GI and suggests it is best implemented through integrated land management and careful strategic spatial planning’(Eleanor Kean , ‘Landscapes of the Future’, 2011). Components of green infrastructure can include:

At local/neighborhoods scale	At town/city scale	At city-region/regional scale
<ul style="list-style-type: none"> - Street trees and hedgerows - Pocket parks - Cemeteries - Small woodlands 	<ul style="list-style-type: none"> - City parks - Green networks - Forest parks - Lakes - Rights of way 	<ul style="list-style-type: none"> - Regional parks - Rivers and floodplains - Long distance trails - Reservoirs

Table 3.3: Green Infrastructures in different scale

Effective adaptation to climate change can be facilitated by green infrastructure approaches to planning and design. Green spaces and corridors help to cool urban environments, improve air and surface quality. A green infrastructure planning approach will reduce flood risk, protect building integrity and improve human health. Well-connected green infrastructure also provides wildlife corridors for species migration in the face of climate change as well as wider benefits for recreation, community development, biodiversity, food provision and place shaping.

- c. **Green roofs**, ‘roofs which are covered with vegetation and soil, can reduce run-off and afterwards relieve the pressure on drainage systems, particularly at times of high intensity rainfall. Additionally, the benefits afforded to biodiversity can be significant by providing wildlife habitats, particularly in urban areas. They also enhance the thermal performance of buildings and have an important role to play in reducing the

urban heat island effect. Green roofs also have the potential to contribute to wider landscape character in a particular location' (Landscape Institute Position statement: Landscape architecture and the challenge of climate change, 2008)..

- d. Plant species selection:** Landscape architects understand what types of plant, where to plant them and the conditions for apply those different types of plant according to the requirement of the space. This knowledge is invaluable in the face of changing climatic conditions, particularly arising from the impacts on the quality and availability of water and the potential increase in pests and disease.

(Ref: *Landscape Institute Position statement: Landscape architecture and the challenge of climate change*, 2008)

3.4.4. Circulation pattern and Street design

Local Transport Plans:

LTPs must demonstrate consistency with the government's transport objectives, and cover all travel modes, including:

- voluntary or community transport (or its potential) particularly in rural areas
- local strategy for cycling and walking targets
- traffic management and demand restraint
- enforcement of emission standards
- proposals for pilot schemes for road user charging and taxation of workplace parking
- cooperation with major retailers and leisure operators on car access and alternative means of access
- integrated strategy on parking, planning policies and transport powers
- local road accident reduction target
- interchange improvements
- bus-based park and ride schemes and related reduction in town Centre parking or increase pedestrian movement policy
- proposals for capital expenditure on public transport information schemes
- promotion of green transport plans by employers
- integrated strategy for travel to school
- planning and management of the highway network
- strategy for rural transport, and for countryside traffic management schemes
- issues connected with freight distribution
- promotion of social inclusion, including disability issues and extension of bus access for welfare to work
- action on climate change, air quality and noise.

{Source: DETR (1998) Guidance on Local Transport Plans}

Roads management in UK:

Roads in the United Kingdom form a network of varied quality and capacity. UK speed limits are in miles per hour (mph) or use of the national speed limit (NSL) symbol. Some vehicle categories have various lower maximum limits forced by speed limiters. The UK road speed limits control by uses speed guns, automated in-vehicle systems and automated roadside traffic cameras. A unified numbering system is in place for Great Britain, while in Northern Ireland there is no available explanation for the allocation of road numbers.

The Department for Transport is;

- Playing a key role in ensuring that are able to meet the challenges of the future
- Ensuring that policies are sustainable and environmentally sound.

Car ownership is expanding and the Department expects traffic to grow significantly over the next decade. Just building new roads in isolation, isn't a solution so the Government has actively promoted an integrated transport policy - investing heavily in public transport and exploring that—*‘how all modes of transport can be developed to meet rising demand?’*.

Developing new approaches to transport takes time. Many are already in place. More are coming together with proper management of the existing road network, which will be a key step in tackling congestion.

Role of Agencies:

The key agencies involved are the Highways Agency, the Scottish and Welsh Executives, the Northern Ireland Roads Service, Transport for London and Local Authorities.

- The Highways Agency has the main responsibility for managing major roads in England.
- Local authorities look after local roads in their own area.
- In Scotland, Wales and Northern Ireland, individual agencies reporting to the respective regional assemblies take responsibility for major roads.
- In London, Transport for London takes responsibility for a sizeable network of main arterial roads.

Road Network:

Primary Destination: Primary destinations are usually use in cities and large towns, for the high volume of traffic flow in every day. In rural areas, smaller towns or villages may be awarded primary status if located at junctions of significant roads, certain airports, sea ports, bridges and tunnels have been designated as primary destinations.

The status of both primary destinations and roads is maintained by the Department for Transport in combination with the Highways Agency in England and Wales. The concept of primary roads was introduced in the 1960s as part of a national reclassification of roads.

Regional destinations: Regional destinations are commonly used on long distance routes throughout the country alongside primary destinations. They are displayed on signs in capitals

to distinguish them from towns and cities. The boundaries of these regional destinations are not specifically defined and apply to generalized areas.

- North Wales
- Scotland
- South Wales
- The East
- The Lakes
- The Midlands
- The North
- The North East
- The North West
- The South
- The South West
- The West

Local Policy for Parking:

Each local authority should have a clear idea of what its parking policy is and what it should be achieve by it. This applies whether or not an authority is responsible for enforcement. They should appraise their policy and its objectives regularly. When setting and appraising the policy, an authority should take account of the:

- existing and projected levels of parking demand;
- availability and pricing of on- and off-street parking;
- justification for and accuracy of existing Traffic Regulation Orders; and
- accuracy and quality of traffic signs and road markings that restrict or permit parking.

(Operational Guidance to Local Authorities: Parking Policy and Enforcement: Traffic Management Act 2004, Para- 2.10)

Enforcement authorities should also set and regularly appraise the:

- level of compliance with parking controls that they want to achieve;
- level of enforcement necessary to get such compliance;
- penalty charge bands; and
- resourcing and training of parking staff.

(Operational Guidance to Local Authorities: Parking Policy and Enforcement: Traffic Management Act 2004, Para- 2.11)

3.5. Role of the actors and its implementation

3.5.1. Institutional actors- local development framework

‘The provision of national planning guidance from central government to local authorities and property developers to shape urban land-use policy and practice has been a feature of the planning system in Britain since the 1940s. This guidance, however, has not been released in any consistent form and has occasionally been subject to criticism by commentators. While the original role of national planning advice was to provide strategic direction, central

government has modified its planning remit and has recently utilized its land-use obligation to set parameters on detailed planning control and policy matters at the local level. The nature of central government intervention in local land-use matters has therefore changed over time. The current form of national advice in England and Wales is contained within the series of Planning Policy Guidance Notes (PPGs)' (Mark Tewdwr-Jones, 1999).

Planners play an important role in seeking sustainable urban design solutions, including making critical decisions on planning applications. Design decisions in planning have frequently been controversial and criticized. Decisions on the design element of proposed developments are arrived by local planning authorities, using information provided by the applicant/developer, consideration of relevant local and national policy, observation by planners on site, views from the public and statutory consultees, negotiation between developers and planners and finally views of local councilors. This is a complex set of information and ways to clarify and expedite such decisions are needed.

Planning application design statements:

As laid down in PPG1, applicants for planning permission should provide a written statement setting out the design principles they have adopted in relation to the site and its wider context. This helps in assessing the application against design policies, and it requires applicants to think about design in an analytical and positive way.

A design statement submitted with planning applications should:

- explain the design principles and design concept;
- outline how these are reflected in the development's layout, density, scale, visual appearance and landscape;
- explain how the design relates to its site and wider area (through a full site and area appraisal where appropriate), and to the purpose of the proposed development;
- explain how the development will meet the local authority's urban design objectives (and its other planning policies);
- include a popular summary where this would

England Local Planning Authority:

'In most parts of rural England there is a two-tier structure with both

- *county councils* responsible for 'county matters': minerals and waste and also assistance to the regional planning body in preparation of the regional spatial strategy,
- *district councils* (237) responsible for most local government planning functions except where there is a national park authority, e.g. Warwick District Council.

Many provincial cities and a few rural areas have a single-tier structure with

- *unitary councils* responsible for all local government planning functions,
- In the six metropolitan areas of Greater Manchester, Tyne and Wear, Merseyside, South Yorkshire, West Midlands and West Yorkshire (the metropolitan county councils were abolished but the metropolitan counties still exist) there is a unitary structure with
- *metropolitan district councils* responsible for all local government planning functions' (Barry Cullingworth and Vincent Nadin, 2006).

Level	Responsible body	Planning instruments	Description
National	All England Central Government Office of the Deputy Prime Minister (ODPM)	National Planning Legislation and Planning Policy (Circulars and PPSs, Minerals Planning Guidance (MPG) Regional Planning Guidance (RPG) also existed up to 2004, and remain in force until new RSS and Sub Regional strategies come into force. The Planning Inspectorate	Primary and Secondary Legislation and written national and regional Policy Guidance.
9 Regions	Government Offices for the Regions (GORs) Regional Development Agencies (RDAs)	Regional Spatial Strategies (RSS) (Post 2004)	Regional arm of central government in the English regions. Act on behalf of the Minister in planning matters for their region. Responsible for the preparation of RSS.
34 Counties	Elected County Council	Minerals and Waste Local Plans (post 2004) Development Control (minerals and waste)	Responsible for preparation of Minerals and Waste Local Plans
238 Districts	District Council	Local Development Frameworks (Post 2004) Development Control	Responsible for the creation of Local Development Frameworks.
115 Unitary Authorities and Boroughs	Urban areas with a single tier of local government National Parks Authorities The Mayor of London	Unitary Development Plan (Pre 2004 Act) Local Development Frameworks (Post 2004 Act) The London Plan	Responsible for the preparation of Local Development Frameworks and in National Parks National Park Management Plans. In London the Mayor of London is responsible for the preparation of the London Plan

Table 3.1: Summaries the main legislative, policy creation, and development plan responsibilities on England, UK

3.5.2. Public realm

Public participation in environmental decision making and the planning system in the UK has a relatively lengthy history. ‘The first Town and Country Planning Act in 1947 varying degrees of public participation have existed in the UK planning system, although it was not until 1969 that widespread public participation became embedded in the process’(Skeffington, 1969). Public participation in the UK planning systems tends to be based in two areas, which of plan making in the first instance and in the development control process (Thomas, 1995). On the *development control* which deals with the day-to-day processing of applications to the planning authority to obtain permission to develop land, building or make alterations to current developments. In terms of strategic planning this is mainly

achieved through the *development plan*. Both of these elements of the planning system contain within them varying degrees of public participation ranging from neighbor notifications, exhibitions, public meetings, public enquiries through to high court hearings.

‘Common practice in traditional methods of public participation involves the public, or at least those with an interest, attending planning meetings which quite often involves an atmosphere of confrontation. This can discourage participation by an often less vocal majority causing public meetings to be dominated by individuals who may have extreme views. These views may not necessarily represent the wider opinions of local people. Planning meetings often tend to take place in evenings at specific times that can limit the numbers of people who are able to attend. The restricted time and also the actual geographical location of public meetings can further restrict the possibility of widespread attendance. Physical access to such meetings can lead to the exclusion of the disabled, the elderly and infirm as well as those who maybe deaf’ (Richard Kingston,1999).

There are many advantages to a Web-based approach at local, regional and national public participation events. The meetings are neither restricted by geographical location nor time. Access to the information about the issues being discussed is available from any location that has Web access. The information is also available at any time of the day thus avoiding the problems associated with holding meetings only in evenings. The concept of a "24/7" (i.e. 24 hours a day, 7 days a week) access opens up opportunities for more people to participate in public consultations. With a Web-based system the public can participate to make comments and express their views in a relatively anonymous and non-confrontational manner compared with the traditional method of standing-up in front of a group of relative strangers.

3.5.2. Social actors

‘Social actors’ in planning are usually thought of in terms of the organizations, groups and individuals who are actively engaged in the planning arena. They are identified by their participation in the land development and planning processes. These include land and property owners, developers, special interest groups, national government and its agencies, and local authorities themselves (in both their landowning and regulatory capacities). Some organizations have become particularly skilled in presenting their views at both national and local levels. The Home Builders’ Federation, for example, is an important national organization that regularly presents evidence at public inquiries in support of the interests of the house building industry.

Describe the participation of social actors in development phase in below:

3.6. The participation of social actors in development phase

3.6.1. Developers

Government department:

Local Development Frameworks in context:

The development plan is made up of the Regional Spatial Strategy (RSS) which covers the whole region, and is produced in draft by the Regional Assembly, and Development Plan Documents (DPD) produced by local planning authorities within the *local development framework* (Planning policy statement 12, 2008):

Every local planning authority should produce a *core strategy* which includes (Planning policy statement 12, 2008):

- (1) An overall vision which sets out how the area and the places within it should develop;
- (2) Strategic objectives for the area focusing on the key issues to be addressed;
- (3) A delivery strategy for achieving these objectives. This should set out how much development is intended to happen where, when, and by what means it will be delivered. Locations for strategic development should be indicated on a key diagram; and
- (4) Clear arrangements for managing and monitoring the delivery of the strategy.

The production of core strategies should follow the Government's principles for community engagement in planning. Involvement should be (Planning policy statement 12, 2008):

- Appropriate to the level of planning;
- From the outset – leading to a sense of ownership of local policy decisions;
- Continuous – part of ongoing program, not a one-off event, with clearly articulated opportunities for continuing involvement;
- Transparent and accessible – using methods appropriate to the communities concerned; and
- Planned – as an integral part of the process for making plans.

Contextual Issues: Nation and Region

The core strategy should not repeat or reformulate national or regional policy. National planning policy is set out in a series of *Planning Policy Statements*. The local planning authority should be in agreement with national policy and in general conformity with the regional spatial strategy. For example, where growth should take place should follow national and regional policy. This is not the same as reformulating it in different words as “development control” policies and leaving the spatial decision making to the planning application stage. This focus is because the core strategy should be concentrating on devising a delivery strategy to deal with the particular issues which have been identified as of local importance. Plan making resources are scarce and need to be concentrated on those tasks which only the core strategy could achieve – especially the coordination of the delivery of development and the accompanying infrastructure (Planning policy statement 12, 2008).

The role of the planner acting for a developer is to ensure that:

- the developer is aware of his or her statutory obligations and of the desirability of pursuing good practice;

- pre-application contact is made with the local planning authority, with statutory consultants and, where appropriate, with other relevant expert bodies and the public;
 - the developer provides appropriate environmental data for inclusion in the ES and retains qualified environmental specialists to predict and evaluate environmental impacts and to advise on their mitigation;
 - the developer is not asked to provide unnecessary environmental data;
 - the ES is an objective, professionally prepared and presented document which neither over-emphasizes benefits nor understates adverse effects;
 - the non-technical summary is succinct, comprehensible and fair; and
 - Appropriate monitoring of the development is provided for.
- (Ref: Article- 1.10, Environmental Impact Assessment, 2001)

3.6.2. Investors

Investors' perspectives on economic value:

Investors' principal concern was to secure investments which provided,

- above market average incomes
- potential for long-term income streams and/or capital growth
- good quality covenants
- Buildings that have been well constructed or refurbished and, in some cases, open up new market potential.

Most investors also viewed urban design as an important factor in increasing sales and rental values. Along with issues such as access, parking, security, servicing (particularly for IT) and internal environmental control, environmental quality was seen as a key factor in occupier decision-making. The investor originally investment was to generate higher returns and further development opportunities in the future [hence their strong support for the designation of the area as an emerging town center in the Unitary Development Plan (UDP)].

Investors' perspectives on social and environmental value:

Investors generally felt that their developments provided clear social value through their regenerative impact and associated job creation. The social impact of the different design solutions was less clear. Most investors felt that their developments were attractive in themselves and generally responded well in design terms to their surroundings, although integration was not always an clearly express objective.

For example, “the owner/investor at Castle Wharf suggested that the development clearly expressed that how Nottingham was moving forward. Investors at Exchange Quay, Castle Wharf and Waterfront all believed that they had created lively and vibrant places. At Standard Court, the investor felt that an opportunity had been missed, with the arena at the heart of the development doomed to failure because of the requirements of surrounding households and

office users for a quiet environment, but also because of the absence of public conveniences on site, which made special events difficult to manage. The square was regarded as ‘the wrong square in the wrong place’ and therefore as a dead weight around the neck of the investor” (ref: A research project commissioned by CABI and DETR to examine the value added by good urban design,2001).

Whereas most investors felt their developments had a broader public role, at Exchange Quay the message was that:

- people were only welcome if they had specific business there (the research team, for example, were stopped three times on the first visit and needed to get special permission to walk around and take photos)
- connectivity was an issue of guarding the edges of the development rather than one of integration
- only facilities and amenities necessary for the business activities of occupiers were appropriate on the site.

For all investors, key factors influencing economic value included parking and internal environment control, and although it was recognized that these factors had a serious environmental cost it was felt that market realities required their adequate provision. For example, at Exchange Quay, an initial under-provision of parking had held back the letting of space. Ecology was never regarded as a significant concern by investors because they more concern about the profit of the project.

3.6.3. Occupiers

Participation during plan preparation

Statements of Community Involvement (Planning policy statement 12,2008):

- Explain clearly the process and methods for community involvement for different types of local development documents and for the different stages of plan preparation. This needs to include details of how the diverse sections of the community are engaged, in particular those groups which have been underrepresented in previous consultation exercises.
- Identify which umbrella organizations and community groups need be involved at different stages of the planning process, with special consideration given to those groups not normally involved.
- Explain the process and appropriate methods for effective community involvement in the determination of planning applications and where appropriate refer to Planning Performance Agreements.
- Include details of the LPAs approach to pre-application discussions.
- Include the LPAs approach to community involvement in planning obligations.
- Include information on how the planner will be monitored, evaluated and scrutinized at the local level.

- Include details of where community groups can get more information on the planning process, for example, from Planning Aid and other voluntary organizations.
- Identify how landowner and developer interests will be engaged.

3.7. Issues consider for developed the urban projects

3.7.1. Sustainable challenges in urban design

The impacts of the sustainable changes in the UK have been elaborately researched by the UK Climate Impacts Program (UKCIP), a number of forecast scenarios have been established for the coming century based upon different future emission trends. These include:

- Hotter, drier summers
- Warmer, wetter winters
- An increase in the frequency of some extreme weather events
- Rising sea levels

The 2004 Act (s. 39) requires,

‘Bodies responsible for a regional spatial strategy, local development documents or in Wales, the Wales Spatial Plan or local development plan, to ‘exercise that function with the objective of contributing to the achievement of sustainable development’. In doing this they must have regard to national policies and advice contained in guidance issued by the secretary of state or National Assembly for Wales.’

Principles of Sustainable Development for the UK Government:

The 1999 UK Strategy for Sustainable Development identified four central aims:

- social progress which recognizes the needs of everyone
- effective protection of the environment
- prudent use of natural resources
- Maintenance of high and stable levels of economic growth and employment.

The framework goal of the 2005 Strategy, Securing the Future (p. 16) is as follows:

‘The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations. For the UK Government and the Devolved Administrations, that goal will be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment; and a just society that promotes social inclusion, sustainable communities and personal wellbeing. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible. Government must promote a clear understanding of, and commitment to, sustainable development so that all people can contribute to the overall goal through their individual decisions. Similar objectives will inform all our international endeavors, with the UK actively promoting multilateral and sustainable solutions to today’s most pressing environmental,

economic and social problems. There is a clear obligation on more prosperous nations both to put their own house in order, and to support other countries in the transition towards a more equitable and sustainable world.'

3.7.1.1. Sustainable delivery for general approach

In preparing development plans, planning authorities should seek to (Planning Policy Statement 1: Delivering Sustainable Development, 2005)

(I) Promote national, regional, sub-regional and local economies by providing, in support of the Regional Economic Strategy, a positive planning framework for sustainable economic growth to support efficient, competitive and innovative business, commercial and industrial sectors.

(ii) Promote urban and rural regeneration to improve the well-being of communities, improve facilities, promote high quality and safe development and create new opportunities for the people living in those communities. Policies should promote mixed use developments for locations that allow the creation of linkages between different uses and can thereby create more vibrant places.

(iii) Promote communities which are inclusive, healthy, safe and crime free, whilst respecting the diverse needs of communities and the special needs of particular sectors of the community.

(iv) Bring forward sufficient land of a suitable quality in appropriate locations to meet the expected needs for housing, for industrial development, for the exploitation of raw materials such as minerals, for retail and commercial development, and for leisure and recreation – taking into account issues such as accessibility and sustainable transport needs, the provision of essential infrastructure, including for sustainable waste management, and the need to avoid flood risk and other natural hazards.

(v) Provide improved access for all to jobs, health, education, shops, leisure and community facilities, open space, sport and recreation, by ensuring that new development is located where everyone can access services or facilities on foot, bicycle or public transport rather than having to rely on access by car, while recognizing that this may be more difficult in rural areas.

(v) Provide improved access for all to jobs, health, education, shops, leisure and community facilities, open space, sport and recreation, by ensuring that new development is located where everyone can access services or facilities on foot, bicycle or public transport rather than having to rely on access by car, while recognizing that this may be more difficult in rural areas.

(x) Address, on the basis of sound science, the causes and impacts of climate change, the management of pollution and natural hazards, the safeguarding of natural resources, and the minimization of impacts from the management and use of resources.

3.7.1.2. Principles of Sustainable Development in Spatial plan

The new system of regional spatial strategies and local development documents should take a spatial planning approach. 'Planning Policy Statement 1: Delivering Sustainable Development' (2005) describe about the Spatial Plan that:

'Spatial planning goes beyond traditional land use planning to bring together and integrate policies for the development and use of land with other policies and program which influence the nature of places and how they can function. That will include policies which can impact on land use, for example by influencing the demands on or needs for development, but which are not capable of being delivered solely or mainly through the granting or refusal of planning permission and which may be implemented by other means. Where other means of implementation are required these should be clearly identified in the plan. Planning policies should not replicate, cut across, or detrimentally affect matters within the scope of other legislative requirements, such as those set out in Building Regulations for energy efficiency.'

The regional spatial strategies and local development documents that are development plan documents form the framework for taking decisions on applications for planning permission. Decisions have to be taken in according with the development plan and other material. Only policies in plans which can be implemented are get permission from the decisions framework under the Planning and Compulsory Purchase Act 2004.

It is this spatial planning approach which provides the framework for delivering sustainable development. In preparing spatial plans, planning authorities should (Planning Policy Statement 1: Delivering Sustainable Development, 2005):

- (i) Set a clear vision for the future pattern of development, with clear objectives for achieving that vision and strategies for delivery and implementation. Plans should guide patterns of development and seek to manage changes to the areas they cover.
- (ii) Consider the needs and problems of the communities in their areas and how they interact, and relate them to the use and development of land. They should deal not only with what can be built, but also how social, economic and environmental objectives will be achieved through plan policies.
- (iii) Seek to integrate the wide range of activities relating to development and regeneration. Plans should take full account of other relevant strategies and program. The aim should be to co-ordinate urban and rural regeneration strategies, regional economic and housing strategies, community development and local transport plans with development plans. Planning authorities should consult closely with the bodies responsible for those strategies.

3.7.1.3. Design for sustainability

‘Good design ensures attractive usable, durable and adaptable places and is a key element in achieving sustainable development. Good design is indivisible from good planning. Planning authorities should plan positively for the achievement of high quality and inclusive design for all development, including individual buildings, public and private spaces and wider area development schemes. Good design should contribute positively to making places better for people. 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 Policy Statement 1: Delivering Sustainable Development, 2005).

Planning authorities should prepare strong policies on design and access. Those policies should be based on objectives for the future of the area, also understand and evaluation of its present character. Key objectives of the developments are:

- Design are sustainable, durable and adaptable (including taking account of natural hazards such as flooding) and make efficient and careful use of resources;
- optimize the potential of the site to provide development, create and sustain an proper mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;
- respond to their local context and create or reinforce local distinctiveness;
- create safe and accessible environments where crime and disorder or fear of crime does not undermine quality of life or community cohesion;
- address the needs of all in society and are accessible, usable and easy to understand by the planning authorities; and
- Designs are visually attractive as a result of good architecture and appropriate landscaping.

3.8. The sustainable project development methods

The aim of my research is to focus the sustainable issues. For this, in ‘Planning Practice Standard’ I have to promote the objectives of ‘town and country planning’ through the *environmental impact assessment* (EIA) as the main considering issue in planning development methods.

‘The purpose of environmental impact assessment is to ensure that the environmental effects of a proposed development are fully considered, together with the economic or social benefits of the development, before the planning application is determined. EIA is thus an anticipatory, participatory environmental management tool’. (Ref: *Environmental Impact Assessment, 2001*)

The integration of EIA into the design and evaluation process, therefore improves the environmental quality of new development and increases its sustainability by:

- considering environmental issues in preparing development proposals;
- examining alternatives;

- highlighting the environmental effects of proposed developments; and
- Proposing appropriate mitigation and monitoring measures.

Here I analyses the design development method from the guideline of ‘The Royal Town Planning Institute, *Environmental Impact Assessment*, (2001):

3.8.1. Considering alternatives

The consideration of alternatives (including alternative sites, alternative site layouts, alternative processes and alternative phasing of construction) is justifiably considered to be good practice for EIA. If the EIA starts at the stage of site and development process, then environmental matter for practical alternatives can be properly considered. The main alternatives considered should then be outlined in the ES (environmental statement). The best practicable environmental option (BPEO) should be analysed and any variation between the proposed development and the BPEO should be explained. The “do nothing” option (that is, the possibility of not carrying out the proposed development at all) should also be set down.

It is particularly important to justify that, why it was decided to choose the proposed site. The choice of the preferred alternative should involve a comparison of the position and significance of the effects of the ‘alternatives considered’. For the case, if no alternative sites were considered, then the reason is limited option and it should not appropriate for a development method.

3.8.2. Describing the site and proposal

For the process of project development stage it was important to collect all information about the site and surroundings. For some topics, the area under examination may be far greater in position than the specific site of the proposal. In addition, the relation of landscape and ecology it may be necessary to get information over more than one season. If seasonal data are not available for the assessment process then the significance of this data gap must estimate. Survey under different weather conditions can also be important for studies of visual impact and air pollution. Sources of data must be stamen condition. LPAs may ask for specific surveys, if they believe that information necessary for decision- making has been unsuccessful or is insufficiently detailed then it should be taking again.

Details of the development should include (Environmental Assessment Impact, 2001):

- a description of the physical characteristics of the development and its land-use requirements during the construction and operational phases;
- a description of the main characteristics of the production process or other aspects of the development (e.g. nature and quantity of the materials used); and

- an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat radiation, etc.) resulting from the construction and operation of the proposed development.

The full and detailed description of the development necessary, to ensure that it's significant impacts for the development process, decision making stages and monitoring process.

Although not a mandatory requirement, the ES should include a section on how the proposed development accords with environmental policies contained in:

- national planning policy guidance and guidelines (planning policy guidance notes and circulars in England and Wales;
- regional and strategic guidance;
- structure and unitary development plan policies (and any environmental appraisal of the plan);
- local plan policies; and
- Infrastructure program.

The extent to which any relevant environmental standards are adhered to should also be stated.

3.8.3. Forecasting Effect

The purpose of forecasting is based on to explore both direct and indirect links between a development (its siting, construction, operation and decommissioning) and its environment. The objective is therefore to determine, that the changes that are happen to the environment, as a result of a development and to compare these with the future state of that environment in its absence.

For better result, EIA should begin by determining the terms, techniques and assumptions used in the forecasting, analysis and evaluation of potential impacts. Wherever possible, the approach to forecasting and the techniques used should be discussed and agreed by the developer, relevant consulates and the LPA required to undertaking the work.

The choice of forecasting technique will vary with subject matter - and will necessarily depend on the resources available. Computer modeling and probability analysis may be appropriate for air and water quality issues, while graphical presentation may be used to handle cultural and aesthetic issues. Risk assessment techniques should be used if failure of operational systems in a plant could lead to hazards or significant adverse effects. However, complex forecasting techniques are not always better than simple ones.

For forecasting the effect a number of issues need to be taken into account:

- the appropriateness of the technique for the issue being considered;
- the resources available, including time, expertise and money;
- the information required under the EIA Regulations; and
- the robustness of the technique in terms of its characteristics and use (reliability, consistency, etc.).

The nature of the impact should be depending on the duration of the project, the scale of the project. Forecasting can be change for varying degrees of certainty, depending on the adequacy of the baseline and survey data, prior experience and understanding of the processes involved.

While many of the technical forecasting methods employed in EIA require professional expertise, not only controlled by planners, the planner advising the developer has two essential roles in forecasting:

1. co-coordinating the different forecasts and ensuring their relevance to the planning system and the requirements of EIA; and
2. Ensuring that the forecasting methods used, and the impact forecasts themselves, are comprehensible to the lay-person.

3.8.4. Determining the significance of effects

It is important to find the difference between objective reporting of the nature, extent and size of the physical changes, which are predicted to happen, and the quality of the effect on natural systems, man-made artifacts, or human interests and concerns. The especially effects for a development may be international or local, adverse or beneficial, temporary or permanent, intermittent or continuous.

To estimate the result of the predicted effects may be based on scientific criteria; on comparison of the predicted changes among national and international environmental quality standards and thresholds; or on interpretation of planning and other environmental policies. In all cases, whether decisions are made on quantitative or qualitative grounds, value judgments are required. The ES should indicate how the results have been interpreted and the methods used to determine the outcome. But for the LPA, to reach its own evaluation of the overall result and determining the planning application. The judgments of planning officers are important to differ from those of developers and their consultants.

3.8.5. Mitigating and enhancing environmental effects

In some cases, the predicted impacts are not fulfilling the environmental quality standards or, adopting the relating principle. These conditions aware for the uncertain reference to the fact of the predicted effects, effective moderation should be adopted.

Developers and planning authorities should investigate for minimizing critical effects and enhancing all beneficial effects. The key to achieving this in early development process from consultation between all parties. Potential mitigation measures should be considered during impact perceptions task.

‘Making mitigation measures an integral part of the initial design phases provides opportunities to ‘design out’ or reduce effects. The act of forming corporation of mitigation measures at a later stage may not be possible. On design development stage mitigation impacts should be continually re-evaluated to check that it will still be effective. Dialogue between authorities,

developers and consultates (including local communities) will help to understanding of the practical situation and limitations of mitigation. Environmental specialists, as members of the design team, should advise developers on appropriate mitigation measures. LPAs should advise by independent specialists on best practice mitigation methods for sensitive environments (eg. ecological impacts in protected areas)' ('The Royal Town Planning Institute, Environmental Impact Assessment, 2001).

Mitigation measures to the most significant effects, where the development would be unacceptable without them, and those that protect or enhance environmental capital, focus on negotiation and planning conditions or obligations, such as:

- practicality (i.e. implementable by, or on behalf of, the developer);
- cost and environmental benefit gained (including the impact of the mitigating measure on the environment, if any);
- requirements of other legislation (e.g. pollution and noise controls); and
- ability to monitor and enforce mitigation measures through planning conditions or obligations.

3.8.6. Preparing an accessible environmental statement

The style and approach are presentation of the ES should consider that it is understandable by the general public. The ES should not contain any meaningless technical statement or not be include over- long technical data and calculations that can only be understood by experts. Technical words should always be explained, where their use is unavoidable, and the ES should be written in is meaningful to planning officers, elected members and the general public. The ES contain discussion of all important environmental impacts, and the mitigating measures needed to deal with them. A readable ES should be relatively short, typically less than 100 A4 pages. Additional information can be provided in separate technical appendices. (The Royal Town Planning Institute, Environmental Impact Assessment, 2001).

An important aspect of the EIA Regulations is the requirement that the ES should contain a non-technical summary. This should ideally be no longer than 10 pages of easily readable generally use text and illustrations. It should include information on the development, the main environmental impacts, and the mitigating measures. The summary - which should be made available as a separate document - should also state clearly the price of the ES, where it can be bought and where the full document is available for the public to consult

3.8.7. Reviewing the environmental statement

Review of the ES added the planning application by the LPA plays an important part in the overall environmental impact assessment. This process can be divided into four parts:

1. technical review of the ES – undertaken by in- house experts or by consultants retained by the LPA to provide specialist advice;
2. response from statutory consultates and local interest groups and individuals;
3. analysis of requests for additional information required from the developer and determining what should be requested; and

4. review and analysis of responses to any additional information supplied or modifications suggested.

The technical review of the ES will give an indication of online form fill up, but it is not mandatory. Review may involve at the fine detail of sampling techniques or at the precise methods used. It will also involve establishing whether adequate information about the development, the processes to be undertaken, the production and disposal of waste, air pollution, the site and the impacts has been provided. The planner's contribution lies in coordinating and evaluating the comments of the technical experts, the consultees and the interest groups and in ensuring that sufficient reliable information is available to enable a decision to be made.

When a planning application with an ES is submitted to the LPA, the application must be advertised and copies of the statement available to the general public and consultees. It is generally a good idea the copies of the application in a local library and at the LPA offices.

3.8.8. Value of consultation

Provide the all information about developments to allow well-informed comments and decisions to make is a key role of planners. Developers should understand about proposals and the benefit of the areas where effects can be consider early in the design process, without the proposal may be unacceptable. Consultation should be continuous. The key stages are:

- developer consults LPA on the need for an assessment (screening);
- developer consults LPA and statutory consultees, other appropriate expert bodies and the public on the content of the assessment, including relevant alternatives (scoping); and
- LPA consults statutory consultees, other expert bodies and the public on the ES.

For particularly major developments local exhibitions and other forms of communication (e.g. newsletters) should be encouraged to meet concerns and to enable all stakeholders (e.g. individuals, amenity and civic groups, non-governmental organizations, etc.) to participate.

The level of detail covered at each stage will vary. For example, during screening, environmental problems, potential hazards, particular local issues and the beginning and criteria for EIA, under the Regulations and Circular should all be considered. During consultations on alternative sites, developers should provide sufficient detail to allow significant effects to be identified for each option.

Agreement between the developer and the LPA in agreeing the nature and purpose of each stage of consultation, and keeping to a reasonable timetable for responses, is important to build trust and confidence in the consultation process. Following initial consultations, the developer will have considerable work to undertake before an application and ES can be lodged. Used effectively, this informal pre-application consultation period can resolve many of the issues concerning a development, save money and time, and lead to favorable publicity. LPA delays

in responding to a developer's consultation requests may prompt the beginning of the formal application process before all necessary issues have been given proper consideration, because of time pressures on the developer to complete the project' ('The Royal Town Planning Institute, Environmental Impact Assessment, 2001).

Advice from consultees should be in writing and all comments, including those from the public, should be made available to the developer and held on the publicly available application file. The results of consultation should be continually fed back into the design process and used to inform decision-making.

3.8.9. Evaluating the environmental information and decision-making

Some important adverse impacts may remain after mitigation, in the stage of decision making it is considered carefully. The environmental information is a material consideration, but the relationship of the proposed development to other planning considerations (including the provisions of the development plan).

The planning officer has a crucial role in the preparation of a planning committee report which should summarize and evaluate the planning issues and the environmental information for the scheme, and contain a recommendation to permission or refuse planning permission.. The LPA must state in writing that the environmental information has been considered in reaching the planning decision and give reasons for approval for permission. The period for determining applications where an EIA is involved is 16 weeks.

3.8.10. Monitoring implementation

Once planning permission has been granted, the developer normally has five years within to complete the development. The quality of the ES and of the planning decision may be weak if proper monitoring is neglected. Effective monitoring following implementation not only allows developers to show the demand but gives assurance that environmental standards are being safeguarded and encourages the improvement of prediction techniques and mitigation measures.

The LPA should enter into discussions with the statutory and other relevant environmental bodies and with local communities to confirm the most appropriate mechanisms, systematic way, planning conditions or obligations, and to ensure that mitigation or monitoring measures are implemented.

'Some elements of the assessment may only be possible once development commences: for example, provision for further archaeological investigation/ recording during construction. Others require a degree of flexibility to allow modifications during development (e.g. arrangements to provide alternative habitats for wildlife). LPAs should ensure that they recognize the inherent uncertainties in environmental management and do not become

unnecessarily prescriptive in terms of the requirements placed upon developers. Rather, LPAs should promote a performance standard approach to control (e.g. specify the level of environmental performance required but leave the means up to the developers). This approach, however, requires an holistic perspective, since a performance specification on noise may result in visual intrusion from, for example, acoustic fences, if design requirements are not also specified.’(Environmental Impact Assessment, 2001)

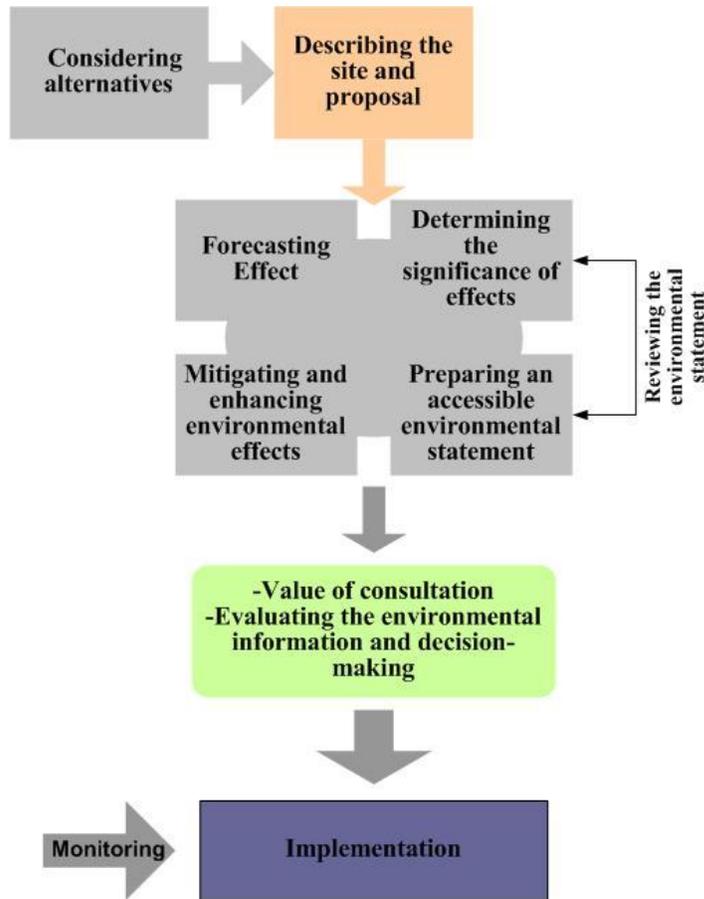


Figure 3.5: The sustainable project development methods

Chapter 4: Contemporary urban design in Liverpool

Case Study:

Liverpool City Center development, United Kingdom

4.1. The character of the city:

‘Liverpool is a city and metropolitan borough of Merseyside, England, along the eastern side of the Mersey Estuary. It was founded as a borough in 1207 and was granted city status in 1880. Liverpool is the fourth largest city in the United Kingdom (third largest in England) with a population of 435,500, and lies at the center of the wider Liverpool Urban Area, which has a population of 816,216’ (Wikipedia, May 2011). “Liverpool has been a laboratory for almost every experiment and innovation in modern policy and planning. Between 1967 and 2000 the city played host to a Community Development project; Education priority areas, inner areas study; area management; industrial and commercial improvement areas, one of the first general improvement areas in the country, more housing action areas than any other city, an inner area partnership, a metropolitan structure plan, the Merseyside development corporation, an enterprise zone, a ‘Ministry for Mersey land’, a ‘militant’ labor council at war with Tory government, estate action, city challenges, single regeneration budget projects, an urban regeneration company and many initiatives generated by central government, local government and other agencies from the public, private and voluntary sector”(Chris Couch,2003).

4.1.1 Why Liverpool?

I select the Liverpool city, because it is a lively city that adapts the contemporary changes and problems. Designation as European Capital of Culture for 2008 marked another stage in the city’s transformation (Impacts 08 Team, 2009). Planning policies for the Liverpool area focus on an urban regeneration strategy and complementary protection and enhancement of the natural and built environment. “Impacts 08” commissioned declare Liverpool ‘European Capital of Culture, for 2008 base from some finding, these are as following (Impacts 08, April 2009, LAS 2008 Phase 2 Report):

Liverpool 2008: Main Objectives:

- world class programs of artistic events
- re-position the city sustainable
- template for European city regeneration
- re-branding of Liverpool as 'The World in One City' threatens to transform the real city into culture as economic development

Key findings about Liverpool:

‘Liverpool’s Center is fundamental to the economic growth of the Liverpool City Region. It is the major center for the metropolitan area and forms the strategic hub in terms of its transport infrastructure; its educational establishments; its cultural, retail, business, leisure and tourism assets; and its financial and professional services. Liverpool’s status as European Capital of

Culture 2008 has brought significant boosts to tourism as well as providing a lasting legacy in terms of investor confidence and sustained economic growth. The fortunes of the surrounding inner area are crucial to the delivery of sustainable economic and social benefits in the City Region. This area is one of significant challenges and opportunities for both housing and economic development, particularly in relation to the Mersey Ports and the New Heartlands Housing Market Renewal Pathfinder scheme. It is also home to part of the Mersey Waterfront Regional Park, which provides valuable green infrastructure at the heart of the City Region' (Impacts 08 Team, 2009).

- Overall, survey respondents continue to display pride and confidence in Liverpool, rating it equal to or better than other UK cities across a range of indicators.
- Levels of confidence in the city's future have improved, particularly in the most disadvantaged neighborhoods surveyed.
- Respondents indicated an increased level of concern about crime in comparison to the first survey.
- High levels of interest and enthusiasm for cultural activities identified in the earlier 2007 survey have remained steady during 2008.
- Participants in the research identified a clear set of drivers for cultural participation: the presence of local champions to promote cultural activity; engagement in community based cultural activities as an introduction to accessing venues in Liverpool city center; the perceived 'family friendliness' of events and venues; and the opportunity to be active participants rather than spectators.
- Barriers to participation included: cost; availability of transport and the Liverpool city center location of many events and venues; inadequate marketing; and lack of suitability for children. Lack of interest also emerged as a significant factor.
- Reported levels of confidence in understanding what there is to do in Liverpool, and the Liverpool '08 program', possibly in response to the scale of activity and the opening of new venues and shopping facilities.
- Respondents rated Liverpool as better than or equal to other British cities across all indicators, an improvement since 2007 when shopping facilities were considered to be worse than in other cities.
- Respondents were more likely to describe the best things about of regeneration impacts, rather than cultural impacts on the city.

Planning policies for the Liverpool area focus on an urban regeneration strategy and complementary protection and enhancement of the natural and built environment. Liverpool and Northwest England provide abundant opportunities to evaluate a wide range of urban and rural planning issues, policies and techniques (Impacts 08 Team, 2009). Innovative planning policies and new ideas are often tried out in Liverpool, before being applied elsewhere.

Improving environmental performance is also recognized as a key part of delivering sustainable communities and underpins the Liverpool City Region policies. Well-managed green space and a high quality local environment play an important part in the quality of life experienced by people within all of the City Regions' neighborhoods including those which are

most deprived. The protection of environmental assets will include the assessment, avoidance and mitigation of the potential effects of development on sites of international importance for nature conservation outside the region, such as coastal and inland waters in Wales.

The Regional Centre and Inner Areas of Liverpool City Region Policy

The Regional Centre is the primary economic center of the Liverpool City Region and plans and strategies should support and enhance this role by (Chris Couch, 2003):

- Focusing appropriate commercial, retail, leisure, cultural and tourism development within the Regional Centre developing its role as the primary retail center, main employment location and primary economic driver of the City Region;
- Outside areas of housing market renewal, providing for proposals and schemes for residential development in the Regional Centre where they are part of mixed use employment schemes that comprise a good range of housing sizes, types tenures and affordability and where they contribute to the vitality and viability of the Regional Centre;
- Expanding the knowledge economy within the regional center particularly by maximizing the research and development roles of the Universities and delivering knowledge nuclei sites and the expansion of professional services.

They should focus residential development in the Inner Areas adjacent to the Regional Centre in order to secure a significant increase in population and to support major regeneration activity. This will entail:

- maintaining and enhancing the roles of Birkenhead and Bootle to provide community facilities, services and employment;
- the development of the New Heartlands Housing Market Renewal Pathfinder to revitalize housing in Liverpool, Sefton, and Wirral through comprehensive area based regeneration schemes;
- supporting the development of the Mersey Ports and the maritime economy;
- Sustaining investment in the Mersey Waterfront Regional Park; and
- Providing for employment within the inner areas. The emphasis will be on providing a good range of quality housing in the inner areas in terms of size, type, tenure and affordability with a high quality environment and accessible local facilities and employment opportunities.

Some city facts (Liverpool city Vision 2008) are described below:

- Liverpool is the economic hub of a seaboard city region of 2,000,000 people, 70,000 businesses and 1,000,000 jobs.
- The average annual GVA (gross value added) growth rate in Liverpool between 1995 and 2005 was 5.2%, above the national average.
- Liverpool John Lennon Airport is the fastest growing regional airport in the UK and was voted 'UK Airport of the Year 2007'.
- Liverpool's Business District has seen the development of 1.3m sq. ft. of Grade A new and refurbished space in the last 5 years.

- Governor’s £1 billion retail-led Liverpool One development is one of the largest of its kind in Europe
- Peel is planning a £5.5 billion waterfront development to compare with cities such as Dubai, Vancouver, New York and Shanghai.
- Liverpool’s Knowledge Quarter has world leading businesses in health and life sciences and generates £1 billion a year to the city’s economy.
- Liverpool’s Science Park is the newest and fastest growing in the UK.
- Liverpool’s School of Tropical Medicine is a world leader and has recently expanded with £25m funding from the Bill Gates Foundation
- Liverpool City Region has one of the highest student retention rates in the UK, with 6 out of 10 students staying in employment in the city

4.2. Brief discussion about the City design tools

‘Towards a sustainable city development practice means generating a better quality of life, for improving local environmental conditions for local people and future generations’ (WCED - World Commission on Environment and Development, 1987).

From these we have to understand the moral consideration for city development. In present, public open spaces forms one of the major land use components of the City including, green belt and open water. ‘Liverpool enjoys a wealth of fine architecture characterized by a large number of conservation areas and listed buildings. The main industrial areas within the City are the Waterfront, docks and hinterland, Speke/Garston, the Eastern Corridor and Gillmoss/ Fazakerley/ Aintree. Nevertheless, declining port related activity over many years has resulted in increasing amounts of vacant land within the City, with particular concentrations in the North Docks, Speke/Garston, Edgehill/ Wavertree/ Toxteth and the City Centre. Much of this land (over 400Ha) is derelict. Housing and residential areas represent the largest single land use in the City comprising over 200,000 dwellings’ (Liverpool city council, 2002).

The principles behind the council’s vision for good design of new buildings and the spaces around them should be clear in the Plan. It should include their relationship to the existing built environment and especially to the heritage of the City. The scale, density, height, massing, siting, layout, hard and soft landscaping and access to proposed development should be addressed by policies. However good design is based not on the application of rigid design standards but on an understanding of how places work. New development should not be stifled by over-prescriptive policies. A creative approach to design will allow for buildings that provide new visual interest. The government’s document “By Design: Towards Better Practice” (2000) provides national advice in this respect and is supplemented by the City’s own Urban Design Guide (2002), which sets out principles of good design that apply to all developments across the City.

Liverpool Urban Design Guide:

The document lists seven principles identified by the government and the Commission for Architecture and the Built Environment as key components of attractive areas:

- **Character** - places with their own distinct and successful identity,
- **Continuity and enclosure** –streets and public spaces are coherently defined and private spaces clearly distinguished
- **A quality public realm** – public spaces and routes that are attractive, safe and well maintained
- **Ease of movement** - places that are easy to get to and move through, are integrated with transport networks and put people before traffic
- **Legibility** - places that have a clear image and features that make them easy to understand
- **Adaptability** - places that can evolve easily
- **Diversity** - varied environments offering a range of compatible developments, opportunities and experiences

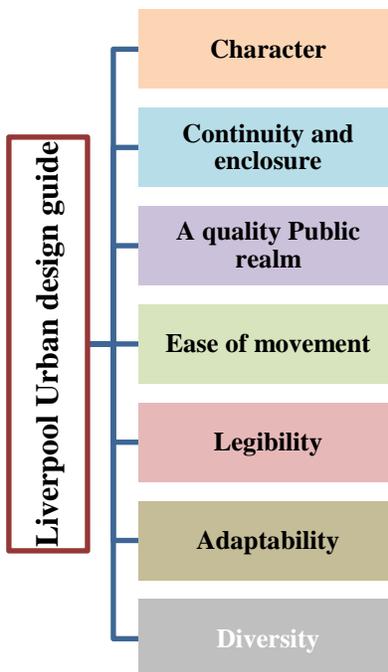


Figure 4.1: Liverpool Urban design character

‘Each of the themes from the design guide could be a design goal for the UDP, put into new UDP policies and supported, where necessary, by Supplementary Planning Guidance. For design objectives to be effective, proposals need to be based on a good understanding of the character of their surrounding areas. Development will be sought that respects, complements and contributes to the character of its surroundings, achieving a “fit” with the wider townscape.

There will be a place for well-designed modern buildings in a historic setting. Design will be particularly important in landmark buildings and a policy approach may be needed for tall buildings. Good design is not just about buildings, but should be seen as encompassing the wider public realm. The UDP could provide guidance on the need for landscape or public realm improvements in association with new developments, or a policy to secure public art with certain types of development.’ [Liverpool Unitary Development Plan (UDP), adopted by the City Council on 2002].

4.2.1. National Planning Guidance and Local plan:

National Planning Guidance (PPG1) provides for the control of design matters. Applicants for planning permission should be able to demonstrate how they have taken account of the need for good design with regard to policy and to guidance.

The level of justification needed should relate to the scale of the proposal. Major developments should include a short written statement of the design principles followed, along with illustrative material in Plan and elevation and the most complex might require thorough site appraisal and the production of a master plan. Development proposals must not cause unacceptable harm to the character and appearance of an area. Within areas of distinctive character, development will only be permitted where it will reinforce this character. Good design seeks to minimize detrimental impacts on people nearby. Developments that fail to consider their neighbors represent poor design. Such issues must form part of the design process for all proposals, from the largest scheme down to a simple house extension.

National planning policy prepared by government is found in a series of documents called Planning Policy Statements(PPS) and in some instances in older Planning Policy Guidance Notes (PPG). Planning Policy Statement 1 "Delivering Sustainable Development" published in 2005 sets the overall principles for the whole planning system in providing a positive framework for sustainable economic growth. Key amongst these principles are:

- Bringing forward sufficient attractive land to meet expected needs for housing, business, retail, leisure and recreation, focusing development in locations accessible by sustainable modes of transport (particularly existing centers, to support their continuing vitality and reduce the need to travel)
- Improving the well-being of communities through high quality, mixed use development
- Addressing environmental challenges, including climate change, waste management and use of natural resources, habitat protection/biodiversity, minimizing pollution and protecting important built and natural features.

‘**The current plan** contains a policy defining environmental improvement corridors. This policy has had a mixed effectiveness across the City, but if carefully phrased and applied, could help promote the City’s image by securing a better design and landscaping. The City Council currently has a series of 11 Supplementary Planning Guidance Notes (SPG), providing additional detail on the manner in which the Council wishes to see particular design issues addressed. It is expected that additional SPG may be required and the content of many of the

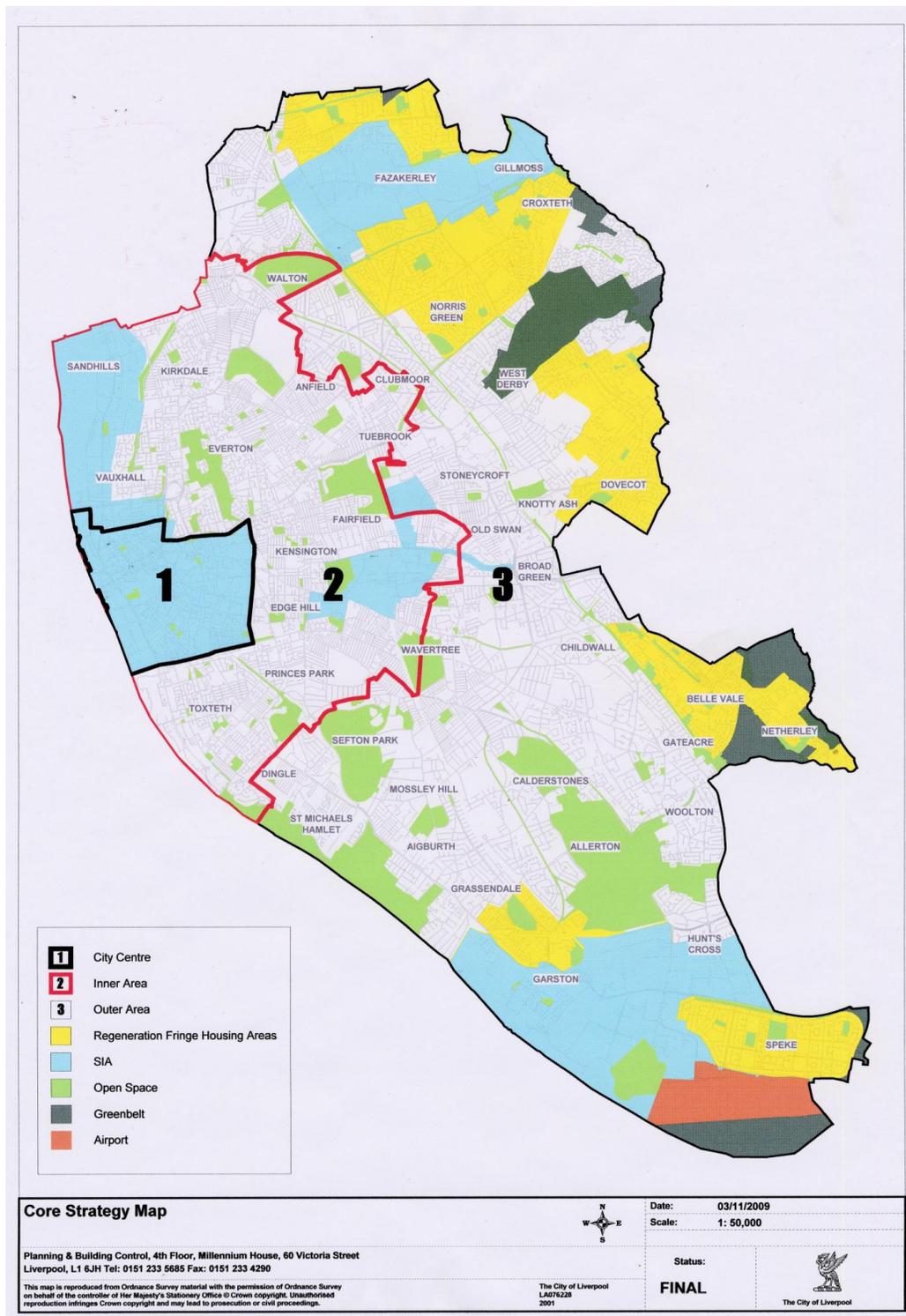


Figure 4.2: Core Strategy Map

existing guidance notes will be updated. Again, it is expected that weight will be afforded to such SPG through consultation' [Liverpool Unitary Development Plan (UDP), adopted by the City Council on 2002].

Local Plan and sustainability:

The Plan and design policies must support the overall approach of seeking more sustainable development. Design policies can promote conservation of:

- energy,
- resources, and
- land.

Policies could be set out in the Plan to support energy conservation, such as the incorporation of energy efficiency measures in buildings including better insulation, or solar power. To conserve resources materials, and indeed buildings, should be reused wherever possible and new buildings should be of a high quality as the more satisfied building users are, the longer a building will remain in service [Liverpool Unitary Development Plan (UDP), adopted by the City Council on 2002].

Sustainable drainage systems (where buildings recycle water and runoff can be part absorbed by the landscape) are also an example of good environmental practice in design. Increasing the density of development reduces demand for Greenfield land and increases the viability of public transport services and walking/cycling. Planning guidance for housing now advises that, 'densities of less than 30 dwellings per hectare should be avoided'. At higher densities good design becomes even more significant: sound insulation, privacy arrangements and quality open space will all play a part in creating an attractive environment for residents.

'Good design is also the key to the promotion of a more flexible approach to mixed-use development. UDP policies could support an integration of residential and commercial uses as advised by planning guidance. Mixing uses across areas can reduce the need to travel and improve the vitality of areas during the day or evening. Safeguards will be needed however to protect residential amenity' [Liverpool Unitary Development Plan (UDP), adopted by the City Council on 2002].

4.2.2. Land use planning

The land use policy of Liverpool maintains zones (Liverpool Local Environmental Plan 2008), such as:

- Rural Zones - Primary Production, Rural Landscape, Rural Small Holdings
- Residential Zones- General Residential, Low Density Residential, Medium Density Residential, High Density Residential, Large Lot Residential
- Business Zones- Neighborhood Centre, Local Centre, Commercial Core, Mixed Use, Business Development, Enterprise Corridor
- Industrial Zones- General Industrial, Light Industrial, Heavy Industrial

- Special Purpose Zones- Special Activities, Infrastructure
- Recreation Zones- Public Recreation, Private Recreation
- Environment Protection Zones- National Parks and Nature Reserves, Environmental Conservation, Environmental Management
- Water way Zones- Natural Water ways

There are some difference and similarities comparing land use plan theories and Liverpool practice. According to city character the tool was modify and moderate for serve the best use. Zoning regulate the space for use, shape and size, also define the space for public or private uses. These are usually passed by local authorities. Zoning is the mark as a pollution control technique. As urban writer Jane Jacobs wrote years ago, *“The notion that reek or fumes are to be controlled by zoning and land sorting classifications at all is ridiculous. The air doesn’t know about zoning boundaries. Regulations specifically aimed at the smoke or reek itself are to the point.”*

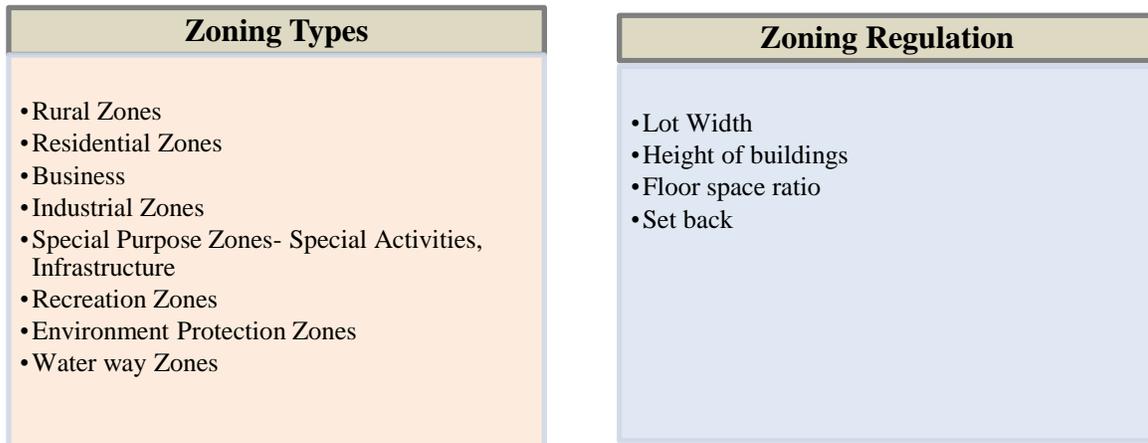


Figure 4.3: Liverpool Zoning policy

Zoning regulates that, how intensively we could use our land. Regulation control in the location of residential, commercial and industrial development in the city or in designated mixed-use developments use for fixed the maximum height, set back, open space area and cover area (Dwight Merriam, 2004). For understand the practical guideline I illustrate the Liverpool city’s ‘Liverpool Local Environmental Plan 2008’ principal development standards of zoning in following:

1. Lot Width:

Minimum subdivision lot size.

The objectives are as follows:

- To ensure that lot sizes are consistent with the desired residential density for different locations,
- To ensure that lot sizes are able to accommodate development that is suitable for its purpose and consistent with relevant development controls,
- To prevent fragmentation of land which would prevent the achievement of the extent of development and nature of uses envisioned for particular locations,
- To minimize traffic impacts resulting from any increase in the number of lots on classified roads,
- To minimize any likely impact of subdivision and development on the amenity of neighboring properties,
- To ensure that subdivision reflects and reinforces the predominant subdivision pattern of the area,
- To ensure that lot sizes allow buildings to be sited to protect natural or cultural features including heritage items and retain special features such as trees and views.

2. Height of buildings:

The objectives are as follows:

- To establish the maximum height limit in which buildings can be designed and floor space can be achieved,
- To permit building heights that encourage high quality urban form,
- To ensure buildings and public areas continue to receive satisfactory exposure to the sky and sunlight,
- To nominate heights that will provide an appropriate transition in built form and land use intensity.

3. Floor space ratio:

The objectives are as follows:

- to establish standards for the maximum development density and intensity of land use, taking into account the availability of infrastructure and the generation of vehicle and pedestrian traffic,
- to control building density and bulk in relation to the site area in order to achieve the desired future character for different locations,
- to minimize adverse environmental effects on the use or enjoyment of adjoining properties and the public domain,
- to maintain an appropriate visual relationship between new development and the existing character of areas or locations that are not undergoing, and are not likely to undergo, a substantial transformation,
- to provide an appropriate correlation between the size of a site and the extent of any development on that site,
- To facilitate design excellence in the Liverpool city center by ensuring the extent of floor space in building envelopes leaves generous space for the articulation and modulation of design.

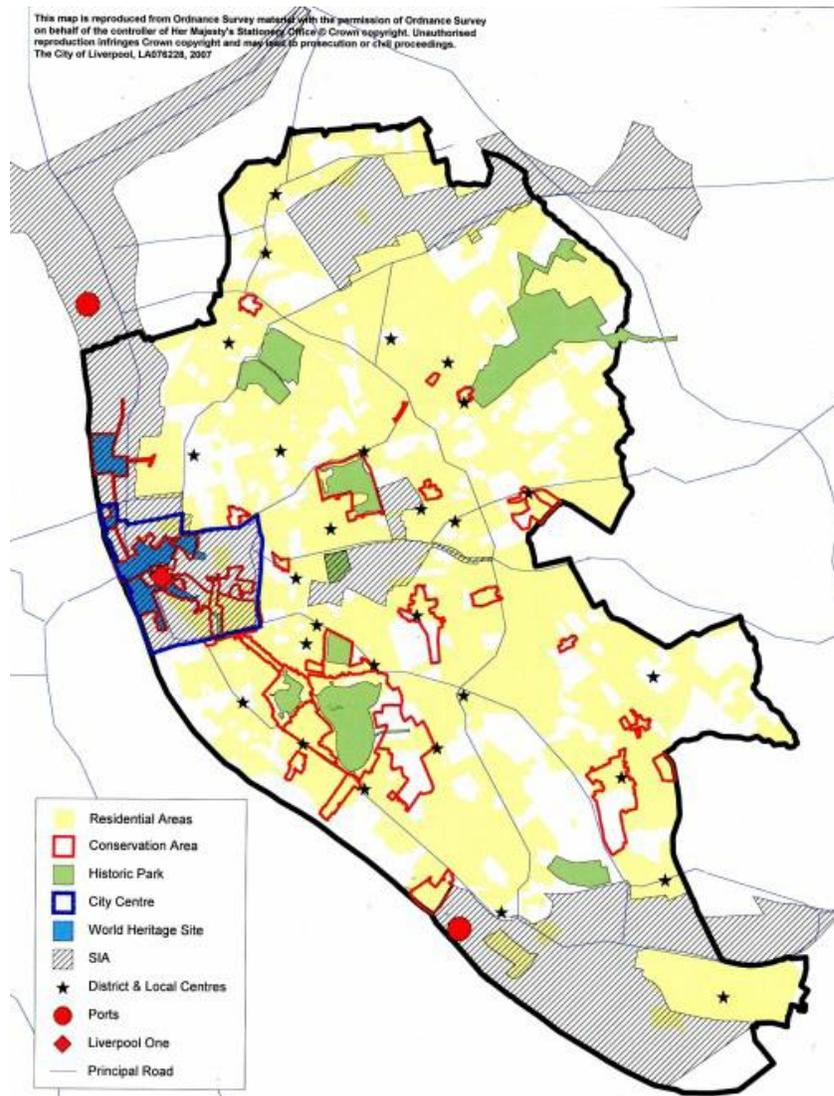


Figure 4.4: Liverpool city built environment features
(Liverpool City Council Core Strategy Preferred Options Report, February 2008)

4. Set back:

Building line or setback means the horizontal distance between the property boundary and other stated boundary (measured at 90 degrees from the boundary) and:

- A building wall, or
- The outside face of any balcony, deck or the like, or
- The supporting posts of a carport or verandah roof, whichever distance is the shortest.

To create a unifying effect for a number of freestanding buildings, the buildings should be aligned,

- 1) From the street,
- 2) To each other and
- 3) To other existing surrounding development.

Setback lines are minimum requirements for the location of buildings away from lot line. Build-to lines are lines upon which a building must be built. Most urban design regulations include build-to line regulations rather than setbacks. As with height, various elements of a design may have different setback or build-to requirements. While ground floors may have larger setbacks to accommodate sidewalk space, upper stories may allow for a lesser requirement, providing an overhang to allow for more space.

4.2.3. Regeneration planning approaches

Regeneration strategy for Sustainable development of Liverpool:

The word ‘regeneration’ means generate again or improve the moral condition. “Strategy” means long time policy. A design-led approach to regeneration can deliver significant benefit to the community and make a difference physically, economically and socially improvement. It has been suggested that poorly designed urban environments contribute to and can be directly related to a poor quality of life. In addition, the negative effects of urban environments which are badly designed are more likely to impact on city development, regeneration strategy improve the condition from better policy.

Creativity and creative thinking is an aspect which has been underutilized in many cities, particularly in the UK, when approaching urban regeneration. In an interview with the authors, architect David Mackay (2008) advocated, the thoughtful design of places and avowed that individual buildings did not make a city and more thought had to be put into the overall creation. Architect David Chipperfield (2006) express the insensitive architecture; ‘we see nowadays and asserts that many buildings regretfully have no dialogue with their surroundings and neglect the history of the environment which they inhabit’. He continues to state that what we call regeneration has simply become an exercise in building for maximum profit and attempting to attract the attention of the media.

Main objectives of the Regeneration policy for implementation in Liverpool:

Themes for a More Sustainable Liverpool (Liverpool city Vision 2008):

- Resources including energy are used efficiently and effectively and waste is minimized.
- People live in safe, clean, pleasant and healthy environments.
- Everyone has access to the skills, knowledge and information.
- Access to facilities, services, goods are available to all
- Places, spaces and objects combine meaning, beauty and utility; settlements are human in scale and form;

- The diversity of nature is valued and protected
- Opportunity for culture, leisure and recreation are readily available to all.

Intregrated planning deliver:

- A high quality safe urban environment; A higher concentration of public green space, parks and mature trees
 - Rich mix of existing land uses and townscape characters, Presence of major and diverse cultural institutions - theatres, universities and the two outstanding Cathedrals
 - Exploit the city center’s rich historic character; be a benchmark for the next generation of international city center regeneration; large areas of fine architectural heritage and numerous listed buildings
 - Become a world class tourist destination; become a premier national shopping destination; create a quality lifestyle; provide a welcoming experience; improve Liverpool’s European image; create an effective and efficient mechanism to deliver the Vision.
 - To improve the connectivity of the city; to promote community engagement; to reinforce city communities and to encourage business development.
- (Information adapted by “The regeneration of Liverpool city center 1999 – 2008”)

4.2.4. Action plan for City development

Urban design quality:

All new development and conversions of existing buildings and spaces should have a positive relationship with the physical, social and environmental context of the City and ensure a high quality urban environment. The main objectives are:

- Delivering high quality architecture;
- Protecting the City's historic fabric and contributing positively towards its identity and character;
- Improving the public realm and providing for public and private spaces that are clearly distinct and contribute to continuity and enclosure;
- Contributing to improvements in safety and the reduction of crime by enhancing natural surveillance, providing active street frontages, and ensuring appropriate enclosure and overlooking of public spaces;
- Supporting increased permeability, strengthening the linkages between places and contributing to a well defined movement network particularly in relation to walking, cycling and access by public transport;
- Ensuring that buildings and spaces can adapt to changing environmental, social and economic circumstances, particularly climate change;
- Creating variety and choice to support mixed communities, develop the identity of a place and ensure that all new developments are accessible to all; and

- Supporting improvements to air and water quality through good quality landscaping which can increase biodiversity.

The following principles are proposed for specific circumstances in action plan:

Residential Environments:

New residential developments should follow the standards set out in the Code for Sustainable homes and create adaptable residential environments that can accommodate changing needs easily, taking into account ‘Building for Life’ criteria and create places of distinctive character and legibility. Roads, parking and pedestrian routes should be integrated, safe and reflect the needs of the community and the environment.

The Quality of Open Space:

New development should contribute towards improving and managing quality open spaces. Multifunctional spaces should be created by including opportunities for both active and passive uses, as well as supporting those natural processes that characterize the space. Public spaces should benefit from a strong relationship with the surrounding built environment by designing for active frontages and natural surveillance.

Improving the Quality of Local and District Centers:

New developments in or adjacent to centers should be well integrated with the existing centre by respecting the building line of the existing urban environment and, where appropriate, building up to the edge of the cartilage, providing for linked trips to the remainder of the centre and contributing towards improving the environmental quality of the center.

(Information adapted by “Liverpool City Council Core Strategy Preferred Options Report, 2008”)

4.3. Application field

4.3.1. Liverpool town planning

The Development Policy Plan for 2015 of Liverpool is the guide for community land use decisions. It provides a vision for the future of Liverpool Township for future Township officials to follow. The Plan consists of goals, objectives and recommendations. The goals and objectives are described below (“Liverpool township development policy plan, planning for 2015, 2005):

Goal 1: To preserve and protect the quality of the natural environment in the Township.

Objectives:

- A. New development, structures or land use shall be regulated in a floodway or designated flood plain as defined by the designated Flood Plain Administrator and current FEMA (Federal Emergency Management Agency) regulations.

- B. The extension of sewer and water may be accommodated so that the natural capabilities and quality of the environment are maintained.
- C. The location and design of new developments shall be such as to preserve or enhance natural water courses and not adversely affect water run-off and quality.
- D. Preserve open space in conjunction with future development.
- E. Continue to evaluate acquisition of Parkland. Evaluate potential areas for acquisition of open space and/or parkland. Continue to improve existing parkland.
- F. Provide for the quiet enjoyment of clean, non-obnoxious air.

Goal 2: To promote the rural atmosphere of the Township while providing for balanced growth.

Objectives:

- A. Encourage the rural look of the Township in conjunction with future development.
- B. Encourage the use of natural and man-made screening or features to retain the rural atmosphere.
- C. Provide for effective use of backlands.

Goal 3: To enhance the downtown area.

Objectives:

- A. Work to develop a solution to the parking problem in the downtown area.
- B. Maintain multiple uses of land in the downtown area. The multiple uses are limited commercial, residential, institutional and public facilities.
- C. Create a zoning text for a “Downtown Mixed Use District”.

Goal 4: Accommodate various types of housing and services to meet the needs of the residents.

Objectives:

- A. Evaluate the housing needs of the aging population.
- B. Evaluate the location of housing in the industrial and manufacturing district.

Goal 5: To provide for a structured mix of land uses which avoids conflicts but increases the economic vitality of the Township.

Objectives:

- A. Commercial development shall be encouraged in suitable/feasible areas.
- B. Promote the full use of industrial areas.
- C. Evaluate the existing manufacturing district and land uses for compatibility.

Goal 6: To maintain a level of public facilities and services adequate to meet the needs of the community.

Objectives:

- A. Provide new services, facilities, and land usage as the population and needs of the community changes.
- B. Encourage developers and new development to assist in providing improved facilities and services.

- C. Adhere to the Medina County Hazard Mitigation Plan, as prepared by the Medina County Emergency Management Agency, and adopted by the Liverpool Township Trustees, for the health and safety of the residents.
- D. Adopt new technology and communication infrastructure when and where appropriate.

Goal 7: To maintain an updated Policy Plan as well as carefully and effectively implement a planning process which will provide a unifying identity, sense of purpose, philosophy, and direction to the Township.

Objectives:

- A. Review the Plan every five (5) years, or earlier if necessary, to determine if changes are warranted.
- B. Review the sections applicable of the plan on an as-needed basis prior to any zoning amendments.

Goal 8: To improve transportation infrastructure and traffic circulation throughout the Township.

Objectives:

- A. Provide for safe and dependable traffic flow throughout the Township.
- B. Obtain input from the Medina County Highway Engineer’s Office and ODOT regarding improvements to problem state and county intersections.
- C. Encourage compliance with the Minor Subdivision regulations as described in the Medina County Subdivision Regulations.
- D. Encourage extensions of residential subdivision streets into undeveloped adjacent tracts of land.
- E. Allow the use of common drives to reduce the number of access points along roads per the Access Management Regulations to be adopted by Medina County.
(Information adapted by “Liverpool township development policy plan, planning for 2015,2005”)

4.3.2. Local Area Planning

Liverpool’s Local Area Agreement is a contract between government and the City, which states ‘how the City’s priorities will be achieved over the next two years 2009-2011’. The Local Area Agreement to monitor delivery the long-term plan, the Sustainable Community Strategy, ‘Liverpool 2024: A thriving international city’. The Local Area Agreement and Sustainable Community Strategy focus on five key ‘drivers for change’:

1. **Competitiveness:** By 2024, Liverpool will be Competitive on the world stage with a sustainable business sector and strong knowledge economy.
2. **Connectivity:** By 2024, Liverpool will be connected, by high quality transport and communications links to international, national and regional markets, enabling the flow of goods, people and information.
 - Connecting Liverpool as an international gateway for goods, people and information

- Connecting Liverpool – Improving public transport, reducing congestion and enhancing pedestrian movement
- 3. **Distinctive Sense of Place:** By 2024, Liverpool will be destination of choice Cultural, tourist, business and retail.
 - Improved housing standards, choice and affordability
- 4. **Thriving Neighborhoods:**
 - Efficient, effective and responsive local services with a cleaner greener environment
 - Shared action to reduce climate change and environmental sustainability
- 5. **Health and Wellbeing:** By 2024, Liverpool will be Healthy, with reduced inequalities, improved wellbeing and opportunities for all to live positive independent lives

Regional Policy Context: The detailed policies for the Liverpool City Region are (Regional Spatial Strategy, 2005):

- Liverpool City Centre, as the *Regional Centre*, to be the focus for commercial, retail, leisure, cultural/tourism and residential development, as part of mixed use schemes.
- The areas covered by the Housing Market Renewal pathfinder (the Inner Areas) to be the focus for residential development to secure regeneration, increase the population and support the Housing Market Renewal Initiative. This should be complemented by the provision for employment and community facilities in key locations.
- Growth to be supported in the rest of the City (the *Outer Areas*), provided that it is subsidiary and complementary to development in the Regional Centre and City Centre, supports housing market basic changes and regenerates local centers.

4.3.3. Projects – the City center:

The City Centre is characterized by a mix of uses. Outside the main retail and office areas, the approach has been to allow mixed used development. There will be significant housing growth within the City Centre, for both new build and conversion schemes. Residential development will be important for increasing population to support shops, cafes, restaurants, bars and cultural facilities such as art galleries and museums and in contributing the vibrancy and attractiveness of the City Centre.

The University of Liverpool and Liverpool John Moores University occupy a substantial area towards the periphery of the City Centre and make an important contribution to the City's and regional economy, particularly in terms of their contribution to knowledge based industries including bio-sciences, health related research and digital technology.

4.4. Application field

4.4.1. Master Plan of the City center

Liverpool City Centre is home to several key developments. These include the Commercial District, Retail Core, Waterfront, Knowledge Quarter, Lime Street Gateway, Ropewalks, Baltic Triangle and Hope Street. The City Centre has an important role as a generator of economic growth, both for the City and the wider city region. It is a regional office and retail center; an administrative center; a tourism and leisure destination; a center for academic excellence; and provider of hospital and medical research facilities. It is the City Region's largest employment-generating area and is one of the City's five Strategic Investment Areas.

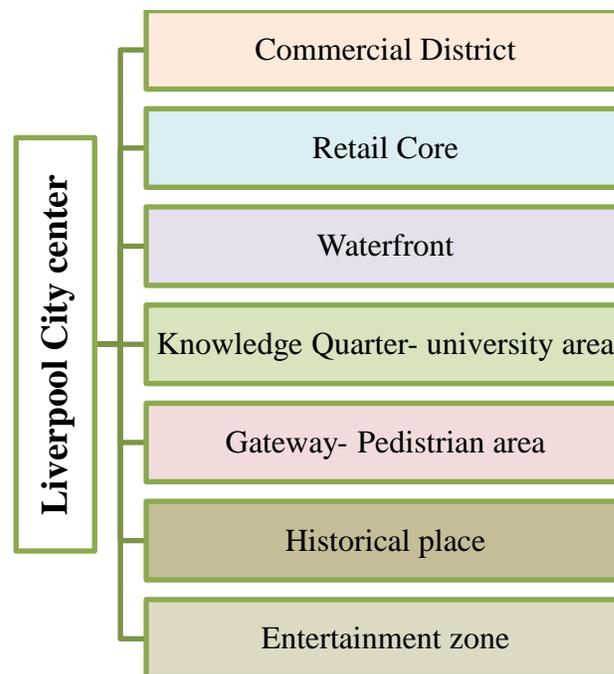


Figure 4.5: Liverpool city center subject plan



Figure 4.6: Liverpool city center land use plan

(Ref:<http://www.liverpoolvision.co.uk/Docs/DownloadDocs/Liverpool%20Knowledge%20Quarter%20Report-FINAL-July08-low%20res.pdf>)

- **Commercial District:**

Liverpool's Commercial District has a remarkable transformation for developer interest and investor confidence. Since 2000, more than 1m sq.-ft. of office space has been successfully delivered in the city's business district

New schemes such as 101 Old Hall Street, City Square, 20 Chapel Street and St. Paul's Square together with completed and planned investment in the public realm are transforming the look and performance of the area and helping attract new companies to the city.

By facilitating a consistent stream of new high quality space, Liverpool Vision is helping to sustain the city's rapid economic growth, meet rising local demand and compete effectively for inward investment.

The recent decision by Maersk to relocate its head office to Liverpool demonstrates its faith in the city.

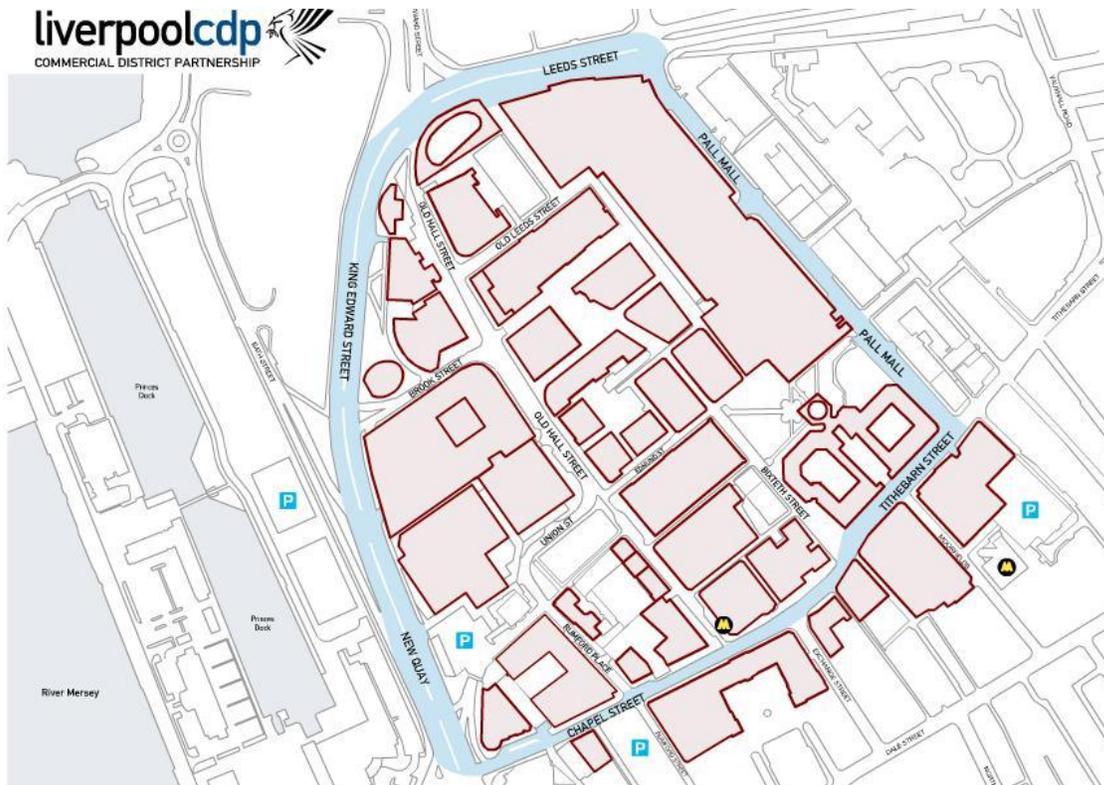


Figure 4.6: Liverpool commercial district

- **Retail Core:**

Liverpool’s retail landscape has changed dramatically since the opening of ‘Grosvenor’s Liverpool ONE development’ on 2008.

Grosvenor’s £1bn Liverpool One project is the largest retail-led regeneration project in Europe. The scheme, covering 42 acres provides 1.5m sq.-ft. of retail space as well as hotels, apartments, a multi-screen cinema and restaurants. Liverpool One, together with the Met Quarter feature stores previously absent from the city such as Debenhams, Hugo Boss, Armani, Esprit, L’Occitane, Henri Lloyd, Swarovski and Wagamama. In 2008 Liverpool ONE has catapulted the city to the 5th biggest retail city in the UK.

Land Securities have planning permission for a multi-million pound refurbishment of St. John’s Centre which will see the relocation of the city market to Williamson Square and the extensive re-modeling of the center itself. Land Securities investment in the center, which focuses on the value end of the market, complements the offer in Liverpool One and the Met Quarter.

The public realm within the retail area has benefitted from significant investment upgrading the quality of the entire retail center.

- **Waterfront**

Over the past five years the regeneration of Liverpool’s city center waterfront has become a reality, with the development of a number of major schemes helping to transform the area into a major visitor destination.

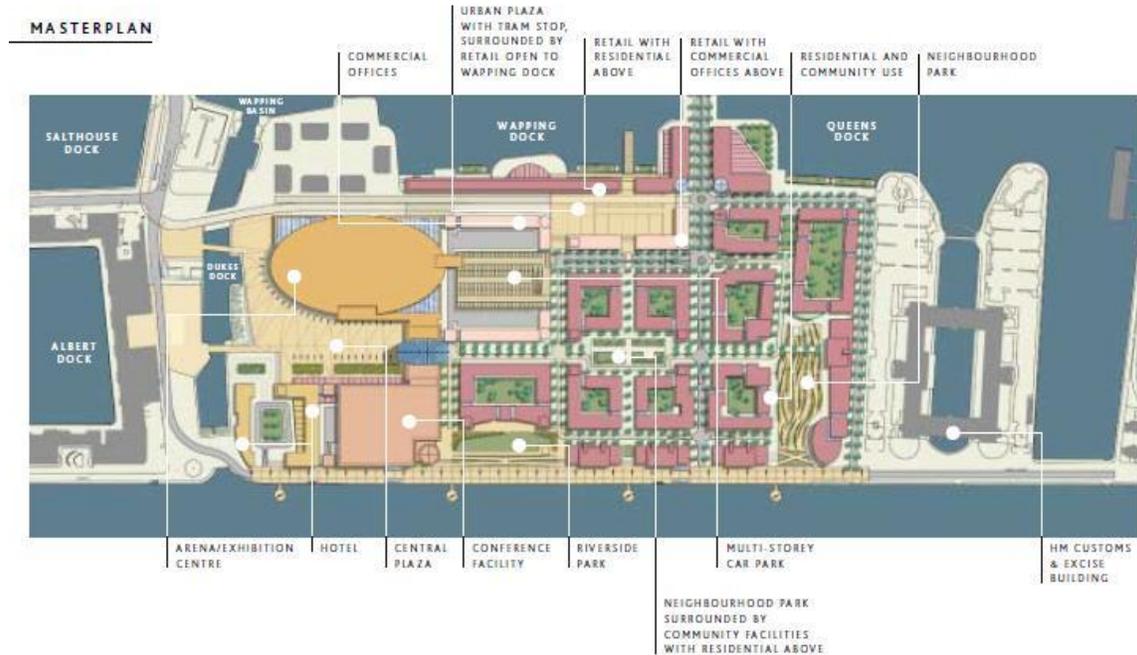


Figure 4.7: Liverpool Waterfront master plan
 (Ref: <http://www.liverpoolvision.co.uk/Docs/DownloadDocs/kingsbrochure.pdf>)

At Kings Waterfront, the Liverpool Echo Arena – which launched the city’s ‘European Capital of Culture’ celebrations in January 2008 – and the BT Convention Centre have hosted a series of high profile national and international events and conferences. Also two new hotels – Jurys Inn and Staybridge – opened in late Spring 2008.

At Albert Dock, an extensive program of environmental and infrastructure improvements – including new lighting, signposting and pedestrian access – is improving the destination offer.

The most dramatic transformation is at the Pier Head. The City of Liverpool Cruise Liner Terminal opened in September 2007 and is already attracting visits from some of the largest liners on the European circuit. The public space at the Pier Head has been completely remodeled, with two sheltered basins overlooking the canal providing an attractive area for sitting out. Adjoining the Pier Head at Mann Island work is nearing completion on the new Museum of Liverpool, scheduled to open in July 2011. The mixed use development by

Countryside Neptune is well underway on all three buildings at Mann Island. The first phase was completed in Spring 2010. The whole development is due for completion in 2011.

The Leeds - Liverpool Canal Link, opened in April 2009, provides unbroken access for narrow boats to newly constructed berths in the south docks. The Mersey Ferries Terminal – including a cafe, restaurant, 4D cinema and Beatles Story exhibition – was formally opened in July 2009.

- **Knowledge Quarter**

The role that Liverpool's universities play in the economy of the region is very significant. The city's Knowledge Quarter generates £1 billion in income per annum, supports as many as 14,000 full-time jobs, around 7% of the Liverpool total - in just 1% of the city's geographical area. Many are highly-skilled knowledge based jobs, the key driver for the development of modern cities - in particular in the bio-sciences, health related research and practice, and digital technology.

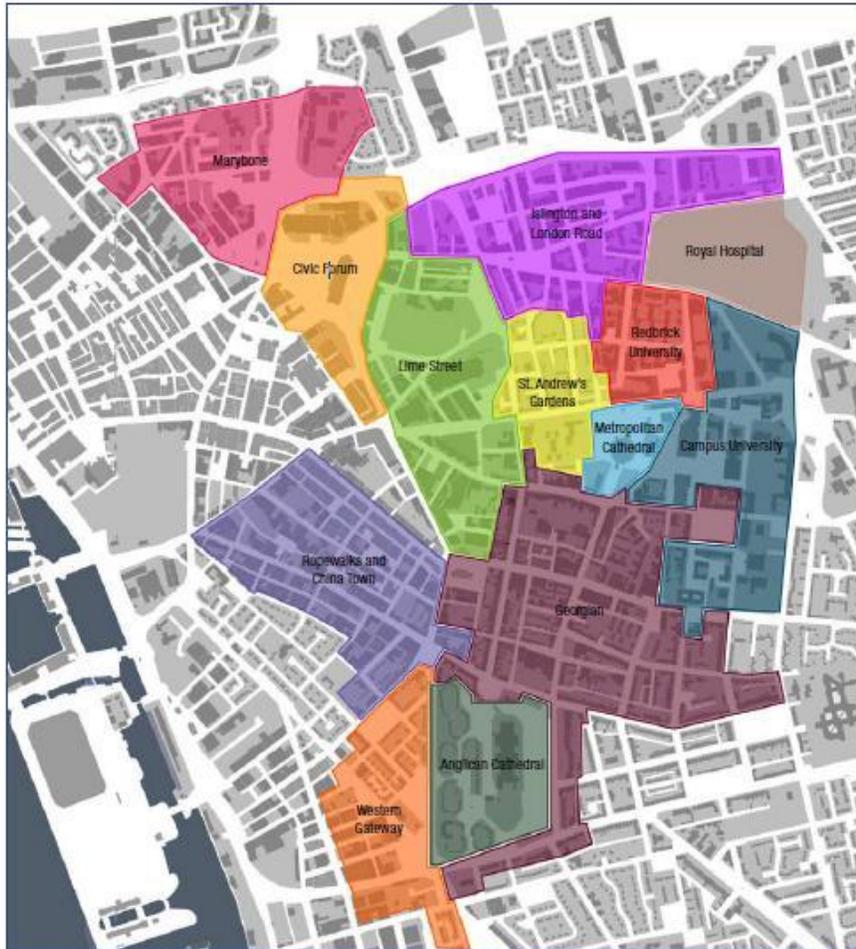


Figure 4.8: Liverpool Knowledge Quarter

(Ref:<http://www.liverpoolvision.co.uk/Docs/DownloadDocs/Liverpool%20Knowledge%20Quarter%20Report-FINAL-July08-low%20res.pdf>)

A cluster of activity sits at the interface of the universities in the Brownlow Hill area of the city Centre. The first two phases of the Liverpool Science Park are located adjacent to the Metropolitan Cathedral alongside the Liverpool John Moores University Design Academy. The Design Academy and phase two of the Liverpool Science Park development were both completed in 2009 and have consolidated the focus of the knowledge community in this area.

North of the University of Liverpool campus the School of Tropical Medicine - a world leader in the field of infectious diseases has completed a £25m extension, funded by the Gates Foundation and NWDA, which accommodates space for primary research and consultancy activity further consolidating its international reputation. The school plans further expansion of its activities in future years.

The first project, University Square – at the junction of Brownlow Hill and Mount Pleasant, has delivered a new public space at the heart of the area and improvements to the key routes through the area. A new publically accessible green space in the “wilderness area” between the Metropolitan Cathedral, Liverpool Science Park and the Liverpool John Moores University Design Academy enabled consolidation of the knowledge cluster in the area.

- **Lime Street Gateway**

Lime Street Station and the surrounding area is the most important gateway to Liverpool city center. The station is Grade II Listed and along with adjoining buildings such as St George’s Hall, the Walker Art Gallery and the World Museum Liverpool is part of the city’s World Heritage Site.

Liverpool Vision, working with Homes & Communities Agency, Network Rail, Liverpool City Council and Mersey travel, is managing the delivery of a new gateway.

The largely redundant office block at Concourse House and ground level shopping units on Lime Street, which previously masked the station facade, have been removed. In their place a new public space is being constructed, using gentle slopes and steps to address the change in level between the station concourse and Lime Street and improve access for all station users. The design also incorporates seating and tree planting, feature lighting to highlight the magnificent station facade, and a unique series of etchings in the glazing of the station arches and stone pavers in the public space.

- **Ropewalks**

A ropewalk is a unique area of the city center, characterized by the concentration of 19th century warehouses and merchants houses. Much of the street pattern and built fabric is the same today as it was 200 years ago. The long, narrow streets were at one time used to bind rope, and are still the defining characteristic of the area.

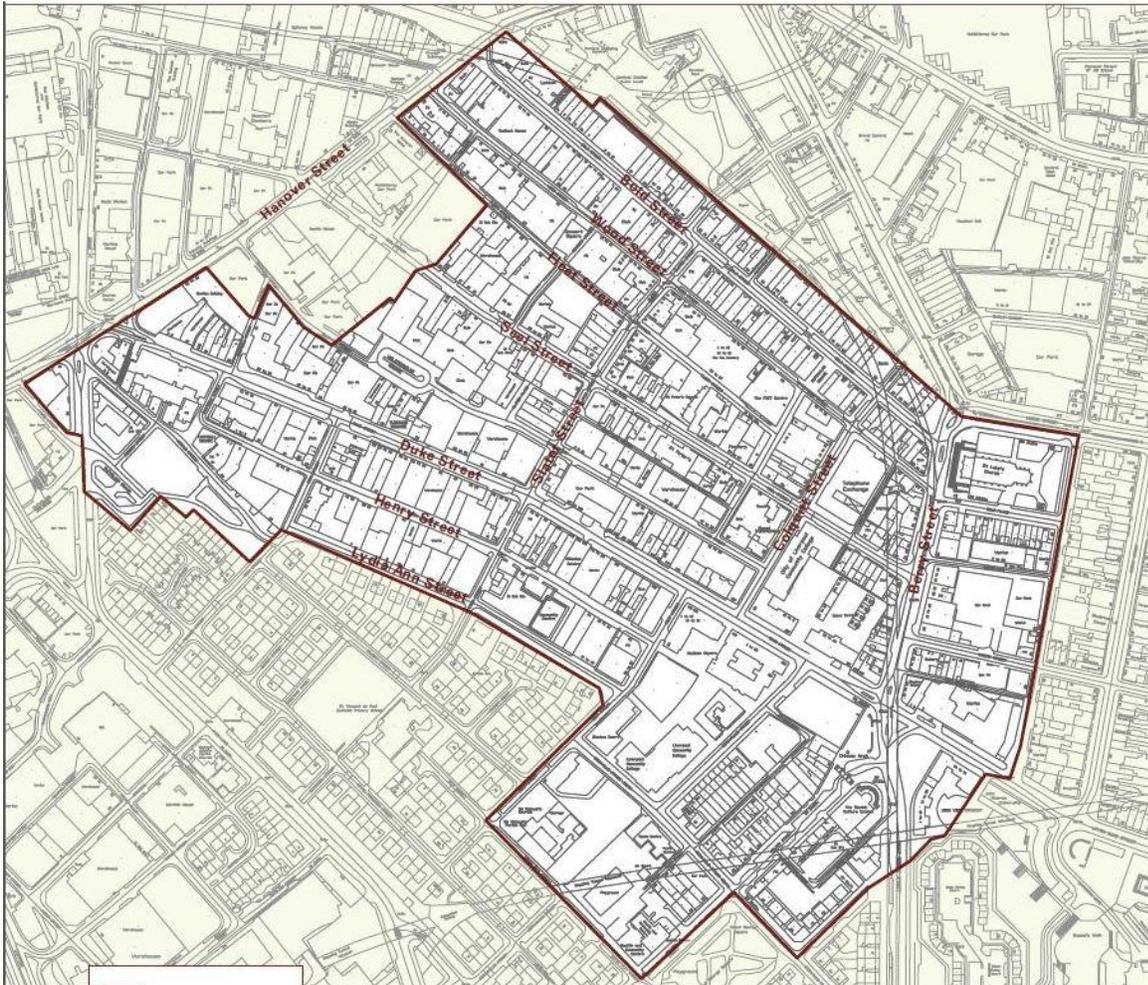


Figure 4.9: Liverpool Ropewalks

Since the early 1990s, Ropewalks has developed as a center for Liverpool’s night-time economy and creative industries. Many businesses operating within Ropewalks are drawn from media, publishing, design and communications sectors, and are now actively working together to promote the area to visitors and shoppers as an independent quarter.

Ropewalks has established itself as part of the city center living phenomenon. Many historic buildings have now been refurbished as apartments and there have been significant amounts of new build on gap sites in the area. An active residential community is established in the area.

- **Baltic Triangle**

The Baltic Triangle is part of the historic port hinterland and is bordered by Ropewalks, Liverpool One and Kings Waterfront. It contains a mix of historic warehouses and functional business premises populated by small businesses and an increasing residential population.

Development in recent years has focused in the northern half of the area adjacent to Liverpool One, where a number of residential developments have been completed. More recently the southern Creative Quarter has become a location of choice for a range of creative businesses. Companies already established and trading in the area include A Foundation, Liverpool Biennial, The Picket music venue, Novas's Contemporary Urban Centre and Elevator Studios.

Liverpool Vision has co-ordinated the establishment Baltic Creative, a community interest company with a remit to refurbish workshop units in the area to house creative businesses and to support the growth of the area as a cluster for creative businesses. Liverpool Vision is also coordinating the delivery of public realm improvements in the area.

- **Hope Street**



Figure 4.10: Hope Street area

Within the Hope Street area investment in the public realm has initiated in private sector investment for further hotel and restaurant developments and the growth of the cafe culture. Projects to expand and invest in the Everyman Theatre and Philharmonic Hall are in development, supplementing completed projects at the Anglican and Metropolitan Cathedrals which have developed a growth in their tourism/visitor potential.

With monthly markets and an annual festival the Hope Street Quarter is rapidly establishing itself as a visitor destination in its own right, standing alongside the waterfront as Liverpool City Centre's two most recognizable destinations.

4.3.2. Architecture and urban design practices in city center

Before granting consent for development on land in the Liverpool city center, the consent authority must be satisfied that the proposed development is consistent with such of the following objectives for the redevelopment of the city center as are relevant to that development (Liverpool Local Environmental Plan 2008):

The core objectives:

- (a) To preserve the existing street layout and reinforce the street character through consistent building alignments
- (b) To allow sunlight to reach buildings and areas of high pedestrian activity
- (c) To reduce the potential for pedestrian and traffic conflicts on the Hume Highway
- (d) To improve the quality of public spaces in the city centre
- (e) To reinforce Liverpool railway station and interchange as a major passenger transport facility, including by the visual enhancement of the surrounding environment and the development of a public plaza at the station entry
- (f) To enhance the natural river foreshore and places of heritage significance,
- (g) To provide direct, convenient and safe pedestrian links between the city center (west of the rail line) and the Georges River foreshore.

Policy for highest standard of architectural and urban design practices in city center:

In considering whether development exhibits design excellence, the consent authority must have regard to the following matters:

- (a) Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
- (b) The form and external appearance of the proposed development will improve the quality and amenity of the public domain,
- (c) The proposed development detrimentally impacts on view corridors,
- (d) The proposed development detrimentally overshadows Bigge Park, Liverpool Pioneers' Memorial Park, Apex Park, St Luke's Church Grounds and Macquarie Street Mall (between Elizabeth Street and Memorial Avenue),
- (e) Any relevant requirements of applicable development control plans,
- (f) The proposed development addresses the following matters:
 - (i) The suitability of the site for development,

- (ii) Existing and proposed uses and use mix,
- (iii) Heritage issues and streetscape constraints,
- (iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighboring sites in terms of separation, setbacks, amenity and urban form,
- (v) Bulk, massing and modulation of buildings,
- (vi) Street frontage heights,
- (vii) Environmental impacts such as sustainable design, overshadowing, wind and reflectivity,
- (viii) The achievement of the principles of ecologically sustainable development,
- (ix) Pedestrian, cycle, vehicular and service access, circulation and requirements,
- (x) The impact on, and any proposed improvements to, the public domain.

4.3.3. Landscape design

The Vision:

Liverpool's parks and green spaces are an essential part of the City's heritage and infrastructure. It also a significant element in its architectural and landscape character, providing a sense of place and had enhance the city's special character. These places are important for made social interaction and promoted community development. 'They help to conserve natural systems, including carbon, water and other natural cycles, within the urban environment, supporting ecosystems and providing the contrast of living elements in both designed landscapes and conserved wildlife habitats within the urban area'(Liverpool City Council, 2008).

Liverpool's parks and green spaces support social and economic objectives and activities. In particular the good official supervision of the City's public parks helps to reduce the inequalities, poor health and social exclusion in deprived areas and reduce any inherent tension between the many social and ethnic groups who form the wider community. They provide for the recreational and leisure needs of communities, and assist in the economic condition of Liverpool, increasing its attractiveness as a place for business investment, to live, work and take leisure (Liverpool City Council, 2008).

Key Message:

“Liverpool's parks have evolved through a number of distinct periods of development producing a diverse range of heritage, park estate and semi-natural landscapes. This represents an important environmental, recreational, educational and health resource which supports community activities, nature conservation and sport and tourism. Parks provide local character, and an attractive refuge from the built environment” (Liverpool City Council, 2008).

Green infrastructure function

Public recreation; Public recreation with restrictions; Green travel route; Aesthetic; Heritage; Cultural asset; Learning

Green infrastructure benefits

Quality of place; Health and well-being; Tourism; Recreation and leisure; Land and biodiversity

Green infrastructure type

Non-specific green infrastructure; Parks and public gardens; General amenity space; Outdoor sports facilities; Cemeteries, churchyards and burial grounds; Institutional grounds

LDF Policies

It is recommended that the forthcoming LDF should include revised planning policies informed by the findings of this assessment. The policies should ensure effective “place-making” and cover protection and enhancement of open spaces of value or potential value to the local community, and criteria for assessing development proposals. In particular the following changes are recommended (Planning policy Guideline 17, 2008):

- The definition of urban green space used within the plan should incorporate all of the spaces identified and assessed within this study. All sites greater than 0.5ha should be illustrated on the proposals map. Protection should be afforded to those spaces less than 0.5ha not shown on the proposals map as these spaces still represent areas of urban green space and are likely to be of value to the community.
- The Council should adopt the amended public parks hierarchy defined in this study.
- The LDF should include separate open space standards for public park provision, children’s play space, playing pitch provision, natural and semi-natural green space provision and allotments. This study proposes recommended quantity, quality and access components as appropriate. It is intended that the standards should be applied flexibly to all new development and that their application is responsive to the quantity and type of existing provision already existing within the locality.

4.4.4. Local Transport plan

The City Centre Movement Strategy

Liverpool City Council, Liverpool Vision and Mersey travel have prepared the Liverpool City Centre Movement Strategy (CCMS) (Mersey travel and Liverpool City Council, July 2000), which is a component of the Local Transport Plan and the Strategic Regeneration Framework. The CCMS is consistent with the SRF’s theme of “Putting People First”. It advocates taking a balanced approach to the delivery of three key elements of the physical regeneration process:

- Transport and Movement;
- Urban Design and Public Realm, and
- Development and Regeneration

The key elements of the movement strategy are pedestrian priority areas; high quality public transport corridors linking existing transport hubs and new development opportunities; and revised traffic circulation and parking plans.

Pedestrian priority areas aim to integrate the planning and design of both transport and public realm works, incorporating pedestrian friendly urban design as part of the development of transport and infrastructure investment programmes. The development of a pedestrian friendly approach is key to creating a thriving and vibrant environment that will encourage people to use the City Centre for a whole range of activities. As such, the concept of pedestrian priority spans across both pedestrian movement and public realm, and contributes towards the implementation of the Liverpool City Council Sustainable Development Plan.

The Vision

- **Attractive**

A place for people

Improved spaces with greater priority for pedestrians will be created to provide attractive environment for people walking in the City Centre. High quality materials, public art and water features will enhance the vitality of the City Centre.

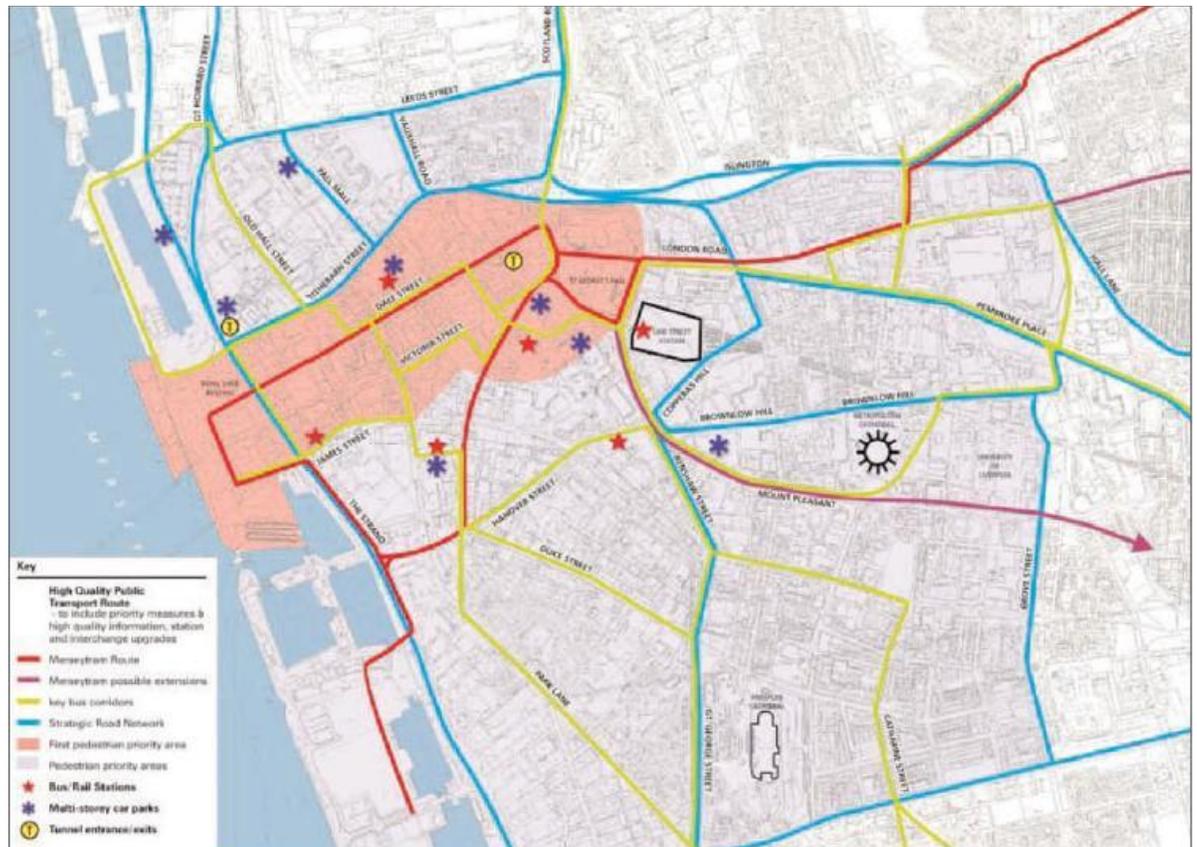


Figure 4.11: The City Centre Movement Strategy Plan
 (Ref:<http://liverpool.gov.uk/Images/CCMSPublicRealmImplementationFramework.pdf>)

- **Connected**
Link to major developments
New and improved pedestrian and public transport routes to link new and existing employment, shopping and leisure facilities within the City Centre.
- **Accessible for traffic**
Tackling traffic congestion and better parking
By re-routing through traffic and improving circulation, a more accessible and people-friendly City Centre will be created. New areas for on and off street car parking with enhanced signage and improved parking for coaches.
- **Accessible for all**
Merseytram, enhanced bus routes and clearer pedestrian routes all designed in accordance with best practice which will make the City Centre accessible for all.
- **Green**
Better public transport and better for cyclists
Bus and rail improvements and the introduction of Merseytram will provide a realistic alternative to the car for many journeys. New bus lanes, shelters and stops near to rail stations are planned. Rail stations will be refurbished. Improved cycle parking and more cycle routes.
- **Safe**
Creating a safer environment
Improved lighting and in some places CCTV to help make the City Centre a safer place to be. Better surfaces will make life easier and improved traffic management will make the roads safer.
- **Clean**
Creating a cleaner, greener City
Tree planting, use of public art, new road and pavement surfaces and innovative new designs for public open spaces will make areas look attractive and easier to maintain.
- **Smart**
Keep informed
New technology, including electronic display boards, will provide up to date timetable information for public transport users and information for motorists on car parking availability. New signing and information boards will be provided for tourists and other visitors.

4.5. Actors involved in the City center development

4.5.1. Institutional actors:

Liverpool Local Authorities role:

These are describe in following (Liverpool City Council –Contaminated Land Inspection Strategy, May 2002):

1. Before determining any application for planning consent on land which the City Council considers is seriously contaminated, the Council will require the applicant:

-to submit details of a site survey identifying the type, degree and extent of any contamination;
and

-to submit details to the City Council of specific remedial measures required to deal satisfactorily with any hazard, together with the proposed timescale for the implementation of the measures.

2. Planning permission will only be granted prior to a full site investigation, where the Council considers that any known or suspected contamination is unlikely to adversely affect the proposed redevelopment. This permission may be subject to conditions requiring a site investigation together with the remediation of any contamination.

The development to be accepted in authority, a contaminated land investigation should be undertaken and a report submitted before the application is considered. Where it is considered necessary to impose conditions on a planning consent, the following standard wording has been recommended for use by the Greater Merseyside Contaminated Land Officers Group (CLOG),(Liverpool City Council –Contaminated Land Inspection Strategy, May 2002):

1. No part of the development hereby permitted shall commence until;

a) an investigation and assessment methodology has been agreed in writing prior to site investigations by the Local Planning Authority. As a minimum, this shall consist of a desk study, and where appropriate a sampling strategy, analysis suite and risk assessment methodologies

b) a site investigation and assessment has been carried out (where appropriate) by appropriate qualified and experienced personnel to determine the status of contamination [including chemical, radiochemical, flammable or toxic gas, asbestos, biological and physical hazards, other contamination] at the site and submitted to the Local Planning Authority. The investigations and assessments shall be in accordance with current Government and Environment Agency recommendations and guidance and shall identify the nature and concentration of any contaminants present, their potential for migration and risks associated with them.

c) a remediation scheme, which shall include an implementation timetable, monitoring proposals and remediation validation methodology, has been agreed in writing with the Local Planning Authority.

2. After development commences, if any potentially contaminated (unusual/suspect) material or flammable/toxic gas not previously identified is discovered, then a further assessment and reviewed remediation scheme will be required by the Local Planning Authority. If no contamination is found then this should be detailed in the completion report.

3. A written confirmatory sampling and analysis program with an appropriate risk assessment for the site in the form of a completion report to confirm the adequacy of remediation shall be submitted to the LPA and approved in writing before this condition will be discharged.

4.5.2. Public Realm:

In Liverpool created public spaces and provided streets, squares and parks of the highest quality. Unfortunately high quality standards have not always been maintained. Today the purpose of the City design is to deliver a steep change in the quality and responsible for public realm design, implementation and management to meet the objective of delivering a “unique high quality public realm”. This will radically improve the image of the City, to increase investment and promote ‘civic pride’.

The public realm includes streets, spaces, views, public transport facilities and public buildings. The public realm holds the City together and provides the backdrop and opportunity for social interaction. Public realm is the most inclusive element of the City, as everybody uses it. Successful public realm provides a well-connected network of spaces that serves the needs of all. The nature of public realm should reflect the character, history and inspiration of the City.

Streets account for the majority of the public realm environment in the City Centre. The CCMS will radically improve the quality of this environment through pedestrian friendly design. The implementation of the Public Realm Framework will improve the walking environment, creating opportunities for the rediscovery and development of public spaces and public activities. Together these policies should deliver an successful public environment - visually increasing the quality, safe and sustainable, providing opportunities and accessibility for all.

4.5.3. Social actors

In Liverpool city center development process the developers are mainly Local planning authority, investors are invited by bidding policy and general people are the consumer. In section 4.6. I have described in detail the Social actors.

4.6. The participation of social actors

4.6.1. Developers

Local planning authority (LPA) – usually the district or borough council – is responsible for deciding whether a proposed development should be allowed to go ahead. This is called planning permission. Most new buildings, major alterations to existing buildings and significant changes of a building or piece of land need this permission.

For certain minor building works – known as permitted development – don't need planning permission. This is because the effect of such developments on neighbours or the surrounding environment is likely to be small – e.g. building a boundary wall below a certain height. Similarly, a change of land or building use for permitted development if it's within the same use class.

Other areas get special protection against certain developments. Reasons for special protection include:

- Protect attractive landscape – e.g. national parks
- Protect interesting plants and/or wildlife
- Control the spread of towns and villages into open countryside – e.g. Green Belts
- Protect monuments or buildings of historical or architectural interest

Occasionally, large proposals or controversial applications of national significance are 'called in' to be decided by the First Secretary of State instead of the LPA.

4.6.2. Investors

Proposal for a new development which involve the investor for project development. This type of scientific investigation is common for large-scale proposals, as it helps the developer to evaluate their proposal, also how their application might be received.

LPA has received a formal planning application, it will display public notices and/or write to homes and businesses near the proposed site – inviting comments. Most LPAs publish details online too, with larger developments also advertised in local newspapers. The details of a proposal would view – including architectural drawings – at the LPA offices. LPA will set a time period during which it will consider comments on a planning application. For views to be taken into account, proposal must submit them before the deadline.

LPAs often consult a large number of organizations before reaching a decision. This normally includes parish councils – who may have their own informal parish plans which are not included in the statutory scheme. If it's relevant, the LPA may also consult organizations with special expertise – e.g. the Environment Agency or English Heritage – about a particular planning application.

4.6.3. Occupiers

The City center successful outcomes from delivery of the occupiers interest and public realm consider in 'Implementation Framework', make a considerable contribution to the creation of sustainable communities. In below I focus on the sustainable part about the occupiers:

Economic	<ul style="list-style-type: none"> • Improved public realm is stimulating wider regeneration and improving the image of Liverpool. • Improved areas are showing increased footfall and with enhanced people activity in the city center for longer periods, spending more money and contributing to improve the economy. • Land and rental values are increased • Improved access and setting to tourist attractions is helping increase tourist numbers
Social	<ul style="list-style-type: none"> • The work allows for greater social act for example provision of tactile paving for the visually impaired • Local training places are created on construction projects

	<ul style="list-style-type: none"> • New designs with wider pavements improve the pedestrian environment and safety • The work promotes healthy lifestyles with walking and cycling provision
Environmental	<ul style="list-style-type: none"> • The introduction of green infrastructure is helping to offset global warming • Energy efficient lighting is reducing carbon footprint • Schemes are designed to enhance heritage value within the city which is partly designated as a World Heritage Site • Schemes are designed to be adaptable and with good quality materials with a long design life. This conserves resources in the long term • Materials are selected from renewable sources • Use of a limited palette and careful detailing helps improve maintenance standards

Table 4.1: Provide facilities for Occupiers

4.7. Issues consider for the city center development

Themes for a More Sustainable Liverpool

To ensure that:

- Resources including energy are used efficiently and effectively and waste is minimized. Where possible local needs are met locally.
- People live in safe, clean, pleasant and healthy environments, with services which emphasize prevention of illness as well as proper care of the sick.
- Pollution is limited to levels with which natural systems can cope without damage
- Everyone has access to the skills, knowledge and information needed to enable them to play a full part in society; all sections of the community are empowered to participate in decision making.
- Everyone has the opportunity to undertake satisfying work in a diverse, sustainable and enterprising economy that values unpaid work.
- Access to facilities, services, goods and other people is available to all, and not achieved at the expense of the environment or limited to those with cars.
- Places, spaces and objects combine meaning, beauty and utility; settlements are human in scale and form; diversity and local distinctiveness are valued.
- The diversity of nature is valued and protected, and opportunities for culture, leisure and recreation are readily available to all.

(Ref: Liverpool’s Sustainable Development Plan 2006-2009)

All the projects have been developed in accordance with the City Council’s sustainable development plan. For that Liverpool city center also follow the City Council’s sustainable development plan. The plan is a key part of the local agenda 21 process and forms part of the council commitment to an improved community planning process to achieve lasting improvements. Progress against the measures set out in this plan will help evidence the City Council commitment to the effective management of cross cutting issues affecting the quality of life of residents of Liverpool. Here I illustrate the ‘Liverpool’s Sustainable Development

Plan 2006-2009' from the City Council document(collect from internet) which are related to sustainable urban design:

4.7.1. Theme - Healthy and Safe Living Environments

'People live in safe, clean, pleasant and healthy environments, with services which emphasize prevention of illness as well as proper care of the sick'.

Housing:

The situation (the plan development period) Merseyside "Affordable Warmth Programme" combines advice originally under the Home Energy Efficiency Scheme, information on good practice, and additional initiatives including 'Safe and Warm' and 'Welfare to Work' schemes. Liverpool City Council runs a Fuel Poverty and Warm Homes Strategy which provides complete energy improvement packages to vulnerable households, with a planned maintenance programme installing central heating, new windows, insulation, and low energy lighting.

Since 2001 there has been an increase in the number of new housing projects being brought forward with an emphasis on sustainable development and improved environmental standards.

4.7.2. Theme: Lifelong learning and Community Involvement

'Everyone has access to the skills, knowledge and information needed to enable them to play a full part in society. All sections of the community are empowered to participate in decision making'.

All citizens need to be aware of the issues affecting the sustainability of our environment, of the effects of their actions on the wider environment, and of the opportunities available to develop greater understanding of the issues and of the mechanisms that support the decision making. The City Council has established a robust network of 10 Neighborhood Committees and 7 Neighborhood Management Services to develop these connections and in 2004 introduced a Citizens Charter separately targeted at each neighborhood management area.

Full knowledge of the processes of decision making will help people to get involved, and improve accountability. Better understanding of environmental issues will prepare people to support appropriate developments, such as the development of much needed waste management sites and lead to a more sustainable future.

4.7.3. Theme: Limiting pollution

'Pollution is limited to levels with which natural systems can cope without damage.'

The City Council has legal responsibility for a wide range of regulatory activities to reduce pollution including contaminated land, vehicle emissions, street cleansing and industrial pollution.

All local authorities now have a duty to identify sites that fit the legal definition of contaminated land. The City Council has an action plan to inspect the whole City to find the most serious sites and contaminated land information can be accessed on line.

The City Council recognize that there are no simple answers to the problem of air pollution, created primarily by individual choices made regarding road and air travel. It has been estimated that to meet the current national government target, traffic in the *City Centre* would need to reduce by approximately 40%. The City Council has two designated Air Quality Management Zones (areas in which the level of air pollution is higher than national target standards).

The city needs to agree actions to address the arising problems and has committed to having in place an approved Air Quality Action Plan during 2006. A draft plan is currently out to consultation and the final document will include locally agreed targets for lessening air pollution and the impact of air pollution.

4.7.4. Theme: Satisfying Work in a Sustainable Economy

‘Everyone has the opportunity to undertake satisfying work in a diverse, sustainable and enterprising economy which values unpaid work’.

Bigger economic contribution by City Centre:

The City Centre’s contribution to productivity is big and grew during Liverpool Vision’s lifetime. ‘In 2005 the City Centre’s GVA (gross value added) was £3.88bn and has grown faster than local, sub regional, regional and national trends’(reference Liverpool Local Environmental Plan 2008). The big picture was to establish a 21st century economy; such as:

- improve competitive career prospects;
- create inclusive communities and a skilled and adaptable workforce;
-

4.7.5. Theme: Access and Sustainable Transport

‘Access to facilities, services, goods and other people is available to all, and not achieved at the expense of the environment or limited to those with cars’.

As part of the commitment to environmental quality, the Local Transport Plan for Merseyside will include a full Strategic Environmental Appraisal as part of the review to inform action. The Government will be looking for clear evidence that the shared priorities for transport are central to the development of the 2nd provisional Local Transport Plan. The shared priorities are as follows:

- Tackling congestion

- Delivering accessibility
- Safer roads
- Better air quality

The Local Transport Plan will include an ‘Access Plan’ setting clear targets for access to schools, education, food shops and training. The Plan will be finalized in March 2006 and new policy included in the sustainable development plan from that date.

The traditional hierarchy of user has been reversed to put pedestrians, cyclists and public transport first, supported by the Merseyside Accessibility Guidelines to ensure effective access for disabled people.

The ‘City Centre Movement Strategy’ (CCMS) seeks to improve access to the City Center and around area. While creating a people friendly city Centre that is safe, clean and attractive. In addition, the strategy aims to make the best use of all the existing transport infrastructure and support the City Centers architecture and townscape. The strategy is well underway and work on a number of the projects has almost been completed. Relating to the short term the strategy will effectively reduce the amount of traffic and improve public transport accessibility.

4.7.6. Theme: Local Identity and the Built Environment

‘Places, spaces and objects combine meaning, beauty and utility. Settlements are human in scale and form. Diversity and local distinctiveness are valued.’

Improving neighborhood management of the built environment

Adopting good design and management principles in the public realm, in town Centre’s and public spaces, supports a sense of place, community identity, quality of life and a sense of well-being. Liverpool Vision in laying out its agenda for the physical regeneration of the city Centre is focusing on attracting quality design and quality developments as one of its key aims. The City Council has prepared an urban design guide for the city as a whole. In March 2005, the City Council, Liverpool Vision and CABA (The Commission for Architecture and the Built Environment) established ‘Design Liverpool’ a full time CABA presence for the City.

Promoting the sustainable re-use of land

Limiting development on green-field sites and regenerating previously developed land is an efficient use of resources which supports existing communities and reinforces their identity. A mixture of land uses and activities together in an urban area also supports sustainable communities, reducing the need to travel. Re-using abandoned and undefined land will contribute to the supply of sites for regeneration, improve the appearance of these type of areas, also help to sustain existing communities in familiar areas, with the Council's social inclusion agenda. ‘Over 95% of land built on for residential use in Liverpool since 2003 has been on brownfield sites. The city's ongoing target is 85% (agreed in the draft regional planning guidance) well in excess of the Government's 60% target.’

4.8. Sustainable project development plan

The Liverpool City Council compile a process to improve its performance on its established priorities through a systematic and rigorous approach - the key stages are:

- 1) Priorities
- 2) Measures and targets
- 3) Implementation
- 4) Evaluation and review

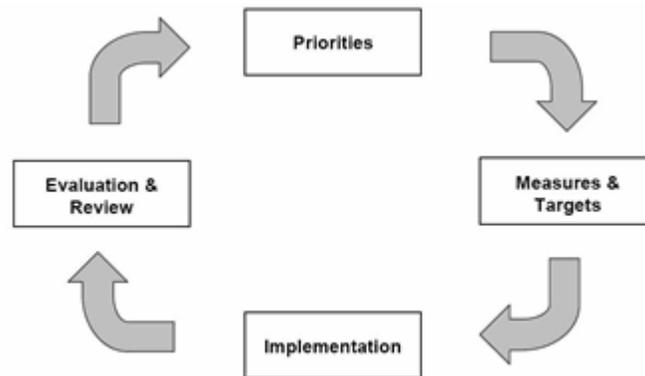


Figure 4.12: Design method framework for action
(Ref: Liverpool's 'Sustainable Development Plan 2006-2009, 2005)

For the Sustainable Development Plan each stage in this cycle can be described below:

4.8.1. Priorities

Council priorities are informed by the European, national and local context i.e.

- National and European legislation and guidance, and
- Liverpool's Community Strategy, Liverpool First (prepared by the Liverpool

Partnership Group) which brings together public, private and voluntary agencies around one statement of intent for the city.

Vision and Values

To achieve the vision the City Council would work in partnership to deliver their aims, which are:

- Top quality, value for money services, while keeping the council tax as low as possible;
- A business friendly city
- Well serviced, safe and sustainable neighborhoods with optimum local accountability and influence over service management;
- Top quality children's services
- A healthy environment for all who live in, work or visit the city and an effective and accessible transport system;

- The city at the forefront of delivering services electronically.

Corporate Performance Plan

The Council's Corporate Performance Plan (CPP) 2004 headlined eight environmental priority actions from the Sustainable Development Plan. These are carried forward into the 2005-2008 plan as:

- waste reduction;
- waste recycling (internal and external);
- energy conservation;
- the use of renewable energy;
- water conservation;
- introduction of Green Transport Planning;
- sustainable procurement guide (inc. sustainable construction), and
- Staff training and awareness.

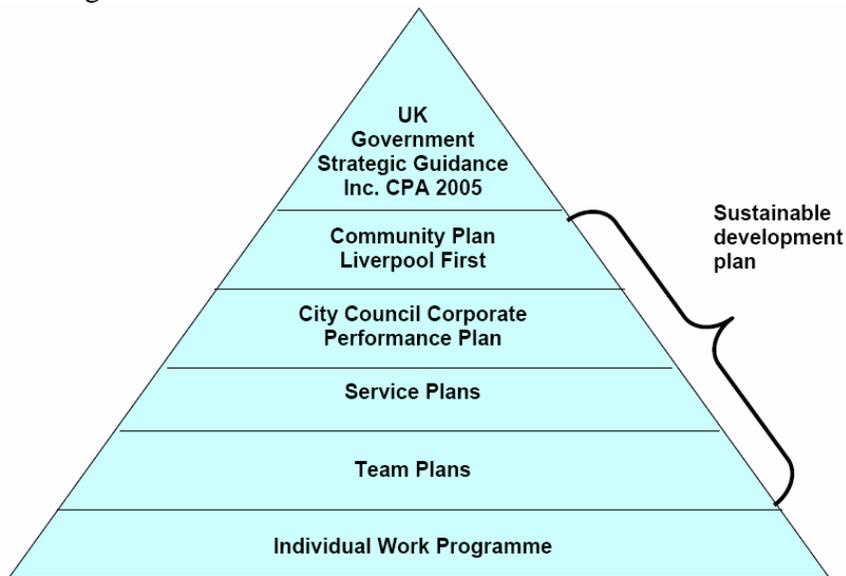


Figure 4.13: Sustainable development plan for Action

4.8.2. Measures and Targets

The Council's priorities are given practical expression through the setting of a series of performance measures (sometimes called Performance Indicators). For each measure, they set stretching targets to motivate and drive the performance of the Council.

Measures and targets established would be reviewed and developed in the light of public feedback, changing national legislation and local priorities. In particular, for a number of the identified indicators there is a need to clarify and formalize the commitment and contribution that the City Council and key partners (police, health, transport etc.) will make to the achievement of the set targets.

4.8.3. Implementation

The Council and its partners propose to achieve the various sustainability targets through an action planning approaches applied across the city, such as:

- Publicize sustainable development targets and achievements to all sections of the community;
- Ensure suppliers and partners observe sustainability standards, and
- Monitor and train their workforce.

For each of the specific measures set out in this plan, services will set targets and implement specific actions to achieve these specified targets.

4.8.4. Evaluation and Review

Progress against established targets is monitored throughout the year using both:

- The community strategy (for partnership based measures); reports are prepared for LPG (and published on their web site) so partners and wider stakeholders could see the progress being made on the cross cutting issues where collective commitment and action is required.
- The council's performance management database (for city council measures). This is available to all staff and Members with access to the council's intranet and provides monthly management reports, which are used at team, service, portfolio and one to one meetings with senior managers and the Chief Executive. Reports on progress are also provided to council members through the authority's select committees and to the Executive Board. Such reports are used to identify the need for remedial action and to inform future priorities. Whilst the plan format will continue to evolve Sustainable Development Plan indicators will be embedded in mainstream activity and will be reviewed in total every three years to inform a public progress report for environmental sustainability.

(information adapted by Liverpool's Sustainable Development Plan 2006-2009, 2005)

Chapter 5: Conclusion - Learning from the analysis

5.1. Review from the analysis

‘Achieving sustainable urban development is not an easy task. The complexities of the scale and variety of urban forms, and the intimate interweaving of environmental, social and economic issues, could all too easily suggest that, as everywhere is so different, consistently meaningful action is almost impossible’(Nicola Dempsey and Mike Jenks, 2005). The research in this thesis suggests that there are many pathways to achieving sustainability. The thesis addresses several contextual issues related to urban design, policy making, investors, buyers and development methods stages. The structure of this thesis center around two main research themes:

- A. What are the theoretical approaches for the urban design for those sustainable changes?*
- B. How to react for those sustainable changes in theory to practices?*

This thesis is written from UK perspective, by describing the Liverpool city’s planning, policy and implementation stage. UK urban planning policy has focused on physical planning of land use, transportation systems, housing, open space and other aspects of the built environment which have faced the sustainable changes. In UK, general planning policy to specific Liverpool city planning system- urban designs deal with a number of issues, some are general, others are proposed for situation and unique condition. In Liverpool, all the projects have been developed in accordance with the City Council’s sustainable development plan, also for city center. In Liverpool city center, characters are summarized that misused function space, which serve several facilities for local community. The city center’s urban design, the relationship to the existing built environment and especially to the heritage of the city, scale, density, height, massing, siting, layout, hard and soft landscaping and access were followed through the planning policy guideline to create sustainable environment. Planning policies for the Liverpool area focused on urban regeneration strategy, complementary protection, and enhancement of the natural and built environment.

5.2. The existing urban design tools

The first lesson is that -- there are different ways of designing the issues to urban design, different ways of designing solutions and different ways of evaluating, choosing and implementing them. The Urban design tools in the thesis are described general and specific city design solution. The part of the ‘Urban design tools’ analyzes the land use plan, strategy plan and operational plan. Based on the theoretical literature my research outlines significance findings, which establish the connection between nation general policies to city development policy stages.

Argument 1.): Concern for the sustainable issues, the UK national planning system main objectives are- 'exercise that function with the objective of contributing to the achievement of sustainable development'. The Liverpool planning system and design policies must support the overall approach of seeking more sustainable development. Design policies can promote conservation of:

- energy,
- resources and
- Land uses.

Argument 2.): Land use planning guideline of UK proposed some general ideas, such as zoning, spatial planning, etc. The 2004 Act states that spatial planning goes beyond traditional land use planning to bring together and integrate policies for the development and use of land with other policies and programmes which influence the nature of places and how they function. In Liverpool land-use decisions must integrate with public transportation, livable- and walkable-community design, and civic amenities. In urban development the most beneficial land-use strategy is to choose a development site within an existing community. It is especially helpful when it requires regeneration policy in the recommended site, such as city center, housing area, university quarter to promote community, including concern for historic structure, and the development of regional- and local transportation system, are essential to efficient development. It is smarter, healthier, and cheaper to develop within the existing city pattern.

Argument 3.): Local authorities operate the planning system within a framework of policy set by central government. The planning system mainly influences on the design of buildings and spaces. Making the most potential design depends on understanding these influences and act positively. In particular, national planning policy guidance Planning Policy Guidance Notes (PPGs), issued by the Department of the Environment, Transport and the Regions, needs to be taken into account. So from general to specific city policy, the policy guide-line are modify according to typology of the area, but the it follow the main general rules for the whole country.

'The urban designing process is complex. The way it should be carried out is open to debate. There are different ways of getting involved, of deciding on/designing the issues to address, different ways of designing solutions and different ways of evaluating, choosing and implementing them'(Jon Lang, 2005). My research suggests that -the balance of national and local urban level design, decisions and regeneration strategy fundamentally influence the structure and townscape. I concluded that the urban design tools modify according to the nature of urban and local interests on the prevailing in the formation of a city, space structure and landscape design.

5.3. Application context

Our understanding of how the world functions and what different patterns of built form develop deepen in the town planning, local plan, urban renewal and projects. We are consciously design the urban design application field for the growing complexity of the world. In the UK general planning system and Liverpool city planning policy. This thesis describes the following argument:

Argument 4.): To develop anything to an urban design plan, at regional, district and neighborhood scale, that has clear community and political support, and also useful ‘Planning Policy Statement’ guideline are follow for those development. In Liverpool existing buildings, communities, towns, and regions are considering the challenge and planning approaches for sustainability. In existing Liverpool city urban design, there is an opportunity to introduce sustainable design principles, these are in the following:

- preserve and protect the quality of the natural environment in the Township
- provide for a structured mix of land uses which avoids conflicts but increases the economic vitality of the Township
- Redesign existing structure to perform the function properly
- Decrease consumption of energy

Argument 5.): To clearly extend design principles into the area of sustainable development, and express mandatory and desired outcomes in design policy and advice that can impact positively on design quality. But sometimes the policies are insufficient concern with fast sustainable changes in all urban development.

5.4. Social space and movement:

‘Urbanity, the product of urbanism, derives from the synthesis of social, economic and environmental factors. The practice of urban design must engage fully with each of these if it is to be effective. A key challenge of urban design is that its practitioners successfully orchestrate diverse professional inputs. These inputs include

- (1) Space/form issues such as layout and building orientation, typically the preserve of urban designers;
- (2) Transportation issues, normally undertaken by transport planners; and
- (3) land use issues, generally the domain of property consultants. Urban design methodologies must be robust if they are to achieve intended outcomes’ (Tim Stonor, 2006).

Argument 6.): In the thesis master-plans are illustrated as high-quality and mixed-use developments. Built on large sites, such as Liverpool City center is characterized by:

- compactness;

- a mixture of uses and dwelling types, including affordable housing;
- a range of employment, leisure and community facilities;
- appropriate infrastructure and services;
- high standards of urban design;
- access to public open space and green spaces; and
- Ready access to public transport.

Argument 7.): The approaches for design system of urban space based on, the three main factors, these are:

- Renewal: Preserve the existing pattern and renovation for better achievement the urban space and street design.
- Sustainable policy approaches: Policies and new approaches are adopting the sustainable changes by recent planning and decisions.
- Historical site preservation: For this purpose the aim of heritage conservation is to ensure that the cultural significance of heritage items and heritage conservation areas are maintained over time. While changes may be necessary to adapt heritage buildings to new uses or modern living standards, it is important to ensure that these changes do not compromise the heritage significance of the item.

Argument 8.): The character of the government encouraging the use of projects to regenerate Liverpool city with mixed success, these include Garden Festivals, Docklands, City of Architecture and sustainable urban projects. It has been argued that their success for economic regeneration is limited. Well-designed buildings, streets and open spaces create high quality places, which can genuinely transform people's lives.

Argument 9.): For avoiding the conjunction in city-center Liverpool planning system approaches – *Tackling traffic congestion and better parking*, better public transport, better for cyclists and safe environment. The standard proposal is to design wider roads, more one-way streets and more parking facilities and/or to improve mass transit systems.

5.5. Government policy and Public interest

The urban projects are guideline by government authority that involves public interest, decision-makers and stakeholders. The steps are in following:

- Pre-design guideline- Government sectors
- Design and development- Investors and developers
- Use, management and maintenance- developers
- Decline, demolition and/or regeneration- Government sectors

Argument 10.): In UK, planning systems are responsible for the ‘preparation of Local Development Frameworks’ and in ‘National Parks National Park Management Plans’. The development to be accepted in authority by the contaminated land investigation should be undertaken and a report submitted before the application is considered.

Argument 11.): The condition of planning legislation throughout the nation to ensure appropriate focus on development outcomes that support the continuity of our urban culture that are economically, socially and environmentally sustainable.

Argument 12.): The UK system planning approaches and urban design controls for the nation to focus on the design of the public interest provide appropriate controls that encourage high quality architecture and ensure that public participation in the approval process. There are many advantages to a Web-based approach at local, regional and national public participation events. The meetings are neither restricted by geographical location nor time. Access to the information about the issues being discussed is available from any location that has Web access.

Argument 13.): Liverpool urban design guides evolution of cities and towns, react in changing cultural values and determining the outcomes for the public's best interest. The aims are to maximize public benefit by ensuring development in relation to long term urban outcomes. It ensures that overall sustainability is improved with every initiative that effects a physical change in city.

5.6. The concern of the developer, inventor and occupier

The process of designing and producing the built environment involves a variety of 'actors' or decision makers. In UK, the development of the built environment – and the issue of design quality – is the result of involvement a variety of agents, each with their own objectives, motivations, resources and constraints and all connected with one another in several different ways. To fully understand the development process, it is necessary to identify the key actors, their motivations and objectives, and their relationships with each other.

Argument 14.): Given the changing combination of players in the planning game and as these essays illustrate, Liverpool established a clear and effective planning role for government to Local authority.

1. For urban design development and maintaining, an emphasis on the public realm as a framework for private and nonprofit development;
2. Continuously updating intelligent, flexible guidelines for private, nonprofit, and public development;
3. Avoiding planning for single-function development.
4. The physical, social and economic benefits from urban design projects.

5.7. Sustainability changes and planning approaches

Sustainable urban design approaches for reducing energy consumption of individual buildings to create energy-saving urban environments, that maximize opportunities for walkability, transit use, and building efficiency design. It is increasingly important that issues of sustainability and energy consumption must be addressed at the urban scale. From the

thesis analysis the UK national to Liverpool city policy I have found some arguments about sustainable changes and planning approaches, these are:

Argument 15.): In the case of Design, Planning & Management Liverpool adopts:

- Admit sustainable design principles into general and local plans
- Establish short, mid and long-term sustainability goals, objectives & evaluation criteria for development decision-making
- Make development decisions predictable, fair & cost effective
- Create economic incentives to encourage sustainable development

Argument 16.): Approaches for Land Use & Transportation system:

- Promote mixed-use developments that support regional transit
- Create walkable neighborhoods with a strong sense of place
- Encourage use of alternative fuels, fleets & transit infrastructure
- Strengthen & direct development towards existing communities
- Preserve open space, farmland, natural beauty, habitat & critical environmental areas
- Integrate open space throughout the urban landscape

Argument 17.): For Housing & Environmental Systems:

- Encourage compact building design
- Create a range of housing opportunities & choices
- Provide incentives for higher density housing with access transit
- Reclaim & reuse, where possible

5.8. The nature of the design process

In the thesis, at first I describe the general urban design methods, and then I analyze the real life practice in the context of Liverpool city. I also describe urban design methods that have been set within a theoretical framework for sustainable changes.

Argument 18.): The methods described in the thesis are present in the planning and urban design domain and their purpose is to evaluate '*environmental impact assessment*'. Their emphasis is on the view of problem solving with alternative and to monitor considerations for sustainable issues.

Argument 19.): In UK, especially the Liverpool City center development process participates with the existing situation. Design development methods are set from the project goals and objectives. The methods outlined in the thesis are based on a process which includes: the definition of goals and objectives; a survey and its analysis; a synthesis or of alternative solutions; evaluation of alternatives; the process of implementation and monitoring. When dealing with urban design in UK, the approaches are similar, but 'Review of the Environmental Statement' is added into the planning process, also evaluated taking

information from different entities. Same environmental priorities are focused in the Liverpool project development system.

Argument 20.): For all the cases dealing with design, the process is cyclical, requires several return loops to evaluate again the validity of design objectives, gather additional information, carry out further analyses and adjust the direction of the search for a solution. Monitoring are very important, it modifies the plan with current situation.

5.9. Conclusion- Dealing with the future:

Many Issues are reviewed in this thesis, each issue and it's principal component are influential to make planning practice more efficient for delivering quality urban design. The following seems to be the most effective activities for efficient urban design and practice.

- To develop anything approximating to an urban design plan, at regional, district and neighborhood scale, that has clear community and political support, and is useful to developers and decision-makers.
- To clearly extend design principles into the area of sustainable development, and express the sustainable consciousness in the form of mandatory and desired outcomes in the design policy and suggestions that can impact positively the design quality.
- To provide high levels of design skill and development methods in the control process

During analysis of this thesis, I have discovered some demanding guideline for sustainable urban design development planning approaches, such as:

1. Mix land uses.
2. Take advantage of compact building design.
3. Create city center opportunities.
4. Create walkable communities, , such as school, playground, some everyday need market are close distance
5. Promote distinctive, attractive communities with a strong sense of place.
6. Preserve open space, public gathering space, and natural beauty in critical areas.
7. Strengthen and direct development toward existing communities.
8. Provide a variety of transportation choices.
9. Make development decisions predictable, fair, and cost-effective.
10. Encourage community and stakeholder collaboration in development decisions.

At the beginning of 'The Death and Life of Great American Cities', Jane Jacobs writes: "Cities are an immense laboratory of trial and error, failure and success, in city building and city design. This is the laboratory in which city planning should have been learning and forming and testing theories. Instead the practitioners and teachers of this discipline (if such it can be called) have ignored the study of success and failure in real life, have been incurious

about the reasons for unexpected success, and are guided instead by principles . . . and imaginary dream cities —from anything but cities themselves”. Liverpool is a successful city and UK planning system also play an important part, but the same process are sometimes not applicable for all situation. So apply the urban design practice consciously to concern with the existing situation.

Glossary:

Planning Policy Guidance Notes (PPGs),

Unitary Development Plan (UDP), Supplementary Planning Guidance Notes (SPG),

Green Infrastructure (GI), General Permitted Development Order (GPOD),

ESPACE Project (European Spatial Planning: Adapting to Climate Events

ES (environmental statement).

The best practicable environmental option (BPEO)

EIA -environmental impact assessment

City Centre Movement Strategy (CCMS)

BREEAM (Building Research Establishment Environmental Assessment Method

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