



supplementary planning document 1
design and townscape guide 2009
appendices

local development framework
delivering regeneration and growth



Appendix 1 The Core Strategy – Aim and Strategic Objectives

The Aim

To secure a major refocus of function and the long term sustainability of Southend as a significant urban area that serves local people and the Thames Gateway.

To do this there is a need to release the potential of Southend's land and buildings to achieve measurable improvements in the town's economic prosperity, transportation networks, infrastructure and facilities; and the quality of life of all its citizens. This will include safeguarding and improving the standards of the town's amenities and improving the quality of the natural and built environment.

Strategic Objectives

- SO1 Deliver employment led regeneration, wealth creation and growth across the Thames Gateway South Essex sub-region
- SO2 Secure the regeneration of Southend as a cultural and intellectual hub and a centre of education excellence
- SO3 Create and maintain a balance between employment and housing growth in the future
- SO4 Secure sustainable regeneration and growth focused on the urban area
- SO5 Provide for not less than 13,000 net additional jobs in the period 2001 to 2021 within Southend on Sea
- SO6 Provide for 6,000 net additional dwellings in the period 2001 to 2021 within Southend on Sea
- SO7 Target future dwelling provision to meet the needs of local people including the provision of affordable housing
- SO8 Secure a thriving, vibrant and attractive town centre and network of district and local centres
- SO9 Secure a step change in the provision of transport infrastructure and accessibility as a precondition for additional development
- SO10 Maximise the effectiveness and integration of key transport corridors and interchanges as a principal focus for development in the urban area
- SO11 Secure the best use of the River Thames and its Estuary as an asset for transport, leisure and business
- SO12 Secure the social and physical infrastructure related to improving the health, education, lifelong learning and well-being of all sectors of the community
- SO13 Deliver high quality urban and natural environments based on the principles of urban renaissance, design excellence, and the safeguarding and enhancement of existing character and scale where appropriate

- SO14 Protect, manage and optimise the benefits of the town's historic and natural environment and assets, including where appropriate the beneficial long term use of land that is contaminated or otherwise degraded
- SO15 Contribute to the creation of a 'Green Grid' of high quality, linked and publicly accessible open spaces across the sub-region
- SO16 Secure delivery of strategic objectives through all relevant delivery bodies, and their strategies

Appendix 2 List of Saved Policies and New Policies

The Southend-on-Sea Design & Townscape Guide relates to the following policies (which refer to design):

Core Strategy Design Policies

- KP2 Development Principles
- KP3 Implementation and Resources
- CP3 Transport and Accessibility
- CP4 The Environment and Urban Renaissance
- CP6 Community Infrastructure
- CP7 Sport, Recreation and Green Space
- CP8 Dwelling Provision

Saved Borough Local Plan Design Policies

- C1 Ancient Monuments & Archaeological sites
- C2 Historic Buildings
- C3 Conservation of Historic Buildings
- C4 Conservation Areas
- C6 Frontages of Townscape Merit
- C7 Shop & Commercial Fascias
- C8 Advertisements
- C9 Satellite Antennae
- C11 New Buildings, Extensions & Alterations
- C12 Undercliff Gardens
- C13 Street Furniture
- C14 Trees, Planted Areas & Landscaping
- C17 A127 Frontage
- C18 Open Sites for Commercial Services
- H5 Residential Design & Layout Considerations
- H7 The Formation of Self Contained Flats
- H10 Backland Development
- H12 Environmental Improvement
- S1 New Shopping Developments
- U5 Access & Safety in the Built Environment

These policies will be gradually replaced by new policies in other Local Development Documents. This document is the first to be adopted and it will be reviewed after the publication of each new document and updated accordingly

East of England Plan Design Policies

- SS1 Achieving Sustainable Development
- ENV6 The Historic Environment
- ENV7 Quality in the Built Environment

For further information see Section 1.3.1 – Policy Framework. The full wording of these saved policies can be found in the Core Strategy, the Borough Local Plan, the East of England Plan and on the Council's Website www.southend.gov.uk

Appendix 3 Building for Life Criteria

Environment & Community

1. Does the development provide (or is it close to) community facilities, such as a school, parks, play areas, shops, pubs or cafés?
2. Is there an accommodation mix that reflects the needs and aspirations of the local community?
3. Is there a tenure mix that reflects the needs of the local community?
4. Does the development have easy access to public transport?
5. Does the development have any features that reduce its environmental impact?

Character

6. Is the design specific to the scheme?
7. Does the scheme exploit existing buildings, landscape or topography?
8. Does the scheme feel like a place with distinctive character?
9. Do the buildings and layout make it easy to find your way around?
10. Are streets defined by a well-structured building layout?

Streets, Parking & Pedestrianisation

11. Does the building layout take priority over the streets and car parking, so that the highways do not dominate?
12. Is the car parking well integrated and situated so it supports the street scene?
13. Are the streets pedestrian, cycle and vehicle friendly?
14. Does the scheme integrate with existing streets, paths and surrounding development?
15. Are public spaces and pedestrian routes overlooked and do they feel safe?

Design & Construction

16. Is public space well designed and does it have suitable management arrangements in place?
17. Do the buildings exhibit architectural quality?
18. Do internal spaces and layout allow for adaptation, conversion or extension?
19. Has the scheme made use of advances in construction or technology that enhance its performance, quality and attractiveness?
20. Do buildings or spaces outperform statutory minima, such as building regulations?

Further information on the Building for Life standards can be found on the CBE website www.cabe.org.uk or www.buildingforlife.org

Appendix 4 Lifetime Home Standards

Standard	Requirement	Additional Information
1. Car Parking Width	Where there is car parking adjacent to the home, it should be capable of enlargement to attain 3300mm width.	This criterion is only applicable to a dwelling that has a parking space within a designated plot boundary for that particular dwelling. This usually therefore only applies to houses and bungalows.
2. Access from Car Parking	The distance from the car parking space to the home should be kept to a minimum and should be level or gently sloping.	It is preferable to have a level approach. However, where the topography prevents this, a maximum gradient of 1:12 is permissible on an individual slope of less than 5 metres or 1:15 if it is between 5 and 10m, and 1:20 where it is more than 10m*. Paths should be a minimum of 900mm width.
3. Approach Gradients	The approach to all entrances should be level or gently sloping.	See Above.
4. Entrances	All entrances should: <ol style="list-style-type: none"> be illuminated have level access over the threshold and main entrances should be covered. 	The threshold up-stand should not exceed 15mm.
5. Communal Stairs and Lifts	<ol style="list-style-type: none"> Communal stairs should provide easy access and Where homes are reached by a lift, it should be fully accessible. 	Provision of a lift is not a Lifetime Homes requirement provided the communal stairs meet the following criteria: <ul style="list-style-type: none"> Uniform rise not more than 170mm Uniform going not less than 250mm Handrails extend 300mm beyond top and bottom step Handrail height 900mm from each nosing
6. Doorways and Hallways	The width of the doorways and hallways should conform to the following specifications:	

	Doorway clear opening width (mm) Corridor	passageway width(mm) minimum	The clear opening width of the front door should be a minimum 800mm. There should be a 300mm nib to the side of the leading edge of doors at entrance level.
	750 or wider	900 (when approach is head-on)	
	750 or wider	1200 (when approach is not head-on)	
	775 or wider	1050 (when approach is not head-on)	
	900 or wider	900 (when approach is not head-on)	
7. Wheelchair Accessibility	There should be space for turning a wheelchair in dining areas and living rooms and adequate circulation space for wheelchairs elsewhere.		A turning circle of 1500mm diameter or a turning ellipse of 1700mm x 1400mm is required.
8. Living Room	The living room should be at entrance level.		
9. Entrance Level Bed space	In houses of two or more storeys, there should be space on the entrance level that could be used as a convenient bed-space.		
10. Entrance Level WC & Shower Drainage	There should be: a) A wheelchair accessible entrance level WC, with b) Drainage provision enabling a shower to be fitted to be fitted in the future.		The drainage provision for a future shower should be provided in all dwellings.
11. Bathroom & WC Walls	Walls in the bathroom and WC should be capable of taking adaptations such as handrails.		Wall reinforcements (if required) should be located between 300mm and 1500mm from the floor.
12. Stair Lift / Through Floor Lift	The design should incorporate: a) provision of a stair lift b) a suitably identified space for a through-the-floor lift from the ground to the first floor, for example to a bedroom next to a bathroom.		There must be a minimum of 900mm clear distance between the stair wall (on which the stair lift would normally be located) and the edge of the opposite handrail/balustrade.

		Unobstructed 'landings' are needed at top and bottom of the stairs.
13. Tracking Hoist Route	The design should provide a reasonable route for a potential hoist from a main bedroom to the bathroom.	Most timber trusses today are capable of taking a hoist and tracking. Technological advances in hoist design mean that a straight run is no longer a requirement.
14. Bathroom Layout	The bathroom should be designed to incorporate ease of access to the bath, WC and wash basin.	Although there is not a requirement for a turning circle in bathrooms, sufficient space should be provided so that a wheelchair user can use the bathroom.
15. Window Specifications	Living room window glazing should begin at 800mm or lower and windows should be easy to open/operate.	People should be able to see out of the window whilst seated. Wheelchair users should be able to operate at least one window in each room.
16. Controls, Fixtures & Fittings	Switches, sockets, ventilation and service controls should be at a height usable by all (i.e. between 450mm and 1200mm from the floor).	This applies to all rooms, including the kitchen and bathroom.

Appendix 5 Code for Sustainable Homes Assessment Criteria

All new residential properties should achieve Code Level 3 as a minimum, but should aspire to achieve Code Level 4. An explanation of the Code Level attained should be given in the Design and Access Statement.

To achieve Code Level 3 developers must demonstrate:

- At least 25% improvement over current Building Regulations in respect of CO₂ emissions.
- Occupants should use no more than 105 litres of portable water per person per day (the current average is 150 litres per person per day).
- At least 3 out of the 5 main building materials (roof structure and finishes, external walls, upper floor, internal walls, windows and doors) must be at least rated 'D' as per the BRE Green Guide for Housing Specification.
- The site for storage of waste must be sized to hold either the larger of the local authority bins provided or the minimum capacity calculated as per BS5906.
- There must be a Site Waste Management Plan.
- Peak surface runoff rate and annual surface runoff volumes post construction must not exceed the previous conditions of the site.

To achieve Code Level 4 developers must demonstrate:

- At least 44% improvement over current Building Regulations in respect of CO₂ emissions.
- Occupants should use no more than 105 litres of portable water per person per day (the current average is 150 litres per person per day).
- At least 3 out of the 5 main building materials (roof structure and finishes, external walls, upper floor, internal walls, windows and doors) must be at least rated 'D' as per the BRE Green Guide for Housing Specification.
- The site for storage of waste must be sized to hold either the larger of the local authority bins provided or the minimum capacity calculated as per BS5906.
- There must be a Site Waste Management Plan.
- Peak surface runoff rate and annual surface runoff volumes post construction must not exceed the previous conditions of the site.

As well as the minimum standards, additional credits must be gained from a range of sustainability criteria outlined below.

A detailed breakdown of the points awarded in each criteria and the weighting can be found in the Code for Sustainable Homes Document and associated guidance which can be viewed and downloaded at www.communities.gov.uk

Issue	Total Credits Available (incl. Breakdown)	Weighting and Assessment Criteria
Energy and CO₂ Emissions	29	Category Weighting Factor 36.4% Weighted value of each credit 1.26
Dwelling Emission Rate	15	Credits are awarded based on the percentage improvement in the Dwelling Emission Rate (<i>DER</i>), (estimated carbon dioxide emissions in kg per m ² per annum arising from energy use for heating, hot water and lighting for the actual dwelling), over the Target Emission Rate (<i>TER</i>) (the maximum emission rate permitted by Building Regulations)
Building Fabric	2	Credits are awarded based on the Heat Loss Parameter for each dwelling
Internal Lighting	2	Credits are awarded for the provision of fixed dedicated energy efficient internal light fittings.
Drying Space	1	Credits are awarded based on the provision of adequate secure drying space for each dwelling type.
Energy Labelled White Goods	2	Credits are awarded where information is provided relating to the provision of energy efficient white goods
External Lighting	2	Credits are awarded where all external lighting within the development is provided by dedicated energy efficient fittings including space and security lighting.
Low or Zero Carbon (LZC) Technologies	2	Credits are awarded based on the percentage reduction in total carbon emissions that result from using Zero or Low Carbon (LZ C) Energy Technologies for each dwelling
Cycle Storage	2	Credits are awarded where adequately sized, safe, secure, convenient and weather-proof cycle storage are provided

Home Office	1	Credits are awarded on the basis of the provision of space and services that enable a suitable quiet room to be used effectively as a home office.
Water	6	Category Weighting Factor 9.0% Weighted value of each credit 1.50
Internal Potable Water Use	5	Credits are awarded based on the predicted average household water consumption
External Water Use	1	A credit is awarded for providing a system to collect rainwater for use in irrigation where a correctly specified system to collect rainwater for external/internal irrigation use has been provided to a dwelling with a garden, patio or communal garden space (examples of such systems include rainwater butts and central rainwater collection systems).
Materials	24	Category Weighting Factor 7.2% Weighted value of each credit 0.30
Environmental Impact of Materials	15	Credits are available depending on the Green Guide ratings and relative distributions of different materials for Roof, External Walls, Internal Walls (including separating walls), Upper and Ground Floors (including separating floors), Windows
Responsible Sourcing of Materials – Basic Building Elements	6	Points are awarded where materials used in key building elements (Frame, Ground floor, Upper floors (including separating floors), Roof, External walls, Internal walls (including separating walls), Foundation/substructure (excluding sub-base materials), Staircase) are responsibly sourced
Responsible Sourcing of Materials -Finishing Elements	3	Credits are awarded on the basis, where 80 per cent of the assessed materials in the <i>Finishing Elements</i> (Stairs, Windows, External & internal doors, Skirtings, Panellings, Furniture, Fascias) are responsibly sourced:
Surface Water Run-off	4	Category Weighting Factor 2.2% Weighted value of each credit 0.55

Management of surface water run-off from developments	2	It is mandatory at all levels to ensure that the peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site
Flood Risk	2	Credits are awarded where the assessed dwelling is located either in an area of low annual probability of flooding, or where a flood risk assessment shows that appropriate measures have been taken to ensure safe access and escape routes and flood resilient and resistant construction.
Waste	7	Category Weighting Factor 6.4% Weighted value of each credit 0.91
Storage of non-recyclable waste and recyclable household waste	4	There are credits available for provision of storage space for household recyclable materials.
Construction Site Waste Management	2	It is mandatory at all levels of the Code for a Site Waste Management Plan to be developed and implemented. This will require monitoring and reporting of waste generated on site in defined waste groups and compliance with legal requirements as set in SWMP regulations 2008 for and with best practice.
Composting	1	Credits are awarded where home composting facilities are provided in houses with gardens or local authority kitchen waste collection/communal/community composting service in other dwelling types.
Pollution	4	Category Weighting Factor 2.8% Weighted value of each credit 0.70
Global Warming Potential (GWP) of insulants	1	Credits are awarded where all insulating materials in the roofs: (Including loft access), walls (internal and external including lintels and all acoustic insulation), floors: (including ground and upper floors), hot water cylinder, pipe insulation and other thermal stores, cold water storage tanks where provided and external doors avoid the use of

		substances that have a GWP less than or equal to 5
NO _x Emissions	3	Credits are awarded on the basis of NO _x emissions arising from the operation of space heating and hot water systems
Health & Wellbeing	12	Category Weighting Factor 14% Weighted value of each credit 1.17
Daylighting	3	Credits are awarded where kitchens, all living rooms, dining rooms and studies achieve a minimum average daylight factor; and a percentage of the working plane in kitchens, living rooms, dining rooms and studies receive direct light from the sky
Sound Insulation	4	Credits are awarded for achieving higher standards of sound insulation than those given in Approved Document E of the Building Regulations
Private Space	1	The credit is awarded where outdoor space (private or semi-private) has been provided
Lifetime Homes	4	The credits are awarded where all the principles of Lifetime Homes have been complied with.
Management	9	Category Weighting Factor 10% Weighted value of each credit 1.11
Home User Guide	3	Credits are awarded for the provision of a simple user guide which covers information relevant to the 'non-technical' tenant/owner on the operation and environmental performance of their home.
Considerate Constructors Scheme	2	Credits are awarded where there is a commitment to comply with best practice site management principles including a commitment to meet or exceed Best Practice under a nationally or locally recognised certification scheme such as the Considerate Constructors Scheme(CCS).
Construction Site Impacts	2	Credits are awarded where there is a commitment and strategy to operate site management procedures including where there are procedures that cover two or more of the following items: <ul style="list-style-type: none"> • set targets for CO₂ production or energy use

		<ul style="list-style-type: none"> • CO2 or energy use arising from commercial transport • set targets for water consumption • Adopt best practice policies in respect of air (dust) pollution • Adopt best practice policies in respect of water (ground and surface) pollution occurring on the site • Eighty per cent of site timber is reclaimed, re-used or responsibly sourced.
Security	2	Credits are achieved by complying with Section 2 – Physical Security from <i>'Secured by Design New Homes'</i> . Where an Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA) from the local police force is consulted at the design stage and their recommendations are incorporated into the design
Ecology	9	Category Weighting Factor 12 Weighted value of each credit 1.33
Ecological value of site	1	Credits are awarded where the site is defined as land of inherently low ecological value
Ecological enhancement	1	Where there is a commitment to enhance the ecological value of the development site in accordance by appointing a <i>Suitably Qualified Ecologist</i> to recommend appropriate ecological features that will positively enhance the ecology of the site and where the developer adopts all key recommendations and 30 per cent of additional recommendations.
Protection of ecological features	1	The credit is awarded where all existing features of ecological value on the development site potentially affected by the works, are maintained and adequately protected during site clearance, preparation and construction works.
Change in ecological value of site	4	Credits are awarded according to how the ecological value of the site has changed before and after development

Building footprint	2	Credits are awarded where the ratio of combined internal floor area of all dwellings on the site to their footprint
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Calculating the credit score

For each category, identify the credits awarded, multiply by the weighting value for each credit in that category and then sum all the totals.

Total percentage Points Score (equal to or greater than)	Code Levels
36 points	Level 1(*)
48 points	Level 2(**)
57 points	Level 3(***)
68 points	Level 4(****)
84 points	Level 5(*****)
90 points	Level 6(*****)

An initial Design Stage Assessment should be carried out for all new residential units and details (including an explanation) submitted with the planning application.

Further information on the Code for Sustainable Homes including technical guidance relating to calculation of the scores can be found at www.communities.gov.uk

Appendix 6 Options for Resource Minimisation in Development

Option	What	How	Suitability	Comments
Rainwater Harvesting	Capturing run-off from roofs for use flushing toilets or landscape irrigation	Drain pipes / channels leading to Underground tanks	Individual units and whole developments	Most suitable for new residential development Can be made into a design feature
Grey Water Recycling	Capturing waste water from baths, showers and washing machines for irrigation	Diverting drainage to underground tanks	Individual units and whole developments	Most suitable for new residential development
Water Efficient Sanitary Ware	Flow regulated or aerated taps, low volume showers and toilets and water efficient kitchen appliances	Reduces the need for water	All development	Particularly relevant as there is a shortage of water in this region
Sustainable Urban Drainage System (SUDS)	Stall or hold water in the ground and facilitate its evaporation	Permeable paving, filter drains and balancing ponds	New larger developments	Can be developed as part of a landscaping and open space scheme
Passive Solar Gain	Capturing heat from sun and creating a solar buffer zone	Large areas of south facing glazing / conservatories	Individual units to whole developments	Sun shading may be required to control solar gain – external shading,

				blinds, solar control glass
Designing for Good Daylighting	Introducing natural light into the building reduces the need for supplementary artificial light during the day	Maximising glazed areas (including rooflights where appropriate) and reducing the width of floorplates	All development	Sun shading and natural ventilation may be required
Utilising the thermal mass of the building	Maximising the capacity to store heat in the building's structure	Designing the building with heavy masonry areas (e.g. service areas) with thick walls to the north elevation to store heat from sun spaces on the south elevation and the central heating in winter and provide cooling in summer	New larger developments	Needs to be integral to the overall design
Passive stack ventilation (PSV) within airtight units	Introducing controlled natural air movement providing building ventilation into sealed units	Allowing natural movement of air in the building and removing the need for air conditioning	New commercial buildings and high density residential	The design of the stacks need to be integral to the overall design – where not possible mechanical ventilation should include heat recovery to reduce heat loss

Super Insulation Space heating - Inter-seasonal thermal storage	Reduce the need for heating and cooling Providing heating and cooling in harmony with the seasons	High levels of wall, floor and roof insulation Heat exchanger to retain heat in winter or exposed thermal mass to absorb solar gains in winter and absorb the cool air during summer nights	All buildings	
Car clubs	Sharing a pool of cars	Reducing the reliance on the private car	Commercial buildings and high density residential	May reduce the need of parking required by planning. Details should be set out in the Travel Plan
Cycle Storage	Provision of secure, protected and convenient cycle storage	Encourages cycling rather than car use	Commercial buildings and high density residential / neighbourhood All buildings	
Live / work units	Designed work areas included in residential developments	Reducing the need to travel for work	Individual units to whole developments	Work activities should not impact on the amenity of adjoining neighbours.
Energy saving and Environmentally friendly components	Double/triple glazing with low emissivity coatings (not PVC frames,	Avoid thermal bridges where heat can find an easy route to escape	All buildings	Toxic materials should be avoided

	which use harmful chemicals in their manufacture), and airtight construction			
Use of sustainable and reclaimed materials	Low embodied energy, minimise use of natural resources	Sustainable timber, straw bale construction, rammed earth walls, reclamation	All buildings	Reclaimed materials have a softer weathered appearance which can help integrate anew building into its surroundings
Use of locally sourced and manufactured materials	Reduces energy consumed in transportation		All buildings	Also supports local businesses and benefits the local economy
Black water recycling	Capturing waste water from toilets, kitchen sinks and dishwashers	Diverting drainage to Reed beds	New larger development	
Porous surfacing for parking areas	Allowing free drainage through parking areas, increase infiltration	Choice of surface material	All parking areas from single spaces to large car parks	landscaped areas within and around parking areas also help drainage
Earth- sheltered design	Employs the earth as a major component of a building's thermal control system	Digging the building into the landscape	Where landscape topography allows	

Energy conserving landscapes	Careful use of landscaping to mitigate impact of the weather	e.g. Deciduous planting on south elevations to provide shade, evergreen planting on north side to slow winter winds	All buildings	Up to 30% reduction in cooling and heating costs
Radiant barriers	Use of metallic foils and plates to reflect lost radiant heat	Used in lofts and behind radiators	Individual units, existing and new build	Very low cost and easy to install in existing properties
Zoned Heating Control	Allows independent control of heating in different areas of the building	Thermostatic radiators and a control system	All Buildings	Low cost
Composting and recycling of waste	Specific containers for separating waste encourages recycling and composting, reduces landfill and demand on natural resources	Composting and recycling facilities built into new developments	All buildings	
Energy efficient equipment	Reduced heat output equipment	Reduces the need for additional ventilation	Commercial buildings and domestic appliances	Including light bulbs!

Appendix 7 Options for Renewable Power Generation in Development

Option	What	How	Suitability	Comments
Solar panels / hot water systems	Absorbing energy from the sun to heat hot water passing through the panels	Roof panels containing water pipes	Individual units	Can provide up to 50% of hot water requirement
Photovoltaic cells	Converts suns energy into electricity	Roof panels or integrated into cladding or glazing	Individual units	Can be easily integrated into buildings with little visual impact
Large Wind Turbine	Converts winds energy into electricity	Large turbine	Existing communities or new large developments	Noise and visual impact considerations
Small wind turbine	Converts winds energy into electricity	Small turbine fixed to a building or free standing in an amenity area	Individual units, new or existing	Micro - generation technologies can either operate connected to a national or local grid or as a stand alone feeding into a battery store. Noise and vibration issues should be considered when installing these units.
Combined heat and	Burning bio-mass fuel or	Generator powered by a	New larger developments	Should be sensitively

power (CHP)	natural gas to generate electricity and using the steam produced as a bi-product as heat for hot water systems (HWS).	choice of fuels and super insulated pipes.		sited. CHP has double the efficiency of conventional power generation. Surplus power may be sold back to a local or national grid
Domestic CHP	Using the excess heat that normally escapes through the exhaust flue of a conventional boiler to heat the hot water	Replaces conventional domestic boiler (same size as a large domestic boiler)	Individual units	Micro-generation technologies - can either operate connected to a national or local grid or as a stand alone feeding into a battery store
Ground Source Heat Pumps (GSHP)	Using ground warmth to heat water	Circulating water through insulated pipes underground	Requires relatively large area of undeveloped land	Geothermal survey required to assess the suitability of the ground thermo properties. Vertical pipe systems can be used were space is at a premium
Air Source Heat Pumps (ASHP)	Extract heat from the outside air to heat water (air-to-water system) or air (air-to-air system) internally.	Air-to-water system – heat pumps extract warmth from the outside air to heat water. Air-to-air system – heat	Individual units	As a preference, the electricity needed to run the pumps should come from an on-site renewable source, such

		pumps extract warmth from the outside air which is then circulated by fans to heat internally.		<p>as solar panels, to ensure their use is truly renewable.</p> <p>Consideration should be given to the visual and noise impact of ASHP. They should be located or hidden from public view</p>
Mechanical Ventilation with Heat Recovery (MVHR)	Utilises the heat that normally escapes from the air through mechanical ventilation to heat the incoming air.	A heat exchanger captures the heat energy from the outgoing air and transfers it to the incoming air	Buildings of all sizes and uses (residential and commercial). Good practice for use in new builds and major refurbishments	Effective at reducing condensation and reducing cold draughts. More efficient when used in buildings that are built to be well air tight
Wood Pellet Stoves and Boilers	Specially cultivated wood fuel that absorbs the exact same amount of carbon dioxide as is released when it is burnt - carbon neutral	Stove with automated wood pellet feed	System can be used for heating a single room, hot water or a whole house	Consideration should be given to the location of the flue and the surroundings, the adequacy of the chimney height (there is the potential for problems associated with odour emissions), the availability of fuel, the space required for storage, and access for deliveries.

Appendix 8 Options for Enhancing Biodiversity in Development

Option	What	How	Suitability	Comments
Green Roof	Provide additional insulation and encourage biodiversity	Deep soil bases can support a variety of large plants including trees or shallow soil layers can support mosses and sedums	Roofs, including those above parking decks	Can have a pitch of up to 30%
Brown Roof	Can recreate lost habitat and support rare plants and animals	Substrate material, laid down on a flat roof and allowed to colonise naturally	Roofs, including those above parking decks	
Nesting boxes	Creation of man made nesting areas	Specially designed bricks and boxes for nesting birds or bats	Where possible	
Wetland areas	Creation of new habitat	Suds / balancing ponds. Ponds in rear gardens	Larger schemes only	Can be combined with SUDS
Roof Terraces and climbing wires and green walls	Creation of new habitat on the building itself	Provide planting areas and structure for climbing plants	Flatted blocks and commercial development	
Buffer zones / habitat links	Creates a route for wildlife	Connection of existing planted areas	Larger schemes only	

		to create a route for wildlife		
Greenways	Traffic-free green routes for pedestrian and cycle access across development sites	Connection of key points by cycle / pedestrian routes	Larger schemes only	
Landscaping and tree planting	To promote the creation of wildlife ponds, wild areas, log piles, mixed hedgerows etc within new 'greenspace'	By careful selection of native plants, tree, shrub species; specific habitat creation; and retention of existing valuable habitats, including mature trees	All development	
Sensitive conversion / repair of old buildings / features	Protection of specialist lichen, mosses and plant communities	Re-use of original materials in buildings and walls	Where opportunity arises	
New Private Gardens	Encourage use of 'wildlife-friendly' planting	Planting of ornamental species identified as having value to wildlife	All Residential Development	
Watercourses/ditches	Creation of new wildlife habitat through manipulation of existing water features / creation of	Use of 'green engineering' techniques, de-canalisation of over engineered watercourses	Larger Schemes only	May require specialist advice

	new ones			
Highway design	Allow safe crossing / improve wildlife movement and connectivity between habitat areas	'Wildlife friendly' design, such as low paving, tunnels etc incorporated into road / cycle path construction	Larger Schemes only	

Appendix 9 Provision of Public Art as Part of New Development – Developer Guidelines

Southend Borough Council is committed to the promotion and encouragement public art, which includes the commissioning of works by artists for public and private developments, in the Borough. Developers of key sites will be required to include an element of public art as part of their development or make a contribution to a central public art fund.

For information about the requirement for Public Art in new development see the Planning Obligations DPD.

The Council is keen to work closely with a wide range of partners in the development of public art projects within the Borough. This Appendix provides preliminary guidance for developers on how to proceed with these projects, how to get additional support, and the objective criteria against which the Council will review contributions proposed by developers in association with their planning policies. More detailed information can be found in the Southend Borough Council Public Art Strategy.

Themes and Types of Work

The provision of public art should result in a work of art or a contribution by an artist and / or craftsman, which complements the overall objectives of the development. Larger schemes may involve commissioning a number of different artists.

Southend Borough Council expects the work to be appropriate to the scheme and its location, both in terms of public usage and design context. The work should be visible by, and accessible to, the public and should remain on site permanently for an agreed period of time.

The work or contribution is likely to be commissioned and created specifically for the development. In many cases it will be developed in collaboration with the architect or designer and in consultation with the users of the site.

The approach adopted will vary from scheme to scheme depending on its nature, design, scale and end use. It is recommended that commissioned artists be invited to develop ideas and themes specific to the development. This is always more successful than the commissioner taking a prescriptive approach. It should however be noted that in reviewing the application the Council will pay particular attention to the maintenance of the highest quality in both the design and fabrication of commissioned work. The Council's preference is for public art to be fully integrated into development proposals.

Commissioning Public Art

Every project is different with individual considerations. Attention should be paid to developing a process, which is appropriate to its context. The following provides an outline of some issues important to achieving a successful project.

The Brief

Planning a brief, which covers issues such as the aims of the project, budget, timescales and technical issues, is essential.

Selection Process

The agreement of an appropriate method for selecting the artist. This will depend on the nature of the project but could be achieved through direct invitation, limited or open competition.

Preliminary Designs

The commissioning of preliminary designs for a fixed fee enables the commissioner to become involved in the selection process and the development of ideas.

Consultation

Consultation with local people is encouraged where appropriate. This might include workshops in schools, presentations to local groups, and questionnaires. Finding an appropriate artist or artists and managing the process can be complex and it is suggested that specialist advice be taken.

For further information on specialist advisors can be found in the Southend Borough Council Public Art Strategy.

Eligibility

The requirement for public art is set out in the Planning Obligations Development Plan Document (DPD). This will normally effect the larger developments but developers of smaller sites will also be encouraged to include public art within their scheme as a means of enhancing the quality of their development.

Cost

The Planning Obligations DPD sets out the value of public art that should be included within the development.

The precise amount will be determined either by the developer providing a detailed written estimate of the building costs or by the application of a nationally recognised building price index.

Expenditure on public art can cover the following:

- Artists fees and fabrication
- Specialist advice and project management
- Linked education programmes

If it is not feasible to spend the allocation on the development site the Council will accept a commuted sum of the same value via a planning obligation. In this eventuality the Council will inform the developers of the end use of the sum and will credit the developer appropriately.

Additional Funding

Developers may be able to secure additional external funding to enhance their contribution, for example by applying for grant aid. Details of possible grant sources can be obtained from the Council. These include schemes which match private investment, project development grants and the National Lottery. Assessment of funding applications can often be a lengthy process and sufficient time should be allowed for this. These schemes also change on an annual basis.

For further information including Council contacts, see Southend Borough Council Public Art Strategy.

Considerations

In considering public art proposals, the Council intends to be flexible in the way in which the requirement can be satisfied. This will depend on the type and scale of project but will always include consideration of the following:

- Appropriateness to public usage and design context
- Demonstration of good practice with particular reference to project management and equal opportunities
- Supporting education and interpretation programmes
- Consideration of ongoing care and maintenance, and its costs

Methodology

The key to a successful public art project is to plan for the involvement of artists at the earliest opportunity in the development process, ensuring that any costs are considered as part of the process *and* that alternatives to a financial contribution are fully explored.

In submitting details for outline planning permission, the following information will be required:

- Outline proposal for the involvement of artists
- Demonstration of how the scheme will contribute to the quality of the environment and the community
- Outline of the intended procurement process
- Budget allocation
- Proposals for future care and maintenance

At full planning permission stage, or reserved matters stage, the following information will be required:

- Detailed proposal for the involvement of artists
- Demonstration of contribution to the environment and the community
- Description of the commissioning process with a report on tasks already completed
- Budget details

- Details for future care and maintenance
- Proposals will, in general, be dealt with by your case officer as a material consideration in determining the application.
- Advice and Assistance (preliminary advice and assistance will be provided by your case officer).

Other Considerations

There may be circumstances where a freestanding artwork may require a separate planning permission. It is advisable to check with the Planning Department at an early stage in the development process.

For further information see the Southend Borough Council Public Art Strategy.

Appendix 10 Listed Buildings

Street	Number	Grade
Anerley Road	51, Marteg House	II
Beach Road, Shoebury	East & West Powder Magazines	II
Garrison	The White House	II
Bournes Green Chase	Garden wall at White House	II
Broadway, Leigh	Church of St. Clement	B
Broadway West	Leigh Library	II
Chalkwell Park	(see London Road)	
Chapel Road, Shoebury	Gatehouse / Clock Tower, offices & guardhouse with walled exercise yard (now 54 & 56 Chapel Road)	II
Garrison	Block A-B Horseshoe Barracks (now 58-72 (even) Chapel Road & 1 & 3 Horseshoe Crescent)	II
	Block C-D Horseshoe Barracks (now 5-21 (odd) Horseshoe Crescent)	II
	Block E-F Horseshoe Barracks (now 23-37 (odd) Horseshoe Crescent)	II
	Block G-H Horseshoe Barracks (now 65-71 (odd) Horseshoe Crescent)	II
	Block I Horseshoe Barracks (now 73 & 75 Horseshoe Crescent)	II
	Block J-K Horseshoe Barracks (now 80-94 (even) Horseshoe Crescent)	II
	Block J-K Horseshoe Barracks (now 80-94 (even) Horseshoe Crescent)	II
	Block L-M Horseshoe Barracks (now 48-62 (even) Horseshoe Crescent)	II
	Block N-O Horseshoe Barracks (now 8-22 (even) Horseshoe Crescent)	B
	Block P-Q Horseshoe Barracks (now 38-52 (even) Chapel Road and 2 & 4 Horseshoe Crescent)	
	Cookhouse to rear of Block C-D Horseshoe Barracks	
	Cookhouse to rear of Block E-F Horseshoe Barracks	
	Cookhouse to rear of Block L-M Horseshoe Barracks	
	Garrison Church of St. Peter & St. Paul	
Chapel Road, Shoebury	Long Course Officers Quarters (the 'Stack')	II
Garrison	Gunnery Drill Shed	II
	Church of St. Andrew	B
Church Road, Shoebury	South Shoebury Hall	II
	Garden room at South Shoebury Hall	II
	62	II
Clatterfield Gardens	White Hall	II
	Statue of Queen Victoria	II
Clifftown Parade	War Memorial	II
	1-12 (consec)	II

	1-6 (consec)	II
Clifton Terrace	Telephone kiosk	II
	7, Broadwater House	II
Devereux Road	30	II
East Street, Southend	60	II
	Fox Hall Farmhouse, Fox Hall Lane	II
Royal Artillery Way	40-45 (consec)	II
Eastern Esplanade	Church of St. Laurence & All Saints	I
Eastwoodbury Lane	Cockethurst Farmhouse	II
	311, The Red House	II
Elm Road, Shoebury	Parsons Barn (formerly the barn at North Shoebury Hall Farm,	II
Frobisher Way	North Shoebury Road)	
High Street, Leigh	The Crooked Billet	II
	62 & 63	II
High Street, Southend	The Royal Hotel (inc. Princess Caroline House)	II
Horseshoe Crescent,	(see Chapel Road)	
Shoebury Garrison	Blocks E-H, (now 30 Chapel Road & 18-22 (even) Hospital	II
Hospital Road,	Road)	II
Shoebury Garrison	Blocks K-M, (now 2-6 (even) Hospital Road)	II
	Former Hospital & attached Blocks I-J, (now 8-16 (even)	
	Hospital Road)	
Leigh Hill	28	II
	42, The Bank House	II
	85, Prospect House	II
	87, Herschell House	II
Lime Avenue	Church of St. Margaret of Antioch	II
London Road, Westcliff	The Palace Theatre	II
	Westcliff Library	II
Marine Parade,	Chalkwell Hall, Chalkwell Park	II
Southend	1-4 (consec)	II
Mess Road, Shoebury	33-35, The Hope Hotel	II
Garrison	Former Commandant's House (now 2 Mess Road)	II
	Former Officers' Mess	II
	Former Heavy Quick Firing Battery	II
	Former Light Quick Firing Battery	II
	1-15 (odd)	II
Nelson Street	Cliff Town Congregational Church and Memorial Hall	II
	Church of St. Mary the Virgin	B
North Shoebury Road	The Moat House	II
	New Farm	II
	The Angel (former Post Office and Blacksmith's Cottage)	II
	Former Park Road Methodist Church	II
Park Road, Westcliff	Southend Pier	II
Pier Hill	North Shoebury House	II
Poynters Lane	321, The Bell House	II
Rayleigh Road, Leigh	1-15 (consec)	II
Royal Terrace	Two telephone kiosks south-east of Royal Hotel	II
	Church of St. Alban the Martyr	II

St. John's Road	The Kursaal	II
Southchurch Avenue	Church of the Holy Trinity	B
Southchurch Boulevard	Former Southchurch Rectory	II
	Southchurch Hall	I
Southchurch Hall Close		
Southchurch Road	Porters	I
Suttons Road, Shoebury	Manor House	II*
The Terrace, Shoebury	Block A-B (now 12 & 14 The Terrace)	II
Garrison	C-E The Terrace (now 6-10 (even) The Terrace)	II
	F-G The Terrace (now 2 & 4 The Terrace)	II
	Former Public Library (now Southend Museum)	II
Victoria Avenue	Church of St. Mary the Virgin	I
	255 (now Swan Hall)	II
	269-275 (odd)	II
	Prittlewell Priory, Priory Park	I
	The Old Crowstone, Priory Park	II
	Southchurch Lawn (now Eton House & Alleyn Court School)	II
Wakering Road, Southend	Lawn Cottage (see Elm Road)	II
	1-4 (Blocks A-D) (now 1-7 (odd) Warrior Square Road)	II
Wakering Road, Shoebury	5, Clerk of Works House (now 9 Warrior Square Road)	II
Warrior Square Road, Shoebury Garrison	Carriage & Wagon Shed	II
Whitehouse Road	(see Eastwoodbury Lane)	II

Appendix 11 Buildings on the Local List

Street	Number
Alexandra Road, Southend	Former Synagogue
Ambleside Drive	Southend Adult Education Centre
Billet Lane	Billet Cottage
Boston Avenue	St. Mary's School
Bournemouth Park Road	Bournemouth Park School
Branksombe Road	Branksome Road Methodist Church
Broadway, Leigh	The Grand Hotel
Canewdon Road	Sunray House
Capel Terrace	Post Box adj. to No. 8
Chalkwell Esplanade	The Crowstone
Church Hill	Castle Cottage
	The Old School House
	1-7 Norman Place (consec.)
	1-8 Pleasant Terrace (consec.)
Church Road, Southend	St. John's Church & Cemetery
Clarence Street	23-29
Clifftown Parade	Shelter opp. Devereux Road
	Shelter opp. Wilson Road
	Shelter east of War Memorial
Clifftown Road	Southend Central Station
Clifton Terrace	Alexandra Yacht Club
Coleman Street	Brethren Church, adj. to No.9
Crowstone Avenue	Crowstone House
Eastern Esplanade	The Minerva PH
	The Britannia PH
	46-57 (consec.)
	The Castle PH
	193-194
Eastwood Road North	Cottage & Stable, Belfairs Park
Elm Road, Leigh	Police Station
Hamlet Road	The Cliff PH
Hamlet Court Road	65
High Street, Leigh	Wharf Cottage, 39a
	The Custom House, 74-74a
	2 & 3 Plumbs Cottage
High Street, Shoebury	The Shoeburyness Hotel
High Street, Southend	3-5 (former Brightwells)
	29-35 (former Woolworths)
	130 (former Boots)
	143 (former Midland Bank)
Kings Road	Cowstone United Reformed Church
	St. Saviour's Church
Leigh Hill	60/62
	82

Leigh Road
London Road, Leigh
Marine Parade, Southend

Milton Road
Nelson Street

Ness Road

North Road
North Shoebury Road
Olive Avenue
Palmeira Avenue

Pembury Road
Pier Hill
Prittlewell Chase
Royal Terrace
St. Augustine's Avenue
Seaforth Road
Southchurch Boulevard
Southchurch Road

Station Approach
Station Road, Westcliff
Swanage Road
Victoria Avenue

Wallis Avenue
West Street, Southend
Westcliff Avenue
Westcliff Parade

Western Esplanade

Western Esplanade
Western Road

98-108 (even)
Our Lady of Lourdes Church
Former Christian Science Church, 925
The Falcon PH
The Cornucopia PH
Our Lady & St. Helen's Church
2-18 (even)
Clifftown United Reformed Church
Former Palace Cinema, 101
Former Gatekeeper's Lodge, 107
109-115 (odd)
Cambridge House, 121
135
Cemetery Chapel
1-3 Angel Terrace
71-73 (odd)
Palmeira Mansions including 1-9
Shorefields Road
Ozone Cottage
Palace Hotel
Southend High School for Boys
19-20
St. Augustine's Church
Argyll House
Former Church Schoolhouse
All Saint's Church
Post Box adj. to No. 228
Prittlewell Station
Westcliff Station (platform canopies and
ironwork)
Southend-on-Sea New Church
The Blue Boar PH
The Spread Eagle PH, 263-267
The Golden Lion PH, 287-289
Wallis Avenue Evangelical Church
37-41 (odd)
Post Box adj. to Winton Hall
27
Post Box adj. to St. John's Court
Sun Shelter, Westcliff Cliffs
Shelter opposite Westcliff Leisure Centre
K6 Red Phone Box
Shelter west of The Esplanade PH
Former Post Office, The Last Post

Appendix 12 List of Conservation Areas and Appraisals

Conservation Area	Appraisal
Chapmanslord Conservation Area	yes
Clifftown Conservation Area	yes
Crowstone Conservation Area	yes*
Eastern Esplanade Conservation Area	yes*
Kursaal Conservation Area	yes
Leigh Conservation Area	yes*
Leigh Cliff Conservation Area	yes*
Leigh Old Town Conservation Area	yes*
Milton Conservation Area	due 2010
Prittlewell Conservation Area	yes
Shoebury Garrison Conservation Area	yes
Shorefields Conservation Area	due 2010
The Leas Conservation Area	yes*
Warrior Square Conservation Area	yes

**appraisal / reappraisal currently in progress*

Further details on the Conservation Areas including the full Conservation Area Appraisals can be found on the Council's website www.southend.gov.uk

Appendix 13 Frontages of Townscape Merit

The following buildings are designated as having Frontages of Townscape merit and the Council will seek to preserve and enhance the historic street frontages (including flanks of corner buildings).

Hamlet Court Road	103 127-151 (odd) 153-155 (odd) 159-185 (odd) 128-140 (even) 148-150 (even) 152-168 (even)
Alexandra Street	29-47 (odd) 51 26-36 (even) 44-54 (even)
Clarence Road	7-17 (odd) 35-37 (odd)
Clarence Street	23-29 (odd) 31-43 (odd) 2-8 (even) 30-40 (even)
Clifftown Road	16-25 (consec) 26-31 (consec)
High Street, Southend	49-57 (odd) 69-71c (odd) 77-83 (odd) 70-80 (even) 108-124 (even) 130
Weston Road	148-162 (even) 5 7/9, Weston Chambers 11 25-27, County Chambers Post Office

Appendix 14 Scheduled Ancient Monuments

A slight univallate hillfort known as Prittlewell Camp, Southend (at Fossetts Farm)

Cold War Defence Boom, Pigs Bay, Shoeburyness

Defended prehistoric settlement at Shoeburyness (Danish Camp)

Prittlewell Priory, Southend

Southchurch Hall moated site, Southend

World War II cassion, West Knock Sandbank, Shoeburyness

Appendix 15 List of Article 4 Directions

Clifftown Conservation Area
Leigh Conservation Area
Leigh Cliff Conservation Area
Leigh old Town Conservation Area
Milton Conservation Area
Shorefields Conservation Area
Chapmans Lord Conservation Area
Undercliff Gardens

For full details of the permitted development rights removed by each of these Article 4 Directions see the Council's website www.southend.gov.uk

Appendix 16 Highways Technical Guidance

For technical guidance on highways design refer to the Manual for Streets and associated interpretation documents, with the following exceptions and additional information.

A Streetscape Design Guide for Southend-on-Sea Borough, which will give technical guidance on all aspects of street design, is planned in 2009/10.

Exceptions and Additional Information

1. Local Route Hierarchy

The hierarchy of highways within the Borough is shown and described in the Local Transport Plan 2006 – 2011.

The appropriate highway design from the Manual for Streets can be selected to accord with the hierarchy.

2. New Public Roads

Junctions

Junction designs need to take account of the requirement of the largest vehicle that will need access and to ensure by design that the access will not be obstructed by parked cars on either the new access road or the road off which access is taken. Over-running of footways by the manoeuvring of large vehicles must be avoided by good design.

Pavement crossings shall be used in preference to the formation of road junctions to provide access to housing in circumstances where, for example the introduction of a road junction would cause an unnecessary obstruction to a pedestrian route and the site is not likely to generate large traffic flows.

Where a new access road is to be taken from a road of Distributor status or above and the traffic generation of the new development is likely to be greater than 500 vehicles per day, consideration should be given to the provision of a ghost island junction with or without islands, or single lane dualling where appropriate. Only in situations where land cannot be made available for such a junction will a simple 'T' junction be acceptable.

Junction Visibility

Junction visibility should be in accordance with TD 42/95. No relaxation below those criteria is permitted except as described below. In all cases visibility should be retained above a height of 0.6 metres.

From TD 9/93 Stopping Site Distances to be applied to 'Y' distances in TD 42/95 are as follows:-

For roads subject to a 30mph speed limit	70 metres
For roads subject to a 40mph speed limit	120 metres

Where the major and minor roads are subject to a 20mph speed restriction and the average speed has been sufficiently reduced, the 'X' distance may be 2.4 metres and the 'Y' distance may be 33 metres.

Private drives off roads of a lower category than a Secondary Distributor Route should also include sight splays wherever possible.

Pedestrian / Vehicle Sight Splays

Where a private vehicle access meets any road which is a Secondary Distributor or higher classification (See Local Route Hierarchy), there shall be visibility splays of 1.5 metres by 1.5 metres on each side.

Visibility from roads will generally require the sight-lines to be kept clear of tall planting and other significant obstructions.

Road Widths – Access

Standard Vehicles

Road design geometry should be fit for the purpose. Where there is only the requirement for cars to manoeuvre, the test will be whether a medium size saloon car can carry out the necessary manoeuvre with reasonable ease. Where the manoeuvre is constrained by structures there should be reasonable clearances between the vehicle and the structure; 300mm clearance is generally deemed reasonable.

Service Access

Refuse freighters and emergency vehicles will need to have access to most roads. The design therefore must be suitable for that purpose. Access and turning areas should be designed in such a way the risk of on-street parking obstructing the turning area is minimised as far as possible.

In other areas, such as private drives under 30m in length, where a refuse freighter / fire engine will not need access, the design should allow for the largest size of vehicle that is likely to require access. (This will need to be evidenced.)

Public Transport

Where new roads form part of a bus route they should be at least 6m wide. Any new bus stops installed or upgraded as part of the development must be DDA compliant (i.e. raised bus boarders). The Council's Highway Engineers will provide detailed design requirements.

Turning Spaces

Turning spaces should be provided to facilitate the largest vehicle normally requiring to turn on the highway or access road. This vehicle will in most cases be

a large, three axled refuse freighter. The Council's Waste Management Guide Appendix C gives the minimum acceptable dimensions.

A car can generally turn in an 8 metre by 8 metre square. Other shaped turning heads can be derived using computer aided design techniques in accordance with Manual for Streets Clause 7.10

Vehicles will be expected to turn with reasonable ease in order to comply with the requirements to turn. This will include a realistic and reasonable tolerance for driving ability and avoidance of contact. It is also expected that vehicles will turn in no more than a 'three point turn' i.e. forwards/backwards/forwards.

Non-standard turning areas for all types of vehicles can be designed and checked using computer software such as AutoTrack.

3. Private Access Ways

Access to Driveways and Parking Areas

Private drives may take access from all road types. Where they take access from Secondary Distributors or higher category roads turning facilities will be required in order to enable egress onto the highway in a forward gear. This also applies on lower category roads within 30 metres of a junction with a Distributor Road or Strategic Primary Route.

Driveway and Access Road Widths

Road Status	Private Drives serving a single dwelling	Shared Private Drives and accesses serving less than eight parking spaces	Accesses serving eight or more parking spaces
Roads of lower status than Secondary Distributor Road	2.4 metres	2.4 metres	4.8 metres Some relaxation may be acceptable where relatively few parking spaces are served from very minor roads
Secondary Distributor Roads or higher status	2.4 metres with space for turning	4.8 metres wide for the first 6 metres and may taper over the next 6 metres to no less than 2.4 metres.	4.8 metres

All drives longer than 18 metres should have a suitable turning area. Passing places will be required on shared drives longer than 18 metres.

Loose surfacings such as shingle are not permitted on driveways due to the fact that the material can be dragged out onto the highway and become a hazard and a nuisance.

Any access which becomes redundant following redevelopment should be removed.

4. Gradients of Roads and Private Accesses (including car parks)

Private Access Ways

The maximum gradient of a private access way should normally be plus or minus 8%. Where access ways are protected from the effects of bad weather, steeper slopes may be acceptable.

Where sloping driveways meet the highway the gradient should be no more than plus or minus 4% for the length of the largest vehicle usually using the access way; most commonly this will be for basement car parking in which case the 4% slope will be over a distance of 5 metres.

In all circumstances where the slope is rising towards the highway consideration should be given to the provision of some form of warning to drivers that they are approaching a junction with the highway, normally a footway. Such forms of warning could include vertical deflections either upwards or depressions, or rumble strips within the final few metres of the ramp. Alternatively or in addition, different coloured surfacing and lighting and/or signage could be useful to act as a warning to the driver.

It is important to bear in mind that structures associated with car park ramps can impinge on pedestrian/driver visibility. Caution should be exercised to ensure that visibility standards are not compromise.

Road Junctions

The maximum gradient of a side road at a junction is normally plus or minus 8% although the road should be designed to level out as it approaches a junction.

Careful consideration must be given to ensure adequate visibility is maintained where any gradient runs down from the highway in excess of 2% (1:50)

5. Parking Spaces

Appendix 2 of the Essex Planning Officer's Association Vehicle Parking Standards 2001 sets out the requirements for the design and layout of parking areas.

Additional Information

Parking spaces which have a wall or fence alongside them should be an additional 300 millimetres wide or have an additional 300 millimetre verge alongside because there isn't the advantage that car drivers and passengers are able to

utilise the additional space of an adjacent parking space whilst opening the door to enter or leave the vehicle.

Forecourt Parking

Minimum Size	Parallel to footway	Right angles to footway
Width of frontage	6.5m	2.4m
Depth of frontage (Measured from edge of footway to nearest projection of house)	2.6m	4.8m
Width of crossing	3.66m	2.44m

A car parked in the parking space should not obstruct access to the main door of the dwelling

Forecourt parking areas must include space for soft landscaping, be surfaced with quality materials and maintain as much of the original boundary enclosure as possible.

6. Transport Assessments, Transport Statements and Travel Plans

The following table gives an indication of when a Transport Assessment (TA), Transport Statement (TS) and/or Travel Plan (TP) will be required. A transport statement may also be required where a development is proposed in a sensitive area of parking stress, traffic congestion or where it is important that the Planning Authority has a full understanding of the travel and transport implications associated with the proposal.

Thresholds based on size or scale of land use						
	Land use	Use/description of development	Size	No assessment	TS	TA/TP
1	Food retail (A1)	Retail sale of food goods to the public – food superstores, supermarkets, convenience food stores	GFA	<250 m ²	>250m ² <800m ²	>800m ²
2	Non-food retail (A1)	Retail sale of non-food goods to the public but includes sandwich bars - sandwiches or other cold food purchased and consumed off the premises, internet cafés.	GFA	<800 m ²	>800 <1500 m ²	>1500 m ²
3	A2 Financial and	Financial services – banks, building societies and bureaux de change, professional	GFA	<1000m ²	>1000 m ² <2500	>2500m ²

	professional services	services (other than health or medical services) – estate agents and employment agencies, other services – betting shops, principally where services are provided to visiting members of the public.			m ²	
4	A3 Restaurants and cafés	Restaurants and cafes – use for the sale of food for consumption on the premises, excludes internet cafés (now A1)	GFA	<300m ²	>300 m ² <2500 m ²	>2500m ²
5	A4 Drinking establishments	Use as a public house, wine-bar or other drinking establishment	GFA	<300m ²	>300 m ² <600 m ²	>600m ²
6	A5 Hot food takeaway	Use for the sale of hot food for consumption on or off the premises.	GFA	<250m ²	>250 m ² <500 m ²	>500m ²
7	B1 Business	(a) Offices other than in use within Class A2 (financial and professional services) (b) Research and development – laboratories, studios (c) Light industry	GFA	<1500m ²	>1500 m ² <2500 m ²	>2500m ²
8	B2 General Industrial	General industry (other than classified as in B1).	GFA	<2500m ²	>2500 m ² <4000 m ²	>4000m ²
9	B2 Storage or distribution	Storage or distribution centres – wholesale warehouses, distribution centres and repositories.	GFA	<3000m ²	>3000 m ² <5000 m ²	>5000m ²
10	C1 Hotels	Hotels, boarding houses and guest houses, development falls within this class if no significant element of care is provided	Bedroom	<75 bedrooms	>75 <100 bedrooms	>100 bedrooms
11	C2 Residential institutions – hospitals	Used for the provision of residential accommodation and care to people in need of care.	Beds	<30 beds	>30 <50 beds	>50 beds

	and nursing homes					
12	C2 Residential institutions – residential education	Boarding schools and training centres	Student	<50 students	>50 <150 students	>150 students
13	C2 Residential institutions – institutional hostels	Homeless shelters, accommodation for people with learning difficulties and people on probation	Resident	<250 residents	>250 <400 residents	>400 residents
14	C3 Dwelling houses	Dwellings for individuals, families or not more than six people living together as a single household. Not more than six people living together includes – students or young people sharing a dwelling and small group homes for disabled or handicapped people living together in the community.	Dwelling unit	<50 units	>50 <80 units	>80 units *
15	D1 Non-residential Institutions	Medical and health services – clinics and health centres crèches, day nurseries, day centres and consulting rooms (not attached to the consultant's or doctor's house) museums, public libraries, art galleries, exhibition halls, non-residential education and training centres, places of worship, religious instruction and church halls.	GFA	<500m ²	>500 <1000 m ²	>1000m ² and all schools irrespective of size
16	D2 Assembly and leisure	Cinemas, dance and concert halls, sports halls, swimming baths, skating rinks, gymnasiums, bingo halls and casinos. Other indoor and outdoor sports and leisure uses not involving motorised	GFA	<500m ²	>500 <1500 m ²	>1500m ²

		vehicles or firearms				
17	Others	For example stadium, retail warehouse clubs, amusement arcades, laundrettes, petrol filling stations, taxi businesses, car/vehicle hire businesses and the selling and displaying of motor vehicles, nightclubs, theatres, hostels, builder's yards, garden centres, PO's, travel and ticket agencies, hairdressers, funeral directors, hire shops, dry cleaners.	Discuss with officers			

GFA = Ground Floor Area

- * Generally flatted developments above the threshold will be required to submit and operate a Travel Plan. Other housing developments will only be required to submit and provide a "Travel Welcome Pack" for new residents. The Welcome Pack should include free or subsidised passes for public transport and other attractors for travel by non-car modes. The Travel Welcome Pack is similar in content to a Travel Plan but does not have the ongoing obligations for its continuation in perpetuity.

Thresholds based on other considerations				
		TS	TA	TA/TP
1	Any development that is not in conformity with the adopted development plan			√
2	Any development generating 30 or more two-way movements in any hour		√	
3	Any development generating 100 or more two-way vehicle movements per day		√	
4	Any development proposing 100 or more parking spaces		√	
5	Any development that is likely to increase accidents or conflicts among motorised users and non-motorised users, particularly vulnerable road users such as children, disabled and elderly people			√
6	Any development generating significant freight or HGV movements per day or significant abnormal loads		√	
7	Any development proposed in a location where the local transport infrastructure is inadequate, for example substandard roads, poor pedestrian/cyclist facilities and inadequate public transport provisions		√	

The Department for Transport document entitled "Guidance on Transport Assessment" should be relied on for guidance on what is expected in a Transport Statement and/or Transport Assessment. (Available to download at <http://www.dft.gov.uk/pgr/regional/transportassessments/guidanceonta>)

For further information about what should be included in the above documents see Section 6 Making an Application.

Appendix 17 Technical Waste Design Guidelines

Provision must be made within all new developments both residential (including conversions and changes of use) and commercial proposals for the separation and storage of waste prior to collection. The following information sets out the technical requirements and specifications for these storage areas.

Residential Properties

Requirements for Single Dwellings

- Storage that enables the separation of waste and recyclables in the kitchen area – e.g. split container system.
- Convenient external area for storage of waste and recycling prior to collection.
- Space to accommodate refuse and recycling at the edge of property on collection day.
- Designated site for composting in amenity area where possible. A 2m x 1m area should be provided with a suitably sized composter and adequate drainage.

Requirements for Flats

- Storage that enables the separation of waste and recyclables in the kitchen area – e.g. split container system.
- A convenient communal bin store for the storage of waste and recycling prior to collection. Where possible this should be integral to the building but may be accommodated outside (within 25m of the building) if necessary. Where external to the building the bin store should be designed in such a way to minimise its impact on the occupants and the streetscene. This means a discrete location away from windows and a careful choice of materials. All bins stores should be screened with soft landscaping where possible. In addition no doors should open over the highway, it should be ventilated, and include a wash down facility. It must be located not more than 25m from the public highway. Euro bins without dedicated enclosures will not be considered acceptable. Where Euro bins are proposed, a dropped kerb of 1.5m width will be required and gradients should not exceed 1:12.
- Where the carry distance is more than 25m from the public highway or the gradient is more than 1:12, arrangements should be made to move the waste and recycling to the edge of property on collection day and a level area must be made available in a convenient location for this purpose.
- For large scale developments it may be possible for the freighter to enter the development to collect the refuse. Where this is proposed the road should be designed to accommodate a refuse freighter. This arrangement will require prior agreement with the refuse contractor (see below).
- Designated site for composting in amenity area or integrated garbage disposal unit in kitchens where possible.

Waste Storage Containers

The approved waste storage containers for the Borough are

- Pink sack for accepted recyclables
- Black refuse sacks for residual wastes
- Biodegradable cornstarch sack for garden waste
- 240 litre wheeled bin for garden green waste
- 360 litre wheeled bin for small multiple occupancy dwellings (2-3 properties)
- 660 and 1100 litre dedicated wheeled bins for either recycling or wastes (properties with 4 or more dwellings)

Bins	Size (mm)		
	H	W	D
360 litre	1100	590	880
660 litre	1235	1360	800
1100 litre	1470	1370	1115

No of Dwellings	Waste (1100 litre)	Recycling (1100 litre)
5 - 7	1 Container	1 Container
8 - 14	2 Containers	2 Containers
15 - 21	2 Containers	3 Containers
22 - 30	3 Containers	4 Containers
31 - 35	3 Containers	4 Containers
36 - 40	4 Containers	5 Containers
41 - 50	4 Containers	6 Containers
50	4 Containers	6 Containers

Figures based on an estimated yield for a 3 person dwelling unit.

Private Roads / Developments

The Council's collection contractor is not required to enter a private road/development, even if built to public highway specification due to liabilities in relation to any damage caused, therefore waste collection points need to be accessible from the public highway within contractor carry distance (25m).

Where highway conditions are such that it is undesirable or unlawful for a collection freighter to stand at the kerbside for loading, adequate provision shall be made within the curtilage of the site to accommodate the freighter, and such provision shall include turning facilities.

Exceptions may be made when the freighter can be safely and conveniently reversed from the public highway over a distance not exceeding 12m, to a point within the prescribed "carry distance". The construction of private access way including manhole covers, gully gratings etc., must be suitable to carry freighter axle loads of up to 32 tonnes gross weight. The route must be free of obstructions i.e. parked vehicles, etc.

Turning Bays

For larger developments it is essential from both an operational and safety point of view that adequate turning bays shall be provided to accommodate refuse freighters. Approved turning bays are detailed in the Council's Waste Management Guide.

Retail, Industrial and Commercial Developments.

All commercial business must make arrangements for the separation, storage and collection of their waste. Some waste may require specialist arrangements.

In addition, it is now a requirement for all businesses to complete some form of separation of their waste prior to collection. i.e. office paper, glass, etc for separate collection. The degree of separation will depend on the nature of the business but it is likely that multiple storage containers will be required.

Requirement for Retail, Industrial and Commercial Developments

- Storage that enables the separation of waste and recyclables at source within the building.
- A convenient bin store for the storage of waste and recycling prior to collection. Where possible this should be integral to the building but may be accommodated outside if necessary. Where external to the building, bin stores should be located in screened service yards. Otherwise they should be designed in such a way to minimise its impact on the streetscene. This will usually involve a careful choice of materials and screening with soft landscaping. The store should be ventilated and include a wash

down facility. Where wheeled containers are proposed a dropped kerb of 1.5m width will be required and gradients should not exceed 1:12.

- The occupier or owner of the trade premises shall make arrangements with an authorised waste collection contractor. The Council can provide a list of contractors for consideration.
- A dedicated site for composting should be considered where the use is appropriate. E.g. horticultural businesses or restaurants.

Sustainable Development and Waste

Innovation to deal with waste in more sustainable ways is encouraged. Proposals can range from the small scale, such as waste disposal units or composting units, to larger scale options such as using waste materials as a fuel to create electricity/hot water and cooling, etc. These type of schemes will be always be welcomed where appropriate.

For further information see Section..... Sustainable Development.

Waste Management Plan

A Waste Management Plan will be required for larger planning applications.

For further information see Part 6 Submitting an Application.

Site Waste Plan

The Clean Neighbourhoods and Environment Act 2005 requires all developments to produce a Site Waste Plan. The plan details how waste created during construction/renovation is to be managed. It must be submitted with the planning application.

For further information see Part 6 Submitting an Application.

Appendix 18 Glossary

Accessibility	The ability of people to move round an area and to reach places and facilities, including elderly, those with children or special needs
Amenity	A pleasant and useful feature or facility.
Architectural Language	The architectural expression that provide a basis for the character and appearance of the building. The language should be appropriate for the use and scale of building.
Articulation	The design rhythm produced by openings and recesses on an elevation
Biodiversity	The huge variety of life that exists – including plants, animals & ecosystems.
Blackwater	Waste water generated by toilets, kitchen sinks and dishwashers
Brownfield Site	Previously developed land
Building Line	The line formed by the frontages of buildings along a street.
Bulk	The combined effect of the volume and shape of buildings or groups of buildings.
Bungalow	A long, low, often rectangular house of a single storey
Carriage Arch	A break in a continuous frontage, which is bridged by a building to provide rear access for vehicles.
Concept Statement	A document that sets out the preferred land use and design concept that will be favoured by the Local Authority for the redevelopment of a particular site.
Conservation Area Character Appraisal	A published document defining the special historic and architectural interest which warranted the conservation are being designated.
Context	The setting of a site or an area, including built fabric, landscape, links to wider area, activities.
Continuous Frontage	Building facing onto and overlooking public areas that are joined to each other, or linked by small stretches of brick wall.
Cornice	Projecting ornamental moulding along the top of the building or shopfront.
Curtlilage	The area of land associated with a dwelling. Often called the 'plot'.
Density	Number of dwellings per hectare (can also be applied to floorspace)
Design Brief	Document setting out the requirements for a specific site.
Design Principle	An expression of one of the basic design ideas.
Desire Line	An imaginary line linking facilities or places that people find it convenient to travel along
Distributor Road	Those main roads whose principal function is to distribute traffic.
Eaves	The lowest part, and any overhang, of a sloping roof.
Elevation	The façade of a building or the drawing of a façade.

Enclosure	The use of buildings, trees and hedges to create a defined space.
Environmental Room	Those areas bounded by distributor roads within which the Quality of Life and local environment will have priority.
Fascia Board	Name plate over a shopfront or the roof finish at eaves level.
Fenestration Form	The pattern, proportion and arrangement of windows. The layout (structure and urban grain), density, scale (height and massing), appearance (materials and details) and landscape of development.
Frontage	The length of a building or site in contact with the road, street or public space.
Grain	See Urban Grain.
Greywater	Waste water produced from baths, showers and washing machines
Habitable Room	A room where people eat, sit or sleep.
Habitat	A place where a particular plant or animal lives.
Homezone	A mainly residential and pedestrian environment where speeds are regulated to around 10mph making streets into multi-use spaces.
Human Scale	Elements that relate well in size and scale to an individual human being and their assembly in a way that makes people feel comfortable rather than overwhelmed. – eg activity and openings at ground level.
Landmark	A building or structure that stands out by virtue of its height, size or some other aspects of its design.
Legibility	A place that has an image which is easy to understand and is easy to move around in.
Local Distinctiveness	The positive features of a place and its communities which contribute to its special character and sense of place
Massing	The combined effect of height, bulk and arrangement of the elements of a building.
Masterplan	Document setting out proposals for the development of an area which includes a concept statement and spatial diagrams.
Mixed Use	The layering of uses within one building or a mix of uses in one development or neighbourhood.
Morphology	The three dimensional form of buildings and spaces in an urban setting.
Mullion	Upright / vertical bar between the horizontal sections of a window or door.
Natural surveillance	The discouragement of wrong doing by the presence of passers-by or the ability of people to be seen out of surrounding windows.
Neighbourhood	The district or district character usually on a scale that makes internal movement easy for pedestrians.
Passive Solar Gain	The collection of solar radiation to meet a building's heating needs using the fabric of the building rather than solar panels which are active solar systems.

Perimeter Block	A block of continuous frontage development that defines the public realm and encloses private backs within it.
Permeability	The degree to which an area has a variety of pleasant, convenient and safe routes through it.
Perspective	Illustration showing the view from a particular point in 3D.
Pillaster	Ornamental column usually associated with shopfronts.
Planning Brief	Site specific development brief that covers all planning issues.
Planning Policy Guidance (PPG) / Planning Policy Statement (PPS)	Documents embodying Government guidance on general and specific aspects of planning policy to be taken into account in formulating development plan policies and in making planning decisions. PPG's can be found on the www.communities.gov.uk
Public Art	Permanent or temporary physical works of art visible to the general public, whether part of the building or free standing. It can include, sculpture, lighting effects, street furniture, etc.
Public Realm	The parts of the town (whether publicly and privately owned) that are available without charge, for everyone to use or see, including streets, squares and parks.
Rhythm of Buildings	The pattern and sequence of the architectural elements (width of frontage, building line, windows etc) and how they relate to each other in a along a complete frontage.
Scale	The impression of a building when seen in the context of its surroundings.
Section	Drawing showing a slice through a building or site.
Sense of Place	Local characteristics which give a place identity.
Site Appraisal	An assessment of an area's land uses, built and natural environment, historic development and social and physical characteristics. This may be for a single site or a wider area.
Site Lines	The visibility set back and the forward visibility needed to enable a vehicle to stop safely.
Soft Landscaping	Organic, vegetative or natural element of the urban environment.
Solid to Void Ratio	The relationship between the amount of wall and the amount of windows on an elevation. (Designs with too much wall and not enough windows can appear lifeless and bland.)
Stallriser	The vertical panel between ground level and the underside of the display window in a traditional shop front.
Strategic View	The line of sight from a particular point or to a particular landmark or skyline.
Sustainable Development	Development that ensures a better quality of life for everyone, now and in the future.
Sustainable Urban Drainage System (SUDS)	A range of different drainage systems that are designed to promote the filtration and evaporation of water as close to the source as possible to break down pollutants. SUDS are an alternative to drainage through pipes directly to a watercourse and will help enhance water quality and biodiversity, maintain groundwater levels and reduce the risk of flooding.
Thames	Nationally designated regeneration area along the Thames

Gateway	Estuary.
Topography	Local geography – gradients and heights.
Townscape	The way in which buildings relate to each other and the spaces around them.
Traffic Calming	Measures applied to existing roads to keep traffic speeds low.
Tree Preservation Order (TPO)	A legal order made by the Local Authority that makes it an offence to top, lop, fell or damage the tree without the Authority's consent.
Unresolved Building Forms	Where the different elements of the building have a weak relationship with each other and little correlation.
Urban Design	The art of making places. Urban design involves the design of buildings, groups of buildings, spaces and landscapes.
Urban Grain	The pattern of the arrangement and size of buildings and their plots in a settlement, and the degree to which an area's pattern of street blocks and street junctions is respectively small and frequent (fine) or large and infrequent (coarse).
Urban Renaissance	Action that secures significant improvements to the vitality and environment of urban areas so that they are more attractive places in which to live, work, shop and spend time.
Vernacular	The way in which ordinary buildings were built in a particular place, making use of local styles techniques and materials and responding to local economic and social conditions in the past.
View	What is visible from a particular point.
Vista	An enclosed view, usually a long and narrow one.
Visual Cues	References taken from the existing streetscene, e.g. window designs, ridge heights, frontage lines, materials etc.
Wildlife Corridor	A linear habitat that links two or more areas of wildlife significance which facilitates movement of species. (Can also be used for walking and cycling).

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CABE; Building for Life; CABE 2007

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Appendix 20 List of Useful Websites

Association for Environmentally Conscious Buildings	www.aecb.net
Beddington Zero Energy Development	www.bedzed.org.uk
BREEAM – Assessing Eco Performance	www.breeam.org.uk
Cabe Space	www.cabespace.org
Carbon Trust	www.carbontrust.co.uk
Commission for Architecture and the Built Environment	www.cabe.org.uk
Construction Best Practice Programme	www.cbpp.org.uk
Civic Trust	www.civictrust.org.uk
Countryside Agency	www.countryside.org.uk
Greenspace	www.green-space.org.uk
English Heritage	www.english-heritage.org.uk
English Nature	www.english-nature.org.uk
English Partnerships	www.englishpartnerships.org.uk
Energy Efficiency Best Practice Programme	www.energy-efficiency.gov.uk
Energy Saving Trust (including grants)	www.est.org.uk
Environment Agency	www.environment-agency.org.uk
Flood Risk Matrix	www.pipernetworking.com
Home Builders Federation	www.new-homes.co.uk
Institute of Highway Engineers	www.ile.org.uk
Landscape Institute	www.l-i.org.uk
Living Roofs	www.livingroofs.org
Department for Communities and Local Government (formerly Office of the Deputy Prime Minister)	www.communities.gov.uk
Placecheck Initiative	www.placecheck.com
Planning Portal	www.planningportal.org.uk
Resource for Urban Design Information	www.rudi.net
Royal Institute of British Architects	www.architecture.com
Royal Town Planning Institute	www.rtpi.org.uk
Secured by Design	www.securedbydesign.com
Southend-on-Sea Borough Council	www.southend.gov.uk
Sustainable Development Commission	www.sd-commission.gov.uk
Thames Gateway Car Share	www.thamesgatewaycarshare.com
The Landscape Institute	www.landscape.institute.org.uk
UK Government and Related Websites	www.ukonline.gov.uk
Urban Design Alliance	www.udal.org.uk