



**Health impact assessment (HIA) of
the draft East End Local Development Strategy
entitled '*Changing Places: Changing Lives*'**

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Contents

Part 1: Background to the HIA Study

Rationale for the HIA

Method for the HIA

Elements of the East End Local Development Strategy for appraisal in the HIA

Reporting the results of the HIA workshop

Summary of outputs from the HIA

Part 2: Stakeholder Responses to Elements of the draft East End Local Development Strategy

Stakeholder Response to “Part 2: Strategic Objectives”

Stakeholder Response to “Part 2.1.2 Developing a strategic approach to place change” – Regeneration Zones

Repair and Reconnection

Repair and Reinvention

Restructuring

Conservation

Introduction to Stakeholder Response to Themes in “Part 2 Developing a strategy”

Stakeholder Response to “Part 2.2 Developing a strategy for integrated transport networks”

Evidence base for “Part 2.2 Developing a strategy for integrated transport networks”

Stakeholder Response to “Part 2.3 Developing a strategy for integrated infrastructure”

Evidence base for “Part 2.3 Developing a strategy for integrated infrastructure”

Stakeholder Response to “Part 2.4 Developing a strategy for access to services”

Evidence base for “Part 2.4 Developing a strategy for access to services”

Stakeholder Response to “Part 2.5 Developing a strategy for economic development”

Evidence base for “Part 2.5 Developing a strategy for economic development”

Stakeholder Response to “Part 2.6 Developing a strategy for housing choice”

Evidence base for “Part 2.6 Developing a strategy for housing choice”

Stakeholder Response to Neighbourhood Design Objectives

Stakeholder Response to Design Principles for Neighbourhoods

General comments about the set of 13 Design Principles for Neighbourhoods

Specific comments about individual Design Principles for Neighbourhoods

Additional design principles suggested by stakeholders

Part 3: Assessor's reflections and suggestions about the draft East End Local Development Strategy

Integrated transport networks for the LDS

Public transport

Healthy transport strategy

Strategy for integrated infrastructure in the LDS

Energy strategy

Waste management strategy

Economic development strategy for the LDS

Strategy for Housing Choice in the LDS

Housing density

Co-housing and self-build

Other issues

Community safety: policing in the East End

Allotments

Tree planting

Rationale for the HIA

The Glasgow Centre for Population Health commissioned specialist practitioner support for a health impact assessment (HIA) of the draft East End Local Development Strategy (LDS) entitled '*Changing Places: Changing Lives*'.

There are four main drivers behind the rationale for undertaking an HIA of the draft LDS:

1. The commitment by Glasgow City Council to integrate health into the strategic planning process.
2. This local development strategy sets out the regeneration framework for the Clyde Gateway, which is a national regeneration priority.
3. The health of the population of the East End is one of the poorest in the UK.
4. The need to meet objectives under Phase IV of the World Health Organization's (WHO) Healthy Cities Programme of which Glasgow is a member.

Some of the most important determinants of health that WHO recommend can be translated into healthy objectives for urban planning are shown in Box 1.

Box 1: Determinants of health that can form the basis for healthy urban planning¹

- Opportunity for healthy lifestyles
- Social cohesion and supportive social networks
- Housing quality
- Access to diverse employment opportunities
- Access to high-quality facilities – educational, cultural, leisure, retail, health and open space
- Opportunity for local food production and healthy food outlets
- Road safety and a sense of personal security
- An attractive environment with acceptable noise levels and good air quality
- Good water quality and sanitation
- Reduction in emissions that threaten climate stability

Vision Statement of the East End Local Development Strategy

The Council's vision for the East End is to create a vibrant, new city district, through a regeneration process based on reinvention and reconnection. Existing and new communities will benefit from a new approach to living in cities, as regeneration in the East End will be a model of sustainable development, addressing issues of population health, environmental quality and meeting people's needs.

¹ Barton, H. et al. (eds) (2003) *Healthy Urban Planning in practice: experience of European cities*. Report of the WHO City Action Group on Healthy Urban Planning. World Health Organization, Regional Office for Europe, Copenhagen.

Method for the HIA

It was decided to use rapid appraisal techniques for this pilot HIA, and a participatory stakeholder workshop was held for two days on 31 November and 1 December 2006, which included a half-day site visit to the development area in the East End.

Stakeholders were divided into work groups for the two days. To help identify potential impacts on health, stakeholders were given a list of health determinants that had been prioritised according to the contents of the LDS. The Glasgow Centre for Population Health provided a summary of self-reported health status for the community living in the East End – ‘Health Indicators for the East End’ – which acted as a baseline against which to judge the potential impacts on health of existing communities.

Elements of the East End Local Development Strategy for appraisal in the HIA

The elements of the draft Local Development Strategy (LDS) that were appraised by stakeholders at the workshop were:

- Strategic Objectives
- Regeneration Zones
- Developing a strategy for integrated transport networks
- Developing a strategy for integrated infrastructure
- Developing a strategy for access to services
- Developing a strategy for economic development
- Developing a strategy for housing choice
- Neighbourhood Design Objectives
- Design Principles for Neighbourhoods.

The version of the draft LDS that was used was dated 10 November 2006. Since November, an updated consultative draft was published in February 2007 and made available to the public that incorporates several of the suggestions made in this report. Glasgow City Council plans to incorporate more of the suggestions from the HIA as well as comments from a wider consultation in the final strategy document.

Reporting the results of the HIA workshop

Stakeholder responses to the appraisal of the various elements of the Local Development Strategy are shown in Part 2 of this report. In most cases, responses to the elements of the LDS that were appraised are presented under a consistent group of headings, which are outlined at the beginning of each section in this report. When reporting on stakeholder responses to elements of the LDS concerned with objectives, responses are presented in a tabular form for clarity.

Concordance among stakeholders was high, with only three minor differences:

- disagreement about the suitability of the name of one type of Regeneration Zone ("*Repair and Reinvention*"), with two different suggestions being made for re-naming this type of zone;
- two different suggestions for the re-wording of one of the Design Principles for Neighbourhoods, Design Principle Number 11;
- two slightly different suggestions about the type of health service facility provided in the Repair and Reinvention Regeneration Zone .

Stakeholder responses have been supported wherever possible by information from the published literature, often referred to as 'the evidence base' (see Appendices). Support for a stakeholder response from information in the published literature is indicated by a cross-reference in square brackets showing the entry in this HIA study report outlining the relevant evidence. Each cross-reference comprises an abbreviation denoting the theme in the LDS and a number indicating the set of entries within that theme. The abbreviations used for cross-referencing the themes in the LDS are as follows:

- Regeneration Zones – RZ
- Integrated Transport Networks – ITN
- Integrated Infrastructure – II
- Access to Services – ATS
- Economic Development Strategy – ED
- Strategy for Housing Choice – HC.

Thus, the cross-references are shown as, for example, RZ1 denoting the first set of evidence entries for the Regeneration Zone element, which will be found after the stakeholder suggestions about that element of the LDS.

It should be noted that for some stakeholder suggestions it is not possible to cite supporting evidence – this does not detract from the suggestion but may reveal a gap in the literature or the generality of the literature such that it may not be applicable at a local level when dealing with specific localised conditions or circumstances.

In the absence of a commissioned literature review, the following publicly available documents about healthy urban planning and sustainable communities were used as the main sources of information:

- Cave, B. and Molyneux, P. (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes and South Midlands Health and Social Care Group.
- Cave, B. et al (2004) *Healthy sustainable communities: What works?* Milton Keynes and South Midlands Health and Social Care Group.
- Barton, H. and Tsourou, C. (2000) *Healthy Urban Planning*. Spon Press.

However, other individual references have also been drawn upon as relevant.

Summary of outputs from the HIA

Determinants of health of concern to stakeholders

Table 1 shows the determinants of health that received the most attention from stakeholders as they were mentioned during the appraisal with respect to more than one element of the LDS.

It is important to note that some issues raised by stakeholders were not covered in the draft LDS, in particular:

- Provision for emergency services in terms of access, physical infrastructure and operation, and contingency planning, this is especially important in view of the large sporting facilities in or planned for the East End.
- Managing construction impacts, especially as development will be extensive throughout the East End.

Therefore, ***we ask those responsible for the LDS to consider*** introducing the issues of provision of infrastructure for emergency planning and of managing construction impacts into the LDS.

Table 1: Determinants of health of concern to stakeholders

<i>Mentioned with respect to five or more elements of LDS</i>	<i>Mentioned with respect to three elements of LDS</i>	<i>Mentioned with respect to two elements of LDS</i>
<ul style="list-style-type: none"> ○ Accessibility ○ Connectivity ○ Community engagement, involvement and participation 	<ul style="list-style-type: none"> ○ Identity ○ Choice of housing ○ Emergency Service provision 	<ul style="list-style-type: none"> ○ Sustainable transport ○ Choice of employment ○ Integrated infrastructure ○ Sustainable construction ○ Accessibility to leisure ○ Greenspace ○ Designing out crime ○ SUDS ○ Odour from Dalmarnock Waste Water Treatment Works ○ Integrating River Clyde with greenspace ○ Using water as a feature in the East End ○ Safety ○ Construction impacts

Stakeholder suggestions

Table 2 presents a summary of the number of suggestions that were made about each element of the LDS appraised by stakeholders. All of the suggestions were made with the intention of strengthening the health protecting or health promoting aspects of the LDS.

Table 2: Stakeholder suggestions

ELEMENTS OF DRAFT LDS	SUGGESTIONS FOR THOSE RESPONSIBLE FOR LDS	SUGGESTIONS ABOUT LIAISON WITH OTHER ORGANISATIONS
Strategic Objectives	<ul style="list-style-type: none"> • Suggestions made about 6 out of 7 objectives • 1 new objective suggested 	<i>Not applicable</i>
Regeneration Zones	<ul style="list-style-type: none"> • 5 suggestions made about Repair and Reconnection • 15 suggestions made about Repair and Reinvention • 15 suggestions made about Conservation • 3 suggestions made about enhancing health through planning procedures 	<ul style="list-style-type: none"> • 2 suggestions made about Repair and Reconnection • 5 suggestions made about Repair and Reinvention • 2 suggestions made about Conservation
Developing a strategy for integrated transport networks	14 suggestions made	3 suggestions made
Developing a strategy for integrated infrastructure	10 suggestions made	1 suggestion made
Developing a strategy for access to services	12 suggestions made	7 suggestions made
Developing a strategy for economic development	1 suggestion made	<i>No suggestions made</i>
Developing a strategy for housing choice	14 suggestions made	4 suggestions made
Neighbourhood Design Objectives	<ul style="list-style-type: none"> • Suggestions made about 1 out of 7 objectives • 1 new objective suggested 	<i>Not applicable</i>
Design Principles for Neighbourhoods	<ul style="list-style-type: none"> • Suggestions made about design principles 2, 3, 4, 5, 6, 7, 9, 10, 11, 12 and 13 • 3 additional design principles suggested 	<i>Not applicable</i>

There are two types of suggestion:

1. Suggestions aimed at those responsible for the LDS, some of which mention joint planning with several public sector organisations;
2. Suggestions that require liaison with other organisations and agencies for effective implementation.

There is a growing consensus that urban planning requires cooperation and partnership working to ensure a holistic and integrated approach.² As the agencies or departments responsible for transport, energy, water, health and other important facilities, services or amenities do not often coincide, Barton and Tsourou recommend that the relevant authorities and agencies should undertake a collaborative approach to planning to create a healthy human habitat, which functions to provide opportunities, and a high-quality environment for people irrespective of their wealth or status in a way that is ecologically sustainable.³

Barton and Tsourou consider the most critical spheres for co-operation to be:

- land use and transport planning;
- an integrated transport strategy;
- integrated resource planning, involving energy, water, food, waste, wildlife, job creation and recreation strategies.⁴

The Commission for Architecture and the Built Environment (CABE) also recommends that people need to collaborate and cooperate if sustainable neighbourhoods are to be created, so that social infrastructure such as new schools, surgeries, parks, and leisure and recreation facilities are integrated into new and existing neighbourhoods.⁵ In addition, the Scottish Executive has statutory planning guidance, Scottish Planning Policy Guidelines and Planning Advice Notes, relevant to the design and development of sustainable neighbourhoods.⁶

In addition to the suggestions made by stakeholders at the workshop, a few suggestions have been made by the HIA Assessor and these are shown in Part 3. The suggestions cover:

- integrated transport networks;
- integrated infrastructure;
- economic development strategy;
- strategy for housing choice;
- other issues – community safety, housing density, allotments and tree planting.

Finally, it is possible that some of the suggestions made in this HIA report overall may be more appropriately implemented in other policy and strategy documents that are outwith the planning remit, and ***we ask those responsible for the LDS*** to ensure any such suggestions are identified now and take steps to incorporate them into the relevant document wherever possible.

² Page 85 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

³ Page 84 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴ Page 85 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁵ Commission for Architecture and the Built Environment (CABE) (2007) *Actions for housing growth. Creating a legacy of great places*. CABE, London.

⁶ See www.scotland.gov.uk/planning

Part 2: Stakeholder Responses to the draft East End Local Development Strategy

Strategic Objectives

There are seven Strategic Objectives in the draft Local Development Strategy, as follows:

- Offer choice in relation to Employment and Housing
- Create environments offering a Sense of Place, Vibrancy and Local Identity
- Make the East End a competitive place for investment in commercial, residential and business projects
- Modernise infrastructure to support Sustainable Development
- Develop and maintain a quality Greenspace Network offering safe, stimulating, healthy environments
- Ensuring accessibility to Local Services
- Invest in Fully Integrated Transport Networks

The stakeholder responses to these strategic objectives are shown in Table 3 (see page 11). Although none of the stakeholder groups worked on the Strategic Objective covering a greenspace network, greenspace emerged as an important determinant of health during the appraisal of elements of the LDS, and features in suggestions made by stakeholders.

The changes suggested to the strategic objectives were made after participants had appraised the potential impacts on health and wellbeing of the various strategic themes. However, we have presented these results first because the strategic objectives appear first in Part 2 of the draft LDS.

In addition, the participants working on the strategic theme relating to integrated infrastructure felt the River Clyde should be a strategic objective in itself and therefore suggested an additional strategic objective, as follows:

“Promote and develop the River Clyde as an asset accessible to all”

Table 3: Stakeholder responses to strategic objectives

STRATEGIC OBJECTIVE IN THE DRAFT LDS	STAKEHOLDER SUGGESTIONS TO RE-WORD/CHANGE THE STRATEGIC OBJECTIVE
Offer choice in relation to Employment and Housing	<p><i>Rewording:</i></p> <ul style="list-style-type: none"> • Offer choice in relation to Employment • Offer choice in relation to Housing in mixed tenure neighbourhoods that include affordable housing
Create environments offering a Sense of Place, Vibrancy and Local Identity	<p><i>Rewording:</i></p> <p>Create environments offering a Sense of Community, Vibrancy and Local Identity</p>
Make the East End a competitive place for investment in commercial, residential and business projects	<p><i>Comments:</i></p> <ul style="list-style-type: none"> • Need to refine the definition of “competitive” – there is a difference between economic competition and “place” competition (current wording) • Need to pay attention to the concept of “quality investment” • Consider inserting a strategic objective that requires health gain for people of the East End from economic development
Modernise infrastructure to support Sustainable Development	<p><i>Rewording:</i></p> <p>Modernise infrastructure to support sustainable development and promote healthy urban environments</p>
Develop and maintain a quality Greenspace Network offering safe, stimulating, healthy environments	<p><i>None of the stakeholder groups worked on this objective</i></p>
Ensuring accessibility to Local Services	<p><i>Rewording:</i></p> <p>Improve accessibility to existing local services and ensure the provision of local services that meet the needs of the existing and new communities</p>
Invest in Fully Integrated Transport Networks	<p><i>Rewording:</i></p> <p>Invest in Fully Integrated Sustainable Transport/Movement Networks that enable people to move within and beyond the East End of Glasgow</p>

Developing a strategic approach to place change – Regeneration Zones

Within the strategic approach to place change, there were four elements:

1) Regeneration Zones, 2) healthy urban planning, 3) green engineering and 4) review of development policy principles.⁷ Only the first strand was appraised which comprises four Regeneration Zones:

1. Repair and Reconnection;
2. Repair and Reinvention;
3. Restructuring;
4. Conservation.

Stakeholder responses to **three** of these Regeneration Zones are presented under the following set of headings, where relevant:

- General observations
- Barriers
- Opportunities
- Stakeholder suggestions to enhance health and wellbeing
- Stakeholder suggestions about liaison with other organisations to enhance health and wellbeing

There was no stakeholder response to the “Restructuring” Regeneration Zone.

Repair and Reconnection

General observations

With respect to terminology, stakeholders raised the question about whether “Repair” is the right word – alternative suggestions included “Enhance” and “Upgrade”. Stakeholders suggested that Reconnection also needs to be viewed as connecting with the past and looking towards the future in order to change the image of the East End, and that reconnection is not simply seen as a physical connection among areas in the East End.

Barriers to Repair and Reconnection

Stakeholders suggested that the barriers to Repair and Reconnection present in the **existing community** are:

- **Territorialism**, which can be linked to **sectarianism** particularly at **Bridgeton Cross**, and to **gang culture**;
- The **lack of money and aspirations**, which can feed into territorialism (see above).

These factors result in a negative image and need to be addressed if the potential health and wellbeing benefits from the LDS are to be realised.

⁷ NB The February 2007 LDS adds a fifth element: development hubs.

Enhancing health and wellbeing through Repair and Reconnection

We ask those responsible for the LDS to consider ways of integrating existing and new communities by:

- Introducing new communities, which may reduce sectarianism and not only increase the general level of aspiration but also provide role models for the people in the existing community, particularly for the young people – this could provide a foundation for developing a new identity for the East End, and it may help to change perceptions of the area [RZ6]
- Investing in local community hubs, which will increase the sustainability of the local economy bringing greater prosperity to the East End, which may help those with a low level of income [RZ4]
- Increasing connectivity among Bridgeton Cross, Calton, City Centre and areas further east, through changes to the physical environment, thereby supporting potential changes in the social environment [RZ3]
- Increasing connectivity across the river, especially for Parkhead and Dalmarnock [RZ3]
- Enhancing the identity of the East End by providing infrastructure and development opportunities to revive the area but at the same time retaining and enhancing the positive environmental and social attributes already present in the East End [RZ1, RZ2 and RZ9]

**Liaising with other organisations to enhance health
through Repair and Reconnection**

We ask those responsible for the LDS to consider:

- Liaising with other public sector and voluntary and community organisations to undertake youth development and youth work in the East End
- Liaising with the Strathclyde Police to address some of the problems associated with territorialism, sectarianism and gang culture

Repair and Reinvention

General observations

For one group of participants, the terms “Repair” and “Reinvention” were welcomed because:

- “Repair” recognises the existing community;
- “Reinvention” recognises the history of the area;

However, the suitability of the term “Repair” was questioned by another group of participants, who suggested using “Enhance” or “Upgrade” instead.

Another group of participants also suggested a change to the terminology because they felt the existing phrase did not fully describe or capture the intentions behind the concept. Their suggestions for re-naming the Repair and Reinvention Zones were as follows:

- “At home in the city” for Gallowgate;
- “At home and leisure by the riverside” or “Home, work and play by the riverside”.

This group also questioned:

- whether the size of the Repair and Reinvention Zones was too large;
- what resources were available for the development of these zones;
- what land uses would be present in these zones;
- what would be the degree of connectivity/separation for these zones.

Barriers to Repair and Reinvention

- The River Clyde, specifically the Cuningar Loop, ‘pinches’ off a parcel of land in the Repair and Reinvention Zone at Dalmarnock which may act against a development at this location being integrated with the rest of the East End.
- Developers may build piecemeal developments that have no relationship to established communities

Opportunities for Repair and Reinvention

- The large amount of empty space in the East End.
- Potential for innovation, bringing a forward-looking aspect to the development.

Positive potential health and wellbeing effects through Repair and Reinvention

- ***Investment in new facilities***, especially if the Commonwealth Games are awarded to Glasgow [RZ1 and RZ2];
- Improved ***safety***;
- Introduction of greenspace [RZ11];
- ***Influx of new residents***, which will add to the community, introduce a ***diversity of people*** and may contribute to ***breaking down territorialism*** and providing ***role models for young people*** [HC1];
- Improving the ***image*** and developing the identity of the area, which will increase ***confidence*** and ***self-esteem*** – this effect could be magnified if the Commonwealth Games are awarded to Glasgow;
- Generating ***positive expectations***, which will increase people's ***aspirations***.

Negative potential health and wellbeing effects through Repair and Reinvention

- For existing communities, ***fear of change*** and the speed at which that change might occur;
- For existing communities, ***disruption*** and other impacts from the ***construction*** of new build [RZ17];
- For existing communities, ***disenfranchisement*** and ***resentment of new residents*** because they may feel that new residents will receive the benefits of new development [ED1];
- The introduction of ***private housing*** may lead to the development of ***isolated or "gated" communities***, which will mitigate against social interaction and community cohesion [RZ6].

Enhancing health and wellbeing through planning processes and procedures

We ask those responsible for decision-making about the LDS and related planning documents to consider:

- Incorporating greater detail in the LDS about land uses in the Repair and Reinvention Zones, and about measures to ensure connectivity with the rest of the East End and the surrounding area
- Engaging the community in the planning process – Local Development Strategy (LDS) and Supplementary Planning Guidance (SPG) – in an ongoing and integral way [RZ5]
- Identifying the statutory consultees, i.e. CHCP and LCPP, for major new planning applications in the East End
- Actively obtaining and using learning points from and good practice in healthy urban planning from other cities in the UK and around the globe, including others in the Healthy Cities Network

Enhancing health and wellbeing through Repair and Reinvention

We ask those responsible for the LDS to consider:

- Specifying the land uses in the Regeneration Zones in the LDS
- Designing developments to ensure informal supervision and surveillance to increase levels of community safety [HC2]
- Providing a mix of housing tenures, including affordable housing, in the residential areas in the East End [RZ26 and RZ27]
- Requiring sustainable use of resources in the construction and operation of dwellings and other facilities, e.g. incorporating energy efficiency measures [RZ28]
- Introducing measures to reduce fuel poverty in existing and new residential build [Box 6 in Part 3]
- Developing the LDS to accommodate both the eventuality of being awarded the Commonwealth Games and the eventuality of not being awarded the Commonwealth Games
- Designing new facilities that are accessible and open to the existing community [RZ1 and RZ2]
- Providing the facility for a Health Centre (one group of participants), or providing a facility for a Healthy Living Centre by the riverside (another group of participants) [ATS6]
- Providing good-quality leisure facilities as integral to the new developments in the East End
- Providing leisure facilities in the East End that are multifunctional and focussed on physical activity rather than just sport
- Ensuring good connections between all leisure facilities and the various residential areas in the East End [ATS2]
- Providing rollerblading and skateboarding facilities for younger people
- Providing informal as well as formal green and open spaces in the development of the East End [RZ11]
- Linking the greenspace network with the River Clyde [II5]
- Developing the potential for greenspace in Gallowgate [RZ11]
- Incorporating public art in the development of the East End [RZ12]
- Consulting local people about the structures and build in the new development, rather than imposing 'superstructures' on them [RZ5]

Liaising with other organisations to enhance health through Repair and Reinvention

We ask those responsible for the LDS to consider:

- Liaising with the providers of leisure services to ensure that any leisure facilities built in the development are affordable for local people, e.g. through subsidies and reduced rates [ATS8]
- Liaising with providers of leisure services to ensure that block bookings by elite or 'closed' organisations do not restrict access for local people
- Liaising with the developers and incoming businesses to explore the possibilities of making a variety of employment opportunities available to local people in existing communities (not simply short-term opportunities in construction) [ED2]
- Liaising with agencies and organisations involved in further and higher education and training and skills development, particularly the John Wheatley College, to develop training programmes to equip the existing community with the skills and competencies needed by businesses moving in to the new development [ED5]
- Liaising with the Strathclyde Police about the design and build of new developments to reduce the level of crime and antisocial behaviour [RZ16]

Stakeholders were supportive of the following:

- ✓ The repair and replacement of poor-quality housing;
- ✓ The introduction of safe walking and cycling routes; and
- ✓ Increasing connectivity and the establishment of community hubs.

Conservation

General observations

Stakeholders thought the concept of a Conservation Regeneration Zone brings a sense of identity, and gives meaning to people in terms of both the history and the future of the East End. However, some of the history of the East End has negative connotations, for instance, sectarianism at Bridgeton Cross, and this area may require some sort of physical change to ameliorate the effects of these historical connotations.

Good-quality buildings “lift” the area, adding to its aesthetic quality and amenity.

Stakeholders identified the potential components of the concept of Conservation as follows:

- Buildings
- Economic base
- Base for service provision
- Aesthetic quality of place
- History of place
- Traditions connected to place

Stakeholders also identified the characteristics contributing to a vision of place:

- Local amenities, including shops, cafes and public houses
- Local services
- Diversity and range of services, including public services
- Traffic management
- Enhanced pedestrian walkways

Barriers to Conservation

With respect to the concept of the Conservation Regeneration Zone, stakeholders thought the physical setting at Bridgeton Cross offered more possibilities than that at Parkhead Cross, but they identified the following barriers.

At Parkhead Cross:

- Traffic flows
- Height of buildings contributing to reduced levels of natural lighting
- Location of First Bus garage

At Bridgeton Cross:

- Traffic flows
- Lack of a north-south corridor
- Intimidating socially and environmentally
- Bandstand a focus for drug dealing
- Public toilets closed and sealed off
- Limited “draw” for visitors

Enhancing health and wellbeing through Conservation

We ask those responsible for the LDS to consider:

- Implementing the concept of Conservation with a view to sustainability – at present, rents in conservation areas are expensive, and there is no incentive to conserve, nor are there sustainable processes in place to support conservation; incentives on rents might be one way of achieving this.
- Consulting the community about the concept of Conservation and its implications - it is vital to preserve what is important to the community to maintain a sense of historical identity and meaning [RZ5 and RZ9].
- Introducing the concept of cultural Conservation into the LDS.
- Linking the concept of Conservation to Economic Development strategies, for instance, by encouraging business start-ups in these zones.
- Linking the concept of Conservation to the provision of services, especially if activities at Conservation-designated areas cannot be sustained on the basis of commercial economic and retail investment alone, for instance, at Parkhead Cross [RZ4] – if this strategy of increasing the presence of public and voluntary sector services to increase sustainability is introduced, then attention needs to be paid to parking, particularly at Parkhead Cross [ATS4].
- Requiring quality of design and renovation in the Conservation-designated areas to increase not only aesthetic quality but also attractiveness to businesses to invest in the areas – this is especially important at the ground/street level which is particularly visible to residents, workers and visitors to the areas [RZ9 and RZ10].
- Increasing the connectivity between Parkhead Cross and the Forge [RZ3], where traffic has become dominant – ways of doing this would be to close off the top of Duke Street, to institute an entrance from Parkhead Cross to the Forge and to introduce appropriate and effective signage.
- Re-locating the bandstand at Bridgeton Cross to a park/other open space to retain the feature but to dissociate it from its `present negative usage (illicit drug use and drug dealing [RZ14]).
- Increasing connectivity between Bridgeton Cross and Mile End, currently blocked by existing traffic flows [RZ3].
- Introducing infrastructure to support street or open air market(s) and/or barrows at Bridgeton Cross.
- Increasing connectivity between Glasgow Green and Bridgeton Cross so that visitors to Glasgow Green are encouraged to visit Bridgeton Cross; this could be supported by appropriate and effective signage [RZ3].
- Exploiting the potential for development of the former cinema at Bridgeton Cross.

- Maintaining the current level of service provision at Bridgeton Cross, which factor contributes to its present level of sustainability.
- Attracting a small supermarket to Bridgeton Cross to provide access to affordable food [RZ13].
- Consulting the community about what provision of services, facilities and amenities at Bridgeton Cross would increase its usage, viability and sustainability [RZ5].

Liaising with other organisations to enhance health and wellbeing through Conservation

We ask those responsible for the LDS to consider:

- Liaising with the Strathclyde Police, the Probation Service and voluntary and community organisations about ways of tackling illegal drug dealing at Bridgeton Cross, and ways in which this could be supported through the LDS [RZ14].
- Liaising with voluntary and community organisations to involve young people from the East End in the development of the concept of Conservation, particularly with respect to Parkhead Cross [RZ16].

Introduction to Stakeholder Response to Strategic Themes

There are five main strategic themes in the LDS, as follows:

1. Integrated transport networks;
2. Integrated infrastructure;
3. Access to services;
4. Economic development;
5. Housing choice.

The stakeholder response to each of these themes is presented under a consistent set of headings, as relevant:

- General observations
- Stakeholder identification of potential positive effects on health and wellbeing
- Stakeholder identification of potential negative effects on health and wellbeing
- Stakeholder suggestions to address the impacts
- Stakeholder suggestions for the liaison with other organisations

In each case, the stakeholder response is followed by a set of entries outlining the relevant evidence base for that strategic theme (see Appendix 2 for evidence).

Theme 1: Developing a strategy for integrated transport networks

General observations

Key issues with respect to this theme are:

- Accessibility and integration;
- Management;
- Connectivity.

Stakeholders noted that the East End Regeneration Route (EERR) is needed for regeneration purposes rather than purely transport purposes.

Potential positive health and wellbeing effects of integrated transport networks

- The **East End Regeneration Route** (EERR) by increasing **accessibility** and **connectivity**, thereby increasing people's access to employment opportunities, housing, services, facilities and basic amenities, and acting as a **driver for economic development** [ITN1 and ITN2];
- The **railway station at Parkhead** by increasing **connectivity** [RZ3] and increasing **access to public transport** [ATS2 and see Part 3], supporting the principles of **sustainable development**;
- The **core path network** and the **core cycle network** by increasing **connectivity** and **accessibility**, and by providing an **opportunity for physical activity and social contact and interaction** [ITN6].

Potential negative health and wellbeing effects of integrated transport networks

The **EERR** [ITN2] could increase:

- the risk of **road traffic incidents** (RTIs), as a result of speeding [ITN2];
- **air pollution**[ITN2];
- **noise from road traffic** [ITN2];
- **community severance** [ITN2].

Those at particular risk from these impacts are the people living in communities adjacent to the EERR, including people using **sensitive locations** such as schools and residential/nursing homes [ITN2] – for example, children at the new primary school in Dalarnock who may have to cross the EERR. Community severance may be particularly marked at Bridgeton Cross where the road structure seems unjustified and could “kill” the area.

Addressing the impacts on health and wellbeing of integrated transport networks:

We ask those responsible for the LDS to consider:

- Ensuring that the design of the EERR is appropriate and sensitive to the various sub-areas within the East End, e.g. at Bridgeton Cross, and gives access to all sub-areas in the East End [ITN2].
- Ensuring that any play areas and other sensitive locations, such as schools, that are located alongside the EERR are landscaped to a high standard to ensure mitigation of noise and the promotion of public safety [ITN2]; for this landscaping to be effective, measures need to be put in place for its maintenance and upkeep.
- Ensuring that appropriate traffic management measures to control speed are incorporated into the EERR and other roads to reduce road traffic incidents [ITN3].
- Introducing measures to give pedestrians connectivity across the roads, particularly to the various types of facilities open to the community, e.g. schools, play areas, and leisure facilities [ITN5].
- Ensuring that any private housing developments include footpaths and cycleways [ITN6], that these are connected to those footpaths and cycleways in other areas of the East End [RZ3], and that these are designed to include appropriate safety measures [ITN7].
- Integrating any cycleways and the community hubs into the National Cycle Route.
- Including measures in the LDS to upgrade the potential for walking alongside the River Clyde.
- Ensuring that the core path network is linked to Glasgow City Centre [RZ3].
- Establishing programmes for the maintenance and upkeep of the core path and cycle networks.
- Improving access, particularly for buses and pedestrians, to Bridgeton Railway Station – current arrangements for pedestrian access are potentially dangerous.
- Pedestrianising Parkhead [ITN8].
- Instituting integrated transport – bus, train, taxis – at Parkhead; it may be necessary to move the location of the taxi rank to achieve this, and to rationalise access and egress at this hub [ITN13].
- Ensuring provision is made for cycle storage, particularly at community hubs such as Parkhead [ITN9].
- Introducing Home Zones in residential areas, which provide a positive environment for both cyclists and walkers [ITN4].

Liaising with other organisations to enhance health and wellbeing through integrated transport networks

We ask those responsible for the LDS to consider:

- Liaising with the Emergency Services with respect to layout of roads in the East End to ensure appropriate and effective access to facilities and residential areas for emergency vehicles [ITN12].
- Liaising with the providers of rail services to increase the viability of Dalmarnock Railway Station by exploring links to Glasgow Airport [ITN11].
- Liaising with the providers of rail, bus and taxi services to integrate public transport at Parkhead Railway Station [ITN13].

Support was given to:

- ✓ The proposed rail station on London Road adjacent to Celtic Park.
- ✓ The plans for bridges.
- ✓ The core path network and cycle network, provided issues of connectivity, safety, maintenance and upkeep are addressed.
- ✓ Parkhead Railway Station, provided traffic management issues are addressed with respect to integrating other modes of transport including taxis and buses.
- ✓ Dalmarnock Railway Station if it is viable – it needs to be linked to people/communities, and a link to Glasgow Airport will increase its viability.

Stakeholder Response to “Developing a strategy for integrated infrastructure”

General observations

At the time of the HIA workshop, the LDS mentions a range of issues but does not include much detail about, or specific references to, these issues dealing with them only in a general way. Some of these issues could have implications for the degree of effectiveness of regeneration of the East End if not addressed appropriately within the LDS. (Note that these issues are being addressed in detail in the Clyde Gateway Integrated Water Plan and the Glasgow Strategic Drainage Plan).

The issues mentioned but not addressed in depth are as follows:

- Drainage infrastructure
- Sustainable urban drainage systems (SUDS)
- Flooding
- Retro fit and disconnection
- Odour from Dalmarnock Waste Water Treatment Works
- Water courses
- River Clyde and its tributaries
- Water quality
- Water conservation
- Surface water
- Water “traps”
- Foul drainage
- Growth.

Potential positive health and wellbeing effects of integrated infrastructure

- The ***Clyde Gateway Integrated Water Plan***, which will ***decrease the risk of flooding*** [I11] – a problem in parts of the East End;
- ***Sustainable urban drainage system*** (SUDS) [I13], which will ***improve management of water*** [I14], an environmentally sensitive resource, and ***increase the amenity and aesthetic quality of the East End***, promoting ***recreational uses*** and providing ***opportunities for education and employment***, by ***encouraging businesses to invest*** in the area [I15];
- If remediated, the ***River Clyde*** will provide opportunities for ***recreational uses***, including physical activity and exercise – cycling, walking, canoeing, rowing – for ***sports development***, and for ***increased access***; it will also provide a ***landscape feature for housing*** in the area [I15].

Potential negative health and wellbeing effects of integrated infrastructure

- The ***odour from the sewage works at Dalmarnock*** and the ***nuisance*** this causes to residents in the vicinity [I12]. If the problem is not addressed, it could mean that potential new residents and new businesses may not wish to move into the area affected by this nuisance, which would ***mitigate against the effective regeneration and economic development*** of parts of the East End.
- If not ***remediated***, the ***River Clyde*** may act against the regeneration of the East End by providing a ***source of blight***, which will not encourage potential new residents and new businesses to invest in the area.
- ***Fear*** of water, in that parents may be concerned for the ***safety of their children in the vicinity of open water***.

Addressing the impacts on health and wellbeing of integrated infrastructure

We ask those responsible for the LDS to consider:

- Emphasising health issues in the LDS, and specifically on the effects of integrated infrastructure on health [see all of evidence base associated with Integrated Infrastructure for reference – I11-I15].
- Incorporating the concept of health promotion into the consultation on the Strategic Environmental Assessment (SEA)/integrated water plan, as well as the concept of health protection.
- Including measures in the LDS to reduce the odour from the sewage works and thereby decrease the level of nuisance and enhance the environment for residents and businesses [I12].
- Including measures in the LDS for the remediation of the poor water quality (as a result of pollution) in the River Clyde [I15].
- Opening up the culverts and burns along the River Clyde to increase the positive effects of the presence of a remediated river [I15].
- Increasing access to the River Clyde to increase permeability, connectivity [RZ3] and the opportunities for recreation and amenity [I15].
- Introducing outdoor adventure areas for children not only to provide recreation [HC9] but also to increase confidence and safety with respect to water.
- Recognising the River Clyde as a feature and asset to the East End rather than treating it as a marginal resource [I15].
- Promoting the integration of water and green and open space in a creative and innovative way to improve the environment and thereby increase the opportunities for recreation and amenity [I15].
- Introducing into the East End one or more fountains as water features, to provide an amenity and as a way of masking other noise.

Liassing with other organisations to enhance health and wellbeing through integrated infrastructure

We ask those responsible for the LDS to consider:

- Liassing with the water company to address the nuisance experienced from the odour generated by the Dalrnarnock Waste Water Treatment Works [I12].

Stakeholder Response to “Developing a strategy for access to services”

General observations

The location of services is not identified in the LDS, and yet the development of the East End, with the potential influx of 20,000 new residents over a large geographical area, has major implications for the design, planning and delivery of services.

Stakeholders thought the principle of community hubs was positive, but there was a query about whether the number of hubs suggested in the LDS was sufficient to cope with the influx of new residents.

There may be a discrepancy between the location of the new community hub and the school catchment area.

Constraints

- ◆ The provision of community facilities is complicated by the territorialism existing in some communities in the East End.
- ◆ There are potential constraints on the provision of education facilities given that the GHA is now the landowner, which increases costs. The trade-off is between allocating protected sites for the location of schools in the future and allocating additional capacity to existing sites for development in the future.
- ◆ Some of the community hubs have been imposed on the East End because they are in existence already (e.g. Dalmarnock) even though there is a relatively small population associated with it, or because land ownership affects location (e.g. college-owned land).

Potential positive health and wellbeing effects of access to services

- Increased **access to leisure facilities**, providing opportunities for physical activity, exercise and entertainment;
- **Closure of Parkhead Hospital;**
- **Provision of community schools** in the long term [ATS5].

See ATS1 for general information about accessibility to services in general.

Potential negative health and wellbeing effects of access to services

- **Closure of Parkhead Hospital** due to the potential **reduction in access to secondary care and specialist services** (e.g. addiction services) given that residents in the East End will now have to travel to Stobhill Hospital – which will affect those who do not have access to private transport in particular (lack of access to private transport is often associated with measures of deprivation) [ATS6];
- **Poor access to health services** [ATS6] as a result of **lack of joint working with NHS planners**;
- **Lack of pre-5 provision** – in the absence of childcare, people in the East End may not be able to take up any employment opportunities arising from regeneration and economic development;
- Provision of **education services** – education provision tends to be reactive, and the **short-term effects** of the LDS may be negative through **reduced provision** and **longer distances to travel**.

Addressing the potential impacts on health and wellbeing of access to services

We ask those responsible for the LDS to consider:

- Joint planning with the NHS for health services appropriate to the future development of the East End, including an increase in primary care provision conducted from at least one new facility, and services focused on health improvement [ATS6].
- Joint planning with education authorities to ensure there is capacity at new schools to build on pre-5 provision.
- Joint planning with education authorities to provide community schools, and to determine any necessary bridging arrangements for education provision before the operation of any new schools [ATS5].
- Providing protected spaces for schools in the East End [ATS5].
- Providing protected spaces for services at community hubs [RZ4].
- Providing one-stop facilities for a range of services located at community hubs [ATS3].
- If public services are provided at community hubs, providing parking spaces to meet the needs of users, especially for users who may be susceptible to potential impacts on health, e.g. those with limited mobility [ATS4].
- Providing community facilities for both new and existing communities, especially as existing community facilities are inadequate at present, e.g. at Quarrybrae [ATS7].

- Increasing access to library services and facilities [ATS1].
- Providing physical infrastructure to ensure safe walking and cycling routes to schools [ITN7].
- Establishing a further community hub at Camlachie to support the residents in the new development in this sub-area [RZ4 and ITN10].
- Consulting the community about the location of community hubs [RZ5].

Liaising with other organisations to enhance health and wellbeing through access to services

We ask those responsible for the LDS to consider:

- Liaising with ***NHS planners*** to ensure appropriate and effective access to health services for the new and existing populations in the East End, in particular which hubs should be the location for health facilities [RZ4].
- Liaising with the ***Emergency Services*** to ensure appropriate infrastructure for effective service delivery – discuss the need for locations for police, fire brigade and ambulance operations [ITN12].
- If Parkhead Hospital closes, liaising with ***NHS planners and commissioners*** to secure a commitment to a re-investment in health services for the East End [ATS1].
- If Parkhead Hospital closes, liaising with ***transport planners and providers*** to ensure the provision of reliable good-quality transport services from the East End to Stobhill Hospital and other healthcare facilities – the range of transport planners and providers will include those at the local authority, at hospital transport services and at public and community transport providers.
- Liaising with ***providers of dental services at Parkhead Cross*** to discuss their re-location to the ground floor to increase access for susceptible groups in the population, such as those who have a mobility problem.
- Liaising with ***providers of leisure services*** to ensure affordability of facilities for new and existing residents in the East End, particularly for children, young people, older people and people on a low income and their families, which will increase accessibility [ATS8].
- Liaising with ***public and community transport providers*** to ensure access to leisure facilities, particularly for those who do not have access to private transport [ATS2].

Stakeholder Response to “Developing a strategy for economic development”

Potential positive health and wellbeing effects of economic development:

- **Improving productivity**, if it is sustainable, which will improve **environmental and social factors** leading to improved health and wellbeing;
- **Improving retail opportunities**, if they are sustainable, which will **increase the number of customers** (who may be both new and existing residents and visitors to the East End) and thereby the **level of spend in the local economy**;
- **Connectivity**, which will attract potential new local and regional businesses to the East End **increasing the availability of employment opportunities** [ED2];
- **Closing the employability gap**, if measures are taken to address local skills gaps in relation to existing and potential new businesses investing in the area;
- **Tackling derelict land**, through **reducing blight, improving the environment and amenity**, and **increasing the value of the land** through appropriate land uses.

Potential negative health and wellbeing effects of economic development

- **Improved transport infrastructure** and **greater connectivity** if it encourages **“leakage”** from the East End.

Addressing the impacts on health and wellbeing of economic development

- Developing patterns of connectivity that match people's travel choices, particularly for residents and workers in the East End, and regular visitors to the area, e.g. sports fans

Potential positive health and wellbeing effects of housing choice

At Parkhead:

- ***Improving public transport*** therefore ***increasing accessibility*** especially for those who do not have access to private transport [ATS2 and see Part 3].

At South Carntyne:

- Increasing the ***opportunities for play*** [HC9] with the introduction of new play areas;
- ***Increasing the level of money in the local economy*** through the influx of new residents into the private sector housing, which will contribute to ***economic development and regeneration***;
- ***Better neighbourhood management*** [HC10] leading to ***increased community safety*** and an ***improved environment***, thereby increasing the ***opportunity for social contact and interaction***.

At Dalmarnock and riverside developments:

- ***Reducing the odour from the Dalmarnock Waste Water and Treatment Works*** [II2] and therefore ***increasing the amenity*** of any developments alongside the riverside;
- Introducing a ***sustainable urban drainage system*** (SUDS) at Dalmarnock, which will ***reduce water drainage problems*** [II3 and II4];
- Providing ***opportunities for recreational uses and increased amenity*** through ***increased access to the River Clyde***, which will increase the ***opportunity for social contact and interaction*** which could ***increase social support and social cohesion*** [II5];
- ***Increasing community safety***, which will be enhanced by greater numbers of people in the environment;
- ***Improving the environment*** thereby ***increasing the opportunity for social contact and interaction*** which could ***increase social support and social cohesion*** [HC8].

Throughout the East End:

- Increasing the opportunities for ***physical activity and exercise***, and also increasing the opportunities for ***social interaction*** [RZ11 and ITN6].

Potential negative health and wellbeing effects of housing choice

- **Construction impacts**, including **noise, dust, other air pollution, increased traffic volume and movement and reduced or loss of access to existing facilities**, which will affect existing communities and any new residents who move in before construction is completed [RZ17].
- The **displacement** some people who currently use part of the vacant area in the East End, for instance, the show people/travellers [ED1].
- Owing to the industrial history of the area, there may be negative effects for construction workers from **land contamination** [HC11].
- **Increasing the number of people** in the East End **in private sector housing** who will probably have a higher income **may increase the inequalities gap** [ED1] and **exacerbate the territorialism** already present in the area.
- **Lack of community cohesion** if the **private sector housing is separate** from social housing.
- The **removal of sports pitches** as this will **reduce the availability of sports opportunities** for new and existing residents and could decrease the level of exercise/physical activity.

Addressing the impacts on health and wellbeing of housing choice

We ask those responsible for the LDS to consider:

- Building mixed use developments, not just housing [HC1].
- Providing mixed tenure in housing developments [HC3, HC4 and HC5].
- Requiring all new build to meet requirements for sustainable design, including energy efficiency [HC6] and Lifetime Homes standards [HC7].
- Requiring that the design of new developments uses the principles of environmental design that promote community safety – Strathclyde Police are able to give guidance on designing out crime [RZ16].
- Ensuring permeability and connectivity across the East End, particularly in terms of walkability [RZ3].
- Providing usable, safe play areas for children [HC9].
- Providing access to all local facilities, such as schools, with particularly good access for pedestrians based on permeability within and between developments in the East End [RZ3, ITN6 and ITN7].
- Exploring opportunities for renewable energy in the development of the East End [see part 3].
- Landscaping the riverside habitat to create open parkland [I15].
- Ensuring ease of access to the river for residents (new and existing) in the East End, but particularly for those in Dalmarnock [I15].
- Providing infrastructure to maximise the recreational opportunities provided by proximity to the river [I15].
- If there are any people decanted as a result of the redevelopment of the East End who wish to remain in the area, giving them priority with respect to new dwellings in the East End including in the privately rented sector, e.g. Bridgeton where house prices have been capped and private letting companies have exploited the situation.
- Requiring that developers and their contractors who are involved in the regeneration of the East End reduce the environmental impacts of construction – noise, dust, air pollution, traffic volume and movements [RZ17].
- Requiring developers and their contractors to undertake appropriate and effective land remediation where necessary [HC11], and to ensure their workers are suitably protected against any potential impacts of soil contamination.

Liaising with other organisations to enhance health and wellbeing through housing choice

We ask those responsible for the LDS to consider:

- Working with housing associations and voluntary agencies to develop and implement strategies to meet the needs of the show people/travelling community, homeless people, asylum seekers and refugees and economic migrants.
- Liaising with Strathclyde Police to ensure new developments in the East End are planned with the aim of achieving best design practice to reduce crime, the fear of crime, and antisocial behaviour [RZ16].
- Liaising with the water company to improve and upgrade the Waste Water Treatment Works at Dalmarnock, in particular to reduce the odour problems currently being experienced [I12].
- Liaising with transport providers to ensure appropriate services are established to cover the new residential developments in the East End [see Part 3].

Stakeholder Response to Neighbourhood Design Objectives

There are seven neighbourhood design objectives in the draft Local Development Strategy, as follows:

- ◆ Development is fully integrated with existing urban fabric.
- ◆ Development respects and adds value to the existing urban context.
- ◆ Development strengthens local identity and creates identity where none exists.
- ◆ Development connects to all aspects of transport networks enhancing permeability and accessibility.
- ◆ Development creates opportunities for the delivery of wider physical, social and economic benefits.
- ◆ Development will be fit for purpose, meeting the needs of residents and other users.
- ◆ Deliver healthy urban environments, a “Sense of Place” and greenspace that meets people’s needs.

The only suggestion for change from stakeholders was to “deliver healthy urban environments, a ‘Sense of Place’ and greenspace that meets people’s needs”. The suggestion was to reword the design objective into two components: 1) deliver healthy urban environments and 2) deliver greenspace that meets people’s needs and is conducive to health and wellbeing.

In addition, one group of participants suggested an additional neighbourhood design objective given that the CPP is moving out thereby diminishing the opportunities for the communities’ voices to be heard:

“Development will happen with the involvement of local communities.”

Stakeholder Response to Design Principles for Neighbourhoods

There are thirteen Design Principles for Neighbourhoods in the draft LDS.

Within the framework of the appraisal, stakeholders made:

- general comments about the set of Design Principles;
- specific comments about each of the 13 individual Design Principles;
- suggestions about additional design principles.

General comments about the set of 13 Design Principles for Neighbourhoods

- Stakeholders suggested that the planners look at the current hierarchy of statements, and consider whether it needed re-ordering. It was suggested that Design Principle Number 2 should actually be elevated to be Design Principle Number 1.
- The statement of each principle was generally thought to be too lengthy, and stakeholders suggested that the statements needed to be made shorter for clarity.
- Stakeholders suggested that the planners could develop a table or checklist of “Do’s and Don’t’s” based on the Design Principles of Neighbourhoods that might be helpful for developers associated with the design and operation of projects/proposals for the East End.
- Stakeholders suggested that conducting HIA should be built into the Design Principles for Neighbourhoods (particularly principles 1 and 2) and viewed as part of the development control process, particularly with respect to the Masterplans required for larger sites mentioned in Design Principle Number 2 – this could be reflected in a ‘Masterplan Assessment Sheet’.

Specific comments about individual Design Principles for Neighbourhoods

The stakeholder responses to each of these design principles for neighbourhoods are detailed below.

1. *Planning permission will not be granted for new development which might compromise the effective development of adjacent land or the comprehensive regeneration of the wider area as provided for in an Urban Design Framework, a Development Brief, or Masterplan document approved by the Council.*

The suggestion was that this principle would be positive for health and wellbeing.

2. *A Masterplan and/or Urban Design Framework will be required for larger sites or sites which will be developed in phases. (for example, National Indoor Sports Arena; SouthCarntyne; Dalrnarnock/Springfield Road, etc). These documents should demonstrate that the site's full potential can be identified and a comprehensive design process has been followed. These documents should also deal with building design, site layout, movement networks, landscape, public realm, transport integration, etc.*

The suggestion was that this principle would be positive for health and wellbeing. However, stakeholders questioned whether the statement had been tested against legal opinion and whether the words and the way they had been used were “fit for purpose” in that sense. It was suggested that testing the statement against legal opinion could form part of the LDS process. Stakeholders also suggested inserting “impacts on health” as part of the list of items that the statement requires the “design process” to deal with.

3. All new and refurbished buildings must be designed to fulfill their function by meeting the needs of the user(s), however, this should not have a negative impact on the surrounding built form and existing neighbourhood(s). Buildings should address the street or public space, in positive ways, which help to create activity as well as community safety.

Stakeholders thought this principle would be positive for health and wellbeing. One suggestion was that clarification was needed for the terms “function” and “users” (see line 1 of design principle). Stakeholders also suggested that with respect to the use of new and refurbished buildings there needed to be a statement about longevity and flexibility, and also some consideration of building maintenance.

4. New development must demonstrate that it will contribute to and/or create a high quality living and/or working environment. The overall design concept should be based and “draw upon” the positive aspects and characteristics of the surrounding area. The overall design concept should be reinforced and/or create a sense of place, security and vitality.

Stakeholders suggested that there needed to be a mention of health in this statement in order to strengthen the force of this Design Principle.

5. Development in areas of strong townscape character, should demonstrate respect for its context in terms of height, scale, massing, positioning on site, choice of materials and other relevant detailing.

Stakeholders suggested there needs to be a reference to “connectivity” in this statement in order to strengthen the importance of connections between those areas of strong townscape and the new developments.

6. Development on sites not previously developed, or on sites in areas where townscape character is weak or does not exist (includes S Carntyne, Scottish Power site, Tartan Arrow site, French Street etc, Springfield Rd, Haghill), will be expected to include coherent street patterns, attractive street frontages and good spatial interpretation.

Stakeholders suggested that there needs to be an articulation of the importance of integrating existing neighbourhoods with adjacent areas that have not been developed previously or where townscape character is weak or does not exist.

7. All new development on 'brownfield sites' should identify and use as many, or preferably all, features worthy of retention which will provide visual interest and help create a sense of place. For example the Barr's Site, infill sites at Bridgeton Cross, etc.

Stakeholders suggested adding "...and maintain cultural heritage" after "help create a sense of place..." in order to strengthen the positive effect this Design Principle would have particularly on the mental and psychosocial wellbeing of residents.

8. Mixed use development opportunities will be promoted in appropriate zones, for example Business Hubs and Transport Nodes.

Stakeholders expressed support for the use of the phrase "appropriate locations" in this design principle rather than using the blanket term "zones", some of which are very large. They also suggested the introduction of community hubs as well as business hubs.

9. New development should provide 'active frontages' to provide natural surveillance of open spaces and footpaths on key thoroughfares.

Stakeholders considered this principle would be positive for health and wellbeing because it increases community safety, which appears to be the intention behind this principle. In addition, it will promote convenient and visible access for pedestrians, which may increase the propensity to walk. However, stakeholders suggested that it was important to add in the need for "interaction between the inside and outside in public places", thereby expanding the statement to include not just surveillance/safety but also how welcoming a place was, the vibrancy of the place and perceptions of crime and antisocial behaviour.

10. All development should ensure that access to buildings for people with limited mobility or special needs have convenient access and internal spaces that are practical and stimulating for all the senses.

Stakeholders considered this principle would be positive for health and wellbeing, particularly for groups in the community who are susceptible to impacts on health, e.g. those who have problems with mobility. However, they also highlighted that there may be an issue for users being able to reach the buildings that form the subject of this principle. The suggestion was made that access to transport and transport linkages need to be incorporated in the statement – the City Plan Review includes Access Guidance and details the approach to be taken for an inclusive environment. There is also national guidance available on complying with best practice with respect to both travel and the use of facilities. Promoting ease of mobility and movement around the East End may need to be enshrined in a Design Principle. Another comment was that this statement needs to include reference to ethnic sensitivities or sensitivity to the needs of all ethnic groups. It was suggested that the second half of the sentence could read: "spaces that are ethnically sensitive, practical and stimulating for all the senses".

11. *New development will be expected to take into account all aspects of sustainable design.*

Stakeholders considered this principle would be positive for health and wellbeing because it is likely to result in a better living/working environment. However, they also thought that the phrase “take into account” needs to be replaced with “promote and incorporate”. This change will strengthen the statement, and increase the quality of the build and the stability of the development for both residential and commercial properties. Another suggestion was that the end phrase of the statement after “all aspects of” should read: “design that will make the building sustainable” in the place of “sustainable design” – this change to the statement would serve to strengthen the need for adaptability of buildings, which would increase their longevity and flexibility of function. Another group of stakeholders suggested changing the end phrase of the statement to read: “all aspects of environmentally and socially sustainable design”.

In addition, there was a suggestion to consider the inclusion of a requirement for zero carbon emissions from new development. There was a question as to the relationship of this Design Principle to the City Plan – there may be a gap between the two with respect to energy efficiency, waste management, insulation requirements, etc.

12. *All external spaces should be designed for purpose, incorporate sustainable urban drainage proposals and be 'user' friendly and will be assessed for their contribution to the wider greenspace network in the local area.*

Stakeholders thought that the use of the word “all” at the beginning of the sentence was probably not feasible, and suggested inserting the phrase “where appropriate” instead and giving qualifying criteria about size of the external spaces. They also suggested clarification of the phrase “designed for purpose” in relation to external spaces, i.e. it needed to specify whether designed for an “active” or “passive” purpose. Stakeholders thought that it was important to include the need to assess the quality of greenspace in this statement not simply the quantity and also thought there was a need to include a reference to the contribution of external spaces to the health and wellbeing of the community.

13. *New development will be discouraged where design quality is poor or inappropriate, or where the proposal would be damaging to:*

- a. the character or appearance of the surrounding area particularly where this has a special importance;*
- b. the setting of listed buildings or areas of townscape importance; and*
- c. important views such as landmark buildings, landscape features and important skylines.*

Stakeholders suggested adding “damaging to health” after “poor”, and also suggested building into this statement an assessment of elements conducive to health and wellbeing.

Additional Design Principles suggested by Stakeholders

- One group of participants suggested framing an additional Design Principle for Neighbourhoods covering the need to address infrastructure requirements with respect to **emergency planning**, especially given the existence of the Celtic Park Football Stadium, the plans for the National Indoor Sports Arena (NISA) and the potential for the Commonwealth Games Athletes' Village all within the East End.
- There is no Design Principle addressing **community involvement**, and stakeholders suggested this be included as a statement.
- There is no Design Principle addressing **construction impacts**, which could be considerable given the level of redevelopment of in the East End over an extended period of time. Stakeholders suggested that there needs to be a principle covering codes of practice by developers and their sub-contractors including the best practice in mitigation measures for emissions to air, dust, noise, vibration, traffic routes and volumes and penetration of vehicles, particularly heavy goods vehicles (HGVs).

Part 3: Assessor's Reflections and Suggestions about Elements of the draft East End Local Development Strategy

The HIA Assessor, in order to strengthen the basis for some of the stakeholder suggestions has made some suggestions about the LDS with respect to the following elements:

- ◆ Integrated transport networks;
- ◆ Integrated infrastructure;
- ◆ Economic development strategy;
- ◆ Strategy for housing choice;
- ◆ Other issues.

Integrated transport networks for the LDS

Public transport

The contents of the LDS dealing with integrated transport networks for the East End do not make explicit mention of public transport as a key factor in promoting sustainable communities (although investment in public transport is mentioned in the section on the economic development strategy).

Barton and Tsourou recommend that public transport accessibility should be considered as a starting point for neighbourhood planning, with land uses attached to the public transport network,⁸ and new development oriented towards public transport stops.⁹

They also recommend that:

- public transport should have general priority over other road traffic along main routes and to the heart of areas of high demand;¹⁰
- as linearity is a key feature of public transport routes promoting their viability, it is important to plan for linearity and therefore the viability of public transport;¹¹
- housing is accessible by public transport, and that good public transport is provided to all main centres of employment¹² – by ensuring public transport access to employment areas, it will increase the travel options available and reduce the need for private car use, with the possibility of reducing the level of air pollution, the risk of road traffic accidents, and carbon dioxide emissions.¹³

⁸ Page 137 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁹ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁰ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹¹ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹² Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³ Page 91 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

In terms of distance to walk, Barton and Tsourou recommend:

- no more than 400 metres (a common standard for bus access across Europe) to a bus stop from all homes and workplaces to promote access;¹⁴
- housing should be within 400 metres of a good bus service;
- office, retail and leisure developments should be less than 300 metres from good public transport services.¹⁵

We ask those responsible for the LDS to consider making public transport more explicit in the integrated transport networks section, and to take account of the factors cited above for the planning of public transport infrastructure in the East End.

We also ask those responsible for the LDS to consider liaising with public transport providers to increase the cost-effectiveness and improve the service quality of public transport to the East End, both of which measures will promote sustainability and health.¹⁶ In addition, it is important to address affordability of public transport in the East End to ensure that those people with a low disposable income do not suffer from transport poverty and are not restricted in their movement or suffer social exclusion.

Healthy transport strategy

We ask those responsible for the LDS to consider strengthening the impact of integrated transport in the LDS by including a healthy transport strategy.

Barton and Tsourou recommend that all main transport agencies in a city should be involved in preparing and implementing a healthy transport strategy.¹⁷ A healthy transport strategy includes supporting walking and cycling, and the promotion of public transport, as sustainable modes of transport.¹⁸

Integrated infrastructure strategy for the LDS

The contents of the LDS dealing with integrated infrastructure for the East End cover only water. There is no mention of infrastructure relating to:

- **energy supply and management** or energy security;
- **waste management**;
- **information technology** and communication.

All three issues are integral to the sustainability of any development for both residential and commercial build.

¹⁴ Figure 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁵ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁶ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁷ Page 104 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁸ Page 104 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

Energy strategy

Although stakeholders have made suggestions about the need for energy efficiency in the construction and operation of build in the new developments for the East End, ***we ask those responsible for the LDS to consider*** including a coherent energy strategy as part of the infrastructure requirements in the LDS for the East End.

Barton and Tsourou recommend that energy is seen as a key resource, like land, to be managed and allocated by urban policy. The aim should be to reduce reliance on fossil fuel while ensuring the availability of adequate warmth and power to the population. Any energy strategy should incorporate energy efficiency (through retrofit and new build), embodied energy costs, renewable energy and combined heat and power schemes using renewable or low-carbon fuels to supply district heating networks.¹⁹ The health benefits of a coherent energy strategy are as follows:

- Reduced incidence of fuel poverty;
- Reduced level of health-damaging emissions to air;
- Reduced levels of carbon dioxide emissions, a global climate change gas;
- Improved health and quality of life, especially for children in less-affluent households; and
- Increased number of employment opportunities in the energy industry.

Waste management strategy

As waste management is a large-scale activity that has consequences for health and the environment²⁰ and is central to the sustainable development agenda,²¹ ***we ask those responsible for the LDS to consider*** including a waste management strategy in the integrated infrastructure section of the LDS, especially as resource management, including waste, is intimately connected to land use planning.²²

Economic development strategy for the LDS

The contents of the LDS dealing with economic development for the East End mainly relate to the contents of the economic development for Glasgow as a whole. There is little that is specific to the East End which may need to be remedied because there are risks associated with economic development and regeneration [ED1-ED5], especially for the existing communities who may be susceptible to impacts on health through:

- Gentrification and social displacement;
- Lack of or low-quality employment opportunities;
- Reduced levels of income;
- Poor access to facilities and services;
- Disenfranchisement and ghetto-isation.

¹⁹ Page 115 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²⁰ Enviro Consulting Ltd et al. (2004) *Review of environmental and health effects of waste management: municipal solid waste and similar wastes*. Department of Environment, Food and Rural Affairs.

²¹ Paragraph 5.5 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²² Page 109 in Barton, H. & Tsourou, C. (2000) *Healthy Urban Planning*. Spon Press.

Although many of the bullet points listed on page 29 of the LDS are supported by the evidence base presented after the stakeholder response to the economic development strategy theme, ***we ask those responsible for the LDS to consider*** incorporating into the LDS an economic development strategy that aims to reduce inequalities and social disparities associated with health in the East End.

In addition to the suggestions made by stakeholders, ***we also ask those responsible for the LDS to consider*** making explicit:

- the links between ***economy and health*** and developing sustainable communities;
- the contribution of healthy urban planning to economic development.

There is considerable and convincing evidence that significant economic benefits can be achieved by improving health in rich countries: better health increases labour supply and productivity and historically health has been a major contributor to economic growth.²³ Macro-economic research has also shown that health is a form of human capital vital for achieving economic stability, and that unhealthy societies impede the process of economic development.²⁴

Strategy for Housing Choice

Housing density

The contents of the LDS dealing with the strategy for Housing Choice do not include any mention of housing density.

We ask those responsible for the LDS to consider introducing information about the housing densities expected for different areas in the East End or within certain types of Regeneration Zone.

Barton and Tsourou recommend that, as a policy objective for healthy neighbourhood planning, the density of housing needs to be graded,²⁵ with higher density housing in the most accessible locations²⁶ because higher density increases the demand for local facilities and public transport services, facilitates walking and cycling and reduces the impact on open spaces. Barton and Tsourou also recommend that higher densities should be located close to clusters of facilities, with lower densities being further from facility clusters, in order to promote accessibility.²⁷ Thus, density levels should be determined by accessibility, grading density so that higher densities are in the most accessible locations, and that new housing is not developed on sites that are beyond easy walking distance of a range of local facilities.²⁸

²³ Suhrke, M. et al. (2006) The contribution of health to the economy of the European Union [Mini symposium]. Public Health 120: 994-1001. doi:10.1016/j.puhe.2006.08.011

²⁴ Subramanian, S. V. et al. (2002) The macroeconomic determinants of health. Annual Review of Public Health 23: 287-302.

²⁵ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

²⁶ Page 102 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

²⁷ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

²⁸ Page 102 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

Co-housing and self-build schemes

In addition, the contents of the LDS dealing with the strategy for Housing Choice do not include any mention of co-housing and self-build schemes. ***We ask those responsible for the LDS to consider*** introducing potential for co-housing and self-build schemes into the LDS.

Barton and Tsourou recommend that as a policy objective for healthy urban planning support is given to co-housing and self-build schemes.²⁹

Other issues

Community safety: policing in the East End

In addition to the stakeholder suggestions about designing out crime, ***we ask those responsible for the LDS to consider*** liaising with the Strathclyde Police over community safety and the implications for the policing of the East End with respect to:

- technical systems – automatic number plate recognition, CCTV, safety cameras;
- operational needs – realignment of beats, number of officers needed and potential sites for officers to work from.

Allotments

In the contents of the draft LDS, there is no mention of allotments. ***We ask those responsible for the LDS to consider*** introducing provision for allotments in the new developments in the East End.

The provision of allotments can help to increase access to safe and healthy food, and working in an allotment encourages regular exercise, improves mental health, promotes social contact, networking and support, and provides the opportunity to grow fresh nutritious and affordable food.³⁰

Barton and Tsourou recommend that any allotments in a new development are within easy “barrow distance” from homes, e.g. 200 metres or less.³¹

Tree planting

In the contents of the draft LDS, there is no mention of tree planting. ***We ask those responsible for the LDS to consider*** introducing text to promote tree planting in developments within the East End.

Trees break up and counteract the concentration of pollution in cities.³² People who can see trees or greenspace from their home report higher levels of health and wellbeing.³³

²⁹ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

³⁰ Adapted from page 118 of Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

³¹ Page 118 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

³² Page 139 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

³³ Paragraph 6.12 in Cave & Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

Appendix 1: Evidence base for “Developing a strategic approach to place change” – Regeneration Zones

RZ1: Community identity

A sense of community identity and belonging is important for health and wellbeing.³⁴

Appropriate facilities and meeting places help to facilitate identity and pride in an area, and can have a direct impact on some forms of antisocial behaviour.³⁵

RZ2: Social cohesion

A community does not generate social cohesion in isolation from local, regional or national policies – it is an outcome of social investment.³⁶

A thriving localised community life needs appropriate facilities and meeting places – the neighbourhood’s resources are important for building and sustaining networks, developing trust and encouraging participation. Resources also have an impact on residential continuity, interaction and socialising with fellow residents.³⁷

RZ3: Connectivity

Barton and Tsourou recommend that, in healthy neighbourhood planning, neighbourhoods should be seen as part of an urban continuum, in which one neighbourhood merges into another, with free cycling and pedestrian movement through them.³⁸

RZ4: Neighbourhood centres – relevant to Community Hubs

Facilities serving primarily a local function should be clustered within the locality, increasing the opportunity for multi-purpose trips, and centrally located in relation to walking and bicycling networks.³⁹

Barton and Tsourou recommend the types of activities at a local or neighbourhood centre are local shops and pubs or cafes, schools and health centres, and a community hall or church.⁴⁰

Barton and Tsourou suggest in their general guidelines for spatial planning of local facilities that social facilities are located on local high streets and in town centres.⁴¹

³⁴ Paragraph 3.3 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist.

³⁵ Catell, V. & Evans, M. (1999) Neighbourhood images in East London: social capital and social networks on two East London estates. YPS for Joseph Rowntree Foundation, York.

³⁶ Witten, K. et al. (2001) The impacts of school closure on neighbourhood social cohesion: narratives from Invercargill, New Zealand. *Health & Place* 7: 307-317.

³⁷ Catell, V. & Evans, M. (1999) Neighbourhood images in East London: social capital and social networks on two East London estates. YPS for Joseph Rowntree Foundation, York.

³⁸ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

³⁹ Page 98 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁴⁰ Table 4.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁴¹ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

An important task when planning for mixed use is to ensure sufficient space and flexibility in buildings in city, town and district centres to accommodate growth.⁴² Barton and Tsourou suggest that localities should be planned to encourage the clustering of facilities in ways that can adapt and flourish as social and market conditions change.⁴³ One of their policy objectives for healthy neighbourhood planning is construct buildings for social and commercial uses that are adaptable.⁴⁴

Small retail outlets within small or large developments can improve access to food, especially for people who do not have access to private transport and/or mobility problems, and contribute to the vitality of an area.⁴⁵

A good relationship between housing and local employment, retail, education and health facilities is critical to establishing healthy neighbourhoods; it means that people who do not have access to a car can get local jobs and use neighbourhood shops, clubs, school and health facilities.⁴⁶ It also means that a higher proportion of trips will be on foot or by bicycle, and casual meetings between people will increase, and facilitate friendship networks and a sense of community.⁴⁷

RZ5: Community consultation and engagement

Public consultation and involvement are key means of empowering local communities and of trying to ensure the responsiveness of policy to local needs.⁴⁸

Planning policy fails if it does not recognise basic human needs and public participation is a means of reducing the risk of devising unhealthy policies.⁴⁹

The Commission for Architecture and the Built Environment (CABE) recommends that community engagement should be planned from the outset when planning for and delivering housing growth, with the consultation strategy including a programme of awareness raising, engagement, publicity and feedback focused on key objectives. Public involvement can help overcome negative perceptions about new housing development if it is part of a planned, clear and transparent process.⁵⁰

Some forms of democratic participation may be beneficial for the health and wellbeing of those who take part, by enhancing a person's sense of empowerment and self-efficacy – people are most likely to take control of their health if they feel in control of other aspects of their lives.⁵¹

⁴² Page 100 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴³ Page 132 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴⁴ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴⁵ Paragraph 9.5 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁴⁶ Page 132 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴⁷ Page 132 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁴⁸ Barton, H. et al. (eds) (2003) *Healthy Urban Planning in practice: experience of European cities*. Report of the WHO City Action Group on Healthy Urban Planning. World Health Organization, Regional Office for Europe, Copenhagen.

⁴⁹ Barton, H. et al. (eds) (2003) *Healthy Urban Planning in practice: experience of European cities*. Report of the WHO City Action Group on Healthy Urban Planning. World Health Organization, Regional Office for Europe, Copenhagen.

⁵⁰ Commission for the Built Environment (CABE) (2007) *Actions for housing growth. Creating a legacy of great places*. CABE, London.

⁵¹ Paragraph 2.4 in Cave et al (2004) *Healthy sustainable communities: What works?* Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

Participation may also contribute to health within a community by building social capital. Higher levels of trust and participation in a community are related to the degree of equity in income distribution and population health outcomes.⁵²

If participative processes strengthen social networks that draw on both bonding (i.e. close ties and/or relations/social support between members of a network who are similar in terms of social identity) and bridging relations (i.e. connections between those who are unlike each other yet are relatively equal in terms of status and power) there may be positive health effects for socially excluded groups – in the context of a renewal programme, this may help to reduce health inequalities.⁵³

RZ6: Mixed tenure

For the planning process to contribute to a socially balanced population, it is important to provide housing appropriate for a range of family types and household incomes.⁵⁴ Barton and Tsourou recommend that every part of a city should have a good range of housing type, tenure, size, price and garden availability.⁵⁵

Mutual residence between owner-occupiers and those in affordable housing does not of itself bring people together.⁵⁶ Home owners can make a contribution to transforming deprived communities but change may be slow and the outcomes uncertain depending on the context – spatial and social – in which mixed tenure policies are implemented.

RZ7: Affordable housing

For vulnerable groups, improving people's housing may reduce health inequality.⁵⁷ The provision of public, social, and low-cost housing is central to the interests of vulnerable people in the population – low-income groups do not gain access to adequate housing simply through an ample overall supply but by removing the institutional and market barriers to provide for special needs and movement of households between sectors.⁵⁸

⁵² Paragraph 2.5 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁵³ Paragraph 2.7 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁵⁴ Page 31, "What needs to happen", Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁵⁵ Page 101 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁵⁶ Atkinson, R. & Kintrea, K. (2000) Owner-occupation, social mix and neighbourhood impacts. Policy and Politics 28: 93-108.

⁵⁷ Paragraph 5.3 in Cave et al (2004) Healthy Sustainable Communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁵⁸ Adapted from page 101 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

With respect to key workers, housing problems are a major factor in the recruitment crisis in both education and housing (the areas where teacher shortages are most acute correlate strongly with areas where house prices are highest).⁵⁹ If key workers can be attracted to the area, the quality of service provision for the community as a whole will be improved, which will then have the potential to promote health and reduce inequalities (particularly through the provision of education and health services).

RZ8: Sustainable construction and use of resources

Barton and Tsourou recommend that the first priority of an energy strategy in settlement planning is to increase the energy efficiency of building.⁶⁰

Energy efficiency will reduce the level of health-damaging emissions (from the inefficient combustion of wood, coal, oil or natural gas) and of carbon dioxide, thereby reducing the potential for global climate change.⁶¹

Renewable energy can be promoted through design, e.g. incorporating passive solar features and a layout that ensures good solar access to all buildings (in cooler climates), with consideration given to the feasibility of solar water heating and photovoltaic cells.⁶²

It is important to promote low energy in construction of buildings, as well as in their use.⁶³

The use of recycled and/or renewable materials in the construction of buildings and other infrastructure should be considered where appropriate.⁶⁴

CABE recommends that given the speed and severity of global climate change all public buildings should be designed with the target of zero emissions which need not add to the cost of the building provided that environmental sustainability is fully integrated into the design process from the beginning.⁶⁵

Sustainable practice also includes reducing the unnecessary consumption of pure or “white” water by households and businesses, and encouraging the collection and use of rain or “grey” water on site.⁶⁶

⁵⁹ Paragraph 6.3 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁶⁰ Page 115 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁶¹ Page 113 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁶² Page 115 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁶³ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁶⁴ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁶⁵ Commission for Architecture and the Built Environment and the Department for Culture, Media and Sport (2006) *Better public building*. HM Government, London.

⁶⁶ Page 116 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

RZ9: Local distinctiveness: architecture and history

“Place-making” is about local distinctiveness. Taking account of the physical and historic context of the area will help to reinforce local identity and distinctiveness. A good starting point is understanding settlement patterns that have built up over centuries. The best of what is already there can be used as a platform for future development in terms of types of spaces and streets, and typical materials and scale.⁶⁷

Barton and Tsourou suggest that locally distinctive architecture or townscape that reflects the traditional materials and culture of the area is used as a starting point for design.⁶⁸

Local sources of traditional building materials, normally associated with low energy use, give a sense of place and continuity with the past.⁶⁹

CABE recommends making the best use of existing buildings to retain the “embodied energy” already present in their materials but also to give new communities a social connection with the history of the place and the people who lived there before.⁷⁰

RZ10: Good quality design

The design of the built environment is important for people’s psychosocial health.⁷¹

Good design encourages greater ownership and involvement of communities, and can reduce negative effects such as vandalism, and the under-use of facilities.^{72, 73}

A well designed built environment will help to foster and reinforce a sense of community.⁷⁴

An aesthetically pleasing environment will encourage people to walk for exercise or recreation.⁷⁵

⁶⁷ Commission for the Built Environment (CABE) (2007) Actions for housing growth. Creating a legacy of great places. CABE, London.

⁶⁸ Page 152 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁶⁹ Page 156 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁷⁰ Commission for the Built Environment (CABE) (2007) Actions for housing growth. Creating a legacy of great places. CABE, London.

⁷¹ Seymour et al. (2001) Rapid review of housing and the built environment. Rapid reviews of public health for London. NHS Executive, London.

⁷² Evans and Shaw (2001) Draft Final Report of a study into the impact of Lottery Good Cause spending in the UK. Centre for Leisure and Tourism Studies, University of North London, for the Department for Culture, Media and Sport.

⁷³ Wilson (1987) The truly disadvantaged: the inner city, the underclass and public policy. University of Chicago Press.

⁷⁴ Paragraph 6.1 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁷⁵ Paragraph 5.39 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

RZ11: Greenspaces and open spaces

Greenspace (including greenspace on the urban fringe) can contribute to health and wellbeing.⁷⁶

Barton and Tsourou recommend that homes are within 2,000 metres of major natural greenspace.⁷⁷

People who can see trees or greenspace from their home report higher levels of health and wellbeing, and children who have access to, or sight of, the natural environment have higher levels of attention than those who do not.⁷⁸

Access to open spaces can increase the level of exercise undertaken in a community, contributing to reducing levels of obesity, cardiovascular disease, diabetes and arthritis. (The impact on levels of exercise is most likely to be experienced by children.)⁷⁹

In addition, access to open spaces can increase the level of social contact and interaction, contributing to a reduction in stress-related problems.⁸⁰

However, criminal, social or psychological aggression, and drug abuse and conduct offences can take place in greenspaces,⁸¹ therefore it is important that any open and greenspace strategy addresses these issues which carry a disbenefit for health and wellbeing.

On balance, the London Health Commission advises that the health benefits of parks and open spaces outweigh the disbenefits, if there are policies and management practices in place to overcome barriers (such as fears about safety) and maximise the benefits.⁸²

⁷⁶ Paragraph 6.11 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁷⁷ Figure 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

⁷⁸ Paragraph 6.12 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁷⁹ Michie and de Rozarieux (2001) *The health impacts of greenspaces: a rapid review to support the Mayor of London's Biodiversity Strategy*.

⁸⁰ Michie and de Rozarieux (2001) *The health impacts of greenspaces: a rapid review to support the Mayor of London's Biodiversity Strategy*.

⁸¹ Michie and de Rozarieux (2001) *The health impacts of greenspaces: a rapid review to support the Mayor of London's Biodiversity Strategy*.

⁸² London Health Commission (2002) *Culture & health: making the link*. London Health Commission.

RZ12: Public art

Neighbourhood aesthetic quality, including interesting features such as public art, may be related to the experience of stress or the ability to recover after exposure to stressors.⁸³

In a more aesthetically pleasing environment people are more likely to walk for exercise and recreation⁸⁴ and if the art is placed in a greenspace there will be greater incentives to exercise, thereby benefiting health in terms of physical activity. There will also be an increase public safety by increasing the number of people on the streets and in other public places/spaces, which will then increase the possibility for social interaction and cohesion.

However, the arts in general have been found to contribute more to bonding social capital within groups when compared with bridging social capital between groups,⁸⁵ therefore any public art should not reinforce entrenched patterns of social grouping which could lead to feelings of exclusion for some groups.

RZ13: Availability of amenities – supermarkets

Local shops are one of the types of facility recommended by Barton and Tsourou as part of a local or neighbourhood centre.⁸⁶ Small retail outlets within small or large developments can improve access to food, especially for people who do not have access to private transport and/or mobility problems, and contribute to the vitality of an area.⁸⁷

In the USA, it has been found that the number of supermarkets is lower in more deprived neighbourhoods.⁸⁸

The availability of amenities, such as grocery stores and pharmacies, may constrain or facilitate a person's ability to engage in health-promoting behaviours, e.g. eating fresh fruit and vegetables and obtaining medicines.⁸⁹

RZ14: Drug use and neighbourhoods⁹⁰ – relevant to Bridgeton Cross

Drug use and the crime associated with it are symptoms, and causes of, decline. The increasing availability of drugs and the growth of the “drug economy” is one of the key social and economic changes affecting neighbourhoods.

⁸³ Paragraph 9.9 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁸⁴ Paragraph 5.39 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁸⁵ Paragraph 3.4 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁸⁶ Table 4.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

⁸⁷ Paragraph 9.5 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁸⁸ Morland, K. et al. (2002) Neighbourhood characteristics associated with the location of food stores and food service places. American Journal of Preventative Medicine 22: 23-29.

⁸⁹ Paragraph 8.25 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

⁹⁰ Neighbourhood Renewal Unit (2003) Drugs and neighbourhood renewal. Factsheet 4. Second edition. Office of the Deputy Prime Minister.

Drug-related crime disproportionately affects the poorest communities. This makes the stigma attached to such places worse, and slows down efforts to regenerate them.

In communities where unemployment is high and many young people do not have a job, being a drug user or dealer can confer status.

In a deprived environment, drugs can become a significant part of the “alternative economy”, and the area may not have the resources to respond effectively to the situation – fighting drug problems is expensive, particularly in poor areas.

In Norwich, the community is working with the police to tackle drug use and drug dealing, including a community warden scheme involving local people, an employment strategy meaning that local people are trained in providing a community support network to help those, for instance, looking after a family while undergoing drug rehabilitation, and new facilities and projects as part of encouraging young people to take jobs and take up leisure and sporting activities as an alternative to the drugs scene.

RZ15: Involving young people

UNICEF has set up a network of Child Friendly Cities (CFCs), and recommend nine building blocks for how to build a child friendly city, the first of which is children’s participation.⁹¹

To find the appropriate model for involving young people, organisations need to be clear why they are seeking their participation, what it is hoped will be achieved through young people’s participation and how power might be shared between adults and young people.⁹²

Only a minority of young people are involved in public decision-making, and many young people are cynical about the extent to which adults take their views into account.⁹³

Although young people are increasingly asked for their views, youth influence on decision-making is low.⁹⁴

Good participatory work appears to benefit young people by building their confidence and knowledge, skills and educational achievement, and by changing attitudes.⁹⁵

⁹¹ UNICEF. Child Friendly Cities. Available at: <http://www.childfriendlycities.org/>

⁹² Teenage Pregnancy Unit (2001) A guide to involving young people in teenage pregnancy work. Teenage Pregnancy Unit. Available at: <http://www.teenagepregnancyunit.gov.uk>

⁹³ Curtis, K. & Roberts, H. (2003) Effective interventions to tackle inequalities in children’s health. Child Health Research and Policy Unit. City University, London.

⁹⁴ Kirby, P. & Bryson, S. (2002) Measuring the magic? Evaluating and researching young people’s participation in public decision-making. Carnegie Young People Initiative.

⁹⁵ Curtis, K. & Roberts, H. (2003) Effective interventions to tackle inequalities in children’s health. Child Health Research and Policy Unit. City University, London.

RZ16: Designing out crime

Improvements to street lighting reduce crime through both precisely targeted increases in lighting, and, in the UK, general increases in street lighting.⁹⁶

In the most sophisticated studies, improvements to street lighting have been associated with reductions in crime during the day as well as during the hours of darkness.⁹⁷

CCTV can be effective in deterring property crime, but the findings are mixed when looking at its effect on personal crime, and public order offences.⁹⁸

However, linking community safety entirely with the design of the built environment can shift the focus away from the social and political causes of crime.⁹⁹

⁹⁶ Pease, K. (1999) A review of street lighting evaluations: crime reduction effects. In Painter, K. and Tilley, N. (eds) Surveillance of public space: CCTV, street lighting and crime prevention. Criminal Justice Press, Monsey, NY.

⁹⁷ Pease, K. (1999) A review of street lighting evaluations: crime reduction effects. In Painter, K. and Tilley, N. (eds) Surveillance of public space: CCTV, street lighting and crime prevention. Criminal Justice Press, Monsey, NY.

⁹⁸ Phillips, C. (1999) A review of CCTV evaluations: crime reduction effects and attitudes towards its use. In Painter, K. and Tilley, N. (eds) Surveillance of public space: CCTV, street lighting and crime prevention. Criminal Justice Press, Monsey, NY.

⁹⁹ Koskela, H. & Koskela, R. P. (2000) Revisiting fear and place: women's fear of attack and the built environment. *Geoforum* 31: 269-280.

RZ17: Construction impacts

There are very few studies that have been designed to investigate the effects of construction on residents in the vicinity of construction sites. The literature is focused on the occupational hazards associated with the construction industry.¹⁰⁰

However, the absence of evidence does not mean absence of effect, and construction impacts are one of the main impacts identified by communities in HIAs of new developments. The construction impacts identified by the community during the HIA of proposals for the Regeneration of the King's Cross Opportunity Area in London¹⁰¹ included:

- Noise;
- Dust and poor air quality;
- Dirt and mud;
- Air pollution from construction traffic;
- Light pollution from construction out of daylight hours;
- Vibration from construction machinery and from construction traffic;
- Vermin;
- Disturbance of contaminated land for brownfield sites;
- Increased volume of traffic;
- Traffic congestion;
- Disruption to public transport – delays and relocation of stops;
- Disruption to and diversion of routes for various modes of travel, including active travel;
- Obstructions and/or reduced mobility/movement for wheelchair users, people who have a physical disability and people using pushchairs;
- Increased risk of road traffic incidents;
- Displacement of crime and antisocial behaviour;
- Increased risk of crime and antisocial behaviour with the presence of a construction site;
- Increased fear of crime and antisocial behaviour;
- Intimidation of local community by construction workers, particularly those people who are susceptible to health impacts, e.g. young women and people from black and ethnic minorities who have been brought up in a different culture.

¹⁰⁰ Paragraph 5.61 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁰¹ Ison, E. (2003) Health impact assessment of the Redevelopment of King's Cross. Response to Argent St George's "A Framework for regeneration: work in progress. The third consultation document about King's Cross Central." Camden Primary Care Trust, London.

Appendix 2: Evidence base for “Developing a strategy for integrated transport networks”

ITN1: Benefits of transport – providing access

Transport has several features that contribute positively to the determinants of health by providing access to a range of services, facilities and amenities, and by providing the opportunity for social contact and interaction.¹⁰²

In a review for the Department of the Environment, Transport and the Regions (DETR), transport was highlighted as providing access to work, food, health facilities, education and training, and leisure, providing services in isolated rural areas (e.g. bank), and representing a symbolic expression of an area as well connected with wider society in the city as a whole.¹⁰³

ITN2: Improving transport infrastructure – relevant to completing the East End Regeneration Route (EERR)

Improvements to transport infrastructure, such as roads, can have a negative impact on health through air and noise pollution, accidental injury and death, community severance, and a reduction in the uptake of sustainable forms of travel, e.g. walking and cycling, and the use of public transport.¹⁰⁴

Air pollution has both short and long-term damaging effects on health: it can worsen the condition of people who have heart and/or lung disease (especially among older people), it can aggravate asthma, and in the longer term it may reduce average life-expectancy.¹⁰⁵

Environmental noise above 40-55dBA Leq is likely to lead to significant annoyance, and outdoor noise levels of 40-60dBA Leq may disturb sleep.¹⁰⁶

Road traffic is one of the usual causes of noise-related sleep disturbance, especially as the source is changeable and predictable; people who are ill, older people and people with existing sleep difficulties are more likely to experience noise-related sleep disturbance.¹⁰⁷

In a community-based case-control study it was found that the risk of injury from a road traffic incident increased with traffic volume, particularly for child pedestrians, risk increased with a high density of curb parking and mean traffic speeds over 25 miles per hour.¹⁰⁸

¹⁰² Paragraph 6.1 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁰³ Department of the Environment, Transport and the Regions (2000) Social exclusion and the provision and availability of public transport: summary report. TraC at the University of London.

¹⁰⁴ Adapted from paragraph 6.1 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁰⁵ Committee on the Medical Effects of Air Pollution (COMEAP) (2000) The health effects of air pollutants. COMEAP advice.

¹⁰⁶ London Health Commission (2003) Noise & health: making the link.

¹⁰⁷ London Health Commission (2003) Noise & health: making the link.

¹⁰⁸ Roberts, I. et al. (1996) Trends in intentional injury deaths in children and teenagers (1980-1995). *Journal of Public Health Medicine* 20: 463-466.

Traffic affects social networks on a local basis – as traffic volumes increase, people's sense of neighbourliness and the geographical density of their friendship decreases.¹⁰⁹

Barton and Tsourou recommend that improvements to roads should be approved only where the improvement is essential for ensuring local access and for extending public transport and pedestrian priority.¹¹⁰

Planning can assist in improving air quality and reducing noise levels by segregating polluting and noisy land uses, by promoting less polluting forms of public transport, by deterring car use and by restricting lorries to specific routes.¹¹¹

Other measures for noise abatement include (1) screening noise by installing sound-proof windows/windows with ducted ventilation or ventilation systems, noise barriers (with solar cells) and earth banking or using building structures for screening or tunnels or troughs and (2) using low-noise road surfaces.¹¹²

Sensitive uses such as schools and dwellings need to be located away from major sources of air and noise pollution including traffic. This is especially important for locations where the following vulnerable groups are concentrated: children (whose respiratory systems are still developing, thus making them vulnerable¹¹³), older people, and adults who have a pre-existing medical condition affecting the heart or lungs. If sensitive uses cannot be located away from noise sources, consider interposing less-sensitive uses in between the source and the sensitive use.¹¹⁴

ITN3: Traffic management measures – traffic calming and living streets

Sustainable Mobility Initiatives for Local Environment (SMILE) recommends that traffic calming/living street measures should be aimed at reducing the predominance of the car over other modes of transport in a given area, and used as an instrument to improve the possibilities of travelling by other modes of transport than the car.¹¹⁵

One way of reducing road capacity is to plan positively for other modes of transport which includes creating bus-only lanes, and inserting special bike lanes.¹¹⁶

Traffic management measures that conform to sustainable principles and increase safety include reducing traffic flow, moderating traffic speeds and restricting road capacity.¹¹⁷

¹⁰⁹ Paragraph 6.34 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹¹⁰ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹¹¹ Page 20 in Barton and Tsourou (2000) Healthy Urban Planning.

¹¹² Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹¹³ Paragraph 5.6 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹¹⁴ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹¹⁵ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹¹⁶ Page 138 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹¹⁷ Page 107 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

ITN4: Home Zones

A Home Zone is an area where, in addition to speed limitations and access restrictions, the safety and attraction of an area are improved, the use of the streets diversified, community life in the neighbourhood developed and residents involved in the preparation and implementation of the project.¹¹⁸

In an HIA of a Home Zone in Plymouth, nine definite positive impacts on health were identified covering environment and safety as determinants of health. Only four negative impacts on health were identified as definite and three of these covered environment as a determinant of health.¹¹⁹ Other impacts on health were identified, and assessed as probable or speculative – probable positive impacts on health influenced social cohesion, whereas probable negative impacts affected health and lifestyles.

ITN5: Pedestrian crossings

When main routes include crossing busy main street highways, the construction of pedestrian overpasses and underpasses allowing uninterrupted pedestrian movement flows, separated from vehicular traffic, should be considered. In the case of city roads, convenient surface crossing (including appropriate measures) should be preferred over underpasses or overpasses due to their expense and the potential for discouraging some pedestrians from walking.¹²⁰

ITN6: Providing opportunities for active travel – relevant to creating a core path network and cycle network in the East End

Barton and Tsourou recommend a permeable pedestrian and cycling environment as a policy objective for healthy urban planning in order to promote accessibility and increase the potential for social contact, interaction and cohesion.¹²¹

The World Health Organization (WHO) recommends the creation of a dense **network of footways** to link all main activities and public transport facilities to ensure safety, directness, ease of use, especially for people who are less mobile (e.g. older people, and people who have a physical disability), and the provision of an attractive and secure pedestrian environment.¹²²

Pedestrian routes need to be direct and convenient, and allow good permeability.¹²³

¹¹⁸ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹¹⁹ HIA of the Morice Town Homezone, Plymouth. Available at: <http://www.publichealth.nice.org.uk/hiagateway>

¹²⁰ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹²¹ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹²² World Health Organization Regional Office for Europe (1997) Walking and cycling in the city. Local Authorities Health and Environment Briefing No. 35. WHO: Copenhagen.

¹²³ Page 136 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

The presence of pavements in a neighbourhood is associated with increased rates of meeting physical activity recommendations.¹²⁴ Minutes of walking and moderate-intensity activity are related to the quality of footways.¹²⁵ Pedestrian-friendly design, including pavements, street lighting, and planting, has been found not to encourage motorised transport.¹²⁶

Important to the potential pleasure and social benefits of walking is the creation of places where it is natural for people to stop and look;¹²⁷ the design and provision of streets and places where people can meet, e.g. incidental spaces and squares, increases social contact, with the potential to foster local networks of support, and improve people's quality of life.¹²⁸ Casual meetings between people increase and facilitate friendship networks and a sense of community.¹²⁹

The WHO also recommends the creation of a comprehensive network of convenient cycle routes and the development of a safer cycling environment.¹³⁰

Barton and Tsourou recommend the provision of a strategic cycling network serving the locality as a policy objective for healthy neighbourhood planning, particularly to encourage movement to work places.¹³¹

To encourage and promote use, cycle routes need to give direct access to homes and facilities, be as continuous as possible, convenient and direct, and comfortable (e.g. easy gradients, smooth surface, protection from fumes and intimidation by heavy goods vehicles).¹³²

Segregated routes for cyclists are desirable when provided as greenways through parks.¹³³

Walking or cycling has the capacity to diminish morbidity and mortality within the population for various diseases or conditions: coronary artery disease, stroke, systemic hypertension, obesity, emotional disorders, the incapacity associated with ageing, osteoporosis, diabetes mellitus, colon cancer, chronic back disease, and athletic injuries.¹³⁴

Physical exercise reduces the likelihood of developing, and dying from, many of these diseases, and can improve the control of some, e.g. hypertension and diabetes.¹³⁵

¹²⁴ Paragraph 5.39 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹²⁵ Paragraph 5.41 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹²⁶ Paragraph 5.42 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹²⁷ Page 136 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹²⁸ Page 135 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹²⁹ Page 132 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³⁰ World Health Organization Regional Office for Europe (1997) Walking and cycling in the city. Local Authorities Health and Environment Briefing No. 35. WHO: Copenhagen.

¹³¹ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³² Pages 136-137 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³³ Page 136 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³⁴ Paragraph 6.31 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹³⁵ Paragraph 6.32 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

Physical exercise can also improve the management of mild-to-moderate mental health problems, e.g. depression and anxiety, although acute anxiety responds better to exercise than chronic anxiety.¹³⁶

ITN7: Safe and secure routes for walking and cycling

People's propensity to walk is significantly affected by the level of safety, convenience or pleasure experienced when walking.¹³⁷

Safety is a key factor in encouraging people to cycle, especially for children and older people.¹³⁸

Barton and Tsourou recommend design for natural surveillance of footpaths and pavements as a policy objective for healthy neighbourhood planning,¹³⁹ to increase safety and promote movement by sustainable means.

The World Health Organization (WHO) recommends that pedestrians have top priority in the movement system and where there are conflicts with road traffic pedestrian routes should be given priority.¹⁴⁰

The speed of traffic is a prime factor in road-related accidents.¹⁴¹

The World Health Organization (WHO) recommends that safety for cyclists will be improved by slowing traffic on roads to a more cycle-friendly speed and by making good provision for bicycles at junctions.¹⁴²

Barton and Tsourou recommend calmed traffic as a policy objective for healthy neighbourhood planning in order to promote safety,¹⁴³ which can be achieved by narrowing road widths, making tight bends, reducing sightlines and installing junction platforms and rough surfaces to generate a slow but constant traffic speed.¹⁴⁴

¹³⁶ Paragraph 6.33 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹³⁷ Page 135 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³⁸ Page 135 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹³⁹ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁴⁰ World Health Organization Regional Office for Europe (1997) Walking and cycling in the city. Local Authorities Health and Environment Briefing No. 35. WHO: Copenhagen.

¹⁴¹ Page 138 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁴² World Health Organization Regional Office for Europe (1997) Walking and cycling in the city. Local Authorities Health and Environment Briefing No. 35. WHO: Copenhagen.

¹⁴³ Table 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁴⁴ Pages 138-9 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

ITN8: Pedestrianisation

The WHO recommends that pedestrianisation be increased where the current or potential intensity of pedestrian use justifies it.¹⁴⁵

SMILE recommends the creation of a well-connected pedestrian zone in downtown areas where strolling and shopping represent the most important options.¹⁴⁶

Pedestrianisation can boost an area's commercial activity.¹⁴⁷

ITN9: Bicycle parking

Secure end-of-journey parking in convenient locations is a factor affecting bicycle use, and is recommended by Barton and Tsourou as one way of planning for cyclists.¹⁴⁸

ITN10: Community hubs – particularly at Bridgeton, Parkhead and Dalmarnock

For local or neighbourhood centres, Barton and Tsourou recommend the following key accessibility requirements: that they have excellent pedestrian and bicycling access from the surrounding residential area, and that they are served by a bus or tram route.¹⁴⁹ Further criteria include that there should be a low level of car dependence and that facilities are clustered to encourage multi-purpose trips.¹⁵⁰

The clustering of facilities along local high streets encourages multi-purpose trips;¹⁵¹ mixed land use is positively related to walking for shopping and work-related trips, and less travel by car.¹⁵² A reduction in car usage encourages the use of local facilities by making streets more pleasant and safe, especially for children, and also fosters a sense of community through social contact and interaction.¹⁵³

Barton and Tsourou recommend that the points where public transport routes cross become the prime locations for local jobs and services, and the focus for pedestrian and cycling routes.¹⁵⁴

¹⁴⁵ World Health Organization Regional Office for Europe (1997) Walking and cycling in the city. Local Authorities Health and Environment Briefing No. 35. WHO: Copenhagen.

¹⁴⁶ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹⁴⁷ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹⁴⁸ Pages 136 -137 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁴⁹ Table 4.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁵⁰ Table 4.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁵¹ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁵² Paragraph 5.42 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁵³ Page 133 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁵⁴ Page 137 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

ITN11: Rail developments

Improved access to airports can play a major role in the development of “heavy rail” systems.¹⁵⁵

ITN12: Emergency services

The WHO recommends the provision of emergency services as part of people’s access to a supportive living environment, which is one of their principles of healthy housing.¹⁵⁶

ITN13: Integrating modes of transport

Interchange integration is a component of promoting sustainable mobility.¹⁵⁷

¹⁵⁵ White, P. (2002) Public Transport: its planning, management and operation. 4th edition. Spon Press.

¹⁵⁶ World Health Organization (WHO) (1989) Health principles of housing. WHO, Geneva.

¹⁵⁷ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

Appendix 3: Evidence base for “Developing a strategy for integrated infrastructure”

II1: Flooding: negative impacts on health

Although floods in Britain are typically small scale, short lived and shallow, the health effects can often be very marked, ranging from premature death, clinical problems requiring hospitalisation or consultation with doctors, to an increase in the use of non-prescription drugs or alcohol, depression, insomnia, low self-esteem and general feelings of ill health.¹⁵⁸

In a small study in the Thames Region by the Flood Hazard Research Centre, people from vulnerable groups (e.g. older people, lone parents, people from black and minority ethnic groups, people with a low socioeconomic status) reported many health effects as a result of flooding ranging from headaches to digestive problems to lethargy and stress and anxiety; they also reported other problems that contributed to their level of stress including problems with personal relationships, and employment, and feelings of isolation.¹⁵⁹ There was also a loss of confidence in the authorities and institutions perceived to be associated with providing flood protection and recovery support, and a fear that those authorities/institutions would fail to protect or warn against any future event.¹⁶⁰

II2: Odour from the Dalmarnock waste water treatment works

In studies that have looked at the possible health effects caused by annoyance about odours from landfill sites and petroleum refineries, it has been concluded that intuitive or implicit ideas about toxicity can be summarised as “if environments smell bad they are probably damaging to health”.¹⁶¹

II3: Sustainable urban drainage systems (SUDS)

As part of developing a healthy sustainable community, sustainable urban drainage techniques need to be adopted more widely.¹⁶²

¹⁵⁸ Paragraph 4.31 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁵⁹ Cited in Paragraphs 4.32 and 4.33 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁶⁰ Cited in Paragraph 4.34 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁶¹ Williams, W. C. & Less-Haley, R. P. (1997) Effect of information about odour on causal ascriptions for illness. *Perceptual and Motor Skills* 85: 411-418.

¹⁶² Paragraph 5.8 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

II4: Surface water drainage and replenishing ground water sources

Barton and Tsourou recommend local, clean road drainage to replenish groundwater as a policy objective for healthy neighbourhood planning.¹⁶³

Barton and Tsourou recommend that all surface water reach local streams and rivers with pollutants removed,¹⁶⁴ including any potential run-off from hard-standing (non-point source water pollution) where rainfall or snowmelt could pick up grit, oil, grease, toxic chemicals and other debris from roadways.¹⁶⁵ In the USA, the highest incidence and quickest contagions of waterborne diseases have been found to occur after heavy rainfall on impervious surfaces.¹⁶⁶

Barton and Tsourou recommend that, where subsoil permits, rainwater should be allowed to percolate into the ground to recharge aquifers and avoid the danger of flooding; however, where run-off is inevitable, then swales and holding ponds can be used.¹⁶⁷

II5: Improving urban waterways – relevant to the River Clyde in the East End

Improvements to urban waterways bring benefits for regeneration, recreation and wildlife.¹⁶⁸

Water is a leisure commodity,¹⁶⁹ and leisure is essential to an individual's psychological health.¹⁷⁰

For healthy neighbourhood planning, Barton and Tsourou recommend structuring open space around watercourses to create habitats and conserve water.¹⁷¹

Barton and Tsourou also recommend the creation of wildlife habitats as part of healthy neighbourhood planning.¹⁷²

Wildlife habitats in cities benefit wellbeing and quality of life through providing an educational and community resource in addition to the value of the habitat itself.¹⁷³

¹⁶³ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁶⁴ Page 154 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁶⁵ Paragraph 4.28 in Cave et al (2004) *Healthy sustainable communities: What works?* Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁶⁶ Paragraph 4.29 in Cave et al (2004) *Healthy sustainable communities: What works?* Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁶⁷ Page 116 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁶⁸ Paragraph 5.8 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁶⁹ Paragraph 5.7 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁷⁰ London Health Commission (2002) *Culture & health: making the link*. London Health Commission.

¹⁷¹ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁷² Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁷³ Page 141 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

Appendix 4: Evidence base for “Developing a strategy for access to services”

ATS1: Accessibility – the provision of local services

Good local services – education, lifelong learning, health and social services – are essential for quality of life and the willingness of people to stay and invest in an area. They are central to sustainable local communities.¹⁷⁴

Access to services is a key factor in promoting health and helps combat the inequity experienced by people who do not have access to private transport.¹⁷⁵

In a Swedish study of urban neighbourhoods, people in an area that had undergone improvements to local services and facilities had reduced levels of mental illness and increased levels of social support.¹⁷⁶

ATS2: Accessibility – the provision of public transport

SMILE recommends that development and transport need to be combined in ways that link jobs and leisure activities with new or existing transit services.¹⁷⁷

Barton and Tsourou recommend that all new office, retail and leisure developments should be less than 300 metres of actual walking distance from good public transport services.¹⁷⁸

ATS3: Integration and co-location of facilities

Integrating and co-locating facilities and human service (e.g. education, leisure, library, religious, and police facilities) delivery has a wide range of benefits from major long-term health benefits from early years education to service synergies (e.g. between primary healthcare and social care) to more cost-effective one-stop-shop models.¹⁷⁹ Extended and full service schools are being developed across the UK, together with new Children’s Centres.¹⁸⁰

¹⁷⁴ Paragraph 9.1 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁷⁵ Page 133 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

¹⁷⁶ Dalgard, O. & Tambs, K. (1997) Urban environment and mental health: a longitudinal study. *Journal of Psychiatry* 171: 530-536.

¹⁷⁷ *Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities*. SMILE.

¹⁷⁸ Page 107 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press

¹⁷⁹ Adapted from Paragraph 9.6 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁸⁰ Adapted from Paragraph 9.6 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*.

ATS4: Parking at locations of service provision

For large urban renewal initiatives, SMILE recommend considering planning for sustainable parking.¹⁸¹

Barton and Tsourou recommend that the parking provided at all major trip generators should be kept to an operational minimum as far as possible,¹⁸² in order to reduce the number of trips by car.

It is important to consider the needs of parking for goods delivery.¹⁸³

ATS5: Education

CABE recommends that the design of schools should contribute towards regeneration and sustainable communities as well as providing environments for inspiring and effective learning.¹⁸⁴

In a UK study of pupil performance, it was found that capital investment in school buildings had the strongest influence on staff morale, pupil motivation and effective learning time.¹⁸⁵

It has been found that pupil's test scores are 11% higher in well designed buildings when compared with those in poorly designed buildings.¹⁸⁶

Barton and Tsourou recommend a distance between a primary school and dwellings of 400-600 metres, although their preferred distance is 400 metres, i.e. walking distance.¹⁸⁷ This distance will promote walking, and reduce the number of car trips, benefiting health by increasing physical activity and reducing air pollution. Barton and Tsourou suggest in their general guidelines spatial planning of local facilities that education facilities are located on local high streets and in town centres.¹⁸⁸

Barton and Tsourou recommend a distance between a secondary school and dwellings of 1000-1500 metres, although their preferred distance is 1000 metres.¹⁸⁹ In their general guidelines for spatial planning of local facilities, Barton and Tsourou suggest that education facilities are located on local high streets and in town centres.¹⁹⁰

¹⁸¹ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹⁸² Page 108 in Barton and Tsourou (2000) Healthy Urban Planning.

¹⁸³ Sustainable Mobility Initiatives for Local Environment (SMILE) (2004) Towards Sustainable Urban Transport Policies. Recommendations for Local Authorities. SMILE.

¹⁸⁴ Commission for Architecture and the Built Environment and the Department for Culture, Media and Sport (2006) Better public building. HM Government, London.

¹⁸⁵ PriceWaterhouseCoopers (2000) Building performance: an empirical assessment of the relationship between schools capital investment and pupil performance. Research Report No. 242.

¹⁸⁶ Commission for Architecture and the Built Environment (2002) The value of good design. CABE, London.

¹⁸⁷ Figure 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁸⁸ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁸⁹ Figure 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁹⁰ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

ATS6: Health services

High quality local health and social services provide vital sources of support, treatment and preventative services for the community.¹⁹¹

Communities most at risk of ill health tend to experience the least satisfactory access to the full range of preventative services, including cancer screening, health promotion and immunisation.¹⁹²

Barton and Tsourou suggest in their general guidelines for spatial planning of local facilities that health facilities are located on local high streets and in town centres.¹⁹³

Barton and Tsourou recommend that a health centre is within 800-1,000 metres of residential units.¹⁹⁴

ATS7: Community centres and facilities

Community centres are part of the therapeutic landscape, quasi-public places where people meet, greet and nurture social relations; they also provide venues where health-promoting activities can take place.¹⁹⁵

In the absence of safe places for opportunities for social interaction, people's sense of belonging to a particular community and place is diminished.¹⁹⁶

Community facilities provide a material base on which social capital can be built – for social capital to develop it requires greater participation and representation of the community in the growth and development of facilities, which helps to meet constantly changing social conditions and a range of needs.¹⁹⁷

Barton and Tsourou recommend that facilities serving primarily a local function should be clustered within a locality, thereby increasing the opportunity for multi-purpose trips, and should be centrally located in relation to walking and bicycling networks.¹⁹⁸

ATS8: Increasing accessibility – affordability

In the Egan Review, it is stated that all services (public, community, voluntary and private) need to be affordable if they are to contribute to a sustainable community.¹⁹⁹

¹⁹¹ Paragraph 9.3 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

¹⁹² Goddard, M. & Smith, P. (1998) Equity of access to health care. University of York, York.

¹⁹³ Page 134 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁹⁴ Figure 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁹⁵ Witten et al. (2001) Health and Place 7; 307-317.

¹⁹⁶ Warin et al. (2000) Soc. Sci. Med. 50; 1863-1875.

¹⁹⁷ Campbell et al (1999) Social capital and health. Health Education Authority.

¹⁹⁸ Page 98 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

¹⁹⁹ Egan, J. et al. (2004) Skills for sustainable communities. The Egan Review. Office of the Deputy Prime Minister.

Appendix 5: Evidence base for “Developing a strategy for economic development”

ED1: Effects of regeneration and economic development on health

Regeneration programmes can have an important influence in improving the quality of people's lives by mitigating the effects of uneven development,²⁰⁰ but regeneration can have negative impacts on some population groups.^{201, 202}

In a longitudinal study of long-term non-migrating residents in Tennessee, it was found that they did not on average benefit economically from regeneration, and experienced a significant decrease in average household income.²⁰³ In addition, residents had a statistically significant worsening of physical health status, which was tentatively attributed to the direct or indirect effects of a decline in family income. Local economic development can leave long-term residents of an area poorer and less healthy; an effect which may be masked by an increase in healthier, wealthier inward migrants.

Neighbourhood ‘improvements’ may displace social problems rather than solve them, and this will not help to reduce inequalities in housing and in health.²⁰⁴

Gentrification appears to improve the physical and social fabric of an area, however, social problems are usually evacuated through the ‘improvement’ of neighbourhoods: the subsequent absence of social problems is used as evidence that gentrification has positive social impacts.²⁰⁵

Displacement has social costs, such as increased housing need, overcrowding in ‘hidden households’, and homelessness.²⁰⁶

People who have been displaced are likely to feel resentment, disenfranchisement, and exclusion.²⁰⁷

Displacement also has neighbourhood effects, that is, the impairment of social networks, and a reduction in service provision.²⁰⁸ These neighbourhood effects will affect vulnerable groups adversely – they are less able to cope with the psychological and financial costs of displacement.

²⁰⁰ Cave, B. et al. (2001) Health Impact Assessment for Regeneration Projects. Volume II: Selected Evidence Base. East End and City Health Action Zone and Queen Mary, University of London, London.

²⁰¹ Cave, B. et al. (2001) Health Impact Assessment for Regeneration Projects. Volume II: Selected Evidence Base. East End and City Health Action Zone and Queen Mary, University of London, London.

²⁰² Ambrose, P. (2000) A drop in the ocean: the health gain from the central Stepney SRB in the context of national health inequalities. Health and Social Policy Research Centre, University of Brighton.

²⁰³ Glenn et al. (1998) Effect of transient, geographically localised economic recovery on community health and income studied with longitudinal household cohort method. *Journal of Epidemiology and Community Health* 52: 749-757.

²⁰⁴ Curtis, S. et al. (2002) Regeneration and neighbourhood change. Paper prepared for Health Development Agency Seminar Series. Health Development Authority, London.

²⁰⁵ Atkinson, R. (1999) Measuring gentrification and displacement in Greater London. *Urban Studies* 37: 149-165.

²⁰⁶ Atkinson, R. (1999) Measuring gentrification and displacement in Greater London. *Urban Studies* 37: 149-165.

²⁰⁷ Atkinson, R. (1999) Measuring gentrification and displacement in Greater London. *Urban Studies* 37: 149-165.

²⁰⁸ Atkinson, R. (1997) Gentrification and displacement in London: a theoretical and empirical analysis. PhD Thesis, University of Greenwich, London.

In a longitudinal study in a Single Regeneration Budget Area and a matched control area in South Manchester, at 22 months' follow-up during an urban regeneration project it was found that there was no improvement in mental health over time and health satisfaction declined slightly. GP use did not change. It was suggested that the project had little effect because it failed to address the concerns of local residents and did not remove restricted opportunities.²⁰⁹

Employment opportunities created by regeneration schemes risk being dominated by low paid, insecure, secondary sector, non-standard forms of employment.^{210, 211}

New jobs created by regeneration initiatives are often filled by workers from other parts of the city rather than local populations in areas targeted for regeneration.²¹²

ED2: Local employment opportunities

Neighbourhoods require local work opportunities to develop the bridging ties necessary to generate social capital and better health.²¹³

ED3: Effects of employment on health

Employment does not necessarily lead to health improvement because the health consequences of employment are directly related to the quality of work,²¹⁴ the nature of the impact also depends on the key attributes of a job, e.g. pay, job security, job control, worker involvement, support at work, reward/effort ratio, prestige, physical working conditions, and equality opportunities, where the effects are positive for high-grade jobs and negative for low-grade jobs.²¹⁵

As employment is a source of income, it has the potential to increase the level of disposable income and provide a route out of poverty, therefore there is the possibility of tackling health and other inequalities if planning for employment is accompanied by an economic development strategy that addresses social inequalities to reduce social inequalities.²¹⁶

²⁰⁹ Huxley, P. et al. (2004) Urban regeneration and mental health. *Social Psychiatry and Psychiatric Epidemiology* 39: 28-285.

²¹⁰ Peck, J. and Theodore, N. (2000) Work first: workfare and the regulation of contingent labour markets. *Cambridge Journal of Economics* 24: 119-138.

²¹¹ Martin, R. et al. (2000) The local impact of the New Deal: does Geography make a difference? Paper presented at the Annual Conference of the Institute of British Geographers. University of Sussex.

²¹² Bailey, N. and Turok, I. (2000) Adjustment to job loss in Britain's major cities. *Regional Studies* 34: 631-653.

²¹³ Catell & Evans (1999) Neighbourhood images in East London: social capital and social networks on two East London Estates. YPS for the Joseph Rowntree Foundation.

²¹⁴ Graetz (1993) *Soc. Sci. Med.* 36: 715-724.

²¹⁵ Paragraph 8.3 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²¹⁶ Paragraphs 8.4 and 8.5 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

ED4: Effects of re-employment (returning to work) on health

Re-employment can reverse the negative health effects of unemployment,²¹⁷ but negative health effects are not always quickly or easily reversed by improvements in labour market conditions or income.²¹⁸

Re-employment in low-quality work may be worse for psychological health than the experience of unemployment.²¹⁹

ED5: Effects of education and training on health

The economic importance of knowledge and skills is growing.²²⁰

Adult learning and training, and learning at all stages of life, are important.²²¹

The social impact of learning is as important as the economic.²²²

People with higher educational qualifications tend to be healthier, and have a lower take on social benefits.²²³

People who have had more schooling tend to be less overweight and engage in more exercise per week than those who are less educated – they are better able to identify relevant health-related information and use it in a constructive manner, for instance, an additional year of schooling is associated with a reduced daily average cigarette consumption for both men and women.²²⁴

Education is positively correlated with employment earnings.²²⁵

Adult literacy independent of qualifications has as a strong impact on earnings.²²⁶

Low school attainment is linked to poor life outcomes with respect to occupational status, income levels, and health.²²⁷

²¹⁷ Vinokur, A. D. et al. (2000) Two years after job loss: long term impact of the JOBS programme on reemployment and mental health. *Journal of Occupational Health Psychology* 5: 32-47.

²¹⁸ Benzeval, M. and Judge, K. (2000) Income and health: the time dimension. *Social Science and Medicine* 52: 1371-1390.

²¹⁹ Dooley, D. et al. (2000) Unemployment and depression: longitudinal relationships. *Journal of Health and Social Behaviour* 41: 421-436.

²²⁰ OECD (2001) *The wealth of nations: the role of human and social capital*. OECD.

²²¹ OECD (2001) *The wealth of nations: the role of human and social capital*. OECD.

²²² OECD (2001) *The wealth of nations: the role of human and social capital*. OECD.

²²³ Wolfe, B. and Haveman, R. (2001) Accounting for social and non-market benefits of education. In Helliwell, J. F. ed. *The contribution of human and social capital to sustained economic growth and well-being: International Symposium Report*. Human Resources Development Canada and OECD.

²²⁴ Kenkel, D. (1991) Health behaviour, health knowledge, and schooling. *Journal of Political Economy* 99: 287-305.

²²⁵ Coleman, J. (1988) Social capital in the creation of human capital. *American Journal of Sociology* 94: S95-S120.

²²⁶ Coleman, J. (1988) Social capital in the creation of human capital. *American Journal of Sociology* 94: S95-S120.

²²⁷ Whitty, G. et al. (1999) Education and health inequalities. In Gordon, D. et al. (eds) *Inequalities in health: evidence presented to the Independent Inquiry into Inequalities in Health* chaired by Sir Donald Acheson. The Policy Press, Bristol.

Educational attainment in one generation has positive effects on the educational attainment on the next generation: better schooled parents have children who have a higher level of cognitive development, and higher future earnings potential.²²⁸

²²⁸ Wolfe, B. and Haveman, R. (2001) Accounting for social and non-market benefits of education. In Helliwell, J. F. ed. The contribution of human and social capital to sustained economic growth and well-being: International Symposium Report. Human Resources Development Canada and OECD.

Appendix 6: Evidence base for “Developing a strategy for housing choice”

HC1: Mixed use developments in residential neighbourhoods

Mixed use development in residential neighbourhoods can help widen social options by facilitating social cohesion through the creation of safe and permeable environments with natural foci where people can meet informally.²²⁹

HC2: Housing design

Housing that is well designed and maintained helps to foster and reinforce a sense of community.²³⁰

The condition, cost and availability of well designed housing is critical to the development of sustainable communities.²³¹

Housing design for effective surveillance is recommended in Barton and Tsourou as an objective for healthy neighbourhood planning.²³²

HC3: Range of housing types and tenures

Barton and Tsourou recommend that any large development of 2,000 or more dwellings should be planned as a balanced community with a range of housing types and tenures.²³³

For the planning process to contribute to a socially balanced population, it is important to provide housing appropriate for a range of family types and household incomes.²³⁴ Barton and Tsourou recommend that every part of a city should have a good range of housing type, tenure, size, price and garden availability.²³⁵

HC4: Affordable housing

The provision of public, social, and low-cost housing is central to the interests of vulnerable people in the population – low-income groups do not gain access to adequate housing simply through an ample overall supply but by removing the institutional and market barriers to provide for special needs and movement of households between sectors.²³⁶

²²⁹ Page 14 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²³⁰ Paragraph 6.1 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²³¹ Paragraph 6.1 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²³² Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²³³ Page 130 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²³⁴ Page 31, “What needs to happen”, Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²³⁵ Page 101 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²³⁶ Adapted from page 101 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

Access to affordable housing, which represents an improvement in current housing conditions, may reduce the level of health inequality experienced by some vulnerable people in the population.²³⁷

HC5: Housing for key workers

Housing problems are a major factor in the recruitment crisis in both education and housing (the areas where teacher shortages are most acute correlate strongly with areas where house prices are highest).²³⁸ If key workers can be attracted to the area, the quality of service provision for the community as a whole will be improved, which will then have the potential to promote health and reduce inequalities (particularly through the provision of education and health services).

HC6: Sustainable construction and use of resources

The standards in the Building Research Establishment Environmental Assessment Method for residential developments (known as EcoHomes, and National Home Energy Rating) encourage greater quality in the design and construction of the domestic environment,²³⁹ and the level of energy efficiency.

It is important to promote low energy in the construction of buildings, as well as in their use.²⁴⁰

Energy efficiency will reduce the level of health-damaging emissions (from the inefficient combustion of wood, coal, oil or natural gas) and of carbon dioxide, thereby reducing the potential for global climate change.²⁴¹

Barton and Tsourou recommend that the first priority of an energy strategy in settlement planning is to increase the energy efficiency of building.²⁴²

Renewable energy can be promoted through design, e.g. incorporating passive solar features and a layout that ensures good solar access to all buildings (in cooler climates), with consideration given to the feasibility of solar water heating and photovoltaic cells.²⁴³

Sustainable practice also includes reducing the unnecessary consumption of pure or “white” water by households and businesses, and encouraging the collection and use of rain or “grey” water on site.²⁴⁴

The use of recycled and/or renewable materials in the construction of buildings and other infrastructure should be considered where appropriate to conserve natural resources and reduce energy consumption.²⁴⁵

²³⁷ Paragraph 5.3 in Cave et al. (2004) *Healthy Sustainable Communities: What works?* Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²³⁸ Paragraph 6.3 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²³⁹ Paragraph 6.6 in Cave and Molyneux (2004) *Healthy Sustainable Communities: A Spatial Planning Checklist*. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²⁴⁰ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press

²⁴¹ Page 113 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²⁴² Page 115 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²⁴³ Page 115 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²⁴⁴ Page 116 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

²⁴⁵ Table 5.1 in Barton and Tsourou (2000) *Healthy Urban Planning*. Spon Press.

HC7: Lifetime Homes concept

Lifetime Homes standards have been developed to ensure that homes are accessible, visit-able and adaptable for people who have problems with mobility whether permanent or temporary.²⁴⁶

HC8: Improving the physical environment

After a series of environmental improvements to an English town estate, residents recorded reduced anxiety and depression, improved self-esteem, a reduced fear of crime and a perception of greater friendliness in the area.²⁴⁷

A well designed built environment will help to foster and reinforce a sense of community.²⁴⁸

An aesthetically pleasing environment will encourage people to walk for exercise or recreation.²⁴⁹

HC9: Play areas

The provision of play areas that allow expression of independence and play mobility may have positive behavioural and mental health benefits for children.²⁵⁰

Children who have access to play areas have less behavioural problems and better health than children who do not have access.²⁵¹

Barton and Tsourou recommend a catchment area of 400-600 metres for playgrounds.²⁵²

Barton and Tsourou recommend that toddlers play areas are within a 100-200 metres catchment area of homes to ensure access by foot or bicycle.

HC10: Neighbourhood management

Neighbourhood management is a way in which communities can work with service providers to improve services to meet local needs, including managing the physical environment, increasing community safety, improving healthcare and education and encouraging economic growth. This type of approach improves quality of life and increases opportunities, which encourages sustainable communities.²⁵³

²⁴⁶ Paragraph 6.6 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²⁴⁷ Halpern, D. (1995) Mental health and the build environment: more than bricks and mortar. Taylor Francis, London.

²⁴⁸ Paragraph 6.1 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²⁴⁹ Paragraph 5.39 in Cave et al (2004) Healthy sustainable communities: What works? Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²⁵⁰ London Health Commission (2002) Culture & health: making the link. London Health Commission.

²⁵¹ Adapted from paragraph 6.12 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.

²⁵² Figure 5.1 in Barton and Tsourou (2000) Healthy Urban Planning. Spon Press.

²⁵³ Neighbourhood Renewal Unit (2003) Housing and Neighbourhood Renewal. Factsheet 14. Office of the Deputy Prime Minister.

HC11: Land contamination – relevant to Parkhead

Developing brownfield sites means building on land which may be contaminated from past industrial or other uses, with contaminants including elevated levels of heavy metals, oils, pesticides, asbestos or landfill gas. If not properly managed, such contaminants could be harmful to health or the environment.²⁵⁴

However, the current definition of contaminated land means it is possible for land to be contaminated without posing a threat to health or the environment.²⁵⁵

Despite this, a comprehensive package of measures should be produced, supported by economic instruments, to restore contaminated land.²⁵⁶

²⁵⁴ London Borough of Croydon (2001) The contaminated land strategy for the London Borough of Croydon.

²⁵⁵ Woodey, E. (2001) Introduction to contaminated land: legislation and guidelines. Chemical Incident Response Service, Medical Toxicology Unit, Guy's and St Thomas' Hospital Trust, London.

²⁵⁶ Paragraph 5.8 in Cave and Molyneux (2004) Healthy Sustainable Communities: A Spatial Planning Checklist. Milton Keynes/South Midlands Sub-Region Health and Social Care Project Team.