GI in new developments
What we want v. What we get

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GI in residential development

Why is this important to CSGN?

• Delivering the CSGN vision

• Scale of major developments

• Delivery & Funding

New Homes:

• 250k in CSGN by 2050

• 92k in GCV by 2029

  ➢ 19k Community Growth Areas

Retrofitting GI:

• difficult, expensive & unfunded

Integrated GI:

• easier, cheaper & funded
Urban GI Benefits

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<thead>
<tr>
<th>ECONOMIC</th>
<th>ENVIRONMENTAL</th>
<th>SOCIAL</th>
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<tbody>
<tr>
<td>Inward investment: proximity to high-quality parks increases inward investment and property values. 3-20% premium added to value of land near green space.</td>
<td>Water management: urban green space, wetlands, green roofs and other green infrastructure components can reduce the amount of water runoff due to increased evapotranspiration and improve water quality by removing pollutants from runoff.</td>
<td>UK has the highest adult obesity levels in Europe; meeting recommended levels of physical activity can have a positive impact on people's health due to reduced risk of premature death through exercise.</td>
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<td>Visitor spending: quality of parks impacts on the visitor attractions. 1 in 3 visitors to UK visit parks or gardens.</td>
<td>+10% greencare could reduce run-off in residential areas by 5%.</td>
<td>-50% decrease in risk of heart disease, stroke and type 2 diabetes.</td>
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<td>Employment generation: developing and maintaining urban greenspace is estimated to create 55,000 jobs in Scotland.</td>
<td>Movement between habitat patches was approximately 50% greater if corridors were in place compared to patches that were not connected by corridors.</td>
<td>-9% reduction in deaths from chronic heart disease.</td>
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<td>Temperature modifications: +10% greencare can maintain current urban summer temperature levels up to 2080.</td>
<td>Despite projected effects of climate change, adding 10% green space in high density urban areas will maintain current summer temperature levels up to 2080.</td>
<td>-7% decrease in the likelihood of being obese, saving the NHS £300m a year.</td>
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<td>Urban greenspace provides benefits to health.</td>
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<td>As a result of meeting recommended levels of physical activity (30 minutes 5 days a week), 26% of adults in Scotland are obese in 2012 up from 17% in 1995.</td>
</tr>
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<td>Physical activity/ reducing obesity: access to greenspace is an important predictor of increased physical activity (&quot;active living&quot;) and reduced risk of obesity.</td>
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<td>A year could be saved by the NHS in Scotland if just one in 10 inactive people took adequate exercise.</td>
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Urban Green Infrastructure Benefits Factsheet, SNH, 2014
Green Infrastructure in the built environment
Who’s promoting it?
No shortage of:
- Enthusiasm
- Ideas
- Guidance
Integrated Green Infrastructure

Design elements:
- Water management
- Habitat networks
- Access networks
- Green & open space
- Stewardship
IGI Design Study: Nitshill

1. Swale
2. Pond
3. Play Area
4. Home Zone
5. Habitat connection

30 year event 3.33 AEP
200 + CC event 0.5 AEP
National & Regional Policy

SPP

Maximising the Benefits of Green Infrastructure

Policy Principles

220. Planning should protect, enhance and promote green infrastructure, including open space and green networks, as an integral component of successful placemaking.

221. The planning system should:

- consider green infrastructure as an integral element of places from the outset of the planning process;

- Green Infrastructure: Design and Placemaking
- Getting the Best from Our Land – A Land Use Strategy for Scotland
- Planning Advice Note 65: Planning and Open Space
- Reaching Higher – Scotland’s National Strategy for Sport
- The Play Strategy for Scotland and Action Plan
- Let’s Get Scotland Walking: The National Walking Strategy

Delivery

Development Planning

222. Development plans should be based on a holistic, integrated and cross-sectoral approach to green infrastructure. They should be informed by relevant, up-to-date audits, strategies and action plans covering green infrastructure’s multiple functions, for example open space, playing fields, pitches, outdoor access, core paths, active travel strategies, the historic environment, biodiversity, forestry and woodland, river basins, flood management, coastal zones and the marine environment.

Clydeplan MIR

Issue 3 - Supporting Positive Environmental Action

4.3.3. The Glasgow and Clyde Valley Green Network (GCVN) is a fundamental component of the CGN and SPP’s Spatial Development Strategy. The GCVN promotes and protects positive actions aimed at addressing the need for green infrastructure across the city region, taking urban and rural communities. Green infrastructure is described as open spaces, formal and informal, green corridors and pathways, planting, species, parks, trees, and natural green spaces and areas and is key.

4.3.7. In addition, recognising the significant opportunity the Community Growth Areas can make to the green network, analysis was also undertaken to identify their respective green network priorities for each of the CGAs (Table 6).
Local Policy: RC

**Green Network**
The provision of good quality green space, paths, cycle routes and associated green and blue networks, is an important element of place making and regeneration. There is a strong case for investing more in nature, especially in close proximity to where people live and work, as this can deliver improvements in physical activity through sport and recreation and mental health, as well as supporting local economic growth.

- Development should seek to enhance the green network by ensuring that on site green infrastructure is incorporated and designed to be integral to the overall development and will link into and enhance the wider green network.

**Open Space**
Green network areas of open space, play parks, small areas of recreation and amenity open spaces will be protected from development, unless the following criteria can be satisfied.

- The proposal incorporates the retention or enhancement of the existing facilities on part of the site, while enabling redevelopment of the wider portion of the site for other uses.

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**Figure 4 - Spatial Strategy**

- **KEY**
  - Existing Green Belt
  - Existing Enclosed Residential
  - Existing Employment Location
  - New Employment Location
  - New Enclosed Residential
  - New Employment Location
  - Park/Play and Open Space

- **Legend**
  - Existing Green Belt
  - Existing Enclosed Residential
  - Existing Employment Location
  - New Employment Location
  - New Enclosed Residential
  - New Employment Location
  - Park/Play and Open Space
3.3 Landscape Framework

Green Infrastructure

East Renfrewshire Council promotes Green Infrastructure at the heart of the masterplan process. This has been influenced by policies and strategies as set out by the Central Scotland Green Network (CSGN). A central aim of the CSGN is to enrich people’s quality of life and add value to the economy through the enhancement and establishment of an integrated green network.

were consulted at the inception of the Masterplan. It is designed to provide a cohesive, integrated and multifunctional network of greenspaces, green corridors, habitats, path networks, wetlands and play spaces. This will provide a wide range of social, health, economic and environmental benefits, and form the basis and framework for sustainable development.

The Green Infrastructure strategy seeks to protect and integrate development proposals most notably:
- mature trees
- areas of woodland
- mature hedgerows
- rock outcrops
- watercourses

The existing landscape features will be enhanced through traditional wildflower meadows, and wetland areas (SUDS) integrated as well as new informal and formal play spaces.

Due to the prominence of the site extensive screen and layout around the site’s perimeter, especially on the western and front onto the M77 and the Glasgow Southern Orbital Road structure planting is also to be provided adjacent to existing...
Is there a problem?

Vision

Reality

Nitshill IGI Design Study, GCVGNP 2012
Ponds

What we want

What we get
Swales

What we want

What we get
Detention basins

What we want

What we get
So where is the problem?

• Policies ✔
• Processes □
• Decisions □
• Delivery □
Force-field analysis

**Driving Forces**
- National, regional & local policies
- National, regional & local guidance
- GI is multi-functional
- GI is cost effective
- GI improves marketability

**Status Quo**
- Green Infrastructure in new developments

**Desired State**
- Not sure what is required for planning approval?
- GI costs too much
- Other community benefits are more important
- IGI makes development unviable
- Uncertainty of maintenance costs
- GI won’t be adopted or maintained

**Restraining Forces**
## GI standard

**Minimum expected from residential developments:**

| **Surface water** | To meet SuDS requirements:  
|                   | – Naturalistic ponds and detention basins planted with native marginal plants |

| **Habitat** | Contributing to habitat connectivity:  
|             | – Based on analysis of IHN model, SNH priority areas and site survey |

| **Access** | To encourage active travel:  
|           | – Linking all parts of the development with key destinations |

| **Greenspace** | To meet recreational/amenity needs:  
|               | – Meets local authority m²/popⁿ standard  
|               | – Meets CSGN access standards (400m walk) |

| **Management Plan** | To ensure the GI matrix is sustained:  
|                    | – A plan for how the GI will be delivered, managed, maintained and funded |

**Within a wider GI Matrix**
Some things to think about:

1. If you agree that there is a problem, where do you think it lies?
2. Do you know of good/bad examples of GI delivery in residential development?
3. Can we work together to change the situation?

Contact us with your comments, ideas, suggestions:
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