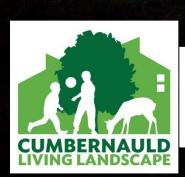
South Cumbernauld

Community Growth Area









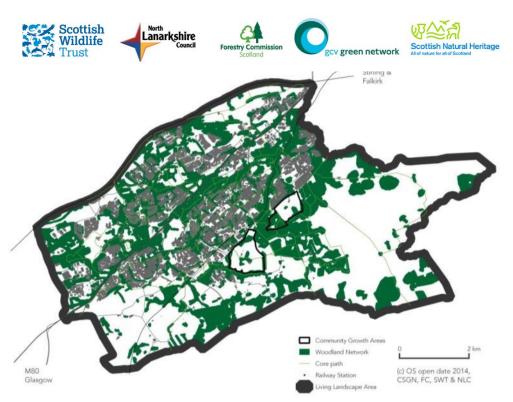




The vision

The Cumbernauld Living Landscape programme aims to reinforce and expand existing green networks and reconnect the people of the town to their natural environment. In the urban landscape this will benefit local people, help wildlife and support the regional economy. There is strong evidence that high quality biodiverse places improve wellbeing and bring benefits to local communitiesⁱ.

There is an opportunity for the Cumbernauld South Community Growth Areas (CGA) to contribute to sustainable economic growth by creating quality landscapes that deliver distinctive sustainable places. This document sets out how a green network can deliver this vision and was prepared by the Cumbernauld Living Landscape partnership. The following organisations have contributed to produce this guidance and support its principles:



The CGA is at the heart of the Cumbernauld Living Landscape, a partnership led by the Scottish Wildlife Trust, North Lanarkshire Council and Forestry Commission Scotland

Policy context

National Planning Frameworkii

The National Planning Framework 3 emphasises the key role of green infrastructure in enhancing environmental quality and accessibility for all. This helps to improve quality of life and build stronger, more resilient communities. Cumbernauld lies at the heart of the Central Scotland Green Network (CSGN) national development. The CSGN focuses on improving quality of place, addressing environmental inequalities and enhancing health and wellbeing. By delivering a high-quality green network, the CGA will support national and local plans iii.

Scottish Planning Policyiv

Scottish Planning Policy states that attention should be given to sustainable use of land, good design and the protection and enhancement of the built and natural environment^v. Further advice highlights the importance of natural greenspaces in an urban open space network^{vi} and the central role that green infrastructure plays in creating successful places^{vii}. Within the CGA there is the opportunity to realise these polices by integrating the green network at every scale.

Creating Places viii

The Scottish Government's policy on architecture and place advocates ensuring identity, sustainable development and movement are at the heart of place making. By working with the landform at an early stage we can reduce the carbon footprint and create a distinct identity, key aims of Creating Places^{ix}.

North Lanarkshire Single Outcome Agreement^x

Designing the CGAs to have the green network as a core element will support North Lanarkshire Council's vision to "create places people want to live in due to the accessibility of the natural environment" It will enhance the network of greenspaces and woodland for local communities and wildlife.

2020 Challenge for Scotland's Biodiversity^{xii}

The CGA can deliver the aims of Scotland's 2020 Challenge to increase biodiversity and enhance ecological networks. It can support the objective to further the conservation of biodiversity^{xiii} and the protection of ecologically important sites^{xiv}. Creating healthy urban ecosystems and connecting people to nature will contribute to sustainable growth and improve health and wellbeing^{xv}.

Multi-scale Green Network

North Lanarkshire Council's vision for the Community Growth Area is that it should be a distinctive place that is well integrated with existing communities and the local environment. The vision is for it to be both environmentally and socially sustainable and be a well-designed, safe place that improves people's health and wellbeing. It should be a place people want to live. This document sets out how the proposed green network can contribute to this vision of sustainable place making. Using the simple three colour coded Bavarian B plan tool the following guidance sets out key principles that should be followed at multiple scales.

Movement

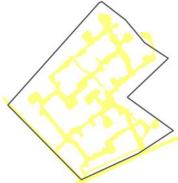
Networks and connections are key for environmental and social sustainability. Healthy places provide the links that people and wildlife need. Well-connected walkable places improve health and wellbeing. Functioning ecological networks are resilient to future climate challenges and create better places.

Spaces

Creating a sense of identity can be achieved through working with the sites' natural features to create high quality greenspaces. Enhancing natural spaces benefits health and wellbeing as well as creating wildlife habitats. Open space needs to be multifunctional and designed to create biodiverse, vibrant places.

Buildings

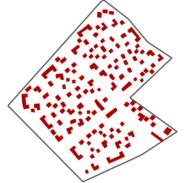
Buildings, houses and gardens are habitats for wildlife as well as people and should be integrated into the green network. It is important that we create homes and use materials that make buildings attractive to both people and wildlife.





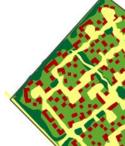






Multiple scales

The green network needs to function over several scales and practical measures can be deployed to contribute to this. When these are taken together they form a functioning urban ecosystem that can provide habitats and create new connections for people in the landscape. The following recommendations are practical solutions that would be suitable for the development of the South Cumbernauld Community Growth Area.



Guiding principles

This document sets out the principles and detailed suggestions for how the Cumbernauld Community Growth Areas could form a functioning green network. It is a vision of how the landscape could take shape but does not exempt North Lanarkshire Council, developers or any other parties from consulting all necessary statutory and non-statutory bodies, including but not limited to Forestry Commission Scotland and North Lanarkshire Greenspace Development.



Ecological networks



Active travel & access networks

Green swale Upton



Cycling routes, Cumbernauld Glen

Landform and landscape character



Hillside development Blackhall, Edinburgh

Ecological networks

Reinforcing and reconnecting green and blue networks creates resilient and sustainable places. As the development of the CGA will be in several phases by multiple developers, it is essential that a strategic and coherent approach is taken. Water management and ecological connectivity need to be considered holistically. This will form the basis of a strong green network permeating through the CGA following the principles of Integrated Green Infrastructure.

Key principles

- The framework of the green network and the design of the integrated green infrastructure should be aligned with the hydrological, topographical and ecological characteristics of the site. The layout should consider where multiple benefits, such as access routes, open space provision and habitat creation, can be delivered through the green network.
- New woodland planting and Sustainable Urban Drainage Systems (SUDS) should be based on natural designs which integrate the existing and future networks.
- Culverting of water courses should be avoided in line with SEPA policy^{xvi}; open water courses such as ditches or swales are preferred to underground storm water conveyance and storage systems.
- A mosaic of natural habitats including woodland should extend into the CGA linking the adjacent Sites of Importance for Nature Conservation, enhancing the biodiversity value of the site.
- A functional 40m buffer zone should be created around all natural habitats and watercourses. The impact on the surrounding woodland must be carefully considered and opportunities to enhance and reconnect the woodland habitat network should be implemented.

Active travel & access networks

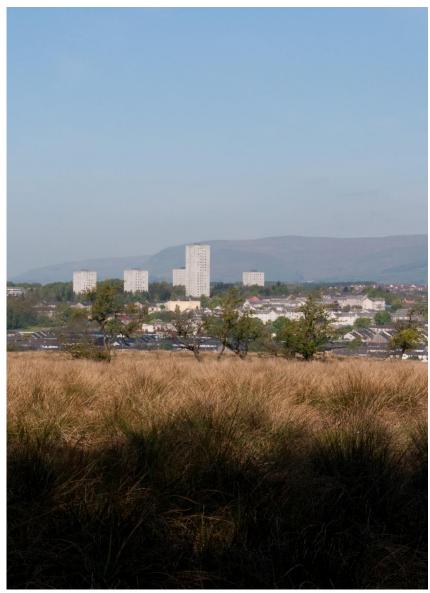
Cumbernauld's existing green network is a valuable resource for active travel and pedestrian access. The CGA should take advantage of this by making new connections and improving existing links. Throughout the developments, the mode hierarchy of transport set out by the Scottish Planning Policy^{xviii} must be respected. There are opportunities for good links between communities, public transport and the natural environment. These links must be given the same thought as the roads to create connections to places people want to go.

- Access routes should form part of the green network and be multi-functional.
 A mode hierarchy approach should meet demand via walking, cycling and public transport before considering private car use.
- To promote active travel the developments must deliver high-quality walking and cycling routes that effectively connect each CGA with local amenities and public transport. This may require the provision of off-site infrastructure.
- Direct paths must link people to places they want to go. Extensive pedestrian links should be made to Palacerigg Country Park for recreation and towards Cumbernauld Town Centre and Abronhill for public transport, schools and other local facilities.
- Paths should be suitable for all abilities, wide and inviting with a good surface and street lights where appropriate. Existing paths should be upgraded as necessary to meet increased demand.
- Well-designed, safe road crossings will be needed to encourage active travel.
 The crossing points need to be carefully considered to prevent the roads to
 the north of the developments isolating pedestrians and cyclists form the rest
 of the town. The existing underpasses are not fit for purpose and alternatives
 must be considered.

Landform & landscape character

Infrastructure needs to consider the landform and landscape characteristic of the CGA as a starting point. Working with the sites' topography, geology, soils and water will reduce the need for large-scale earthworks and reduce the carbon footprint. The landscape treatment and open space provision is considered critical to the character of the development. Linear features of the plateau farmland landscape such as hedgerows, avenues and shelterbelts have gradually been lost from the landscape due to a decline in management and increased fragmentation.

- A well-designed, strong landscape framework is needed to create a setting for the
 development and mitigate visual impact from the town centre. Much of the CGA
 is quite exposed; shelterbelts should be used as windbreaks. These should be
 designed to reinforce the green network and make new connections across the
 sites.
- Existing trees, hedgerows and woodland must be retained and enhanced where
 possible. These will help to provide a landscape setting for development, and
 improve ecological connectivity across the site.
- Where losses are unavoidable a proportionate level of compensatory planting should be implemented. New hedgerows should be planted along new linear features (e.g. road/path network) and along boundaries to improve the setting of the developments. Native species should be used where possible.
- The green network should incorporate naturalised Sustainable Urban Drainage Systems (SUDS), access, landscaping and open space, and should be designed to create liveable and sustainable neighbourhoods.
- A clear strategy for future management and maintenance of the green network, water corridors and open space will be required. Details of how this will be funded into the long term should be considered.



Views from the CGA to the town centre show the visibility of the site



Greenspaces



Civic & play spaces

Large greenspace, Cumbernauld House Park



Wild play, Langriggs, Cumbernauld

Adaptable community space



Streetscapes



Street trees Gorbals, Glasgow

Community growing Watch Us Grow, Cumbernauld

Greenspaces

Well-designed and managed greenspaces provide attractive, healthy places which benefit both people and wildlife. By designing greenspaces to protect and expand natural biodiversity hotspots such as Sites of Importance for Nature Conservation (SINC) we can reduce the impact of the development and provide multi-functional spaces. Creating good quality greenspaces improves people's health and wellbeing and helps creates sustainable places. Research reported in the "State of UK Parks" (2014) highlights the importance of parks to local residents, especially in urban areas.

Key principles

- The developments should have large accessible greenspaces that provide recreation opportunities for a broad range of people.
- Greenspaces should be multifunctional and a range of linked formal and informal public open spaces should be created. This should encourage access, community use and include opportunities for natural play.
- Full consideration should be given to the sustainable management of greenspaces and they must be safeguarded in the long term. The design should consider the cost of future maintenance and the durability of the infrastructure.
- Greenspaces should be designed to enhance and extend local biodiversity. They
 should create new habitats and improve the ecological connectivity between
 sites. The Glasgow Clyde Valley Green Network Partnership can provide
 integrated habitat network analysis to further inform this.

Civic & play spaces

Small civic and open spaces in the public realm coalesce into networks, therefore their design should be considered carefully. These spaces can strengthen green connections through the planting of native trees and shrubs. Small parks provide local amenities for the communities that surround them and can increase access to the natural environment. The civic space provision is critical to the character of the development.

- Civic spaces should be integrated into the community and the green network.
 They should provide opportunities for residents to meet and make connections with their neighbourhood. Using native plant species and integrated green infrastructure in these places will reinforce the habitat network.
- Within the public realm, both formal and informal play areas are required. These
 should be easily accessible from the housing units and be overlooked by
 surrounding properties. Spaces with natural surveillance will be valued, well used
 and self-policed. Further measures such as robust design should be used to deter
 vandalism.
- The area lends itself to the creation of informal play areas, linked into the green network and allowing a certain freedom to local children. There will remain the requirement for formal play areas, particularly for young children where they can be supervised by adults.
- The land take for play areas could be considered in a holistic manner to maximise the benefit to the wider community. This could be delivered through the creation of a 'kick about' or full-sized football pitch, giving the local community a place where games can be played both formally and informally.

Adaptable community space

Adaptable spaces are important to allow communities to meet emerging demands such as food growing, communal gardening and wood fuel production. This principle is supported through the Community Empowerment Bill. Having space for these activities gives people the opportunity to lead active lives and create sustainable places. Growing spaces have a significant role to play in the protection and promotion of biodiversity and provide the opportunity to spend time outdoors enjoying nature.

Key principles

- The allocation of adaptable community space should be given serious consideration and sites should be identified that have the potential for multiple uses.
- Currently there is high demand in Cumbernauld for community growing spaces
 as there are only 37 allotments in a town of over 50,000 people. A range of other
 future uses should also be considered such as therapeutic gardens, plant/tree
 nurseries and community energy generation.
- Whilst developing the site, top soil could be carefully stored and reinstated using best practice to prevent compaction and to be of a sufficient depth to allow future growing opportunities.

Streetscapes

Green infrastructure can be integrated into the streetscapes of the developments with street trees and green swales. Trees in urban areas are known to provide a wide range of environmental, social and economic benefits. Well-planned networks of street trees add character and reduce pollution. They mitigate against the effects of climate change; reducing flooding by intercepting rainfall and absorbing greenhouse gases. Integrating the streetscape with the green network can help create a sense of continuity which can counter the uniformity of development.

- A survey of standing trees in areas of future development would be required on all sites. This survey needs to include all trees external to the site that will be affected by the development, thus ensuring that the impact of future construction work is considered fully.
- Street trees should be included in the long term landscape objectives of the landscape plan to guide maintenance and provide managers with a clear understanding behind the design and its vision.
- Careful consideration should be given to the selection of trees and their
 placement. Native species of local provenance such as common alder, rowan and
 birch should be considered along paths and roads. Trees sould be set back from
 paths to provide clear lines of sight and to prevent future maintenance issues from
 the dripline and roots. Beech trees and hedges should be avoided and alternatives
 native to Scotland should be considered.
- The protection of potential planting areas should also be considered as this will reduce the level of compaction during construction. The protected areas can be prepared in advance of any planting and this will ensure the successful establishment of the associated site landscaping.



Homes within homes



Living surfaces

Swift bricks, Collier Place Edinburgh



Green roof, Kinnaird Primary School

Retaining character & traditional techniques



Dry stone dyke Entrance feature

Homes within homes

Buildings and gardens provide habitats for wildlife and provide stepping stones to connect the green network. There is an opportunity, through careful design, for new home owners in the CGA to experience nature where they live. Connecting people to nature has proven benefits to mental health and wellbeing. Buildings and private spaces should be seen as an integral part of the green network which can create a mosaic of small habitats. These small spaces can respond to the distinctive range of microclimate conditions with varying daylight, wind, temperature and moisture levels.

Key principles

- Artificial boxes should be provided for bats and birds. Voids within buildings should be integrated into the fabric of new developments. The North Lanarkshire Biodiversity Action Plan identifies actions to increase the number of nest boxes for swifts and hibernacula for bats.
- Window boxes and planters should be considered to give residents of flats direct access to growing spaces and provide food sources for pollinating insects.
- Gardens should help link habitats to the wider green network but should not infringe on natural habitats. There should be strong defensible boundaries between privately owned gardens and natural habitats. These should discourage fly tipping and anti-social behaviour.

Living surfaces

Well-designed green roofs and vertical greening of walls make a valuable contribution to the urban environment. These attractive features can help slow water movement and improve air quality. Climbing plants create habitats for birds, insects and small mammals. In addition, they can bring benefits to building users through thermal and noise insulation, enhanced aesthetics of buildings, microclimate moderation and extended building life. There is some evidence to suggest that by simply making the building pleasant to inhabit and thus desirable to own, green buildings may help to maintain property values.

- Consideration should be given to integrating buildings into the SUDS, using rain gardens and other features to manage surface run off.
- Permeable driveways and patios should be considered as an integral part of the drainage system and rainwater from buildings and hard surfaces should be available for irrigation. A 1m² pond for every 5m² of sealed area in residential courtyards should be considered.
- Where suitable, green roofs and walls should be considered. Opportunities to include climbing plants to green vertical walls should be considered.

Retaining character & traditional techniques

The CGA's existing features are an important link to the character and history of the area which are key to creating distinctive places. Weathering and patina caused by non-invasive plants on existing structures adds to the ecological diversity and the site's heritage. Using local traditional building techniques encourages wildlife to colonise new developments and traditional materials such as lime mortar provides habitats for lower plants and solitary bees.

- The site's existing geological features and any dry stone wall remnants should be retained where possible as they have a high aesthetic and biodiversity value. Many of these features relate to the sites agricultural heritage and still support farmland species.
- Traditional dry stone wall techniques and hedge laying should be used around the entrance feature to reinforce the green network and create a strong identity.
- Fences and walls should allow private garden space whilst not compromising public space. Native species should be used for hedging and fencing which should be appropriate to the location. Garden fences and walls should not back onto the buffer and there should be natural surveillance.



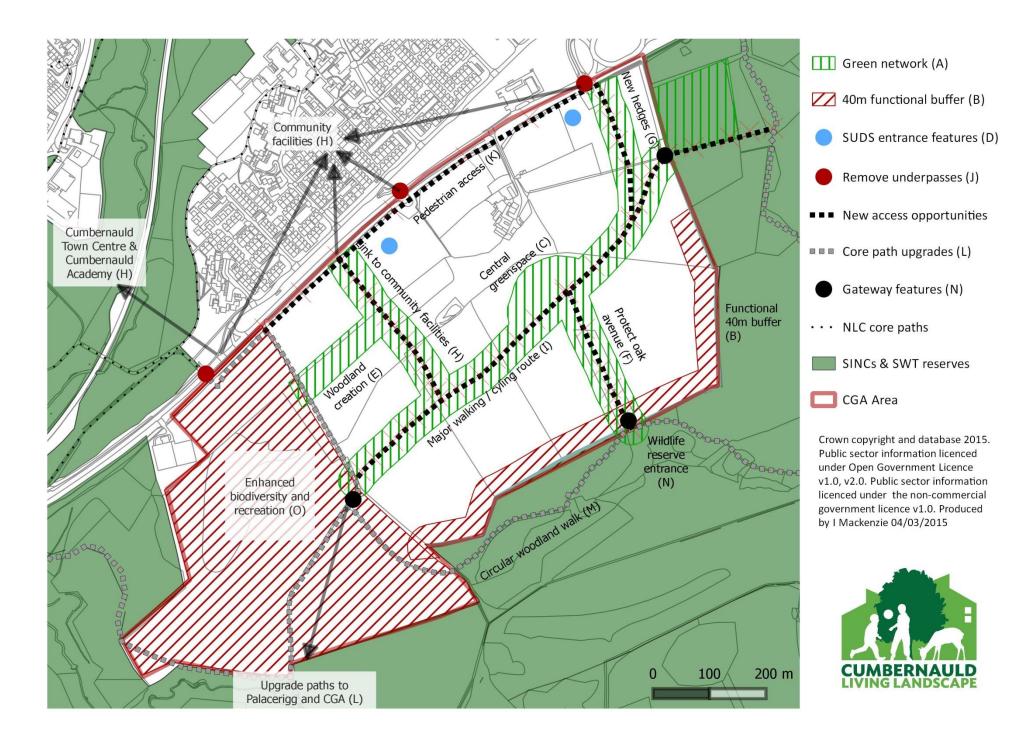
Buildings and gardens are integral to the green network and create homes for wildlife and people



Mid-Forest site specific recommendations: The following recommendations have been made based on site visits and review of documents available. References shown in parenthesis () are highlighted on the map below as indicative locations.

- Create an identifiable green network A multifunctional green network (A) should run through the developments. This should connect communities to local amenities and reinforce habitat networks. The green network should include a wide multi-user path and natural habitats.
- 2. **Deliver a functional 40m buffer** The site layout should incorporate a functional buffer of at least 40m (B) between buildings/gardens and the woodland edge. The buffer should create a graduated ecotone and consider features, such as bunding and hedges, to discourage anti-social behaviour. Garden fences and walls should not back onto the buffer and there should be natural surveillance.
- 3. **Create a central greenspace** a central multifunctional greenspace (C) should be created that is linked to the green network and connected to all developments in the CGA. This should be designed to be low maintenance and use native species.
- 4. **SUDS** as entrance features Naturalised SUDS should create wetland features that replicate natural systems and be attractive entrances to the developments (D). The Scottish Water adopted SUDS at Wardpark, Cumbernauld, have demonstrated the benefits of naturalised SUDS and this partnership approach with the Scottish Wildlife Trust could be replicated here.
- 5. Create a native woodland network within the site A network of trees should extend into the CGA. Woodland creation should form networks and compensate for the loss of native trees (E). The area/avenue of semi-mature oak trees extending into the site should be retained and enhanced (F). Opportunities for community use of this area, such as a community orchard, should be investigated. If compensatory planting is necessary then it should be phased from the start.
- 6. **Connect the green network to the streetscape** Trees and hedges should follow new roads and paths to create new connections. Native species of local provenance such as common alder, rowan and birch should be considered.
- 7. **Protect and enhance hedgerows** Mature hawthorn hedges are a notable feature in the eastern part of the development. If they cannot be retained, compensatory native planting should follow road and path networks (G) and be informed by the ecological surveys to provide foraging routes.

- 8. **Integrate the access strategy to the green network and local amenities** The CGA needs an access strategy that encourages people to use active travel, this should be drawn up in consultation with the local communities. As the CGA is unlikely to have any community facilities the connections (H) to local schools, shops and leisure activities need to be considered. A major walking and cycling route should be part of the green network (I) and should be wide and direct.
- 9. **Remove underpasses and improve crossings** The underpasses (J) that cross Forest Road are not fit for purpose, an alternative needs to be found. Consideration should be given to a new 3.5m segregated multi-user path along Forest Road (K). This could be incorporated into a well-designed roadside boundary which would help to accommodate the new development within its wider landscape context.
- 10. **Upgrade existing core paths** There are several paths identified in the NLC Core Path Plan that run through the CGA. Existing routes connecting through the site to Palacerigg Country Park should be maintained and upgraded (L). Paths through neighbouring Wildlife Reserves should be upgraded to provide a series of circular walks (M) and manage additional footfall.
- 11. **Design transitions to natural places** The off road connections to the local Wildlife Reserves (N) should be seen as a key feature/asset of this CGA. However, the transitions between spaces need to be considered carefully. These gateway features must make users aware of the change in ownership and land use and encourage responsible access.
- 12. **Prevent disturbance to the Slamannan Plateau Special Protected Area (SPA)** Increased pressures from recreational access to the Slamannan Plateau SPA as a consequence of the development must be considered. Potential options include upgrading/enhancing existing routes that encourage access away from sensitive areas.
- 13. **Enhance access and biodiversity in no build zone** There is the potential to develop natural play and wildlife trails/interpretation through the no build zone (O). We recommend that this area is managed for people and wildlife to offset the environmental impact of developing other areas. Options to transfer the ownership of this site should be considered to ensure future community benefit.



Palacerigg site specific recommendations: The following recommendations have been made based on site visits and review of documents available. References shown in parenthesis () are highlighted on the map below as indicative locations.

- 1. **Create an identifiable green network** A multifunctional green network (A) should run through the developments. This should connect communities to local amenities and reinforce habitat networks. The green network should include a wide multi-user path access path and natural habitats.
- 2. **Deliver a functional 40m buffer** The site layout should incorporate a functional buffer of at least 40m (B) between buildings/gardens and the surrounding SINCs. The buffer surrounding the Luggie Burn SINC should be carefully designed to consider the hydrology of the wetland habitats (C). Garden fences and walls should not back onto the buffer and there should be good natural surveillance.
- 3. **SUDS** as entrance features Naturalised SUDS should create wetland features that replicate natural systems and be attractive entrances to the developments (D). The Scottish Water adopted SUDS at Wardpark, Cumbernauld, have demonstrated the benefits of naturalised SUDS and this partnership approach with the Scottish Wildlife Trust could be replicated.
- 4. Create a network of hedgerows, grasslands and wetlands within the site Presently there is ecological connectivity within the site because of the network
 and mosaic of hedges, trees, shrubs, scrub, grasslands and wetlands; all of which
 allow wildlife to move more easily across the landscape. There is an opportunity to
 retain connectivity by carefully designing in and protecting key natural features
 already present on site (E) and by creating a mosaic of grassland habitats (F)
 throughout the development.
- 5. Connect the green network to the streetscape and shelter belt planting The Palacerigg CGA is in a highly visible location with a well-used road running through the middle. The development will have a significant impact on the landscape characteristic of the area, and where shelter belts are required they should connect to the wider woodland network (G). Trees and hedge should follow new roads and paths to create new connections. Native species of local provenance such as common alder, rowan and birch should be considered along paths and roads.

- 6. **Integrate the access strategy to the green network and local amenities** The CGA needs an access strategy that encourages people to use active travel, and this should be drawn up in consultation with the local communities. As the CGA is unlikely to have any community facilities the connections (H) to local schools, shops and leisure activities needs to be considered.
- 7. **Improve Forest Road crossings** There is only one crossing place that connects the town centre and public transport links to the CGA. Further crossings (I) need to be considered and should link into the green network and the Core Path Plan. Further consideration should also be given regarding how the Palacerigg CGA connects to the Mid-Forest CGA and public transport links.
- 8. **Upgrade existing core paths** Currently the path following the road (B8039) running through the Palacerigg CGA is one of the main pedestrian links to Palacerigg Country Park (J). There is a good opportunity to improve the connections between the town centre and the country park by creating a 3.5m segregated multi-user path. Combining this with hedgerows and native planting will form an integral part of the green network.
- 9. **Design transitions to natural places** The off road connections to Luggiebank, Glencryan woods and Palacerigg Country Park (K) should be seen as a key feature/assets of this CGA. However, the transitions between spaces need to be considered carefully. These gateway features (L) must make users aware of the change in ownership and land use and encourage responsible access. New footpaths should be considered to improve connections (M).
- 10. Protect and expand SINC The SINC to the north of the site should be expanded as this area is of very high biodiversity value (N). We recommend that this area is managed for people and wildlife to offset the environmental impact of developing other areas. Options to transfer the ownership of this site should be considered to ensure future community benefit.

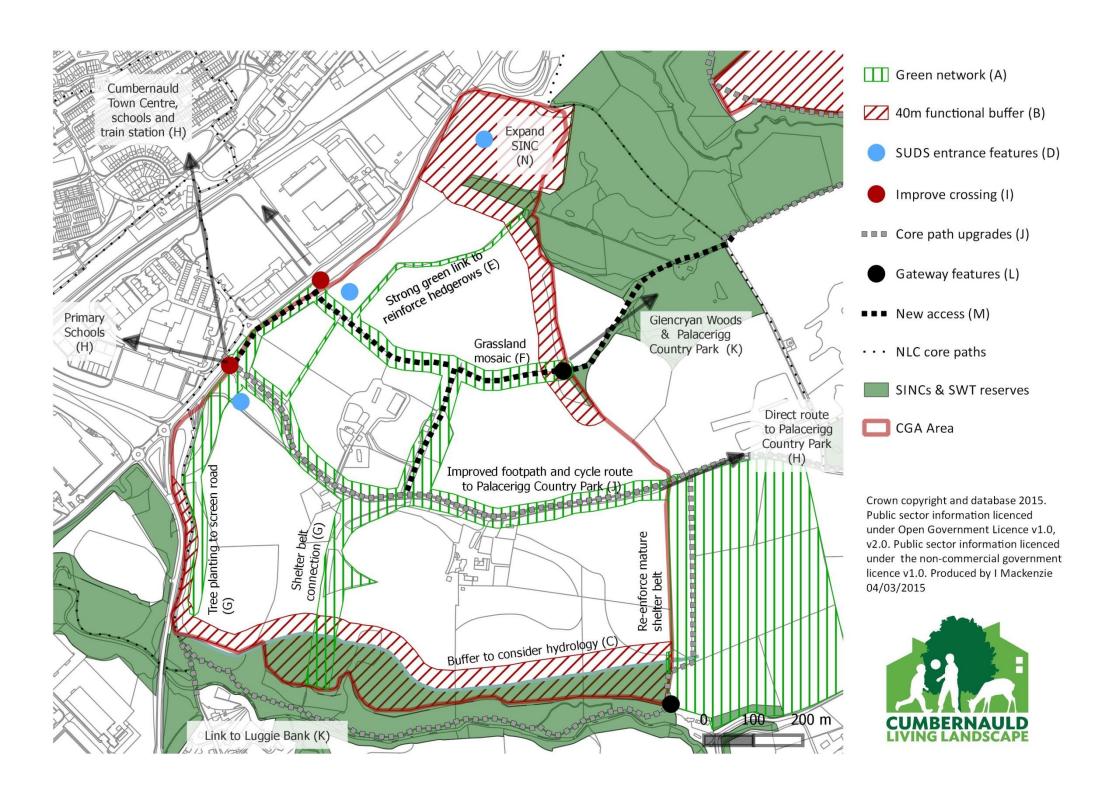


Photo credits

Movement		Spaces		Buildings	
Green swale, Upton Northampton ©(CC) Steve Tiesdell Legacy Collection	Cycling in Cumbernauld Glen © Scottish Government	Large greenspace, Cumbernauld House Park © PidgenPerfect	Wild play, Langriggs, Cumbernauld © Beth Chalmers	Swift bricks, Collier Place Edinburgh © John S Wilson	Green roof, Kinnaird Primary School © Bauder Itd.
Hillside Development, © Mactaggart & Mickel Homes		Watch us grow, Cumbernauld © PidgenPerfect	Street trees & parking, Gorbals Glasgow © Steve Tiesdell Legacy Collection	Dry stone dyke © CC T Guignard	

References

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ⁱ Greenspace Scotland (2008) Greenspace and quality of life; a critical literature review

ii Scotland's Third National Planning Framework - Proposed Framework (2013)

iiiGlasgow and Clyde Valley Strategic Plan, North Lanarkshire Local Plan, Cumbernauld Living Landscape Programme Plan

iv Scottish Planning Policy (2010)

^v Scottish Planning Policy (2010) – Section 8

vi Planning Advice Note (PAN) 60

vii Scottish Planning Policy (Update 2014) – Paragraph 232

viii Creating Places - A policy statement on architecture and place for Scotland (2013)

^{ix} Designing Places - Page 9

^x Community Plan 2013 – 2018 - Single Outcome Agreement

xi NLC community Plan and SOA 2013-19 - Page 10

xii 2020 Challenge for Scotland's Biodiversity (2013)

xiii Nature Conservation (Scotland) Act 2004

xiv North Lanarkshire Local Plan – NBE 1

xv 2020 Challenge for Scotland's Biodiversity (2013) – Page 6

^{**} http://www.snh.org.uk/pdfs/publications/LCA/glasgow/section5part6.pdf

xvi Culverting of Watercourses: Position Statement and Supporting Guidance (Version 1.2 December 2006)

xvii Development Planning and Management Transport Appraisal Guidance – Ch1, Para 18