

Queensland Court and Gardens







ueensland Court and Gardens is a scheme to retrofit the green infrastructure surrounding two existing apartment blocks. These offer a total of 228 homes on land located within Cardonald in Glasgow. The site lies within the most deprived 10% of areas in Scotland according to the Scottish Index of Multiple Deprivation 2020. It is geographically bound by a railway and dual carriageway enclosing the development to the north and east.

Despite these constraints, the retrofitting showcases an exemplar study of an urban green infrastructure site. The project was successful due to the partnership between Southside Housing Association, (the owners and managers of the tower blocks), and Glasgow City Council. Overall, the project aims to create a green infrastructure asset by integrating new

features to manage the flood risk for the wider Cardonald and Hillington catchment. The design enhances the underused open space that is often flooded and unusable by integrating SuDS features, encouraging low carbon behaviors, and implementing areas for community engagement with nature.

Queensland Court and Gardens portrays an excellent example of how community-led green infrastructure can be retrofitted in cities to deliver natural assets for people in deprived areas.

A Building with Nature Full Award externally certifies that a scheme meets the BwN Standards and delivers high-quality green infrastructure, at both pre- and post-construction stages.



Introducing Building with Nature

At Building with Nature our mission is to put high-quality green infrastructure at the heart of placemaking in the UK, maximising benefits for people and wildlife. By bringing people closer to nature and building great places for us to live, work and play, development can make a major contribution towards better health and wellbeing in our communities and tackling the climate and ecological emergencies.

Building with Nature is the first evidence-based benchmark for high-quality green infrastructure in the UK. The BwN Standards Framework has been created in partnership with planners, developers, and other key stakeholders, providing a shared understanding of 'what good looks like' throughout the whole lifecycle of green infrastructure – from the policy framework and early-stage design, through to implementation, and long-term management and maintenance. The BwN Standards are free to use and can be downloaded from the BwN website. Building with Nature also provide a voluntary accreditation process, helping developers and other stakeholders move through the planning process more effectively, and providing an independent verification of quality when it comes to green infrastructure assets.

This case study demonstrates how this scheme's green infrastructure meets the BwN Standards, illustrated through the BwN themes of Core, Wellbeing, Water and Wildlife.

Scheme Green Infrastructure Objectives

A key priority of the retrofitting of the two 19-storey blocks was to provide the residents with green infrastructure features that would fit their needs. The site was also identified by Glasgow City Council as a potential location for more sustainable rainwater management measures as part of the Hillington and Cardonald Surface Water Management Plan. The plan aims to manage both current and future flood risk in the area and reduce the potential impacts that flooding can have on residents and businesses. Bringing the site into these schemes would reduce flooding, alleviating the negative economic and social impacts of flooding. It will also help solidify business and transport links and protect land and waterways from pollution.

Key outcomes to meet the community's needs included the provision of natural play equipment, attractive gardens for older and less mobile residents and the introduction of water features that would not only manage flood risk, but also improve access to attractive open green space. Due to the urban nature of the site, there were limitations on site affecting the low biodiversity values. The plan aims to retain mature trees, and where that isn't possible, trees are to be replaced to a factor of 2 to enhance existing amenity.



Image 1: Key stakeholders on site with the BwN team reviewing the plans for the new green infrastructure



CORE Standards

Standard 1 Optimises Multifunctionality and Connectivity

Standard 2 Positively responds to the Climate Emergency

Standard 3 Maximises Environmental Net GainsStandard 4 Champions a Context Driven Approach

Standard 5 Creates Distinctive Places

Standard 6 Secures Effective Place-keeping

The Queensland Court and Gardens project successfully demonstrates how to incorporate significant amounts of SuDS features into a primarily urban, hard landscape. It positively responds to the **climate emergency** and to the **community's needs** and desire for a developed sense of place. To ensure it did meet these goals, multiple public consultations were held, with events advertised on social media under the title 'Rain Ready', and leaflets being delivered to a large number of local residents.

Climate resilience was a core aspect of the overall design. Detailed surface water measures were developed on behalf of **Glasgow City Council**. These details included drainage from areas of hardstanding, flowing into new swales, raingardens, and a basin to free up space in the city's drainage network. The plant selection also considers water uptake as well as improving air quality, urban cooling and providing noise and visual screening.



Image 2: Showing proximity of railway line bounding the development to the north

The arc of the project delivers a **multifunctional network** of connected green infrastructure features through the new SuDS and wildlife habitats. Examples of these include green-roofed bike shelters, which provide enhanced biodiversity and capacity for capturing rainwater. These were also a part of the provision for cycling and storage aimed at supporting sustainable transport methods.





Figure 1 & 2 : Landscape architects' impressions of aerial view towards Bute tower block

WELLBEING Standards

Standard 7 Brings Nature Closer to PeopleStandard 8 Supports Equitable and Inclusive Places

The project responds to providing physical and mental wellbeing for all levels of health and social inequalities. As a result of **extensive community engagement** over the two-year planning period, the site creates a space suited to the community's enhanced welfare.

Previously, the site's green infrastructure was underused and inaccessible due to frequent excessive surface water. The consultations resulted in the creation of a resident's garden with trees, lush planting and seating to cater to older residents

New play facilities are included to address needs for younger children. Additionally, a provision for informal play areas such as a **central improved green space** encourages a wide variety of activities. An existing Multi-Use Games Area (MUGA) was one feature the community identified they wanted to see retained in the masterplan.

Additional experiences shared after lockdown highlighted the need for relaxing and attractive spaces and more **sustainable transport methods**. Interest in scooters and cycling was highlighted, so the project will provide a pump track and path network with a variety of hard landscaping finishes.



Image 3: The design will make more of the existing topography of the site to encouraging adventure play





Image 4 & 5: Raingarden planting event

Overall, the new green infrastructure features include an informal woodland and habitat zone, a central zone functioning as a play park and informal play area, cultivated garden spaces, and improved connective pathways. The enhanced landscape structure creates a **strong sense of place** and character in the Queensland Court and Gardens development.

Residents at Queensland Court and Gardens will have a fantastic opportunity to spend time outdoors while walking, playing, and getting to know their neighbours.

Pauline Fletcher, Community Programmes Manager, Southside Housing Association



WATER Standards

Standard 9 Delivers Climate Resilient Water ManagementStandard 10 Brings Water Closer to People

Flooding is a potential issue within the Cardonald area. Glasgow City Council are progressing a series of measures across the catchment to reduce flood risk, including the proposals at Queensland Court and Gardens. The Council is consultating with numerous stakeholders, including the local Housing Associations and community groups. The Metropolitan Glasgow Strategic Drainage Partnership are providing sustainable flooding mitigation on the site and the installation of **surface water management features** is a primary focus of the project.



Figure 3: Landscape architect's plan showing view at SuDS basin surrounded by play mounds



Figure 4: Landscape architect's drawing of view from raingarden feature towards the adventure garden



Image 6: One of the rain gardens planted up by residents as part of Green Action Trust's 10,000 Raingardens for Scotland initiative

The surface water management scheme is being met through a variety of interconnected blue-green infrastructure that mimic the natural water cycle. It includes flood drainage, swales, rain gardens and attenuation basins before slowly getting discharged into the sewer system. The attenuation basins and swales are also sympathetically planted with native wildflower and pollinator-friendly mixes to enhance water uptake and biodiversity enhancement.

The integration and multifunctional nature of the SuDS features throughout the development align with **BwN Standards**. They not only mitigate flooding, but also enhance the space for people and wildlife while increasing the landscapes resilience and sensitivity to the climate emergency.



Image 7: The site is characterised by impermeable hard surfacing, contributing to problems associated with excess surface water



WILDLIFE Standards

Standard 11 Delivers Wildlife EnhancementStandard 12 Underpins Nature's Recovery

The existing layout of Queensland Court and Gardens offers very little ecological value, dominated by amenity grass and impermeable hard landscaping. Since the project aims to give the area a distinctive character, biodiversity and wildlife enhancements were key changes in the design.

The applicant and other stakeholders highly considered the objectives laid out in the **Glasgow Local Biodiversity Action Plan**. It holds specific focuses on keystone habitats such as ponds, wet woodland, mixed deciduous woodland and acid grasslands. These typologies were used sympathetically to enhance the site.

The plan aims to retain as many existing trees as possible, while introducing more diversity in the plant selection to maximise the number of pollinator-friendly species.

New habitats are established throughout the planting plan to link habitats. This facilitates the movement of pollinators, birds, insects and small mammals.



Image 8: Existing trees and shrubs will be retained, but the project will introduce more diversity of species enhancing the mixed deciduous habitat, including pollinator friendly species



Image 9: The experience of the COVID pandemic highlighted the lack of facilities on site for residents to enjoy nature on their doorstep. Plans reflect the desire for more attractive and relaxing places where people can sit and enjoy natural environment

Any **potential negative impact** on biodiversity in construction of the retrofit was mitigated by the applicant. For example, each unavoidable tree loss resulted in two new planted trees. A total of 90 new trees will be planted, resulting in an introduction of 12 new species into the site's ecological network. A seeded wet meadow grass is also an essential feature in the new plan.



Policy Applications

The Green Action Trust '10,000 Raingardens for Scotland' initiative aims to provide 'well connected, high quality, multi-use greenspace from wildlife habitats to raingardens' and everything between. It was a core delivery component of green infrastructure across the region and is thoroughly met through this development.

Queensland Court and Garden's new SuDS network has been designed to deliver multiple benefits including sustainable flood management. The design aligns with the Hillington and Cardonald Water SWMP. It also supports the Water Environment SPG of the Glasgow and Clyde Valley Local Plan.



Image 10: Community consultation events enabled residents to share their views

Both Glasgow City Council and Southside Housing Association are delighted to receive a Building with Nature (Excellent) accreditation for this project, which puts nature at the heart of development in a way that's good for people and the environment. The proposals involve introducing sustainable drainage measures which will reduce flood risk by mimicking the way rainwater would be managed naturally, helping to mitigate against the impacts of climate change. The open space will also be enhanced for residents through landscaping,

Summary

The Queensland Court and Gardens scheme is an exemplar project demonstrating the level of environmental quality that can be achieved even with immense urban pressure and constraints. The community gardens will act as a gathering place for residents well into the future, with high levels of community engagement ensuring the development is wholly reflective of the needs of the community.

BwN Standards have been thoroughly integrated through the planning, consultation, and delivery of the development. The engagement of the BwN Assessor working closely with the rest of the team ensured the green infrastructure adds as much value to the project as possible. The features served to deliver benefits for people and wildlife, and address the climate, ecological and health emergencies in an existing urban setting.

Queensland Community Park is part of a major new £37.5 million Scottish programme of projects to improve the urban environment of our larger towns and cities. The Green Infrastructure Strategic Intervention is led by NatureScot and is part-funded through the European Regional Development Fund (ERDF).

footpath construction, the creation of natural play areas, as well as improved access and car parking.

This exciting project brings together many partners and is predominantly funded by Glasgow City Region City Deal, Glasgow City Council, Southside Housing Association and the ERDF Green Infrastructure Fund - alongside many others.

Glasgow City Council Officer

Useful Links

Building with Nature: www.buildingwithnature.org.uk www.buildingwithnature.org.uk/video-case-studies

Applicant: www.glasgow.gov.uk and www.southside-ha.org

BwN Assessor: www.raeburnfarquharbowen.com

Download the BwN Standards: www.buildingwithnature.org.uk/standards-form



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