



Parks & Landscape Services Section, Municipal Services Department

**Proposed Development of Fernhill Park &
Gardens, Stepside, Co. Dublin with Works
within the Curtilage of the Protected
Structure (Fernhill House)
PC/PKS/01/17**

Appendix 6 – Sustainability Strategy

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Revision:

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Fernhill Park & Gardens - A Model of Sustainability

Introduction

The first modern definition of sustainability stems from the concept of sustainable development which became common language at the World's first Earth Summit in Rio in 1992.

The original definition of sustainable development is usually considered to be:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Bruntland Report for the World Commission on Environment and Development

Other definitions include:

"A process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations" The World Commission on Environment and Development

"Sustainable development is a dynamic process which enables people to realise their potential and improve their quality of life in ways which simultaneously protect and enhance the earth's life support systems" (Forum for the Future)

"In essence sustainable development is about five key principles: quality of life; fairness and equity; participation and partnership; care for our environment and respect for ecological constraints - recognising there are 'environmental limits'; and thought for the future and the precautionary principle". (From Making London Work by Forum for the Future's Sustainable Wealth London project)

DLR County Council in its design, development and future management of Fernhill Park will seek to uphold the principles of sustainability throughout the process. This will be achieved under the following headings:

1. Health & Well Being

The value of Parks and Open Space to both physical and mental health are well recognised and documented by the World Health Organisation and others. Fernhill Park and Gardens will realise this through both passive and active recreation, both structured and unstructured, and will be designed to maximise accessibility to all regardless of age or physical capability. We will also cater for Children's Play and Teenage adventure in an innovative and challenging natural environment, incorporating existing woodland and streams.

2. Community Facilities

DLR has engaged in extensive consultation in advance of the production of the Masterplan for Fernhill. This will inform the range of Community Facilities to be provided in Fernhill, through Community Gardens, Outdoor Classrooms, Horticultural and Biodiversity initiatives that will facilitate a diverse range of Community Groups. The facilities will be provided through existing buildings, or new community led initiatives.

3. Energy

Fernhill Park & Gardens will be designed and managed as a model of sustainability in terms of energy generation and usage. The existing 83 acres provides many opportunities for the harnessing of the energy provided by a combination of Wind, Solar, Biomass and Hydro (Water flow). All of the energy requirements for the day to day running of the Park, whether it is for the house itself, staff depot, or courtyard area, will be provided by the Park. This will be done in an explicit and highly visible way. Other innovative interactive solutions for energy generation will also be investigated and included, one example is the installation of exercise equipment that uses human kinetic energy to charge a smartphone.

We hope that through good design the energy requirements for the Park will be minimised. This will ensure that the construction impacts associated with generation will have a very low impact on the Park.

4. Carbon Footprint

The design ethos for Fernhill explicitly encourages **walking and cycling** as the main modes of transport for accessing the Park. DLR through its existing Green Infrastructure Strategy seeks to maximize the potential for walking and cycling routes throughout the County, and has through good Planning and Design already ensured a strong network of pedestrian routes through the residential areas of Belarmine and Aiken's Village among others. Fernhill will expand on this strong off-road network by ensuring that the most prominent access points into the Park are for pedestrians and cyclists.

Equally the carparking provision is carefully designed to fit into the Parks existing topography and woodland at the eastern boundary. It should be noted also that the carpark entrance is at the eastern boundary of the Park, cars will not therefore traverse and dominate the infrastructure within the Park. Notwithstanding this, vehicular access will be provided where necessary to facilitate access for the elderly or mobility impaired Park users in line with best practice in universal accessibility.

The construction of the various items that make up a modern Park will be using the **lightest of touches**. Wherever possible existing materials on the site will be reused in the construction process, whether this is in relation to the path network, play areas, buildings or access points. Herbicide use will be minimised with a view to its eventual abolition.

A modern Park should provide opportunities for visitors and users through high quality **food and liquid refreshment**. In Fernhill this will be provided in association with and directly adjacent to the Community Garden, with the aim to provide food grown and produced on the site. The menu will therefore change according to the season, and patrons will be see the history and origin of the food from production to ingestion.

It is acknowledged that Fernhill is a large Park of 83 acres with a wonderful variety of challenging topographies and micro climates, from open pastoral areas to winding woodland walks to outstanding horticultural trails as first laid out by the Darleys and expertly improved and conserved by the Walker family. It should be noted therefore that not everyone is physically able to access all of the areas. It is therefore proposed to review the feasibility of providing **internal transport via electric vehicles** within the Park to maximize access particularly for anyone with mobility issues.

The design and management ethos of Fernhill will ensure that the **reuse of site resources** will be explicit throughout the Park. This will be through composting, natural decomposition within the wilder areas, and the use of wormeries to facilitate the recycling of food waste, using the silt from the streams to surface the garden paths, re-use of suitable timber arising, etc.

5. Soil and Land

The character of Fernhill is diverse and unique. It crosses a multitude of habitats, topographies and micro-climates. DLR will stay faithful to the existing site characteristics in the construction of this new Park through the following guiding principles:

Plant Collection: Fernhill's historic collection of mature trees and acid loving plants is internationally recognised and celebrated. DLR will seek to conserve the existing collection while renovating and improving wherever necessary, this is already happening through the engagement of horticultural and arboricultural expertise in the cataloguing and survey of the plant collection, and will continue into the future through the capable hands of DLR Parks.

Woodland: The majestic shelterbelts, and rugged hillside trees will be continually assessed , any tree work will be kept to a minimum, and a management plan specifically for the woodland will ensure their protection into the future.

Biodiversity: DLR will respect the existing biodiversity as it is within the different parts of Fernhill. Practices to conserve and improve the biodiverse nature of each part will be central to the management and educational opportunities of the Park into the future. This will happen in

line with the National Pollinator Plan among other initiatives. The Biodiversity Officer will be part of this conversation. The educational opportunities that this provides cannot be understated.

Flood Risk Management: DLR will examine the existing water that permeates the Park with a view to making some light touch interventions in relation to providing opportunities for flood attenuation, hydro-electrical energy generation, habitat creation, and aesthetically pleasing water features.

6. Conservation & Management

DLR will champion the following in relation to the design and day to day management of Fernhill:

- Rainwater Harvesting
- Light Touch
- Minimise Waste
- Composting (including wormeries)
- Removal/Control of Invasive Species
- Protection of Habitats
- Re-use of resources
- Community Participation (use of Fernhill House and other facilities)

7. Innovation

DLR is committed to innovation throughout the project, much of this has already been discussed above, but can be synthesised as follows:

- *Use of SMART technologies*
- *Well considered design and construction*
- *The vision for Fernhill*
- *Balancing high intensity of use with the ethos of the Park*
- *Interactive signage and mapping*
- *A Play Facility that is safe but challenging*
- *Real time information*
- *Energy monitoring*
- *Green Outdoor Gyms*