Case Study 1

Queen Elizabeth Olympic Park

Landscape Institute

SITE: Queen Elizabeth Olympic Park

SIZE: 225 Ha

LOCATION: Stratford London

DATE: 2012

CLIENT: London Legacy Development Corporation (LLDC)

DESIGN TEAM: EDAW – design
LDA + Hargreaves - implementation

Project Description

The Queen Elizabeth Olympic Park (QEOP) is one of London's largest regeneration projects. Underpinning all LLDC's work are four priority themes: delivering inclusive growth and community well-being; delivering inclusion and diversity; delivering high quality design; and delivering sustainable development and responding to the climate emergency.

Approach to Low Carbon

In line with The Paris Agreement, LLDC has set a target of net zero carbon by 2030. ***'Our approach is to consider climate risk and embed climate resilience and nature positive design in order to deliver an exemplar, future ready Park and surrounding neighbourhoods.'*** The key features of this city park include its low carbon approach to the use of materials and the restoration of post-industrial land to create extensive green and blue infrastructure.

Carbon Calculations

Sections 4 and 5 of the Park Design Guide present calculations for the embodied carbon of select surfacing materials and street furniture.

Links

Park Design Guide | Queen Elizabeth Olympic Park
3414-ID-002-09-Report-and-Design-Guidance.pdf

THINK LIFECYCLE

- Lifecycle has been a core consideration from the outset with the creation of a venue for the London 2012 Olympics and Paralympics being designed to evolve into a city park.
- The selection of materials has considered lifespan and potential requirement for replacement.
- Monitoring by landscape architects is ensuring that plans for improvements and renewals are ongoing.

PROTECT CARBON STORES

- Soil cleaning and repurposing has helped restore this important carbon store.
- Extensive planting of trees, shrubs and grasslands has created an evolving carbon sink and ensured soils are covered and enabled to restore naturally.
- The restoration of waterways has increased the potential for carbon storage associated with wetlands.

DESIGN RESPONSIVELY

- Opening up the River Lea channel has improved surface water management and removed 4,000 homes from flood risk.
- Contaminated soils from previous industrial land uses have been cleaned and repurposed as substrate under hard surfacing and low nutrient soils for meadow grassland.
- Stratford's role as a major transport hub has been used to connect with walking and cycling routes across the park and improve further integration with wider public transport links.

LESS HARD MORE SOFT

- Green Infrastructure is the defining feature of the park, and includes amenity green spaces, allotments, civic spaces, green corridors, play and sports facilities, formal gardens and waterways.
- Hard landscaping has been minimised to a network of paths encouraging active travel and although some event spaces are hard surfaced, a number are surfaced in grass.

SPECIFY LOW CARBON

- Research into the comparative embodied carbon of surface materials and street furniture has been undertaken as part of this project.
- Low carbon materials and construction have been implemented in balance with other design considerations.