

The construction of the venues and staging of the London 2012 Games have raised the bar in areas from diversity and health and safety, to sustainability and employment and skills. London 2012 has set new standards for future Games and industry to follow.

Setting new  
**standards**  
for construction



## **Inclusive and accessible design has been at the heart of the Games.**

London 2012 wanted to set an excellent standard of accessibility for disabled people, older people and families with children, which would set a benchmark and act as an inspiration to others.

The Olympic and Paralympic Village, sporting venues, new transport services, supporting facilities and the Park itself will be accessible to people with a wide range of disabilities both during and after the Games.

## **Facts**

Accessibility has been improved at railway stations and public transport facilities, with £200 million invested in Stratford Station alone, providing new lifts, clearer platforms and enhanced services.

The parklands have been designed with shallow gradients and seating at regular intervals so that they are accessible to everyone, including older people, disabled people and those with pushchairs.

A new network of accessible transport was devised and publicised to encourage people with accessibility needs to use public transport – often for the first time.

Local community organisations have been consulted and London 2012's strategy has been influenced by the experiences of multi-faith groups, parents and disabled people.



## **The opportunity provided by the Games and the large investment in this part of east London is helping to reduce historic and long-standing inequalities.**

London 2012 developed employment and training programmes with partner organisations and contractors to encourage women, black, Asian and minority ethnic (BAME) people, disabled people, and those who were previously unemployed to improve their skills and apply for jobs in construction and other areas where they have traditionally been underrepresented.

Away from construction, programmes were also established to reduce discrimination experienced by disabled people, older people and BAME people.

## **Facts**

The London 2012 Women into Construction project was established to help women get work placements in construction, an industry in which they are traditionally underrepresented. Since the project began in 2008, 270 women were recruited and placed directly into jobs on the Olympic Park through this project, exceeding its original target of 50.

1,713 women worked on the major construction phase of the Olympic Park and Olympic and Paralympic Village and 5,092 of the Park and Village workers declared that they were from a BAME background.

More than 1,000 community events and meetings have taken place with different faith, age, gender, disability, sexual orientation and ethnicity groups to encourage them to get involved in the Games.



**The Games have given companies across the UK a boost during what have been extremely challenging economic times.**

They have generated billions of pounds of contracts, with businesses creating tens of thousands of new jobs that would not have otherwise existed.

The Games have also had a wider impact on UK business and industry.

In winning contracts and working on the Games, many businesses and their supply chains have had to change their working practices, from improving their equality and inclusion or health and safety policies to developing new approaches to sustainable or accessible design that will help them win work in the future.

## Facts

A total £6.9 billion of contracts have been awarded by the ODA.

Through the comprehensive licensing and merchandise programme, the Games are expected to drive around £1 billion worth of sales to the UK high street.

Companies from every region in the UK have won business contracts.

More than 240 businesses, from throughout the UK won contracts on the construction of the Olympic Stadium.

By June 2012, 11,700 London 2012 and other supply chain opportunities had been made available to businesses through CompeteFor, a free brokerage service that enables businesses to compete for contract opportunities linked to the Games and other major public and private sector buying organisations.

More than 160,000 suppliers nationwide had registered on the CompeteFor system by the end of June 2012.

## London 2012

The Olympic Delivery Authority (ODA) is responsible for the construction of the venues and infrastructure for the Games and their use after 2012.

The London Organising Committee of the Olympic Games and Paralympic Games Ltd (LOCOG) is responsible for preparing and staging the London 2012 Games.

The ODA is publicly funded through national and London taxes, as well as contributions from the National Lottery. In 2007, the Government announced a public sector funding package of £9.3 billion, of which the ODA could spend a maximum of £8.1 billion.

Every quarter, the Government publishes a financial report outlining current and anticipated final costs for the ODA's activities. The latest version (June 2012) gave the anticipated final cost as £6.761 billion, including:

**Site preparation and infrastructure:** £1.822 billion

**Venues:** £1.051 billion

**Transport capital projects:** £429 million

Full details of all spending can be found at [www.culture.gov.uk/publications/9134.aspx](http://www.culture.gov.uk/publications/9134.aspx)

## Costs of individual venues and facilities for which the ODA is responsible:

**Olympic and Paralympic Village:** £1.1 billion

**Olympic Stadium:** £428 million

**IBC/MPC Complex:** £295 million

**Aquatics Centre:** £251 million

**VeloPark (including the Velodrome and BMX Track):** £87 million

**Eton Manor:** £55 million

**Copper Box:** £41 million

**Basketball Arena:** £40 million

**Water Polo Arena:** £19 million

**The Royal Artillery Barracks:** £33 million

**Lee Valley White Water Centre:** £22 million

**Improvements to facilities at Eton Dorney:** £9 million

**Improvements to facilities at Weymouth and Portland:** £8 million

Funding for LOCOG comes mainly from the private sector. A total of £2 billion will be raised from sources including sponsorship, broadcasting rights, income from the International Olympic Committee (IOC) and selling merchandise and tickets.

**The Olympic and Paralympic Games have been the catalyst for the physical transformation of a huge area of east London.**

After the Games the Olympic Park will be transformed into the Queen Elizabeth Olympic Park, a brand new piece of the city connecting the communities surrounding the Park and bringing jobs and homes to the area.

The Queen Elizabeth Olympic Park will be an exciting new visitor destination and community park, unlike any other in the UK.

The new Park will open in phases from 27 July 2013, one year after the Opening Ceremony of the London 2012 Olympic Games.

As well as its collection of iconic sporting venues, the Park will combine the parklands and waterways of the river valley in the north with a 50-acre urban playground in the south.

## Facts

Of every £1 the ODA has spent, 75 pence has gone towards the long-term regeneration of the area.

The new transport connections and networks of energy, water and telecommunications that were built for the Games will provide the backbone for the area's future development.

The Olympic and Paralympic Village will be converted into 2,818 new homes – to be known as East Village – with housing for sale and rent, half of which will be affordable housing.

Eventually, five new neighbourhoods will be established on the site; in time, there will be almost 11,000 new homes on and around the Olympic Park.

It has already been agreed who will manage six of the eight permanent venues and attractions on the Park in the long-term after the Games.

The Park will be managed by the London Legacy Development Corporation.

100 hectares of new open space will be created – equal in size to St James's Park in central London.





**Sustainability was central to London's bid to host the Games and has been a key priority throughout the construction of venues and infrastructure, and the staging of the Games.**

Where there was a long-term need for a new venue, we have built new permanent facilities; where there was not, we have built temporary venues with materials that can be recycled and hired parts that can be reused.

The venues have been designed to be as sustainable as possible, using innovative techniques to reuse or recycle materials, encourage new wildlife habitats, and reduce energy use and water consumption.

To reduce the use of materials, existing venues have been used where possible.

## Facts

The ODA is on track to exceed by 10 per cent a challenging target to reduce the carbon emissions of the Olympic Park by 50 per cent.

Two million tonnes of soil were excavated and cleaned, with more than 80 per cent reused on the site – one of the UK's largest clean-ups of contaminated land.

London 2012 is the first ever summer Games to measure its carbon footprint over the entire project; the carbon footprint of staging the Games is expected to be 20 per cent lower than originally projected.

More than 675 bird and bat boxes using off-cut drainage pipes (pictured) are being installed across the Park to encourage new homes for wildlife.

The UK's largest waste water recycling facility is helping to reduce the consumption of non-drinking water on the Park by 60 per cent.

More than 98 per cent of materials generated from the demolition works on the Park were reused or recycled.

London 2012's target is for no waste to be sent to landfill during the Games.

# Workforce

**The Games have provided thousands of people with jobs and training during a difficult time for the economy, leaving long-term social and economic benefits for London and the UK.**

## Facts

At the peak of construction in June 2011, 13 per cent of the workforce on the Park was previously unemployed.

Health and safety has been one of the major successes of the project: the accident frequency rate during the construction of the main London 2012 venues and infrastructure was well below the industry average and better than the national average for all workplaces – setting a benchmark for the rest of the UK's construction industry.

More than 46,000 people were employed on the Park and Village during the construction of the main venues and infrastructure, with the workforce peaking at more than 12,000.

Construction on the Park and Village saw fewer than 125 reportable incidents in more than 80 million hours worked on the ODA's construction project, with no fatalities.

457 apprentices experienced work on the London 2012 construction project, well above the target of 350.

More than a quarter of the workforce on the Olympic Park at the peak of construction was from six of the London boroughs nearest the Park.

A 'digger school' on the Olympic Park gave people – including women and disabled people – the chance to train in operating construction machinery.

After the Games there will be 2,500 temporary construction jobs on the site during the peak of transformation works and up to 8,000 permanent jobs on the Park by 2030.



# Venue contractors

## Venue contractors

### Delivery Partner

#### ODA Delivery Partner:

CLM (CH2M HILL,  
Laing O'Rourke and Mace)

### Venues

#### Aquatics Centre:

Architect – Zaha Hadid;  
lead contractor – Balfour Beatty;  
sports architect – S&P Architects;  
engineering – Arup; steel roof  
construction – Rowecord.

#### Basketball Arena:

Architect – Wilkinson Eyre  
Architects; main contractors –  
Barr Construction, Slick Seating  
Systems, Base, Mitie, Envirowrap,  
Volker Fitzpatrick, McAvoy;  
sports architect – KSS; Structural  
engineer – Sinclair Knight Merz.

#### Copper Box:

Architect – MAKE; lead  
contractor – Buckingham Group  
Contracting; sports architect –  
PTW; detailed design –  
Populous; engineers – Arup.

#### Eton Dorney:

Design – Ramboll Whitbybird;  
main contractor – Morrison  
Construction.

#### Eton Manor:

Architect – Stanton Williams;  
engineers – Arup; main contractors  
– Mansell Construction Services,  
PJ Careys, Slick Seating Systems,  
Mitie Engineering, A&T, Nussli.

#### Olympic Stadium:

Architect – Populous; lead  
contractor – Sir Robert McAlpine;  
structural and services engineers –  
Buro Happold; landscape architect  
– Hyland Edgar Driver.

#### Lee Valley White Water Centre:

Architect – FaulknerBrowns  
Architects; lead contractor –  
Morrison Construction; structural  
and services engineers – Cundall;  
white water course specialists,  
Whitewater Parks International;  
landscape designers – Michael  
van Valkenburgh Associates.

#### Velodrome:

Architect – Hopkins;  
lead contractor – ISG plc;  
structural engineer – Expedition  
Engineering; services engineer –  
BDSP Partnership; track designer  
– Ron Webb; landscape –  
Grant Associates.

#### Weymouth and Portland:

Project manager and lead  
consultant – White Young Green;  
marine engineers and advisors  
– Royal Haskoning; main  
contractor – Dean & Dyball.

#### Water Polo Arena:

Architect – David Morley  
Architects; main contractors –  
ES Group, Jackson Civil  
Engineering Group Ltd,  
Alto Seating Systems Ltd,  
A&T/Barr & Wray, Byrne Group  
plc, Balfour Beatty; structural  
engineer – Buro Happold;  
environmental engineer  
– Max Fordham.

## Other Park buildings

### IBC/MPC Complex:

Architects – IBC – Allies &  
Morrison, RPS Group, MPC  
– Allies & Morrison; lead  
contractor – Carillion; structural  
and services engineers – Buro  
Happold; landscape – Townshend  
Landscape Architects.

### Olympic and Paralympic Village:

Master planning – Fletcher Priest  
Architects; landscape design  
– Vogt; civil engineers – Arup;  
development and construction  
management – Lend Lease;  
architects – Allford Hall  
Monaghan Morris (academy),  
CF Moller, Denton Corker  
Marshall, dRMM, DSDHA and  
PRP, Eric Parry Architects, Glenn  
Howells Architects, Haworth  
Tompkins Architects, Lifschutz  
Davidson Sandilands, Niall  
McLaughlin, Panter Hudspith  
Architects, Patel Taylor with Bligh  
Voller Nield Architecture, Penoyre  
& Prasad Architects (health centre),  
Piercy and Company.

## Infrastructure buildings

### Energy Centre:

Architect – John McAslan +  
Partners; main contractor –  
PJ Carey; structural engineer –  
Adams Kara Taylor; owner  
and operator – Cofeley,  
a subsidiary of GDF Suez.

### Primary Substation:

Architect – NORD Architecture;  
main contractor – EDF Energy  
Contracting; structural engineers  
– Andrews Associates; building  
services – Applied Energy;  
contractor Kier; owner and  
operator UK Power Networks.

### Pumping Station:

Architect – Lyall Bills & Young  
(formerly John Lyall Architects);  
utilities contractor – Barhale;  
structural and services engineer  
– Hyder Consulting; building  
contractor – Hutton Construction;  
owner and operator – Thames  
Water Utilities.

### Parklands:

Design – LDA Design and  
Hargreaves Associates (from  
Stage D), Aecom/EDAW (through  
Stage C); Biodiversity Action Plan  
– EDAW/Gary Grant, LDA, Atkins  
(CLM); Engineering – Atkins, Arup;  
lead contractors – Bam Nuttall,  
Skanska; planting design – James  
Hitchmough, Nigel Dunnett;  
University of Sheffield; planting  
design – Sarah Price Landscapes;  
soil and landscape consultancy  
– Tim O'Hare Associates; trees –  
Hilliers Nurseries; wetland plants  
– Salix; 2012 garden plants –  
Palmstead Nurseries;  
2012 gardens planting –  
Willerby Landscapes.

### Structures, bridges and highways:

Engineers – Atkins, Arup, Adams  
Kara Taylor; architects – Allies  
and Morrison, Heneghan Peng  
Architects; contractors – Skanska,  
BAM Nuttall, Balfour Beatty, Lagan  
Construction Ltd, John Sisk and Sons