Thunderbird Centre Resort
How can Architecture transform Obsolete Sporting facilities into community assets in a post olympic environment?
Thunderbird
Project Emphasis

Introduction
Two Scales
Olympic Trends

What next for the Olympic venues?

1 Olympic Stadium
Cost: £430m
Where: Newham
What next: New national centre for athletics. Has received four bids: from Leyton Orient and West Ham football clubs, Intelligent Transport Services, Formula One and University College of Football Business. May host the IAAF 2017 World Athletics Championships.

2 Athletes Village
Cost: £1.1bn
Where: Newham
What next: Apartments will have kitchens added and will be transformed into 2,800 rental properties from summer next year. Has a target of 50 per cent affordable housing for lower-income tenants. Bought by developer Delancey and Qatar investors for £557m.

3 Arcelor Mittal Orbit
Cost: £22.7m
Where: Newham
What next: Tower designed by Anish Kapoor to be used as a visitor attraction, with unique views across London from two glass enclosed platforms. 114m-high tower will be open from spring 2014.

4 Aquatics Centre
Cost: £250m
Where: Newham
What next: To be reopened in 2014 as a community facility with a significantly reduced capacity. Anticipated 900,000 visitors a year. London has bid to host the 2016 European Swimming Championship in the centre.

5 Multi-use arena
Cost: £43m
Where: Hackney
What next: The 'Copper Box', which hosted the handball and will host Paralympic basketball, will be transformed into a venue for community sports, competitions, cultural and business events, reopening in summer 2013.

6 Velopark
Cost: £87m
Where: Hackney and Newham
What next: One mile road cycle circuit and mountain bike trial to be added to the 5,000 Velodrome to create a Velopark. Will be owned and managed by Lee Valley Regional Park Authority.

7 Eton Manor
Cost: £60m
Where: Waltham Forest
What next: To become the Lee Valley Tennis and Hockey Centre, featuring four indoor and six outdoor tennis courts and five-a-side football pitches. Will host the 2015 European Hockey Championships.

8 Broadcast and press centres
Cost: £295m
Where: Hackney
What next: To become a data and business enterprise centre under proposals from preferred bidder ICity. Anticipated 3,500 jobs based here.
Bobsled tracks around the world
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Case Studies
Grand Targhee Resort Master Plan
Case Studies
Wallman Wellness Center, NDSU
Existing Site

Master Plan
Proposed Master Plan
Resident’s Hot House
Sliding Track

Master Plan
Welcome Centre
Thunderbird Fitness Centre

Master Plan
First Floor Plan

Fitness Centre

The new complete fitness centre includes an indoor track, climbing track, and an

For a complete list of amenities, please see the fitness centre website.

Welcome to Thunderbird Fitness Centre. Fitness programming and events will be held here. Additionally, fitness programming in Whistler and Vancouver will help us prepare for the Olympics.
Reception/Entrance perspective
Mezzanine Perspective
Rock Wall Perspective
Olympic Short Course Pool
Garden Perspective
Aerial Perspective
Directional glass allows low winter sun to directly penetrate the building, while high summer sun is reflected away or diffused into the building.

Solar energy is stored in the climbing wall during the day, and released at night.

Operable glass panels allow anabatic winds to pass through the entire building, keeping it cool without expending energy.

Active HVAC plant supplements the passive systems in order to maintain 18 degrees Celsius (optimal exercise temperature).

ROOF ASSEMBLY
- Plant Layer
- Growing Layer
- Filter Sheet
- Drainage Layer
- Moisture Retention/Protection Mat
Roof Assembly

ROOF ASSEMBLY

- Plant Layer
- Growing Layer
- Filter Sheet
- Drainage Layer
- Moisture Retention/Protection Mat
- Root Barrier
- Moisture Barrier
- 5/8" Plywood
- 1-1/2" furring - Cold Roof
- 12-1/4" Structural Insulated Panel (R8)
- 8"x8" glulam joists
- 6"x36" Glulam Beam
- 12"x5'6" Glulam Girder
- Lightweight Concrete Buttress/Column
Helical Pulldown Micropiles

- Pile Cap + Grade Beam
- Grout Reservoir
- 2-1/4” square shaft Micropile Extension Units
- Extension Displacement Plate
- Lead Displacement Plate
- Helical Bearing Plates

Fitness Centre
GARDEN PERSPECTIVE
ATRIUM PERSPECTIVE
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Thank you!

Questions and Comments?