



The mixed use development designed with Green Infrastructure principles could be an example for brownfield regeneration.

## Moving Into Green

### Green infrastructure for Dagenham South

Now derelict and forgotten, this post-industrial site in East London has the potential to become a vibrant, sustainable and desirable place to live and work. This proposal suggests using bioremediation to reclaim brownfield land and return its ecological value.

Through a process of phytoremediation the soil would be purified by carefully chosen vegetation such as *Hellanthus annuus*, *Populus sp.*, *Typha angustifolia*, *Salix sp.*, *Festuca pratensis* and *Cynodon dactylon*, until the site is ready for the introduction of more permanent green infrastructure elements.

These would include an urban forest, fields for food production, areas for wildlife, open public spaces, playgrounds, street trees and green roofs, all connected to the wider structure of the All London Green Grid.

Sustainable drainage systems (SuDS) and rainwater harvesting would contribute flood control by keeping water on site and reusing it to support productive landscapes. Transport links would be established through a walkways and a cycle network, buildings would be constructed using local materials and fitted with green roofs that are connected to the water recycling network.

The numbers on the masterplan refer to elements of 5 Landscape Architecture / Green Infrastructure Layers:

#### Transport Layer:

1. Cycle network
2. Cut and cover tunnel over the New Road
3. Noise barriers – have elements of photovoltaic panels
4. Tunnel over the railway – connection with new metropolitan park.

Transport Plan: white – vehicular network; purple – cycle and pedestrian network; yellow – nature path; red – bridges; stripped – pier over the lake and railway tunnel. Vegetation Plan shows Green Infrastructure that defines and link the site. Water Plan is design as holistic SuDS and Flood Control system.



Private vehicle transport can be relocated under the ground, and at the ground level the public transport and walking-cycling network can take the priority. The area over actual tunnel can be designed as public open place with art installations connected to tunnel skylights.



Regeneration of the existing street combines: walkways, cycleways, road trees, median strips with plants and SuDS elements and new businesses on the side road.

Process of phytoremediation last for few years. The reclamation begins with creation of Public Open Spaces between the growing fields. Plants species are based on soil contamination type, here: petroleum oils and heavy metals. Plants species include trees, shrubs, herbaceous and grasses: *Hellanthus annuus*, *Populus sp.*, *Typha angustifolia*, *Salix sp.*, *Festuca pratensis*, *Cynodon dactylon*.

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Vegetation Layer:

- 5. Wildlife areas
- 6. Food production fields
- 7. Playgrounds
- 8. Semi-public and private gardens
- 9. Street trees
- 10. Green roofs

Water Layer:

- 11. Canals
- 12. Reed beds

Green Architecture Layer:

- 13. South-North Building Location
- 14. Green Walls

Land Form Layer:

- 15. Earth mounds

**Categories**

- Bio-diversity
- Urban greening

**Location**

Barking and Dagenham

**Submitted by**

Anna Sieczak

annasieczak@gmail.com

