



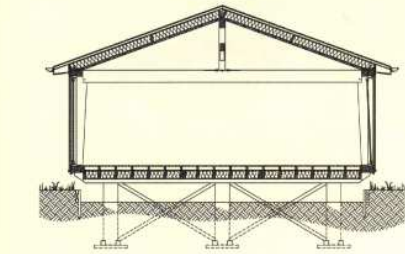
1.

ALL GREENHEART USED WAS SOURCED FROM LONDON DOCKLANDS' SCRAP

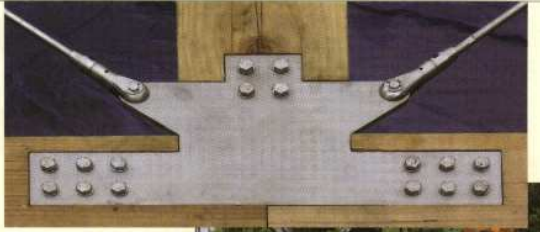
By Austin Williams



2.



Section

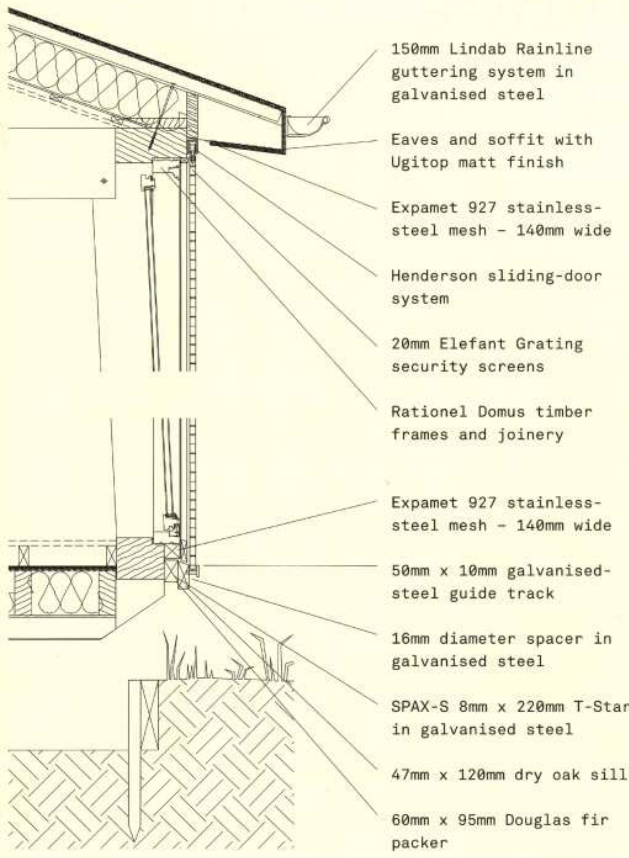


3.



4.

- 1. The roof gable was the only part built on site
- 2. Ridge-beam and king-post bracing
- 3. A hidden cable bracket
- 4. Grillage foundations before backfilling



cross-bracing. The underfloor area was then backfilled with excavated material to leave a 500mm 'crawlway' for future repair access.

On top of this foundation grid, 350 x 200mm greenheart main floor beams were laid in place to level. Then three cassettes per bay width were installed, each comprising 195 x 75mm floor joists (laid perpendicular to the main beams) filled with Warmcell insulation held in place with Panelvent sheathing at the bottom and topped with FCS WBP ply. Joints between cassettes were gasketed and given a final levelling with 85 x 47mm softwood battens at 400mm centres and a sheathing floor with finishes by the restaurant owners.

Douglas fir tapered posts take the 300 x 200mm Douglas fir main beam, which in turn carries the king posts and longitudinal bracing, all tenoned and pinned. The steel cable ties are held in discreet brackets chased into the beams to minimise visual intrusion. Such design detail for a feature never to be seen indicates the care that has gone into this simple building. The roof cassettes (4m long x 1.2m wide and with a U-value of 0.18) were erected before the glazed walls were brought to site, and the entire roof was installed in one day. The standing-seam covering is 'micro-engraved' to replicate a lead finish.

All greenheart was sourced from London Docklands' scrap and none was treated, not even cut ends. Scott suggests that the building should last at least 50 years – notwithstanding the vicissitudes of the restaurant market in London.

The first major all-timber building since the Great Fire in 1666 has been built in London. Set in the verdant surroundings of Lincoln's Inn Fields, the single-storey, open-plan linear structure has been designed by Cameron Scott of Timber Design and commissioned by the London Borough of Camden to serve as a 120-seat restaurant, owned by food writer Patrick Williams. The building is modular and mainly constructed in cassettes off-site meaning that, should the need arise, the building can be demounted with minimum adverse impact on the land around – and under – it.

Costing £280,000 to design and install (excluding fit-out), the project provides an unbroken internal space by constructing a structural post and beam system held together with traditional mortice and tenon joints fixed with pegs, supplemented with galvanised-steel brackets – each individually designed by Timber Design – to take the wind loads and lateral stresses.

Three trenches were dug to remove the grass and topsoil but also to get down to London gravel – a suitable bearing course for the timber 'piles'. This bearing level varied between 1m and 2m below ground level and recycled concrete hardcore was imported and compacted to bring the deeper dig up to a consistent 1m depth across the site.

At 3.6m bay locations, 800 x 800mm-square x 75mm-deep greenheart pads were placed with 100mm-square bearers with falling ridges which were approximately levelled. 350 x 200mm greenheart vertical posts – known as timber grillage foundations – were fixed to rise to above ground level with timber

Credits

Client
London Borough of Camden

Architect
Timber Design: Cameron Scott, www.timberdesign.com

Engineer
Andrew Smith Consulting Engineers: David Yeomans and Andrew Smith

Project management
Econstruction: Giles Frampton

Main contractor
The Timber Frame Company: Jim Blackburn

Structural steelwork
Hercules CSMD: Rob Crang

Photos
Cameron Scott: Mark Winwood