





Case Study: Holles & Warwick House, Angell Town Sustainable Refurbishment

- Client: LB Lambeth
- Architects:
 - Anne Thorne Architects Partnership
- QS: Andrew Turner and Co
- Landscape Architect: Studio Engleback
- Structural engineer:
 - Dewhurst MacFarlane
- Services Engineer: Mendick Waring
- Contractor: Higgins



What did participation mean at Angell Town?

- meeting with all steering group representatives and the wider community, to achieve consensus view on the estate wide planning issues
- What is it like now, what works and doesn't work?

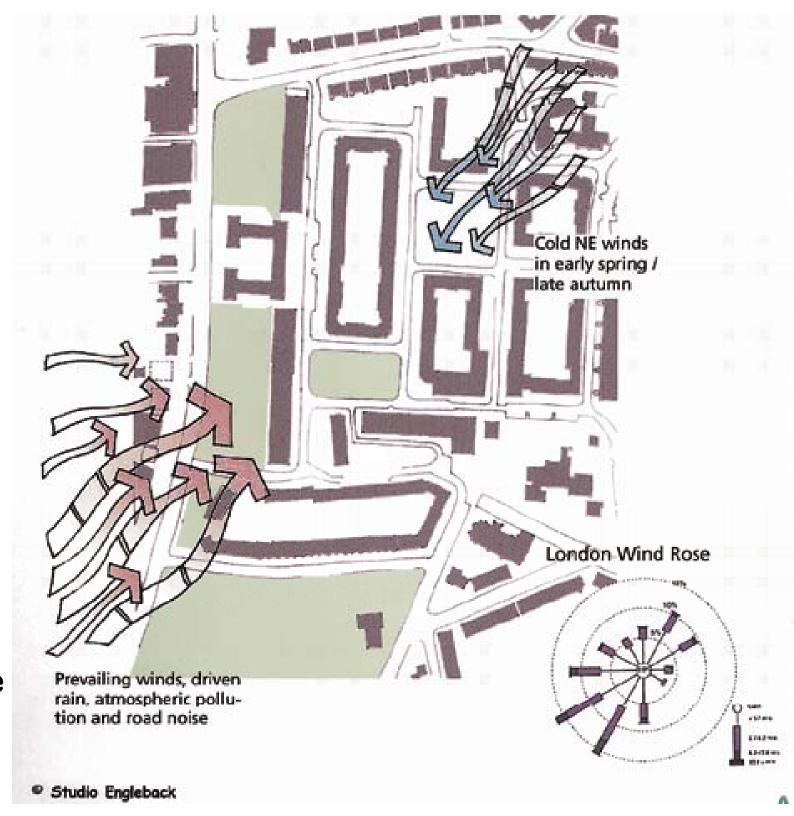
 designing the new homes through a series of eight workshops with residents who lived in the blocks.

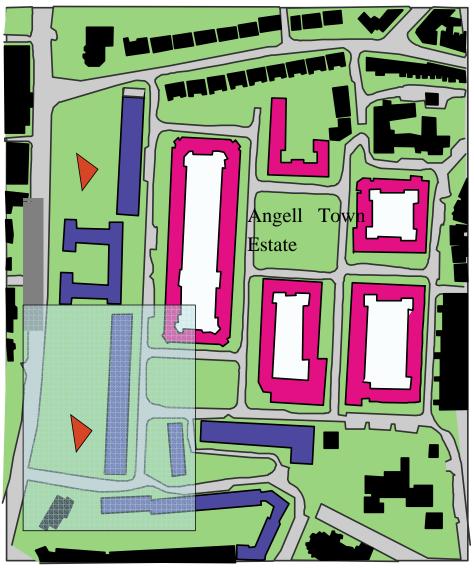
workshops on understanding technical drawings

- visits to other completed projects
- Information, newsletters, walkway display
- celebration!



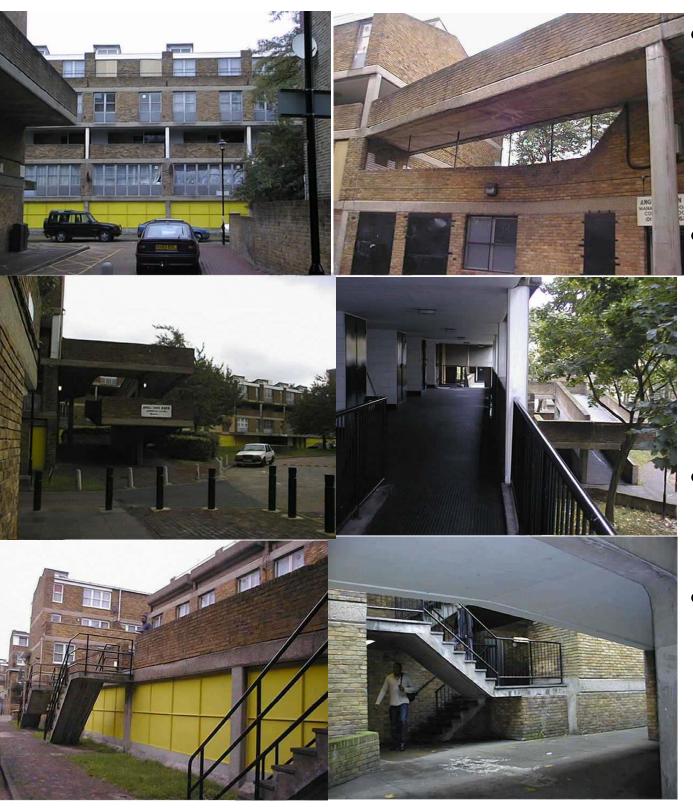
- Holles & Warwick House
- They protect estate from wind & road pollution,
- but are themselves exposed
- Existing buildings are set
- but we can still intervene







Changing the face of the estate refurbish Holles and part Warwick House demolish half Warwick House and rebuild new block connects Angell Town to Brixton and front doors line wide new pedestrian route



- Angell Town Estate was built in the early 70s,
 - just before the first oil crisis.
- 4 storey deck access blocks
 - linked with high level bridges
 - garages at ground level
- Poor quality internal environment
- lack of security in the external environment

at



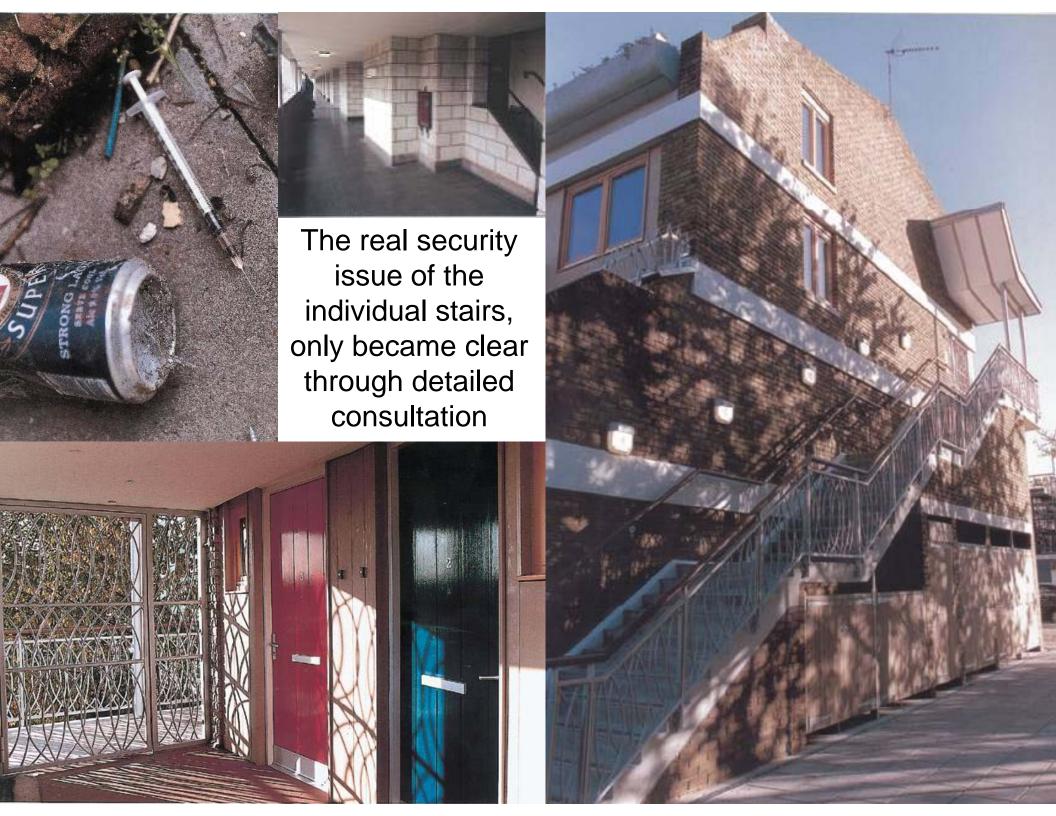


Warwick House

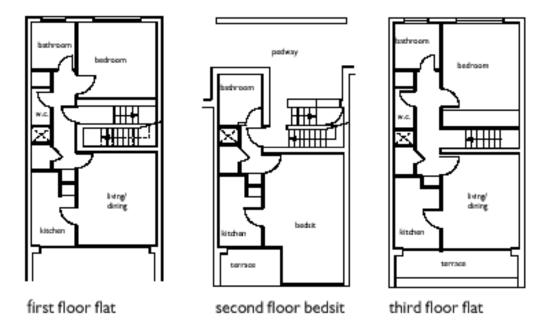
Attractive brick cavity walls spoiled by

- Concrete framed structure
 - Thermal bridges
- Glazing & Balcony recess
 - large areas of single glazed aluminium
 - not thermally broken
 - High embodied energy

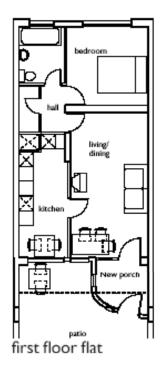


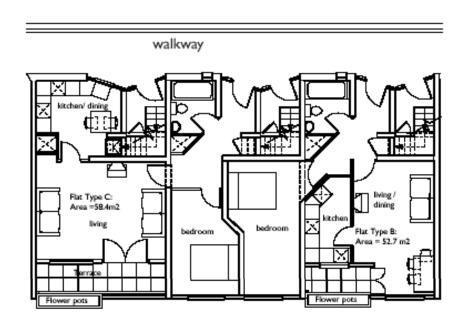


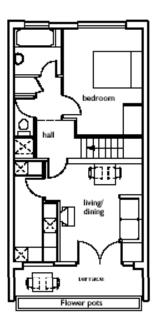
Before refurbishment



After refurbishment





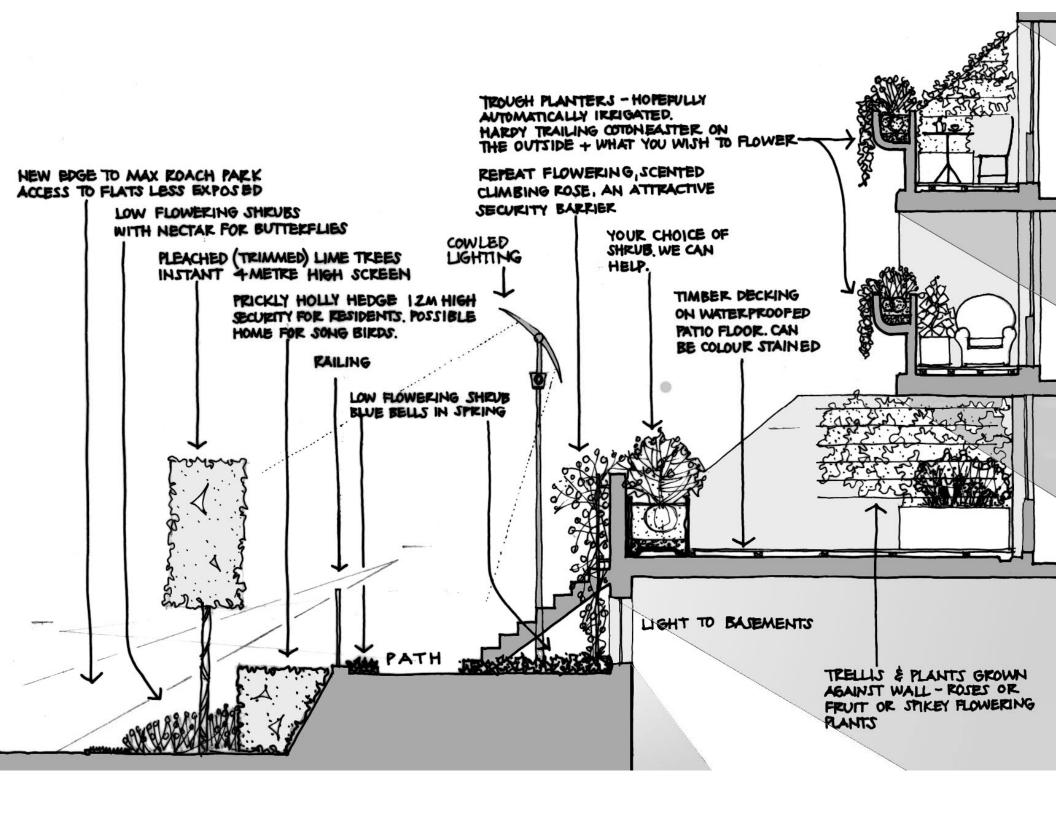


second floor: three bedsits into 2 flats

third floor flat

Public Private Hierarchy

- Defensible space & Privacy Hierarchy
 - Street > Public footpath > semi-public front garden > private house > semi-private back gardens
- 60's and 70's developments:
 - Public walkway > Private house > Semi-private balcony
 - Balconies become bike park, junk yard, store and pigeon roosts
- Proposal
 - Public footpath > Semi-public path > Semi-private patio > private house
- Garages previously converted to business units
 - Ground level naturally policed by activity and overlooking
- First floor flats: walkways Semi-public patio > Private house
- Top floor flats: Front doors to on walk way less pedestrian traffic?
- Security & Safety by Design features in landscape



Approach to buildings:

- refurbishment rather than new build
- wrapping up the building with insulation
- specifying sustainable materials & finishes



Work to existing

- Concrete frame and floor edges: insulated render to remove thermal bridges, avoid condensation and mould
- Walkway floors insulated below slab with mineral wool
- Balcony Floors: Jablite expanded polystyrene thermal insulation below paving
- Garage ceilings spray foam insulated
- Ceilings: 200 mm. Warmcell Cellulose thermal insulation
- External walls: brick/block cavity walls: full fill insulated cavity
- Stair light well thermally insulated with insulating foam backed plasterboard
- Existing concrete planter retained & painted with Keim Mineral Paint

New parts:

- Windows and rooflights:
 - New Rationel softwood with low emissivity double glazing
- New external infill walls: Breathing walls
 - timber studwork framed panels
 - 150 mm. Warmcell thermal insulation
 - Bitvent bitumen impregnated fiberboard breathing sheathing board
 - Plasterboard internally
 - External Douglas fir boarding,
 - stained with OS opaque (environmentally friendly)

- Breathing wall timber frame construction was used for the infill construction
- Timber studwork
- 150mm Warmcell insulation
- Bitvent bitumen impregnated fibreboard outside
- plasterboard inside.







- Concrete planters were retained.
- Balconies provide shading to west elevation.
- External cladding is Douglas fir timber boarding
 - with OS color protective staining,
- Rationel high performance timber windows
- Passivent stacks for kitchen and bathroom ventilation
 - replaced mechanical ventilation