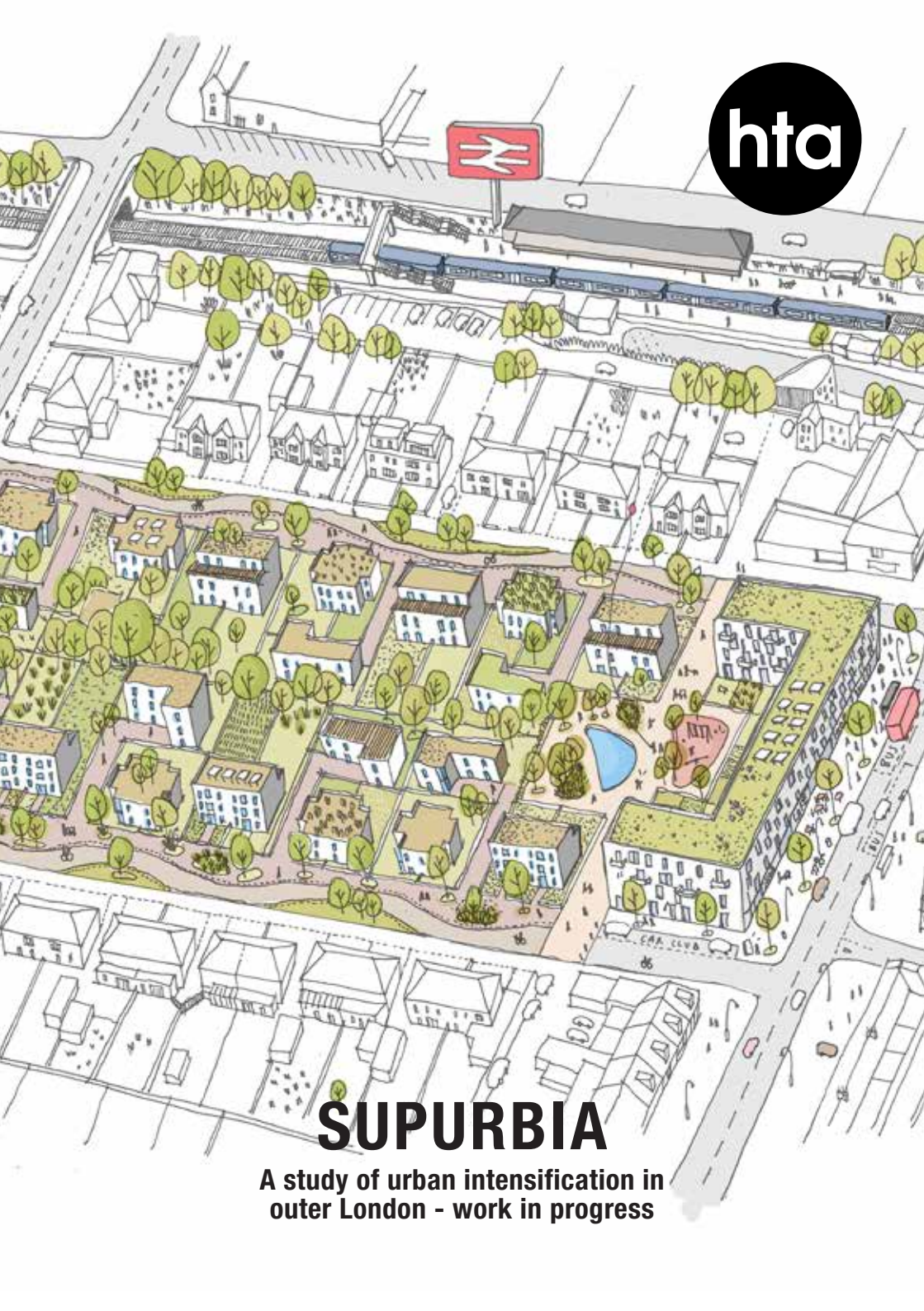

# SUPURBIA

**A study of urban intensification in outer London - work in progress**


CAR CLUB

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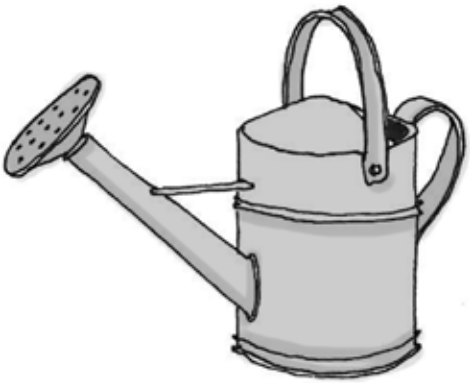
**A study of urban intensification in outer London - work in progress**

**The Supurbia project is a collaboration led by Ben Derbyshire, Managing Partner of HTA Design and Richard Blakeway, the Deputy Mayor for Housing, Land and Property at the GLA, working with members of HTA's team and others.**

**The study aims to identify how urban intensification of suburban London might contribute to an increase in housing supply, promote economic activity, improve local service provision, reduce congestion, improve the quality of life, the choices available and sustainability in the suburbs of the outer Boroughs.**



# The study area - Existing situation 2015


The London Housing Strategy acknowledges a shortfall between the present rate of supply (averaging 16,300 homes per year over the last 22 years), the theoretical maximum capacity identified by the Strategic Housing Land Availability Assessment (SHLAA) of 42,000 homes per year and the requirement to meet demand of as much as 50-60,000 homes per year.

We intend the outcome of the study to be complimentary to the wider plan to increase housebuilding in Opportunity Areas across the capital. And we recognise that the capacity to increase supply identified in the recent SHLAA assessment already includes the contribution of all currently identified brownfield sites, infill sites, redeveloped local authority stock and possible urban extensions.

The study recognizes the shortfall in supply from these sources and turns its attention to the possibilities inherent in London's very low density and often under-occupied suburban districts to see how the shortfall may be reduced in the future. It takes a starting point that London's huge suburban tract is of variable quality and seeks to identify areas where there is potential for enhanced value through intensification.

We calculate (on the basis of the 2011 census data) that If just 10% of the semi detached stock of outer London was fully rather than under-occupied it could accommodate 100,000 more people than at present. If the owners of this 10% took up their full entitlement of permitted development rights this could contribute the equivalent of 6,000 homes per year to the housing supply of London. And redevelopment of just 10% of the existing stock of poor quality semis at double its current density of only 30 or so homes per hectare could increase supply by a staggering 20,000 new homes each year.

The objective of the Supurbia project is to build on the inherent quality of the suburbs (individual homes on their own plots with easy access to public and private open space set in

**The study area -**
**Permitted development**
**20% car sharing**
**Partial retrofit**
**2020**

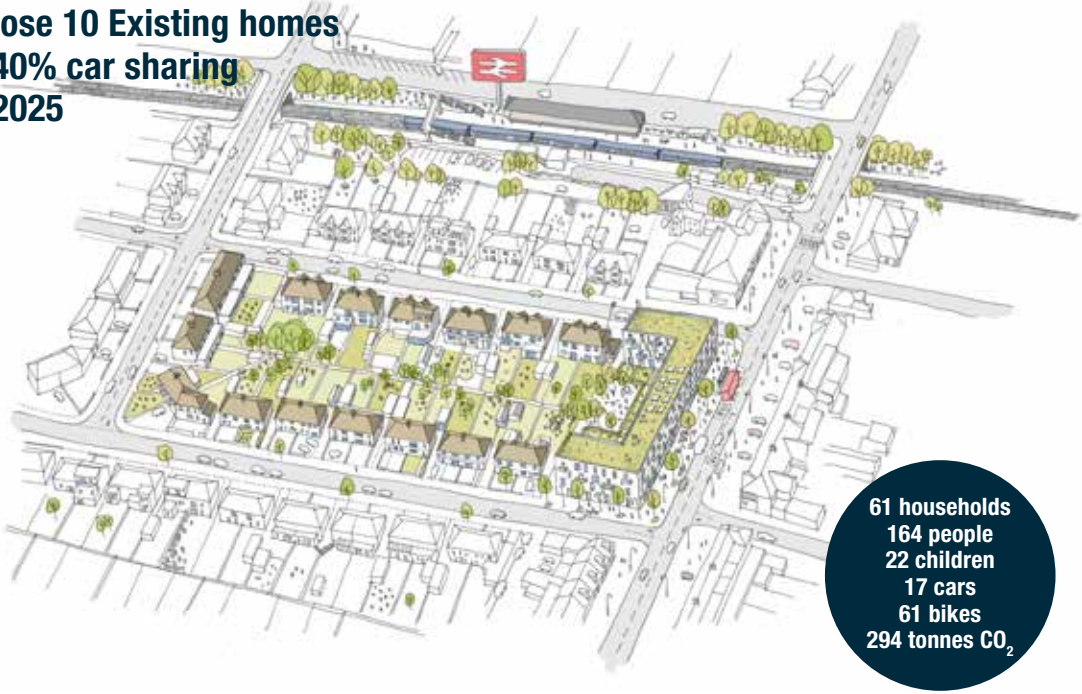

a verdant environment) with a set of policies targeted at meeting popular aspirations. The underlying premise being that by offering people choices that are currently denied them, a notoriously static situation might be transformed into a dynamic one. The project will explore how a programme of urban intensification might trigger changes resulting over time in a much improved fit of population in accommodation; more sustainable, efficient and affordable. Suburban London has huge potential resources that cannot be ignored if we are to deliver a supply of affordable housing in a sustainable environment for Londoners. We hope to tackle the resistance to change that is inherent in suburban areas with an alluring portrayal of future possibilities.

HTA's work on newly built ecologically sensitive and sustainable developments, such as at Hanham Hall in Bristol, shows us that to achieve the desired outcomes collaborative arrangements are necessary, enabling residents to share in the benefits of investment in development and supporting infrastructure. We propose to explore investment, ownership and governance models that would enable residents to benefit collectively at a variety of different scales; individual plots, combining adjacent ownerships, whole blocks and neighbourhoods.

Collaborative consumption is a tendency for people who can share information easily to share goods and services more readily. It is enabled by the revolution in the smart-phone and the apps that it supports. Our theory is that if people have easy enough access to car and energy sharing, they will need a lot less of both to be made available to them. Instead of cars sitting on roads or car parks for large parts of the day, they will be in use, shared. This will make better use of the cars, roads and increasingly scarce resources.

We intend to make a submission to the Technology Strategy Board (TSB) for funding to take the technical aspects of the study

**The study area -**
**Older persons housing added**
**lose 10 Existing homes**
**40% car sharing**
**2025**




forward. Our idea is to create a modelling tool which can be used to assess the energy demands and loads for an area of suburbia connected to an individual substation. What we are interested in demonstrating is an ability to intensify the occupancy of a suburban area including building new buildings, but which can be designed in such a way as to put no additional peak load on the local Grid substation. We anticipate that the resulting tool would be of use to local authorities, policy makers, consultants, engineers, power companies and others wishing to plan for a more sustainable future. It would need to be sufficiently user-friendly to be useful to a non-engineer who wanted to investigate scenarios for a particular place.

The facts are striking. According to The Centre for London, 75% of people in outer London Boroughs (compared to 50% in inner London) oppose new housing development in their neighbourhoods. In Bexley, based on the 2011 Census data, 45% of the population inhabit the ubiquitous three bed semi. 60% of households comprise two persons or less, 80% are owner occupiers, 66% own cars, 24% own two or more cars. In one neighbourhood of Bexley which we examined as a pilot, we estimated that at present 38 households comprise 110 people including only 18 children, responsible for generating 304 tonnes of $CO_2$ per annum. This pilot demonstrated how a series of changes over time could increase the population to 222 people at the same time as reducing the $CO_2$ generation of twice the original size to zero – a dramatic transformation.

Whilst it's clear that Nimby attitudes thrive in outer London, we seek to explore the extent to which self interest may overcome resistance to change. The figures support our contention that doubling the density of just 10% of the outer London Boroughs creates the capacity for 20,000 new homes per annum – the area covered is simply huge so the capacity is correspondingly great and should not be

**The study area -**
**All housing replaced**
**Zero carbon**
**60% car sharing**
**2030**


overlooked either by the Local Authorities concerned or by London's City Fathers, who seek to find solutions to its housing crisis.

But how might such changes be triggered, what incentives might begin to unlock the potential?

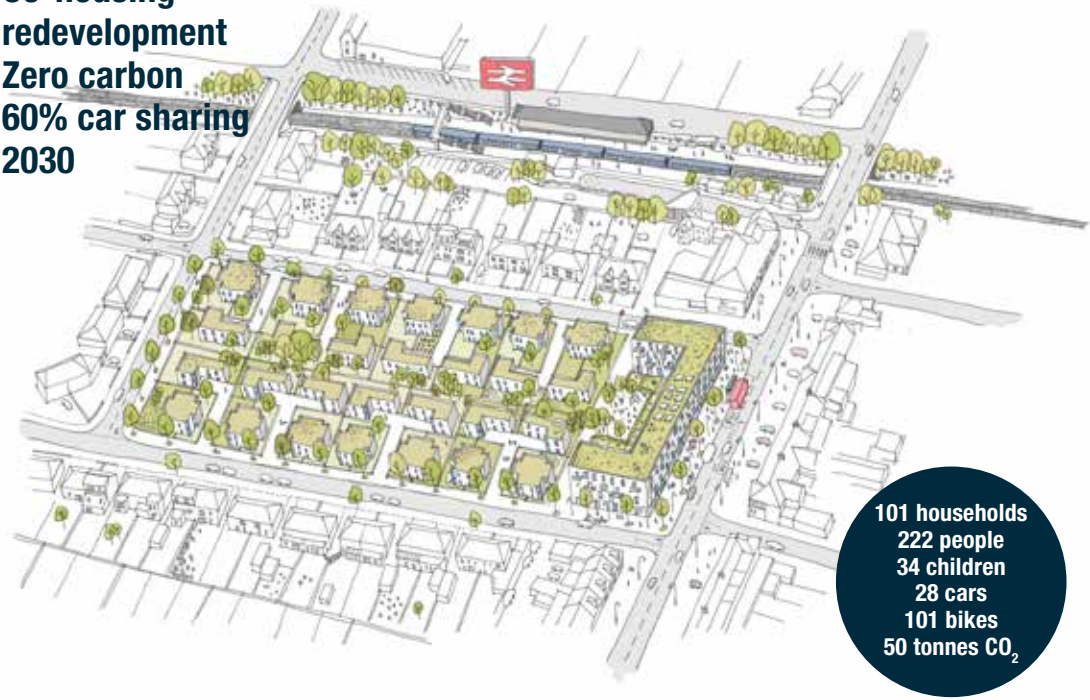
Is there a case for special measures based on the principle of Housing Zones proposed in the GLA's Housing Strategy? Or should the incentives be more generally applied across the outer Boroughs and London as a whole? The study group have made a number of preliminary suggestions for discussion, as follows:

**1. Designation of Housing Zones.**
Designation of priority status for areas of poor environmental quality, and high levels of social deprivation and fuel poverty. A planning policy framework for intensification including enhanced permissible development rights, relaxation of density limitations and restrictions on development in gardens. Area based collaboration integrating contributions from the local authority social landlords, private housing developers, and energy providers, amongst others. Area based fiscal incentives (see below). Pre-negotiated development agreement for standard intensification typologies.

**2. Tax Increment Financing**
Investment in local infrastructure and public realm improvements enabled by prudential borrowing financed through precept on locally raised taxes, especially increases in Community Charge and Stamp Duty levied in areas of urban intensification.

**3. Fiscal incentivisation of population intensification.**
Measures (possibly area based and time limited) to encourage intensification activity such as; inheritance tax breaks for downsizers, Community Charge holidays or banding concessions for take up of permitted

## The study area - Co-housing redevelopment Zero carbon 60% car sharing 2030




development opportunities. Green Deal interest reductions for shared, collective or neighbourhood level energy retrofit measures. Stamp Duty rebates for retro-fitted homes.

**4. Private sector and non-statutory financial interventions.**
Development risk guarantees for homeowners participating in redevelopment or radical conversion initiatives. Advantageous lending rates for development and retrofit initiatives that reduce running costs. Enhanced feed in tariffs/reduced unit costs for participants in neighbourhood energy sharing schemes.

Equity release schemes linked to retrofit/ permitted development opportunities. Buy-back schemes for downsizers – enabling site assembly for intensification schemes.

**5. Redevelopment of high street frontage.**
Development of high quality homes for downsizers in locations close to appropriate services, following HAPPI principles. Significant increase in residential densities (doubling or trebling) and re-provision of smaller amounts of retail floorspace that can be serviced from the street, liberating rear service areas for conversion to high quality shared public realm. Improvements to public realm, provision for shared transportation – mobility scooters, electric bikes and cars.

**6. Increasing the developable envelope.**
Alongside enhanced permissible development right, relaxation of building lines to bring development frontage closer to back of pavement, reduction in back to back distances and increase in permissible height of development.

**7. Packaged infill/extension/redevelopment typologies.**
Based on the typological uniformity of the archetypal semi detached suburbia, a range of standard typologies (possibly prefabricated, at least in part). The range of types would include roof and rear extensions, mews houses and gap infilling types.

# The study area - Mixed redevelopment Energy positive 80% car sharing 2035


**8. Planning consent through Community Right to Build**.
Co-housing and custom build projects (see below) by collaborating neighbours enabled through planning legislation creating permitted development opportunities in consenting neighbourhoods. Area based referenda based on mutual consent.

**9. Co-housing development support**
Packaged development service for neighbours collaborating in site assembly opportunities for urban intensification scheme. This would include advantageous loans, underwritten development risk, legal & design services, boilerplate development agreements, type approved design solutions.

**10. Custom build.**
Packaged development service for purchasers of high quality, branded manufactured homes, including site acquisition, choice of appropriate mortgages, manufactured home showroom, site and service preparation, pre-negotiated framework agreements with LPA for approved types.

**11. Public realm improvements.**
Phased reduction in space allocated to cars in private ownership alongside take up of modal shift to sustainable transport and car/bike/mobility scooter sharing. Introduction of street trees and biodiverse green infrastructure.

**12. Car sharing schemes**
Free up public realm by reducing car ownership through sharing schemes. A local company owned by all residents owns cars and electric bikes, they charge their batteries from PV panels mounted on each dwelling. Each owner has use of the car/s.

**13. Neighbourhood energy storage**
Use battery storage to reduce peak loads. Store energy when it is cheap from the Grid or from solar PV. If the car is charged, then charge the house battery instead. Use timers or software to control when washing gets done. All of this is aimed at maintaining peak usage at existing

levels or less. No new grid infrastructure should be needed. This could include some battery storage at the sub-station.

**14. Retrofit DC networks**
Use DC current for household equipment such as lighting, entertainment and IT equipment. This reduces power losses due to the AC/DC conversion.

**15. Neighbourhood water management scheme.**
Water usage and waste streams should be limited to reduce the impact on sewers and drainage systems, this could be done by providing low water use appliances and greywater/rainwater recycling systems and installing sustainable urban drainage.

**16. Neighbourhood intranet of things.**
Set up a hire business alongside the car/e-bikes that hires equipment that many people own but never actually use, drills, hedge trimmers, car washers, exercise equipment, projection facilities, construction tools, mowing machines.

We propose one or more pilot studies in collaboration with participating Local Authorities, where we intend to explore the possibilities of these approaches based on realistic assessments of actual and potential value. We recognise that piecemeal nature of ownership in London's suburbs means that the outcome would need to be capable of supplying sufficiemnt yield for the owners of such property to create the necessary incentive for change.

We envisage area based schemes, centred on under-developed transport hubs where urbanisation in a concentric pattern could create outward moving contours of increased value, like the ripples in a pond, triggering the take up of intensification schemes in a variety of typologies which we will explore and illustrate. Our hope is that we can postulate a viable scenario for processes capable of transforming the poorer, often subtopian areas of suburbia into a vision of thriving, vibrant and sustainable placemaking – a vision of Supurbia!

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# SUPURBIA