DATED 29 September 2010

**GREATER LONDON AUTHORITY**
as Local Planning Authority

**and**

**BIRCH SITES LIMITED**
as the Developer

**and**

**NATIONAL GRID GAS PLC**
as Owner

**and**

**LONDON BOROUGH OF EALING**
as Local Planning Authority

**and**

**LONDON BOROUGH OF HILLINGDON**
as Local Planning Authority

**and**

**TRANSPORT FOR LONDON**
as Strategic Highway Authority for London and facilitator of the discharge by the GLA of its duties in relation to transport facilities and services

**Agreement pursuant to Section 106 of the Town and Country Planning Act 1990**

in relation to development at Southall Gasworks Site, Southall, Middlesex, UB1 1QZ

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**DATED** 29 September 2010

**PARTIES**

(1) **THE GREATER LONDON AUTHORITY** of City Hall, The Queen's Walk, More London, London, SE1 2AA (the "**GLA**")

(2) **BIRCH SITES LIMITED**, a company incorporated in England and Wales with registered number 6404382 whose registered office is at 1-3 Strand, London, WC2N 5EH (the "**Developer**")

(3) **NATIONAL GRID GAS PLC**, a company incorporated in England and Wales with registered number 2006000 whose registered office is at 1-3 Strand, London, WC2N 5EH (the "**Owner**")

(4) **LONDON BOROUGH OF EALING** of Perceval House, 14-16 Uxbridge Road, Ealing, London, W5 2HL ("**Ealing Council**")

(5) **LONDON BOROUGH OF HILLINGDON** of Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW ("**Hillingdon Council**")

(6) **TRANSPORT FOR LONDON** a body corporate constituted by section 154 of the Greater London Authority Act 1999 of 42-50 Victoria Street, London, SW1H 0TL ("**TfL**")

**BACKGROUND**

(A) Pursuant to a direction made under s.2A of the 1990 Act (dated 22 December 2009), the GLA is now the local planning authority for the purposes of determining the Application. In accordance with s.2E of the 1990 Act, therefore, the GLA is also the local planning authority seized with the function of agreeing this s.106 planning obligation with the Developer.

(B) The Developer is registered at HM Land Registry as proprietor of the freehold interest of part of the Application Site under title numbers AGL92706 and AGL132417.

(C) The Owner is registered at HM Land Registry as proprietor of the freehold interest of part of the Application Site under title number AGL92701. Part of that title also falls outside of the Application Site.

(D) The Councils remain local planning authorities for the purposes of this Application (albeit with more limited functions as a result of the GLA's direction), and will be responsible for the discharge of certain obligations contained within this Agreement.

(E) TfL has the power under the Greater London Authority Act 1999 to facilitate the discharge by the GLA of its duty to promote and encourage safe, integrated, efficient and economic transport facilities and services to, from and within Greater London, and, in respect of GLA roads (as defined in the Highways Act 1980), is the highways authority.

(F) As the Application Site straddles the administrative areas of both Ealing Council and Hillingdon Council, National Grid Property Limited (of whom the Developer is a wholly owned subsidiary) submitted the Application to the Councils. The Councils resolved

to refuse the Application on 4 November 2009 (in respect of Ealing Council) and 10 December 2009 (in respect of Hillingdon Council).

(G) The GLA resolved to grant the Permissions on 25 March 2010 subject to the completion of this Agreement. The Parties agree that the obligations contained within this Agreement are necessary to make the Development acceptable in planning terms, directly related to the Development, and fairly and reasonably related in scale and kind to the Development.

(H) As parties to this Agreement, the Councils confirm that the GLA have consulted with them as to the terms of this Agreement.

(I) The Developer and Owner agree that the Development shall be carried out only in accordance with the rights and obligations set out in this Agreement.

(J) This Agreement is enforceable by the GLA and, in the manner set out below, by the Councils and TfL.

(K) Although the Community Infrastructure Levy Regulations 2010 are now in force, there is currently no charging schedule adopted by the Councils, so the Community Infrastructure Levy does not apply to the Permissions, or any reserved matters applications submitted pursuant to the Permissions.

**OPERATIVE PROVISIONS**

1 **STATUTORY POWERS**

1.1 This Agreement entered into by deed is a planning obligation for the purposes of section 106 of the 1990 Act and is entered into (in respect of the Councils) pursuant also to Section 111 of the Local Government Act 1972 and Section 2 of the Local Government Act 2000 and all other powers them enabling, and it is acknowledged by the Parties that the obligations contained within it are binding on the Land in the manner set out in Clause 2 and are enforceable by the GLA as local planning authority pursuant to s.2E of the 1990 Act.

1.2 The obligations at Schedule 1 and Schedule 3 are enforceable by Ealing Council as local planning authority.

1.3 The obligations at Schedule 2, Schedule 3, Part 1, and Schedule 3, Part 2, paragraph 3 are enforceable by Hillingdon Council as local planning authority.

1.4 The obligations at Schedule 3 are enforceable by TfL as strategic highway authority.

2 **LAND BOUND AND ENFORCEABILITY**

2.1 The land bound by the obligations in this Agreement is the Land.

2.2 Subject to Clause 2.4, the obligations and covenants on the part of the Developer in this Agreement are binding on its freehold interests in the Land and against its successors in title in respect of those interests, and is enforceable as such.

2.3 Subject to Clause 2.4, the obligations and covenants on the part of the Developer in this Agreement are also binding on the Owner's freehold interest in the Land but only

in so far those obligations and covenants directly relate to that interest, and is enforceable as such.

2.4 The obligations contained in this Agreement shall not be binding upon nor enforceable against:

2.4.1 any person who acquires any part of the Land or interest therein for the purposes only of the supply of electricity gas water drainage telecommunications services or public transport services;

2.4.2 save for covenants and obligations expressed in this Agreement to be made by the Developer which directly relate to the Owner's freehold interest in the Land, which covenants and obligations shall only be enforceable in accordance with the provisions of Clause 2.5 below or where the Owner is a successor in title to the Developer, the Owner;

2.4.3 save for the covenant at Schedule 3, Part 5, paragraph 6, which covenant shall only be enforceable in accordance with the provisions of Clause 2.5 below, occupational tenants of any Class A1 A2 A3 A4 A5 B1 C1 D1 or D2 Unit provided pursuant to the Development;

2.4.4 temporary uses for construction purposes or other temporary purposes;

2.4.5 save in respect of the obligations contained in Schedule 1, Part 7 an individual owner or occupier of a Dwelling or any mortgagee in possession of such Dwelling; and/or

2.4.6 any mortgagee or chargee of an Affordable Housing Provider to whom the freehold legal estate in the Affordable Housing Land or any part or parts thereof has been transferred which mortgagee or chargee is in possession thereof and is exercising its power of sale or against a person deriving title from such mortgagee or chargee.

2.5 The covenants referred to at sub-clauses 2.4.2 and 2.4.3 above shall only be enforceable against the party set out in those sub-clauses where:

2.5.1 the party seeking to enforce has:

(a) served a written notice on the Developer stating the alleged breach, and set out in that notice suggested actions to remedy the alleged breach, and

(b) allowed the Developer a period of 3 months from the date of the notice to remedy the alleged breach; and

2.5.2 the Developer has not:

(a) responded to the notice disputing the existence of the breach complained of, and

(b) remedied the alleged breach by the expiry of the 3 month period.

## 3 INTERPRETATION

3.1 In this Agreement unless the context otherwise requires the following terms (arranged in alphabetical order) shall have the following meanings:

"**1990 Act**" means the Town and Country Planning Act 1990.

"**Affordable Housing**" means housing to either purchase or rent at a price below open market housing which shall include Social Rented Units and Intermediate Units (or such other form as may be agreed) to be made available to eligible persons (as referred to in the Mayor of London's Housing Supplementary Planning Guidance (or such successor document as may be agreed between Ealing Council and the Developer)), and which is subject to arrangements to ensure it is able to remain available as affordable housing for future occupiers.

"**Affordable Housing Provider**" means a body registered with the Homes and Communities Agency as a registered provider of social housing under the Housing and Regeneration Act 2008 or otherwise approved or accredited by the Homes and Communities Agency, and which body has previously been agreed by the Developer and Ealing Council to be on a short-list of preferred Affordable Housing Providers.

"**Affordable Housing Scheme**" means a scheme containing details of the number, size, tenure, mix and location of the Affordable Housing Units within a Residential Phase (if any) to be in accordance with the housing strategy including Affordable Housing approved pursuant to condition 8 of the Ealing Permission.

"**Affordable Housing Standards**" means such standards for the construction of Affordable Housing as may be published by the Homes and Communities Agency from time to time.

"**Affordable Housing Units**" means the units of Affordable Housing provided pursuant to the Development as set out in Schedule 1, Part 7.

"**Agreement**" means this deed of agreement entered into pursuant to s.106 of the 1990 Act.

"**Allotment Contribution**" means the Index Linked sum of £100,000 paid to Ealing Council in accordance with Schedule 1, Part 6, paragraph 2(c)(iii) for the provision of additional allotments in the vicinity of the Development required as a result of increased demand for Allotments arising from the Development.

**"Alternative Mitigation Measures"** means works to be proposed by the Developer in accordance with Schedule 3, Part 3, paragraph 2(a), and approved pursuant to the Alternative Mitigation Measures Scheme, which:

(a) achieves a level of mitigation as assessed at the date of this Agreement which is in the reasonable opinion of Ealing Council and TfL equivalent (where reasonable and practicable) to the South Road Railway Bridge Widening Scheme or, if the level of mitigation achieved is less than equivalent, is in the reasonable opinion of Ealing Council and TfL sufficient in the circumstances to mitigate the impacts of the Development on South Road; and

(b) are of no higher cost than the full cost associated with the delivery of the South Road Railway Bridge Widening Scheme (inclusive of all land costs and costs of obtaining any Necessary Consents (but in either case disregarding any Onerous Term), professional and design fees, and a reasonable contingency).

"**Alternative Mitigation Measures Commuted Sum**" means a sum of money approved pursuant to the Alternative Mitigation Measures Scheme representing the full cost to Ealing Council of the works required to complete the design and delivery of the Alternative Mitigation Measures (including (if necessary) any land costs and costs of obtaining any consents necessary for the delivery of the Alternative

Mitigation Measures (but in either case disregarding any Alternative Mitigation Measures Onerous Term), professional and design fees, and a reasonable contingency).

"**Alternative Mitigation Measures Onerous Term**" means any term or contractual provision required in return for the granting of a consent necessary for the Alternative Mitigation Measures, which requires the payment or provision of consideration by the Developer materially in excess of the level of consideration which would be paid or given by a reasonable developer at the time for the granting of the consent in question having regard to prevailing market conditions at the time and all other relevant matters, circumstances and considerations.

"**Alternative Mitigation Measures Scheme**" means a written scheme to be approved by Ealing Council and TfL pursuant to Schedule 3, Part 3, paragraph 4(b)(v) setting out:

(a) a detailed estimate (and breakdown of the estimated costs) for the South Road Railway Bridge Widening Scheme (inclusive of all land costs and costs of obtaining any Necessary Consents (but in either case disregarding any Onerous Term), professional and design fees, and a reasonable contingency);

(b) detailed design and estimated cost of the proposed Alternative Mitigation Measures; and

(c) if the Developer is requesting that the Alternative Mitigation Measures are to be carried out by Ealing Council, a proposed Alternative Mitigation Measures Commuted Sum figure (with a detailed breakdown of how the figure has been calculated including details of all estimated remaining costs over and above what has already been expended by the Developer).

"**Application**" means the application for the Development submitted by the Developer to the Councils, given reference number P/2008/3981 by Ealing Council and reference number 54814/APP/2009/430 by Hillingdon Council.

"**Application Site**" means the land shown edged red on plan 0317/P1016/00 at Appendix 1.

"**Area Wide Walking and Cycling Study**" means a study to be submitted to Ealing Council, Hillingdon Council and TfL for approval pursuant to Schedule 3, Part 2, paragraph 3 covering the area edged blue on plan 52212/A/78/A at Appendix 1 having regard to the PERS methodology (the 'Pedestrian Environment Review System' published by the Transport Research Laboratory, or in its absence such document as may be agreed by the Parties) to ensure a good network of walking and cycling routes is provided within the study area. Any works recommended by the study and approved by the Transport Review Group (pursuant to Schedule 3, Part 1, paragraph 3(b)) will be funded by the Transport Management Fund.

"**Burial Ground Contribution**" means the Index Linked sum of £400,000 paid to Ealing Council in accordance with Schedule 1, Part 6, paragraph 2(c)(iv) for the provision of additional burial space at Greenford Park Cemetery, Windmill Lane, Greenford, necessary as a result of the limited capacity currently existing in Ealing Council's administrative area which capacity would be exceeded by the demand arising from the Development.

"**Bus Services Contribution**" means the Index Linked sum of £6,600,000 which shall be paid to TfL in accordance with Schedule 3, Part 4 for the establishment and

diversion of bus routes into and through the Development, the improvement of services and the frequency of buses, and other bus related improvements to, from and in the vicinity of the Development, required as a result of the increased number of Occupiers and users of the Development.

"**Car Club**" means a car club to be procured by the Developer and phased in accordance with the Car Club Scheme to deliver, operate and manage the on-site hire of cars for residents and users of the Development.

"**Car Club Scheme**" means a scheme for the phasing of the Car Club to be submitted to Ealing Council and TfL pursuant to Schedule 3, Part 2, paragraph 4 which scheme shall be in accordance with the principles (and include such measures as are) set out at paragraphs 5.57-5.64 of the Framework Travel Plan, and shall provide for up to 50 car club spaces within the Development.

"**Class**" means a use class specified in the Town and Country Planning (Use Classes) Order 1987 (as amended).

"**Conditions Precedent**" means the conditions contained in clause 4.

"**Consumer Price Index**" means the Consumer Price Index as published by the Office of National Statistics, or, if that index ceases to be published, such alternative index which it most closely resembles agreed between the Parties.

"**Contaminated Land Officer Costs**" means the total sum of £50,000 paid to Ealing Council in accordance with Schedule 1, Part 4, paragraph 2 towards two-year part-funding of a contaminated land officer employed by Ealing Council to assist in the monitoring of remediation of contaminated land at the Development.

"**Contribution**" means any financial contribution paid by the Developer pursuant to this Agreement.

"**Councils**" means together Ealing Council and Hillingdon Council.

"**CPZ Review Contribution**" means the Index Linked sum of £100,000 paid to Ealing Council pursuant to Schedule 1, Part 5, paragraph 4 towards a review of controlled parking zones in the vicinity of the Development within Ealing Council's administrative area, and facilitating any changes to the controlled parking zone provision recommended by the review, required due to the change in car usage and parking provision caused by the Development.

"**Crossrail Limited**" means that company (with company number 04212657) of 25, Canada Square, Canary Wharf, London, E14 5LR or any successor to its functions.

"**Cycle Club**" means a cycle club to be procured by the Developer and phased in accordance with the Cycle Club Scheme to deliver, operate and manage the on-site hire of bicycles for residents and users of the Development.

"**Cycle Club Scheme**" means a scheme for the phasing of the Cycle Club to be submitted to Ealing Council and TfL pursuant to Schedule 3, Part 2, paragraph 4 which scheme shall be in accordance with the principles (and include such measures as are) set out at paragraphs 5.67-5.69 of the Framework Travel Plan.

"**Detailed Travel Plan**" includes the Residential Travel Plan and / or the School Travel Plan and / or the Workplace Travel Plan.

"**Development**" means redevelopment by the Developer pursuant to the Permissions for mixed use purposes to include demolition of existing properties at The Crescent, Beaconsfield Road and Randolph Road, construction of buildings for cinema, residential, non-food retail, food retail, other Class A3-A5 uses, hotel, conference and banqueting, multi-storey car park, health care facilities, education facilities, office / studio units, sports pavilion, and an energy centre, associated car and cycle parking, landscaping, public realm, open space and children's playspace, and details of various accesses.

"**Development Unit**" means either one Dwelling or 100 sqm (net internal) of retail, leisure, hotel, or commercial floorspace.

"**Dwelling**" means a residential unit provided pursuant to the Permissions within Class C3.

"**Ealing Council**" means the London Borough of Ealing, of Perceval House, 14-16 Uxbridge Road, Ealing, London, W5 2HL.

"**Ealing Air Quality Strategy Development Contribution**" means the Index Linked sum of £50,000 which shall be paid to Ealing Council in accordance with Schedule 1, Part 4, paragraph 1(a) towards the establishment by Ealing Council of a low emissions strategy document setting out specific measures and figures to achieve the lowest possible emissions from the Development.

"**Ealing Air Quality Strategy Implementation and Monitoring Contribution**" means the Index Linked sum of £614,000 which shall be paid to Ealing Council in accordance with Schedule 1, Part 4, paragraph 1 for the improvement of air quality in the vicinity of the Development in accordance with the low emissions strategy prepared using the Ealing Air Quality Strategy Development Contribution, required to mitigate the effect on air quality caused by the Development.

"**Ealing Education Contribution**" means the Index Linked sum of £1,149.42 per Residential Unit paid to Ealing Council in accordance with Schedule 1, Part 1, paragraph 2 towards ensuring that sufficient school places are available at appropriate educational facilities maintained by Ealing Council for children of secondary school age to accommodate demand resulting from the Development.

"**Ealing Permission**" means planning permission granted by the GLA in respect of the Application made to Ealing Council (under reference P/2008/3981) in the form of the model (draft) decision notice attached to this Agreement at Appendix 2.

"**Eastern Access**" means the access shown marked '16' on the 'Site plan' at Appendix 1 to be provided pursuant to the Permissions.

"**Electric Vehicle Charging Points**" means electric vehicle parking spaces to be provided with apparatus to recharge such vehicles in accordance with the Mayor of London's publication: 'Guidance for implementation of electric vehicle charging infrastructure' (1st edition April 2010), or such successor document as may be agreed by the Parties, the location of which will be agreed pursuant to reserved matters applications for each Phase of the Development.

"**Employment and Training Contribution**" means the Index Linked sum of £678,000 paid to Ealing Council in accordance with Schedule 1, Part 3, paragraph 1 for programmes of local labour schemes in the vicinity of the Development.

"**Force Majeure**" means any of the following contingencies and/events (if and to the extent that they shall prevent or cause any unavoidable delay in the obtaining of the

Necessary Consents or completion of the South Road Railway Bridge Widening Scheme in accordance with this Agreement in a manner which is outside the reasonable control and not attributable to the default of the Developers) namely: a fire, flood or other severe weather conditions, terrorist action, war, rebellion, riot, strikes, lock outs, insolvency of contractor(s), unavailability of materials or equipment, emergencies, decree of Government, security action or concerns relating to imminent and unavoidable threats to the health or safety of personnel in the vicinity of the Development, the exercise of Termination Rights by a party consenting with the Developer, or such other material circumstances which in the reasonable opinion of Ealing Council and TfL are beyond the reasonable control of the Developer and have prevented it from complying with its relevant obligations under this Agreement.

"**Framework Travel Plan**" means the agreed travel plan prepared for the entire Development approved pursuant to the Permissions, and appended to this Agreement at Appendix 5.

"**Health Facility**" means the health facility of not more than 2,550sqm to be provided pursuant to the Permissions and any further agreement reached pursuant to Schedule 1, Part 2, paragraph 1.

"**Hillingdon Air Quality Contribution**" means the Index Linked sum of £50,000 paid to Hillingdon Council in accordance with Schedule 2, paragraph 2, as a contribution towards the establishment and ongoing maintenance of an air quality monitoring station in Hayes, to ensure that any air quality effects of the Development on Hillingdon Council's administrative area are monitored.

"**Hillingdon Council**" means the London Borough of Hillingdon, of Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW.

"**Hillingdon Education Contribution**" means the Index Linked sum of £821,118 paid to Hillingdon Council in accordance with Schedule 2, paragraph 1 towards ensuring that sufficient school places are available at appropriate educational facilities maintained by Hillingdon Council for children of secondary school age to accommodate demand resulting from the Development.

"**Hillingdon Permission**" means planning permission granted by the GLA in respect of the Application made to Hillingdon Council (under reference 54814/APP/2009/430) in the form of the model (draft) decision notice attached to this Agreement at Appendix 3.

"**Homes and Communities Agency**" means the Homes and Communities Agency established pursuant to the Housing and Regeneration Act 2008 or such successor body which has the power to regulate Affordable Housing Providers.

"**Implementation**" means commencement of development pursuant to either of the Permissions by the carrying out of a "material operation" (as defined in section 56(4)(a)-(d) of the 1990 Act) save that for the purposes of this Agreement the term shall not include works of demolition, remediation, surveys, site clearance, works of archaeological or ground investigation, the erection of fencing or hoardings, the provision of security measures or lighting, the erection of temporary buildings or structures associated with the Development, the laying removal or diversion of services, the provision of construction compounds, or piling works (and in this Agreement "Implement" and "Implemented" shall be construed accordingly).

"**Index Linked**" means linked to the Relevant Index in accordance with Clause 15, and "Indexation" shall be construed accordingly.

"**Intermediate Units**" means housing to rent or purchase at a discount to open market values and made available to households who cannot afford equivalent housing on the open market.

"**Land**" means the land shown edged red on plan '406 - Southall' at Appendix 1, comprising together the Developer's and Owner's freehold interests within the Application Site (registered at HM Land Registry under title numbers: AGL92706 and AGL132417 in respect of the Developer, and (part of) AGL92701 in respect of the Owner).

"**Metropolitan Police Authority**" means the authority responsible for the review of police services in London, its successor body, or such other body as may be agreed between Ealing Council and the Developer.

"**Minet Country Park Bridge**" means the bridge shown marked '6B' on the 'Site plan' at Appendix 1 approved pursuant to the Permissions.

"**Minet Country Park Contribution**" means the Index Linked sum of £1,840,000 paid to Hillingdon Council in accordance with Schedule 2, paragraph 3 for the provision of improvements to Minet Country Park carried out having regard to the scope attached to this Agreement at Appendix 4 (unless otherwise agreed between the Developer and Hillingdon Council), required due to the increase in use of Minet Country Park as a result of the Development.

"**Minimum Qualifying Term**" means the Index Linked sum of £~~2~~236 per square foot of Affordable Housing Unit, being a term of the response from an Affordable Housing Provider to a tender made under Schedule 1, Part 7, paragraph 4(a).

"**Necessary Consent**" means a consent, permission, licence or right obtainable from the Parties, Network Rail or any other third party, necessary (together with other such consents) to procure the delivery and completion of the South Road Railway Bridge Widening Scheme, and "**Necessary Consents**" means all such consents which together are necessary and sufficient for the delivery and completion of that scheme.

"**Neighbourhood Policing Facility**" means the neighbourhood policing facility of 200sqm or such lesser amount as may be agreed with the Developer to be provided within the Retail Centre pursuant to Schedule 1, Part 2, paragraph 2, and to include a public contact counter.

"**Network Rail**" means Network Rail Limited (company number 04402220) of Kings Place, 90 York Way, London, N1 9AG, or any successor to its functions.

"**Occupation**" means occupation for the purposes of the Development but does not include occupation for the purposes of construction, fitting out, marketing, staff training, or site security (and "**Occupy**", "**Occupier**", and "**Occupying**" shall be construed accordingly).

"**Onerous Term**" means any term or contractual provision required in return for the granting of a Necessary Consent which requires the payment or provision of consideration by the Developer of 10% or more in excess of Open Market Value.

"**Open Market Value**" means the estimated value for obtaining any consent:

(a) based on existing use value,

(b) on the date of valuation between a willing buyer and a willing seller in an arm's length transaction,

(c) after proper marketing wherein the parties had acted knowledgeably, prudently and without compulsion,

(d) in the absence of the Permissions and any other permission for similar development of the Application Site, and

(e) disregarding any value attributable to any share of development value associated with the Permissions, and, for the avoidance of doubt, for the purposes of this Agreement, 'Open Market Value' should disregard (amongst other things) any value or uplift which is attributable to what is known as ransom value,

assuming that the buyer is granted all rights in that consent necessary for the provision of the relevant matters the subject of that consent.

"**Parking Contribution**" means the Index Linked sum of £100,000 paid to Ealing Council in accordance with Schedule 1, Part 5, paragraph 3 towards the provision of car parking in Southall town centre (the extent of which is as defined in Ealing Council's Unitary Development Plan (2004)) required due to the expansion of Southall town centre proposed as part of the Development.

"**Parties**" means the parties to this Agreement.

"**PCT**" means Ealing Primary Care Trust, or such other public body that will manage and/or operate the Health Facility.

"**Permissions**" means the Ealing Permission and the Hillingdon Permission.

"**Permitted Closure**" means temporary closure of any Public Access Area or any part thereof in the following circumstances:

(a) Subject to (c) below, only with the prior written approval of Ealing Council where Ealing Council (having previously been provided with all detailed information, together with any further information as may be required, and no less than five working days in advance of any such temporary closure) is satisfied that such temporary closure is necessary in the interests of public safety or is required for the purposes of essential maintenance, repair, cleansing, renewal or resurfacing works within the Public Access Area in question or for any other reason or proper purpose;

(b) Subject to (c) below, only with the prior written approval of Ealing Council where Ealing Council (having previously been provided with all detailed information, together with any further information as may be required, and no less than five working days in advance of any such temporary closure) is satisfied that such temporary closure is necessary for the purposes of carrying out works for construction (including development or redevelopment or for the placing or replacing of underground services) within the Development or adjoining land;

(c) in the circumstances referred to in (a) and (b) above but only for minor and urgent works where the proposed temporary closure is for 48 hours or less, Ealing Council's prior approval is not required, provided that:

(i) there shall be no more than 1 such temporary closure in relation to the same part of the Public Access Area in any consecutive 8 week period,

(ii) if the effect of any first temporary closure in the said 8 week period is to prevent any access whatsoever to the Public Access Area in question then there shall be no further closure of any part of that Public Access Area within the said 8 week period without the prior approval of Ealing Council (as per (a) and (b) above), and

(iii) Ealing Council are notified of the temporary closure in writing thereafter without delay;

(d) temporary closure in the case of genuine emergency only and where such closure is necessary in the interests of public safety or otherwise for reasons of public safety, and where Ealing Council has been notified in writing thereafter without delay;

(e) closure for a maximum of one day per year to assert rights of proprietorship preventing public rights from coming into being by means of prescription or other process of law; and

(f) closure in certain areas at dusk only if considered to be necessary in the interests of security and not without the prior written approval of Ealing Council.

"**Phase**" means a phase of the Development as specified in the construction phasing programme to be approved pursuant to condition 11 of the Ealing Permission.

"**Private Residential Units**" means Dwellings to be constructed pursuant to the Development that are not Affordable Housing Units.

"**Public Access Area**" means any of the areas within the Development identified as such pursuant to Schedule 1, Part 6, paragraph 1.

"**Public Realm Contribution**" means the Index Linked sum of £596,000 paid to Ealing Council in accordance with Schedule 1, Part 6, paragraph 2(c), towards the improvement of public realm on and immediately adjacent to South Road between Uxbridge Road in the north and Beaconsfield Road in the south.

"**Pump Lane Access Road**" means the road shown marked '18' on the 'Site plan' at Appendix 1 approved pursuant to the Permissions.

"**Relevant Index**" means the following specified indices, or in the event that the index in question ceases to be published, or if the basis on which it is calculated is altered to a material extent, such other index which most closely resembles it to be agreed between the Parties:

(a) in the case of the Allotment Contribution, the Burial Ground Contribution, the Employment and Training Contribution, the Minet Country Park Contribution, the Minimum Qualifying Term, the Public Realm Contribution, the Shopmobility Contribution, the Spencer Street Open Space Contribution, the Street Tree Contribution, and the Swimming Pool Contribution, the Consumer Price Index, and

(b) in the case of the Bus Services Contribution, the CPZ Review Contribution, the Ealing Air Quality Strategy Development Contribution, the Ealing Air

Quality Strategy Implementation and Monitoring Contribution, the Ealing Education Contribution, the Hillingdon Air Quality Contribution, the Hillingdon Education Contribution, the Parking Contribution, the Signage Contribution, the Supplementary Mitigation Measures, and the Transport Management Fund, the Retail Price Index.

"**Residential Floorspace**" means the combined floorspace of the Dwellings, calculated by gross internal area.

"**Residential Phase**" means a Phase which contains Dwellings.

"**Residential Travel Plan**" means a travel plan in relation to the relevant Dwellings, such travel plan to be prepared in accordance with the Framework Travel Plan, and Schedule 3, Part 5, paragraph 3.

"**Retail Centre**" means the retail floorspace (of up to 20,050 square metres) in the locations shown marked '22' and '23' on the 'Site plan' at Appendix 1 provided pursuant to the Permissions.

"**Retail Price Index**" means the All Items Retail Prices Index as published by the Office of National Statistics to include any applicable local or regional weighting, or, if that index ceases to be published, such alternative index which it most closely resembles agreed between the Parties.

"**School**" means the two form entry primary school and nursery of not more than 3,450 sqm gross external area to be provided pursuant to the Permissions, providing a specification and number of child spaces having regard to the document at Appendix 7 (or such successor document as may be agreed by Ealing Council and the Developer), and provided pursuant to Schedule 1, Part 1, paragraph 1.

"**School Travel Plan**" means a travel plan in relation to the School, such plan to be prepared in accordance with the Framework Travel Plan, and Schedule 3, Part 5, paragraph 4.

"**Serviced Land**" means accessible by foot and / or road, and serviced with all mains services of electricity, gas, telephone, potable water, and foul and surface water drainage.

"**Shopmobility Contribution**" means the Index Linked sum of £360,000 paid to Ealing Council in accordance with Schedule 1, Part 2, paragraph 4 towards the establishment and operation of a scheme for the improvement and easing of access to the Retail Centre within the Development.

"**Signage Contribution**" means the Index Linked sum of £50,000 paid to Ealing Council in accordance with Schedule 1, Part 5, paragraph 2, towards the provision of signage in Southall town centre (the extent of which is as defined in Ealing Council's Unitary Development Plan (2004)), required as a result of the increase of traffic due to the Development and the need to provide clarity of wayfinding to and from the Development and Southall town centre.

"**Social Rented Units**" means Affordable Housing Units where the initial rent will be no higher than the Target Rent.

"**South Road Bus Priority Scheme**" means a bus priority scheme for South Road between Beaconsfield Road in the south and Uxbridge Road in the north, shown indicatively on plan 52212/B/49 at Appendix 1. The works set out in the scheme

approved pursuant to the conditions attached to the Ealing Permission will be funded by the Transport Management Fund pursuant to Schedule 3, Part 1, paragraph 3(b).

"**South Road Corridor Study**" means a study to be submitted to and approved by Ealing Council and TfL pursuant to Schedule 3, Part 2, paragraph 2, covering the area hatched blue on plan 52212/A/79 at Appendix 1, and in accordance with the South Road Corridor Study Scope.

**"South Road Corridor Study Scope"** means the document attached to this Agreement at Appendix 6.

"**South Road Railway Bridge Task Force**" means a group convened by the Developer in accordance with Schedule 3, Part 3, paragraph 4, to assist in, discuss and pursue the delivery of the South Road Railway Bridge Widening Scheme.

"**South Road Railway Bridge Widening Scheme**" means the railway bridge widening scheme shown on plan 52212/B/50 at Appendix 1 approved pursuant to the Permissions to mitigate traffic congestion caused by the Development.

"**Spencer Street Open Space Contribution**" means the Index Linked sum of £60,000 paid to Ealing Council in accordance with Schedule 1, Part 6, paragraph 2(a) towards the refurbishment and provision of additional play equipment on the Spencer Street open space to the south of the Land adjacent to the Dudley Street underpass, required to improve existing open space facilities in the vicinity of the Development.

"**Spine Road**" means the road running through the Development shown marked 'Spine Road' on the 'Site plan' at Appendix 1.

"**Springfield Road Pedestrian and Cycle Bridge**" means the bridge shown marked '6A' on the 'Site plan' at Appendix 1 approved pursuant to the Permissions.

"**Street Tree Contribution**" means the Index Linked sum of £262,000 paid to Ealing Council in accordance with Schedule 1, Part 6, paragraph 2(b) towards the maintenance of street trees on and adjacent to the Spine Road, required to ensure the ongoing maintenance of an important landscape feature within the Development.

"**Substantially Completed**" means the time at which one or other of the Councils has issued a certificate of practical completion in respect of any relevant highways works, and the works are open and available for public use, and "**Substantial Completion**" shall be construed accordingly.

"**Supplementary Mitigation Measures**" means additional (interim or permanent) transport measures to be approved by the Transport Review Group and funded from the Transport Management Fund (pursuant to Schedule 3, Part 1, paragraph 3(d)) as being necessary to be undertaken to mitigate the effects of the Development on the transport network in the vicinity of the Development.

"**Swimming Pool Contribution**" means the Index Linked sum of £260 per Dwelling to be paid to Ealing Council in accordance with Schedule 1, Part 2, paragraph 3 towards funding the provision of or improvement to a swimming pool in the vicinity of the Development to meet the needs of occupiers of the Development.

"**Target Rent**" means the rent to be set by the Affordable Housing Provider in accordance with the formula for target rents set by the Homes and Communities Agency for properties of that size in that location or (in the event that the Homes and Communities Agency ceases to specify target rents) rent assessed according to the nearest equivalent measure of assessment.

"**Termination Rights**" means any term or contractual provision of a consent sought and or completed for the provision of the South Road Railway Bridge Widening Scheme which purports to reserve to the party consenting with the Developer 'step-in' rights, or a 'stop notice' request, or other form of contractual termination or revocation, with the effect that the consenting party could permanently prevent the Developer from exercising or continuing to exercise the rights conferred by that consent.

"**Transport Co-ordinator**" means the person employed by the Developer in accordance with Schedule 3, Part 1, and Schedule 3, Part 3, paragraph 4.

"**Transport Management Fund**" means:

(a) the Index Linked sum of £3,550,000 paid to Ealing Council in accordance with Schedule 1, Part 5, paragraph 1, of which £550,000 (Index Linked) will be used for Supplementary Mitigation Measures only unless otherwise agreed and notified in writing to the Transport Review Group by the Councils and TfL pursuant to Schedule 3, Part 1, paragraph 3(f), and

(b) any part of the Bus Services Contribution or the Alternative Mitigation Measures Commuted Sum paid into the Transport Management Fund pursuant to Schedule 3, Part 4, paragraph 3 and/or Schedule 4 paragraph 6(c),

which sum or sums shall be applied in accordance with the recommendations of the Transport Review Group only, and used for the purposes set out in Schedule 3, Part 1 paragraphs 3(b) and 3(d) only.

"**Transport Review Group**" means a group formed having regard to the provisions at Schedule 3, Part 1, to convene and discuss the need for traffic management measures, travel plan measures, bus services, and bus priority measures related to the impacts of the Development on the highway network in the vicinity of the Development.

"**Travel Plan Manager**" means the person employed by the Developer in accordance with Schedule 3, Part 5, paragraph 8.

"**Working Day(s)**" means Mondays to Fridays other than statutory bank holidays on which clearing banks in England are open for the transaction of ordinary business.

"**Workplace Travel Plan**" means a travel plan to be prepared for any building provided pursuant to the Permissions over 1,000sqm for use within Classes A1, A2, A3, A4, A5, B1, or C1 such plan to be prepared in accordance with the Framework Travel Plan, and Schedule 3, Part 5, paragraph 2.

3.2 References in this Agreement to "the Developer" and "the Owner" shall include their respective successors in title to the Land and their assigns.

3.3 References in this Agreement to "the GLA" and "the Councils" shall include any successor to their respective functions as local planning authorities.

3.4 References in this Agreement to "TfL" shall include any successor to its statutory functions.

3.5 References in this Agreement to any statutes or statutory instruments include any statute or statutory instrument amending, extending, consolidating or replacing them

respectively from time to time in force and references to a statute include statutory instruments and regulations made pursuant to it.

3.6 The clause headings and contents list in this Agreement are for convenience only and do not form part of the Agreement.

3.7 References to clauses paragraphs and schedules shall (unless the context otherwise requires) be references to clauses paragraphs and schedules in this Agreement.

3.8 References to the singular shall include the plural and vice versa.

3.9 References to more than one party undertaking an obligation can be enforced against all of them jointly and severally unless there is an express provision otherwise.

## 4 CONDITIONALITY

The obligations in this Agreement are conditional upon:

4.1 save for the covenant in clause 10 which shall be unconditional from the date of this Agreement, the grant of the Permissions; and

4.2 save for the covenants in Schedule 1 Part 4 paragraph 2(a), Schedule 3 Part 2 paragraph 1, Schedule 3 Part 3 paragraph 4(a)(i), and Schedule 3 Part 5 paragraph 8 which shall be unconditional from the date of the grant of the Permissions, Implementation by the Developer or a person authorised by it.

## 5 DEVELOPER AND OWNER'S COVENANTS

The Developer and, to the extent set out in Clause 2.3 only, the Owner **COVENANT:**

5.1 with the GLA in relation to the covenants at Schedule 1, Schedule 2, and Schedule 3;

5.2 with Ealing Council in relation to the covenants at Schedule 1 and Schedule 3;

5.3 with Hillingdon Council in relation to the covenants at Schedule 2, Schedule 3 Part 1, and Schedule 3 Part 2 paragraph 3; and

5.4 with TfL in relation to the covenants at Schedule 3.

## 6 OTHER PARTIES' COVENANTS

The GLA, the Councils, and TfL **COVENANT** with the Developer and the Owner that they will observe and perform the covenants on their respective parts contained in Schedule 4.

## 7 RELEASE AND LAPSE

7.1 The parties agree that the Developer and/or the Owner shall not be liable for a breach of any of their obligations under this Agreement or obligations relating to any part of the Land after they shall have parted with all of their respective interests in the Land or the part in respect of which the breach arises (as the case may be) save in either case for antecedent breaches.

7.2 The Developer and/or the Owner shall, upon fulfilling any particular covenant within this Agreement, and upon receipt of written confirmation from the relevant enforcing Party, be released from that covenant.

7.3 It is further agreed that this Agreement shall lapse and be of no further effect if:

7.3.1 either of the Permissions shall lapse without having been Implemented; or

7.3.2 the Permissions shall be varied or revoked otherwise than with the consent of the Developer; or

7.3.3 either of the Permissions are quashed following a successful legal challenge, in which case any money paid to the GLA, the Councils, and/or TfL pursuant to an obligation in this Agreement shall forthwith be returned to the paying Party, save for:

(a) moneys paid pursuant to clause 10, and

(b) any moneys which have at that point been allocated for use and/or expended by the receiving Party.

8 **LOCAL LAND CHARGE**

8.1 This Agreement is a local land charge and shall be registered as such by the Councils.

8.2 Upon the satisfaction of the terms of this Agreement or of a certain term or terms, the relevant Party with the responsibility of discharging the obligations in question shall at the request of the Developer and/or the Owner procure as soon as is reasonably practicable that a note is entered in the register of local land charges confirming that those obligations have been complied with.

8.3 As soon as is reasonably practicable after receipt of a written request from the Developer and/or the Owner, or a person on one or both of their behalf, the relevant Party (who is the recipient of money or the benefit of a covenant pursuant to this Agreement) agrees that it will confirm in writing the extent of the obligations which the Developer and/or the Owner has discharged at the date of the request.

9 **SEVERABILITY**

It is agreed that if any part of this Agreement shall be declared unlawful or invalid (for whatever reason) by a court of competent jurisdiction then (to the extent possible) the offending provisions will be severed from the Agreement and the remainder of this Agreement shall continue in full force and effect.

10 **LEGAL COSTS**

The Developer **COVENANTS** with the GLA, the Councils, and TfL, that it will on or before the date of this Agreement pay their outstanding legal costs in the following sums:

(a) in respect of the GLA: £9,900,

(b) in respect of Ealing Council: £6,500

(c) in respect of Hillingdon Council: £4,024 and

(d) in respect of TfL: £43,233.50

11 **CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999**

Notwithstanding the provisions of the Contracts (Rights of Third Parties) Act 1999 no part of this Agreement shall be enforceable by a third party who is not a party to the

Agreement and for the avoidance of any doubt the terms of the Agreement may be varied by agreement between the parties without the consent of any third party being required.

12 **NOTICES**

Any notices required to be served by one party on another under this Agreement shall be served by first class pre-paid post, by hand or by facsimile transmission in the following manner:

12.1 on the GLA at the address shown above marked "For the attention of the Assistant Director of Planning [or such other similar post that may be created in the future], Greater London Authority, City Hall, The Queen's Walk, London SE1 2AA";

12.2 on the Developer at the address shown above marked "For the attention of the Head of Sales and Lettings", and additionally "For the attention of General Counsel, National Grid Properties Limited";

12.3 on the Owner at the address shown above marked "For the attention of General Counsel, National Grid Properties Limited";

12.4 on Ealing Council at the address shown above marked "For the attention of the Head of Planning Service" and bearing reference "P/2008/3981";

12.5 on Hillingdon Council at the address shown above marked "For the attention of The Director of Planning Environment and Community Services" and bearing reference "54814/APP/2009/430"; and

12.6 on TfL at the address shown above marked "For the attention of Head of Land Use Planning" and bearing reference "Southall Gasworks";

save that any of the parties may by written notice notify the other parties of an alternative address and/or reference for the service of subsequent written notices in which case those details shall be substituted for the details set out above in this Clause.

13 **VAT**

All sums referred to in this Agreement are (unless otherwise stated) exclusive of Value Added Tax and if Value Added Tax is properly payable on any such sums at the date they fall due then it will be paid by the Developer in addition to the principal sum **SAVE THAT:**

13.1 the Developer and/or the Owner shall only be required to pay Value Added Tax to the extent that the recipient of the payment is unable legally to do so itself in relation to the sum or payment in question; and

13.2 the Developer and/or the Owner shall not be required to pay Value Added Tax unless appropriate invoices addressed to the Developer and/or the Owner are provided to the Developer and/or the Owner by the recipient of the payment prior to the payment falling due and appropriate receipts for the payment are provided afterwards.

14 **DISPUTE RESOLUTION**

14.1 In the event of any dispute or difference arising between two or more of the Parties arising out of this Agreement such dispute or difference may be referred to an

expert, being an independent and fit person holding professional qualifications appropriate to the subject matter of the dispute, to be appointed (in the absence of agreement) by the President (or equivalent person) for the time being of the professional body chiefly relevant in England to such qualifications.

14.2 In the absence of agreement between the parties to the dispute or difference as to the professional qualifications of the expert to be appointed pursuant to Clause 14.1, or as to the appropriate professional body, within ten Working Days after any Party has given to the other parties to the dispute or difference a written request to concur in the professional qualifications of the expert to be appointed pursuant to Clause 14.1 then the question of the appropriate qualifications or professional body shall be referred to a solicitor to be appointed by the President for the time being of the Law Society of England and Wales on the application of any party to the dispute or difference. Such solicitor shall act as an expert and his decision as to the professional qualifications of such person, or as to the appropriate professional body, shall be final and binding on the parties to the dispute or difference and his costs shall be payable by the parties to the dispute in such proportion as he shall determine and failing such determination shall be borne by the parties to the dispute or difference in equal shares.

14.3 The expert shall act as an expert and not as an arbitrator.

14.4 The expert shall be appointed subject to an express requirement that he reaches his decision and communicates it to the parties within the minimum practicable timescale allowing for the nature and complexity of the dispute and in any event not more than forty six Working Days from the date of his appointment to act.

14.5 The expert shall be required to give notice to each of the said parties inviting each of them to submit to him within ten Working Days of his appointment written submissions and supporting material and shall afford to each of the said parties an opportunity to make counter submissions within a further fifteen Working Days in respect of any such submission and material and the expert's decision shall be given in writing within twenty Working Days from receipt of any counter submissions or in the event that there are no counter submissions within twenty-one Working Days of receipt of the written submissions and supporting material with reasons.

14.6 If a referral to an expert is made pursuant to this Clause arising out of any matter in:

14.6.1 Schedule 3, Part 1 and Part 5

14.6.2 Schedule 3, Part 2 in respect of a dispute which arises out of the detailed design of improvements to the highway, the timing or extent of physical works to the highway, or any matter likely (in the reasonable opinion of the Councils or TfL as highways authorities) to impact on the operation of safety of the highway network,

14.6.3 Schedule 3, Part 3, other than paragraph 3,

then, after the recommendation of the expert has been provided, the relevant Party or parties agree to retake any decision previously the subject of the dispute, and to take the recommendation of the expert into account in that ensuing decision.

14.7 For the avoidance of doubt, it is agreed that any recommendation made by the expert pursuant to Clause 14.6 shall not be binding on the Parties, and, in those circumstances, that ultimate discretion remains with the determining Party as to the decision to be retaken.

14.8 If a referral is made to an expert pursuant to this Clause 14 in respect of any matter - other than those set out in Clause 14.6 - in this Agreement (for the avoidance of doubt, including Schedule 3, Part 3, paragraph 3), then the determination of the expert shall be final and binding on the parties to the dispute.

14.9 The expert may award the costs of the dispute resolution in such proportions as he sees fit but in the absence of an express award to this effect the costs of the dispute resolution shall be borne by the parties to the dispute in equal shares.

## 15 INDEXATION

Where any amount in this Agreement is to be Index Linked, then the calculation of the application of the Relevant Index to that amount shall be in accordance with following the formula:

Amount after indexation = A x B/C

Where:-

A = the amount to be varied

B = the Relevant Index at the date at which the amount is due to be paid

C = the Relevant Index at the date of this Agreement

B divided by C is equal to or greater than 1

## 16 CONTRIBUTIONS

16.1 In respect of any payment of any Contribution, whether by instalment or in total sum, the paying Party may notify the receiving Party of their intention to make the relevant payment no earlier than 6 weeks and no later than 4 weeks prior to when that payment falls due, specifying the date on which the paying Party expects the payment to be made or to fall due.

16.2 If, on notification pursuant to Clause 16.1, and no later than 2 weeks prior to the payment falling due, the receiving party considers that the relevant payment is not at that time necessary, or cannot be spent within a reasonable timescale, then the receiving party shall notify the paying Party accordingly, specifying either some later date when the payment should be made, or that the payment should not be made until further notice is given by the receiving party to the paying Party.

16.3 If any deferment, notified to the paying Party in accordance with Clause 16.2, is to the effect that payment should not be made until further notice is given, that further notice must specify a period of at least 4 weeks (beginning with the date of the further notice) for the deferred payment to be made.

## 17 THE OWNER

17.1 All covenants expressed in the Schedules to this Agreement as being made by or in favour of the Developer are, in so far as they directly relate to the Owner's freehold interest in the Land, to be construed as being made by or in favour of both the Developer and the Owner, and are enforceable in accordance with the provisions of Clause 2.

17.2 The Developer agrees to pay and to fully and effectually indemnify the Owner from time to time on demand by the Owner from and against all liability of whatever kind

that may arise as a result of the Developer failing to observe and perform its covenants and obligations under or in respect of this Agreement. For the avoidance of doubt, this covenant shall also bind successors in title to the Developer in respect of its interest, or, if part only has been transferred, those covenants which relate to that part.

18 **ONEROUS TERMS**

The Parties agree that, in respect of the definition in this Agreement of 'Onerous Term', an agreement by the Developer to pay anything less than 10% in excess of Open Market Value is only an agreement in so far as it relates to the Developer's ability, pursuant to the terms of this Agreement, to deliver the South Road Railway Bridge Widening Scheme (as provided in Schedule 3, Part 3, paragraph 2(a)); it is agreed between the Parties that it is not to be construed as acceptance to any other matter, in particular in relation to compensation under the compensation code or otherwise, or to the actual market value of any Necessary Consent.

**This Agreement has been executed as a deed and delivered on the date stated at the beginning of this deed**

## Schedule 1
## Covenants with the GLA and Ealing Council

The Developer covenants with the GLA and Ealing Council as follows:

### Part 1
### Education

1 **School**

(a) Subject to paragraph 1(c) below, not to Occupy more than 300 Dwellings until it has offered and for 12 months negotiated an agreement for lease with Ealing Council for the School.

(b) The agreement for lease referred to in paragraph 1(a) shall make provision for the following terms:

(i) the size of the space to be leased (in accordance with the Permissions),

(ii) the use of the School will be restricted to an education facility within Class D1,

(iii) the term will be 999 years,

(iv) rent will be a peppercorn,

(v) service charge (fairly and reasonably related to the property to be the subject of the lease, and the use thereof) and repairs,

(vi) the Developer to provide the fit out of the School,

(vii) the cost of the construction and provision of the School subject to the terms of the lease, including the value of necessary rights of access (to be agreed solely for the purposes of making provision for the future potential for a payment in lieu referred to in paragraph 1(c) below), and

(viii) if the lease has not been completed within 2 years of the completion of the agreement for lease, then neither party shall be compelled to enter into it.

(c) If no agreement between the Developer and Ealing Council has been reached, either:

(i) after 12 months' negotiation of the agreement for lease under paragraph 1(a), or

(ii) in relation to the lease, 2 years after completion of the agreement for lease,

then, at the Developer or Ealing Council's election, a payment in lieu of the School will be made, calculated in accordance with paragraph 1(d) below, and paid in accordance with paragraph 1(e).

(d) The payment in lieu referred to in paragraph 1(c) above will be:

(i) if the Developer proposes to retain the freehold of the School land and to allow the School to be operated by the Council within the Development subject to a lease, the value agreed under paragraph 1(b)(vii) above, or

(ii) if the Developer and the Council agree that the School should not be provided on the Land, and the Council intend to improve a school on land already in their freehold ownership, the value agreed under paragraph 1(b)(vii) above, or

(iii) if the Developer and the Council agree that the School should not be provided on the Land, and the Council intend to provide a school on land not already in their freehold ownership, the value agreed under paragraph 1(b)(vii) above plus the value of the freehold interest of that part of the Land set aside pursuant to the Permissions for the School, or

(iv) if the Developer proposes to dispose of the freehold of that part of the Land to the Council to deliver the School pursuant to the Permissions, the value agreed under paragraph 1(b)(vii) above plus £1 in consideration for the freehold of that part of the Land, or

(v) in any other case, the value agreed under paragraph 1(b)(vii) above; and

(vi) in the absence of agreement either pursuant to paragraph 1(b)(vii) or within 28 Working Days of an election by either party pursuant to paragraph 1(c), the value in question will, at either parties' instigation, be determined pursuant to Clause 14.

(e) If either party elects pursuant to paragraph 1(c), then the Developer will pay to Ealing Council the contribution determined by paragraph 1(d) within 28 Working Days of that determination.

(f) Without prejudice to Clause 11, at any time prior to:

(i) a lease being completed for the School, or

(ii) payment being made pursuant to paragraph 1(e),

Ealing Council may specify another provider of schools with whom the Developer should deal in relation to the covenants in this paragraph.

2 **Education Contributions**

(a) To calculate the relevant part of the Ealing Education Contribution payable in respect of a Residential Phase on approval of all reserved matters for that Phase.

(b) Not to Occupy more than 50% of the Dwellings in a Residential Phase until the relevant amount of the Ealing Education Contribution for that Phase calculated under paragraph 2(a) above has been paid to Ealing Council.

(c) To include with any payment made pursuant to paragraph 2(b) a running total of the amount of the Ealing Education Contribution at that time paid.

## Part 2
## Community Facilities

1 **Health Facility**

(a) Subject to paragraph 1(b) below, not to Occupy more than 300 Dwellings until it has:

(i) negotiated using reasonable endeavours with the PCT as to the specification of the Health Facility for a period of 12 months, and

(ii) if those negotiations are successful, completed with the PCT an agreement for lease documenting that:

(A) the size of the space to be leased (in accordance with the Permissions),

(B) the use of the Health Facility will be restricted to medical and health services falling within Class D1,

(C) the term will be 25 years,

(D) the Developer will provide the Health Facility to shell and core state as agreed, and pursuant to the Permissions,

(E) the rent payable by the PCT will be the market rent at the time of the completion of the lease subject to annual review and in the absence of agreement as to the review determined by the District Valuer,

(F) service costs (fairly and reasonably related to the property to be the subject of the lease, and the use thereof) and repairs will be paid for by the PCT,

(G) the PCT will take a lease of the Health Facility when it is completed to the agreed state,

and other terms, to be completed within the same 12 month time period as above.

(b) If agreement has not been reached within 12 months pursuant to paragraph 1(a), then, unless the circumstances at paragraph 1(c) occur, the covenants at paragraph 1(a) shall no longer be of any effect.

(c) The circumstances referred to in paragraph 1(b) above are that a satisfactory written justification has been provided to the Developer and Ealing Council within the same 12 month period as to why the Health Facility should not be provided pursuant to the Permissions, but instead some other provision of general health practitioner services should be allowed for within 500m of the Application Site (or such greater distance as may be agreed between Ealing Council and the Developer if considered necessary).

(d) If a justification, as detailed in paragraph 1(c) above, is provided, and both Ealing Council and the Developer agree that it is satisfactory, then the Developer shall either, at its own election:

(i) pay to the PCT a financial contribution towards the provision of off-site health facilities as specified by the PCT which must be within 500m of the Application Site (or such greater distance as may be agreed between Ealing Council and

the Developer if considered necessary) and include the provision of general practitioner services, such contribution being equal to, or, if the specified requirements of the PCT are less - such lesser sum, than the cost (calculated as at the date of this Agreement) of providing the Health Facility; or

(ii) if, in their justification provided under paragraph 1(c) above, the PCT specify land within 500m of the Application Site (or such greater distance as may be agreed between Ealing Council and the Developer if considered necessary) which is said by the PCT to represent an opportunity for replacement health facilities (including general practitioner services) to those proposed to be provided pursuant to the Permissions, then the provisions of paragraph 1(a) above shall apply to that off-site land, subject to:

(A) the Developer being able to acquire a relevant interest in that land subject to reasonable commercial terms which includes the ability to create under-leasehold interests, and with no restriction which would prevent the carrying on of general health practitioner services to members of the public, and

(B) the cost of acquiring the relevant interest, and of providing the replacement health facility on the terms that may be agreed with the PCT pursuant to paragraph 1(a), shall not exceed the cost of providing the Health Facility, and

(C) if agreement has not been reached within 12 months of negotiation for an agreement for lease for the off-site land under paragraph 1(a), then the covenants in this paragraph 1 shall no longer be of any effect.

(e) Without prejudice to Clause 11, at any time prior to a lease being completed for the Health Facility, Ealing Council may specify another provider of health facilities with whom the Developer should deal in relation to the covenants in this paragraph 1.

2 **Neighbourhood Policing Facility**

(a) Not to Implement the Retail Centre until it has negotiated with the Metropolitan Police Authority as to the location of the Neighbourhood Policing Facility for a period of 9 months; and

(b) Subject to paragraph 2(d) not to Occupy the Retail Centre until it has:

(i) negotiated using reasonable endeavours with the Metropolitan Police Authority as to the size and specification of the Neighbourhood Policing Facility for a period of 12 months, and

(ii) if those negotiations are successful, completed with the Metropolitan Police Authority an agreement for lease documenting that:

(A) the Developer will provide the Neighbourhood Policing Facility to shell and core state as agreed, and pursuant to the Permissions,

(B) the rent payable by the Metropolitan Police Authority shall be a peppercorn

(C) service costs and repairs will be paid by the Developer

(D) the Metropolitan Police Authority will take a lease of the Neighbourhood Policing Facility when it is completed to the agreed state,

and other terms, to be completed within the same 12 month time period as above, and

(iii) provided (including construction of buildings to shell state) the Neighbourhood Policing Facility pursuant to any agreement entered into under paragraph 2(b)(ii) above, and

(iv) transferred a leasehold interest of the Neighbourhood Policing Facility to the Metropolitan Police Authority.

(c) If an agreement as to the location of the Neighbourhood Policing Facility has not been reached after 9 months of negotiation under paragraph 2(a), then the covenants of paragraph 2(b) shall no longer be of any effect.

(d) If an agreement has not been entered into pursuant to paragraph 2(b)(ii) either:

(i) after 12 months of negotiation under paragraph 2(b)(i) above, or

(ii) by the time the Developer is to procure a design team to undertake the detailed design of the Retail Centre, whichever is the later,

the covenants at paragraphs 2(b)(ii) - 2(b)(iv) shall no longer be of any effect.

3 **Swimming Pool**

(a) To calculate the relevant part of the Swimming Pool Contribution payable in respect of a Residential Phase on approval for all reserved matters for that Phase.

(b) Not to Occupy more than 50% of the Dwellings in a Residential Phase until the relevant amount of the Swimming Pool Contribution for that Phase calculated under paragraph 3(a) above has been paid to Ealing Council.

(c) To include with any payment made pursuant to paragraph 3(b) a running total of the amount of the Swimming Pool Contribution at that time paid.

4 **Shopmobility**

(a) Not to Occupy more than 10,000 square metres of the Retail Centre until 50% of the Shopmobility Contribution has been paid to Ealing Council.

(b) The remaining 50% of the Shopmobility Contribution shall be paid to Ealing Council either:

(i) prior to completion of the last retail unit provided pursuant to the Development, or

(ii) within 2 years of the payment made pursuant to paragraph 4(a),

whichever is the sooner.

## Part 3
## Local Employment

1 **Employment and Training Contribution**

(a) Within 14 Working Days of Implementation (unless otherwise agreed in writing by Ealing Council), to pay to Ealing Council £226,000 being the first instalment of the Employment and Training Contribution.

(b) Not to Occupy 1,000 Development Units until it has paid to Ealing Council £226,000 being the second instalment of the Employment and Training Contribution.

(c) Not to Occupy 2,500 Development Units until it has paid to Ealing Council £226,000 being the third instalment of the Employment and Training Contribution.

2 **Employment and Training Strategy**

(a) Unless otherwise agreed in writing by Ealing Council, from Implementation until first Occupation, to use reasonable endeavours to achieve via contractors and sub-contractors, as follows:

(i) 100% of vacancies during and post development to be advertised through local agencies agreed by Ealing Council, and to include Jobcentre Plus,

(ii) target of 50% of recruitment across job grades/skills levels being residents within Ealing Council's administrative area with best efforts to meet equalities targets,

(iii) target of the following per £1m of build: 1 apprenticeship, training for 5 employees for a relevant qualification, and 5 adult work-placements,

(iv) provision of training opportunities for any jobs created by the Development,

(v) provision of information, advice and guidance, employability skills training and benefits advice to all residents accessing the support outlined in sub-paragraph 2(a)(iii), and

(vi) commitment to encourage occupiers of the completed site also to meet the requirements outlined above.

(b) To notify the Council from commencement to expiration of the strategy above of a single contact with whom the Council can liaise in relation to the fulfilment of the objectives set out above, notifying also of any change in identity of the relevant contact.

(c) Unless otherwise agreed in writing by Ealing Council, for the duration of the employment strategy – the objectives of which are set out in paragraph 2(a) above, the contact designated by the Developer pursuant to paragraph 2(b) above will either meet with or report in writing to Ealing Council every 6 months as to progress with the paragraph 2(a) objectives.

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## Part 4
## Environmental Improvements

1 **Air Quality**

(a) Not to commence remediation pursuant to the Permissions or otherwise Implement the Development until it has paid the Ealing Air Quality Strategy Development Contribution to Ealing Council.

(b) Not to Occupy more than 200 Dwellings until it has paid £55,000 to Ealing Council, being the first instalment of the Ealing Air Quality Strategy Implementation and Monitoring Contribution.

(c) Two years after payment of the first instalment of the Ealing Air Quality Strategy Implementation and Monitoring Contribution, to pay £145,000 to Ealing Council being the second instalment of that contribution.

(d) Five years after payment of the first instalment of the Ealing Air Quality Strategy Implementation and Monitoring Contribution, to pay £207,000 to Ealing Council being the third instalment of that contribution.

(e) Ten years after payment of the first instalment of the Ealing Air Quality Strategy Implementation and Monitoring Contribution, to pay £207,000 to Ealing Council being the final instalment of that contribution.

2 **Officer Costs**

(a) Prior to a remediation contract being undertaken pursuant to the Development (unless otherwise agreed in writing by Ealing Council), to pay to Ealing Council £25,000, being the first instalment of the Contaminated Land Officer Costs.

(b) One year after the payment made under paragraph 2(a), to pay to Ealing Council £25,000, being the second instalment of the Contaminated Land Officer Costs.

## Part 5
## Transport in Ealing

1 **Transport Management Fund**

(a) Not to Occupy more than:

(i) 500 Development Units until it has paid £200,000 to Ealing Council being the first payment into the Transport Management Fund,

(ii) 800 Development Units until it has paid £1,000,000 to Ealing Council being the second payment into the Transport Management Fund,

(iii) 1,500 Development Units until it has paid £790,000 to Ealing Council being the third payment into the Transport Management Fund,

(iv) 2,500 Development Units until it has paid £780,000 to Ealing Council being the fourth payment into the Transport Management Fund, and

(v) 3,500 Development Units until it has paid £780,000 to Ealing Council being the fifth payment into the Transport Management Fund.

(b) £550,000 of the Transport Management Fund will be set aside and available for use solely for Supplementary Mitigation Measures unless otherwise confirmed pursuant to Schedule 3, Part 1, paragraph 3(f).

2 **Signage and Wayfinding**

Prior to the bringing into use for the general public of the Eastern Access, to pay the Signage Contribution to Ealing Council.

3 **Car Parking**

Not to Occupy more than 10,000 square metres of the Retail Centre until it has paid the Parking Contribution to Ealing Council.

4 **CPZ review**

(a) Not to Occupy more than 500 Development Units until it has paid 50% of the CPZ Review Contribution to Ealing Council.

(b) Not to Occupy more than 1,500 Development Units until the final 50% of the CPZ Review Contribution has been paid to Ealing Council.

## Part 6
## Open Space

1 **Public Access to Open Space**

Where the Developer has provided areas of public realm, or green space, or recreation space and facilities in accordance with the Permissions (and, in particular, in accordance with any strategy approved under condition 8(d) of the Ealing Permission), then, unless otherwise agreed with Ealing Council, the Developer will permit the general public to have access over such areas subject only to Permitted Closures.

2 **Spencer Street, Street Trees, Allotments, Burial Grounds, and Public Realm**

(a) Not to Occupy the Phase immediately to the north west of Spencer Street until it has paid the Spencer Street Open Space Contribution to Ealing Council.

(b) On adoption of the Spine Road by Ealing Council, to pay the Street Tree Contribution to Ealing Council.

(c) Not to Occupy:

(i) any part of the Retail Centre until it has paid 50% of the Public Realm Contribution to Ealing Council,

(ii) more than 10,000 square metres of the Retail Centre until it has paid the remaining 50% of the Public Realm Contribution to Ealing Council,

(iii) 1,500 Dwellings until it has paid the Allotment Contribution to Ealing Council, and

(iv) 3,000 Dwellings until it has paid the Burial Ground Contribution to Ealing Council.

## Part 7
## Affordable Housing

1 **Provision of Affordable Housing**

Subject to paragraph 4 of this Schedule,

(a) the Developer shall provide 30% of the Residential Floorspace as Affordable Housing; and

(b) of the total Affordable Housing provided, 50% shall be Social Rented Units, and 50% shall be Intermediate Units.

2 **Scheme**

(a) Not to submit for tender Affordable Housing Units pursuant to paragraph 4 below until it has submitted to Ealing Council a draft proposed Affordable Housing Scheme for that Phase.

(b) Unless otherwise agreed in writing by Ealing Council, not to Implement in any Residential Phase unless an Affordable Housing Scheme for that Phase has been submitted to and approved by Ealing Council, such scheme to include a statement of the total number of Affordable Housing Units at that time approved.

3 **Delivery**

(a) Subject to paragraph 4 of this Schedule,

(i) not to Occupy more than 30% of the Private Residential Units until binding contracts have been entered into with an Affordable Housing Provider to provide 10% of the Dwellings as Affordable Housing Units to that Affordable Housing Provider,

(ii) not to Occupy more than 50% of the Private Residential Units until 10% of the Dwellings have been provided as Affordable Housing Units, and binding contracts have been entered into with an Affordable Housing Provider to provide a further 10% of the Dwellings as Affordable Housing Units to that Affordable Housing Provider,

(iii) not to Occupy more than 70% of the Private Residential Units until 20% of the Dwellings have been provided as Affordable Housing Units, and binding contracts have been entered into with an Affordable Housing Provider to provide the remaining 10% of the Affordable Housing Units to that Affordable Housing Provider, and

(iv) not to Occupy more than 90% of the Private Residential Units until 30% of the Dwellings have been provided as Affordable Housing Units.

(b) The Affordable Housing Units shall not be Occupied for any purpose other than Affordable Housing.

(c) A binding contract to provide Affordable Housing Units entered into pursuant to this paragraph 3 can either be for the provision of completed units to the Affordable Housing Provider, or for the provision of Serviced Land to the Affordable Housing Provider upon which the Affordable Housing Provider will itself construct the specified number of Affordable Housing Units.

4 **Tender**

(a) Unless otherwise agreed with Ealing Council, prior to submission of any reserved matters applications for a Phase which contains Affordable Housing Units, the Developer shall submit for tender to potential Affordable Housing Providers the Affordable Housing Units for that Phase, both on the basis of:

(i) completed Affordable Housing floorspace in accordance with the Affordable Housing Standards, and

(ii) where possible Serviced Land for the provision of Affordable Housing.

(b) Where no response to a tender under paragraph 4(a)(i) received from a potential Affordable Housing Provider specifies the Minimum Qualifying Term, the Developer shall:

(i) notify Ealing Council accordingly,

(ii) negotiate for a period of 3 months (or such longer period as may be agreed between the Developer and the Affordable Housing Provider in question) using reasonable endeavours with potential Affordable Housing Providers, amending

(A) the tenure split or mix under paragraph 1(b) of this Schedule so as to achieve the Minimum Qualifying Term, or,

(B) if within the same 3 month period the Developer and Affordable Housing Provider agree that the Minimum Qualifying Term cannot be achieved by amending the terms of paragraph 1(b), also amending the overall provision of Affordable Housing under paragraph 1(a) so as to achieve the Minimum Qualifying Term,

informing Ealing Council of the progress and substance of those negotiations, and

(iii) on successful conclusion of the negotiations with the Affordable Housing Provider, to notify Ealing Council of the proposed amended terms.

(c) If Ealing Council:

(i) approve the amended terms as notified under sub-paragraph 4(b)(iii) above, or do not respond to the notification within 4 weeks, then those new terms will govern the delivery of the Affordable Housing Units for the units the subject of the tender; or

(ii) notify the Developer that they disagree with the justification provided, then the Developer, the Affordable Housing Provider, and Ealing Council shall continue to discuss the proposed amended provisions for a further period of at least 2 months, and, at any point after the expiration of that further 2 month period, it shall be open to either the Developer or Ealing Council to refer the matter to dispute resolution pursuant to Clause 14 (involving the Affordable Housing Provider in question where necessary).

5 **Restrictions disapplied**

The restrictions contained in this Schedule affecting the Affordable Housing Units shall not apply to:

(a) any mortgagee or chargee of an owner for the time being of an Affordable Housing Unit or any receiver or manager (including an administrative receiver) appointed pursuant to the Law of Property Act 1925 or otherwise by a party who has provided loan facilities to such owner and who exercises any power of sale or upon any person who is a successor in title to or derives title through or under any such mortgagee, charge, receiver, or manager; or

(b) any owner of an Intermediate Unit where that owner has purchased 100% of the equity in that unit; or

(c) a tenant or owner who has exercised a statutory right to buy or acquire an Affordable Housing Unit; or

(d) the successors in title to the persons described in paragraphs 5(a) to 5(c) of this Part of this Schedule.

6 **Release**

Upon the transfer of completed units or Serviced Land to an Affordable Housing Provider in accordance with this Part of this Schedule, the obligations imposed by this Part of this Schedule in relation to those Affordable Housing Units shall be observed and performed by the Affordable Housing Provider and where any obligation is expressed as an obligation on the Developer to procure any act on the part of the Affordable Housing Provider, such obligation shall be construed as an obligation of the Affordable Housing Provider to itself perform the obligation in question, and the Developer shall thereafter be released from its obligations in relation to those Affordable Housing Units.

## Schedule 2
## Covenants with the GLA and Hillingdon Council

The Developer covenants with the GLA and Hillingdon Council as follows:

1 **Education Contribution**

Not to Occupy more than:

(a) 1,000 Dwellings until it has paid £200,000 being the first instalment of the Hillingdon Education Contribution,

(b) 2,000 Dwellings until it has paid £250,000 being the second instalment of the Hillingdon Education Contribution, and

(c) 3,000 Dwellings until it has paid £371,000 being the third and final instalment of the Hillingdon Education Contribution.

2 **Air Quality**

Not to Occupy more than 500 Development Units until it has paid the Hillingdon Air Quality Contribution to Hillingdon Council.

3 **Minet Country Park**

(a) To pay £380,000 to Hillingdon Council, being the first instalment of the Minet Country Park Contribution, on Substantial Completion of the Pump Lane Access Road.

(b) To pay £730,000 to Hillingdon Council, being 40% of the Minet Country Park Contribution (and the second instalment of the Minet Country Park Contribution), either:

(i) twelve months prior to practical completion of the Springfield Road Pedestrian and Cycle Bridge, or

(ii) prior to Occupation of 1,500 Dwellings,

whichever is earlier.

(c) To pay £730,000 to Hillingdon Council, being 40% of the Minet Country Park Contribution (and the third instalment of the Minet Country Park Contribution), either:

(i) twelve months prior to practical completion of the Minet Country Park Bridge, or

(ii) prior to Occupation of 3,000 Dwellings,

whichever is earlier.

4 **Employment and Training Strategy**

(a) Prior to Implementation to provide Hillingdon Council with:

(i) an outline report on the likely construction jobs to be created as part of the Development, and

(ii) a training and recruitment strategy which sets out the initiatives to provide education and/or training opportunities and employment advice or programmes for residents within the administrative area of Hillingdon Council to enable residents to obtain knowledge, skill, experience, confidence and the opportunity to gain employment in jobs in construction and end use related to the Development.

(b) Unless otherwise agreed in writing with Hillingdon Council, from Implementation until first Occupation, to use reasonable endeavours to encourage:

(i) contractors to work directly with local employment and training agencies as well as voluntary and private sector providers,

(ii) the provision of training opportunities in respect of any new jobs created for the Development,

(iii) employment and training opportunities in relation to the construction phases of the Development, and

(iv) apprenticeships on site for local people resident within the administrative area of Hillingdon Council.

## Schedule 3
## Strategic Transport

The Developer covenants with the GLA, Ealing Council, TfL, and, in respect of Part 1 and Part 2, paragraph 3 of this Schedule only, Hillingdon Council, as follows:

## Part 1
## Transport Review Group

1 **Constitution**

(a) The Transport Review Group shall be convened within 6 months of Implementation.

(b) Meetings are to be held every 6 months (or more or less frequently if reasonable and agreed between all members) to undertake the agreed tasks of the group, and will continue until 2 years after payment of the final instalment of the Transport Management Fund (pursuant to Schedule 1, Part 5, paragraph 1(a)(v)).

(c) It shall comprise 8 members, including 7 voting members: 2 appointed by the Developer, 2 by Ealing Council, 1 by Hillingdon Council (voting twice where specified in sub-paragraph 1(f) below) and 2 by TfL, and 1 non-voting member being the Transport Co-ordinator.

(d) The Transport Co-ordinator will be the chair of the Transport Review Group.

(e) All members must attend all meetings (unless otherwise agreed by the members in advance of any particular meeting).

(f) Members will vote in accordance with the voting rights table below:

| **Subject** | **Number of Votes** | | | |
|---|---|---|---|---|
| Schedule 3, Part 1 | Developer | Ealing Council | Hillingdon Council | TfL |
| 3(a)(i) | 1 | 2 | 2 | 2 |
| 3(a)(ii) | 1 | 1 | 1 | 2 |
| 3(a)(iii) | 1 | 1 | 1 | 2 |
| 3(a)(iv) | 1 | 2 | 0 | 2 |
| 3(a)(v) | 1 | 1 | 1 | 2 |
| 3(a)(vi) | 1 | 1 | 1 | 2 |
| 3(a)(viii) | 1 | 2 | 2 | 2 |

(g) Members can vote for or against a proposal put by the Transport Co-ordinator.

(h) Decisions are to be taken on a majority vote.

2 **Transport Co-ordinator**

(a) The Transport Co-ordinator will be appointed by the Developer prior to the first meeting of the Transport Review Group (notifying the Councils and TfL accordingly).

(b) The Transport Co-ordinator's responsibilities are as follows:

(i) convening all meetings,

(ii) attending and chairing meetings,

(iii) at the suggestion of any member of the Transport Review Group, putting proposals for votes at all meetings,

(iv) recording minutes from every meeting,

(v) circulating minutes to all members,

(vi) ensuring actions are undertaken as agreed, and

(vii) sending out meeting agendas a week in advance of a scheduled meeting, having previously invited members to notify him of any items they wish to be included.

(c) In the event that the Transport Co-ordinator resigns or is otherwise dismissed from employment for any reason, the Developer will procure the employment of a replacement Transport Co-ordinator as soon as reasonably practicable.

3 **Purpose**

(a) The Transport Review Group will monitor and review:

(i) effects from the Development on local roads (under the control of the Councils as local highways authorities) in the vicinity of the Development and agree any further work required to address said effects,

(ii) the bus network in Southall, and the application of the Bus Services Contribution, including the provision by TfL of evidence of the cost of the relevant bus network services (and proposed enhancements) including any administration charges, and the attributable revenue based on passenger demand for the relevant period,

(iii) implementation of the Area Wide Walking and Cycling Study,

(iv) implementation of the South Road Bus Priority Scheme,

(v) implementation of the Framework Travel Plan and Detailed Travel Plans,

(vi) the need for any off-site travel plan measures,

(vii) implementation of the site wide car and cycle parking management strategy under condition 9 of the Ealing Permission, and

(viii) the need for Supplementary Mitigation Measures.

(b) If, on a majority vote of the Transport Review Group, it is accepted that:

(i) mitigation measures arising from the matters at paragraphs 3(a)(i), 3(a)(iii) and 3(a)(iv),

(ii) measures arising from paragraph 3(a)(vi), and / or

(iii) further studies required as a result of any agreement reached pursuant to paragraph 3(a)(i)

are reasonably necessary, the group will recommend to Ealing Council the payment of the relevant sums from the Transport Management Fund, or the undertaking of the relevant works (the cost of which will be deducted from the Transport Management Fund), but in doing so the group will also have regard to the extent of the Transport Management Fund at that point remaining unspent, and the likelihood of a need for further mitigation measures arising.

(c) If, on a majority vote of the Transport Review Group, it is accepted that mitigation measures arising from the matter at paragraph 3(a)(ii) above is reasonably necessary, the group may recommend to TfL the use of part of the Bus Services Contribution, or the undertaking of the relevant works, but in doing so the group will also have regard to the extent of the Bus Services Contribution at that point remaining unspent, and the likelihood of a need for further mitigation measures arising.

(d) If, on a majority vote of the Transport Review Group, it is accepted that Supplementary Mitigation Measures are reasonably necessary to mitigate previously unforeseen effects on the transport network that have emerged during the course of the Development, the group will recommend to Ealing Council the payment of the relevant sums from the portion of the Transport Management Fund reserved for Supplementary Mitigation Measures, or the undertaking of the relevant works (the cost of which will be deducted from that portion of the Transport Management Fund), but in doing so the group will also have regard to the extent of the Transport Management Fund at that point remaining unspent, and the likelihood of a need for further mitigation measures arising.

(e) The measures which may be recommended by the Transport Review Group pursuant to paragraphs 3(b) and 3(d) may inter alia include the following elements:

*Highways Works*

(i) South Road Northbound Bus Lane

(ii) Tentelow Lane / Windmill Lane signalisation

(iii) Tentelow Lane / Norwood Road signalisation

(iv) Iron Bridge works

(v) traffic calming on local roads

(vi) measures on Uxbridge Road

(vii) measures on Coldharbour Lane including Coldharbour / Pump Lane Roundabout

(viii) North Hyde Road improvements between Bulls Bridge roundabout and North Hyde Gardens

*Off-Site Travel Plan Measures*

(ix) market research, consultation and monitoring

(x) travel awareness programmes, and increased travel information

(xi) workplace travel plans

(xii) residential travel plans

(xiii) personalised travel planning

(xiv) promotion of the Car Club and Cycle Club

(f) £550,000 of the Transport Management Fund shall be set aside and available for use solely for Supplementary Mitigation Measures unless both TfL and the Councils confirm in writing to the Transport Review Group that some or all of that sum shall be used to fund mitigation measures arising from the matters at paragraphs 3(a)(i), 3(a)(iii), 3(a)(iv), and paragraph 3(a)(vi). Thereafter that sum shall be administered in accordance with paragraph 3(b) of this Part of this Schedule.

## Part 2
## Approval of Strategies

1 To notify TfL, Ealing Council, and, in respect of paragraph 3, Hillingdon Council, at least five Working Days in advance of the submission of any strategies to be submitted pursuant to paragraphs 2 to 4 below

2 Not to Implement (unless otherwise agreed by the GLA, Ealing Council, and TfL) until it has submitted to, and obtained approval from, Ealing Council and TfL for the South Road Corridor Study, and thereafter to undertake the study as approved.

3 Not to Implement (unless otherwise agreed by the GLA, Ealing Council, Hillingdon Council and TfL) until it has submitted to, and obtained approval from, Ealing Council, Hillingdon Council, and TfL for the Area Wide Walking and Cycling Study and thereafter to undertake the study as approved.

4 Not to Occupy any Dwelling until the Car Club Scheme and the Cycle Club Scheme have been submitted to and approved by Ealing Council and TfL.

5 If Ealing Council and TfL have not responded to a strategy submitted pursuant to paragraphs 2 to 4 above within 6 weeks of receiving it from the Developer, the strategy in question shall be deemed to be approved in the form originally submitted.

## Part 3
## South Road Railway Bridge

1 **Restriction on Occupation and Necessary Consents**

(a) Not to Occupy or allow Occupation of more than 2,500 Development Units, until:

(i) the South Road Railway Bridge Widening Scheme has been Substantially Completed to the reasonable satisfaction of Ealing Council and TfL; or

(ii) in the event that paragraph 2(a) below applies, an Alternative Mitigation Measures Scheme has been approved by Ealing Council and TfL (pursuant to paragraph 4(b)(v) below), and the Alternative Mitigation Measures have been substantially completed in accordance with paragraph 2(b) below and pursuant to condition 35 of the Ealing Permission.

(b) Subject to paragraph 2(a) below, to use all reasonable endeavours to secure the Necessary Consents as soon as reasonably practicable following Implementation, and thereafter, upon securing the Necessary Consents, to commence the South Road Railway Bridge Widening Scheme as soon as reasonably practicable following Occupation of the 1,500$^{th}$ Development Unit and in any event within 2 years of the date of Occupation of the 1,500$^{th}$ Development Unit or such later date as may be agreed by Ealing Council and TfL (pursuant to paragraph 4(b)(vi) below).

2 **Alternative Mitigation Measures**

(a) If, at the Occupation of 1,500 Developer Units, a Force Majeure or Onerous Term has prevented the Developer from securing the Necessary Consents, or if the Necessary Consents were secured but subsequently a Force Majeure occurred, the Developer shall continue to use all reasonable endeavours to obtain the Necessary Consents (or to re-secure such consents that were subject to a Force Majeure), but may at any time thereafter submit to Ealing Council and TfL for their approval an Alternative Mitigation Measures Scheme.

(b) In the event that Ealing Council and TfL approve an Alternative Mitigation Measures Scheme, the Alternative Mitigation Measures approved under the said scheme may be delivered instead of the South Road Railway Bridge Widening Scheme, and Ealing Council and TfL agree that for the purposes of this paragraph and paragraph 1(a)(ii) above, and pursuant to condition 35 of the Ealing Permission, the Alternative Mitigation Measures shall be deemed to be "substantially completed" on the occurrence of either:

(i) the Developer having Substantially Completed the Alternative Mitigation Measures to the reasonable satisfaction of Ealing Council; or

(ii) the Developer paying to Ealing Council the requisite Alternative Mitigation Measures Commuted Sum in full (the Developer notifying TfL in writing of the date any such payment is made).

3 **Determination of Onerous Terms**

(a) If the Developer considers that a term requested by a Party or a third party as consideration for entering into any Necessary Consent is an Onerous Term, then it will notify Ealing Council and TfL accordingly and provide such evidence as may reasonably be requested by Ealing Council and TfL so as to demonstrate that the Developer has used all reasonable endeavours to obtain the consent and to substantiate the Developer's claim that an Onerous Term is being demanded.

(b) If, after notification in paragraph 3(a) above, or after such further evidence as may be requested has been provided,

(i) within 28 days Ealing Council and TfL notify the Developer in writing that they agree that the term is an Onerous Term, or

(ii) TfL and Ealing Council fail to notify the Developer in writing within 28 days whether they agree or disagree,

then it is thereafter agreed for the purposes of this Agreement that the term is an Onerous Term.

(c) If, after notification in paragraph 3(a) above, TfL and/or Ealing Council notify the Developer that they disagree that the term is an Onerous Term, then, within 28 days of the notification of disagreement, it shall be open to the Developer to refer the matter for Dispute Resolution pursuant to Clause 14.

(d) If no referral to an expert is made within 28 days of the notification pursuant to paragraph 3(c) above, then it is thereafter agreed for the purposes of this Agreement that the term is not an Onerous Term.

4 **Task Force**

(a) Constitution

(i) The South Road Railway Bridge Task Force shall be convened no later than six months after the grant of the Planning Permission unless otherwise agreed by the GLA, Ealing Council, and TfL.

(ii) Meetings are to be held every 3 months (or more or less frequently if reasonable and agreed between all members) to fulfil the purposes of the task force set out in paragraph 4(b) below, until one of the events set out in paragraphs 1(a)(i) - 1(a)(ii) of this Part occur.

(iii) It shall comprise one representative from each of Ealing Council, the Developer, TfL and the Transport Co-ordinator ("the Permanent Members"), and, if invited by a Permanent Member in respect of a particular meeting, representatives of Network Rail and Crossrail Limited.

(iv) The Permanent Members must attend every meeting (unless otherwise agreed by those representatives). The representatives of Network Rail and Crossrail Limited will attend those meetings where they have been specifically invited by one of the Permanent Members.

(v) The Transport Co-ordinator shall be responsible for:

(A) convening all meetings,

(B) attending and chairing all meetings,

(C) recording minutes from every meeting,

(D) circulating minutes to all members,

(E) ensuring actions are undertaken as agreed, and

(F) sending out meeting agendas a week in advance of a scheduled meeting.

(b) Purpose

The South Road Railway Bridge Task Force shall:

(i) assist in and jointly work towards the delivery of the South Road Railway Bridge Widening Scheme;

(ii) discuss and develop the South Road Railway Bridge Widening Scheme to refine it, with the aim of agreeing the scheme such that all Necessary Consents are in place for the Developer to deliver the scheme;

(iii) discuss proposed design works commissioned and/or undertaken by the Developer, the Developer providing regular updates in accordance with paragraph 4(c)(i) below;

(iv) until all Necessary Consents have been achieved, monitor progress by the Developer towards the delivery of the South Road Railway Bridge Widening Scheme, and, where possible assist in the delivery and completion of the Necessary Consents;

(v) seek to agree (by the representatives of Ealing Council and TfL only) the Alternative Mitigation Measures Scheme with the Developer (subject to sufficient reasonable information being provided) within three months of any Alternative Mitigation Measures Scheme being proposed by the Developer pursuant to paragraph 2(a) above, failing which, at any time thereafter, the matter may be referred by the Developer, Ealing Council, and/or TfL to an expert pursuant to Clause 14.

(vi) agree any earlier or later timing for commencement of the South Road Railway Bridge Widening Scheme pursuant to paragraph 1(b) above, having regard to:

(A) the extent to which junction improvements along South Road have already been undertaken (pursuant to the conditions attached to the Permissions),

(B) the current programme for future junction improvements, and likely effects on the transport network of moving the timing of the delivery of the South Road Railway Bridge Widening Scheme, and

(C) notwithstanding (A) and (B) above, that priority should be given to the delivery of the South Road Railway Bridge Widening Scheme,

and, if agreement is reached pursuant to this sub-paragraph as to an alternative delivery date for the South Road Railway Bridge Widening Scheme such that that scheme is to be commenced prior to the improvement works to the South Road / A4020 Uxbridge Road and South Road / Merrick Road and the Eastern Access, then this paragraph is to be taken as constituting 'other agreement in writing' for the purposes of conditions 19, 20, and 21 attached to the Ealing Permission.

(c) Design works

(i) The Developer shall provide regular updates to the Permanent Members of all design works commissioned and undertaken for the South Road Railway Bridge Widening Scheme, and, if necessary, the Alternative Mitigation Measures Scheme.

(ii) All design works provided by the Developer to the Permanent Members under paragraph 4(b)(iii) shall be capable of assignment to Ealing Council, and, in the event that it is agreed pursuant to this Agreement that Ealing Council are to undertake the relevant works, such design works already undertaken by the Developer as are relevant and necessary for those works to be undertaken shall be assigned to Ealing Council.

## Part 4
## Bus Services Contribution

1 Subject to paragraph 2, not to Occupy more than:

(a) 400 Development Units until they have paid to TfL the sum of £600,000 being the first instalment of the Bus Services Contribution,

(b) 800 Development Units until they have paid to TfL the sum of £1,000,000 being the second instalment of the Bus Services Contribution,

(c) 1,200 Development Units until they have paid to TfL the sum of £1,000,000 being the third instalment of the Bus Services Contribution,

(d) 1,600 Development Units until they have paid to TfL the sum of £1,000,000 being the fourth instalment of the Bus Services Contribution,

(e) 2,000 Development Units until they have paid to TfL the sum of £1,000,000 being the fifth instalment of the Bus Services Contribution,

(f) 2,400 Development Units until they have paid to TfL the sum of £1,000,000 being the sixth instalment of the Bus Services Contribution, and

(g) 2,800 Development Units until they have paid to TfL the sum of £1,000,000 being the seventh instalment of the Bus Services Contribution.

2 No payment shall be required pursuant to paragraph 1 of this Part until TfL have provided prior confirmation of the cost of the bus network enhancements including any administration charges and the attributable revenue based on passenger demand since the last payment.

3 Pursuant to paragraph 2 of this Part, should a lesser amount than that set out in paragraph 1 be required to carry out the agreed bus service enhancements, TfL and Ealing Council shall agree that so much of the payment due which is not necessary be paid into the Transport Management Fund and be spent in accordance with the terms of the Transport Review Group.

## Part 5
## Travel Plans

1 Where, in this Part, approval is required from TfL and Ealing Council as to any travel plan, if both Ealing Council and TfL have provided no comments to the Developer in relation to the travel plan in question within 6 weeks of receiving it from the Developer, the travel plan in question shall be deemed to be approved in the form of the final draft available.

2 The Developer covenants not to Occupy the first building of more than 1,000 sqm used pursuant to the Development for use within Classes A1, A2, A3, A4, A5, B1, or C1, until such time as a Workplace Travel Plan has been submitted to and approved by Ealing Council and TfL.

3 The Developer covenants not to Occupy any Dwelling until such time as a Residential Travel Plan relating to that Dwelling or the Phase within which the Dwelling is situated has been submitted to and approved by Ealing Council and TfL.

4 Prior to Occupation of the School, the Developer shall submit the School Travel Plan to Ealing Council for approval.

5 The Developer shall not Occupy any building within the Development until a Detailed Travel Plan or Detailed Travel Plans (as appropriate) in respect of such building has/have been approved by Ealing Council.

6 Upon approval of any travel plan as provided for in paragraph 5, the Developer shall procure that the Occupier of such building shall implement and comply with such Detailed Travel Plans and the Developer will use all reasonable endeavours to procure that the Detailed Travel Plans are complied with and the targets and objectives set out therein are achieved.

7 The Travel Plan Manger shall monitor and review the working of each Detailed Travel Plan and submit reports to the Transport Review Group in respect of such monitoring in accordance with the requirements of such Detailed Travel Plans (including timescales for reporting but which shall not be more frequent than annually) for a period of (unless otherwise agreed with Ealing Council) not less than 10 years following completion of all Buildings demonstrating how the Detailed Travel Plans have operated during the preceding period and specifically how successful the Detailed Travel Plans have been in implementing their recommendations and in achieving their targets and objectives.

8 Prior to Implementation the Developer shall at its own expense employ the Travel Plan Manager (or more than one), notifying the Councils and TfL accordingly, whose contractual duties shall encompass:

(a) input into the preparation of Detailed Travel Plans,

(b) management, monitoring, and review of Detailed Travel Plans (in accordance with paragraphs 6 - 7 of this Part),

(c) leading initiatives to influence and manage travel demands in relation to the Development,

(d) liaison with the Councils and other bodies and agencies relevant to implementation of Detailed Travel Plans, including TfL and other transport bodies and operators, the police, adjacent landowners and residents' groups including (where appropriate)

establishment of a forum of people responsible for travel planning at the Development,

(e) dissemination of travel and transport information to those living or working in or visiting or using the Development, and

(f) promotion of initiatives to raise awareness of key travel and transport issues associated with the Development and to promote and encourage sustainable travel choice.

9 The Developer shall procure that the Travel Plan Manager performs his duties as referred to in paragraph 8 above.

10 In the event that the Travel Plan Manager resigns or is otherwise dismissed from his employment the Developer will at its own expense procure the employment of a replacement Travel Plan Manager as soon as practicable

11 The Developer shall procure that the Travel Plan Manager is employed in relation to the Development for a period of (unless otherwise agreed with Ealing Council) not less than 10 years following Completion of all Buildings.

## Schedule 4
## Covenants with the Developer

The GLA covenants with the Developer that:

1 **Issue of Permissions**

It will issue the Permissions as soon as reasonably practicable and in any event no later than five Working Days after the date of this Agreement.

Ealing Council covenants with the Developer:

2 **Use of Transport Management Fund**

To pay sums from the Transport Management Fund having regard to the proposals as agreed by the Transport Review Group pursuant to Schedule 3, Part 1, paragraphs 3(b) and paragraph 3(d).

Ealing Council covenants with the Developer and TfL:

3 **Alternative Mitigation Measures**

In the event that the Alternative Mitigation Measures Commuted Sum has been paid to Ealing Council (pursuant to Schedule 3, Part 3, paragraph 2(b)), to carry out and complete the Alternative Mitigation Measures within three years (or such longer period as shall be agreed between Ealing Council and TfL acting reasonably) of receipt of the Alternative Mitigation Measures Commuted Sum from the Developer.

The GLA, the Councils, and TfL covenant with the Developer that:

4 **Acting Reasonably and Approvals**

They will at all times act reasonably and in particular (without prejudice to generality) where any approval or expression of satisfaction is required by this Agreement they will not be unreasonably withheld or delayed.

5 **Constitutional Duties**

They will, in accordance with the terms of Schedule 3, Part 1, and, in respect of Ealing Council and TfL only, Schedule 3, Part 3 paragraph 4, constructively participate within, adhere to the rules set out, and perform their respective duties in relation to the Transport Review Group, and the South Road Railway Bridge Task Force.

6 **Contributions**

In respect of any Contribution received by them:

(a) Not to use any Contribution received by that party and any interest received thereon other than for the purposes which that Contribution has been paid, as set out in this Agreement.

(b) Following receipt of any Contribution:

(i) to pay that Contribution into a separately identifiable interest bearing account as soon as reasonably practicable after receipt,

(ii) to provide the Developer upon reasonable request, and in any event no more often than every 6 months, with details of any Contribution received, including specific items of expenditure, and the current balance of that Contribution.

(c) If any part of the Bus Services Contribution, or any part of the Alternative Mitigation Measures Commuted Sum (if paid pursuant to Schedule 3, Part 3, paragraph 2(b)), is no longer required by the receiving Party for the specified purpose (notifying the other members of the Transport Review Group accordingly), then the remaining unspent amount shall be added to the Transport Management Fund, and thereafter shall be subject to the provisions of Schedule 3 Part 1, in addition to the obligations contained in this Schedule.

(d) In the event that all or part of any Contribution (including any interest accrued) has not been expended within 5 years from the date upon which it is paid, or, in the case of payments made in parts, 5 years from the date of payment of that part, shall repay the remaining sum, or, in the case of staged payments, the unexpended part of that staged payment, to the paying party, with the exception of:

(i) the Ealing Air Quality Strategy Development Contribution, which unspent sums will, 5 years after payment, be added to the Ealing Air Quality Strategy Implementation and Monitoring Contribution,

(ii) the Minet Country Park Contribution, which unspent parts (or remaining sums thereof) shall be repayable 5 years after payment (of any part), and

(iii) the Transport Management Fund, which unspent parts (or remaining sums thereof) shall be repayable to the Developer 2 years after payment of the final instalment of the Transport Management Fund (pursuant to Schedule 1, Part 5, paragraph 1(a)(v)),

(iv) the Swimming Pool Contribution and Ealing Education Contribution, which unspent parts (or remaining sums thereof) shall only be repayable to the Developer 5 years after payment of the final instalment of that contribution, and

(v) the Street Tree Contribution, which shall not be repayable to the Developer.

Hillingdon Council covenants with the Developer:

7 **Minet Country Park Contribution**

To provide connections through Minet Country Park and additional park facilities in accordance with the scope attached at Appendix 4, to:

(a) the Springfield Road Pedestrian and Cycle Bridge no later than 12 months from the date that the instalment of the Minet Country Park Contribution in respect of that bridge has been paid (unless otherwise agreed in writing between Hillingdon Council and the Developer) pursuant to Schedule 2 paragraph 3(b), and

(b) the Minet Country Park Bridge no later than 12 months after the instalment of the Minet Country Park Contribution in respect of that bridge has been paid (unless otherwise agreed in writing between Hillingdon Council and the Developer) pursuant to Schedule 2 paragraph 3(c).

**EXECUTION PAGES**

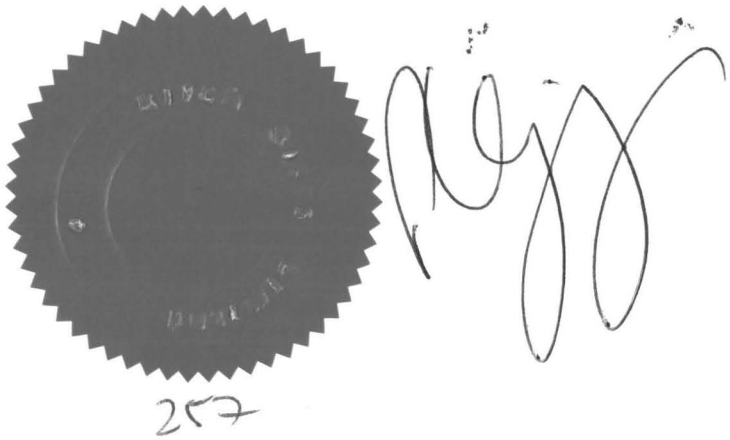
Executed as a deed by the **GREATER LONDON AUTHORITY** affixing its its common seal in the presence of ) [Seal]

[Authorised Signatory]



48

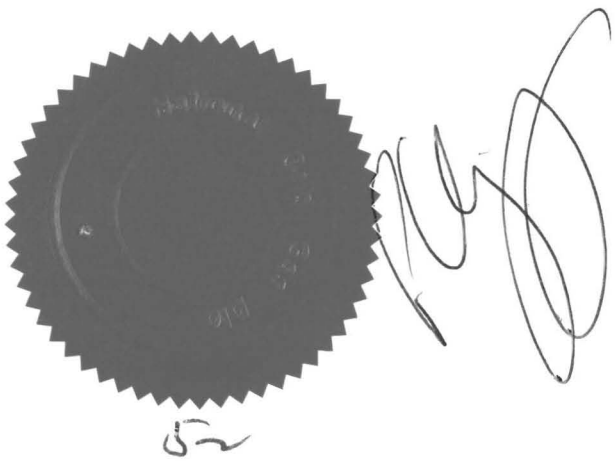
Executed as a deed by **BIRCH SITES LIMITED** affixing its common seal in the presence of ) [Seal]



257

[Authorised Signatory]

Executed as a deed by **NATIONAL GRID GAS PLC** by affixing its common seal in the presence of ) [Seal]



[Authorised Signatory]

LBE SEAL BOOK
Vol. 7 No. 603/2010

Executed as a deed by the **LONDON BOROUGH OF EALING** affixing its common seal in the presence of ) [Seal]

[Authorised Signatory]

Executed as a deed by the **LONDON BOROUGH OF HILLINGDON** affixing its common seal in the presence of ) [Seal]

[Member of the Council]

[Authorised Officer]

Executed as a deed by **TRANSPORT FOR LONDON** affixing its common seal in the presence of ) [Seal]

[Authorised Signatory]

2613

**Appendix 1**
**Plans**

## Index of Plans

1. Application Site (0317/P1016/00)
2. Area Wide Walking and Cycling Study area (52212/A/78/A)
3. Site plan
4. Land ownership (406 - Southall)
5. South Road Bus Priority Scheme (52212/B/49)
6. South Road Corridor Study area (52212/A/79)
7. South Road Railway Bridge Widening Scheme drawing (52212/B/50)

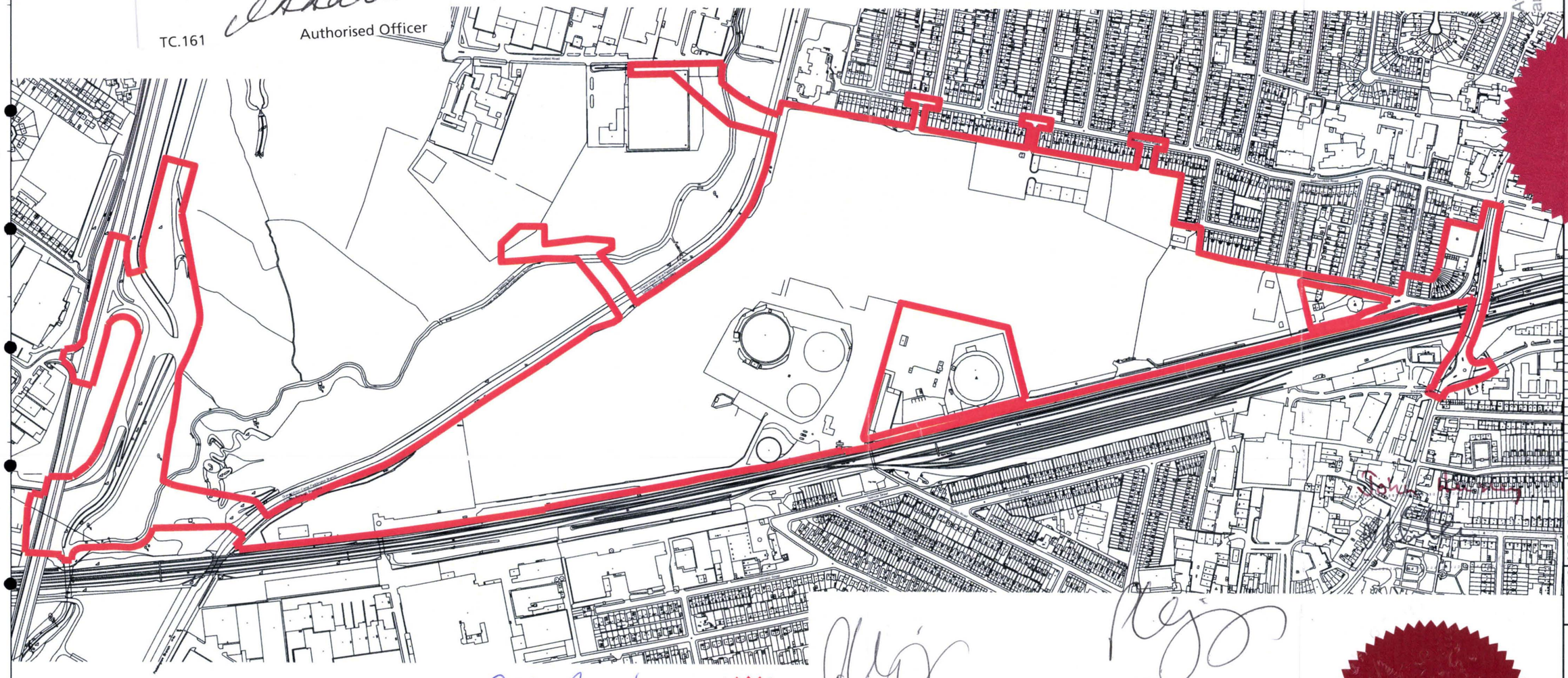
## 1. Application Site

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LBE SEAL BOOK
Vol. 7 No. 6631 2010

TC.161 Authorised Officer

Affixed in the presence of
an Officer authorised by the Council



General Notes
1. Dimensions are in millimetres unless stated otherwise.
2. Levels are in metres AOD unless stated otherwise.
3. Dimensions govern. Do not scale off drawing.
4. All dimensions to be verified on site before proceeding.
5. All discrepancies to be notified in writing to make architects.

© make ltd. 2008

Key:
Composite Development Area boundary

1:2000 150m

2613

| Rev | Date | Reason For Issue | Chk |
|---|---|---|---|

make
20 Wharfside Street, The Mailbox
Birmingham, B1 1RD
tel +44 (0) 20 7755 4103
fax +44 (0) 20 7636 5252
info@makearchitects.com
www.makearchitects.com

Client
National Grid Property Limited

North

Project
West Southall Masterplan

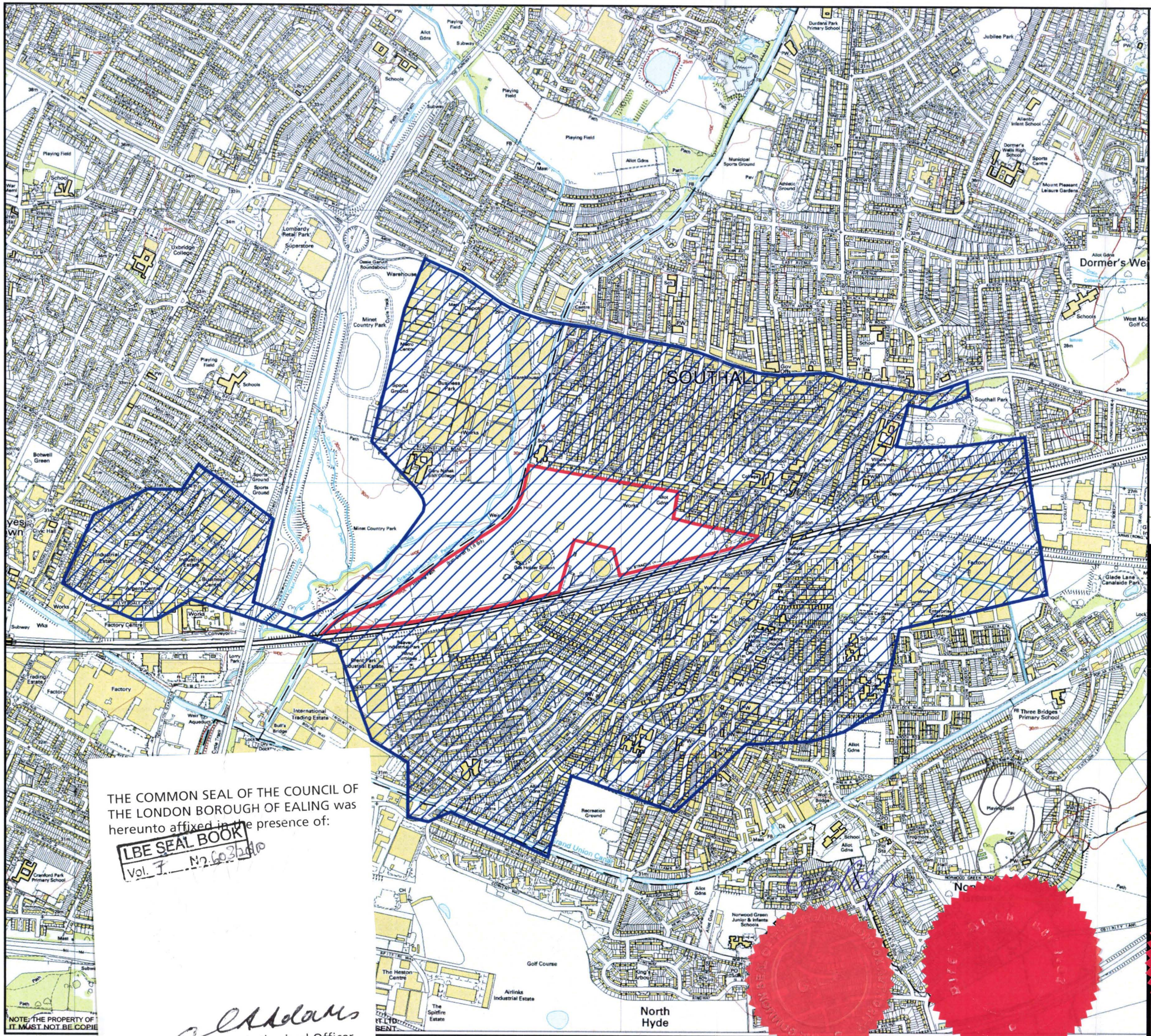
Drawing Title
Site Location Plan

| Scale | Paper Size | Date |
|---|---|---|
| 1:2000 | A0 | 29.08.08 |

| Project No. | Draw No. | Rev No. |
|---|---|---|
| 0317 | P1016 | 00 |

49 257 52

## 2. Area Wide Walking and Cycling Study area




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Notes:
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SITE

Extent of Area for Pedestrian and Cycle Audit

MEMBER OF THE COUNCIL

AUTHORISED OFFICER

| REV. | DETAILS | DRAWN | CHECKED | DATE |
|---|---|---|---|---|

Affixed in the presence of ... an Officer authorised by the Company

CLIENT: National ...

PROJECT: West S...

DRAWING TITLE: Extent of Area for Pedestrian and Cycle Audit 2613

SCALES: NTS

DRAWN: JMc CHECKED: AM DATE: 19.04.10

Savell Bird & Axon
... Manchester M2 5ND
...@sbax.co.uk

SBA

5221.../A/78 REVISION: A

50 257 52

## 3. Site plan

# Site plan

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Vol. 7 No. 603/2010

TC.161

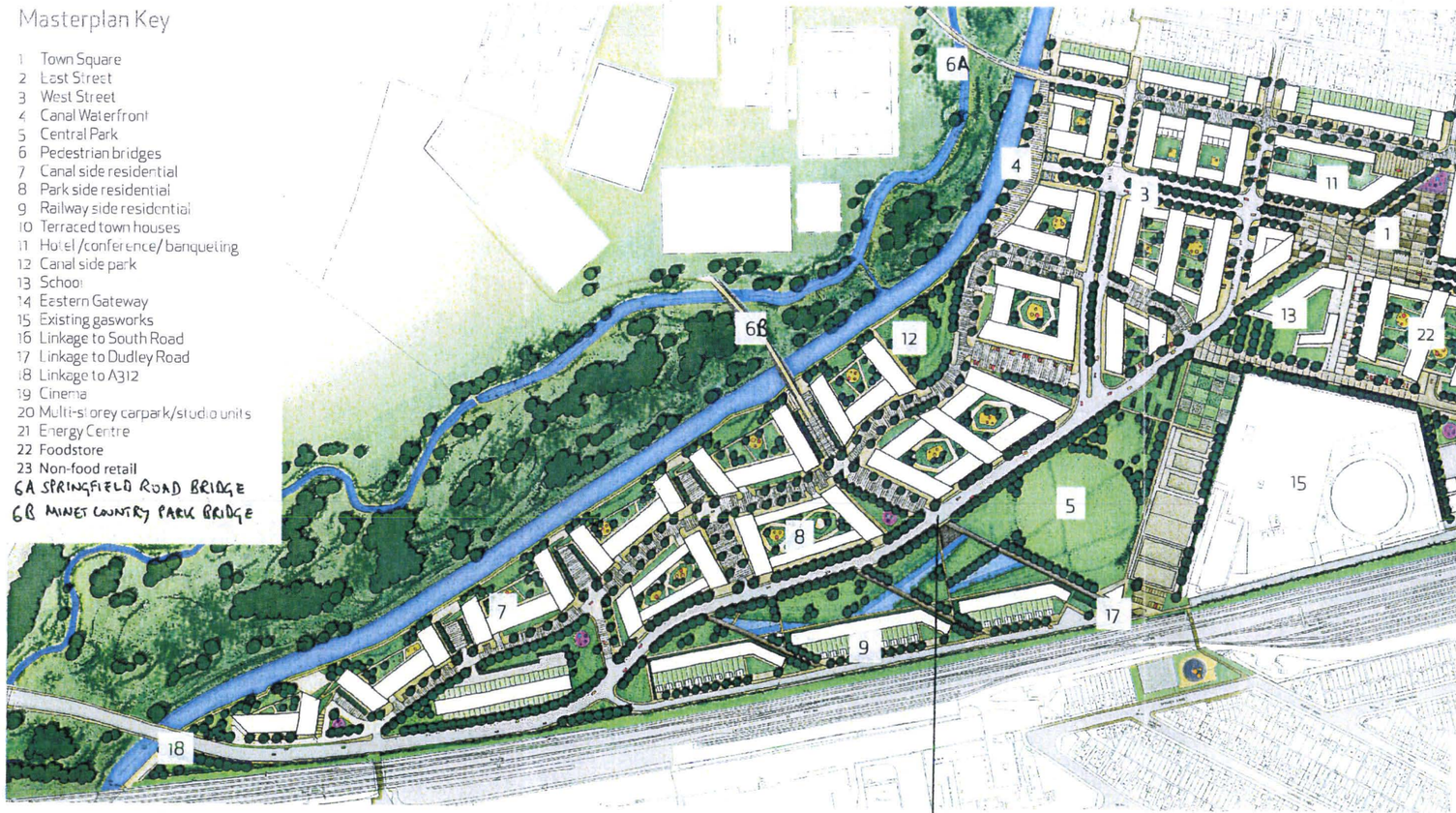
Authorised Officer

0 50m 100m 150m

N

## Masterplan Key

1 Town Square
2 East Street
3 West Street
4 Canal Waterfront
5 Central Park
6 Pedestrian bridges
7 Canal side residential
8 Park side residential
9 Railway side residential
10 Terraced town houses
11 Hotel/conference/banqueting
12 Canal side park
13 School
14 Eastern Gateway
15 Existing gasworks
16 Linkage to South Road
17 Linkage to Dudley Road
18 Linkage to A312
19 Cinema
20 Multi-storey carpark/studio units
21 Energy Centre
22 Foodstore
23 Non-food retail
6A SPRINGFIELD ROAD BRIDGE
6B MINET COUNTRY PARK BRIDGE




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257

52

51

2613

## 4. Land ownership

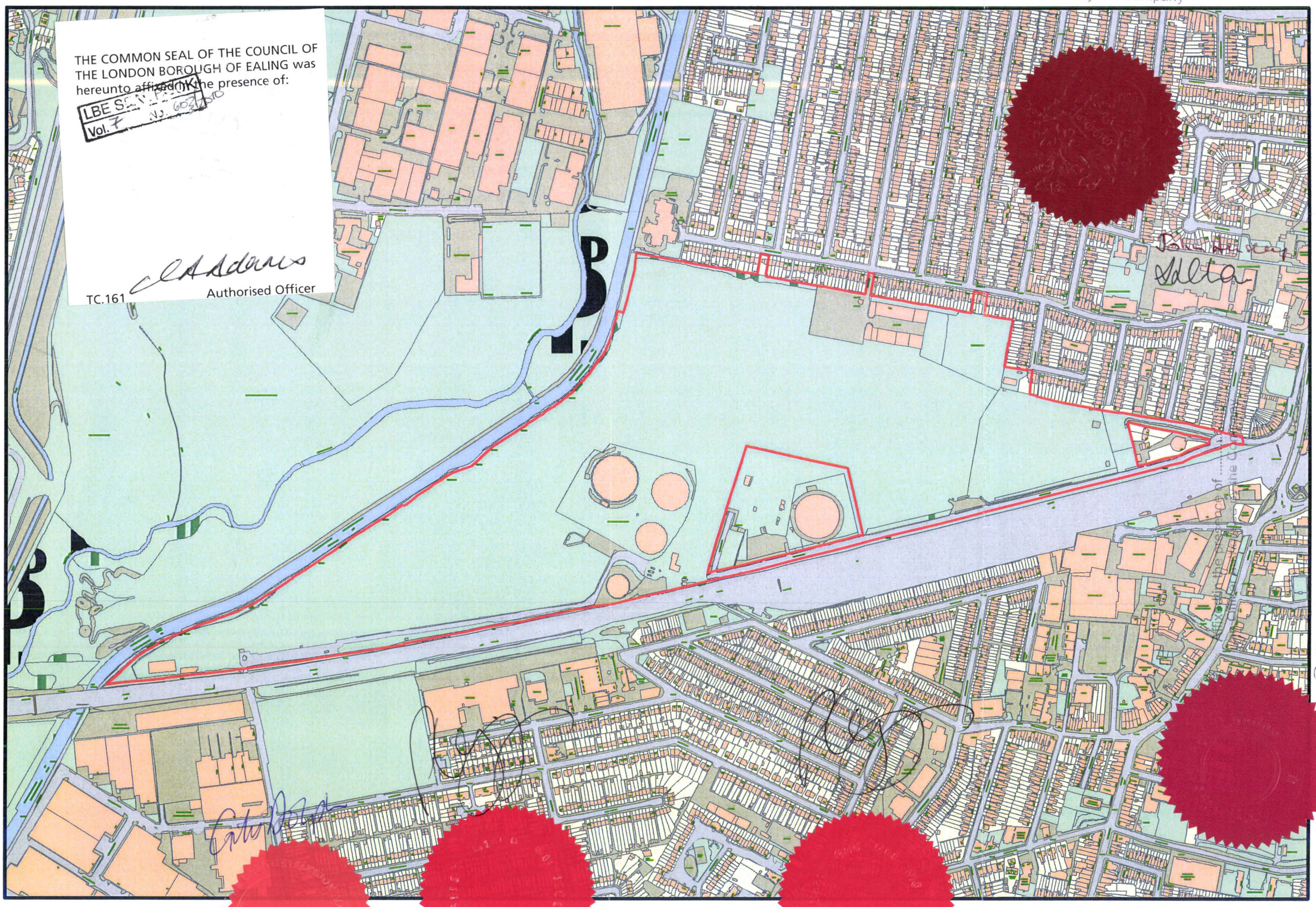
# 406 - Southall

Affixed in the presence of ..... 09 Sept 2010
an Officer authorised by the Company

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LBE Seal Reg. No. 6527010
Vol. 7

TC.161 Authorised Officer



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0 55 110 220 Meters

## 5. South Road Bus Priority Scheme

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Vol. 7 No. 6035/2010

TC.161 Authorised Officer

Affixed in the presence of ..... an Officer authorised by the Common Seal of the Company

| REV. | DETAILS | DRAWN | CHECKED | DATE |
|---|---|---|---|---|

CLIENT: National Grid

PROJECT: West Southall

DRAWING TITLE: Indicative Draft South Road Bus Priority Measures

1:500 at A1

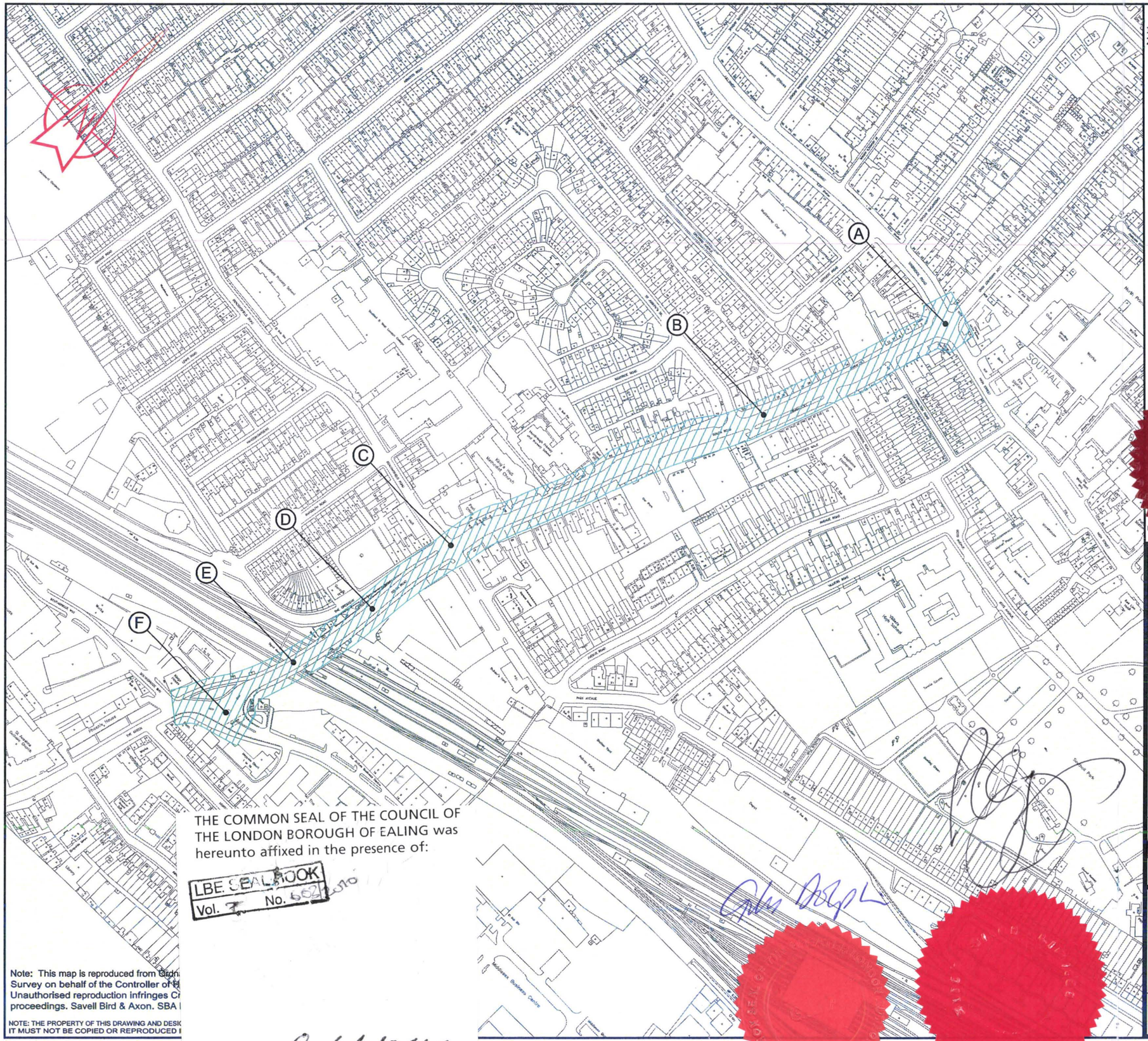
CHECKED: A.M. DATE: 22.01.09.

Sinclair Knight Merz & Axon

52212/B/49 REVISION: -

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## 6. South Road Corridor Study area




Notes:
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2. White lining is indicative only.

Ⓐ South Road/Uxbridge Road Junction to be Improved

Ⓑ South Road Northbound Bus Lane to be Introduced

Ⓒ South Road/Park Avenue Junction to be Improved

Ⓓ New Junction into Devlopment

Ⓔ South Road to be Widened

Ⓕ South Road/Merrick Road Junction to be Improved

John Hemsley

| REV | | DRAWN | CHECKED | DATE |
|---|---|---|---|---|
| | | | | |

CLIENT: National Grid

PROJECT: West Southall

DRAWING TITLE: Extent of South … Corridor S…

SCALES: NTS

| DRAWN: | CHECKED: | DATE: |
|---|---|---|
| JMc | AM | 20… |

Savell Bird & Axon … SBA … 5ND …uk

DR… 52212/A…79 REVISION: .

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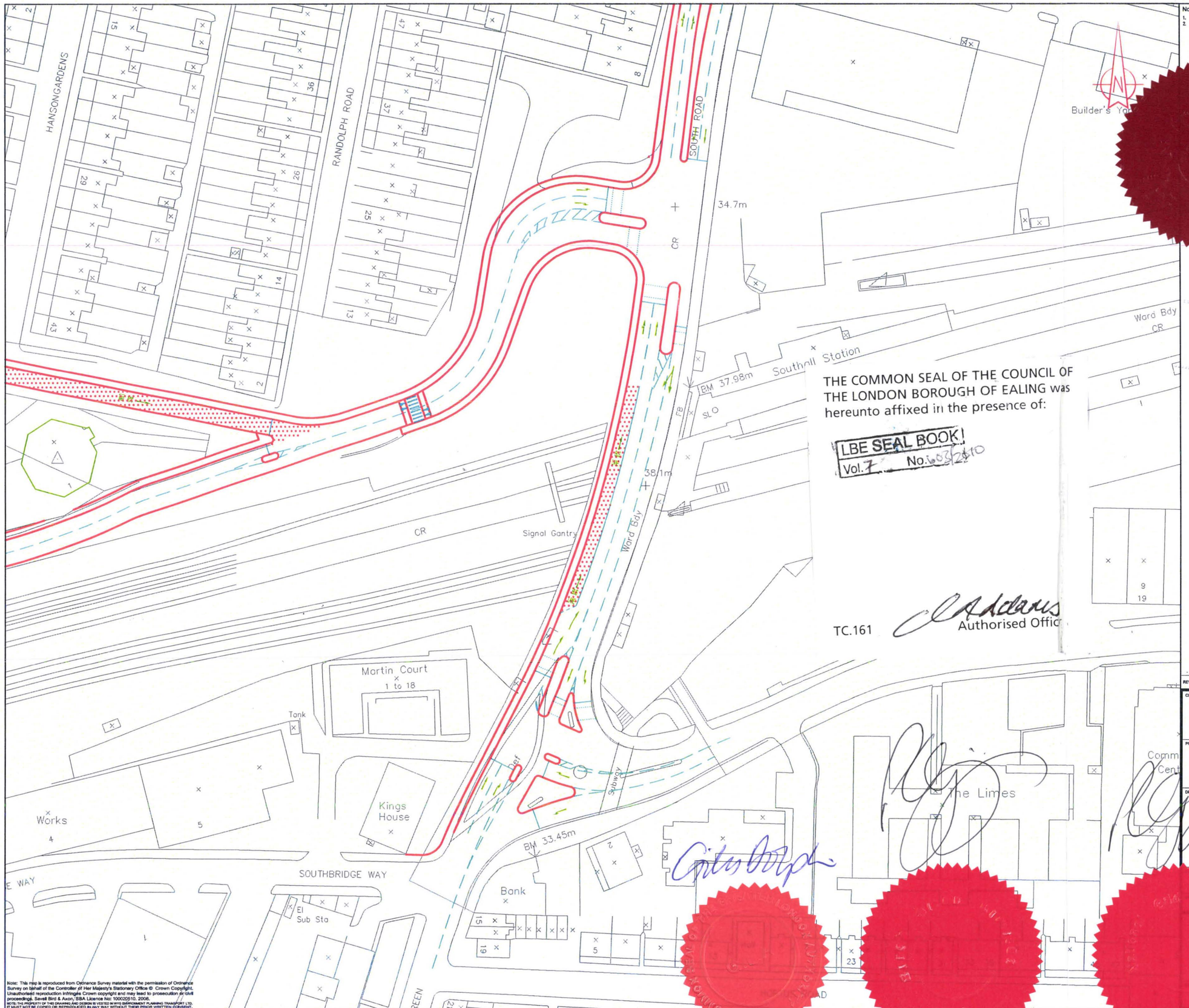
TC.161

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54 253 52 2013

## 7. South Road Railway Bridge Widening Scheme drawing




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John Hensley

2613

| REV. | DETAILS | DRAWN | CHECKED | DATE |
|---|---|---|---|---|

CLIENT: National Grid

PROJECT: West Southall

DRAWING TITLE: South Road Bridge Final Scheme

1:500 at A1

CHECKED: A.M. DATE: 24.04.09

Sweett Bird & Axon

et: London W1T 4QJ
818 e: sba@sbax.co.uk

2212/B/50 REVISION: -

55 257 52

## Appendix 2
## Ealing Council Draft Permission (P/2008/3981)

Development & Environment Directorate

City Hall
The Queen's Walk
More London
London SE1 2RR
Switchboard: 020 7983 4000
Minicom: 020 7983 4458
Web: www.london.gov.uk
Our ref: PDU/2310/05
Date: tBC

Myra Barnes
Salisbury Jones Planning
33 Bassein Park Road
London W12 9RW

**DRAFT**

# Town & Country Planning Act 1990 (as amended); Greater London Authority Acts 1999 and 2007; Town & Country Planning (Mayor of London) Order 2008

**Site Address:** Southall Gas Works Site (West Southall)
**Application No:** P/2008/3981-S
**Applicant:** National Grid Property Limited

## GRANT OF OUTLINE AND FULL PLANNING PERMISSION SUBJECT TO PRIOR WRITTEN CONCLUSION OF A SECTION 106 AGREEMENT

The Mayor of London, as the London Borough of Ealing as the local planning authority, hereby grants planning permission for the following development, in accordance with the terms of the above-mentioned application (which expression shall include the drawings and other documents submitted therewith):

Outline application

Demolition of 22 houses; the remediation of the land and the redevelopment of the site to deliver a large mixed use development including residential, non-food retail, food retail, restaurants, bars and cafes, hotel, conference and banqueting, cinema, health care facilities, education facilities, office/studio units, sports pavilion, an energy centre, multi-storey car park and associated car and cycle parking, landscaping, public realm, open space and children's play space.

Full application

New access roads from the Hayes by-pass and Southall town centre to the application site for vehicle, cycle and pedestrian access, including drainage and a flood relief pond.

Widening of South Road across the railway line, for the creation of a bus lane and three new accesses onto Beaconsfield Road. Two bridges over the Grand Union canal and Yeading Brook to provide pedestrian and cycle access to the Minet Country Park and Springfield Road.

Defined terms and expressions

To include:

Use Class - uses referred to in this permission to relate to the Use Classes Order 2005

Part - this could relate to a building block, a section of public realm, an area of open space etc and will be agreed with the London Borough of Ealing as the local planning authority for each Reserved Matters application, to ensure that all reserved matters are approved for a particular element of the scheme before that element is implemented

Phase - means a phase as approved pursuant to the Construction Phasing Programme

'Commencement of Development' unless otherwise stated, this will exclude demolition; site 'Preparation Works, site remediation works, archaeological investigations, formation of accesses and utility works but shall otherwise include works to implement this permission.

'In consultation with Transport for London (TfL)' – means where any approval from the London Borough of Ealing as local planning authority is expressed within this permission to be "in consultation with Transport for London" (where said conditions relate to transportation matters or where they relate to transport policies in the Mayor's London Plan) then Transport for London shall be provided with schemes or details submitted upon submission and the London Borough of Ealing will take account of any comments or representations from Transport for London prior to issuing any approvals pursuant to said conditions , but if the London Borough Ealing have provided TfL with all relevant information and documentation and have not received any response from TfL after 3 weeks, then they shall be entitled to issue any decision without needing to wait further for any response.

Development Units – units of development with approximately the same traffic generation characteristics. One Development Unit is equivalent to the following: (1) 1 residential dwelling, or (2) 100 sqm of retail, leisure, hotel and commercial floorspace.

Subject to the following conditions and reasons for conditions: -

**COMMENCMENT OF DEVELOPMENT, COMPLIANCE WITH OUTLINE PARAMETERS AND RESERVED MATTERS**

1. Submission of reserved matters application(s) for the first Part or Parts of development hereby permitted shall be made within 7 years from the date of this permission. Commencement of Development of the Part or Parts approved shall begin within two years from the date of the approval of the reserved matters for that Part or Parts

   Submission of all reserved matters applications for the remainder of the development hereby permitted shall be made within 18 years from the date of this permission. Commencement of Development in relation to the remainder of the development must begin within two years from the date of the last reserved matters approval for the entire site.

   **Reason:** In order to comply with the provisions of the Town and Country Planning Act 1990.

2. No Part of the development as hereby permitted shall commence until the reserved matters, as listed below, for that Part have been approved by the London Borough of Ealing as the local planning authority:

   - layout;
   - appearance
   - scale
   - landscaping

   The relevant Part of the development shall in all respects be carried out in accordance with the approved reserved matters for that part, unless otherwise agreed in writing with the London Borough of Ealing as the local planning authority.

   **Reason:** In order to comply with the provisions of the Town and Country Planning Act 1990.

3. This planning permission applies only to the following drawings and to no other, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority:

   P1000/00; P1001/00; P1002/00; P1003/00; P1004/00; P1005/00; P1006/00; P1007/00; P1008/01; P1009/00; P/1010/00; P1011/01; P1012/00;P1013/00; P1014/00; P1015/00; 800E Rev A; 800VV Rev A; 368_A_100-F; 368_A_200-B; 368_A_300; 368_A_305; 368_A_306; 368_A_310-B; 368_A_315-A; 368_A_316; 4597-P-001; 4597-P-002; 4597P-003; EX_02_site plan; PO_02_site plan; PO_02_plan; PO_04_13A; PO_04_13B; PO_04_13C; PO_04_13D; 4597-P-010; 4597-P-011; 4597-P-12; 52212/B/31 RevA; 52212/B/34 RevA; 52212/A/74; 52212/A/77; 4597-P-020; 4597-P-021; 4597-P-022; 4597-P-023; 4597-P-024; 52212/A/51/A; 52212/A/32/RevA; 52212/B/33/A; 52212/B/35 RevB; 52212/B/36 RevA; 4597-P-030; 4597-P-031; 4597-P-032; 4597-P-033; 4597-P-034; 4597-P-

035; 4597-P-036; 52212/B/48; 52212/A/49; 52212/A/50; 52212/B/51; 52212/B/50; 52212/B/49; South Road/Uxbridge Road improvement option drawings: SK-SR1; SK-SR2 and SK-SR3. 4597-RT-01 Existing tree removal/clearance, retention and protection.

or any variation thereto which would not fall outside of the bounds of the description of the development of this permission and which is approved in writing by the London Borough of Ealing as the local planning authority giving reasons for its decision and either:

i) the London Borough of Ealing as the local planning authority is satisfied that the variations will not have any significant adverse environmental effects, or

ii) the application for variation has been accompanied by an environmental statement assessing the likely environmental effects of the variation.

**Reason:** To ensure that the development accords with the scope of the approved parameter plans and detailed drawings, in the interests of appearance, living and working conditions and the impact on neighbouring development.

4. Prior to commencement of development of plot HS20, details of proposed space and amenity standards of the proposed use of HS20 shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority unless otherwise agreed in writing by the London Borough of Ealing .

   **Reason:** The residential use of this plot as described in the parameter plans hereby approved is not considered appropriate in relation to the resulting living conditions.

5. Prior to the commencement of any bridge construction within the London Borough of Ealing's administrative boundary, (excluding the South Road Railway Bridge Widening Scheme) the detailed design elements of that bridge, which were not the subject of this application and therefore not approved pursuant to this permission shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The bridges shall be constructed in accordance with the approved details.

   **Reason:** To ensure that each bridge would be of a high quality design standard.

6. Full details of all external materials including samples where appropriate to be used on the buildings and all other finishing materials including paving, roads, parking areas, means of enclosure, shall be submitted and approved by the London Borough of Ealing as the local planning authority, before the relevant Part of the development is commenced. Development shall be carried out in accordance with approved details.

**Reason:** To ensure that all built development would be of a high quality design standard.

## DEVELOPMENT THRESHOLDS AND PHASING

7. The maximum gross external floor areas (excluding roof top plant, basement plant, loading docks, service corridors and vehicle circulation space) in each respective use granted by this permission shall be up to:

- 320,000sqm of residential, (a maximum of 3,750 units)
- 14,200sqm for non-food retail
- 5,850sqm of food retail
- 1,750sqm of Class A3-A5 uses
- 9,650sqm of hotel
- 3,000sqm of conference and banqueting
- 4,700sqm of leisure forming a cinema
- 2,550sqm of health care facilities
- 3,450sqm of education facilities
- 3,500sqm of office/studio units
- 390sqm of sports pavilion
- 1,885sqm of energy centre
- 24,450sqm of multi-storey car park and associated car and cycle parking

**Reason:** To ensure that the development is carried out in accordance with the approved plans and other submitted details and to ensure that the quantum of floorspace keeps within the parameters assessed pursuant to the EIA in relation to the development.

## SITE WIDE STRATEGIES

8. Prior to Commencement of Development the following site wide strategies shall be submitted and approved in writing by the London Borough of Ealing as the local planning authority, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority.

a) Housing – to cover mix, tenure and density and phasing of affordable housing delivery

b) Framework Delivery and Servicing Strategy (in keeping with the Framework Travel Plan) as guidance for developers of individual plots from first occupation of the development and its use thereafter to be agreed in consultation with Transport for London.

c) Access for all persons including provision for people with disabilities, who are visually impaired, or have mobility difficulties, and for parents with pushchairs and to include access to and within the development

d) Public Realm – to include general arrangements, soft landscaping, hard landscape, lighting,/street furniture and phasing of public realm provision

e) Landscape Management

f) Operational Waste Management

g) Drainage - for measures to dispose of surface water and foul water from the development based on the principles set out in FRA West Southall A012564 dated October 2008 by White Young Green

h) Public Art

i) Estate Management and Crime Prevention - including access for emergency vehicles

**Reason:** To secure an inclusive, safe and high quality built environment for all users of the site, and where appropriate constrain local highway impact.

**SITE WIDE CAR AND CYCLE PARKING MANAGEMENT STRATEGY**

9. Prior to the commencement of development pursuant to this permission a Site Wide Car and Cycle Parking Management Strategy (in keeping with the Framework Travel Plan) is to be submitted to and approved by the London Borough of Ealing as local planning authority in consultation with Transport for London. The Site Wide Car and Cycle Parking Management Strategy shall outline:

    a) the proposed distribution, phasing, accumulation and allocation of and arrangements for the management of :

        (i) non-residential car parking (which shall not exceed 950 spaces) within the development;
        (ii) residential car parking spaces (which upon completion of the development shall not exceed 0.7 spaces per residential unit) within the development;
        (iii) motorcycle spaces within the development;
        (iv) blue badge spaces (by use);
        (v) car club spaces;
        (vi) parking controls; and
        (vii) parking charges;

b) how cycle parking will be provided in accordance with the most up to date policy in the Development Plan for all relevant land uses within the development.

c) the provision of electric vehicle charging points within the development which shall be in accordance with the Mayor of London's standards set out in the London Plan;

d) any proposed parts of the development which are proposed to be car free development;

e) the safety and security measures to be incorporated within the development to ensure the security of the car parking areas; and

f) the key principles of the design, layout and accessibility of any parking areas to be provided within the development;

**Reason:** To secure an inclusive, safe and high quality built environment for all users of the site and be sustainable, and where appropriate constrain local highway impact.

10. Unless otherwise agreed with the London Borough of Ealing as the local planning authority all development will be carried out in accordance with the approved strategies approved under conditions 8 and 9 and, prior to commencement of development in the relevant part, details of compliance with the approved strategies shall be submitted in writing to the London Borough of Ealing as the local planning authority, and where stated in consultation with Transport for London.

**Reason:** To ensure that the development is carried out in accordance with the approved strategies.

**CONSTRUCTION PHASING PROGRAMME**

11. The development hereby permitted shall not be commenced until a Construction Phasing Programme, which shall show the Parts in which the development is to be carried out and when the Parts are to be implemented is submitted to and approved in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London unless otherwise agreed by the London Borough of Ealing as local planning authority. The development shall, thereafter, only be carried out in accordance with the approved Programme unless otherwise agreed in writing with the London Borough of Ealing as the local planning authority in consultation with Transport for London. The Programme shall identify the proposed phases or Parts of the development and set out the

anticipated sequence of commencement and the order in which the works will be carried out, to include:

a) Earthworks

b) Construction of blocks

c) Highway works and other transport infrastructure and connections

d) Utility works

**Reason:** To ensure that any phasing of the development is properly co-ordinated and carried out in the sequence agreed by the London Borough of Ealing as the local planning authority, in the interest of neighbouring amenity and highway safety.

**CONSTRUCTION MANAGEMENT**

12. Any site remediation, preparatory works associated with the development hereby permitted shall not commence until a Site Wide Construction Management Plan has been submitted to and approved in writing by the London Borough of Ealing as the Local Planning Authority in consultation with Transport for London (where relevant as strategic highway authority) to include the following:

a) A detailed specification of construction works at each part of development

b) The best practical means available in accordance with British Standard Code of Practice BS5228: 1997 to be employed at all times to minimise the emission of noise and dust from the site;

c) A suitable and efficient means of monitoring and suppressing dust, vapours and odours must be provided and maintained, including where necessary the use of deodorising agents and adequate containment of stored or accumulated material so as to prevent it becoming airborne at any time and giving rise to nuisance.

d) Engineering measures, acoustic screening and the provision of sound insulation required to mitigate specific environmental impacts identified;

e) Identification of the most sensitive receptors, both residential and commercial where assessment and monitoring of impacts will be undertaken as work progresses;

f) Means of enclosure and security of the site and individual phases

g) A construction worker travel plan

h) Defined access routes to the site for all vehicles relating to the remediation and construction of the development.

i) Details of the arrangements for deliveries and servicing to the site for the construction of the development - including hours and restrictions on

construction traffic having regard to the need to control construction traffic during peak hours.

j) Construction waste management strategy

k) Unless otherwise agreed as part of the Construction Management Strategy and Code of Practice, the operation of site equipment and / or plant and machinery generating noise that is audible at the façade of residential or noise sensitive premises shall only be carried out between the hours of 0800 to 1800 Mondays to Fridays, 0800 to 1300 on Saturdays and at no time on Sundays and Bank Holidays;

l) Adoption and implementation of the Considerate Contractor Scheme (or similar to be agree with the LPA) registration and operation.

m) Details of how vehicles transporting contaminated waste that leave the site (including wheel washing and covering of loads) will be managed to prevent any contaminants from entering the environment.

n) Details of and restriction on the heights of cranes, having regard to Air Safeguarding Zones

o) Measures to mitigate disturbance to nesting birds on site

p) Arrangements for publicity and promotion of the scheme during construction.

q) Details of an advertised 'hotline' to be operated and funded by the developer to enable any complaints to be recorded;

r) Liaison with the Local Authority's Environmental Health Unit to register complaints received and response/action taken; and

s) The availability of a site manager(s) or other persons with appropriate seniority within the organisation capable of authorising proper remedial action where appropriate.

t) The developer shall at all times maintain the safety of pedestrians, cyclists and other road users and any construction activities shall inform the Local Planning Authority and Transport for London in writing of any construction impacts that will effect operation of the bus network and Crossrail.

Thereafter the development shall be carried out in accordance with the approved details, unless otherwise agreed in writing by the London Borough of Hillingdon as the Local Planning Authority.

**Reason:** In the interests of minimising the impact of noise, vibration and airborne pollution on the amenities of occupiers of properties within the vicinity

of the site, to limit the works to reasonable hours and to minimise the impact of construction traffic on the highway network.

13. Development shall not commence on any part of the site until details of a Construction Management Scheme and Code of Practice for that part of the site, in line with the Site Wide Construction Management Plan, has been submitted to, and approved in writing by the London Borough of Ealing as the local planning authority in consultation with TfL where relevant to TfL roads. The construction of the development shall be carried out in accordance with the Construction Management Scheme and Code of Practice and the applicant, or developer shall ensure that its contractors shall comply with its terms in order to minimise disturbances including noise, but not limited to vibration, dust, smoke emanating from the site.

    **Reason:** In the interests of minimising the impact of noise, vibration and airborne pollution on the amenities of occupiers of properties within the vicinity of the site, to limit the works to reasonable hours and to minimise the impact of construction traffic on the highway network.

14. Unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority, prior to commencement of development, a feasibility study of the practicality and economic viability of utilising the Grand Union Canal for the transport of construction materials shall be submitted for the approval in writing by the London Borough of Ealing as the local planning authority.

    **Reason:** In the interests of sustainable transport, to seek to optimise the use of the canal if feasible and practicable in order to reduce traffic on the local highway network.

15. Should the London Borough of Ealing as the local planning authority be satisfied that it would be feasible to utilise the Grand Union Canal for the transport of construction materials, the applicant shall submit a strategy as part of the Construction Management Scheme to the London Borough of Ealing as the local planning authority and in consultation with TfL, for approval in writing prior to commencement of development. The construction of the development shall be carried out in accordance with the approved strategy.

    **Reason:** In the interests of sustainable transport, to seek to optimise the use of the canal if feasible and practicable in order to reduce traffic on the local highway network.

**DESIGN STRATEGY**

16. Prior to the commencement of development of each part, an Urban Design Statement shall accompany each reserved matters application that shall be submitted for approval in writing by the London Borough of Ealing as the local

planning authority. The statement should demonstrate how the design of that part broadly complies with the relevant design principles set out in the outline approved Design and Access Statement.

**Reason:** To ensure high design standards and materials are used in the interests of the visual amenities of the locality.

**ACCESS**

17. No remediation, preparatory works or construction will take place on site prior to the bringing into use for construction traffic of the Pump Lane Access works as shown on Drawing No 52212/B/51, and HGV construction traffic will not use any other access to the site unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London. Suitable control measures will be put in place prior to first use of the Pump Lane access to ensure that it is only used by construction traffic prior to its opening to general traffic.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

18. No development shall be occupied prior to the construction and bringing into use of the Beaconsfield Road Accesses as shown on Drawing No 52212/B/49, 52212/B/50 and 52212/B/51, unless otherwise agreed in writing by Ealing Council.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

19. No more than 400 dwellings and no non-residential development shall be occupied prior to the construction and bringing into use of the Eastern Access works as shown on Drawing No 52212/B/43 unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

20. No more than 800 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the South Road / Merrick Road junction as shown on Drawing No. 52212/B/36 unless otherwise agreed by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

21. No more than 1250 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the South Road / A4020 Uxbridge Road signalised junction as shown on South Road/Uxbridge Road improvement option drawings: SK-SR1; SK-SR2 and SK-SR3 unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

**Reason:** In the interests of highway and pedestrian safety and traffic management.

22. No more than 1350 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the Bulls Bridge signalised junction as shown on Drawing No 52212/B/48 unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

23. No more than 1500 Development Units shall be occupied prior to the construction and bringing into use of the South Road northbound bus lane as shown on Drawing No 52212/B/49 unless otherwise agreed in writing by London Borough of Ealing as the local planning authority in consultation with Transport for London and having regard to, inter alia, the requirements of the timing for the delivery of the South Road bridge widening scheme.

**Reason:** In the interests of highway and pedestrian safety and traffic management.

24. The improvement works to the South Road / A4020 Uxbridge Road and South Road / Merrick Road and the Eastern Access shall be constructed and brought into use before commencement of the widening of the South Road Bridge unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

**Reason:** In the interests of highway and pedestrian safety and traffic management.

25. No more than 1500 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the M4 Junction 3 signalised junction as shown on Drawing No 52212/B/31 unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London and the Highways Agency.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

26. The improvement works to the Bulls Bridge signalised junction shall be constructed and brought into use before commencement of the improvement works to the M4 Junction 3 signalised junction unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London and having regard to, inter alia, the requirements of the timing for the delivery of the South Road Bridge widening scheme in the S106 Agreement.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

27. No more than 1750 Development Units shall be occupied prior to the bringing into use for general traffic of the Pump Lane Access works as shown on Drawings No 52212/B/33 and 52212/B/34 unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

28. The Pump Lane access as shown on Drawing No 52212/B/33 and 52212/B/34 shall not be opened to general traffic prior to the completion of the improvement measures proposed at the M4 Junction 3 and Bulls Bridge signalised junctions unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

29. The retained airport parking shall only be accessed from Pump Lane when it is made available for general traffic or at an earlier stage if it is deemed safe by NG and appropriate, as approved in writing, by the London Borough of Ealing as the local planning authority in consultation with Transport for London. If used at an earlier stage, control measures must be agreed with the planning authority in consultation with TfL, and put in place to restrict access to the airport parking and to the remainder of the site for construction traffic.

    **Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

30. The connection to Brent Road shall be closed to vehicular traffic within 4 weeks of the opening of the connection to Pump Lane to general traffic unless

otherwise agreed in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

31. The adjacent part of development, as identified in the Construction Phasing Programme, shall not be occupied prior to the construction and bringing into use of the pedestrian/cycle bridge over the Yeading Brook and Grand Union Canal connecting to the Minet Country Park unless otherwise agreed with the Local Planning Authority.

**Reason:** To ensure there is access to the Minet Country Park from the site.

32. The adjacent part of development, as identified in the Construction Phasing Programme, shall not be occupied, prior to the construction and bringing into use of the pedestrian/cycle bridge over the Yeading Brook and Grand Union Canal connecting to Springfield Road unless otherwise agreed with the Local Planning Authority.

**Reason:** To ensure there is access to Springfield Road from the site.

33. Construction of the Eastern Access hereby approved shall not commence until detailed layouts showing access ways (both temporary and permanent) to Southall Station and the worksites associated with the Crossrail project have been submitted and approved in writing by the Local London Borough of Ealing as the local planning authority in consultation with Transport for London /Crossrail. Development shall proceed in accordance with the details as approved.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

34. No work shall commence within the limits of land safeguarded for the Crossrail project until detailed design of any structures (to include boundary treatments, roads and bridges) within such land have been submitted to and approved in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London /Crossrail. Development shall proceed in accordance with the details as approved.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

35. Not to occupy more than 2,500 development units prior to substantial completion of the South Road Railway Bridge Widening Scheme, unless alternative mitigation measures, to be agreed by the London Borough of Ealing as local planning

authority in consultation with Transport for London, have been completed, or the London Borough of Ealing agree that they are able to undertake the alternative mitigation measures themselves, and only after it has been demonstrated that the developer has been unable to construct the South Road Bridge Widening Scheme.

**Reason:** To secure highway and pedestrian safety and traffic management.

**REMEDIATION**

36. Prior to the commencement of remediation, preparatory works or construction, a statement which sets out a detailed strategy and method of working for each phase of ground remediation in accordance with government guidance (PPS23 and CLR11 'Model Procedures for the Management of Contaminated Land'), shall be submitted, approved and remediation shall be carried out in accordance with the approved strategy.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

37. If contamination not previously identified is found to be present during any remediation works such materials shall be dealt with under a reactive strategy, the protocols for such being set out within the approved detailed strategy. When materials are encountered which require alteration to the agreed strategy, the London Borough of Ealing as the local planning authority shall be immediately informed in writing and amended remediation details for that part shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior to the completion of that part of remediation.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

38. Following the completion of each part of site remediation, and prior to the commencement of any further development on this part, a validation/verification report demonstrating completion of the works set out in the Remediation Strategy together with amendments and longer term monitoring for the relevant part shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority.

Each validation/verification report shall include:

a) Detail of who carried out the work

b) Laboratory and in-situ test results to demonstrate that the site remediation criteria have been met

c) Monitoring of groundwater and gases during remediation and details of monitoring programme post completion of remedial works, where agreed

d) Summary data plots and tables relating to clean-up criteria

e) Plans showing treatment areas and details of any differences from the original remediation strategy

f) Waste management documentation

g) Confirmation that remediation objectives have been met, for example, by provision of a certificate of completion

h) A long term monitoring and maintenance plan for longer term monitoring of pollutant linkages, maintenance and arrangements for contingency action and for the reporting of this to the London Borough of Ealing as the local planning authority.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

39. Full details of foundation design including a method statement for each relevant part shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior to the commencement of development in that part (for the avoidance of doubt including undertaking foundation works). The relevant part of development shall take place in strict accordance with details approved pursuant to this condition.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

40. The construction of storage facilities for oils, fuels or chemicals shall be carried out in accordance with details submitted to and approved in writing by the London Borough of Ealing as the local planning authority before the relevant part of the development is commenced.

**Reason:** To protect groundwater and land from pollution.

41. No soakaways shall be constructed in contaminated ground and no discharge of certain toxic or harmful substances to groundwater shall be permitted under the terms of the Groundwater Regulations 1998.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

42. Any soils brought to the site shall be free of the seeds/roots/stems of any intrusive plant covered by the Wildlife and Countryside Act 1981.

**Reason:** To prevent the spread of invasive species and to protect native flora.

43. No sewage or trade effluent, including cooling water containing chemical additives, vehicle wash waters, stream cleaning effluent, or pressure wash effluent chemicals, refuse or other polluting matter, should be discharged to the surface water system.

**Reason:** To protect groundwater and land from pollution.

44. All sewage or trade effluent should be discharged to the foul sewer if available subject to the written approval of Thames Water Utilities or its sewerage agent.

**Reason:** To protect groundwater and land from pollution.

45. No infiltration of surface water drainage into the ground is permitted other than with the express written consent of the London Borough of Ealing as the local planning authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters.

**Reason:** To protect groundwater and land from pollution.

**SUSTAINABILITY AND ENERGY**

46. Prior to commencement of a residential Part a statement shall be submitted demonstrating measures that will be incorporated to ensure that the units achieve a minimum standard of Code for Sustainable Homes Level 4 with reasonable endeavours to obtaining higher levels in later parts, in accordance with changes to national Building Regulations. No dwelling shall be occupied until a design stage Code Certificate has been issued for it certifying that at least Code Level 4 has been achieved.

**Reason:** To ensure a sustainable living environment is secured for all residents.

47. Prior to commencement of a residential Part a water efficiency statement shall be submitted demonstrating all measures that will be incorporated to ensure that the residential units will meet water efficiency standards with a maximum water use target of 105 litres of water per person per day. Development shall proceed in accordance with the approved water efficiency statement.

    **Reason:** To limit the burden placed on existing water resources.

48. Prior to commencement of a residential Part a statement demonstrating measures shall be submitted which will be incorporated to ensure that the units shall achieve a BREEAM rating of excellent. No building shall be occupied before a final certificate has been submitted to the London Borough of Ealing as the local planning authority certifying that the agreed BREEAM Level has been achieved.

    **Reason:** To ensure that the non-residential elements of the scheme are designed to incorporate energy efficiency and sustainability principles.

49. Prior to commencement of a residential Part, details of the brown and green roofs to be provided in that part of the development shall be submitted to and approved by the London Borough of Ealing as the local planning authority. These will be considered in the context of an overall requirement of 50% of all roofs being green or brown roofs. The works in accordance with the approved details will be carried out prior to the occupation of the relevant building unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority.

    **Reason:** To ensure that ecological enhancement and sustainable urban drainage measures are provided and managed.

50. All houses with private outdoor space shall be provided with a water butt and rainwater harvesting technology and grey water recycling technology shall be incorporated in all residential development, where practicable, unless otherwise agreed in writing with the London Borough of Ealing as the local planning authority.

    **Reason:** To limit the burden placed on existing water resources.

51. Prior to the Commencement of Development, a detailed Energy Strategy based on either Energy Strategy 1 or 2 of the application hereby approved shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. Prior to the commencement of each part of development, details of compliance of that part with the approved overall Energy Strategy shall be submitted to and approved in writing by the London Borough of

Ealing as the local planning authority and specified measures as approved shall be implemented and retained thereafter.

**Reason:** In the interests of climate change mitigation.

52. The development shall include a site wide heat, and - in the case of Energy Strategy 1 - a site-wide power network that will be centrally operated from a single Energy Centre unless otherwise agreed in writing with the London Borough of Ealing as the local planning authority in consultation with the Greater London Authority.

**Reason:** In the interests of climate change mitigation.

53. All new commercial and residential apartment buildings within the Development shall be constructed to be able to connect to the site wide heat, and - in the case of Energy Strategy 1 - the site-wide power network from first occupation, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority

**Reason:** In the interests of energy conservation, energy efficiency and renewable energy generation in the interests of the environment.

54. If Energy Strategy 2 is in operation by the time the 500$^{th}$ apartment is occupied then the site wide heat network should be provided with heat generated using the Blue NG scheme Combined Heat and Power plant according to the guidelines in the approved Energy Strategy and the scheme shall thereafter serve all the dwelling unit apartments and non-residential units in the development using the site wide heat network unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority

**Reason**

55. If upon the occupation of the 500th new apartment Energy Strategy 2 is not available, then:

(a) Prior to the occupation of the 800th new apartment on the development, the Energy Centre shall be installed and operational to contain gas combined heat and power (CHP) plant of at least 500 kilowatts electrical capacity and shall thereafter serve all the dwelling unit apartments and non-residential units in the development using the site wide heat and power network unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority; and

(b) Prior to the occupation of the 2500th new apartment on the development, the Energy Centre should contain a gas combined heat and power (CHP) plant of at least 1,000 kilowatts electrical capacity and shall thereafter serve all the dwelling unit apartments and non-residential units in the development using the site wide heat and power network, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority

**Reason:** In the interests of energy conservation, energy efficiency and renewable energy generation in the interests of the environment.

**LANDSCAPING AND ECOLOGY**

56. Prior to implementation of development of a residential plot, details of the playspace area calculations and the layout and equipment to be provided and programme for provision within the proposed children's playspaces within that plot shall be submitted to and approved by the London Borough of Ealing as the local planning authority. The development shall be carried out and completed in accordance with the approved details and shall be retained and maintained in a useable, safe and workable condition thereafter, unless otherwise agreed by the London Borough of Ealing as local planning authority.

**Reason:** To ensure that appropriate areas of children's playspace are provided.

57. Prior to the commencement of the relevant part of the development adjacent to the canal, details of the trees for the podium planting, including cross sectional drawings of tree planting beds shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The approved trees for podium planting shall be no less than 8 metres in height when first planted and shall be planted in the podiums in the first planting season following completion of building works of the relevant part of development. Any podium trees, which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with other similar size and species, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority.

**Reason:** To secure the integral planting of trees in the interests of visual amenity.

58. All existing trees on site shall be retained unless otherwise identified for removal within the 'Existing Tree Removal/Clearance, Retention and Protection Document' (Ref4597-RT-01) prepared by Capital Lovejoy, with root protection zones identified and appropriately secured in accordance with British Standard BS5837 – 'Trees in Relation to Construction' as amended. No retained trees and shall be

lopped or topped without prior written approval of the London Borough of Ealing as the local planning authority.

**Reason:** To protect all existing trees to be retained on the site in the interests of visual amenity.

59. If any retained tree becomes diseased, seriously damaged or dies as a result of development then a replacement tree shall be planted, to the satisfaction of the London Borough of Ealing as the local planning authority, within 9 months of the completion of relevant part of the development.

**Reason:** To secure the integral planting of trees in the interests of visual amenity.

60. Any trees or shrubs that die within a period of 5 years from the date of planting, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others of a similar size and species, unless the London Borough of Ealing as the local planning authority gives written consent to any variation.

**Reason:** To secure the integral planting of trees in the interests of visual amenity.

61. All approved tree works shall be undertaken outside the bird-nesting season (March-August inclusive) and the trees subject to works shall first be inspected for bats. If bat activity is identified in any tree then the London Borough of Ealing as the local planning authority must be notified in the first instance for approval in writing, for any works commencing on that tree.

**Reason:** To protect existing ecology interests on the site.

62. Prior to commencement of development a detailed Ecological Management Plan to include full details of ecological enhancement measures, protection of wildlife habitation, and appropriate planting shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The specific ecological measures to be provided in areas of new habitat creation, including the proposed 4 metre buffer strips shall be designed to encourage bat foraging activity. These measures should include:

a) Continuous linear vegetation features, such as tree rows or hedge lines

b) A high proportion of locally native, nectar-rich and berry-bearing species of planting

c) Retained dead and decaying timber, such as log piles

d) Water features

e) Provision of bat roosting opportunity within the bridge structures

**Reason:** To ensure that ecological enhancement measures are provided and managed.

63. Prior to the commencement of any remediation and construction works, an Ecological Clerk of Works shall be appointed by the applicant and retained as part of the construction team to brief construction workers on ecological issues and protection of existing wildlife habitat, including a briefing of site personnel concerning identification of grass snake, legal obligations in respect of this species, and actions to be taken in the event of it being present and to ensure that best practice is implemented during all site clearance, tree felling, earthworks and construction activities. The scope of works of the Ecological Clerk of Works shall include regular checks for grass snake and water vole in areas prior to their being disturbed by construction workers or activities so as to ensure that incidental killing of grass snakes does not occur during the course of works.

**Reason:** To protect existing ecology interests on the site.

64. Prior to remediation, preparatory works and construction commencing in the relevant part of the development the applicant shall undertake surveys to assess the presence of:

a) Bats
b) Water vole
c) Grass snakes
d) Invertebrates

The Ecological Clerk of Works shall monitor all surveys and all survey information, and any relevant mitigation measures, shall be submitted to and approved by the London Borough of Ealing as the local planning authority prior to any works commencing in that part of the development area.

**Reason:** To protect existing ecology interests on the site.

65. Prior to Commencement of Development on site, a detailed Bird Hazard Management Plan shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. Any trees, plants, shrubs or other vegetation to be planted or grown on the site shall so far as practicable be selected from species and planted and grown and maintained in such a manner as shall minimise the attraction hereof to birds.

**Reason:** To help minimise the risk of bird collision with aircraft operation associated with Heathrow Airport in the interests of human safety.

## FLOOD RISK AND DRAINAGE

66. Development of the Eastern Access shall not begin until the detailed design of the surface water drainage scheme for this part of the development, based on the principles set out in the FRA West Southall Eastern Access A012564-E V2 dated September 2008 by White Young Green, have been submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The scheme shall subsequently be implemented in accordance with the approved details and the agreed timing / phasing arrangements of the development.

    **Reason:** To prevent the increased risk of flooding, to improve and protect water quality, improve habitat and amenity, and ensure future maintenance of the surface water drainage system.

67. Prior to the commencement of development within a relevant part of the development, details of how foul water will be disposed of, to accord with the Site Wide Strategy, shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior to commencement of the relevant part of the development and thereby be embodied within the relevant part of the development.

    **Reason:** To prevent pollution of the two nearby watercourses and land.

## OPERATIONAL WASTE

68. Prior to commencement of each Part of the development, details shall be submitted to and approved by the London Borough of Ealing as the local planning authority of refuse and recycling storage areas and management arrangements indicated in the submission (or such other alternative as may be submitted to and approved by the local London Borough of Ealing as the local planning authority) shall be completed and available for use for each Part of development prior to the first occupation of any of that Part. These facilities shall not thereafter be obstructed or used for any other purpose except with the prior permission of the local London Borough of Ealing as the local planning authority obtained through the submission of a planning application.

    **Reason:** To ensure appropriate refuse and recycling facilities are provided and retained in the interests of the amenities of the occupiers of the proposed development and the visual and general amenities of the locality

## LIFETIME HOMES STANDARDS AND WHEELCHAIR ACCESSIBLE STANDARDS

69. All dwellings shall be designed and built to Lifetime Homes standards, with details to demonstrate compliance with the standards to be submitted to and

approved in writing by the London Borough of Ealing as the local planning authority prior to commencement of development of any Part containing Residential Units. Development shall be completed in accordance with the approved details.

**Reason:** To ensure inclusive access for all future residents.

70. 10% of all residential units within the development, to include a mix of unit sizes and across each of the tenures, shall be constructed to 'wheelchair accessible' standard. Details of the units, their sizes, location and layout within each part shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior commencement of the relevant part of development. Development shall proceed in accordance with the approved details.

**Reason:** To ensure that suitable residential accommodation for wheelchair users is provided and retained.

71. The hotel shall be designed and built so that 10% of the rooms are designed to be wheelchair accessible hotel rooms with details to be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior to the commencement of the relevant part of the development. Such development shall be completed in accordance with such details.

**Reason:** To ensure that suitable hotel accommodation for wheelchair users is provided and retained.

72. Notwithstanding the details of the application hereby approved designated disabled car parking spaces shall be in accordance with the Council's adopted standard.

**Reason:** To ensure that suitable car parking spaces for disabled users is provided and retained.

73. Prior to the construction of the pedestrian/cycle bridge over the Yeading Brook and Grand Union Canal connecting to Springfield Road, full details and scale drawings of wheelchair access to the Springfield Road pedestrian/cycle bridge shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The bridge shall be completed in accordance with such approved details.

**Reason:** To ensure inclusive access for all future users of the bridge.

**TRANSPORT**

74. Full details of the Home Zones within each residential part shall be submitted to and approved by the London Borough of Ealing as the local planning authority and shall be constructed in accordance with the approved details prior to the occupation of any residential property within the relevant part of the development.

**Reason:** To secure highway and pedestrian safety and traffic management.

75. Full details of traffic calming measures within each relevant part of the development shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The approved details shall be implemented prior to the occupation of the relevant part.

**Reason:** To secure highway and pedestrian safety and traffic management.

76. Full details of the location and specification of bus stops, bus priority schemes and bus stands and bus driver facilities to be provided within the site for each bus route passing through the site shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority in consultation with Transport for London prior to bus services commencing operation on the relevant bus route through the site.

**Reason:** To secure highway and pedestrian safety in the interests of sustainable transport.

77. Prior to the Commencement of Development of the relevant parts adjacent to the Grand Union Canal, details shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority of the provision for short term canal side mooring. Mooring shall be provided in accordance with the details as approved.

**Reason:** In the interests of providing for users of the Grand Union Canal and in the interests of creating an active canal side environment

**ARCHAEOLOGY**

78. Save for archaeological investigations, no Part of the development shall be commenced including site remediation until a programme of archaeological work and method statement has been submitted to and approved in writing by the London Borough of Ealing as the local planning authority detailing the extent of any archaeological works necessary for that Part of the site. A suitably qualified archaeologist, approved by the London Borough of Ealing as the local planning authority shall implement the programme of archaeological work in accordance with the approved programme and method statement.

**Reason:** To safeguard the archaeological interest of the site.

79. Prior to the commencement of development on the site, including demolition, site preparation works, site remediation works, formation of accesses and utility works, a programme of archaeological work and a programme of archaeological recording of the standing historic buildings, including the identification of a suitably qualified archaeologist to carry out all of the archaeological work, shall be submitted to and approved in writing by the London Borough of Ealing as Local Planning Authority. Prior to the commencement of each part of the development, details of compliance with the approved outline archaeological strategy together with a method statement shall be submitted to and approved in writing by the London Borough of Ealing as Local Planning Authority unless otherwise agreed in writing by the Local Planning Authority. Development of each part of the development shall proceed in accordance with the approved details.

**Reason:** To safeguard the archaeological interest of the site.

**RESIDENTIAL AMENITY**

80. Prior to the commencement of development on a residential plot a full daylight and sunlight assessment shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority for that plot to assess any habitable room windows that would face north or be located at the lowest levels facing enclosed courtyards to ensure these windows would receive an acceptable level of daylight and sunlight.

**Reason:** In the interests of the residential living conditions of future occupiers.

81. Development of residential parts shall not commence until details of noise attenuation measures for protecting residential units from noise from the road, railway or aeroplane within that part of the development have been submitted to and approved by the London Borough of Ealing as the local planning authority. No residential unit shall be occupied until the noise attenuation measures relevant to protecting that residential unit have been completed in accordance with the scheme approved by the London Borough of Ealing as the local planning authority and retained in good working order thereafter.

**Reason:** In the interests of the residential living conditions of future occupiers.

82. Residential development shall be constructed so as to provide sound insulation against externally generated noise such that resultant internal noise levels between the hours of 7:00am and 11.00pm shall not exceed L Aeq,5 min 38dB in all living rooms and bedrooms, unless otherwise agreed in writing by the London Borough of Ealing as the local planning authority. This limit applies with windows shut and with appropriate ventilation provided.

**Reason:** In the interests of the residential living conditions of future occupiers.

83. Applications for reserved matters in relation to residential accommodation, which incorporate on-plot commercial uses, shall be accompanied by full details of proposed plant systems. The details shall include proposed odour control measures, fan location, duct discharge positions and supplementary ventilation systems. Such details shall be approved and the system installed in full compliance with the approved details prior to occupation of the relevant part and retained in good working order thereafter.

**Reason:** In the interests of the residential living conditions of future occupiers and compatibility of uses.

84. Prior to the commencement of any part of development containing leisure, sports pavilion, conference and banqueting, hotel and education facility uses, details shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority for suitable sound limiting devices to control the output from any amplification systems. The approved devices shall be installed prior to the occupation of any such building and retained in good working order thereafter.

**Reason:** In the interests of the residential living conditions of future occupiers and compatibility of uses.

85. Works to the green wall acoustic barrier running along the southern boundary of the application site shall not commence until details including the location, design, dimensions, materials, maintenance scheme and the acoustic qualities in reducing noise from the railway to the nearest residential properties are submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The green wall acoustic barrier shall be provided in accordance with the approved details and prior to the occupation of the residential dwellings located along the southern boundary of the development. The green wall shall be maintained as such.

**Reason:** In the interests of the residential living conditions of future occupiers closest to the railway line.

**OTHER AMENITY**

86. Prior to commencement of each part of the development details of how the proposed development for that Part would not have an adverse impact on the wind environment having regard to the guidance of the Lawson Criteria shall be submitted for approval.

**Reason:** To ensure that an acceptable wind environment is provided throughout the development in the interests of the general amenity of site users.

87. Before any ground floor A1, A3, A4 and A5 units are first occupied; details of the design strategy for all shopping frontages shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. Development shall proceed in accordance with the approved strategy.

**Reason:** To ensure the new shop frontages achieve an appropriate design.

88. Prior to commencement of development in any part of the development a technical assessment of any potential effects of the development upon radio and/or electromagnetic signals, navigational and communication aids at Heathrow Airport shall be submitted to the London Borough of Ealing and the part of the development shall not be commenced until the subsequent approval in writing by the Council.

**Reason:** To ensure that there is no adverse effect on any navigational or communication equipment at Heathrow Airport.

89. Full details of proposed extract ventilation systems shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority. The details shall include proposed odour control measures, fan location and dust discharge positions. Such schemes shall be approved and installed to the London Borough of Ealing as the local planning authority's satisfaction prior to the commencement of the uses.

**Reason:** To safeguard the amenities of the occupiers of the residential accommodation within the development.

90. Full details of hours of operation including time of receiving deliveries or servicing of all commercial uses including: hotel, conference and banqueting facility; cinema; retail; office/studios; and restaurants and bars shall be submitted to and approved by the London Borough of Ealing as the local planning authority prior to commencement of such uses and thereafter the use and delivering and servicing shall be carried out in accordance with the approved details.

**Reason:** To safeguard the amenities of the occupiers of the residential accommodation within the development.

91. Full details of security arrangements in accordance with the principles of the Secure by Design Standard, including the potential to link to the London Borough of Ealing CCTV network, for each part of development shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority prior to each part being implemented.

**Reason:** In the interests of crime prevention throughout the site.

92. Prior to the commencement of each part of development, details shall be submitted to and approved in writing by the London Borough of Ealing as the local planning authority to demonstrate that the noise level emitted from any proposed external plant and machinery within the development phase, as assessed under BS4142: 1997, shall be lower than the existing background noise level by at least 5 dba as measured at 3.5 metres from the nearest ground floor sensitive facade and 1 metre from upper floor noise sensitive facades, during the relevant periods of operation.

**Reason:** To safeguard the amenities of the occupiers of the residential accommodation within the development.

93. No part of the development within the current PADHI zones shall be occupied until The Hazardous Substances Consent for the gas holder station has been revoked or varied in accordance with the Planning Hazardous Substances Act 1990, as amended, such that the Health and Safety Executive (HSE) does not advise that permission should be refused on safety grounds, and written confirmation of the necessary revocation or variation has been issued by the London Borough of Ealing as the local planning authority;

**Reason:** In the interests of health and safety, it is necessary to ensure that the adjoining gas infrastructure will not present a risk to safety.

94. No part of the development within the current PADHI zones shall be occupied, until the Southall to Richmond high pressure, natural gas pipeline (HSE Ref No. 8021) to the east of the manholder has been re-routed, or strengthened along its section through the development site and for a minimum of 8m beyond the site boundary, such that the HSE does not advise that permission should be for refused on safety grounds, and written confirmation of the necessary re-routing or strengthening has been received by the London Borough of Ealing as the local planning authority from the pipeline operator.

**Reason:** In the interests of health and safety, it is necessary to ensure that the adjoining gas infrastructure will not present a risk to safety.

95. Notwithstanding the provisions of Classes A, B, C, D, E, F and G of Part 1 of Schedule 2 to the Town and Country Planning (General Permitted Development) Order 1995 as amended by the Town and Country Planning (General Permitted Development) (Amendment) (No. 2) (England) Order 2008, or any subsequent Order revoking and re-enacting the provisions of that Order with or without modification, no development within the curtilage of a dwellinghouse other than that which forms part of the overall development hereby approved shall be carried out without the prior permission of the London Borough of Ealing as the

local planning authority, obtained through the submission of a planning application.

**Reason:** To prevent the overdevelopment of the sites and to safeguard the living conditions of adjoining properties and visual appearance of the buildings.

Use Class Change Restriction

72. Notwithstanding the provisions of the Town and Country Planning (Use Classes) Order 1987 (as amended), the D1 and D2 uses for non-residential institutions and assembly and leisure within each phase of development shall be restricted to those uses as identified in the application description and the approved parameter plans, and no changes to those uses shall be permitted without the prior written approval of the Local Planning Authority, through the submission of a full planning application for change of use.

**Reason**: The proposed mix of uses within the development has been considered against the impact on surrounding occupiers and the function of and need for these uses, in accordance with policies 4.1, 4.2, 5.5, 6.2, 7.2, 8.2 and 9.1 of the adopted Ealing Unitary Development Plan, 'Plan for the Environment' (2004).

Public Toilets

76. Prior to the commencement of non-residential development details shall be submitted to and approved in writing by the planning authority detailing the provision and management of accessible public toilet facilities within the commercial element of the development. Development shall proceed in accordance with the details as approved.

**Reason:** To ensure the adequate provision of complementary town centre facilities for users in accordance with policy 4.1 of the adopted Ealing Unitary Development Plan, 'Plan for the Environment' (2004).

Emergency Services Communication

81. Details of the measures to be incorporated into the design of the development to enable the operation of emergency services communications equipment throughout all levels of the scheme shall be submitted to and approved by the local planning authority prior to the commencement of each phase of the development, other than demolition, site preparation works, site remediation or the formation of accesses, and the detail so approved shall be implemented in accordance with an agreed scheme prior to the occupation of that relevant phase of the development.

**Reason:** In the interests of community safety, in pursuance of policy 4.4 of the adopted Ealing Unitary Development Plan, 'Plan for the Environment' (2004) and the provisions of Supplementary Planning Guidance 8 'Safer Ealing'.

Informatives

- Under the terms of the Water Resources Act 1991, and the Thames Region Land Drainage Byelaws 1981, the prior written consent of the Environment Agency is required for any proposed works or structures, in, under, over or within 8 metres of the top of the bank of the Yeading Brook, designated a 'main river'.
- Under the terms of the Land Drainage Act 1991, the prior written consent of the Environment Agency is required for proposed works or structures which will affect the flow of the, designated an 'ordinary watercourse'.
- The Sustainability Report has highlighted the need to adopt water efficiency measures. This is welcomed as the Thames Region (which includes all the London Borough's) has been identified as an area of 'serious water stress under our published document 'identifying Areas of Water Stress'.
- All landscaping areas (including private gardens) should be planted with drought tolerant plants, trees and grasses to minimise water requirements.
- When submitting Reserved Matters approval for landscaping for each Part of the Development the following details, shall if necessary, be submitted:
    - The position and spread of all existing trees, shrubs and hedges to be retained and trees to be removed
    - New tree and shrub planting including species, and planting densities
    - Existing contours and proposed finished ground levels or contours such as earth mounding
    - Areas of hard landscape works including paving and details, including samples, of proposed materials
    - Details of street furniture
    - Proposed and existing utilities apparatus above and below ground level
    - Where relevant, details of relevant sections of the canalside walk and associated plaza, including hard and soft landscaping, seating and lighting for a particular part
    - Details of how the proposed landscaping scheme will contribute to wildlife habitat (ranging from ground cover to mature tree canopy).

- A programme of the implementation and management of the landscape works for a period of 5 years from the date of planting

- lighting

- Prior to the commencement of details of the design of works to be undertaken within the vicinity of the railway, the applicant is recommended to contact Network Rail to ensure their proposals satisfy the requirements of Network Rail, in particular:

  a) Drainage - additional and increased flows of surface water should not be discharged into Network Rail land culverts or drains.

  b) Safety - No work should be undertaken that may endanger the safe operation of the railway or Network Rail's structures and adjoining land The demolition of buildings or other structures must be carried out in accordance with an agreed method statement.

  c) Ground levels - Network Rail need to be consulted on any alterations to ground levels, with no excavations near railway embankments, retaining walls or bridges.

  d) Support - Proposals should not cause surcharging of cutting slopes or retaining walls. Network Rail can accept no liability to maintain support to adjoining land other than for its existing use.

  e) Site layout - it is recommended all buildings be sited at least 2 metres from the boundary fence to allow construction and any future maintenance work be carried out without involving entry to Network Rail's infrastructure. Where trees exist on Network Rail land the design of the foundations close to the boundary must take into account the effects of root penetration in accordance with the Building Research Establishment's Guidelines.

  f) Environmental issues - Design and siting of buildings should take into account the possible effects of noise and vibration and the generation of airborne dust resulting from the operation of the railway.

  g) Lighting - Any external lighting may conflict with Network Rail's signalling system. You will be required to obtain Network Rail's approval of the detailed lighting proposals.

- Roof water down pipes should be connected to the drainage system either directly, or by means of back inlet gullies provided with sealing plates and drainage from covered car parking floors should pass through an approved oil separator before connecting to the surface water system.

- The development of this site is likely to damage archaeological remains. The applicant should therefore submit detailed proposals in the form of an archaeological project design. This design should be in accordance with the appropriate English Heritage guidelines.

- Construction and demolition works, audible beyond the boundary of the site shall only be carried out between the hours of 0800 and 1800 hours Mondays to Fridays and 0800 and 1300 hours on Saturdays and not at all on Sundays and Public Holidays.

  The maximum permitted noise levels are:

  - Not greater than 72 dB L Aeq.10 hr Mondays to Fridays.

  - Not greater than 72 dB L Aeq.5 hr Saturdays.

- Vibration from demolition, breaking of concrete and piling etc. as measured in the vertical direction on any floor in surrounding noise sensitive buildings shall not exceed an overall peak particle velocity level of 1mm/s
- Prior to commencement of development of construction and demolition works, details of noise/vibration and dust mitigation measures shall be submitted to the Environmental Health section for approval.
- Prior to commencement of development, of any site works, all sensitive properties surrounding the site shall be notified in writing of the nature and duration of the works to be undertaken and the name and address of a responsible person to whom enquiries and complaints should be directed.
- No bonfires should be lit on site.
- Any stone crushing plant proposed on site during the demolition process may require authorisation under the Environmental Protection Act (Prescribed Processes and Substances) Regulations 1991, SI 472. Contact the LBE Environmental Health Section on 20088258111.
- Any property operating as a café or restaurant or handling food may be required to register with the Council as a food business and to comply with the requirements of the Food Safety (General Food Hygiene) Regulations 1995 and the Food Safety Act 1990. For further details contact Environmental Health and Trading Standards on 0208 825 6666.
- The commercial units may be required to comply with the Health and Safety at Work Etc Act 1974 (Staff Amenities, Sanitary Accommodation, and Ventilation). For further details contact Environmental Health and Trading Standards on 020 8825 6666 or Health and Safety Executive on Tel 0845 345 0055 or www.hse.gov.uk
- When considering the timing of the carrying of the Part or Parts of the Development pursuant to Condition 10 the LPA shall take account of the indicative timeframes set out in the Transport Assessment and the Environmental Impact Assessment.

**Giles Dolphin**

Assistant Director Planning

Notes:

This is a planning permission only. It does not convey any approval or consent that may be required under Building Regulations or any other enactment.

Further to the guidance set out in paragraph 5.38 of the GOL Circular 1/2008 the Mayor has agreed with Ealing Council that Ealing Council will be responsible for decision on all subsequent approval of details pursuant to conditions set out in this decision notice.

**Appendix 3**
**Hillingdon Council Draft Permission (54814/APP/2009/430)**

Development & Environment Directorate

City Hall
The Queen's Walk
More London
London SE1 2AA
Switchboard: 020 7983 4000
Minicom: 020 7983 4458
Web: www.london.gov.uk
**Our ref:** PDU/2310/06
**Date:** TBC

**Myra Barnes**
Salisbury Jones Planning
33 Bassein Park Road
London W12 9RW

**DRAFT**

# Town & Country Planning Act 1990 (as amended); Greater London Authority Acts 1999 and 2007; Town & Country Planning (Mayor of London) Order 2008

**Site Address:** **Southall Gas Works Site (West Southall)**
**Application No:** **54814/APP/2009/430**
**Applicant:** **National Grid Property Limited**

## GRANT OF OUTLINE AND FULL PLANNING PERMISSION SUBJECT TO PRIOR WRITTEN CONCLUSION OF A SECTION 106 AGREEMENT

The Mayor of London, as the Local planning authority, hereby grants planning permission for the following development, in accordance with the terms of the above-mentioned application (which expression shall include the drawings and other documents submitted therewith):

Outline application

Demolition of 22 houses; the remediation of the land and the redevelopment of the site to deliver a large mixed use development including residential, non-food retail, food retail, restaurants, bars and cafes, hotel, conference and banqueting, cinema, health care facilities, education facilities, office/studio units, sports pavilion, an energy centre, multi-storey car park and associated car and cycle parking, landscaping, public realm, open space and children's play space.

Full application

New access roads from the Hayes by-pass and Southall town centre to the application site for vehicle, cycle and pedestrian access, including drainage and a flood relief pond. Widening of South Road across the railway line, widening of South Road over the railway line for the creation of a bus lane and three new accesses onto Beaconsfield Road. Two bridges over the Grand Union canal and Yeading Brook to provide pedestrian and cycle access to the Minet Country Park and Springfield Road.

Defined terms and expressions

To include:

Use Class - uses referred to in this permission to relate to the Use Classes Order 2005

Part - this could relate to a building block, a section of public realm, an area of open space etc and will be agreed with the local planning authority for each Reserved Matters application, to ensure that all reserved matters are approved for a particular element of the scheme before that element is implemented

Phase means a phase of the development as approved pursuant to the construction phasing programme

'Commencement of development' unless otherwise stated, this will exclude demolition; site 'Preparation Works, site remediation works, archaeological investigations, formation of accesses, and utility works but shall otherwise include works to implement this permission.

Development Units – units of development with approximately the same traffic generation characteristics. One Development Unit is equivalent to the following: (1) 1 residential dwelling (2) 100 sqm of retail, leisure, hotel and commercial floorspace.

Subject to the following conditions and reasons for conditions: -

**COMMENCMENT OF DEVELOPMENT, COMPLIANCE WITH OUTLINE PARAMETERS AND RESERVED MATTERS**

1. The development hereby permitted by way of a haul road or the Pump Lane Bridge, shall be begun before the expiration of nine years from the date of this permission.

   Reason: In order to comply with the provisions of the Town and Country Planning Act 1990.

2. This planning permission applies only to the following drawings and to no other, unless otherwise agreed in writing by the local planning authority:

P1000/00; P1001/00; P1002/00; P1003/00; P1004/00; P1005/00; P1006/00; P1007/00; P1008/01; P1009/00; P/1010/00; P1011/01; P1012/00;P1013/00; P1014/00; P1015/00; 800E Rev A; 800VV Rev A; 368_A_100-F; 368_A_200-B; 368_A_300; 368_A_305; 368_A_306; 368_A_310-B; 368_A_315-A; 368_A_316; 4597-P-003; 4597-P-001; 4597-P-002; EX_02_site plan; PO_02_site plan; PO_02_plan; PO_04_13A; PO_04_13B; PO_04_13C; PO_04_13D; 4597-P-010; 4597-P-011; 4597-P-12; 52212/B/31 RevA; 52212/A/32 Rev A; 52212/B/34 RevA; 52212/A/74; 52212/A/77; 4597-P-020; 4597-P-021; 4597-P-022; 4597-P-023; 4597-P-024; 52212/A/51/A; 52212/B/33/RevA; 52212/B/35 RevB; 52212/B/36; 4597-P-030; 4597-P-031; 4597-P-032; 4597-P-033; 4597-P-034; 4597-P-035; 4597-P-036; 52212/B/48; 52212/A/49; 52212/A/50; 52212/B/51; 52212/B/50; 52212/B/49; South Road/Uxbridge Road improvement option drawings: SK-SR1; SK-SR2 and SK-SR3; 4597-RT-01 Existing tree removal/clearance, retention and protection.

or any variation thereto which would not fall outside of the bounds of the description of the development of this permission and which is approved in writing by the local planning authority giving reasons for its decision and either:

i) the local planning authority is satisfied that the variations will not have any significant adverse environmental effects, or

ii) the application for variation has been accompanied by an environmental statement assessing the likely environmental effects of the variation.

**Reason:** To ensure that the development accords with the scope of the approved parameter plans and detailed drawings, in the interests of appearance, living and working conditions and the impact on neighbouring development.

3. Prior to the commencement of any bridge construction, the detailed design elements of the relevant bridge, which were not part of the applications and therefore not approved pursuant to this permission, shall be submitted to and approved in writing by the Local planning authority and where appropriate Transport for London. The bridges shall be constructed in accordance with the approved details.

   **Reason:** To ensure that each bridge would be of a high quality design standard.

4. Full details of facing materials including samples where appropriate to be used on all finishing materials including paving, roads, parking areas, means of enclosure, shall be submitted and approved by the Local planning authority, before the relevant part of the development is commenced.

   **Reason:** To ensure that all built development would be of a high quality design standard.

**STRATEGIES**

5. Prior to Commencement of Development the following strategies shall be submitted and approved in writing by the London Borough of Hillingdon as local planning authority, unless otherwise agreed in writing The strategies shall only apply to the administrative area of the London Borough of Hillingdon

a) Servicing - to include servicing of the site within Hillingdon for the duration of the construction of the development and its use thereafter

b) Access for all persons including provision for people with disabilities, who are visually impaired, or have mobility difficulties, and for parents with pushchairs and to include access to and within the development

c) Landscape Management

d) Drainage - for measures to dispose of surface water from the development

e) Estate Management and Crime Prevention - including access for emergency vehicles

**Reason:** To secure an inclusive, safe and high quality built environment for all users of the site, and where appropriate constrain local highway impact.

6. Unless otherwise agreed in writing with the local planning authority all development will be carried out in accordance with the approved strategies and, prior to commencement of development in the relevant part, details of compliance with the approved strategies shall be submitted in writing to the local planning authority.

**Reason:** To ensure that the development is carried out in accordance with the approved strategies.

**CONSTRUCTION MANAGEMENT SCHEME**

7. Site remediation, preparatory works and the development hereby permitted shall not commence until a proposed Construction Management Scheme for the development within the London Borough of Hillingdon has been submitted and approved in writing by the London Borough of Hillingdon as the Local Planning Authority in consultation with Transport for London (where relevant as strategic highway authority). Details to include:

a) A detailed specification of construction works at each part of development

b) The best practical means available in accordance with British Standard Code of Practice BS5228: 1997 to be employed at all times to minimise the emission of noise and dust from the site;

c) A suitable and efficient means of monitoring and suppressing dust, vapours and odours must be provided and maintained, including where necessary the use of deodorising agents and adequate containment of stored or accumulated material so as to prevent it becoming airborne at any time and giving rise to nuisance.

d) Engineering measures, acoustic screening and the provision of sound insulation required to mitigate specific environmental impacts identified;

e) Identification of the most sensitive receptors, both residential and commercial where assessment and monitoring of impacts will be undertaken as work progresses;

f) Means of enclosure and security of the site and individual phases

g) A framework travel plan for construction workers

h) Defined access routes to the site for all vehicles relating to the remediation and construction of the development.

i) Details of the arrangements for the delivery of materials to the site for the construction of the development - including hours and restrictions on construction traffic having regard to the need to control construction traffic during peak hours.

j) Construction waste management strategy

k) Unless otherwise agreed as part of the Construction Management Strategy and Code of Practice, the operation of site equipment and / or plant and machinery generating noise that is audible at the façade of residential or noise sensitive premises shall only be carried out between the hours of 0800 to 1800 Mondays to Fridays, 0800 to 1300 on Saturdays and at no time on Sundays and Bank Holidays unless otherwise agreed by London Borough of Hillingdon as the local planning authority;

l) Details of the proposed timing sequence and location of the development within the London Borough of Hillingdon:

m) Adoption and implementation of the Considerate Contractor Scheme (or similar to be agree with the LPA) registration and operation:

n) Details of how vehicles transporting contaminated waste that leave the site (including wheel washing and covering of loads) will be managed to prevent any contaminants from entering the environment:

o) Details of and restriction on the heights of cranes, having regard to Air Safeguarding Zones:

p) Measures to mitigate disturbance to nesting birds on site:

q) Arrangements for publicity and promotion of the scheme during construction:

r) Details of an advertised 'hotline' to be operated and funded by the developer to enable any complaints to be recorded;

s) Liaison with the Local Authority's Environmental Health Unit to register complaints received and response/action taken;

t) The availability of a site manager(s) or other persons with appropriate seniority within the organisation capable of authorising proper remedial action where appropriate: and

u) Details of how access is to be provided for vehicles, plant and machinery to the two bridges and to the Pump Lane Link Road, while protecting the amenities of the Minet Country Park Green Belt land.

Thereafter the development shall be carried out in accordance with the approved details, unless otherwise agreed in writing by the London Borough of Hillingdon as the Local Planning Authority.

**Reason:** In the interests of minimising the impact of noise, vibration and airborne pollution on the amenities of occupiers of properties within the vicinity of the site, to limit the works to reasonable hours and to minimise the impact of construction traffic on the highway network.

8. No more than 1350 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the Bulls Bridge signalised junction as shown on Drawing No 52212/B/48 unless otherwise agreed in writing by the London Borough of Hillingdon as the local planning authority in consultation with Transport for London.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

9. No more than 1500 Development Units shall be occupied prior to the construction and bringing into use of the improvement works to the M4J3 signalised junction as shown on Drawing No 52212/B/31 unless otherwise agreed in writing by the London Borough of Hillingdon as the local planning authority in consultation with Transport for London and the Highways Agency.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

10. The improvement works to the Bulls Bridge signalised junction shall be constructed and brought into use before commencement of the improvement works to the M4J3 signalised junction unless otherwise agreed in writing by the

London Borough of Hillingdon as the local planning authority in consultation with Transport for London and the Highways Agency.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

11. No more than 1750 Development Units shall be occupied prior to the bringing into use for general traffic of the Pump Lane Access works as shown on Drawings No 52212/B/33 and 52212/B/34 unless otherwise agreed in writing by the London Borough of Hillingdon as the local planning authority in consultation with Transport for London.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

12. Prior to development commencing, the detailed design for the new western link to Pump Lane and the new signalised junction shall be submitted to and approved in writing by the Local Planning Authority. The new western link to Pump Lane shall not be open to general traffic until the off-site highway works at Pump Lane/Western Access have been fully completed and opened to traffic.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network and accord with policy AM7 of the Hillingdon Unitary Development Plan Saved Policies (September 2007).

13. Prior to development commencing, the detailed design of the Pump Lane/Bilton Way junction improvements shall be submitted to and approved in writing by the Local Planning Authority. No more than 500 Development Units shall be occupied prior to the bringing into use the Pump Lane/Bilton Way junction improvements as shown on Drawing No 52212/A/77, as well as the signalisation of that junction.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network and accord with policy AM7 of the Hillingdon Unitary Development Plan Saved Policies (September 2007).

14. Prior to development commencing, the detailed design of the Pump Lane Width Restriction and associated works as shown on Drawing No 52212/A/74 shall be submitted to and approved in writing by the Local Planning Authority. The Pump Lane Width Restriction and associated works as shown on Drawing No 52212/A/74 shall be completed within 6 months following notification by TfL that they intend to run a bus service via Pump Lane.

**Reason:** To mitigate the impact of additional traffic on highway safety and the capacity of the highway network and accord with policy AM7 of the Hillingdon Unitary Development Plan Saved Policies (September 2007).

15. Plans and details of construction and surfacing of the Pump Lane link road, including cycle and footpaths shall be submitted to and approved in writing by the Local Planning Authority before development commences.

**Reason:** To ensure pedestrian and vehicular safety and the free flow of traffic and conditions of general safety within the site and on the local highway network in accordance with Policies AM7, AM9, and AM14 of the Hillingdon Unitary Development Plan Saved Polices (September 2007),

16. The Pump Lane / Bilton Way junction improvements as shown on Drawing No 52212/A/77, as well as the signalisation of that junction shall be completed and operational prior to the opening to the general public of the Pump Lane Link Road Access.

**Reason**: To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

17. The Pump Lane Width Restriction as shown on Drawing No 52212/A/74 shall be completed and operational prior to the opening to the general public of the Pump Lane Link Road Access.

**Reason**: To mitigate the impact of additional traffic on highway safety and the capacity of the highway network.

18. Plans and details of construction and surfacing of the Pump Lane link road, including cycle and footpaths shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority before development commences

**Reason**: To ensure pedestrian and vehicular safety and the free flow of traffic and conditions of general safety within the site and on the local highway network.

**REMEDIATION**

19. Before any part of the development is commenced, a survey, for only that part of the land where it is proposed to site the footings of the two bridges and Pump Lane Road access, to assess the soil contamination levels and a remediation scheme for the soil contamination for the footings for the two pedestrian/cyclist access bridges, and the land across which it is proposed to construct the extension to Pump Lane, shall be submitted to, approved in writing by the London Borough of Hillingdon as the local planning authority and carried out to the satisfaction of the London Borough of Hillingdon. All works which form part of this remediation scheme shall be completed before the commencement of the relevant bridge works unless otherwise agreed in writing by the London Borough of Hillingdon as the local planning authority.

**Reason:** To ensure that the occupants of the development are not subjected to any risks from land contamination.

20. If contamination not previously identified is found to be present during any remediation works such materials shall be dealt with under a reactive strategy, the protocols for such being set out within the approved detailed scheme. When materials are encountered which require alteration to the agreed strategy, the London Borough of Hillingdon as the local planning authority shall be immediately informed in writing and amended remediation details for that part shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority prior to the completion of that part of remediation.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

21. Following the completion of each part of site remediation, and prior to the commencement of any further development on this part, a validation/verification report demonstrating completion of the works set out in the remediation scheme together with amendments and longer term monitoring for the relevant part shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority.

Each validation/verification report shall include:

a) Detail of who carried out the work

b) Laboratory and in-situ test results to demonstrate that the site remediation criteria have been met

c) Monitoring of groundwater and gases during remediation and details of monitoring programme post completion of remedial works, where agreed

d) Summary data plots and tables relating to clean-up criteria

e) Plans showing treatment areas and details of any differences from the original remediation strategy

f) Waste management documentation

g) Confirmation that remediation objectives have been met, for example, by provision of a certificate of completion

h) A long term monitoring and maintenance plan for longer term monitoring of pollutant linkages, maintenance and arrangements for contingency action and for the reporting of this to the London Borough of Hillingdon as the local planning authority.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

22. Full details of foundation design of the Pump Lane Access, and both pedestrian/cycle bridges including a method statement for each relevant part shall be submitted to and approved in writing by London Borough of Hillingdon as the local planning authority prior to the commencement of development in that part (for the avoidance of doubt including undertaking foundation works). The relevant part of development shall take place in accordance with details approved pursuant to this condition.

**Reason:** The site is known to be subject to contamination, with remediation necessary to provide for the proposed future use of the site and to protect controlled waters from the continued effects of previous land use.

23. The construction of storage facilities for oils, fuels or chemicals shall be carried out in accordance with details submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority before the relevant part of the development is commenced.

**Reason:** To protect groundwater and land from pollution.

24. Prior to the commencement of development, a detailed method statement for the removal of Japanese Knotweed, Giant Hogweed and Himalayan Balsam on the site of the bridges shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority. The method statement shall include proposed measures to prevent the spread of Japanese Knotweed, Giant Hogweed and Himalayan Balsam during any operations such as mowing, strimming or soil movement. It shall also contain measures to ensure that any soils brought to the site are free of the seeds / root / stem of any invasive plant covered under the Wildlife and Countryside Act 1981. Development shall proceed in accordance with the approved method statement.

**Reason:** To prevent the spread of invasive species and to protect native flora.

**LANDSCAPING AND ECOLOGY**

25. Prior to development commencing, details of a landscaping and maintenance scheme for the development within the London Borough of Hillingdon shall be

submitted to and approved by the London Borough of Hillingdon as the local planning authority.

The approved soft landscaping shall be implemented within 3 months of the substantial completion of Pump Lane Bridge for use by the general public, or such other time as may be agreed in writing by the London Borough of Hillingdon as the local planning authority.

**Reason:** To provide a satisfactory design and finish in the interests of the visual amenities of the locality.

26. All existing trees on site as shown to be retained on the 'Existing Tree Removal/Clearance, Retention and Protection Document' (Ref4597-RT-01) prepared by Capital Lovejoy shall be retained, with root protection zones identified and appropriately secured in accordance with British Standard BS5837 – 'Trees in Relation to Construction' as amended. No retained trees and shall be lopped or topped without prior written approval of the London Borough of Hillingdon as the local planning authority. [Conor to check retention]

**Reason:** To protect all existing trees to be retained on the site in the interests of visual amenity.

27. If any retained tree becomes diseased, seriously damaged or dies as a result of development then a replacement tree shall be planted, to the satisfaction of the London Borough of Hillingdon as the local planning authority, within 9 months of the completion of relevant part of the development.

**Reason:** To secure the integral planting of trees in the interests of visual amenity.

28. Any trees or shrubs that die within a period of 5 years from the date of planting, are removed or become seriously damaged or diseased, shall be replaced in the next planting reason with others of a similar size and species, unless the London Borough of Hillingdon as the local planning authority gives written consent to any variation.

**Reason:** To secure the integral planting of trees in the interests of visual amenity.

29. All approved tree works shall be undertaken outside the bird-nesting season (March-August inclusive) and shall first be inspected for bats. If bat activity is identified in any tree then the London Borough of Hillingdon as the local planning authority must be notified in the first instance for approval in writing, in consultation with Natural England, for any works commencing on that tree.

**Reason:** To protect existing ecology interests on the site.

30. Prior to commencement of remediation, preparatory works or construction on site, a detailed Ecological Management Plan to include full details of ecological enhancement measures, protection and enhancement of wildlife habitation, and appropriate planting shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority in consultation with Natural England . prior to the commencement of the relevant part of the development. The specific ecological measures to be provided in areas of new habitat creation, including the proposed 4 metre buffer strips shall be designed to encourage bat foraging activity. These measures should include:

a) A high proportion of locally native, nectar-rich and berry-bearing species of planting

b) Retained dead and decaying timber, such as log piles

c) Scope of works for the Ecological Clerk of Works which shall include shall include regular checks for grass snake and water vole in areas prior to their being disturbed by construction workers or activities so as to ensure that incidental killing of grass snakes does not occur during the course of works.

**Reason:** To ensure that ecological enhancement measures are provided and managed.

31. Prior to the commencement of any remediation and construction works for the development within London Borough of Hillingdon, an Ecological Clerk of Works shall be appointed by the applicant and retained as part of the construction team to brief construction workers on ecological issues, including a briefing of site personnel concerning identification of grass snake, legal obligations in respect of this endangered species, and actions to be taken in the event of it being present and to ensure that best practice is implemented during all site clearance, tree felling, earthworks and construction activities. The Ecological Clerk of Works shall carry out the scope of works agredd.
**Reason:** To protect existing ecology interests on the site.

32. Prior to remediation, preparatory works and construction commencing in the relevant part of the development in the London Borough of Hillingdon the applicant shall undertake surveys to assess the presence of:

a) Bats
b) Water vole
c) Grass snakes
d) Invertebrates
e) Birds and ground-nesting birds

in compliance with relevant UK and EU legislation. The Ecological Clerk of Works shall monitor all surveys and all survey information, and any relevant mitigation measures, shall be submitted to and approved by the London Borough of Hillingdon as the local planning authority prior to any works commencing in that part of the development area.

**Reason:** To protect existing ecology interests on the site.

33. Prior to Commencement of Development on site, a detailed Bird Hazard Management Plan shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority. Any trees, plants, shrubs or other vegetation to be planted or grown on the site shall so far as practicable be selected from species and planted and grown in such a manner as shall minimise the attraction hereof to birds.

**Reason:** To help minimise the risk of bird collision with aircraft operation associated with Heathrow Airport in the interests of human safety.

**FLOOD RISK AND DRAINAGE**

34. The realignment of the flood relief channel hereby permitted shall not be commenced until such time as the detailed design of the river realignment has been submitted to, and approved in writing by, the London Borough of Hillingdon as the local planning authority. The approved details shall be fully implemented and subsequently maintained, in accordance with phasing arrangements.

**Reason:** To ensure there is no increased risk of flooding as a result of the realignment of the river.

35. Development of the Pump Lane Link Road bridge shall not begin until the detailed design of the surface water drainage pond for the relevant part, including the flood storage area, based on the principles set out in the FRA West Southall Yeading Brook A012564 V4 dated August 2008 by White Young Green, have been submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority. The detailed design and management proposal for the flood storage area shall incorporate appropriate management measures in respect of flooding and control of pollutants from road runoff, and provisions to ensure this occurs in the longer term. The scheme shall subsequently be implemented in accordance with the approved details and the agreed timing / phasing arrangements embodied within the scheme.

**Reason:** To prevent the increased risk of flooding, to improve and protect water quality, improve habitat and amenity, and ensure future maintenance of the surface water drainage system.

**WHEELCHAIR ACCESS**

36. Prior to the construction of the pedestrian/cycle bridge over the Yeading Brook and Grand Union Canal connecting to Springfield Road, full details and scale drawings of an alternative wheelchair access to the Springbridge Road pedestrian/cycle bridge shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority and where appropriate Transport for London. The bridge shall be completed in accordance with such approved details. [Hillingdon to check this condition]

**Reason:** To ensure inclusive access for all future users of the bridge.

**ARCHAEOLOGY**

37. Save for archaeological investigations, no part of the development shall be commenced unless agreement has been reached with the London Borough of Hillingdon as the local planning authority on the extent of any archaeological works necessary for that part of the development within the London Borough of Hillingdon. A programme of any archaeological work required by that agreement together with a method statement shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority before development commences within the part of the development in question, or as otherwise agreed in writing by the London Borough of Hillingdon as the local planning authority. A suitably qualified archaeologist, approved by the London Borough of Hillingdon as the local planning authority in accordance with the approved programme and method statement, shall carry out all archaeological work.

**Reason:** To safeguard the archaeological interest of the site.

**AMENITY**

38. Full details of lighting and external illumination for the Pump Lane Link Road Bridge, the Minet Country Park Cycle/Pedestrian Bridge and the Springfield Road Cycle/pedestrian Bridge shall be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority prior to the commencement of the relevant part of the development.

**Reason:** To minimise light spill from the new development into the watercourse or adjacent river corridor habitat and to secure safe pedestrian access during darkness.

39. Not to place or cause to be placed on the site any external lighting or flood lighting, including any external illuminated signage, without the prior written approval of the London Borough of Hillingdon as the local planning authority in consolation with the Civil Aviation Authority.

**Reason:** To ensure that the direction and/or density of such lighting does not distract any aircraft operation at Heathrow Airport or has an adverse effect on any navigational equipment at the Airport.

40. Full details of security arrangements including the potential to link to the CCTV network, for the Pump Lane Link Road Bridge, the Minet Country Park Cycle/pedestrian Bridge and the Springfield Road Cycle/pedestrian Bridge shall be submitted to and approved by the London Borough of Hillingdon as the local planning authority prior to each part being implemented.

    **Reason:** In the interests of crime prevention on each of the bridges.

41. Prior to the commencement of the development a Risk Assessment and Method Statement outlining all works to be carried out adjacent to the Grand Union Canal must be submitted to and approved in writing by the London Borough of Hillingdon as the local planning authority. The risk assessment shall also include details of the proposed safety equipment along the canal frontage, which shall be installed prior to first occupation of the development herby permitted.

    **Reason:** To ensure the safety of workers and the public during development in compliance with the Construction (Design management) Regulations 1994.

Informatives

- Under the terms of the Water Resources Act 1991, and the Thames Region Land Drainage Byelaws 1981, the prior written consent of the Environment Agency is required for any proposed works or structures, in, under, over or within 8 metres of the top of the bank of the Yeading Brook, designated a 'main river'.
- Under the terms of the Land Drainage Act 1991, the prior written consent of the Environment Agency is required for proposed works or structures which will affect the flow of the, designated an 'ordinary watercourse'.
- The Sustainability Report has highlighted the need to adopt water efficiency measures. This is welcomed as the Thames Region (which includes all the London Borough's) has been identified as an area of 'serious water stress under our published document 'identifying Areas of Water Stress'.
- All landscaping areas (including private gardens) should be planted with drought tolerant plants, trees and grasses to minimise water requirements.
- Prior to the commencement of details of the design of works to be undertaken within the vicinity of the railway, the applicant is recommended to contact Network Rail to ensure their proposals satisfy the requirements of Network Rail, in particular:

  a) Drainage - additional and increased flows of surface water should not be discharged into Network Rail land culverts or drains.

b) Safety - No work should be undertaken that may endanger the safe operation of the railway or Network Rail's structures and adjoining land The demolition of buildings or other structures must be carried out in accordance with an agreed method statement.

c) Ground levels - Network Rail need to be consulted on any alterations to ground levels, with no excavations near railway embankments, retaining walls or bridges.

d) Support - Proposals should not cause surcharging of cutting slopes or retaining walls. Network Rail can accept no liability to maintain support to adjoining land other than for its existing use.

e) Site layout - it is recommended all buildings be sited at least 2 metres from the boundary fence to allow construction and any future maintenance work be carried out without involving entry to Network Rail's infrastructure. Where trees exist on Network Rail land the design of the foundations close to the boundary must take into account the effects of root penetration in accordance with the Building Research Establishment's Guidelines.

f) Environmental issues - Design and siting of buildings should take into account the possible effects of noise and vibration and the generation of airborne dust resulting from the operation of the railway.

g) Lighting - Any external lighting may conflict with Network Rail's signalling system. You will be required to obtain Network Rail's approval of the detailed lighting proposals.

- The development of this site is likely to damage archaeological remains. The applicant should therefore submit detailed proposals in the form of an archaeological project design. This design should be in accordance with the appropriate English Heritage guidelines.
- Construction and demolition works, audible beyond the boundary of the site shall only be carried out between the hours of 0800 and 1800 hours Mondays to Fridays and 0800 and 1300 hours on Saturdays and not at all on Sundays and Public Holidays.

  The maximum permitted noise levels are:

  - Not greater than 72 dB L Aeq.10 hr Mondays to Fridays.

  - Not greater than 72 dB L Aeq.5 hr Saturdays.
- Vibration from demolition, breaking of concrete and piling etc. as measured in the vertical direction on any floor in surrounding noise sensitive buildings shall not exceed an overall peak particle velocity level of 1mm/s
- Prior to commencement of development of construction and demolition works, details of noise/vibration and dust mitigation measures shall be submitted to the Environmental Health section for approval.
- Prior to commencement of development, of any site works, all sensitive properties surrounding the site shall be notified in writing of the nature and duration of the

works to be undertaken and the name and address of a responsible person to whom enquiries and complaints should be directed.

- No bonfires should be lit on site.
- Any stone crushing plant proposed on site during the demolition process may require authorisation under the Environmental Protection Act (Prescribed Processes and Substances) Regulations 1991, SI 472. Contact the LBE Environmental Health Section on 20088258111.
- Any property operating as a café or restaurant or handling food may be required to register with the Council as a food business and to comply with the requirements of the Food Safety (General Food Hygiene) Regulations 1995 and the Food Safety Act 1990. For further details contact Environmental Health and Trading Standards on 0208 825 6666.
- The commercial units may be required to comply with the Health and Safety at Work Etc Act 1974 (Staff Amenities, Sanitary Accommodation, and Ventilation). For further details contact Environmental Health and Trading Standards on 020 8825 6666 or Health and Safety Executive on Tel 0845 345 0055 or www.hse.gov.uk

**Giles Dolphin**

Assistant Director Planning

Notes:

This is a planning permission only. It does not convey any approval or consent that may be required under Building Regulations or any other enactment.

Further to the guidance set out in paragraph 5.38 of the GOL Circular 1/2008 the Mayor has agreed with Hillingdon Council that Hillingdon Council will be responsible for decision on all subsequent approval of details pursuant to conditions set out in this decision notice.

**Appendix 4**
**Minet Country Park Scope of Works**

| ITEM | | Description | Total |
|---|---|---|---|
| **Reinstatement/ Habitat creation & enhancement as compesation for land lost due to roadway** | Clear fly tip material within | removal of remaining flytip material | £15,750.00 |
| | | special waste | £11,250.00 |
| | Invasive species removal | chemical treatment 20 year programme @ £800 per occ x 5 occasions per annum =£4k | £80,000.00 |
| | Tree Planting | Recreation of woodland habitat lost including planting costs tree guards/stakes/watering regime/replacement programme | £90,000.00 |
| | Wild flower meadow | creation of 3 wildflower areas totalling 13125 m2: Cultivating & seeding @ 0.80 per m2 | £10,500.00 |
| | Reed bed | creation of reed bed in conservation area within cycle circuit including excavation, lining with butyl liner, planting up also to include wooden walk way & platform and pump for filling | £15,000.00 |
| | Pond improvements/creation | excavating and re-lining of existing pond and creation of 2 new smaller ones | £25,000.00 |
| | Scrapes | create scrapes within wet areas of the site including Wembley field to include digging out, lining and planting up | £15,000.00 |
| | Reptile hibernacula | create refuge areas at various suitable locations around the site to protect existing populations on site to include excavation of trench, drainage, blocks, chippings and corrogated perforated pipe including consultation for best site and display boards | £48,000.00 |
| | refuge areas | Create areas where birds can rest/inhabit with no disturbance from park visitors including fencing and bird boxes and screening | £70,000.00 |
| **Toilet facility** | DDA compliant | 6 cubical units including connection of services | £180,000.00 |
| **Signs** | Interpretation boards | Woolmer Fitzpatrick including installation | £40,000.00 |
| | Way Markers | Bespoke including installation | £30,000.00 |
| | Site Information / map | Woolmer Fitzpatrick including installation | £40,000.00 |
| **Fibredeck Paths** | New | Steve Yates - LBH landscape architect | £93,426.66 |
| | Enhanced | Steve Yates - LBH landscape architect | £99,700.00 |
| | Cycle/pedestrian Path | Steve Yates - LBH landscape architect | £117,000.00 |
| **Fencing / hedging** | Post and Rail | Drayton Fencing supply & fit per m | £55,000.00 |
| | Hedges | Instant mixed natural hedge 1.8 -2m planting per 1m | £55,080.00 |
| **Cameras** | PTZ | Car park & buildings | £50,000.00 |
| | CCTV | Bridges | £90,000.00 |
| **Furniture** | Field Gate | Centrewire. Including hang and slam posts supply & fit | £2,250.00 |
| | Kissing Gate | Drayton Fencing supply & fit | £12,500.00 |
| | Lighting - from bridges to toilets | street lighting approx 2000 per column - these must be environmentally sound ie Bat friendly | £100,000.00 |
| | Litter Bins | Cast-iron Bins | £14,400.00 |
| | Bicycle racks | To secure bicycles including installation | £2,000.00 |
| | Seating | Benches including installation of concrete pad | £8,200.00 |
| | Picnic tables | DDA compliant | £15,000.00 |
| | Dog waste bins | Glasdon Retriever plus installation | £3,950.00 |

| | | | |
|---|---|---|---|
| | Tree Guards | Steel Tree guard - David Ogilvie including installation | £5,250.00 |
| | Trim Trail/Healthy living/Natural play equipment | Playdale Trim Trail 13 station circuit | £6,258.30 |
| | | Individual signposts | £2,093.00 |
| | | Interpretation boards | £2,654.20 |
| | | installation | £12,750.00 |
| | | Natural play facility to include Boulders, tree trunks, various tubes and other items includind design and installation | £60,000.00 |
| | Rangers building | office, toilet, washroom for new rangers | £150,000.00 |
| | Tool Store | Storage area for tools/bins etc | £80,000.00 |
| | | Nature trail/ Footpaths 2m wide | £12,000.00 |
| **Ranger** | on site ranger | | £70,000.00 |
| **Maintenance** | commuted sum to cover additional maintenance | 20 year calculation additional maintenance costs | £0.00 |
| **Contingency** | | | £50,000.00 |
| | | | £1,840,012.16 |

**Appendix 5**
**Framework Travel Plan**

**Savell Bird & Axon**

part of the **WYG** group

## National Grid Property Limited

# WEST SOUTHALL

## Framework Travel Plan

## September 2010

**Transport Planning Specialists**

Ariel House, 74a Charlotte Street, London, W1T 4QJ
Tel: +44(0)20 7580 8844 Fax: +44(0)20 7580 8818 Email: sba@sbax.co.uk www.sbax.co.uk
WYG Environment Planning Transport Ltd Registered in England Number: 3050297
Registered office: Arndale Court, Otley Road, Headingley, Leeds, LS6 2UJ

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# 1 INTRODUCTION

## Overview

1.1 Savell Bird and Axon is retained by National Grid Property Limited (the Site Owner) to prepare a Framework Travel Plan for the West Southall development (the Site) in Ealing.

1.2 This Framework Travel Plan is one of a series of documents that have been prepared on behalf of the Site Owner to support an outline planning application for the comprehensive redevelopment of Site. The document sets out the overarching principles to be adopted to promote sustainable travel including design along with a range of measures to be considered for Travel Plans when they are prepared for plots as they are developed.

1.3 The Site, located in Southall adjacent and to the north of the London – Cardiff mainline railway line, is currently used for car storage and airport parking. Vehicular access is constrained and the highway network in the vicinity suffers from long periods of congestion throughout the day with queues forming on the approaches to many junctions. Furthermore, although there are good cycle, pedestrian and public transport links external to the Site, links within the existing site are poor to non-existent.

1.4 Given the above, the promotion of sustainable travel is considered key to the successful redevelopment of the Site. However, although the redevelopment will result in significant improvements to walking, cycling and public transport opportunities within the Site and immediate area, measures will need to be put in place to inform and encourage people to travel by sustainable modes.

1.5 The Site which forms an extension to Southall and will come forward over a 15 year period with individual plots developed as demand dictates. Developers of the plots which meet the requirements as set out in the Mayor's Guidance will be required to prepare Travel Plans and submit these with detailed planning applications for approval. Occupiers of the completed building will then be required to implement the Travel Plan.

# The Development

## Elements

1.6 The proposals envisage a residential led mixed-use scheme along with retail, commercial, community and leisure uses, plus associated facilities. Table 1.1 includes a summary of the main elements of the scheme and a copy of the indicative Masterplan is included in **Appendix A.**

**Table 1.1: Summary of Development Proposals**

| Land Use | | Maximum Quantum of Floorspace |
|---|---|---|
| Residential | | Between 3,400 and 3,750 units |
| Retail | A1 Food | 5,850sqm |
| | A1 Non-Food | 14,200sqm |
| | A3, A4 & A5 Uses | 1,750sqm |
| | Total | 21,600sqm |
| Other Uses | Employment | 3,500sqm |
| | Hotel | 9,650sqm |
| | Conference | 3,000sqm |
| | School & Nursery | 3,450sqm |
| | Cinema | 4,700sqm |
| | Health | 2,550sqm |
| | Total | 26,850sqm |

1.7 There will be up to a total of 3,577 spaces for cars with parking for all uses, including a maximum of 2,625 residential parking spaces at an average of 0.7 spaces per unit and town centre parking at circa 1 space per 50sqm. Included in the quantum is parking for disabled persons along with allocated spaces for Car Club vehicles.

1.8 Electric vehicle charging points will be provided in line with the Mayors London Plan and associated guidance.

1.9 There is limited car parking for both the residential and commercial elements of the scheme. In this regard, a Site Wide Car and Cycle Parking Management Strategy will be prepared for the Site (which is summarised at Section 10) to manage all parking with the

emphasis on discouraging long stay car parking and providing adequate facilities for cyclists.

1.10 Cycle parking will be provided in accordance with the Mayors cycle parking standards.

1.11 The proposals include a total of five vehicular connections, with primary accesses to the east (on to South Road) and west (on to the A312 via Pump Lane) along with three secondary connections to Beaconsfield Road in the north.

1.12 Pedestrian and cycle facilities will be provided adjacent to the vehicular routes as appropriate along with additional connections to the west (via two new footbridges into Minet Country Park), the south under the railway line (at Brent Road and Dudley Road) and the north (to Beaconsfield Road). Further improvements will also be made beyond the Site boundary as identified through the Area Wide Walking and Cycling Study.

1.13 A Public Transport Strategy has been developed which envisages the provision of up to 30 buses an hour in each direction depending on the level of demand and reliability with funding and improvements being triggered by development units. The strategy will be achieved through diverting and extending existing services along with the creation of new routes.

## Phasing

1.14 Table 1.2 sets out an indication of the phases associated with the construction of the development (an indicative phasing plan can be found at **Appendix B**). The Site is anticipated to be developed over a 15 year period from decontamination and demolition of existing infrastructure through to completion and occupation of the final dwellings. The programme illustrates a total of 13 phases, broadly working from East to West, with construction access taken from Pump Lane.

1.15 A detailed Construction Management Plan (CMP) will be prepared to set out the principles to be adopted by contractors delivering the strategic infrastructure along with those responsible for constructing buildings throughout the Site. The CMP will set out issues such as volumes and programming (avoiding peak periods), construction consolidation, routing agreement principles for the delivery and removal of material, working practices along with other practices to minimise impacts associated with the construction.

1.16 Contractors will be required to adopt the measures set out in the CMP along with providing details on routing agreements specific to the plot. The primary aim of the routing agreement will be to avoid inappropriate routes through residential areas and consolidate trips outside of the peak periods.

**Table 1.2: Summary of Phasing Programme for Main Site**

| Phase | | Completed Development | |
|---|---|---|---|
| | | **Indicative Masterplan** | **Total Provision** |
| 2010 – 2014 | 1 | 192 Dwellings; NFR (2,731sqm); Office (1,039sqm) | 1,000 Dwellings + Supermarket (5,850sqm) Cinema (4,700sqm) + NFR (8,250sqm) + A3, A4 & A5 (1,750sqm) + Office/studio (3,500sqm) |
| | 2 | 82 Dwellings; Cinema (4,651sqm); NFR (1,719sqm) | |
| | 3 | 370 Dwellings; A3, A4 & A5 (1,720sqm) | |
| | 4 | 283 Dwellings; Studio (2,358sqm); S/market (5,822sqm); NFR (3,549sqm) | |
| 2015 – 2019 | 5 | 180 Dwellings; NFR (5,277sqm); School (413sqm) | 1,850 Dwellings + Hotel (9,650sqm) + Conference (3,000sqm) + School (3,050sqm) + Heath (2,550sqm) + NFR (5,750sqm) |
| | 6 | 395 Dwellings; Hotel (9,608sqm); Conference (2,979sqm) | |
| | 7 | 390 Dwellings; School (2,588sqm); Health (2,511sqm) | |
| | 8 | 303 Dwellings; NFR (208sqm) | |
| | 9 | 430 Dwellings | |
| 2020 - 2025 | 10 | 297 Dwellings; School (401sqm) | 900 Dwellings + School (450sqm) + NFR (200sqm) |
| | 11 | 200 Dwellings | |
| | 12 | 249 Dwellings; NFR (183sqm) | |
| | 13 | 122 Dwellings | |

# Policy Background

## National Policy

### Planning Policy Guidance 13 – Transport

1.17 Government policy guidance advises that Travel Plans should be submitted alongside planning applications which are likely to have significant transport implications.

1.18 *Paragraph 87.* 'The Government wants to help raise awareness of the impacts of travel decisions and promote the widespread use of travel plans amongst businesses, schools, hospitals and other organisations.'

1.19 *Paragraph 88.* 'There is no standard format or content for travel plans, and they may have a variety of names (such as green transport plans, company travel plans and school travel plans). However, their relevance to planning lies in the delivery of sustainable transport objectives, including:

i) reductions in car usage (particularly single occupancy journeys) and increased use of public transport, walking and cycling;

ii) reduced traffic speeds and improved road safety and personal security particularly for pedestrians and cyclists; and

iii) more environmentally friendly delivery and freight movements, including home delivery services.'

1.20 *Paragraph 89.* 'The Government considers that travel plans should be submitted alongside planning applications which are likely to have significant transport implications, including those for:

i) all major developments comprising jobs, shopping, leisure and services;

ii) smaller developments comprising jobs, shopping, leisure and services which would generate significant amounts of travel in, or near to, air quality management areas, and in other locations where there are local initiatives or targets set out in the development plan or local transport plan for the reduction of road traffic, or the promotion of public transport, walking and cycling. This particularly applies to offices, industry, health and education uses;

iii) where a travel plan would help address a particular local traffic problem associated with a planning application, which might otherwise have to be refused on local traffic grounds.'

1.21 However, unacceptable development should never be permitted because of the existence of a travel plan.

1.22 *Paragraph 91.* 'The weight to be given to a travel plan in a planning decision will be influenced by the extent to which it materially affects the acceptability of the development proposed and the degree to which it can be lawfully secured. Under certain circumstances some or all of a travel plan may be made binding either through conditions attached to a planning permission or through a related planning obligation. Conditions attached to a planning permission will be enforceable against any developer who implements that permission and any subsequent occupiers of the property. Planning obligations will be enforceable against the person who entered into the obligation and any person deriving title from that person.'

## Regional Policy

### The London Plan

1.23 After a consultation in 2008, the Mayor decided to create a replacement London Plan rather than amend the previous London Plan. The Consultation Draft Replacement London Plan (October 2009) sets out the Mayor's vision for London with travel covered in Chapter 6. There are a total of fifteen policies covering all aspects of travel from walking and cycling through to public transport, parking and freight along with setting out minimum and maximum parking standards for cycling and cars.

1.24 Minor alterations to the consultation draft have taken place since October 2009. Most recently on 13th September 2010, the Major launched a six week public consultation on Minor Alterations (to the consultation draft Replacement London Plan) regarding policy provision for Gypsies and Travellers.

1.25 The policies in the document mirror national transport guidance with the aim of promoting walking and cycling along with public transport whilst managing the movement of vehicles.

1.26 Policy 6.1 sets out the Strategic Approach. "The major will work with all relevant partners to encourage the closer integration of transport and development by:

i) Encouraging patterns of development that reduce the need to travel, especially by car;

ii) Seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;

iii) Supporting developments that generates high levels of trips only at locations with high levels of public transport accessibility, either currently or via committed, funded improvements;

iv) Improving interchange between different forms of transport, particularly around major rail and Underground stations, especially where this will enhance connectivity in outer London; and

v) Seeking to increase the use of the Blue Ribbon Network, especially the Thames, for passenger and freight use".

1.27 Policy 6.3 states "Travel Plans should be provided for planning applications exceeding the thresholds in, and produced in accordance with, the relevant TfL guidance".

1.28 In addition, paragraph 6.8 states "The use of travel plans can help reduce emissions by promoting alternatives to the car"

**The Mayors Transport Strategy**

1.29 The Strategy compliments The London Plan (2008) by providing a targeted approach to transport improvements for London. Policy 3.7 states that:

*'In exercising his functions in relation to planning applications, draft Unitary Development Plans and other land use matters the Mayor will give due weight to the matters listed below. The London boroughs should also give due weight to these matters in exercising their functions in relation to planning applications and development plans, where appropriate:*

*the provision of transport assessments for major new trip generating development proposals – these should include information about how travel behaviour will be*

*influenced by the proposed development, and how public transport, walking and cycling will be encouraged. Workplace travel plans should be produced where appropriate.'*

**The London Freight Plan**

1.30 The London Freight Plan vision, published in October 2007, is for "*the safe, reliable and efficient movement of freight and servicing trips to, from, within and where appropriate through London to support London's economy, in balance with the needs of other transport users, the environment and Londoners quality of life*". The plan identifies four key projects and three work streams for delivering freight in London more sustainably. The key projects are;

- A Freight Operating Recognition Scheme
- Delivery and Servicing Plans
- Construction Logistic Plans
- Freight Information Portal

1.31 The Freight Operator Recognition Scheme provides a quality benchmark with members achieving bronze, silver or gold status dependent on levels of fleet and freight vehicle operational efficiency. Members are rewarded for amongst other things reductions in CO2 levels and collisions between Heavy Goods Vehicles and cyclists.

1.32 Delivery and Servicing Plans will be used to improve building operational efficiency by reducing delivery and servicing impacts to premises, specifically CO2 emissions and congestion. The aim of the plans will be to reduce unnecessary deliveries, particularly during peak periods and make more efficient use of servicing areas.

1.33 Construction Logistic Plans which have similar objectives to Delivery and Servicing Plans are applied to the construction phases of a Site with the specific aim to improve construction freight efficiency.

1.34 The purpose of the Freight Information Portal is to provide a single interface for information on freight between London public authorities and freight operators. The project aims to reduce costs for operators and improve freight journey planning.

## Local Policy

### London Borough of Ealing Unitary development Plan

1.35 Policy 9.1 – Development, Access, and Parking of the LB Ealing UDP states:

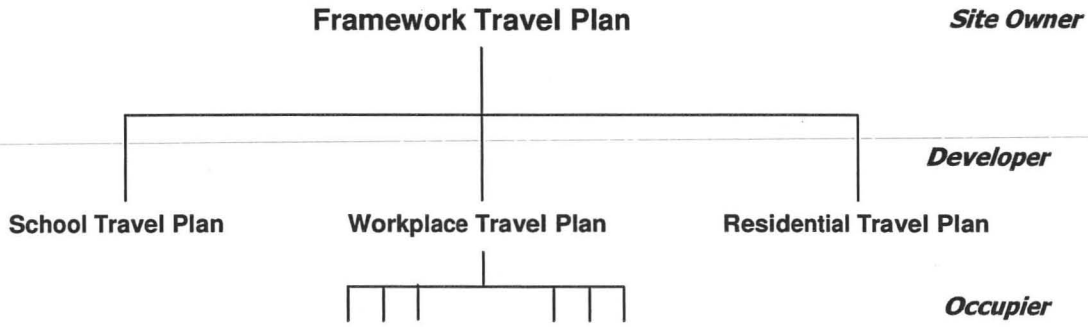
*Planning permission will normally only be granted for development which ensures traffic safety, and: provides a Travel Plan and a Transport Assessment when requested by the local planning authority.*

1.36 The policy indicates that for certain types of development, developers are expected to provide a Travel Plan. The purpose of the Travel Plan is to set out and justify the developer's proposals to reduce trips made by car, particularly that of single occupancy vehicles. The Travel Plan should also indicate any planning obligations the developer is prepared to undertake to ensure appropriate transport access and parking provision, and the management arrangements necessary in order to sustain the Travel Plan in the future.

## Purpose and Scope

1.37 The purpose of the Framework Travel Plan is to set out an overarching strategy to ensure that travel made by all occupants of the Site is carried out in the most sustainable means possible and to minimise the impact of the development on a highly constrained network by reducing reliance on the private car.

1.38 This document operates at two levels. Firstly it sets out the overarching principles for the whole Site, including design and information provision measures. Secondly this document sets out the principles for Workplace, School and Residential Travel Plans that are required to be prepared for the various elements of the Site in accordance with the Mayors guidance.




1.39 The responsibility for developing and progressing the various levels are as follows:

- The Site Owner is responsible for preparing, implementing and funding the Framework Travel Plan
- Developers of individual plots are responsible for preparing Workplace Travel Plan and Residential Plans
- The Developer of the school will be responsible for preparing the School Travel Plan
- Occupiers of individual Non-residential residential plots are responsible for the implementation and funding of the Workplace Travel Plan

1.40 Workplace Travel Plans are required for all non-residential plots in accordance with TfL's best practice guidance as set out in Section 7. The Framework Travel Plan includes a wide range of physical measures that will be implemented as part of the development proposals, whilst Workplace Travel Plans will include more detailed management options and measures that relate specifically to various land-uses and occupants.

1.41 Residential Travel Plans are required for all residential plots in accordance with TfL's best practice guidance as set out in Section 6. The Framework Travel Plan includes a range of measures that are required to be implemented by the Developer.

## Benefits

1.42 The achievement of the objectives will bring about a wide range of benefits for employees, occupiers and the wider community as set out below:

1.43 Employee and resident benefits:

- An excellent opportunity for daily exercise through cycling and walking;
- The opportunity to save money by using alternative modes of travel to the car; and
- Improved quality and reliability of journeys to and from work
- Improved environment for living and working.

1.44 Developer and Occupier benefits:

- A demonstration of the environmental credentials of the organisation;
- Reduced infrastructure and maintenance costs associated with parking;
- An incentive to recruiting and retaining staff through travel benefits; and
- A healthier and more productive workforce.

1.45 Wider community benefits:

- A more measured level of traffic generated by the development and therefore less impact on the highway network;
- Improvements to congestion levels and delay and queuing;
- On-going improvements to air quality and noise; and
- Improvements to cycle and pedestrian routes and public transport services available to the local community.

1.46 The objective is to reduce unnecessary vehicular trips associated with the development and to increase the use of alternative modes of transport, in particular walking and cycling.

1.47 The remainder of the document is set out as follows:

Section 2 - sets out the accessibility of the Site at West Southall.

Section 3 - broadly sets out an indication of the objectives and modal share targets for the Site.

Section 4 - outlines the strategy for the Framework Travel Plan including how it will be managed and promoted to all occupiers.

Section 5 - sets out the site-wide design and information provision measures that form the basis of the Framework Travel Plan.

Section 6 - provides the framework for Residential Travel Plans including management and targets.

Section 7 - provides a framework Workplace Travel Plan including measures, targets, monitoring and management to be used as the basis for the Workplace Occupier Travel Plans.

Section 8 - provides a framework School Travel Plan including measures, targets, monitoring and management.

Section 9 - covers deliveries and servicing along with waste management both during construction and on completion

Section 10 - summarises the parking strategy for the Site

Section 11 - outlines how the Framework Travel Plan and Occupier Travel Plans will move forward as the development proceeds through the planning process, construction and occupation.

# 2 ACCESSIBILITY AND EXISTING TRAVEL PATTERNS

## Location

2.1 The Site lies to the north of the London to Cardiff mainline railway (with commercial uses beyond), to the south east of the Grand Union Canal (with Minet Country Park beyond) and to the south of residential developments in Southall, extending off Beaconsfield Road. A retained operational gas works compound is located approximately mid-way along the southern boundary. This comprises one working gasholder that creates the principal landmark within the Site.

2.2 The location and the Site within the context of the local highway network is shown in **Figure 1** and **Figure 2** respectively.

## Walking and Cycling

2.3 **Figure 2** illustrates the extent of the highway network in the immediate vicinity of the Site. There is a good network of cycle routes and footpaths which provide connections to day to day existing facilities such as schools, shops and public transport opportunities.

### Walking

2.4 There are pedestrian footpaths adjacent to all of the roads in the vicinity of the Site with crossings at appropriate locations. The Site Owner will assess these existing facilities having regard to the PERS Methodology through the Area Wide Walking and Cycling Study which will identify deficiencies in the quality and connectivity of existing routes and crossings, and demonstrate how deficiencies which can reasonably be related to the redevelopment of the Site will be dealt with. Where improvements are required they will be funded through the Transport Management Fund as set out in the S106 Agreement.

2.5 South Road is the main north – south link over the railway line, with footpaths on both sides. Other north-south crossings over the railway line are available at the canal (along the towpath), or via the pedestrian underpass in the vicinity of the gas holders and via the footbridge east of Southall Station. However, although the existing facilities across the railway line are adequate, they are not ideal, with activity at the bus stops typically reducing capacity along the South Road footpaths and personal safety an issue at the other crossings, particularly during the evening.

2.6 There are pedestrian crossing facilities at the South Road / Park Avenue / Beaconsfield Road junction which has a dedicated pedestrian all-red stage, along with a pelican crossing outside Southall Station. However, there are no links across the canal into the Minet Country Park, nor are there any public routes across the Site.

## Cycling

2.7 Drawing 52212/A/80 (**Appendix C**) shows the 5km cycling catchment as the crow flies from the centre of the Site. This encompasses the centre of the new High Street which includes key destinations such as the health centre and cinema. The figure illustrates that there will be many people (including those on the Site) living in acceptable cycling distance from these destinations.

2.8 The London Cycle Network passes the Site along each of the northern, southern and western boundaries. The Straight (to the south) is designated as a route for pedestrians and cyclists (with pedestrians having priority), and Beaconsfield Road (to the north) is designated as route on a quiet road recommended by cyclists. To the west, cycling is permitted on the canal towpath although again pedestrians have priority.

2.9 These routes connect to the wider London Cycle Network, providing access to destinations throughout London. Other roads on the London Cycle Network include South Road over the railway, The Green, Lady Margaret Road and Broadway. However, although the roads are designated, traffic conditions are not considered conducive to promoting cycling.

2.10 **Appendix D** includes an extract from the London Cycle Network guides which illustrates the extent of the network of cycle routes in the vicinity.

2.11 The Site Owner will assess the existing facilities in the vicinity of the Site through the Area Wide Walking and Cycling Study which will identify deficiencies in the quality and connectivity of existing routes, and demonstrate how deficiencies which can reasonably be related to the redevelopment of the Site will be dealt with. Where improvements are required they will be funded through the Transport Management Fund as set out in the S106 Agreement.

## Public Transport Services

2.12 The existing Public Transport Accessibility Level of the Site is poor; however the eastern extreme of the Site connects to South Road which is a major bus corridor in the vicinity of Southall Railway Station. The London to Cardiff mainline railway line runs along the southern boundary of the Site with the closest mainline railway stations being Southall Station approximately 250m to the east and Hayes and Harlington Station 1,250m to the west.

### Rail Services

2.13 There are regular services from Southall plus Hayes and Harlington stations to London (and intermediate stations) to the east and Heathrow Airport (via Heathrow Connect), Reading, Slough, Swindon and further afield to the west.

2.14 Table 2.1 includes a summary of the services calling at Southall Station during typical weekday commuter peak periods. Southall Station is in Zone 5 and the journey time to London Paddington takes on average 15 minutes. Hayes Station is in Zone 6 and the journey time to London Paddington during commuter peak periods typically 19 minutes.

**Table 2.1: Summary of Rail Services at Southall Station**

| Period | Direction | |
|---|---|---|
| | Towards London (trains per hour) | From London (trains per hour) |
| Early | 5 | 6 |
| Morning Peak | 7 | 7 |
| Day | 4 | 4 |
| Evening Peak | 4 | 6 |
| Late | 4 | 5 |

2.15 The capacity of Southall Station and in particular the ticket hall is limited. Proposals associated with Crossrail include the construction of a new ticket hall plus longer platforms which increase the capacity of Southall Station as a whole and benefit existing and future users of the station.

### Bus Services

2.16 Southall town centre is well served by buses as illustrated by the bus network diagram in **Appendix E.** However, the nature of the local highway network and in particular the location of road crossings over the railway line restricts the distribution. Existing services typically run in an east-west direction along the Uxbridge Road corridor, or in a north-south direction along South Road.

2.17 There are in total 11 routes that serve Southall town centre on a regular basis Monday through Sunday, connecting to destinations in Ealing, Uxbridge and Hounslow, along with Heathrow Airport. Six of the services (105, 120, 195, 482, E5 and H32) travel along South Road, whilst the 207, 427 and 607 run along Uxbridge Road to the north.

2.18 Service 95 terminates in the High Street a short distance to the north of the Site whilst Service 207 terminates east of the Ossie Garvin roundabout junction. Other services terminating in the vicinity include the E6 and the H28, both of which terminate at the Bulls Bridge Tesco to the south of the Site.

## Existing Travel Patterns

2.19 Table 2.2 summarises the modal share for employees working in Southall based on the 2001 Census, and Table 2.3 summarises the modal share for travel to work for resident's living in Southall.

**Table 2.2 – Census 2001 – Destination data for Southall Green and Southall Broadway Wards.**

| Mode | Percentage |
|---|---|
| Rail | 6% |
| Bus | 13% |
| Taxi | 0% |
| Car Driver | 59% |
| Car Passenger | 4% |
| Motorcycle | 1% |
| Bicycle | 3% |
| Walking | 13% |

| Table 2.3 –Census 2001 – Origin data for Southall Green and Southall Broadway Wards. | |
|---|---|
| **Mode** | **Percentage** |
| Rail | 12% |
| Bus | 24% |
| Taxi | 0% |
| Car Driver | 46% |
| Car Passenger | 6% |
| Motorcycle | 0% |
| Bicycle | 2% |
| Walking | 9% |

# 3 FRAMEWORK TRAVEL PLAN STRATEGY

## Management

3.1 The Site Owner will appoint a Travel Plan Manager (TPM) prior to implementation of the consent. It is expected that the TPM will initially be retained on a part time basis from an external company specialising in Travel Plan implementation and development. There are a number of companies available with specialist knowledge of Travel Planning that can undertake this work. Details of the TPM will forwarded to LB Ealing, LB Hillingdon and TfL on confirmation of the appointment.

3.2 The TPM will be responsible for overseeing the management, development, implementation, monitoring and review of the Site-wide Travel Plan. The TPM will also be responsible for overseeing the Occupier Travel Plan Coordinators that will be appointed to manage each Occupier Travel Plan.

3.3 The TPM will set up a Travel Plan Forum (TPF), which will be formed prior to first occupation of the development. The TPF will be an important mechanism for discussing issues and ideas to encourage sustainable travel. The TPF will act as a basis for working in partnership with key stakeholders and will meet on a quarterly basis, unless otherwise agreed. The core TPF members will be:

- Representative of the Site Owner and Management Company;
- Site Transport Coordinator;
- The Occupier Transport Coordinators;
- LB Ealing Council;
- LB Hillingdon Council;
- Transport for London; and
- Other relevant stakeholders.

3.4 The overall objectives of the TPF will be:

- The overall management of the Framework Travel Plan;
- Recommending and reviewing Travel Plan targets (including on a plot by plot basis);
- Monitoring and ensuring the continued performance of the TPM
- Ensuring the implementation of the Action Plan and Monitoring Strategy

- Effective communication and co-ordination of actions; and
- Reviewing measures in the light of annual monitoring reports.

3.5 The Site Owner will fund the TPM until such time the costs can reasonably be covered by the management service charge. Additional funding could come from sponsorship and advertising on transport related infrastructure and equipment on the Site.

3.6 The Framework Travel Plan sets out the overarching principles to be adopted to promote sustainable travel including design along with a range of measures to be considered for Residential and Workplace Travel Plans when they are prepared for plots as they are developed. Over the lifetime of the document, the roles and responsibilities of those involved will change and develop. The Site Owner and their consultants will have the main responsibilities in preparing the Framework Travel Plan. The responsibility will transfer to the TPM once appointed who will train the people selling or letting the residential units to assist him/her in his/her duties as well as overseeing / guiding the Occupier Travel Plan Coordinators.

3.7 Importantly, due to the phasing element of the development, the Framework Travel Plan will be fluid in nature. This is in respect to the different elements of the development that will be in various phases of completion. The document sets out the overarching principles for West Southall and has been developed to assist the TPM and stakeholders for the duration of the project.

3.8 In summary, after first occupation of any of the buildings, the responsibilities of the TPM will include:

- Liaison with the Site Owner, LB Ealing, LB Hillingdon and TfL regarding the Framework Travel Plan
- Liaison with Developers and Occupiers / Tenants regarding the preparation and implementation of the Workplace Travel Plans
- Liaison with Developers of individual plots regarding the implementation of Residential Travel Plans.
- Managing the development and implementation of the Framework Travel Plan measures;
- Promoting the objectives and benefits of the Framework Travel Plans;
- Monitoring the success of the Framework Travel Plan against the agreed targets;

- Reporting the results of the Framework Travel Plan to the stakeholders at the annual TPF meetings;
- The TPM will convene and chair the TPF.
- Liaising with public transport operators and other service providers (e.g. car club operators)
- Acting as the point of contact for information and for exchanging ideas and best practice with the occupiers; and
- Acting as a point of contact for all employees.

3.9 The TPM will give a 'human face' to the Framework Travel Plan – explaining its purpose and the opportunities it offers. This will include personalised journey planning advice if asked for.

## Obligations

### Site Owner/Management Company

3.10 The following obligations are applicable:

- Create a Travel Centre for the Site. The Centre will be conveniently located and will be operational throughout the build / construction period. This is detailed in Section 5;
- Appoint a TPM prior to implementation of the outline consent for the Site;
- Provide the TPM with an appropriate annual budget to implement the Framework Travel Plan; and
- Implement physical measures in line with those promoted as part of the planning consent.
- Actively work towards achieving the Framework Travel Plan targets

### Developer Obligations

3.11 The following obligations are applicable:

- Developers will prepare, submit and obtain approval for Workplace Travel Plans and Residential Travel Plans in accordance with the principles set out in the Framework Travel Plan;
- Developers will ensure that occupiers are fully aware of the Workplace Travel Plans and their responsibilities to uphold the set principles; and

- Adhere to the principles of the Framework Travel Plan when developing individual plots and preparing Workplace Travel Plans and Residential Travel Plans.
- Developers will implement physical and soft measures in line with those promoted as part of the individual detailed planning consents

## Occupiers of Non Residential Units

3.12 The following obligations are applicable:

- Occupiers will implement and update the Workplace Travel Plan;
- Occupiers will appoint a Travel Plan Coordinator (TPCR) / Travel Plan Champion (TPC) to oversee the management, development, implementation, monitoring and review of the Workplace Travel Plans;
- Occupiers will provide the TPCR / TPC with an appropriate annual budget to implement the Travel Plan; and
- Contribute towards funding the TPM and Framework Travel Plan through the Management Service Charge
- Actively work towards achieving the Travel Plan targets

## Travel Plan Coordinators / Travel Plan Champions

3.13 The TPCR / TPC will be responsible for the administration of the Workplace Travel Plan along with the implementation of measures, monitoring and review. The TPCR / TPC will report to their workplace management and the TPM.

3.14 Administration of the Workplace Travel Plans involves the maintenance of any necessary systems, data and paperwork, consultation and promotion. The duties will also require the annual updating of the Workplace Travel Plan.

3.15 The TPCR / TPC elected by each Occupier will be responsible for implementing appropriate sustainable travel measures whilst the TPM will oversee the co-ordination of the measures and report to the Local Authorities as a single point of contact.

# 4 OBJECTIVES AND TARGETS

## Objectives

4.1 Improving the transport choices available to people, rather than focusing on providing for the private car, will lead to a more equitable and sustainable development that provides travel options for all employees, residents and visitors to the Site regardless of whether or not they own a car.

4.2 The transport principles for the Site that reflect sustainable objectives can be summarised as the following:

i) Reducing the reliance on the private car with the aim of reducing the level of car usage by residents, particularly single occupancy car use and associated impact on levels of congestion;

ii) Increasing the use of sustainable modes of travel by ensuring that the development and plots are designed with public transport, walking and cycling as a top priority

iii) Reducing the need to travel.

4.3 On a more specific level, objectives of the Framework Travel Plan are to:

i) Minimise the impact of the development on areas that already experience congestion, queuing and delays.

ii) Seek to address problems with infrastructure that may prevent or make unsafe for employees, residents and visitors to use alternative modes of transport to the car for the journey to work.

iii) Ensure that the development does not impact on the safety or amenity of adjacent residents or employees of businesses in the vicinity of the Site.

# Targets

4.4 The success of a Travel Plan is measured by whether it achieves its objectives through set targets. The targets, which are related to the objectives, can be 'action' targets or 'aim' targets. Action targets set out specific commitments to implement measures within certain timescales to ensure delivery. Aim targets provide numerical goals for modal shift.

4.5 In order to assess whether the Travel Plan is successful in achieving the objectives, a set of targets will need to be agreed with LB Ealing in consultation with LB Hillingdon and TfL.

## Action Targets

4.6 The key action targets are set out below:

- The TPM will be appointed prior to implementation of the consent.
- The Travel Plan Forum (TPF) members will be set up prior to first occupation of any building on the Site.
- The TPF will meet on a quarterly basis, unless otherwise agreed.
- Occupier Transport Co-ordinators will be appointed prior to occupation of each unit on the Site.
- Each Workplace Travel Plan will be completed within 3 months of the tenant occupying the unit.

## Aim Targets

4.7 All aim targets will be SMART, that is, **S**pecific, **M**easureable, **A**chievable, **R**ealistic and **T**ime related.

4.8 In relation to Single Occupancy Vehicle (SOV) Trips to and from the Site, Table 4.1 summarises the assumed mode share for the various land uses based on the submitted Transport Assessment (TA). The flows and respective percentage mode share are based on the average AM and PM Peak combined flows.

| Table 4.1: Summary of Mode Share to Car from Transport Assessment Report | | | |
|---|---|---|---|
| **Land Use** | **Car trips*** | **Total trips*** | **% by car** |
| **Residential** | 2,864 | 7,049 | 40.6% |
| **Supermarket** | 930 | 1,761 | 52.8% |
| **Non-food retail** | 681 | 1,286 | 53.0% |
| **Employment** | 49 | 153 | 32.0% |
| **Cinema** | 197 | 716 | 27.5% |
| **School** | 126 | 887 | 14.2% |
| **Hotel** | 213 | 252 | 85.6% |
| **Conference Centre** | 132 | 750 | 17.6% |

*combined AM and PM Peak hour flows

4.9 It has been assumed that the average mode share for SOV would be slightly higher throughout the day as it includes times when traffic flow is reduced. As such, Table 4.2 sets out the SOV Target mode share for the end of the respective monitoring for daily trips taking into consideration the data set out in Table 4.1 from the TA.

| Table 4.2: Summary of Proposed Mode Share to Car Targets | |
|---|---|
| **Land Use** | **Target** |
| **Residential** | 35% |
| **Supermarket** | 45% |
| **Non-food retail** | 45% |
| **Employment** | 30% |
| **Cinema** | 25% |
| **School** | 15% |
| **Hotel** | 60% |
| **Conference Centre** | 20% |

4.10 The overall Aim Targets of the Framework Travel Plan for the Site are:

- Achieve between 5% and 10% mode share to cycle; and
- Achieve between 15% and 20% mode share to walking.

4.11 The Aim Targets for the residential element, workplace and the school are discussed further in Sections 6, 7, and 8 respectively.

# 5 SITE DESIGN MEASURES

5.1 This section sets out the measures that will be implemented as part of the design of the Site that will encourage the use of sustainable transport and reduce the need to travel.

## On-site Amenities

5.2 The proposals include the provision of facilities and services such as schools, health centre, retail and leisure facilities along with employment opportunities. Therefore, general day to day facilities are available on Site.

## Emphasising Sustainable Travel

5.3 The use of sustainable modes will be promoted through the following elements that will be included within the design and basic infrastructure of the Site.

- Home Zone characteristics will be introduced to the residential elements, including reducing the visibility of cars and their role in the street scene where possible.
- Speed limits will be set and traffic calming measures introduced to discourage travel by car.
- Pedestrian and cycle links will be created, linking key destinations, along with dedicated direct routes to the north, east and west.
- Bus stops and waiting facilities will be introduced at appropriate locations to ensure that all elements are within acceptable walking distances.
- Bus stops will be provided with Real-time Information, along with local maps and high quality shelters. Bus priority measures will be introduced at appropriate locations within the Site.
- Parking for the residential element is proposed on average at 0.7 spaces per unit, with town centre parking at 1 space per 50sqm.
- Safe and secure cycle parking will be provided in appropriate locations in accordance with minimum standards in the London Plan.
- A network of footpaths and footways, connecting the various land-uses with each other and to existing facilities adjacent to the Site.
- Electric Vehicle Charging Points will be provided throughout the Site. This in effect will future proof the Site and enhance its green credentials.
- Site wide route finding infrastructure, to enable straightforward pedestrian wayfinding – to include map displays and signage.

- Marketing Initiatives

## Off-site Links for Sustainable Modes

5.4 **Appendix F** includes a drawing which illustrates the indicative network of footpaths and cycleways within the Site, highlighting links to Beaconsfield Road in the north, South Road to the east, under the railway line in the south and to the Minet Country Park to the west.

### Links to the North

5.5 The proposals include a total of eight pedestrian and cycle links to the north, with three connections adjacent to the new vehicular links to Beaconsfield Road, plus connections to Grange Road, Hanson Gardens, Lewis Road, Randolph Road and in the vicinity of the Blair Peach School. The footways adjacent to the vehicular links will be a minimum of 2m wide, with shared pedestrian / cycle links 4.5m wide. These links will facilitate pedestrian and cycle movements between the Site and the Southall Broadway ward to the north. In particular, it will provide direct routes to existing bus services and retail on the A4020 corridor (approximately 525m from the northern boundary) for residents of the Site, and links to facilities on the Site for residents to the north.

### Links to the East

5.6 Linkage between the Site and existing retail on South Road and to Southall Station which is located approximately 250m east of the Site. In addition, good pedestrian links will allow visitors to the existing retail and commercial facilities on South Road to utilise the car parking on the Site.

5.7 The proposals include a 4.5m wide shared pedestrian footpath / cycleway along the northern side of the bus link that passes to the north of the Water Tower.

5.8 A pedestrian crossing is proposed over the access road a short distance to the east of the Water Tower, enabling pedestrians to use a more direct route to Southall Station. In addition, pedestrian facilities will be incorporated into the new signalised junction on South Road, which coupled with the anticipated relocation of the Southall Station ticket hall through the Crossrail project, will provide a convenient and direct route into the station.

5.9 The Crescent will be closed to vehicular traffic in front of the retail units immediately south of Beaconsfield Road. This, in conjunction with alterations at the South Road / Beaconsfield Road / Park Avenue signalised junction will improve conditions for pedestrians.

## Links to the South

5.10 There are two links to the south under the London – Cardiff mainline railway line, the first via the Brent Road underpass and the second the footpath tunnel at the end of Dudley Road.

5.11 The proposals include converting the existing vehicular link at Brent Road in to a dedicated pedestrian / cycle link, and improvements to the pedestrian tunnel at the end of Dudley Road. These will provide people south of the railway direct connections to the Site, which for many will be easier to walk / cycle than drive.

## Links to the West

5.12 The proposals include a total of three connections to the west, with footways adjacent to the Pump Lane access and two pedestrian / cycle bridges over the Grand Union Canal and Yeading Brook into Minet Country Park.

5.13 These will provide residents of the Site with direct connections to Minet Country Park and industrial estates immediately to the north-west, along with creating considerably shorter and easier connections for existing residents of Southall Broadway and Southall Green.

5.14 Furthermore, the connection to Beaconsfield Road West (Springfield Road) in particular will allow employees on the industrial estates along with Guru Nanak students and Yeading Football Club members to walk or cycle to facilities on West Southall, Southall Broadway and Southall Green, or use bus services to connect to Southall Station and further afield.

## Car Park Management

5.15 Parking levels are considered constrained when compared to traditional older style developments. As such, car parking spaces will be in demand and therefore required to be managed to ensure that spaces are appropriately used.

5.16 A Site Wide Car and Cycle Parking Management Strategy will be implemented through planning conditions (condition 9). Long stay parking will be discouraged, either through parking charges or time limits, i.e. with no return periods.

5.17 Controlled Parking Zones (CPZ) and traffic management measures will be implemented and funded by the Site Owner throughout the Site.

5.18 Blue Badge spaces, along with spaces for Car Clubs or Car Share / Car Pooling schemes and electric vehicle charging points will be allocated in preferential locations through agreement with Ealing Council. The Strategy is expanded on at Section 10.

5.19 Measures will also be put in place to manage the Multi-Storey Car Parks.

## Site-Wide Measures

5.20 The Framework Travel Plan sets out measures considered appropriate for the Site as a whole, including setting up a Cycle Club, Car Club scheme and a Car Sharing scheme along with the dissemination of material as set out below. Public Transport will be subsidised by the Site Owner through the S106 Agreement.

### Cycling and Walking

5.21 The proposals include a network of footpaths and cycleways, along with cycle parking and crossings. These routes will not only benefit residents and visitors, they will benefit people on all sides who will now be able to travel through as opposed to around the Site.

#### Pedestrian Footways and Crossings

5.22 Pedestrian footways will be provided adjacent to all of the roads at a minimum width of 2m, with the footways along the High Street varying in width typically at least 5m wide. In addition, pedestrian footpaths will be constructed between individual development plots to encourage walking as a meaningful mode of transport.

5.23 Pedestrian crossings will be provided at all junctions and on road links where appropriate.

5.24 Many of the highways in the residential areas adjacent to the Grand Union Canal will be constructed as Home Zones to give priority to pedestrians (and cyclists) whilst facilitating the movement of vehicles. In this regard, it is envisaged that whilst pedestrians will be able to walk all the way from south-west to north-east (and visa versa), vehicles will need to use Park Avenue.

5.25 Drawing 52212/A/62 (**Appendix F**) shows the "as the crow flies" 2km distance from the centre of the new High Street which includes key destinations such as the health centre and cinema. The plan illustrates that there will be many people, including those on the Site, living in acceptable walking distances from these destinations.

**Cycleways and Cycle Parking**

5.26 Cycleways will be provided either as shared facilities (with pedestrians or in bus lanes) or as dedicated facilities.

5.27 Cycle parking will be provided in key locations in accordance with guidance as set out in Table 6.2 of the London Plan as follows.

- Residential: A minimum of 1 space per dwelling with fewer than 3 bedrooms and a minimum of 2 spaces per dwelling where there are 3 or more bedrooms
- A1 Food Retail: A minimum of 1 space per 125sqm GFA
- A1 Non-food retail: A minimum of 1 space per 300sqm GFA
- A3 Retail: A Minimum of 1 space per 20 staff plus 1 space per 20 customer seats
- A4 Retail: A minimum of 1 space per 100sqm GFA
- A5 Retail: A minimum of 1 space per 50sqm
- B1 Office: A minimum of 1 space per 250sqm
- C1 Hotel: A minimum of 1 space per 10 staff
- D1 Schools: A minimum of 1 space per 10 staff or students
- D1 Health facilities: A minimum of 1 space per 5 staff plus 1 space per 10 visitors
- D2 Cinema: A minimum of 1 space per 20 staff plus 1 space per 50 seats
- D2 Leisure: A minimum of 1 space per 10 staff plus 1 space per 20 peak period visitors

5.28 The usage of the spaces will be monitored through the Site Wide Travel Plan as the Site is developed out and further spaces will be considered by the Site Owner should demand exceed supply.

## Public Transport

5.29 Key to the success of the redevelopment of the Site is the delivery of a sustainable public transport package. To this end, the strategy has been developed following discussions with Transport for London (London Buses) officers with the aim of forming a package of measures to serve the Site. However, as the Site is to be developed over a 15 year period, it is important to maintain flexibility to ensure that the strategy can adapt to changing circumstances.

### Options to Serve the Site by Bus

5.30 It is envisaged that the Site will be developed broadly from east to west, with early development taking access from Beaconsfield Road. The advantage of such a programme is that initial dwellings can use existing bus services running along South Road and Uxbridge Road along with rail services from Southall Station.

5.31 The options to serve the Site have been discussed with TfL London Buses and it has been agreed that it will be possible to serve the Site with an appropriate level of bus services. Options considered to date include extending Route No.95, diverting Route No.207, diverting Route No.453 and extending Route No.350 along with the creation of new routes.

5.32 The paragraphs below provide an indication on the current views, considering five year intervals from when construction commences. It should also be noted that TfL has an ongoing policy to improve all aspects of bus services, including capacity, frequency, reliability and infrastructure.

***Up to Year 5***

5.33 Whilst the Eastern Access is being constructed, the proposals are to take vehicular access from Beaconsfield Road, with construction access from Pump Lane and retaining Brent Road as access for the Airport Parking. During this period, it is not deemed appropriate to bring buses into the Site, with residents required to use existing services on the South Road and Uxbridge Road corridors. Although the dwellings will be on the outer limits or further of the desired minimum distance of 400m to a bus stop, the dwellings are within acceptable walking distance to existing stops and Southall Station, particularly for commuting purposes.

5.34 Once the Eastern Access is completed, it is envisaged that some of the services could be brought into the Site, although the precise timing will depend on the quantum of occupied development. Furthermore, it is envisaged that services will not necessarily operate at the final frequency. The TRG will review the frequencies of the bus services on an ongoing basis with the aim of recommending to TfL increasing or reducing the frequency of services as appropriate.

5.35 The phasing programme envisages occupation of circa 1,000 dwellings and 24,000sqm of retail, leisure and commercial floor space by the end of year 5, with vehicular links to Beaconsfield Road and South Road.

5.36 It is envisaged that buses entering the Site will terminate in the vicinity of the Town Square. Opportunities to let buses use the Western Access to connect to Hayes in advance of general traffic will be investigated at the appropriate time. However, issues such as safety in relation to construction activity will need to be carefully considered.

***Year 5 to Year 10***

5.37 The phasing programme envisages continuing to work in an east to west direction with the construction of up to a further 1,850 dwellings and 6,000sqm of retail, leisure and commercial space during the five year period.

5.38 The connection to Pump Lane will be opened to general traffic during the early stage of the period following the completion of the improvements works along the A312 corridor.

5.39 Once the Pump Lane access is opened to general traffic, it will be possible to run bus services through to Hayes to the west. However, as with services to the east, it is

envisaged that the initial services will operate on a less frequent basis, increased as and when necessary being reviewed on an ongoing basis by the TRG.

5.40 The phasing programme envisages the occupation of up to 2,850 dwellings and 30,000sqm of retail, leisure and commercial floor space along with the hotel, conference and majority of community facilities by the end of Year 10, with vehicular access from South Road (the Eastern Access), Pump Lane and Beaconsfield Road, with Brent Road closed to vehicular traffic.

***From Year 10 to Year 15***

5.41 The frequency of buses would be increased during this period to cater for anticipated demand. The Public Transport Strategy envisages a total of five bus routes operating on a 10 minute frequency throughout the day (07h00 – 19h00) and at a lower frequency during the early morning and evening. This will result in a total of 30 buses per hour in each direction during the day suggesting a PTAL rating for the Site of 3 throughout, with some pockets of 4 around bus stops.

5.42 The TRG would monitor and review the bus services with the view to making recommendations to TfL regarding the services. This could include increasing (or decreasing) the frequency of a particular route or altering the capacity of the route through changing the size of the bus.

5.43 The future bus network will be determined by the delivery and phased implementation of the Site as it is developed out. There are a number of triggers in relation to bus contributions through the S106 Agreement which will be kept under review by TfL.

5.44 Conditions on South Road will be monitored through the South Road corridor Study; this will include bus journey times and bus patronage. The implementation of the northbound bus lane and the widening of the South Road bridge over the railway will have a significant bearing on the reliability of the local bus network.

## Public Transport Infrastructure

5.45 The proposals are to create a highway network with primary routes through the retail area (the "High Street") and along the northern side of the park ("Park Avenue"), with secondary routes serving the residential areas.

5.46 The primary routes will include bus lanes on one or both sides as appropriate. This will include the provision of bus priority measures at the Eastern Access to ensure that buses are given priority over general traffic on the approach to the South Road junction.

5.47 Bus stops will be located at key locations throughout the Site, with no individual plot more than 400m (ideally 250m maximum) from a bus stop. The stops will be constructed to include shelters along with real time information to the appropriate standard.

5.48 In addition, bus stands and driver facilities will be located in the eastern sector of the Site, to the south of the Eastern Multi-Storey Car Park as shown on the illustrative Masterplan. Although details will be finalised at a later stage through the detailed design process, it is envisaged that stands for 6 buses can be accommodated.

## Travel Centre, Information Provision and Marketing

5.49 The Travel Centre will act as a one-stop-shop for all travel information and requirements, including the purchase of tickets as appropriate. Oyster re-charging points will also be provided.

5.50 The Travel Centre for the Site will be based initially out of the construction office. This service will be in place from when the TPM gets appointed. As the Site develops an official Travel Centre will be formed and based in a prominent, easily accessible position. The TPM will be based at the Travel Centre which will be open for 37.5 hours a week.

5.51 Once residential marketing suites are in place, travel plan marketing activity will expand to include these suites. This will form a hub and spoke operation with the Travel Centre. Staff based in the marketing suites will be fully briefed on the Framework Travel Plan, Residential Travel Plan and travel initiatives from the TPM.

5.52 This will enable the Travel Centre to concentrate on site wide initiatives connected to the TPM, such as monitoring and providing a point of contact for Developers and Occupiers.

The marketing suites will consequently be able to offer a more individualised service to new residents. This includes preparing Welcome Packs as well as providing a personalised travel planning service, if required.

5.53 In effect the hub and spoke setup allows for more long term and detailed aspects to be carried out at the hub, leaving the spoke free to deal with initial questions and marketing activity.

5.54 The 'green credentials' of the Site will be worked into sales and marketing brochures and the Framework Travel Plan will be promoted as a bonus for prospective owners, occupiers and tenants.

5.55 The Site Owner has overall responsibility for the Travel Centre and securing the necessary funding. Other specific means of information provision about the Framework Travel Plan and transport options include:

- Community notice boards;
- Bespoke PT / cycling / community guides created specifically for the development;
- Welcome Packs (tailored for employees and residents), which can contain information on the Framework Travel Plan, plus contact details of the Travel Centre;
- Travel Awareness initiatives and events in conjunction with the Local Authority;
- Community / development website detailing travel options.
- Car free days
- Cycling / walking promotion days

5.56 Types of information

- Public Transport timetables, infrastructure locations and telephone enquiry lines;
- Taxi numbers;
- Community Guides about facilities and services on or near the Site;
- Travel Planning websites and phone numbers including TfL and National Rail Enquiries;
- Information on home shopping sites.

## Car Clubs

5.57 Car Clubs make car ownership unnecessary for many people and are a good way of reducing the number of cars on the Site. There are a number of companies operating Car Clubs in Greater London, including WhizzGo, Streetcar and City Car Club. There are currently no Car Clubs operating in Southall. The nearest vehicle is operated by City Car Club and is located at Greenford, approximately 4km north of the Site.

5.58 It is desirable to have a scheme that provides vehicles for users in all elements of the development, although they are generally reliant on a residential component to be financially viable.

5.59 Demand for the Car Club by businesses will also be driven by the locality of the cars as businesses generally are less flexible than residents in terms of how far they are prepared to walk to the vehicle.

5.60 Demand will determine the number of vehicles required, although previous experience has shown that a maximum of 30 registered users per car as appropriate.

5.61 The Site Owner is obliged to enter into an agreement with an operator based in London securing provision of Car Club vehicles across the Site. The total number will be monitored against a site wide target of 50 spaces.

5.62 As an incentive to use the Car Club, the Site Owner will provide a voucher towards the cost of Car Club membership to the first occupiers of all dwellings up to a maximum of 3750 dwellings. The value of the voucher will be £25/dwelling.

5.63 In addition the Site Owner will discuss with the Car Club operator other potential incentives including providing corporate membership packages for businesses located on the site.

5.64 The proposals put forward by the Car Club operators along with discussion between the Site Owner, Developers and LB Ealing will determine the quantum and location of where the vehicles will be parked on-site.

## Car Sharing

5.65 Car Sharing is an excellent way to reduce the number of vehicular trips and the number of single occupancy vehicular trips. Given the scale of the Site there is significant scope to reduce car use through car sharing.

5.66 Given the different travel patterns and needs of the occupants a number of methods will be employed as follows:

- The School will set up a private forum for parents to organise sharing the school run. Meetings will be arranged to allow parents to meet and match home locations.
- A number of options exist for employers to promote car sharing as follows:
    - For large employers, a car share database can be set up. This can be done on-line through liftshare.com or carbonheroes.com (or similar organisations), where membership is free. These organisations can provide web-based car share schemes for private groups, multiple organisations or can be open to the general public. Measures should be taken to encourage membership and promote the scheme by the TPM.
    - Smaller companies can operate informal matching systems through word of mouth and interaction with colleagues.
- A site-wide scheme that is open to all residents and employees of the development.

## Cycle Club

5.67 The Site Owner will set up a Cycle Club prior to occupation of the first building on the Site. The TPM will oversee the day to day operation of the Cycle Club which will

- Provide advice on local cycle routes
- Monitor the condition of local cycle routes
- Monitor the use of cycle parking on the Site
- Actively promote cycling to residents and businesses
- Liaise with local cycle shops to organise discounts for residents
- Organise leisure cycle days
- Hold seminars on cycling

- Facilitate and organise cycle training for residents and occupiers

5.68 The data on cycling and in particular the usage of the cycle parking in the early stages of the build programme will be reviewed by the TPM in consultation with LB Ealing and TfL to determine if it was more appropriate to provide communal cycle parking in public places with bicycles for hire in lieu of providing cycle parking in line with minimum standards. In these instances, Developers of individual plots would have the option of making a contribution towards the provision of the communal cycle parking scheme in lieu of providing a full compliment of cycle parking on the plot.

5.69 As an incentive towards cycle ownership and use, the Site Owner will provide a voucher towards cycle training and other suitable cycle related measures to the first occupiers of dwellings up to a maximum of 3750 dwellings. The value of the voucher will be £50/dwelling.

## Marketing Summary

5.70 The Framework Travel Plan will be given to all Developers and will be used to form the basis of any resultant documentation, including the Workplace and Residential Travel Plans. It will be the responsibility of the Developers to initially fund the resultant documentation but once occupation occurs activity will be funded by the management service charge. Importantly any documentation will be produced with consultation from the TPM. This allows for a standardised format of promotional material and a West Southall Travel Plan brand. Though all standardised reports will be badged with the name of each occupier to give greater ownership to the document.

5.71 A Welcome Pack will be produced based on the information in this document. The Welcome Pack will include public transport routes/timetable information as well as information on walking and cycling routes. Locations of accessible public transport for the mobility impaired would also be included. The Welcome Pack will be distributed to all new households and employees. This document will be reviewed and updated on a regular basis and consequently reissued if deemed necessary.

5.72 Communal notice boards throughout the Site will also be provided and would allow for continued promotion of the travel plan policies. All notice boards will have a similar layout and content so that they become familiar and accessible to people visiting the Site

. The notice boards will contain up-to-date public transport information and information detailing cycling and walking opportunities.

5.73 Specific land use marketing activities are detailed later in this document.

# 6 RESIDENTIAL TRAVEL PLANS

6.1 This section sets out a framework for Residential Travel Plans that will be prepared by Developers of all plots in accordance with TfL best practice. Developers will be required to prepare and submit the residential Travel Plans to LB Ealing and have them approved prior to implementation.

6.2 The Framework Travel Plan recognises the fact that car use is necessary and in some cases vital. Moreover the aim of the Residential Travel Plan is to put in place the management tools deemed necessary to enable the users of the site to make more informed decisions about their travel, which at the same time minimises the adverse impacts on the environment. This is achieved by setting out a strategy for eliminating the barriers keeping residents from using sustainable modes which in effect self manages single-occupancy car use.

6.3 The implementation of Residential Travel Plans should lead to an increase in the numbers of people living on Site who regularly travel by sustainable means.

6.4 This Travel Plan can also:

- Improve the environmental credentials of the Developers;
- Reduce the carbon footprint of the Site as a whole;
- Provide awareness of sustainable modes;
- Provide amenities to reduce the need to travel from the Site;
- Reduce the traffic impact on the local highway network; and
- Reduce the traffic impacts on residents who live on the Site– such as noise and atmospheric pollution levels

## Management

6.5 To achieve the specific targets set out in the Residential Travel Plans and more general targets for the Site itself as set out in the Framework Travel Plan, Developers of the plots will actively work with the TPM to ensure that the residential developments uphold the set principles. The implementation of the Residential Travel Plans will mean that the residents can make a more informed decision on how they will travel. Once each plot reaches its trigger point of 75% occupancy, the TPM will oversee the day to day running and monitoring of the Residential Travel Plan with the Developers being responsible for plot specific financial matters.

## Measures

6.6 The infrastructure, site design and measures set out in Section 5 form the basis of the Residential Travel Plan measures. In addition to this, residential specific measures to be implemented as part of the Residential Travel Plans are included below:

### Marketing

6.7 Each residential unit will be provided with a branded Welcome Pack on first occupation. The Welcome Pack will include a summarised version of the Travel Plan along with information on public transport, the local walking and cycling network, contact details for taxi operators, and the Car Club.

6.8 Residents will as a consequence be made aware of the Residential Travel Plan and of its branding, including the purpose and objectives along with specific measures such as the Car Club. In conjunction with the Welcome Pack, marketing activity will be done at the point of sale (where possible). Sales staff in the Marketing Suites will be fully briefed on the Residential Travel Plan and Framework Travel Plan by the TPM.

6.9 The community/ development website, detailed in Section 5 , will contain travel information with prominence given to active modes (walking and cycling). The website would in effect be an online version of the Welcome Pack but would contain links to travel websites such as National Rail Enquires. This would enable real time information to be easily available as part of West Southall's Travel Plan.

### Reducing the need to travel

6.10 Once the Site is fully developed, there will be a mix of land uses and activities in close proximity to the residential units which will add to the Site's self sufficiency, while at the same time creating a strong sense of place.

6.11 All residential units will have facilities built into the design to enable working at home which will include making sure that the units are broadband enabled . Due to the build timeframes involved for this Site, a flexible approach will be maintained with regards to broadband and future advances in technology. The Welcome Pack will detail the benefits of home working - this will ensure that residents have an added incentive to consider working from home, even if this is only for one day a week.

6.12 Encourage the use of web-based home shopping; this will reduce the need to travel for residents within the development. This will create added advantages for those who are mobility impaired.

## Managing and Reducing Car Use

6.13 Residents will have the opportunity to purchase the right to park within the development. However there are less residential parking spaces than dwellings and therefore not all residents will be able to park a car.

6.14 The Car Club initiative is described in Section 5. The quantum and location of spaces will need to be discussed and agreed with LB Ealing as the highway authority during consultation associated with the detailed planning applications for the individual plots.

6.15 Developers will investigate with Car Club operators the possibility of offering residents free membership or discounted mileage for a period of time.

6.16 Details of the site wide car share initiative are detailed in Section 5.

6.17 Developers will work with the TPM and LB Ealing in consultation with Hillingdon and TfL to offer residents a personalised travel planning service, if required, once the units have been occupied.

## Active Modes

6.18 Secure cycle parking facilities will be provided for the residential element. These will be provided in accordance with minimum standards as set out in the London Plan and best practice guidance.

6.19 Cycling facilities will be phased as the Site is developed, with the Site Owner being responsible for Site wide measures and Developers responsible for plot by plot measures.

6.20 Residents will be provided with information and advice concerning cycle routes. This will be posted at a prominent location.

6.21 The TPM will also be responsibly for overseeing various cycle initiatives for the residential element of the Site. These initiatives could include:

- Social cycling events and training will be organised by the TPM, e.g. national or local cycling events; and
- The health benefits of cycling will be promoted to residents.

6.22 Similar initiatives will be carried out for walking. For instance residents will be provided with local walking routes specifically to public transport interchanges.

6.23 The health benefits of walking will also be promoted.

6.24 Investigate the possibility of providing dedicated trolleys at a central location within the residential components to encourage residents to go shopping on foot.

## Objectives

6.25 The primary target of the Residential Travel Plans will be to minimise the impact of the residential units on the surrounding road network through the promotion of active modes.

6.26 Other objectives include:

- Maximise the awareness of available travel options to and from the Site;
- To maximise the share of peak hour commuting journeys made by walking and cycling;
- To encourage the use of 'smarter' working practises to minimise the number of commuter trips made from the residential units. For instance someone working from home one day a week will reduce their work travel by 20%;
- To promote the health and fitness benefits of active travel to all residents; and
- To maximise the accessibility of the residential units by active modes at all times.

6.27 Both the Framework Travel Plan and Residential Travel Plans recognise that services and facilities provided to support travel by sustainable transport will be need to be in place from the outset.

## Targets

6.28 Targets are the measurable goals by which the progress of Travel Plans will be assessed. Targets are essential for monitoring progress and success of the Travel Plans and should be 'SMART' – specific, measurable, achievable, realistic and time-related.

6.29 Targets come in two forms – 'Action' type targets and 'Aim' type targets. Action targets are non-quantifiable actions that need to be achieved by a certain time, while aim targets are quantifiable and generally relate to the degree of modal shift the plan is seeking to achieve.

## Action Targets

6.30 Developers of residential plots will ensure that every residential unit receives a Welcome Pack no later than the time of initial occupancy.

6.31 The Site Owner will appoint a site wide TPM prior to implementation of the outline consent for the Site.

## Aim Targets

6.32 Aim Targets are usually for a set 5 year period, with an interim target at year 1 and 3 plus a final target at year 5. Due to the phased nature of the Site setting actual targets far into the future for each individual plot , is not practical. Instead an overarching set of targets that cover the residential units have been developed.

6.33 The purpose of the Residential Travel Plans are to reduce the expected mode split percentages through the measures proposed and set out in this document. The targets are set out in Table 6.1.

6.34 The targets for each plot will need to be ratified and if deemed necessary adjusted by the TPM in consultation with LB Ealing, TfL, LB Hillingdon through the TPF once the baseline survey for that plot has been carried out. Details of the baseline surveys are set out in the Monitoring Section. Table 6.2 details the phasing of the development.

**Table 6.1 – Residential Targets**

| Mode | Target |
|---|---|
| Car Driver | 35% |
| Bicycle | 5 - 10% |
| Walking | 15 - 20% |

**Table 6.2: Summary of Phasing**

| Construction Phase | | Completed Development |
|---|---|---|
| | | Indicative Residential Provision |
| 2010 – 2014 Expected | 1 | 192 Dwellings (terraced housing) |
| | 2 | 82 Dwellings |
| | 3 | 370 Dwellings |
| | 4 | 283 Dwellings |
| 2015 – 2019 Expected | 5 | 180 Dwellings |
| | 6 | 395 Dwellings |
| | 7 | 390 Dwellings |
| | 8 | 303 Dwellings |
| | 9 | 430 Dwellings |
| 2020 – 2025 Expected | 10 | 297 Dwellings |
| | 11 | 200 Dwellings |
| | 12 | 249 Dwellings |
| | 13 | 122 Dwellings |

6.35 The TPM will have overall responsibility for reviewing and setting these targets in conjunction with the TPF (including TfL, LB Ealing and LB Hillingdon).

## Monitoring

6.36 The monitoring protocol has been developed in conjunction with TfL.

6.37 As previously stated the Site is expected to be developed over a 15 year phasing period from decontamination through to final occupation.

6.38 Monitoring for West Southall will take on two premises:

- The Residential Travel Plan for each individual plot need only be monitored for its first 5 years;
- The Framework Travel Plan must be monitored once the trigger point is reached on the 1st plot until the year 5 surveys for the last plot are completed.

6.39 The trigger point for monitoring will be when each plot reaches at a least a 75% occupancy level. Consequently the baseline travel survey will be carried out for that plot. For the first plot this should happen no later than three months after the 75% occupancy

level has been reached. To streamline the process, it is proposed that all monitoring on the Site, including both the site-wide and individual site elements, take place concurrently every year on the anniversary of the baseline travel survey for the first plot.

**Specific Plot Monitoring**

6.40 Each individual plot will be required to adhere to a full five five-year iTRACE compliant monitoring programme, including:

- Household travel surveys with required iTRACE response rates;
- All mode traffic counts at entry and exit points to the plot; and
- Individual monitoring report to be submitted for each plot.

6.41 The TPM will be responsibility to coordinate any traffic counts on the internal highway network. It is expected that a certain amount of scope and/or flexibility will be applied to these counts due to the differences in the residential units; i.e. terraced housing and flats.

6.42 On the completion of this 5-year period, the household surveys continue to be conducted at each individual plot. However these will differ from the mandatory period surveys in the following ways:

- Surveys will take place every 4 years instead of every 2 years;
- Lower required response rate; and
- No all mode traffic counts at plot entry and exit points.

6.43 This continued but less frequent monitoring will ensure that the travel patterns established during the initial 5-year period continue to endure without placing un-due burden on residents of the earlier plots. The results of these surveys will contribute towards the Site - Wide monitoring detailed below.

**Site Wide Monitoring**

6.44 The Framework Travel Plan will endure throughout the construction period and the mandatory period will end 5 years after the trigger point of the final residential plot. The exact length of time is dependent on these dates and may vary, but for simplicity it has been assumed that this will last 20 years.

6.45 Site-wide residential monitoring will include the following elements, all of which will be conducted on an annual basis:

- Household surveys conducted at some of the individual plots; and
- Comprehensive monitoring reports.

6.46 This enables the cumulative impact of the Site to be assessed.

6.47 For the household surveys conducted at plots that have completed their mandatory 5 year iTRACE monitoring period, the responses will be added to the comprehensive monitoring reports instead of plot-specific reports. As a result, a lower response rate from each individual plot will be required to achieve statistical viability for the data set as a whole.

6.48 Table 6.3 outlines how the overall monitoring process might look assuming a 15-year build-out with approximately one plot (with each phase consisting of one plot) being completed per year. Mandatory surveys are shown in dark red and follow-up surveys in black.

6.49 This approach will result in household surveys being conducted at between 1 and 6 plots in any given year. In the final year of the survey, shown as year 20 in the table 6.3, a comprehensive survey will be conducted across the entire Site to assess if the Framework Travel Plan targets have been met.

| Table 6.3: Basic Monitoring Schedule | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site | Year | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1 | X | X | | X | | X | | | | X | | | | X | | | | X | | X |
| 2 | | X | X | | X | | X | | | | X | | | | X | | | | X | X |
| 3 | | | X | X | | X | | X | | | | X | | | | X | | | | X |
| 4 | | | | X | X | | X | | X | | | | X | | | | X | | | X |
| 5 | | | | | | X | X | | X | | X | | | | X | | | | X | X |
| 6 | | | | | | | X | X | | X | | X | | | | X | | | | X |
| 7 | | | | | | | | X | X | | X | | X | | | | X | | | X |
| 8 | | | | | | | | | X | X | | X | | X | | | | X | | X |
| 9 | | | | | | | | | | X | X | | X | | X | | | | X | X |
| 10 | | | | | | | | | | | | X | X | | X | | X | | | X |
| 11 | | | | | | | | | | | | | X | X | | X | | X | | X |
| 12 | | | | | | | | | | | | | | X | X | | X | | X | X |
| 13 | | | | | | | | | | | | | | | X | X | | X | | X |
| All | 1 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 6 | 4 | 4 | 4 | 4 | 13 |

6.50 This approach set out in conjunction with TfL ensures that iTRACE compliant monitoring is conducted at each individual plot while also allowing for the long term monitoring of the Site as a whole. This puts in place the methodology to ensure that the Framework Travel Plan and Residential Travel Plans are monitored throughout the build programme.

## Mitigation Measures

6.51 All monitoring should achieve the required response rates. If these are not met then the results will be discussed with the TPF and if deemed necessary the survey process will be repeated for the non-responding households. The Framework Travel Plan recognises that you cannot force people to fill in surveys, but possible incentives could be put forward and discussed with the TPF.

6.52 If at the end of the 5 year iTRACE monitoring period the specific targets are not met the measures stipulated in this document should be reviewed and re-implemented if it is deemed necessary. Specifically it depends on which targets have not been met and by how much that would help decide which mitigation measures to re-implement. Alternatively, it may be necessary to revisit the targets. The TPM will liaise with LB Ealing, LB Hillingdon and TfL through the TPF to decide what additional measures are the most appropriate.

6.53 Monitoring should consequently be carried out annually, in line with what is stated in the monitoring section. Funds will be made available from the Service / Management Charge to implement the appropriate mitigation measures, as decided in conjunction with LB Ealing. Funds will also be made available for the additional monitoring.

6.54 The following list is a guide to what measures could be implemented. It is important to note that this is not a definitive list and other measures could be implemented if deemed appropriate, similarly not all the measures should be implemented only those deemed appropriate:

- Increased Awareness campaigns, this can include:
  - Dr Bike initiative – free servicing of cycles and basic instruction
  - Cycle / walk days
  - Further promotional material
  - Promote health benefits of active modes
- Personalised / individualised travel planning service, this can include:
  - detailing how individuals can make best use the initiatives of the Residential Travel Plan
  - how to get to their specific workplace using active modes
- Cycle 'trains' from the development heading towards central London or another popular workplace destination – as deemed necessary.
- Car Club initiatives – including further discounted / free membership/ hours
- Other measures detailed in this document
- Other appropriate measures deemed suitable by LB Ealing / the TPF

# 7 WORKPLACE TRAVEL PLANS

## Approach

7.1 This section sets out a framework for the Workplace Travel Plans that will be prepared by Developers and implemented by Occupier. Developers will be required to prepare and submit the Workplace Travel Plans to LB Ealing for approval prior to implementation whilst Occupiers will be required to implement the Workplace Travel Plan within 3 months of occupation.

7.2 Workplace Travel Plans will be required for all plots that meet the requirement as set out by Transport for London in their guidance repeated in Table 7.1.

**Table 7.1 – Travel Plan Type Thresholds**

| Land Use | Transport Statement | Travel Plan Champion/ Enterprise Travel Plan | Travel Plan Coordinator / Standard Travel Plan |
|---|---|---|---|
| A1 Retail | <20 staff, <1000sqm | >= 20 staff, < 1000sqm | >= 1000sqm |
| B1 Office | <20 staff, <2500sqm | >= 20 staff, < 2500sqm | >= 2500sqm |
| D1 Hospital and Medical Centre | <20sStaff, <50 Staff | >=20sStaff, <50 Staff | >= 50 Staff |
| D2 Assembly and Leisure | <20 staff, <1000sqm | >= 20 staff, < 1000sqm | >= 1000sqm |
| C1 Hotel | <20 Staff, <50 Beds | >=20 Staff, <50 Beds | >= 50 Beds |

7.3 The Framework Travel Plan outlines a range of general elements that each Developer and Occupiers will need to include within their Travel Plan. Developers and Occupiers will be expected to adapt these to suit their own circumstances and organisational policies.

7.4 In particular the type of manager and Travel Plan will be dependant on the size of each organisation. The thresholds set in Table 7.1 will be used for determining these. The Travel Plan thresholds are those as set out in TfL's Guidance for Workplace Travel Planning for Development.

# Travel Plan Strategy

## Management

7.5 Each Occupier will appoint a Travel Plan Champion (TPC) or a Travel Plan Coordinator (TPCR) depending on where the organisation falls within Table 7.1, unless the Occupier workplace falls into the Transport Statement column. The TPC / TPCR role will be to implement and manage the Workplace Travel Plan.

7.6 When the workplace falls into the Transport Statement column a Sustainable Transport Statement will be produced by the Occupier with the assistance of the TPM; the document will state the workplaces commitment to actively encouraging sustainable transport. The document will serve to formalise the commitment of the organisation towards the delivery of the Framework Travel Plan.

**Table 7.2: Responsibilities of Travel Plan Champions and Coordinators**

| Responsibility | Travel Plan Champion | Travel Plan Co-ordinator |
|---|---|---|
| Develop Enterprise Transport Plan for organisation | X | |
| Develop Standard Travel Plan for organisation | | X |
| Implement Framework Travel Plan measures within organisation | X | X |
| Implement individual measures within organisation | | X |
| Assist TPM in gathering monitoring data from within their organisation | X | X |

7.7 The TPC or TPCR is the most important aspect of a Travel Plan and their willingness and enthusiasm will be a key factor in the successful implementation of a Travel Plan that will achieve good modal shift results. The roles and responsibilities of these positions are summarised in Table 7.2.

7.8 The main responsibilities of the TPC/TPCR will consequently be:

- To liaise with the TPM on matters concerning travel and the specific Workplace Travel Plan.
- To develop the Workplace Travel Plan / Statement for their employer based on the framework Workplace Travel Plan.

- To implement, market and manage the Workplace Travel Plan.
- Act as a point of contact for the TPM, for the implementation of site-wide initiatives (where applicable) and to ensure effective monitoring when required.
- The TPC/ TPCR will attend the Forum meetings with other Occupier TPC's and the TPM.
- Act as a point of contact for staff regarding travel and the Workplace Travel Plan.
- To ensure implementation of plot specific measures
- To actively work towards achieving and exceeding the targets

7.9 Each Occupier must appoint their TPC or TPCR upon initial occupation and ensure that there is someone actively filing the role throughout the duration of the Workplace Travel Plan. Their contact details will be passed to LB Ealing, LB Hillingdon and TfL Travel Plan Officers upon their appointment.

7.10 The role of the TPC / TPCR will be part-time and will have a fluctuating workload throughout the duration of the Travel Plan. The Occupier will make sure that the TPC/TPCR will have enough time to undertake their duties. The staff member appointed will need to be at a senior enough level to communicate effectively with management within their organisation regarding the Workplace Travel Plan.

7.11 The funding of each TPC or TPCR is the responsibility of the Occupier.

## Marketing

7.12 All employees will be made aware of the existence of the Travel Plan at the commencement of their employment. The details of the Travel Plan, its objectives in enhancing the environment and the role of individuals in achieving the objectives of the Travel Plan will be explained.

7.13 Contact details of the TPC / TPCR will be advertised in the event that employees wish to discuss specific matters directly.

7.14 Introduction of an employee Welcome Pack containing Information on the Workplace Travel Plan and sustainable transport initiatives along with any other relevant transport information. In addition, the Workplace Travel Plan will be added to the agenda for all employee induction sessions.

7.15 A formal launch of the Workplace Travel Plan accompanied by the above mentioned travel information packs will be done within three months of the opening of the unit.

7.16 The following will be used as a means of disseminating information to employees to promote events/campaigns / promotions/services/initiatives:

- Employee notice boards
- Employee Newsletters
- Welcome Packs
- Website / Travel Centre Portal

7.17 Visitors or customers, where possible (workplace specific), will receive sustainable travel and other information via the introduction of travel information boards. Information will include bus maps and timetables, general location and amenity maps, showing cycle lanes and rail stations. These should be provided in prominent locations, including the company's website.

## Targets

7.18 The Workplace Travel Plan sets targets as proposed in the Framework Travel Plan. Specifically the targets relate to members of staff / employees, not visitors to the Workplace.

7.19 Tables 7.3 sets targets for SOVs, across the range of land uses based on data from the submitted Transport Assessment.

**Table 7.3: SOV Estimated Daily Mode Share & Proposed Targets**

| Land Use | Estimated Base | Year 1 | Year 3 | Year 5 | Percentage Change |
|---|---|---|---|---|---|
| **Supermarket** | 55% | 53% | 49% | 45% | 10% |
| **Non-food retail** | 55% | 53% | 49% | 45% | 10% |
| **Employment** | 35% | 34% | 32% | 30% | 5% |
| **Cinema** | 30% | 29% | 27% | 25% | 5% |
| **Hotel** | 80% | 76% | 68% | 60% | 20% |

7.20 The SOV targets will need to be ratified and if necessary adjusted following the initial baseline surveys as detailed in the Monitoring section. The targets will be discussed by

the TPM and TPC / TPCR with LB Ealing and TfL in consultation with LB Hillingdon through the TPF. If the targets are not being met, either additional measures will be implemented or the targets reviewed and amended if necessary.

7.21 No specific targets for the remaining modes have been proposed in the Framework Travel Plan due to the multiple land uses across the Site. Instead overall targets for active modes are as stated below:

- 50% proportional increase in cycling
- 50% proportional increase in walking

7.22 Similarly to the SOV targets, the remaining modes would have there targets set and ratified from the initial baseline surveys. These targets would make sure that the overall active mode targets as set out above are incorporated. The setting of the targets would be done by the TPC/TPCR with the assistance of the TPM and verified by the TPF.

7.23 It is also likely that employees of different occupiers will travel differently to others due to their type of work. Therefore it is difficult to look at targets holistically and it is expected that each Workplace Travel Plan will differ in terms of the travel patterns experienced and the subsequent ratified and/or adjusted targets that will be put in place.

7.24 Targets will apply from when the workplace becomes operational. Therefore the years listed refer to the time period after opening, not the phasing of the development.

# Travel Plan Measures

## Introduction

7.25 The measures that are implemented for each Workplace Travel Plan will be based on this framework document. These include mandatory and optional measures. Developers and Occupiers will be required to implement the mandatory measures whilst each TPC / TPCR will be expected to use the results of the travel surveys and their individual company policy to implement specific optional measures suitable to their employer and employees.

7.26 The implementation of the listed measures, which include awareness initiatives and infrastructure provision, is the core of the Workplace Travel Plan. Measures are grouped together broadly under 'alternative mode of transport' headings.

## General

7.27 There are a wide range of possible initiatives and measures that can be implemented within a workplace. Those that are relevant will depend entirely on the occupants of the premises. The following measures are mandatory to all Commercial Occupiers although some may not necessarily be appropriate for all smaller occupiers.

- The appointment of a dedicated Transport Co-ordinator as a central point of contact for internal and external liaison;
- cycle parking facilities in line with minimum standards as set out in the London Plan;
- lockers for walkers and cyclists;
- provision of showering and changing facilities within buildings
- The promoting of cycling
- The promoting of walking
- The promoting of public transport through advertising routes, timetables, location of bus stops, cost and available ticketing initiatives.
- Placing information on alternatives to car (e.g. bus timetables) in prominent places e.g. reception or staff areas
- Office location maps to focus on alternative modes of access before car.
- Cycle club and car share scheme (site-wide or company specific).
- Advertise achievements i.e. progress towards travel plan targets.
- Sign up to a car share scheme - collection of information from potential car share employees whether for an individual company car share scheme or site-wide initiative – offer guaranteed lift home;
- Occupiers to be responsible for the management of their own car parking facilities (ensuring no double parking);
- Provide preferential parking for car sharers;
- Monitor staff / visitor / business travel
- Where practical ensure any personal safety issues are addressed
- Liaison with the Service & Delivery Strategy (SDS) Manager and active participation in the SDS Strategy.
- Broadband access enabling internet access to travel planning and information services;

7.28 Other measures to consider include:

- Interest free loans for season tickets;
- Information provision through induction packs and Site Travel Centre;
- Pool cycles for use for business related travel;
- Allowing flexible working hours;
- Employers where relevant will investigate the use of the following alternative working practices such as home working, teleconferencing and flexi-time;

## Promoting Cycling and Walking

7.29 The following measures are mandatory to be implemented by Developers and Occupiers to promote cycling and walking :

- Setting up a Bicycle User group (BUG) – this could be achieved more effectively at a site-wide level. The TPM should be consulted on this matter.
- Ensuring that lockers, showers and changing facilities are provided as part of the initial construction.
- Promoting healthy lifestyles and the benefits on health of walking and cycling.
- Advertising the cycle facilities
- Advertising safe and direct cycle and walk routes to and from the development
- Encouragement of National awareness campaigns such as National Bike week or set up their own bike to work week.
- Identifying key facilities such as a bank or post office within walking and cycling distance from the development

7.30 Other measures to consider include

- Joining the Government's Cycle to Work Scheme so that staff can purchase cycles and safety equipment tax free.
- Organising social lunchtime or after work walks or cycle rides.
- Organising cycle training for those that are interested – again this could be more effective at a site-wide level for employees.

## Travel Awareness and Information Provision

7.31 The TPC / TPCR will liaise with Travel Awareness officers at LB Ealing, LB Hillingdon and TfL. This will allow the coordinator to get ideas for awareness raising events and initiatives and the possibility of working with the TA officer on projects sponsored by the council that are specific to the development.

7.32 Bespoke events or participation in national and local event for specific campaigns will also form a central role in raising awareness of travel options. For example, National Bike Week, In Town Without My Car, London Sustainability Weeks etc. All components can participate in these types of events.

7.33 Information will be provided to employees through a variety of means including those listed in paragraph 7.7.

## Company Policy

7.34 Each employer will also need to specify what, if any, company policies exist that promote the use of sustainable transport. For example:

- The availability of interest free loans for cycle or season public transport tickets
- Mileage allowance for the use of bicycle on company business
- The availability of Cycle Scheme for employees (tax free cycle purchase)

7.35 If these types of incentives are not present, where possible the TPC will investigate the possibility of implementing them.

## Car Clubs and Car Share

7.36 Occupiers should encourage the use of Car Clubs for any work related travel that requires the use of a vehicle, and the use of public transport for all London based travel (except where the necessity to carry equipment precludes this).

7.37 Where vehicles are used for work purposes, colleagues should car share where possible. More details of the Car Club and Car Share initiatives are provided in Section 5.

7.38 The Site Car Share scheme will be marketed to employees to encourage car sharing for the journey to work. Occupiers will investigate the possibility of offering incentives for staff to join, although their ability to do this will vary across Occupier.

# Monitoring and Review

## Monitoring

7.39 The monitoring of the Travel Plan will be responsibility of the TPC / TPCR who will implement a programme to assimilate information to evaluate the success of the plan.

7.40 It is important to state that this framework is part of a continuous process for improvement and that each Workplace Travel Plan that gets created as a consequence requires monitoring, review and revision to ensure that it remains relevant to the specific organisation, public transport provision, changing transport conditions and those using the Site.

7.41 The monitoring programme will begin with the initial travel survey, to be undertaken at least three months after occupation or when 75% of available space with the workplace is occupied (or whatever is more appropriate in individual circumstances). The survey will be used to adjust and ratify the targets. However the overarching minimum aim targets are as specified in paragraphs 4.7 through 4.11.

7.42 This survey will follow the established TRAVL survey methodology to ensure it's compatibility with iTRACE (the Travel Plan project management tool used by London Borough's). The TPC's will be responsible for populating the iTRACE database.

7.43 There will be a number of different surveys that will be conducted, albeit that not all will apply to each land-use. These include;

i) Traffic Surveys

ii) Parking Surveys

iii) Interview Surveys

iv) Pedestrian Surveys

7.44 While all elements will not be applicable, a full workplace TRAVL survey will involve the following:

i) Employer Management Survey;

ii) Multi-modal Count Survey;

iii) Parking Survey;

iv) Deliveries/Freight Survey;

v) Visitor Interview Survey; and

vi) Employee self completion questionnaire.

7.45 Additional monitoring of the following is also useful to judge whether the implementation or proportion of certain measures needs to be modified. The following factors should be monitored on a constant basis:

i) The level of usage of cycle stands;

ii) The level of usage Car Club vehicles;

iii) Demand for additional cycle and motorcycle parking facilities;

iv) The take up of the car sharing scheme; and,

v) Comments received from employees and residents relating to the operation and implications of the Travel Plan.

7.46 Information gathered through the monitoring process will be recorded for input to the annual review and be made available to the LB Ealing, LB Hillingdon and TfL.

## Review of the Travel Plan and Mitigation

7.47 Workplace Travel Plans will be reviewed on the first, third and fifth anniversary of the approval of the plan in line the best practise guidelines at the time.

7.48 All monitoring should achieve the required response rates. If these are not met then the results will be discussed with the TPF and if deemed necessary the survey process will be repeated. The Framework Travel Plan recognises that you cannot force people to fill in surveys, but possible incentives could be put forward and discussed with the TPFand specific workplace TPC.

7.49 If at the end of 5 year iTRACE monitoring period the specific targets are not met, the measures stipulated in both this framework and the specific Workplace Travel Plan should be reviewed and re-implemented if it is deemed necessary. This will be carried out in conjunction with London Borough Ealing and TfL in consultation with LB Hillingdon through the TPF. If the targets are not being met, either additional mitigation measures will be implemented with the targets reviewed and amended if necessary.

7.50 Specifically, additional mitigation measures depend on which targets have not been met, such as cycling or SOV use, and by how much, that would help decide which mitigation measures to implement. As such there will be a need for a commitment to work with LB Ealing, LB Hillingdon and TfL to determine the most appropriate additional actions / steps to help the specific workplace achieve its targets in their specific Workplace Travel Plan.

7.51 Monitoring should consequently be carried out annually, in line with what is stated in the monitoring section. Funds will be made available from the Occupier to implement the appropriate mitigation measures as decided in conjunction with LB Ealing, LB Hillingon and TfL through the TPF.

7.52 The following list is a guide to what measures could be implemented. It is up to the TPF in conjunction with the specific workplace TPC / TPCR and LB Ealing in consultation with LB Hillingdon and TfL to decide what mitigation measures are appropriate. It is important to note that this is not a definitive list and other measures can be implemented if deemed appropriate, similarly not all the measures should be implemented only those deemed appropriate:

i) Increased Awareness campaigns, this can include:

- Dr Bike initiative – free servicing of cycles and basic instruction
- Cycle / walk days
- Further promotional material
- Promote health benefits of active modes

ii) Personalised / individualised Travel Planning service, this can include:

- detailing how individuals can make best use the initiatives of the Workplace Travel Plan
- how to get to their specific workplace using active modes

iii) Car Club initiatives – including further discounted / free membership/ hours

iv) Other measures detailed in this document

v) Other appropriate measures deemed suitable by LB Ealing / the TPF in consultation with LB Hillingdon and TfL

# 8 SCHOOL TRAVEL PLAN

## Content

8.1 TfL has strict criteria for the development of School Travel Plans. The document will contain the following information:

- Pupil and teacher survey results.
- Analysis of problems and issues on the journey to school.
- Evidence of consultation and involvement.
- Objectives such as to reduce the number of car journeys, encourage more walking and cycling, improve physical fitness and independence).
- Targets such as to increase the number of children cycling to school from x to y by z date.
- An overall action plan for achieving the objectives and targets.
- A list of those responsible for implementation of the plan.
- A list of measures, including highway schemes, necessary to encourage walking and cycling and to discourage unnecessary car use.
- Funding needs.
- Curriculum links.
- A commitment to participation in campaigns such as walk to school week.
- A programme for monitoring progress in achieving the targets.
- A programme for marketing the plan to parents, teachers, pupils and local residents.

8.2 The School Travel Plan will be developed in conjunction with School Travel Advisors at LB Ealing in consultation with LB Hillingdon and TfL and in accordance with DfES and TfL guidance. The School Travel Plan will cover travel by pupils, staff and parents / carers.

## Management and Timeframes

8.3 The School Travel Plan will be implemented within six months of occupation. This will include a survey of staff and pupil's travel habits to set appropriate targets along with the appointment of a School Travel Champion (STC) to oversee the day to day operation of the plan.

8.4 The STC will attend the TPF meetings and liaise with the TPM on a regular basis to keep up to date on travel issues within the Site and also report back safety or other concerns the school might have.

## Aims, Objectives and Targets

8.5 The primary aim of the School Travel Plan would be to:

- Reduce the number of cars associated with the daily school run and after-hours activities

8.6 Secondary aims could include:

- Increase modal share of sustainable modes for pupils, staff and visitors to the School;
- Promote the School's green agenda and commitment to the use of sustainable travel;
- Reduce the negative transport-related impacts of the School on the surrounding community.

8.7 These aims could be addressed by the following objectives:

- Identify any issues or problems related to transport that have negative impacts on the journey to School for pupils and staff;
- Increase awareness of the health and environmental benefits of the use of sustainable modes, particularly cycling and walking, to both pupils and staff through curriculum-based learning;
- Identify problems created by the journey to school and minimise the impact of these on the local community;
- Increase parent awareness of the implementation of the School Travel Plan and the purpose of it;
- Decrease informal drop-offs outside the School grounds;
- Increase the number of parents car pooling for the journey to School;
- Increase awareness of the benefits of the use of sustainable modes to pupils and staff through sustainable transport information provision and promotion of the School Travel Plan.

8.8 The specific targets included within the School Travel Plan will be dependent upon the outcomes of the pupil and parent surveys and issues identified through other means of consultation. These will be formally identified within the full School Travel Plan developed once the School has been occupied.

## Measures

8.9 As part of the Travel Plan the school will take part in travel awareness initiatives such as:

- Walk on Wednesdays / Walk Once a Week.
- Walk to School Week / Monthly promotions.
- Other national / local events such as National Bike Week.
- Participation in Junior Road safety Officers programme.
- Road safety and cycle safety training.
- Walking School bus or less formal walk to school groups.
- Providing loans for season travel passes for staff.
- School website to contain sustainable transport information.
- Set up a sustainable transport committee with pupils and teachers.
- Covered and secure cycle parking facilities.
- Incentives for pupils for using sustainable transport on a daily basis.
- Lockers or formal school policy that removes the necessity for pupils to carry large loads of books
- Safer Routes to School and other engineering measures, 20 mph zones, aimed to control congestion outside the school and the surrounding area during the school run times.

8.10 Measures to be implemented as part of the School Travel Plan will be presented in an Action Plan format. Each measure will relate to the individual objectives and targets identified by the School and each will include a timeframe for implementation.

## Monitoring and Review

8.11 Monitoring of pupil and teacher travel will occur annually. This will involve Hands-up surveys carried out within each tutor group. The STC will be responsible for the organisation of the survey on the anniversary of the full baseline survey and every year subsequently.

8.12 The School Travel Plan will be reviewed at the discretion of the STC following the outcomes of the annual 'Hands-up' surveys and the need to incorporate the impact of, among others, the following:

- Significant changes in pupil travel to school
- Changes to the Site due to construction associated with the Masterplan
- Changes to pupil travel due to new developments in education and transport provision
- Changes made to the adjacent highway network
- Changes to the objectives, aims, targets and measures of the STP
- Significant changes in the travel of staff, visitor, and participants in after-hours activities.

8.13 In addition to the annual review based on the outcome of the 'Hands Up' survey, every three years following the implementation of the STP a comprehensive review of the entire plan will be undertaken. This will allow the plan to be updated to reflect changes in policy and the emergence of any new initiatives and/or technology that could be incorporated.

8.14 LB Ealing, LB Hillingdon and TfL all use iTRACE to monitor the progress of Travel Plans. , Therefore the details of all baseline and monitoring surveys will be included within this database.

# 9 DELIVERIES AND SERVICING

## Overview

9.1 The Site Owner is required by planning condition (condition 8) to prepare a standalone Framework Delivery and Servicing Strategy (FDSS) setting out the overarching Site – Wide principles for deliveries and servicing strategy. The TPM will manage and implement the FDSS. Occupiers will be required to adhere to the principles.

9.2 Road congestion can be a cause of inefficient deliveries or servicing as well as impact on delivery schedules which in turn costs money. As such, a key component of the redevelopment of the Site will be the effective management of deliveries both in terms of design and scheduling.

9.3 The primary objective of the strategy will be to reduce the potential impact of delivery and servicing activity associated with the Site on the human and physical environment. This will be pursued through the design and management of delivery and servicing patterns and procedures.

9.4 This section sets out design principles and management strategies to be adopted throughout the Site from the creation of on-street service bays through to the management of off-street service yards and routing agreements with the following broad obligations;

- The Site Owner will submit details with reserved matters applications setting out locations of all on-street service bays along with swept path assessments for appropriately sized vehicles.
- Developers of individual plots will be required to submit details with reserved matters applications setting out how deliveries and servicing along with waste disposal will be managed. This will include the anticipated number and type of delivery / servicing vehicles used.
- Occupiers will be required to implement the strategies.

# Design

## Layout

9.5 The development includes a network of roads within the Site which effectively forms an extension to Southall, along with off-site highway works to mitigate the potential traffic impact associated with the redevelopment of the Site.

9.6 The Masterplan envisages a mix of land uses with various sizes of retail provided in a typical High Street layout with smaller and larger units fronting the street with residential above. Predominantly residential uses will be located adjacent to the canal along the western boundary of the Site.

9.7 The internal road network will provide connections to the wider highway network along with access to the various plots plus new routes into Southall. Kerb space will be limited and need to be carefully managed to ensure it is efficiently used. The available space will need to be shared between parking for cars, bus stops and loading bays for delivery / service vehicles in addition to providing the appropriate amount of landscaping and pedestrian / cycle facilities. A key objective will be to minimise conflicts with other users and consolidate/ minimise trips (removing where possible) with other users and to maintain the safety of all users of the Site. In particular, Blue Badge / disabled bays should not be restricted by servicing arrangements.

9.8 Reserved matters applications will be required to include details of the locations of all on-street loading bays along with swept path assessments illustrating how appropriately sized vehicles can enter and leave the bays. On-street servicing facilities will be located where possible away from main roads and bus routes. Management of the various bays will depend on the location with some anticipated to be on public highway and others on un-adopted estate roads.

9.9 On-street loading bays should only be included where necessary and appropriate. Furthermore, consideration should be given to shared surfaces which pedestrians use when not used for loading

9.10 Developers of individual plots where off-street servicing is proposed will be required to submit swept path assessments for appropriately sized vehicles

## Commercial Units

9.11 The London Plan and the Ealing Unitary Development Plan require that all commercial units are serviced off-street. However, although ideal, it is not practical in all town centre schemes particularly for smaller retail units which are serviced on a less frequent basis. As such, it is envisaged that there will be a mixture of on and off-street servicing facilities. Where possible and appropriate, servicing will be conducted off-street with vehicles required to exit and enter the highway in forward gear.

9.12 Developers of all retail and commercial units which are referable under the Mayors criteria will be required to submit Delivery and Service Plans with reserved matters applications illustrating how deliveries and servicing will be conducted in the most sustainable manner with the level of detail dependent on the size of unit in question.

## Residential Units

9.13 The proposals envisage up to a maximum of 3,750 residential dwellings a large proportion of which will be provided in the form of apartments. Some of the apartments will be constructed above retail or commercial development with the remainder in dedicated blocks.

9.14 Developers of plots which include residential above retail or commercial units, the majority of which are located along the High Street, will need to set out principles for deliveries and servicing of the residential in addition to the non-residential uses. The preferred option will be for a managed service yard or dedicated concierge where deliveries are received and stored from where residents can collect goods.

9.15 Developers of blocks of dedicated residential blocks will need to submit details on how the blocks will be serviced including waste management and delivery of large household goods. Dedicated service yards are not envisaged albeit it will be necessary to illustrate through swept path analysis how appropriately sized vehicles, i.e. large refuse collection and 10t rigid vehicles can, where necessary, turn around safety and without compromising the safety of the users of the Site.

9.16 It is envisaged that some of the residential apartment blocks may have concierge facilities which would be able to accept goods on behalf of residents should they not be at home. It will be important to ensure that these blocks have sufficient storage to cater for anticipated demand as repeat deliveries result in unnecessary additional mileage.

9.17 A key objective will be to minimise conflicts (removing where possible) with other users and to maintain the safety of all users of the Site.

## Management and Monitoring

9.18 The Site Owner will appoint a Site Manager (the Manager) at least six months prior to the first occupation of any of the buildings. The Manager will be responsible for the day to day operations on Site including ensuring consistency with the FDSS.

9.19 In terms of the FDSS, the Manager will be responsible for liaising with Developers, Occupiers and LB Ealing in consultation with LB Hillingdon and TfL to promote sustainable delivery practices along with reviewing demand and supply of loading facilities and monitoring. However, it is important to recognise that the Manager will not have jurisdiction over the majority of loading areas which will either be on public highway and therefore the responsibility of the Council or within development plots and controlled by Occupiers.

9.20 Space and time are precious and typically more and more pressure is placed on the available area for service yards and loading facilities along with an emphasis on just in time deliveries. As such, although Councils often require occupiers to sign up to sustainable delivery practices, in reality the majority of occupiers are continually reviewing practices due to ongoing economic constraints.

9.21 This practice becomes more important where service yards are shared and it is therefore envisaged that it will be necessary to book space within the yard both in terms of time and duration to ensure that the risk of unnecessary delay and waiting on the public highway is reduced.

9.22 The majority of existing on-street loading bays throughout greater London and the UK are subject to maximum time limits typically in the order of 20 minutes.

9.23 Consideration will need to be given to restricting the use of on-street loading bays to outside of the peak hours. However, it should be recognised that the removal of the vehicle from the wider highway network would be more important than occupying the loading bay provided it did not influence the free flow of traffic and in particular the reliability of buses.

9.24 The Manager will monitor policy and best practice guidance along with delivery and servicing patterns as the Site is developed out (and beyond) with a view to making recommendations to the Transport Working Group, Developers and Occupiers as appropriate. These would include ensuring all parties are up to date in terms of policy and best practice through to commenting on locations of existing and potential future loading facilities.

9.25 It is recognised that whilst large national companies employ teams of logistics experts to plan and manage deliveries and servicing schedules, smaller independent companies do not typically have such expertise to hand. The Manager will assist small independent companies providing them with information on best practice, putting them in contact with larger organisations and hosting conferences or meetings.

## Routing Agreements

9.26 There are a total of five vehicular routes connecting the Site to the existing highway network including primary links to South Road in the east (the "Eastern Access") and the A312 Hayes By-pass via Pump Lane in the west (the "Western Access"), along with three secondary connections to Beaconsfield Road to the north.

9.27 It is envisaged that the majority of deliveries will use the connection to the Western Access as a main point of access once it is made available for general use. In the early years prior to the opening of the Western Access all delivery vehicles with the possible exception of local refuse collection vehicles travelling to and from Southall Broadway will be required to use the Eastern Access.

9.28 It is envisaged that delivery vehicles will not be permitted to use the connections to Beaconsfield Road and it is anticipated that these will be covered by weight restrictions. However, it may be necessary for refuse collection vehicles to use the routes if travelling between Southall Broadway and West Southall.

## During Construction

9.29 The Site will be developed out over a 20 year period during which time there will be construction traffic in addition to delivery and service vehicles. The proposals are to route all HGV construction vehicles via the Western Access from initial construction through to completion.

9.30 The phasing program envisages taking access for the occupied units from Beaconsfield Road whilst the Eastern Access is completed. This phase will only incorporate residential dwellings and as such deliveries are likely to be limited to the delivery of household goods and refuse collection. All vehicles will need to use Beaconsfield Road.

9.31 Once the Eastern Access is opened for use weight restrictions will be introduced at the Beaconsfield Road site accesses and deliveries will be required to use this route. Following the opening of the Western Access via Pump Lane for general use it is envisaged that many occupiers would use this route as the most appropriate connection to the strategic highway network and avoiding the need to use South Road or Western Avenue.

# 10 PARKING STRATEGY

10.1 The Site Owner will prepare in accordance with the planning conditions (condition 9) and submit a Site Wide Car and Cycle Parking Management Strategy which sets out in detail the quantity, design, location, management and implementation of car and cycle provision across the Site on a phase by phase basis. Developers will be required to bring forward individual plots in accordance with the strategy.

10.2 Existing residential and commercial car parking in and around Southall town centre is in short supply with demand levels typically well in excess of supply. The majority of residential properties, particularly those to the north of the Site park on-street, with limited on-street short stay and off-street public parking. Furthermore, it will be in the interest of retail tenants on the Site to ensure that parking spaces turn over on a regular basis, whilst residents will want to ensure that inappropriate parking does not occur. Hence the efficient management of the spaces is key to the success of the parking strategy.

## Residential Parking

10.3 The Masterplan includes a total of up to 3,750 dwellings across the site, the majority of which will be apartments along with some town houses. The planning conditions ensure that the overall parking ratio upon completion of the development will not exceed 0.7 spaces per dwelling across the site (i.e. up to a maximum of 2,625 spaces), with some residential units being car free.

10.4 There will be a mixture of on-street and off-street parking with provision being made adjacent to dwellings or in communal areas as appropriate. Some of the off-street parking will be provided within the town centre car parks, whilst other spaces will be provided in courtyards or basements.

10.5 All of the parking will be controlled to ensure that inappropriate parking does not occur. It is envisaged that some residents will be allocated or required to purchase individual spaces, whilst others will be allocated or required to purchase permits to park in a particular area. Approximately 375 spaces will be provided for Blue Badge holders. These spaces will be located in close proximity to residential entrances and meet relevant design criteria for disabled users. In addition, some spaces will be allocated for visitors,

with time limits broadly in line with town centre parking, and up to 50 spaces will be set aside as car club spaces.

10.6 Developers of individual plots will be required to submit details with reserved matters planning applications setting out the numbers and location of car parking spaces along with how the spaces will be allocated and managed. They will also be required to illustrate proposals for electric vehicle charging points and Blue Badge spaces.

## Town Centre Parking

10.7 The proposals include up to a total of 830 spaces for cars including approximately 30 on-street spaces, 730 spaces in two multi-storey car parks plus a small surface car park with 70 spaces adjacent to the cinema.

### On-Street Provision

10.8 The proposals include approximately 30 on-street spaces for cars, with the final number determined through detailed design and limited due to design criteria, etc. These spaces will mainly be assigned as special needs parking.

10.9 The Site Owner will submit details with reserved matters planning applications setting out the numbers and location along with allocation and management strategy of the on-street parking spaces. The approach will be that all on-street parking spaces will be allocated as very short stay spaces (typically 30min maximum) or for use by disabled persons.

### Off-Street Parking

10.10 The proposals include two multi-storey car parks with a total of approximately 730 spaces along with a small surface car park with approximately 70 spaces adjacent to the Cinema.

Eastern Multi-Storey Car Park

10.11 The Eastern Multi-Storey Car Park is located to the east of the retained gas holder and is sufficiently accessible to serve both visitors to the existing Southall town centre those visiting the facilities on the Site.

10.12 The car park, which will have approximately 350 spaces for public use, will be managed to ensure that inappropriate long stay commuter parking is discouraged.

10.13 The strategy will need to take into consideration the needs of retailers, shoppers and visitors alike. In this regard, it is likely that the car park will primarily be short stay whilst facilitating some intermediate stay parking. It is typical in town centres across the country to dedicate the lower floors of a car park to short stay, i.e. up to say 2 – 3hrs maximum, and the upper floors to a longer stay of say 4 – 5hrs. These options would enable people to visit existing and future retail, along with a meal or visit to the cinema. However, it would not facilitate commuting for employment purposes.

10.14 The Developer of the car park will submit details with the reserved matters planning application setting out the numbers and layout of the parking spaces along with access / egress arrangements and management strategy. The strategy will be reviewed on an annual basis with changes implemented as and when necessary.

Central Multi-storey Car Park

10.15 This car park will have approximately 380 spaces for public use and is ideally located to serve both the supermarket and the rest of the new high street retail. The car park will be managed as a short stay shopper car park with long stay discouraged through the charging regime.

10.16 The Developer of the car park will submit details with the reserved matters planning application setting out the numbers and layout of the parking spaces along with access / egress arrangements and management strategy. The strategy will be reviewed on an annual basis with changes implemented as and when necessary.

Cinema Car Park

10.17 This car park which will have approximately 70 spaces is located to the rear of the Cinema adjacent to the Eastern Multi-Storey Car Park.

10.18 The Developer of the car park will submit details with the reserved matters planning application setting out the numbers and layout of the parking spaces along with access / egress arrangements and management strategy. The strategy will be reviewed on an annual basis with changes implemented as and when necessary.



**Car Park Charges**

10.19 The charging regime for the non-residential car parking will depend upon a range of factors. In general the objective will be to encourage short term parking and discourage commuter parking. Details of car park charges will be formulated prior to the bringing into use of the relevant spaces.

## Disabled Parking

10.20 Parking will be provided for people with special needs throughout the Site in line with current policy and best practice in terms of design, location and quantity.

10.21 Developers of individual plots will submit details with the reserved matters planning applications setting out locations and numbers of spaces for disabled persons.

## Electric Charging Points

10.22 It is recognised that the use of electric cars will become more popular as the Site is developed out, particularly within Greater London for shorter journeys. In this regard, the Mayor requires developers to set aside a proportion of spaces where the public can park and re-charge electric cars. As a result, Developers of individual plots will be required to provide charging points in accordance with guidance in the Mayors London Plan.

10.23 The Site Owner will submit details with reserved matters planning applications setting out numbers and locations along with the infrastructure of public electric charging points along with a strategy for managing the use of the spaces.

10.24 Developers of individual plots will submit details with reserved matters planning applications setting out numbers and locations of parking spaces which could be used by the public for re-charging their car. Developers will be required to consider recovering the cost associated with charging cars through the overall parking charges.

## Hotel and Conference Car Park

10.25 The proposals include a Hotel with a GFA of approximately 9,650sqm along with a 3,000sqm Conference facility plus a dedicated car park with up to 122 parking spaces for cars.

10.26 The Developer of the Hotel and Conference Centre will submit details with the reserved matters planning application to LB Ealing in consultation with LB Hillingdon and TfL setting out the numbers and layout of spaces along with access / egress arrangements and the management strategy. This will include the requisite number of spaces for disabled persons.

10.27 The parking strategy will be linked to users of the facilities with drivers charged by the day and short stay parking for the town centre will not be permitted.

# 11 MOVING FORWARD

11.1 This document outlines an overarching strategy for the Site to encourage the use of sustainable modes of transport by all residents, employees and visitors to the Site. The Framework Travel Plan provides the framework upon which all Residential, Workplace and the School Travel Plans will be based

11.2 The Framework Travel Plan will be discussed further with Travel Plan Officers at LB Ealing and TfL and where appropriate revised prior to the commencement of any of the construction phases and stages.

11.3 Developers of individual plots will prepare detailed Travel Plans in accordance with this Framework Travel Plan. They will submit them to LB Ealing (who may from time to time consult with TfL where developments are of a significant scale) and have them approved prior to implementation of that plot.

11.4 In some cases it maybe appropriate for a Workplace Travel Plan to be developed for a group of occupiers. This will become apparent once there are exact details of how and where occupiers will be located.

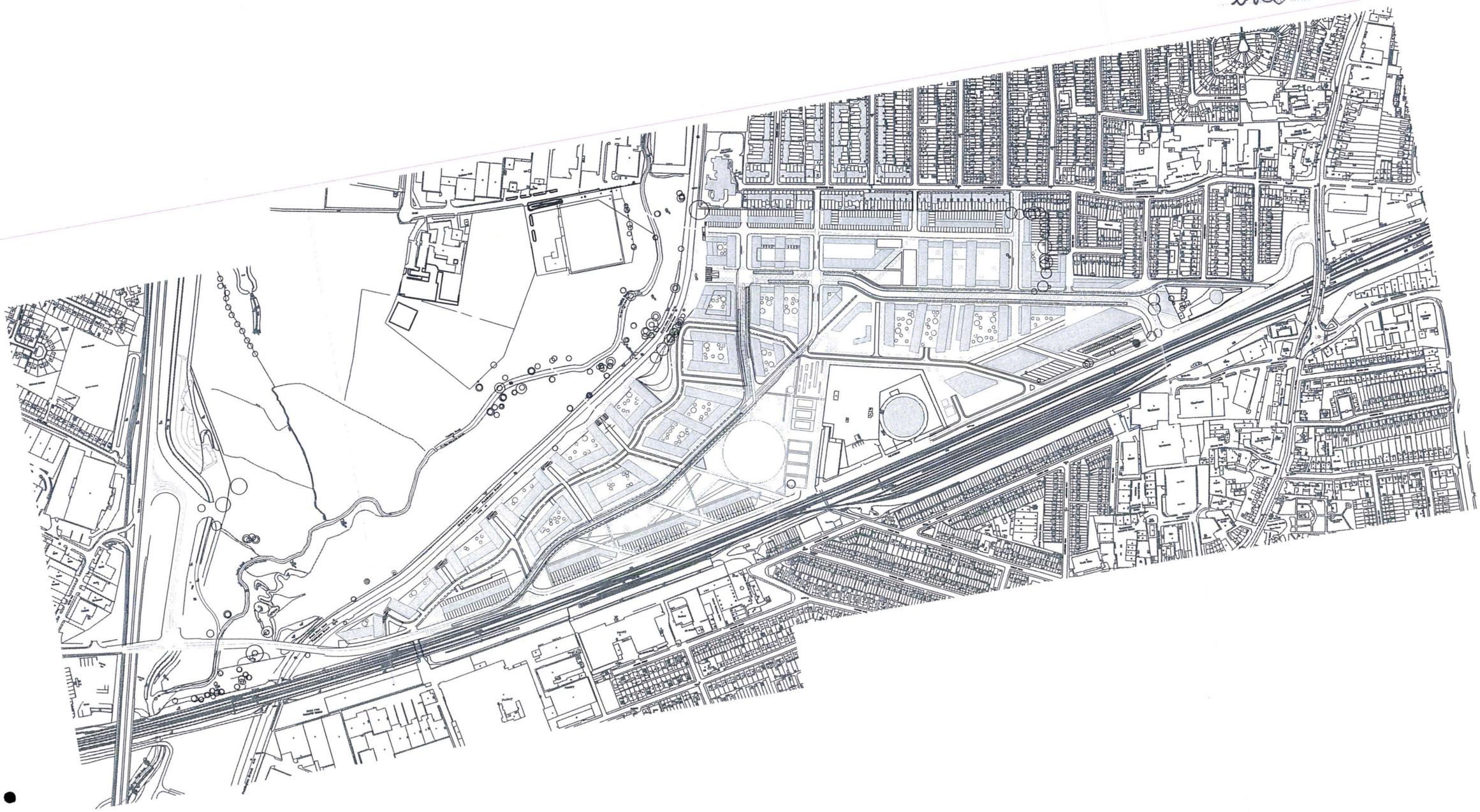
11.5 Occupiers of non-residential units will, in the circumstances set out in the s.106 Agreement, be responsible for, monitoring, managing, reviewing and funding travel planning measures through conditions or Section 106 obligations.

11.6 The School Travel Plan will commence upon the opening of the School following which consultation can take place with students, teachers and parents and the identification of issues that may arise from the new development. Many potential safety issues will already have been 'designed out' as part of the design process for the Site, however other issues may arise. The School Travel Plan will be signed off by LB Ealing and TfL School Travel Advisors within 1 year of opening.

# APPENDIX A

## (Indicative Masterplan)

John Henley



# APPENDIX B

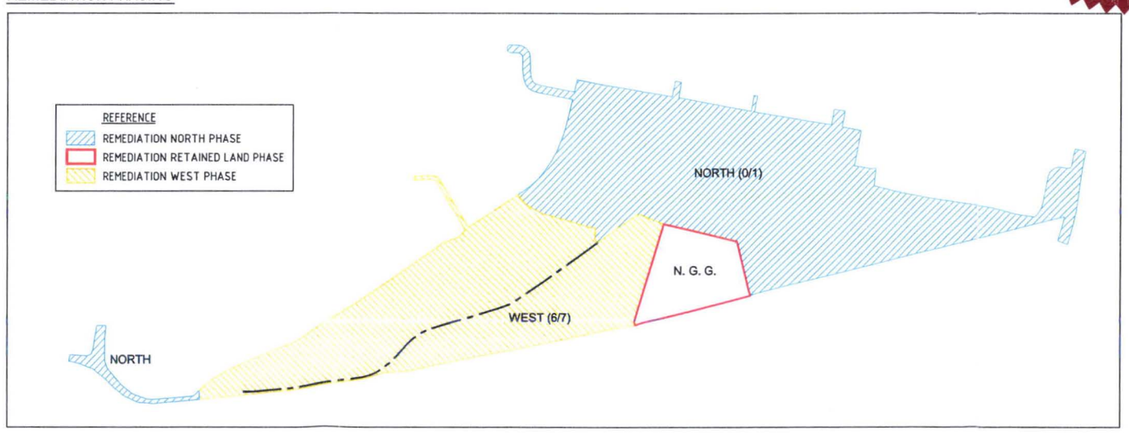
## (Indicative Phasing Plan)

| | REFERENCE (UNIT Nos APPROX. ONLY) | APPROX. TIMING (SUBJECT TO MARKET FORCES ETC. |
|---|---|---|
| | PUMP LANE LINK (CONSTR.), EASTERN ACCESS AND REMEDIATION NORTH | |
| 1 | PHASE 1 - RESI. (192 UNITS) / ENERGY CENTRE / RETAIL S/M | 2010 - 2015 |
| 2 | PHASE 2 - RESI. (82 UNITS) / CINEMA / RETAIL S/M | |
| 3 | PHASE 3 - RESI. (370 UNITS) / SOUTH ROAD BRIDGE WIDENING/HAYES BY-PASS JN OFFSITE HA IMP - M4 J3 | |
| 4 | PHASE 4 - RESI. (283 UNITS) / FOOD RETAIL / STUDIO / PARKING / FINISH SPINE ROAD | (RESI. 915) |
| | OFFSITE BULLS BRIDGE | |
| 5 | PHASE 5 - RESI. (180 UNITS) / SPR. ROAD FOOTBRIDGE / TOWN SQUARE/ RETAIL | 2015 - 2020 |
| 6 | PHASE 6 - RESI. (395 UNITS) / HOTEL | |
| | REMEDIATION WEST | |
| 7 | PHASE 7 - SCHOOL / HEALTH / RESI. (390 UNITS) / PARK | |
| 8 | PHASE 8 - RESI. (303) / M.FOOTBRIDGE | |
| 9 | PHASE 9 - RESI. (430 UNITS) | (RESI. 1712) |
| 10 | PHASE 10 - RESI. (297 UNITS) | |
| 11 | PHASE 11 - RESI. (200 UNITS) | |
| 12 | PHASE 12 - RESI. (249 UNITS) | 2020 - 2025 |
| 13 | PHASE 13 - RESI. (122 UNITS) | (RESI. 875) |

NOTE:
PHASE 4 (SOUTH) SITE EAR-MARKED FOR TEMP. COMMUNITY NURSERY

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REMEDIATION PHASING




SCALE 1:4000

| Rev | Description | By | Chk | App | Date |
|---|---|---|---|---|---|
| H | PHASING PROPOSALS ALTERNATIVE 10 | S.T. | D.F. | D.F. | 13-02-08 |
| G | PHASING PROPOSALS ALTERNATIVE 9 | S.T. | D.F. | D.F. | 22-01-08 |
| F | PHASING PROPOSALS ALTERNATIVE 8 | P.T. | L.S. | D.F. | 08-01-08 |
| E | PHASING PROPOSALS ALTERNATIVE 7 | P.T. | L.S. | D.F. | 02-01-08 |
| D | PHASING PROPOSALS ALTERNATIVE 6 | S.T. | D.F. | D.F. | 31-10-07 |
| C | PHASING PROPOSALS ALTERNATIVE 5 | P.T. | L.S. | D.F. | 12-10-07 |
| B | PHASING PROPOSALS ALTERNATIVE 4 | S.T. | L.S. | D.F. | 26-09-07 |
| A | AMENDMENTS | S.T. | L.S. | D.F. | 19-09-07 |

ALTERNATIVE 10 FOR FINAL COMMENT

White Young Green Environmental Ltd.
Sunley House Tel: 020 8649 6600
Bedford Park Fax: 020 8649 6629
Croydon Surrey e-mail: enviro.london@wyg.com
CR0 2AP
Environmental Consultancy
Civil Structural Mechanical Electrical Process Rail Traffic Environmental Project Management

Project:
WEST SOUTHALL

Client:
NATIONAL GRID PROPERTY

Drawing Title:
PHASING PROPOSALS ALTERNATIVE 10

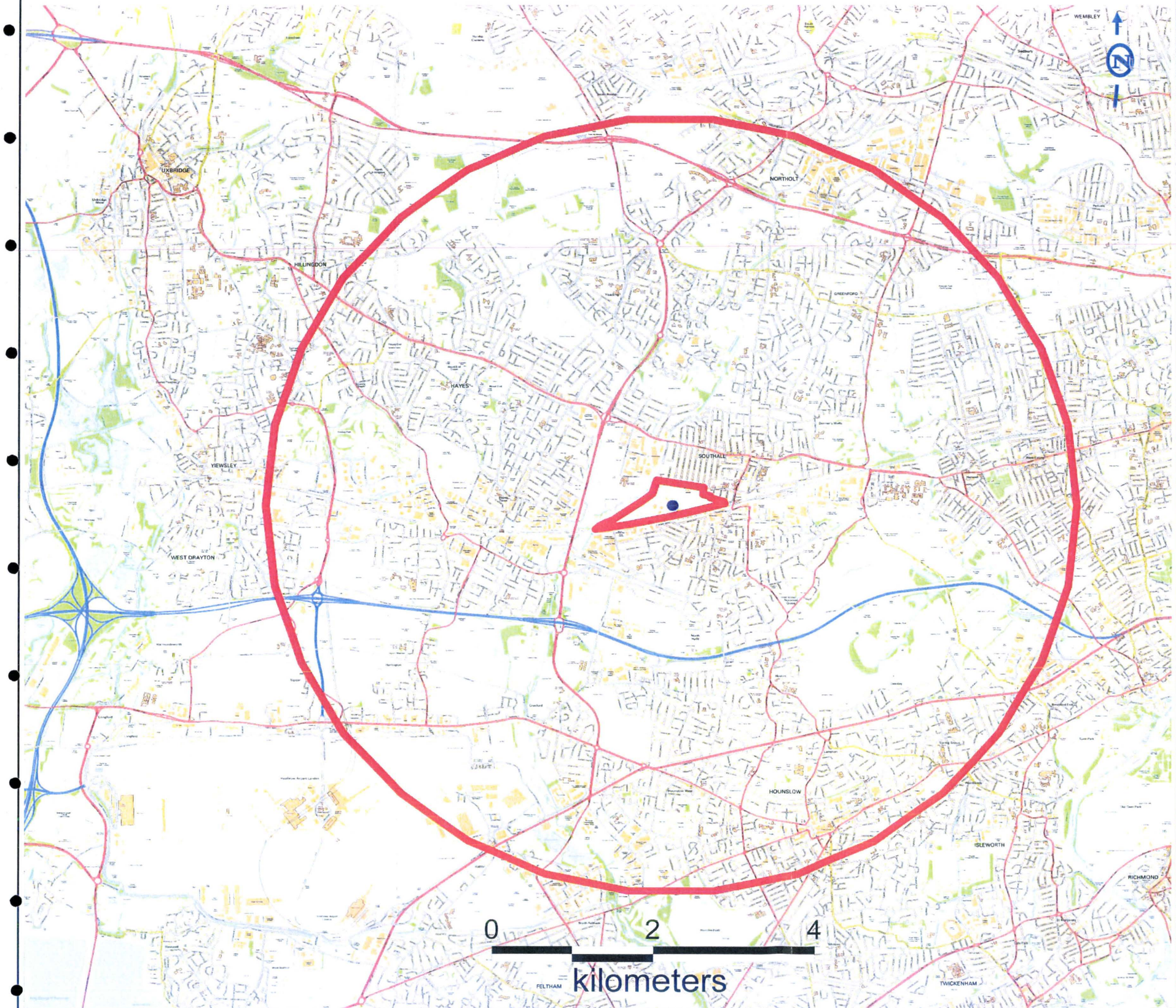
| Scale at A0 | Drawn By | Date | Checked By | Date | Approved By | Date |
|---|---|---|---|---|---|---|
| 1 : 2000 | S.T. | 15 JUN. 2007 | L.S. | 15 JUN. 2007 | D.F. | 15 JUN. 2007 |

| Project No. | Office | Type | Drawing No. | Revision |
|---|---|---|---|---|
| E00357 | 40 | ENV | SK. PH01 | H |

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# APPENDIX C

## (Drawing 52212/A/80 - 5km Cycle Catchment)




Key:

5KM Buffer Circle

Site Boundary

National Grid

West Southall

**5km Cycle Catchment**

| SCALES: | | | |
|---|---|---|---|
| NTS | | | |
| DRAWN: jd | CHECKED: jd | DATE: | REVISION: nts |

**Savell Bird & Axon**

part of the **WYG** group

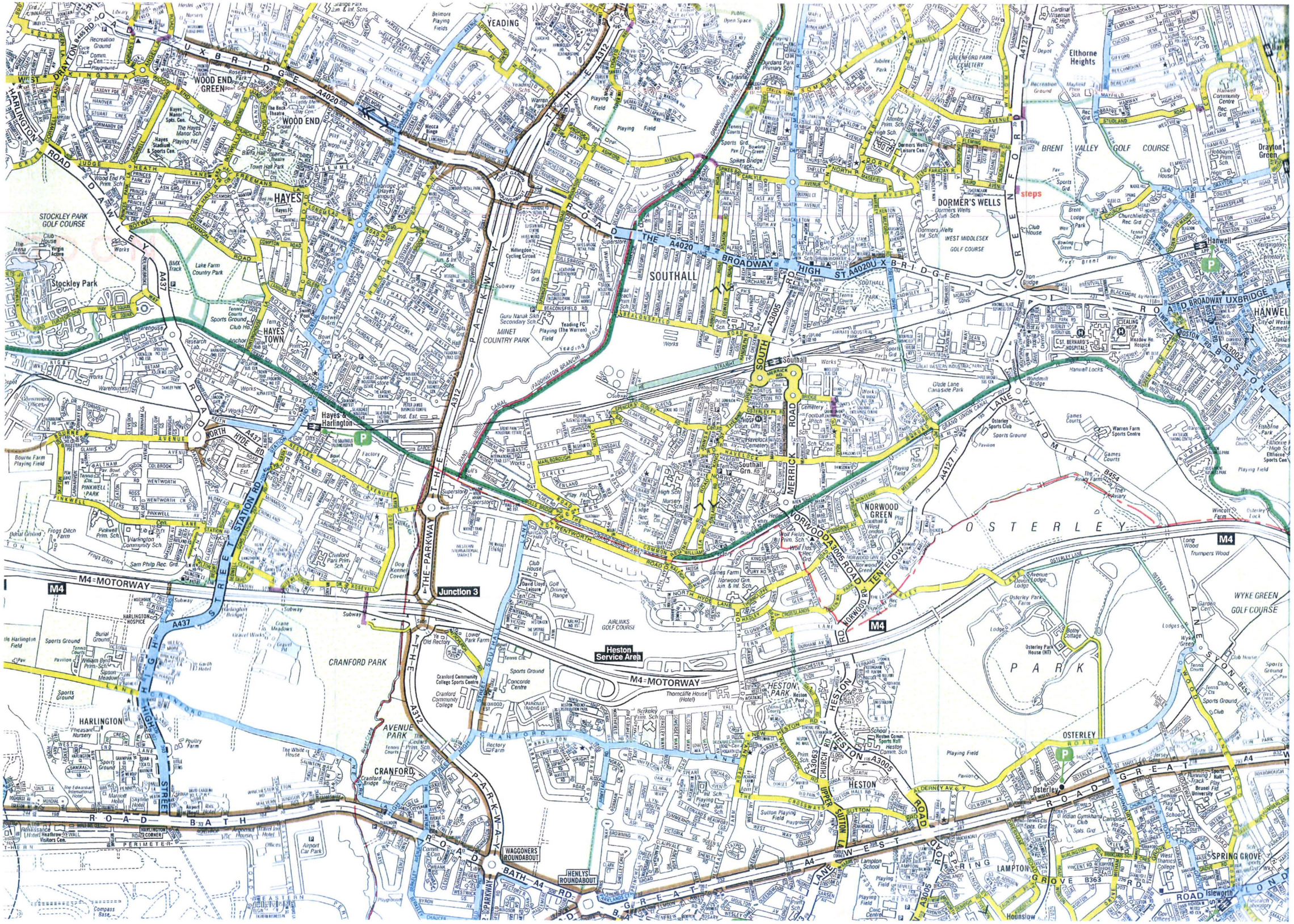
Ariel House, 74a Charlotte Street, London, W1T 4QJ
Tel: +44(0)20 7580 8844 Fax: +44(0)20 7580 8818
Email: sba@sbax.co.uk www.sbax.co.uk

WYG Environment Planning Transport Ltd Registered in England Number: 3050297
Registered office: Arndale Court, Otley Road, Headingley, Leeds, LS6 2UJ

DRAWING REFERENCE: 52212/A/80

# APPENDIX D

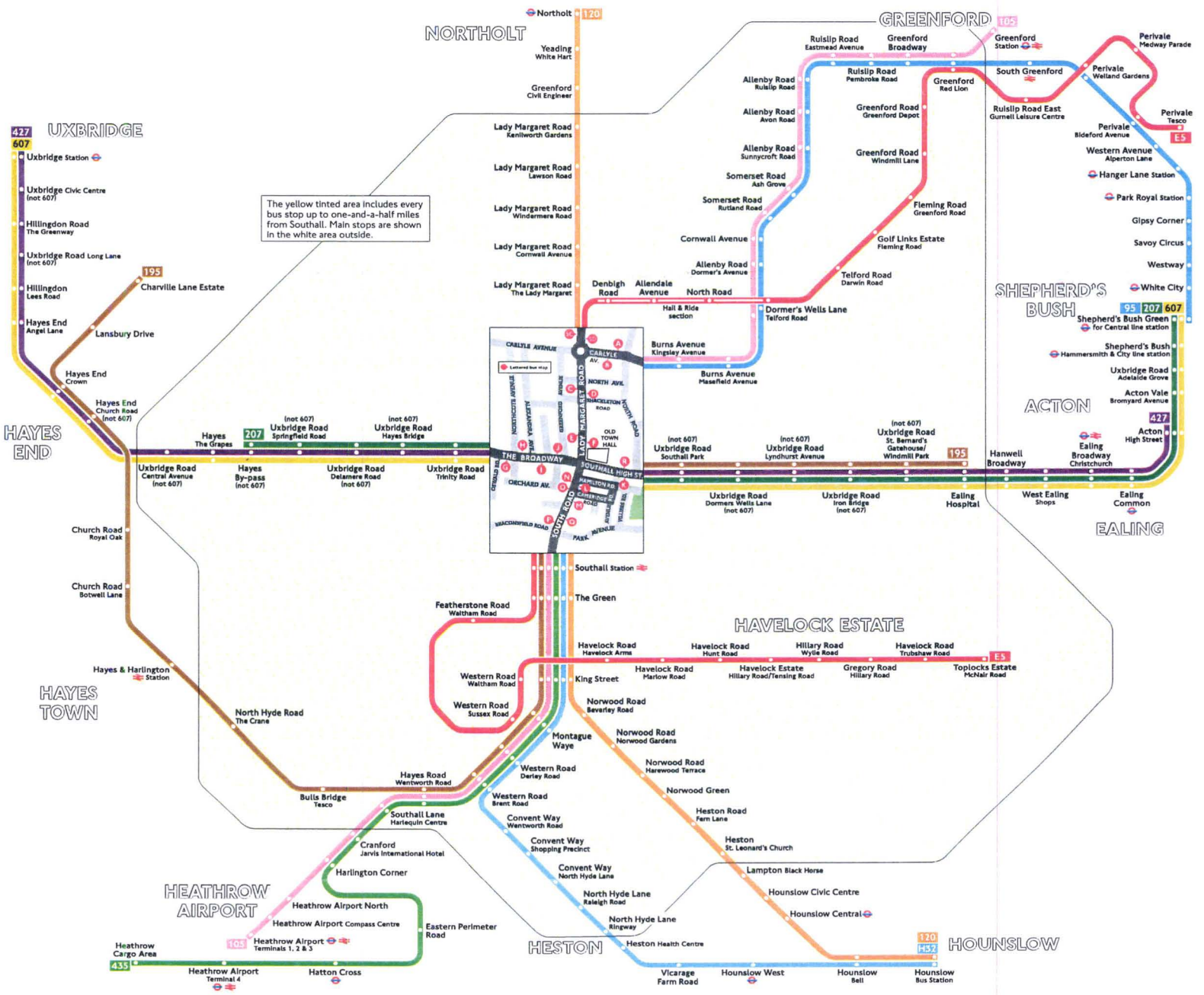
## (Cycle Network)


YEADING
WOOD END GREEN
WOOD END
HAYES
HAYES TOWN
STOCKLEY PARK GOLF COURSE
Stockley Park
Lake Farm Country Park
MINET COUNTRY PARK
SOUTHALL
DORMER'S WELLS
Elthorne Heights
BRENT VALLEY GOLF COURSE
Drayton Green
Hanwell
HANWELL
Hayes & Harlington
Southall
Osterley
Isleworth
Hounslow
HARLINGTON
CRANFORD PARK
CRANFORD
AVENUE PARK
HESTON PARK
NORWOOD GREEN
OSTERLEY PARK
WYKE GREEN GOLF COURSE
Heston Service Area
Junction 3
M4 MOTORWAY
A4020 UXBRIDGE ROAD
A4020 BROADWAY
A312 PARKWAY
A312 HAYES BY-PASS
A437 STOCKLEY ROAD
A437 STATION ROAD
A4 GREAT WEST ROAD
A4 BATH ROAD
A4127 GREEN LANES
A3005 SOUTH ROAD
A3005 NORWOOD ROAD
A3005 HESTON ROAD
A3005 CHURCH ROAD
A3005 WINDMILL LANE
A3063 SOUTH ROAD
A3063 WINDMILL LANE
A3002 BOSTON ROAD
B454 OSTERLEY LANE
B363 SPRING GROVE
WAGGONERS ROUNDABOUT
HENLYS ROUNDABOUT
steps

# APPENDIX E

## (Bus Network Map)

# Buses from Southall Broadway and High Street




© copyright Transport for London
Information correct from 25 November 2006

## Key

195 Daytime routes in black
N207 Night bus in blue

Connections with Underground
Connections with National Rail
Mondays-Saturdays not evenings

Red discs show the bus stop you need for your chosen bus service. The disc ● appears on the top of the bus stop in the street (see map of town centre in centre of diagram).

## Route finder

| Bus service | Towards | Bus stops |
|---|---|---|
| 95 | Shepherd's Bush | ● ● ● ● |
| 105 (24 hour service) | Greenford | ● ● ● ● ● |
| | Heathrow Airport Central | ● ● ● ● ● |
| 120 | Hounslow | ● ● ● ● ● |
| | Northolt | ● ● ● ● ● |
| 195 | Charville Lane | ● ● ● |
| | Ealing Hospital | ● ● ● |
| 207 | Hayes By-pass | ● ● ● |
| | Shepherd's Bush | ● ● ● |
| 427 | Acton | ● ● ● |
| | Uxbridge | ● ● ● |
| 435 | Heathrow Cargo Area | ● ● |
| 607 Express | Shepherd's Bush Mondays-Saturdays not evenings | ● |
| | Uxbridge Mondays-Saturdays not evenings | ● |
| E5 | Perivale | ● ● ● ● ● |
| | Toplocks Estate | ● ● ● ● ● |
| H32 | Hounslow | ● ● |

### Night buses

| Bus service | Towards | Bus stops |
|---|---|---|
| N207 | Holborn | ● ● ● |
| | Uxbridge | ● ● ● |

## Destination finder

| Destination | Bus service | Bus stops |
|---|---|---|
| **A** | | |
| Acton High Street | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Acton Vale Bromyard Avenue | 207, N207 | ● ● ● |
| | 607 ◆ | ● |
| Allenby Road Avon Road, Dormer's Avenue, Ruislip Road and Sunnycroft Road | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| Allendale Avenue | E5 | ● ● ● ● ● |
| **B** | | |
| Bulls Bridge Tesco | 195 | ● ● ● |
| Burns Avenue | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| **C** | | |
| Charville Lane Estate | 195 | ● ● ● |
| Church Road (Hayes) | 195 | ● ● ● |
| Convent Way | H32 | ● ● |
| Cornwall Avenue | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| Cranford Jarvis International Hotel | 105 | ● ● ● ● ● |
| | 435 | ● ● |
| **D** | | |
| Denbigh Road | E5 | ● ● ● ● ● |
| Dormer's Wells Lane Telford Road | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| | E5 | ● ● ● ● ● |
| **E** | | |
| Ealing Broadway Christchurch | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Ealing Common | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Ealing Hospital | 195 | ● ● ● |
| | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Eastern Perimeter Road | 435 | ● ● |
| **F** | | |
| Featherstone Road Waltham Road | E5 | ● ● ● ● ● |
| Fleming Road Greenford Road | E5 | ● ● ● ● ● |
| **G** | | |
| Gipsy Corner | 95 | ● ● ● ● |
| Golf Links Estate Fleming Road | E5 | ● ● ● ● ● |
| Greenford Civil Engineer | 120 | ● ● ● ● ● |
| Greenford Red Lion | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| | E5 | ● ● ● ● ● |
| Greenford Station | 105 | ● ● ● ● ● |
| Greenford Broadway | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| Greenford Road Greenford Depot and Windmill Lane | E5 | ● ● ● ● ● |
| Gregory Road Hillary Road | E5 | ● ● ● ● ● |
| **H** | | |
| Hanger Lane Station | 95 | ● ● ● ● |
| Hanwell Broadway | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Harlington Corner | 105 | ● ● ● ● ● |
| Hatton Cross | 435 | ● ● |
| Havelock Road | E5 | ● ● ● ● ● |
| Hayes Grapes | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Hayes & Harlington Station | 195 | ● ● ● |
| Hayes By-Pass | 207, 427, N207 | ● ● ● |
| Hayes End Angel Lane | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Hayes End Church Road | 195 | ● ● ● |
| | 427, N207 | ● ● ● |
| Hayes End Crown | 195 | ● ● ● |
| | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Hayes Road Wentworth Road | 105 | ● ● ● ● ● |
| | 195 | ● ● ● |
| | 435 | ● ● |
| Heathrow Airport Compass Centre | 105 | ● ● ● ● ● |
| Heathrow Airport Terminals 1, 2 and 3 | 105 | ● ● ● ● ● |
| Heathrow Airport Terminal 4 | 435 | ● ● |
| Heathrow Airport North | 105 | ● ● ● ● ● |
| Heathrow Cargo Area | 435 | ● ● |
| Heston Health Centre | H32 | ● ● |
| Heston St. Leonard's Church | 120 | ● ● ● ● ● |
| Heston Road Fern Lane | 120 | ● ● ● ● ● |
| Hillary Road Tensing Road and Wylie Road | E5 | ● ● ● ● ● |
| Hillingdon Lees Road | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Hillingdon Road The Greenway | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Holborn Station | N207 | ● ● ● |
| Hounslow Bell | 120 | ● ● ● ● ● |
| | H32 | ● ● |
| Hounslow Bus Station | 120 | ● ● ● ● ● |
| | H32 | ● ● |
| Hounslow Central | 120 | ● ● ● ● ● |
| Hounslow Civic Centre | 120 | ● ● ● ● ● |
| Hounslow West | H32 | ● ● |
| **K** | | |
| King Street | 105 | ● ● ● ● ● |
| | 120 | ● ● ● ● ● |
| | 195 | ● ● ● |
| | 435, H32 | ● ● |
| **L** | | |
| Lady Margaret Road | 120 | ● ● ● ● ● |
| Lampton Black Horse | 120 | ● ● ● ● ● |
| Lansbury Drive | 195 | ● ● ● |
| **M** | | |
| Marble Arch | N207 | ● ● ● |
| **N** | | |
| North Hyde Lane Raleigh Road and Ringway | H32 | ● ● |
| North Hyde Road The Crane | 195 | ● ● ● |
| Northolt | 120 | ● ● ● ● ● |
| North Road | E5 | ● ● ● ● ● |
| Norwood Green | 120 | ● ● ● ● ● |
| Norwood Road | 120 | ● ● ● ● ● |
| Notting Hill Gate | N207 | ● ● ● |
| **O** | | |
| Oxford Circus | N207 | ● ● ● |
| **P** | | |
| Park Royal Station | 95 | ● ● ● ● |
| Perivale Bideford Avenue | 95 | ● ● ● ● |
| | E5 | ● ● ● ● ● |
| Perivale Medway Parade | E5 | ● ● ● ● ● |
| Perivale Tesco | E5 | ● ● ● ● ● |
| Perivale Welland Gardens | 95 | ● ● ● ● |
| | E5 | ● ● ● ● ● |
| **R** | | |
| Ruislip Road Eastmead Avenue and Pembroke Road | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| Ruislip Road East Gurnell Leisure Centre | E5 | ● ● ● ● ● |
| **S** | | |
| Savoy Circus | 95 | ● ● ● ● |
| Shepherd's Bush Hammersmith & City line station | 207, N207 | ● ● ● |
| | 607 ◆ | ● |
| Shepherd's Bush Green for Central line station | 95 | ● ● ● ● |
| | 207, N207 | ● ● ● |
| | 607 ◆ | ● |
| Somerset Road Ash Grove and Rutland Road | 95 | ● ● ● ● |
| | 105 | ● ● ● ● ● |
| Southall Station | 105 | ● ● ● ● ● |
| | 120 | ● ● ● ● ● |
| | 195 | ● ● ● |
| | 435, H32 | ● ● |
| | E5 | ● ● ● ● ● |
| Southall Park | 195 | ● ● ● |
| | 207, 427, N207 | ● ● ● |
| South Greenford Station | 95 | ● ● ● ● |
| South Lane Harlequin Centre | 105 | ● ● ● ● ● |
| | 435 | ● ● |
| **T** | | |
| Telford Road Darwin Road | E5 | ● ● ● ● ● |
| The Green, Southall | 105 | ● ● ● ● ● |
| | 120 | ● ● ● ● ● |
| | 195 | ● ● ● |
| | 435, H32 | ● ● |
| | E5 | ● ● ● ● ● |
| Toplocks Estate McNair Road | E5 | ● ● ● ● ● |
| **U** | | |
| Uxbridge Station | 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Uxbridge Road (East, towards Ealing Hospital) | 195 | ● ● ● |
| | 207, 427, N207 | ● ● ● |
| Uxbridge Road (West, towards Hayes) | 207, 427, N207 | ● ● ● |
| Uxbridge Road Adelaide Grove | 207, N207 | ● ● ● |
| | 607 ◆ | ● |
| Uxbridge Road Trinity Road | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| **V** | | |
| Vicarage Farm Road | H32 | ● ● |
| **W** | | |
| West Ealing Shops | 207, 427, N207 | ● ● ● |
| | 607 ◆ | ● |
| Western Avenue Alperton Lane | 95 | ● ● ● ● |
| Western Road Brent Road and Derley Road | 105 | ● ● ● ● ● |
| | 195 | ● ● ● |
| | 435, H32 | ● ● |
| Western Road Sussex Road and Waltham Road | E5 | ● ● ● ● ● |
| Westway | 95 | ● ● ● ● |
| White City | 95 | ● ● ● ● |
| **Y** | | |
| Yeading White Hart | 120 | ● ● ● ● ● |

Southall Broadway and High Street DR [EAL] TFL9766.11.06

MAYOR OF LONDON

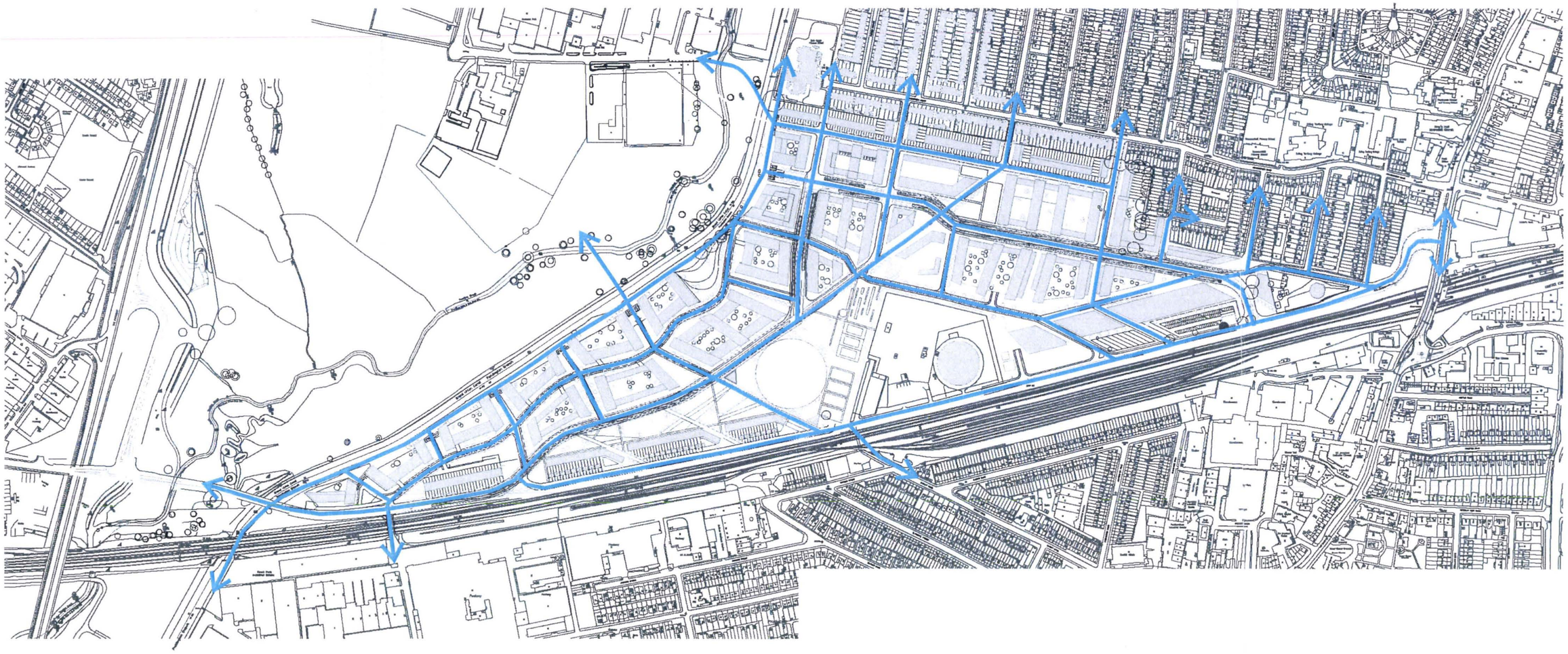
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Textphone
020 7918 3015

Transport for London
BUSES

# APPENDIX F

## (Footpath and Cycleway Network)




**Key**

Footways & Cyclepaths

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A White Young Green Company

Ariel House, 74a Charlotte Street, London, W1T 4QJ, UK

T: (0)20 7580 8844 F: (0)20 7580 8818 E: sba@sbax.co.uk

Proposed Scheme: Footpath & Cycleway Linkages

Client: National Grid Plc

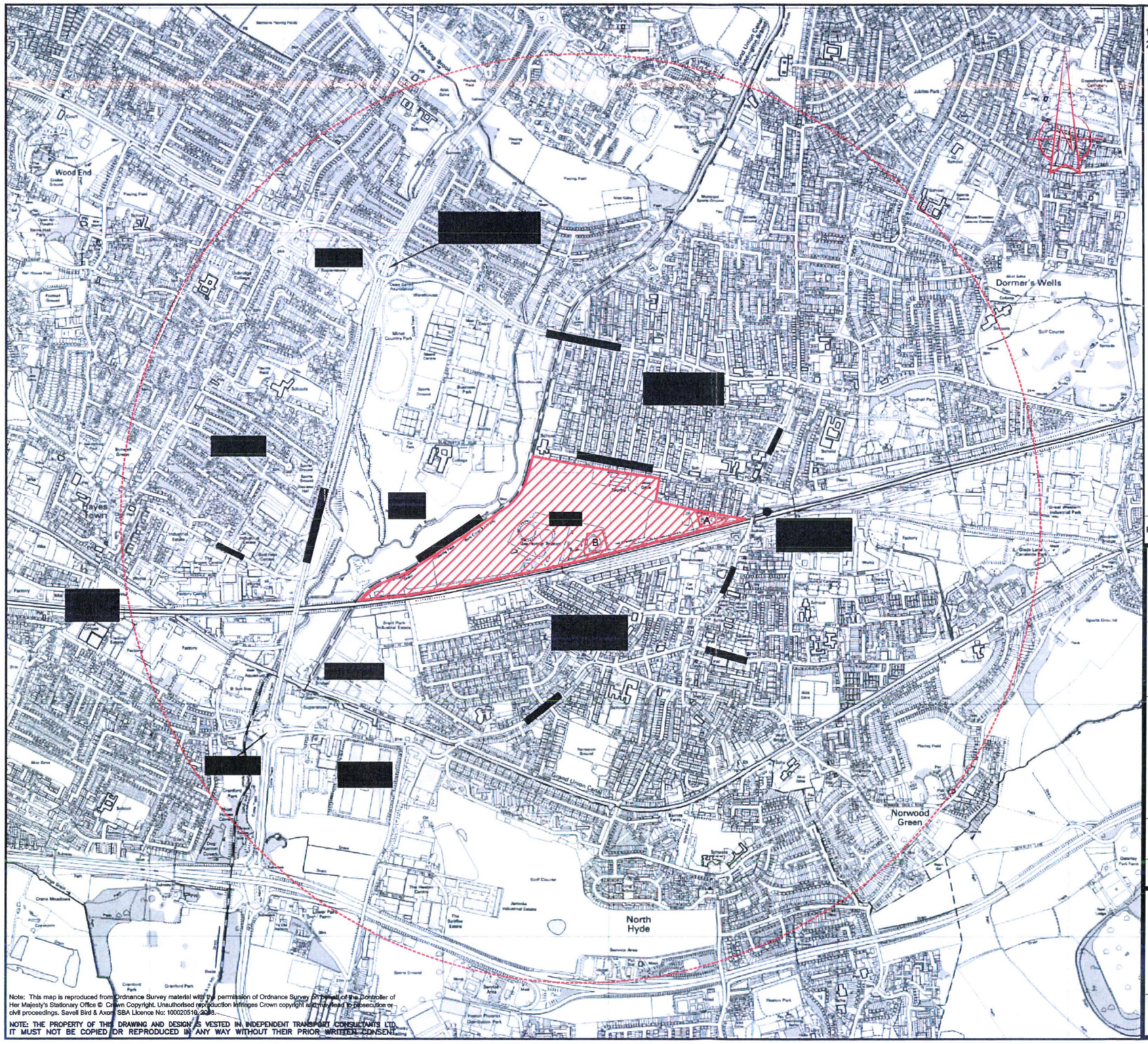
Drawing Tile

Job Title: West Southall

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Scale: | N.T.S | Drawn by: | T.W.S | 1st Issued: | Apr 08 | Drg No: | |
| Designed by: | T.W.S | Ckd/Appd: | A.M. | Job No: | 52212 | | |

# APPENDIX G

## (Drawing 52212/A/62 – 2km Walking Catchment)




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2. White lining is indicative only.

| REV. | DETAILS | DRAWN | CHECKED | DATE |
|---|---|---|---|---|
| . | . | . | . | . |

CLIENT: National Grid

PROJECT: West Southall

DRAWING TITLE: 2km Isochrone

SCALES: Not to Scale

DRAWN: M.W. | CHECKED: A.M. | DATE: 01.10.09.

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A White Young Green Company
Ariel House 74a Charlotte Street London W1T 4QJ
t: 020 7580 8844 f: 020 7580 8818 e: sba@sbax.co.uk

DRAWING NUMBER: 52212/A/62 | REVISION: -

# FIGURES




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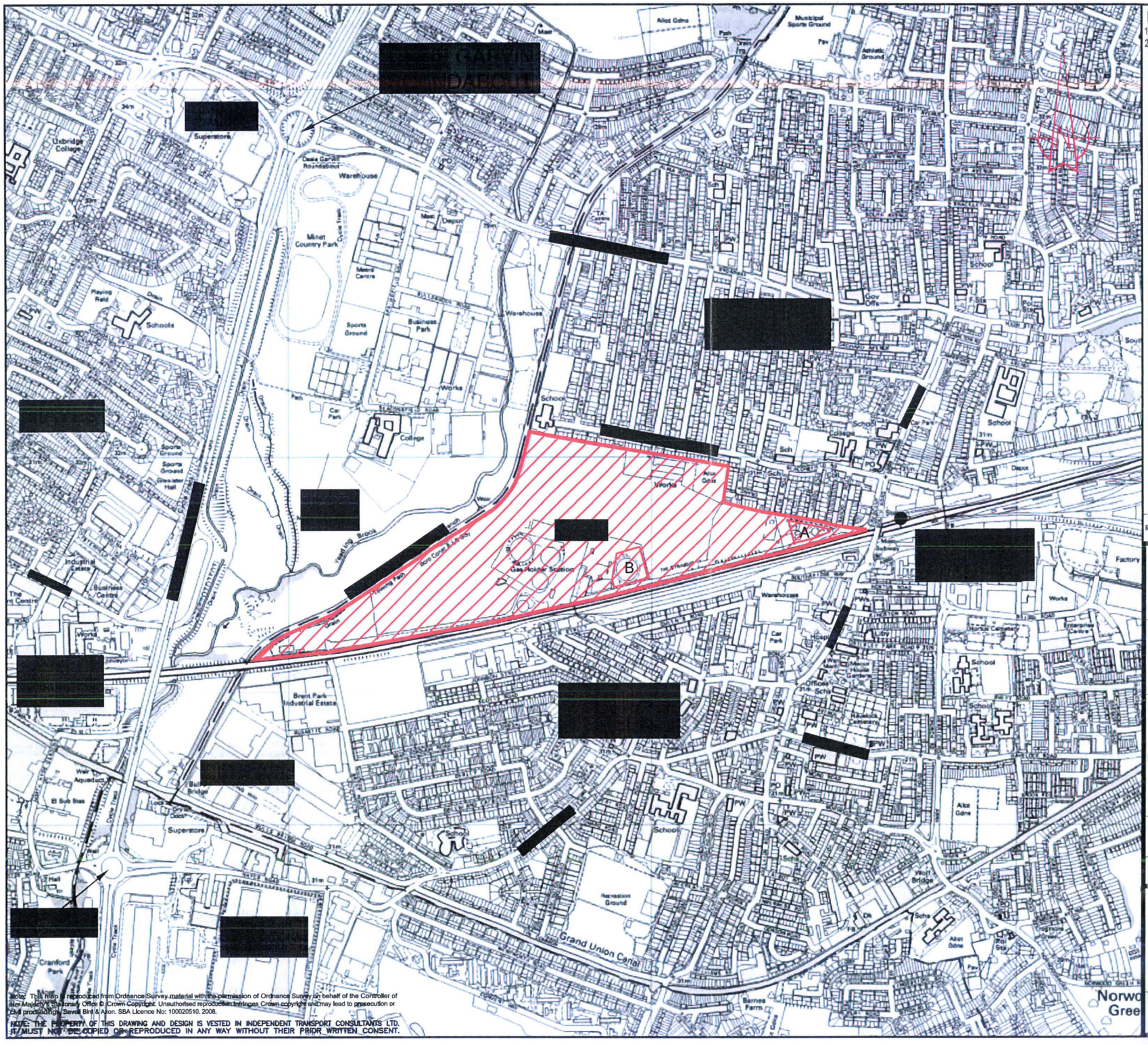
# West Southall

## Site Location

National Grid

Savell Bird & Axon
A White Young Green Company
Ariel House 74a Charlotte Street London W1T 4QJ
t: 020 7580 8844 f: 020 7580 8818 e: sba@sbax.co.uk

| DRAWN: | DATE: | CHECKED: | DATE: | SCALES: | DRAWING NUMBER: | REVISION: |
|---|---|---|---|---|---|---|
| M.W. | 30.07.08. | A.M. | 30.07.08. | 1:50,000 at A4 | Figure 1 | - |




Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

| REV. | DETAILS | DRAWN | CHECKED | DATE |
|---|---|---|---|---|

CLIENT: National Grid

PROJECT: West Southall

DRAWING TITLE: Local Area

SCALES: 1:10,000 at A3

DRAWN: M.B.W. | CHECKED: A.M. | DATE: 04.08.08

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DRAWING NUMBER: Figure 2 | REVISION: -

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## Appendix 6
## South Road Corridor Study Scope

# Heads of Terms for the South Road Corridor Study

1 This document is the South Road Corridor Study Scope referred to in the S106 Agreement.

2 The South Road Corridor Study (the Study) will cover the works to the public highway from the junction with The Green / Merrick Road in the south through to the junction with the A4020 Uxbridge Road / High Street in the north as illustrated on Drawing 52212/A/79 (shown for indicative purposes only).

3 The Study will be completed prior to implementation on site.

4 The Study will include a baseline survey of the area including performance of junctions, bus journey times and cyclist, pedestrian and accident data.

5 There will be one monitoring review of performance of the highway improvement works listed in paragraph 6 bullet-points 1, 2 and 3 below no more than one year after implementation of the works in said bullet-points, unless there is a delay in the programme of junction works.

6 The objectives of the study are:

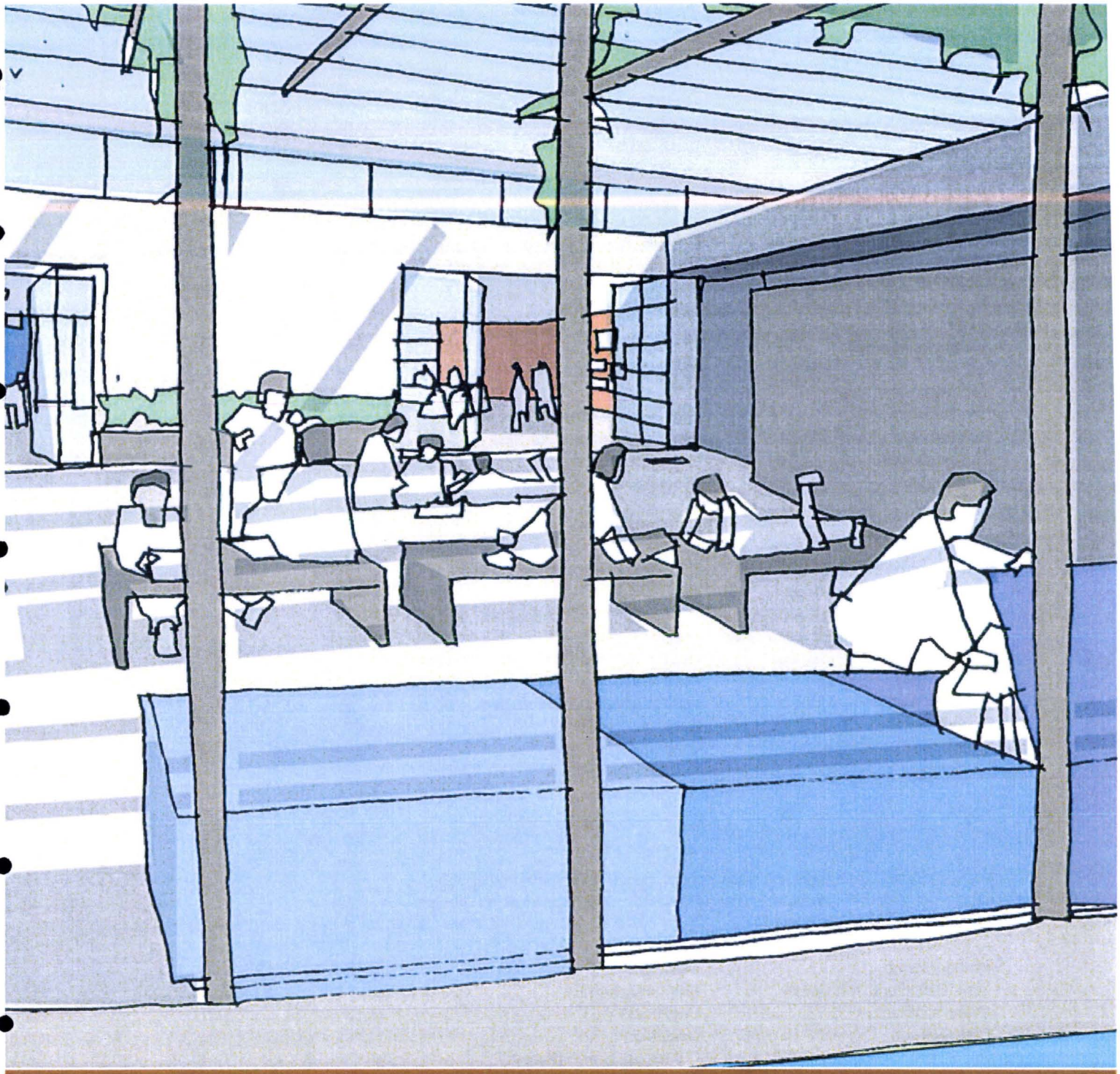
- To optimise the design of the highway works at the South Road / Beaconsfield Road, South Road / Eastern Access and South Road / Merrick Road junctions (assuming that the works in paragraph 6 bullet-points 2 and 3 are implemented and the South Road Bridge widened).
- To optimise and test the design of the South Road / A4020 Broadway junction improvements (assuming that the works in paragraph 6 bullet-points 1 and 3 are implemented and the South Road Bridge widened).
- To optimise the design and operation of the South Road Northbound Bus Lane (assuming that the works in paragraph 6 bullet-points 1 and 2 are implemented and the South Road Bridge widened).
- To inform the timing of the South Road Railway Bridge Widening Works or Alternative Mitigation Measures should such mitigation be agreed with Ealing and TfL
- To determine if any additional works, funded by the Transport Management Fund, are appropriate to determine the optimum phasing of the works (acknowledging the requirements of the conditions to the planning permission)
- To assess the operation of the study area during the construction of the highway improvements
- To assist in co-ordinating the highway improvements with Crossrail works including public realm
- To monitor the performance of the study area after implementation of the agreed highway improvements

7 The study will consider all relevant modes and in particular:

- Bus journey times and patronage through the study area
- Optimal design and performance of a potential northbound bus lane
- Condition of pedestrian routes, optimal crossing points and timings, and safety issues (see Area Wide Walking and Cycling Study)
- Condition of cycle routes, consideration of advanced cycle stopping areas, cycle lanes, cycling facilities and safety (see Area Wide Walking and Cycling Study)
- Traffic capacity including review of junction capacities, queuing lengths and journey time reliability
- Signals performance and optimisation
- Car and cycle parking (see Site Wide Car and Cycle Parking Management Strategy)
- Traffic displacement impact on adjacent local roads
- Servicing of existing buildings
- Construction vehicles and activity

8 The Study will use available modelling tools including LINSIG, TRANSYT and Ealing Council's VISSIM model assuming that this is validated to TfL standards or any other available models prepared by Ealing or TfL. It will also be informed by the Area Wide Walking and Cycling Study to be undertaken by the developer pursuant to the section 106 agreement and any relevant planning conditions.

## Appendix 7
## Scope for School specification



## Building Bulletin 99:

# Briefing Framework for Primary School Projects

Incorporating primary school revision to
**BB82: Area Guidelines for Schools**

department for
education and skills
creating opportunity, releasing potential, achieving excellence

# Acknowledgments

The guidance in this publication has been written and researched by the following team of DfES School Building and Design Unit building professionals, under the leadership of Mukund Patel.

Editor:
Alison Wadsworth

With assistance from:

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| Lucy Watson | general advice |

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| Vesna Goodwin | Northants |

## Building Bulletin 99:

# Briefing Framework for Primary School Projects

### Incorporating primary school revision to **BB82: Area Guidelines for Schools**

The key purpose of this document is to set out simple, realistic, non-statutory area guidelines for primary school buildings. The document supersedes Building Bulletin 82: Area Guidelines for Schools, published in 1996, and any associated revisions. Essentially the document gives minimum areas for all types of space in primary schools. It also offers area ranges over and above this minimum to allow schools flexibility in the design of their buildings and the way in which they use them.

Following comments on the draft Building Bulletin, published in 2003, and the publication of the 'Exemplar Designs for Schools', the recommended gross[1] area of primary school buildings has been increased to an average of 25% above the upper limit set in 1996. Funding from the Department for Education and Skills (DfES) will enable new primary schools to be built to these standards.

You can use the simple graphs and formulae in Part C to ensure that the number, size and type of rooms in new designs, refurbishments and remodelled buildings are at least that recommended. These have been calculated to address not only the requirements of the curriculum, but also the needs of pupils with special educational needs (SEN) and disabilities, the school workforce and the community. Similar information is given for site areas.

Crucially, we also recommend a 'float'[2] to accommodate the individual priorities of each school. Every mainstream school is expected to need at least the total net area[3] recommended, which includes the 'float'. Some schools may have further supplementary area[4], usually funded from additional sources, over and above this, for instance for an increased sports hall. A graph showing the recommended non-net area[5] and its relationship to the net area is also given.



1 **What is the gross area?** The total area of the buildings, not including the external walls, but made up of net and non-net area. Fig C.2, page 26 identifies these areas in diagrammatic form.

2 **What is the float?** When the recommended minimum area of each category of space is added together the total will be around 8% less than the recommended standard for the total net area. This difference provides the 'float' which can be used to enhance some areas, depending on the priorities of the school.

3 **What is the net area?** All spaces in the gross area of buildings except toilets, washrooms and showers (and lobbies to them, including changing rooms where these adjoin showers), plant areas such as boiler rooms, circulation space, school kitchens and the area taken up by internal walls.

4 **What is supplementary area?** Spaces which are not part of mainstream accommodation and which enhance use by the community, disabled pupils or specialist teaching. Page 51 lists examples of such spaces.

5 **What is the non-net area?** All spaces listed as exceptions within note 3.

However, getting the area right is only part of creating facilities which support the educational aims and vision of each school. Design quality and appropriate specifications are also crucial. Part A supports the need for a strategic masterplan and a carefully considered brief to ensure that the design takes on board the organisation, aims and priorities of the school.

Creating a good brief is the first important step towards the success of any building project. Part B aims to highlight to local authorities (LAs) and all those involved in the early stages of a primary school project the general points that need to be considered. It summarises the key points, with references to further information in other guidance.

Appendices 1, 2 and 3 look in detail at schedules of accommodation and the kinds of room types and numbers which can result from a series of key decisions made by the client.



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# Questions and Answers

### 1: What do flexibility and adaptability really mean?

Flexibility is the ability to change things in the short term, for instance sliding/folding partitions which can be moved to create two spaces or furniture which can perform a number of functions. Adaptability is about designing the building in the long term and includes the need to keep services to outside walls so internal walls can be moved at a later date and ensuring that buildings are a shape which allows them to be extended easily.

### 2: My client wants to have the top of the range for all areas of the school. The budget will not cover the area which this requires – how do I ensure my client is happy?

It's all about your client's priorities. Extra space can be gained within the budget but this will be at the expense of specification in areas such as finishes, furniture, materials etc. Your client should be made aware of the choices necessary and their implications.

### 3: My school is on a tight inner-city site – do I really need the range of outdoor spaces recommended in BB99?

No, the recommendations are just that. It is accepted that in inner city areas other arrangements have to be made such as using local leisure centres etc. Constrained sites, as defined in Part D, are generally recommended to have the zone below.

### 4: My school wants to deliver an integrated ICT curriculum, how should the building brief reflect this?

Integrated ICT activities usually occur in classbases, however they may also be carried out in group rooms or more informal areas such as libraries. If desktop computers are provided then the upper range of classroom areas should be used. If, however, wireless laptops are used then there are fewer accommodation issues. Internet access may also be wireless although if this is not available a bank of networked desktop computers could complement the provision of laptops.

### 5: Can I use my float to make my sports hall bigger?

Yes, provided that you are able to afford it within the capital allocation you have been given (which is usually based on all areas being within the middle of the recommended zones). If you provide the minimum for all the zones you should have around 8% of area left to put where you want. Appendix 2 version 3 shows an example.

### 6: Do I calculate the area of the room from the internal face of the internal walls or from the centre as is the norm in most architectural schemes?

The internal face of walls, because this is traditionally the way the net area and net capacity are measured and we are keen that the two processes are as similar as possible. The area of internal walls is a significant part of the 'non-net' area.

### 7: We are proposing in our design to have discrete indents, some of which will form passing places for our wheelchair users and some of which will be for display and informal ICT use. Does this all have to form part of our circulation allocation?

No, see the net capacity definitions at www.teachernet.gov.uk/netcapacity. Corridors are counted as circulation (and, therefore, as part of non-net area) if they are under 2.5m wide. Any part of the corridor which exceeds this is counted as net area. In your case this area would be counted as general, resource workplaces.

### 8: What do you mean when you say fully inclusive?

In the context of classroom layouts 'fully inclusive' means that which enables a pupil using a wheelchair to access all areas of the room, and therefore all activities easily, without any disruption to classroom layouts.

### 9: What is the difference between extended school facilities and community use?

An extended school building could be used by more than the local community, it could be shared by a number of other organisations such as health or social services.

### 10: We will be taking three wheelchair users in our first year of opening – how should I accommodate them in the classroom?

To be fully inclusive you should be looking at the top end of the large classroom zone (zone D). This should ensure that the pupils can get around the classroom without disturbing the layout, which should help to make the activities fully accessible.

### 11: I can't rely on having enough teaching assistants to allow a timetabled separate practical space – yet I want at least half the class to carry out art and design activities at any one time, how can I achieve this?

You could use the middle school model of practical bays of classrooms and swap classes where needed.

### 12: Why can't the MI room be used as a sick bay as well?

It can be, and often is, however they do have separate functions. Medical inspections are regular but infrequent and are carried out by visiting specialists. A sick bay is for children who are feeling unwell and who are waiting for parents and carers to pick them up, for this reason it is best sited near the entrance.

### 13: My Year 6 pupils are embarrassed at changing for PE in the classroom – how can I ensure I get changing rooms in my new building?

You can use your float for changing rooms, Appendix 2 version 3 gives you an example of how this can be achieved. However this will mean going towards the bottom of the range in some areas. In some cases it may be appropriate to provide one changing room with the opposite gender changing in the hall.

### 14: We're a small school yet my staff would dearly love a music room – is there any way this could work?

Some schools have divided their hall into two sections with an acoustic screen between, so that the hall can be larger for assemblies and PE but divided up for lessons. Again the float could also be used to provide an extra specialist space.

### 15: What's the best way to organise pupils' bags and coats?

This depends on your school's ethos and how circulation is organised. If each classroom has a direct exit to the playground then storage is best as near to the rooms as possible. If there are few exits then a centralised coats and bags arrangement may be more useful.

### 16: My old building had the toilets in a centralised area – is this still appropriate?

Again this depends on your school's ethos. Your LA may be able to advise you on this. Security of pupils must, however, be the most important consideration.

### 17: Do I need a staff room which enables all staff to work and socialise together at any one time?

No, work and socialising can often take place in separate areas. A teacher's half a day a week of non-contact time (as part of the school workforce regulations) will require a specific area for them to work, outside of the classroom. There is a particular need in larger schools with a number of teachers working at any one time.

### 18: As a Headteacher I want a single library in a central position, yet my staff are keen to have two smaller libraries for infants and juniors. I can see some logic in this, however which is the better option?

It is a decision for you as the school to make with the help of your LA. Consider the implications of your decision both in terms of resources and school re-organisation. Two separate spaces will allow specialisation of resources, but consider how you might staff them.

# Introduction

This document is designed to assist Local Education Authorities (LEAs) and other stakeholders in the creation of a brief[1] for any major project in a mainstream primary school. The aim of this ongoing briefing process is to clarify the intentions of the client[2] and to inform the design team of the requirements for the project.

Particular emphasis is given to the following issues:

- Part A: the **process** of creating a brief, and how it should fit within a strategic masterplan[3] incorporating the school's long-term vision;
- Part B: the key **design criteria** that should be included to ensure the facilities are appropriate and usable for present and future circumstances;
- Part C: minimum **building** area recommendations for each of the five categories of space within the usable or net area, and for the remaining area of the buildings;
- Part D: minimum **site** area recommendations for the various categories of outdoor spaces needed within the net site area.

Side notes on each page give references to further information and guidance, including exemplar designs.[4]

# Context

It is important that the brief for any building project is seen in the context of the overall strategic 'masterplan', to avoid work being done in the wrong place or in the wrong order. It is equally important that the 'masterplan' is in line with the aims of the LEA's Children and Young People's Plan, operational asset management plan and other strategies, for instance accessibility[5], community and sport.



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1. **What is a brief?** The NBS (National Building Specification) Educator states that 'briefing is the process of identifying a client's need and finding an appropriate solution. A brief is a product of that process and is produced at key points in the project and formalises decisions and instructions in a structured document. The briefing process is iterative and moves from the general to the particular.' See **www.nbseducator.co.uk/briefs/homebriefs.shtm**

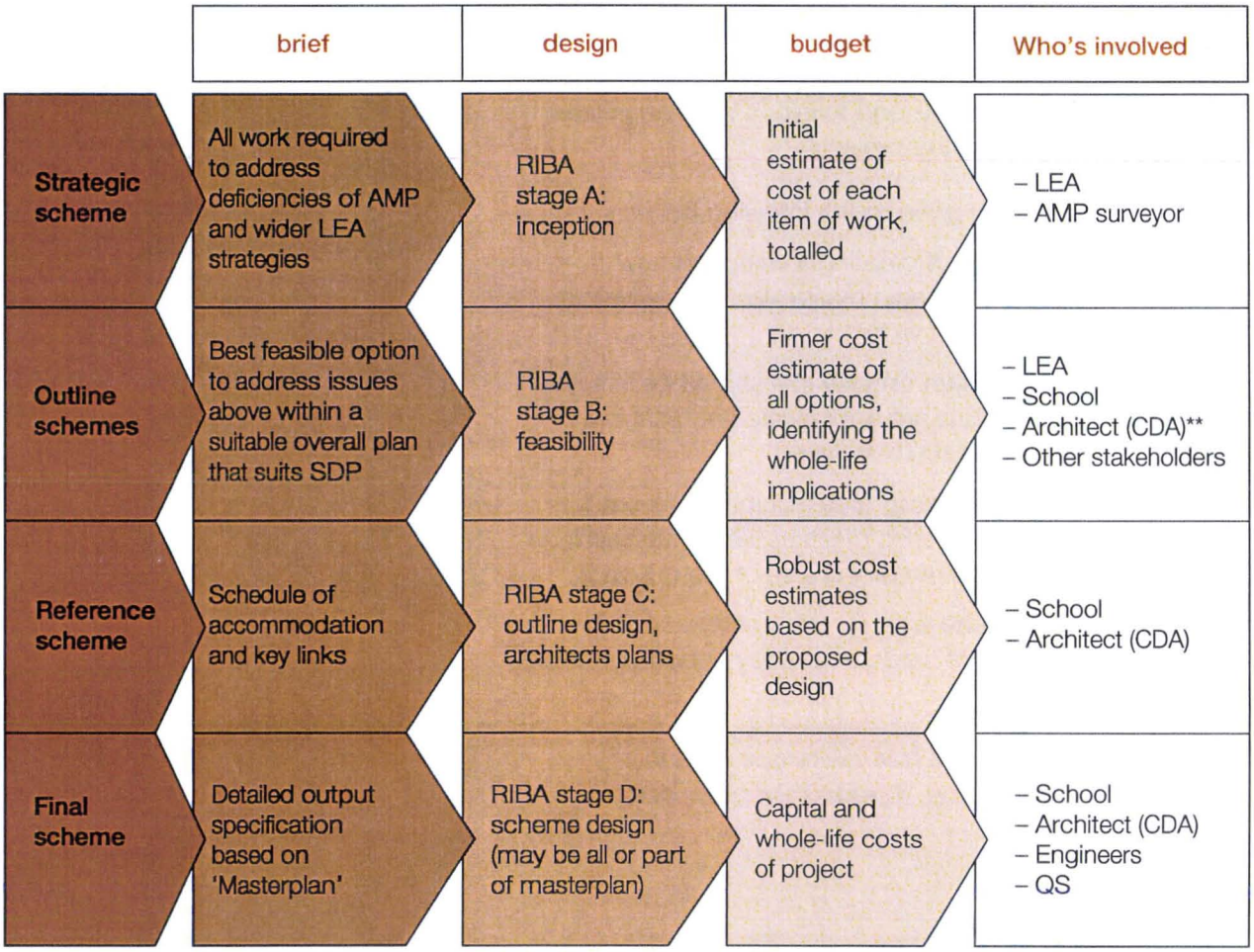
2. **Who is the client?** Generally the client is the school, although in certain circumstances it may be the local authority.

3. **What is the Masterplan?** A series of linked processes that ensure the final scheme reflects the LEA's overall planning strategy, the school's educational vision and the designer's creativity.

4. **Exemplar designs** have been developed by some leading architectural practices working to a DfES brief, to improve the design quality of school buildings. The designs, including five primary schools, are intended to develop a shared vision of 'Schools for the Future' and create benchmarks for well-designed schools. For further information see **www.teachernet.gov.uk/exemplars**

5. The Disability Discrimination Act 1995, as amended by the Special Educational Needs and Disability Act 2001, introduced Part IV 'Education', which requires LEAs to have an Accessibility Strategy for schools to increase access to information, the curriculum and the physical environment for disabled pupils, over a three year period to March 2006. See **www.teachernet.gov.uk/wholeschool/sen/schools/accessibility**

## Figure A.1: chart showing the key processes of the briefing process and how it relates to the RIBA's stages of work*




* www.architecture.com/go/architecture/using/contracts looks at fees associated with stages of work.

** A Client Design Adviser, who will advise the school on its brief and independently assess subsequent solutions. (See page 11).

# Part A: The 'Masterplan'

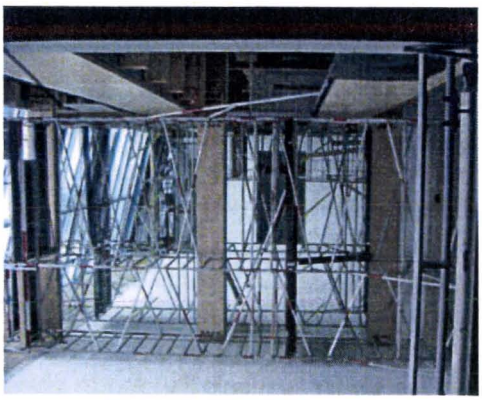
Any school can benefit from a 'Masterplan'[1] for the building work required. This will initially be a list of work necessary to address any deficiencies that have been identified in the Asset Management Plan (AMP). This list can be developed to become a premises development plan, covering all the building work needed on the site, based on a detailed design brief.

At each point in the 'masterplan' process the following issues will be identified, in increasing levels of detail:

- the brief, specifying what is required;
- the design, starting with a 'first stab' at what is needed, leading to a feasible masterplan for the whole site;
- the budget, likely costs and possible sources of funding[2];
- the overall timescale involved, including any phasing or priorities for particular projects.

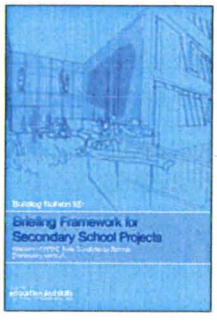
Figure A.1 opposite summarises the likely work involved at each stage, and who might be involved.

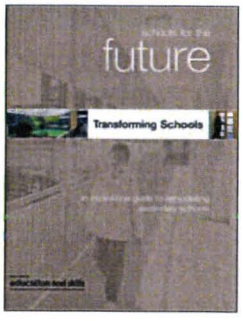
The brief for any project will need to be written by the client team (as described on page 13). It can then be developed further by the wider design team as building professionals become involved[3].



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1. BB98 ' Briefing Framework for Secondary School Projects' and 'Schools for the future: Transforming Schools' look in more detail at the process of formulating a masterplan.




2. For up to the minute information on school funding go to **www.teachernet.gov.uk/management/schoolfunding**

3. A useful introduction to the roles of those involved in building projects is 'A Guide for School Governors: Developing School Buildings', published by RIBA. Available, quoting ref:WS/GFG, from RIBA policy, 66 Portland Place, London W1N 4AD priced £6.50

# 1: Strategic Scheme

A key responsibility of any LEA is to ensure that there are sufficient pupil places in the most appropriate locations. They must be aware of demographic changes within their authority and be prepared for increases and decreases in the pupil population. Local Authorities are also required to identify an authority-wide strategy for community provision in schools, as well as specialist provision for pupils with SEN or disabilities. Recently LEAs have been required to draw up an accessibility plan to ensure that all mainstream schools are able to accept disabled people.

Over the last few years, asset management plan (AMP) surveys have required LEAs to assess school buildings and grounds in terms of their condition (whether they are in a good state), suitability (whether they are appropriate for their use) and sufficiency (whether there are enough pupil places and overall area for those places).

Gathering and analysing the resulting data of all these assessments has enabled LEAs to identify which school buildings across their authority are most in need of rebuilding, major remodelling or minor refurbishment and prioritise accordingly. At each school, the overall work required can form the template for all subsequent work, upon which other decisions can be made later.

This **strategic planning** will be based on the work needed to address any deficiencies identified in the AMP, and on the Local Authority's broader strategies such as inclusion, pupil place planning and extended schools. Questions to be considered include:

- do existing facilities need to be adapted or refurbished to address any suitability or access needs?
- do any buildings need to be demolished, as they are surplus or beyond economic repair?
- does the building need to be expanded to take on an increased local population or for other community needs?
- does the building require more land or does it have a surplus, the sale of which could be used to fund building work?



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# 2: Outline Schemes

Within the broad budget identified as part of the initial strategic planning, a further feasibility exercise can be done by an architect or building professional such as a Client Design Advisor[1] representing the school, but working for the Local Authority. This allows other more detailed options to be considered that address the issues identified by the Local Authority in the strategic scheme but also match other issues that may be important to the school, such as moving the entrance to be more welcoming or reorganising the buildings to allow every space to be accessed without going outside.

This second phase will therefore incorporate both the Local Authority's and the school's education and community objectives, as set out in its School Development Plan (SDP). These two objectives will essentially form the brief.

The true feasibility of the proposals should be tested through desktop studies of the site and further surveys if needed, for example to ensure that the position of a new block does not cause prohibitive expense because it would span a main drain.

At this stage, a schedule of accommodation should be identified for the general brief. This may draw on the Local Authority's 'standard' model for the age range and size of school, which is in turn based on the typical schedules in Appendix 2. In some circumstances other agencies may also wish to be involved in the project, for example it may be possible to incorporate a Sure Start children's centre and the local health authority's planned primary care centre on the same site. This could bring additional funds and possible economies of scale. The other agencies' requirements must also be included in the brief.

Local Authority building officers and educational advisors will be able to help the school to appraise the options that the building professionals have drawn up, and to confirm that the proposals are in line with the school's SDP. The team will also need to compare the capital costs to whole-life costs of the various options, as the recurrent costs of heating, cleaning and maintenance can be significant for the school (even if indirectly, via a PFI or FM provider) long after the building work is complete.



1. The Commission for Architecture and the Built Environment (CABE) and Offices for Government Commerce (OGC) both recommend that publicly funded projects should use Client Design Advisers: experienced architects who are expert in the sector and can advise on the best brief and feasibility scheme. The RIBA Client Service can provide names of RIBA accredited architects with appropriate educational experience at 020 7307 3700 or cs@inst.riba.org.

# 3: The Reference Scheme

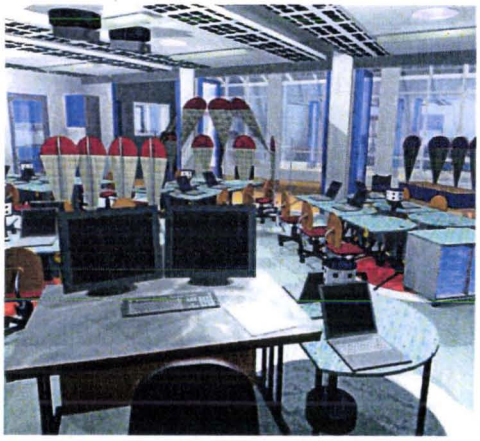
When the option has been identified which best meets the needs of all parties, a detailed brief[1] for the whole school can be developed.

At this stage, therefore, the LEA's schedule of accommodation may need to be amended to match the precise requirements of the school's curriculum and organisation. It should also set out the key principles that the design team will need to understand, also covered to some extent in Part B, and an outline of the school's SDP that includes the organisation, ethos and aspirations of the school and their implications for any building projects.

As the LEA were required to do, the school's SDP should incorporate the needs of pupils with SEN and disabilities and of the community, and the increasing needs of the school workforce. Matters that should be considered include:

- the planned curriculum and the activities needed to teach it, for example if art or design and technology is to be taught as a timetabled subject will the school require a specific room;
- whether the school teach ICT as a discrete subject to a full or half class, and if this is to be with desktop equipment, which will require a separate space, rather than laptops;
- whether the approach to furniture is to be as flexible as possible;
- whether bags and coats are to be stored in the classroom, the corridor or in a separate area;
- whether there is access to the playground directly from the classrooms;
- whether staff prefer to socialise and work in the same space.





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1. Part B gives more information on the key aspects of writing the brief

# The Client team

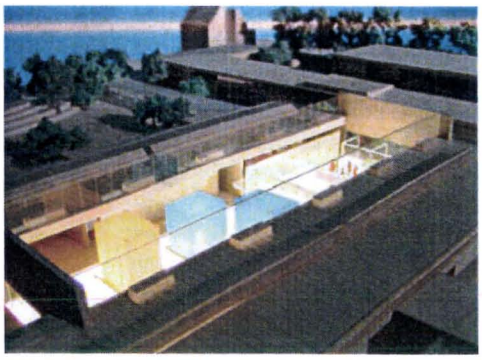
The detailed brief will ensure that the designers involved understand the context as well as the specific requirements of the work. The designers will then be given the opportunity to propose a number of detailed design options incorporating the objectives set out in the SDP. The options will identify issues such as room relationships, generic furniture and equipment layouts, numbers and types of rooms and the position of shared areas such as the hall and the library. These options can then be costed and compared to each other and to the original scope of works. A decision may then be made on the most appropriate solution.

Depending on the size of the project, it may be realised through a single build or a series of phased small projects, all of which will then have their own more detailed project brief – this will be the final part of the Masterplan process.

Phasing should be carefully scheduled to avoid early projects adversely affecting later ones. Figures A.2 and A.3 on the next page show a case-study example of a phased approach.

By this time a client team will have been created to make these decisions. The team, depending on the size and type of project, usually includes:

- those responsible for providing pupil places and the school estate, usually the Local Authority and/or diocese;
- the fund holder(s), e.g. governors, bursar, Local Authority building officers etc., who need to be sure that the brief is achievable within the budget and allows for future changes (for instance in staff and organisation) and community use;
- building professionals, e.g. architects, who may then go on to building stage;
- senior school staff and governors, who will need to ensure the design is suitable for the individual needs of the school;
- other stakeholders, for example local community groups who may wish to use the facilities, or those interested in providing further funding for multi-agency provision on the school site, such as childcare or social services; and
- the main users of the project, i.e. the staff and pupils.





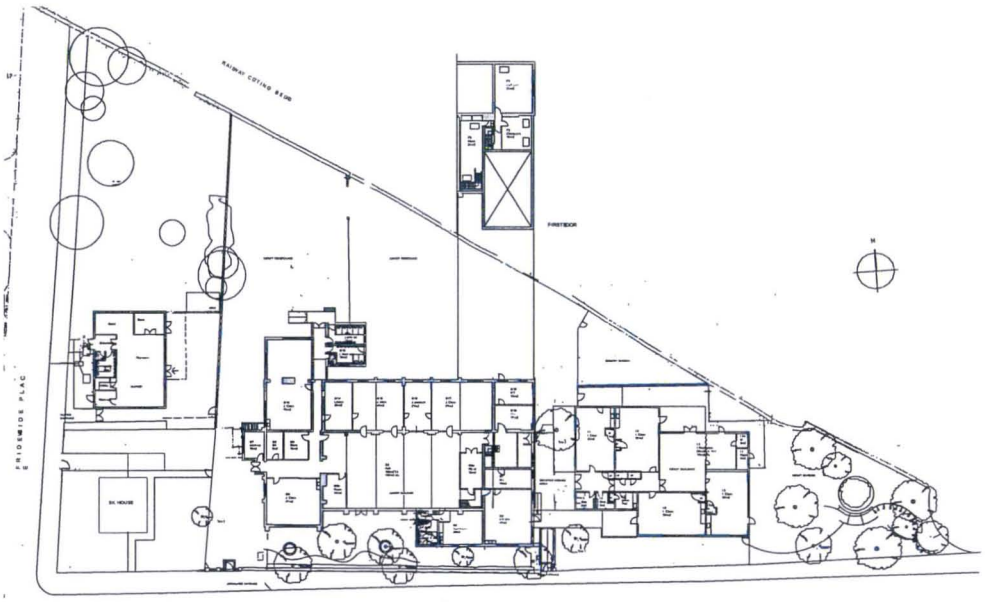


1. School Works produces material to help set up participatory design projects in schools. Useful publications include 'Learning Buildings' and the 'Toolkit'. See **www.school-works.org**.

## Figure A.2: Case Study: Plan showing phasing of new and refurbished school buildings

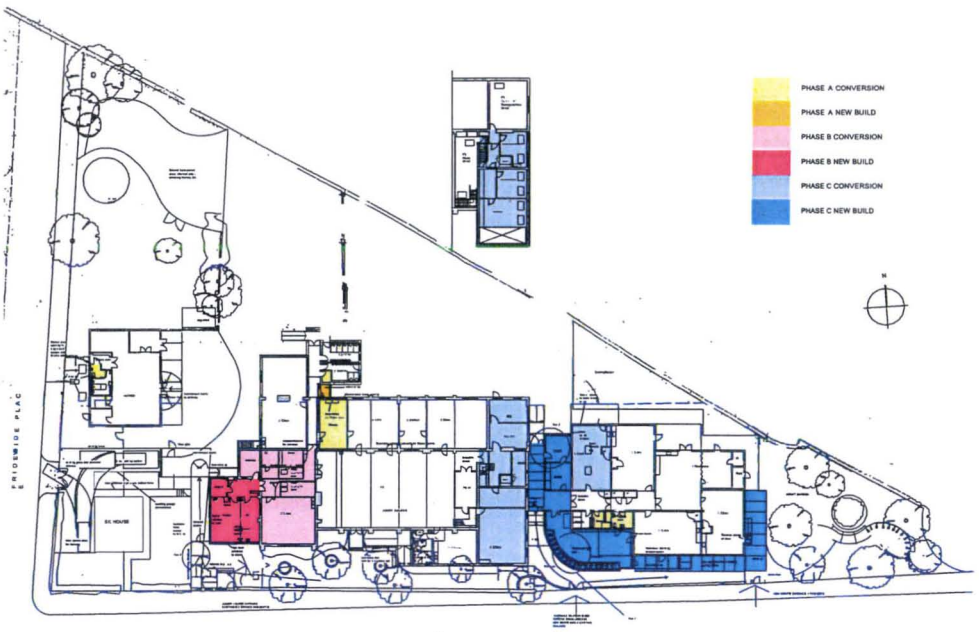
The case study featured below is a 293 place inner city Primary school. The school had a number of pupils in wheelchairs and, as such, was keen to link all three of its existing buildings to allow these pupils full access to all parts of the curriculum. In response to this brief, the architects developed a 'masterplan' for the buildings which incorporated the need for inclusion as well as a new ICT/resource centre for the community, new entrance to the school, and a covered play area for the infants. The challenges of joining two 1970s buildings with a Victorian building in a conservation area, along with meeting the various needs of pupils and the community, required a sensitive solution. The architects worked closely with the school and the LEA, in particular to reflect their vision and commitment to inclusive education. Separate funding streams meant the work needed to be carried out in three phases over four years.

Plan of existing school buildings



## Figure A.3: Case Study:

Plan of new and refurbished school buildings




**Phase A**

- Hygiene facilities were provided in all three buildings and, as a result, children were able to be admitted into the nursery.
- Accessible group room created in the Victorian building.

**Phase B**

- New extension to house a therapy suite and MI room, movable partitions allow occasional joint use – resource now shared across LEA.
- Circulation to the Victorian building re-planned.
- Enlargement of a junior classroom to accommodate a wheelchair station and computer.

**Phase C**

- New infill building, providing a new ramped entrance, library and ICT suite, and two SENCO rooms.
- Enlargement of a junior classroom.
- Fully accessible mezzanine created in Victorian block to provide offices and a group room.
- Refurbishment of garden and ramped external pergola leading to new infant covered play area.

# Part B: Design Criteria

The project brief may evolve over time, with revisions made if the client's requirements change. However, at all stages of development the brief should incorporate key considerations to ensure that design quality[1] is achieved. These are:

**1: The school's overall vision** of how it will operate, deliver the curriculum, approach change and ensure excellence[2];

**2: The implications for the design of the school**, for example the organisation of resources or the school's preferences for furniture and equipment; and

**3: Key design requirements**, for example the way in which flexibility and adaptability allow for change; the provision for SEN and disabilities; safety and security and environmental issues.

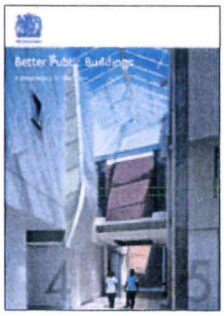
All these considerations will have an influence on the design. The approach should be determined through discussions with key stakeholders such as staff, pupils and parents. It may be useful for the design team to sit in on lessons and other key activities (if appropriate) to gain a fuller understanding of how the school works.

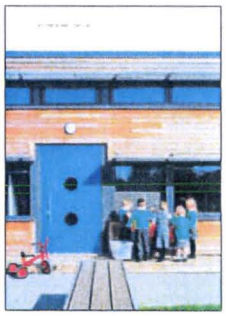
## 1: The school's overall vision

Any project within a strategic masterplan should ensure that the proposed environment will suit the identity, ethos and culture of the school. Along with other overarching aspirations, the brief should communicate to the design team that the buildings should inspire and enhance:

- **educational performance**, by providing opportunities to raise standards for all by offering an appropriate, adaptable and stimulating learning environment;
- **staff satisfaction**, through appropriate space for all staff to work, rest and socialise – vital for the recruitment and retention of the school's most important resource[3];
- **pupil satisfaction**, for example, buildings that support good behaviour and self-esteem and, ultimately, the willingness and ability to learn;
- **community involvement**, which is an important way to make the school part of the community and maximise the use of facilities.

1. The Commission for Architecture and the Built Environment (CABE), in its publication 'Better Public Buildings', has identified good design as a mix of the following attributes: Functionality in use; Build quality; Efficiency and sustainability; Designing in context and Aesthetic quality.

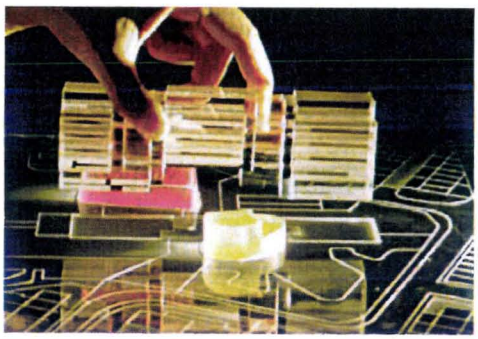


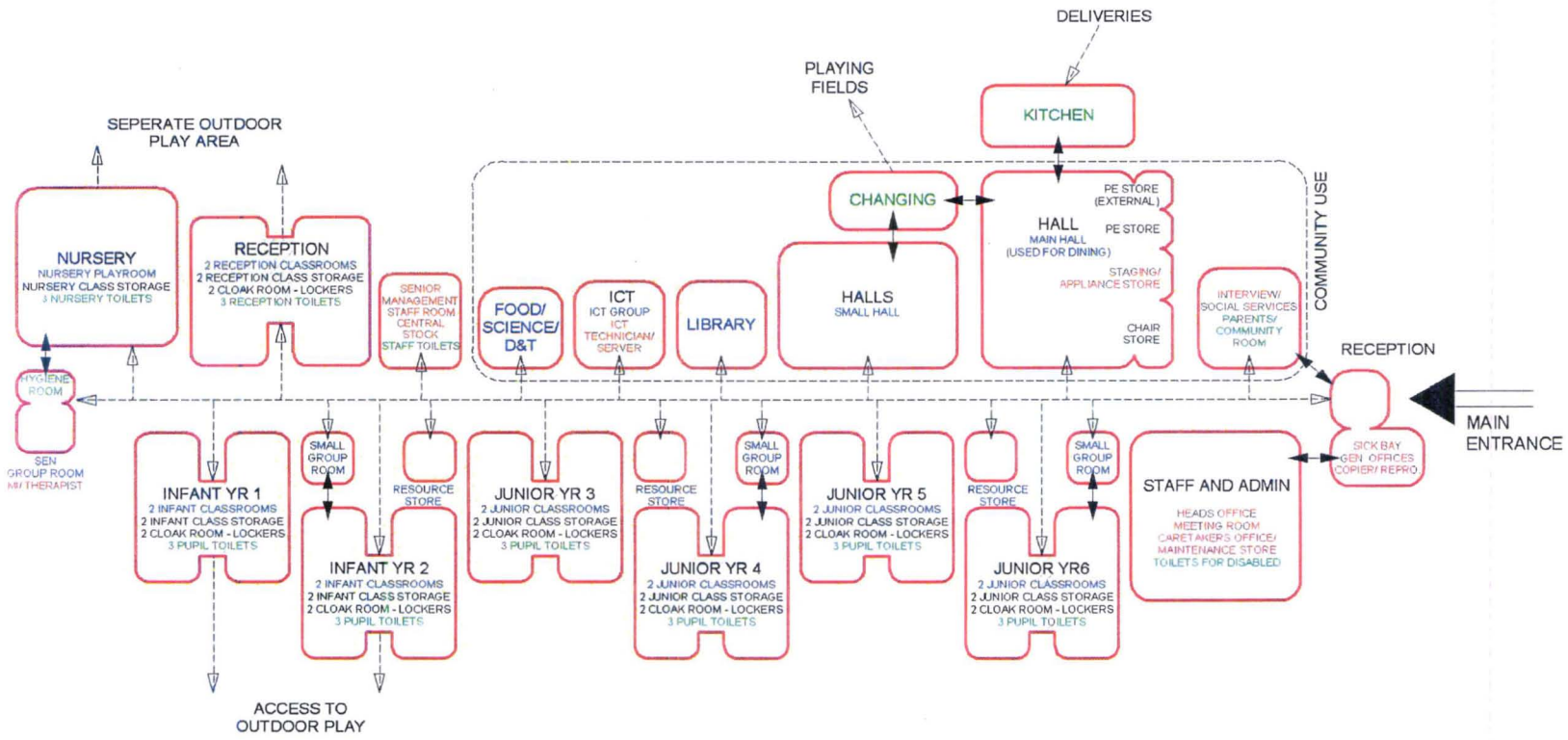



2. The Construction Industry Council (CIC) has also developed design quality indicators to help to ensure quality in design. See **www.cic.org.uk/** and **www.dqi.org.uk/**. A school specific Design Quality Indicator has been developed by the DfES and the CIC.



3. This is linked to School Workforce Remodelling, which is discussed at **www.teachernet.gov.uk/wholeschool/remodelling**. See also 'Removing Barriers to Achievement: The Government Strategy for SEN 2004'. **www.teachernet.gov.uk/sen**.






PRIMARY EXEMPLAR CORE BRIEF DIAGRAM

## Figure B.1: Organisation Diagram

Diagram showing traditional year-based structure of a typical two-form entry (2FE) 5 to11 primary school, and the useful links between areas. Various options are common which merge two or three adjacent year groups.

# 2: Implications for the design

At a more practical level, a number of key decisions about the organisation, management and pastoral support systems of the school can have major implications for the layout of the buildings. This is particularly the case when there are constraints on the site or where existing buildings are suitable but not ideally orientated, for example, too near a busy road or too far from vehicle access for deliveries.

## School organisation

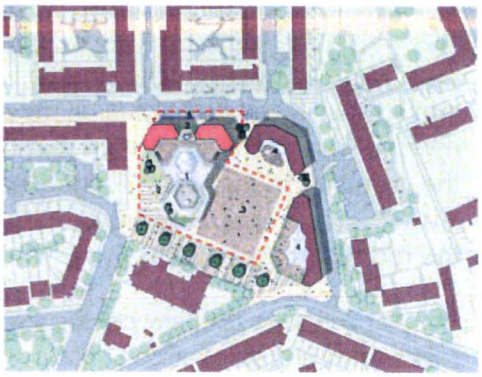
The school may prefer a year-based structure (as shown in Figure B.1 on page 16) or other groupings, such as mixed classes or key-stage clusters[1]. Some large 5 to 11 primary schools prefer a separate infant and junior school structure. Similarly, some suggest that nurseries should be separate, while others have successfully mixed them with reception pupils to form a foundation stage unit resulting in successful sharing of resources and learning experiences.

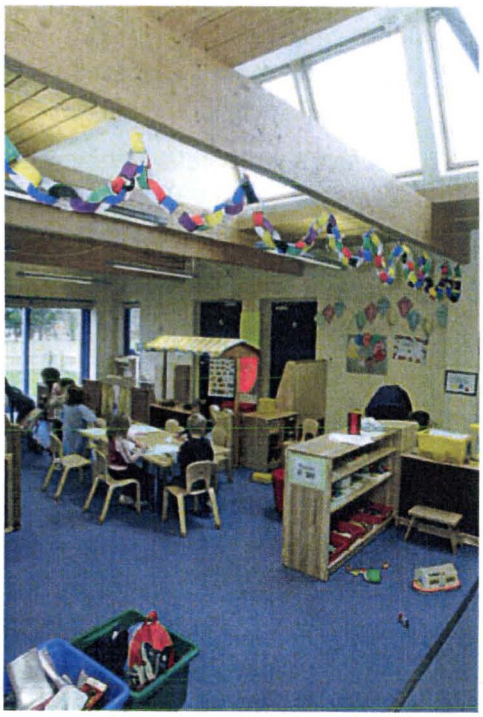
The options schools may choose can involve significantly different building layouts, so it is important to determine these early on in the process.

## Central or local resources

School resources such as books and paper may be deliberately centralised, with the advantages of easy access to support staff and more efficient stock management. Alternatively, particularly in larger schools, they may be spread around, for example creating curriculum-based storerooms which enable quick and easy access by teachers and pupils. These stores would be in addition to the ones associated with each classroom. Some small schools, however, may prefer larger classroom stores to incorporate resources for the specific subject each teacher has a responsibility for. This does however make organisation more difficult and may cause disruption if others need to access resources during lessons.

**The choice:** The brief should specify the location policy under each category of space, as discussed in Part C, covering ICT, learning resources, staff accommodation, personal storage and dining facilities.







1. Variations 5 to 7 of the primary school exemplar design brief give examples of these organisational options. See **www.teachernet.gov.uk/exemplars**

## Furniture and equipment

Careful consideration of the activities required in each room should identify the items of furniture and equipment (F & E) needed. This can then inform a number of layouts within the proposed rooms using notional sizes of F & E[1]. The layouts will then go on to prove that the size and shape of the rooms are appropriate.

The furniture layout of any classroom should assist supervision and allow for:

- space to enter the room and good circulation around the room and between furniture, bearing in mind the active nature of many primary school tasks, the presence of teaching assistants or other adults and the need to accommodate pupils with disabilities;
- a teacher's workstation (not necessarily a desk);
- good sightlines for a range of activities, especially between teacher, pupils and any whiteboard or similar;
- a number of different furniture arrangements, with mobile items where possible to enable quick classroom set-ups;
- display surfaces (horizontal and vertical) for pupils' work, natural objects and both small and large artefacts;
- storage of resources arranged for ease of pupil access;
- usually at least two desktop computers[2], portable laptops or tablets. Portable ICT frees up furniture for other activities, which can save space;
- easy access to coats and bags, if the school's policy is to store them in the classroom.

As F & E is chosen, layouts can be firmed up. Items significantly bigger than those shown in initial layouts should be identified and located. When specifying F & E, strength and stability should be assured by using relevant standards[3]. Ergonomics are also an important consideration and care must be taken to ensure that the furniture provided is of compatible heights and suitable for pupils using it[4]. This is particularly true of work-surfaces and seating. The diagrams on page 35 show a variety of layout options.

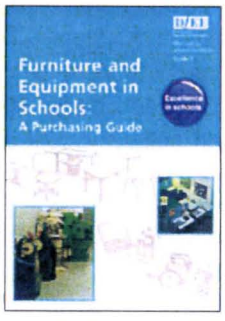




1. See **www.teachernet.gov.uk/schoolfurniture** for details of generic furniture sizes.

2. Best placed side by side, as this enables a teacher or teaching assistant to teach up to four pupils a particular skill at the same time (assuming two pupils working at each computer).

3. Both ergonomics and strength and stability standards for furniture are referred to in 'Furniture and Equipment: A Purchasing Guide', Managing School Facilities Guide 7, TSO 2000 ISBN 0 11 271092 1 or may be downloaded at **www.teachernet.gov.uk/schoolfurniture**




4. See the ergonomic furniture website at **www.cfg.gov.uk/schoolfurniture**

## Approach to ICT[1]

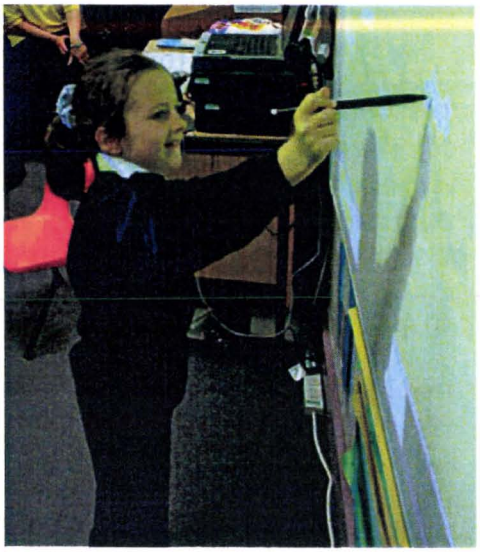
Portable ICT and interactive whiteboards can allow ICT to be taught to a full class group in the classroom, reducing pupil movement and the need for a separate ICT suite. However this does restrict opportunities for internet use as it is, at present, difficult to offer network outlets to 30 portable machines. Wireless networking access is an option, but has many implications for the building design and is therefore a decision which must be made early on in the design process. Wireless technology allows schools much more flexibility in how they use their buildings, for instance how they deliver ICT skills, where they position their computers and whether they provide ICT facilities in less formal areas such as the dining room. Many schools are, however, reluctant to use wireless technology at the present time because of management and usability issues. Some schools may feel it sensible, however, to incorporate wireless capabilities at build stage to allow long-term flexibility.

## Extended school facilities

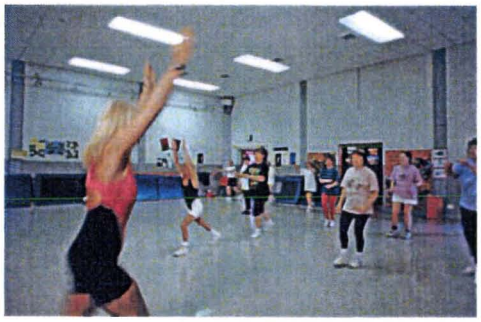
In some schools, 'extended school' facilities[2] may be available for non-school use during the school day. These facilities will generally fall into one of three levels of provision:

- access to school facilities by the wider local community, occasionally during the school day – these should be available in any school, addressed through the design and management of the building;
- flexible multi-use areas for use by others during the school day. These will include a parent/community room or SEN facilities that may also be used for community health care. These may be accommodated within the 'float' area or by some 'supplementary area' funded by the LEA or another organisation such as the health service;
- major areas of accommodation for dedicated non-educational services. These would require supplementary areas (see page 51) funded through the joining up of other funding streams, such as Sure Start or Primary Care Trusts.

The location of any facilities that will be used by the community should be carefully considered, taking into account access, security, child protection, services and parking.



**Hint:** Use by community can affect VAT charged for building projects in Voluntary Aided schools.






1. The British Educational Communications Technology Agency (BECTA) has some useful information on issues of ICT installation at **www.ictadvice.org.uk**

2. For further information on extended schools, see **www.teachernet.gov.uk/wholeschool/extendedschools**

## Shared community use

Most mainstream primary schools should offer some of their facilities to the local community outside of the school day. The level, frequency and likely timing of community use should be assessed early in the brief as there may be significant implications for the design. This assessment should be done in conjunction with the authority-wide strategy for sports and leisure amenities and may include other organisations such as health or social services.

The facilities most often used by the community are likely to include the main hall and its ancillary facilities, as well as the studio (if there is one) and any outdoor sports facilities. The design should allow these parts of the school to be open and heated while others are not in use.

Facilities that will encourage community use outside the school day, and are allowed for within the recommended area, include:

- the option for the main hall to be a 180m² one-court badminton hall suitable for public use (in schools with over 100 places)[1];
- a parents/community room;
- reception facilities and access suitable for out-of-hours use;
- community storage space separate from storage spaces used by the school;
- accessible toilets for use by adult visitors, including those with disabilities;
- external environmental learning areas[2] that could be managed in partnership with specialist groups and the local community;
- the option of an all-weather sports pitch.

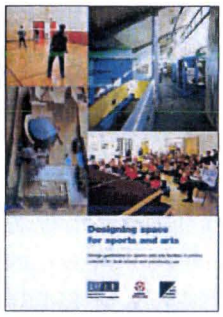
## Linked provision

In certain circumstances nearby facilities may need to be accessed by the school, such as a sports centre. The brief should identify the implications of any such linked provision. Similarly, some schools may offer a facility for a number of other local schools, for example, one school may offer a swimming pool for several schools in the area.





1. Refer to Sports England Technical Guidance Notes and 'Designing Space for Sports and Arts'. See **www.sportengland.org/resources/resource_downloads.shtml**




2. **What is an external environmental area?** A facility which enables children to learn about the local habitat and to observe wildlife in their natural environments. (See page 58).

# 3: Key design requirements

The following issues should be identified in the brief as essential for any project.

## Flexibility and adaptability

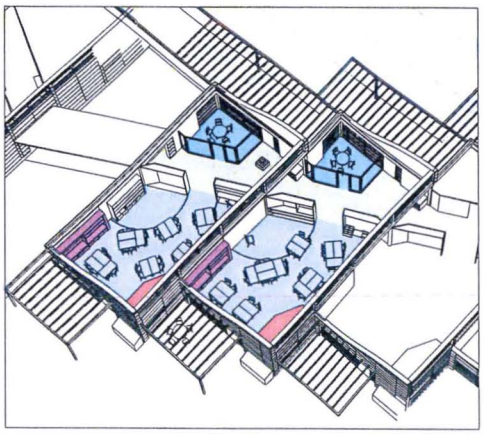
The flexibility to allow for change must be a key design requirement within the brief. Whatever arrangement is preferred, it must be adaptable to allow different curriculum or organisational models to be adopted in the future. What is suitable now will, as often as not, need to be changed in a few years.

It is important to be clear on the definition of flexibility and adaptability. In other words, what needs to be adaptable (for instance by changing the position of internal walls without affecting the structure or major services) and what should be flexible for more frequent change.

Adaptability is needed to allow for long-term changes, such as developments in teaching and learning methods or the implications of evolving ICT. Exact future consequences for the school are difficult to predict, but the size and number of teaching rooms may need to change and servicing requirements may alter.

Flexibility is needed to allow for different activities within the classroom or the needs of different users (reception-age children will have needs different to those of larger children in KS2). This can be achieved mainly through movable screens or furniture, which will create different classroom layouts and allow for a variety of activities to take place. Sliding partitions between rooms give flexibility, allowing team teaching for the long or short term. Some sliding doors can, however, be underused and acoustically ineffective. Effective partitions can be costly and a decision to use them must therefore be made early on in the project.

Avoiding fixed furniture as much as possible and using a standard set of plan sizes and colours in all rooms allows maximum flexibility[1]. It will be necessary to have a number of different heights of furniture to achieve a comfortable fit for pupils[2]. It is possible to buy furniture that can perform a number of functions, although this must be offset against the need for simple products which are easy to repair or replace.

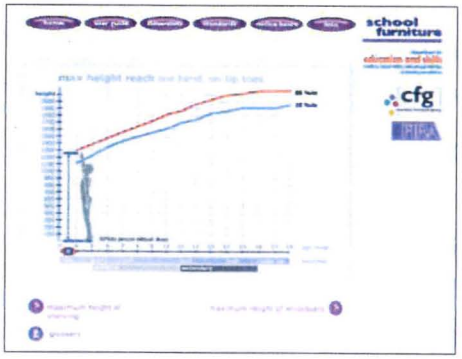


**Hint:** Shared use can affect the requirements for emergency lighting and fire-escape provision to suit public use, and increase the demand for car parking.



1. For instance, avoid fixed benching in your ICT suite. Use tables (fixed together and to the wall if necessary) instead, so they can be rearranged easily in the future. Limiting the range of furniture means rooms are multi-purpose and do not contain furniture which only one subject can utilise.

2. **www.cfg.gov.uk/schoolfurniture** allows the user to determine the most appropriate height for furniture based on a child's stature, age or year group.



The shape of a classroom has to be suitable for the full range of activities taking place. Rectangular shapes allow the easiest supervision and flexibility of furniture layouts. A space that is too narrow or 'L' shaped, for example, will restrict the possible furniture layouts and sight lines.

## Access and inclusion

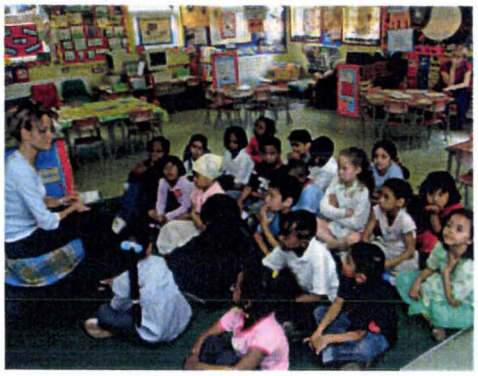
Access and inclusion in mainstream schools must be allowed for in the design, reflecting the Government's commitment to ensuring pupils with SEN and disabilities have access to the whole curriculum and can participate in school life[1].

Particular attention should be given to:

- appropriate space for pupil support, whether educational (for instance through small-group rooms), therapeutic, social or medical;
- an easily understood layout, suitable use of colour and good signage;
- good-quality acoustics and lighting[2];
- access for all pupils to the curriculum and the physical environment[3] (for instance, including both a ramp and steps where there is a small change of level)

Part C recommends a range of sizes for teaching spaces that allow for pupils with SEN and disabilities and their assistants. To ensure an inclusive school the brief needs to allow for:

- multi-purpose small-group rooms for specialist teaching and pupil support;
- a medical and therapy room for peripatetic staff and health professionals;
- an interview room next to the entrance that can be used by parents and carers, as well as social services;
- accessible toilets and hygiene facilities for assisted use;
- storage space for educational and mobility equipment;
- classrooms large enough to allow for movement by disabled pupils.



1. Typically, pupils with speech, language and communication needs, specific learning difficulties, moderate learning difficulties, sensory impairments and physical disabilities will, as far as possible, be included in most mainstream schools. Schools with very high numbers of pupils with SEN and disabilities will require additional specialist SEN resourced provision (in supplementary area). Alternatively, there may be a co-located special school for pupils with complex needs, which will also have implications for the mainstream school. Refer to the updated BB77 Designing for SEN: Special Schools, due 2006.

2. See BB90: Lighting Design for Schools TSO 1999; ISBN 0 11 271041 7 and BB87: Guidelines for Environmental Design in Schools, May 2003 web version, at: **www.teachernet.gov.uk/energy**. BB93: Acoustics in Schools is at: **www.teachernet.gov.uk/acoustics**

3. As defined in The DfES Guidance Note Accessible Schools: planning to increase access to schools for disabled pupils LEA/0168/2002 **www.teachernet.gov.uk/sen**. For details of access requirements refer to Building Regulations Approved Document M, 2004 and BS 8300.

## Safety and security

Safety and security[1] is an overarching issue, which should be considered in conjunction with requirements for greater community access. Security is as much about creating a feeling of a secure, organised, safe environment, as it is about the specifics of surveillance and supervision of access[2]. Particular attention needs to be given to:

- access control, for instance to ensure visitors can be shown to an interview room from reception, but cannot enter the school without permission;
- securing the building 'envelope' – walls and roofs but particularly windows and doors;
- having clearly defined site boundaries, using appropriate fencing and/or planting;
- electronic measures, such as intruder alarms or internal alarms for teachers in classrooms;
- a health and safety audit of the design to ensure it is appropriate for adults and pupils with SEN or disabilities.

## Environmental performance

All major new-build and refurbishment projects[3] should be assessed using the Building Research Establishment Environmental Assessment Method (BREEAM). The Department expects all these schemes to achieve at least a very good rating using the new methodology. Smaller schemes may also be suitable for formal BREEAM assessment and designers should, as far as practicable, apply the same standards to all projects. The brief should require a sustainable and environmentally considered design which meets the energy performance targets quoted in the Building Regulations and is in accordance with Building Bulletin 87[4].

Environmental performance criteria, for instance for acoustics[5], ventilation[6] and daylight are crucial. Many of these are now statutory and are vital to ensure comfortable, suitable teaching spaces. Acoustics are particularly important, and must be tested in designs that do not provide traditional acoustic separation through full height walls and doors. Partial carpeting of classroom floors can help reduce noise[7].

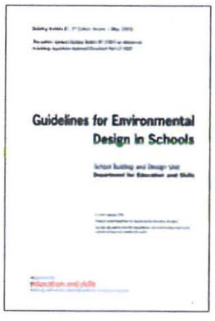
1. See Managing School Facilities Guide 4, *Improving Security in Schools*. TSO 1996. ISBN 0 11 270916 8. Single copies available to schools from DfES Publications free of charge. Otherwise from TSO.

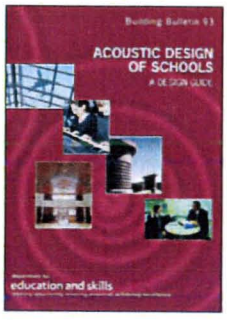



2. 'Secured by Design' is a police support document which gives useful tips on the design of schools. See **www.securedbydesign.com/pdfs/schools.pdf**

3. Defined as those which involve rebuild or complete refurbishment of more than 10% of the floor area and are valued at over £500,000.

4. The Building Research Establishment Environmental Assessment Method (BREEAM) for schools will assist in guiding school design, and should be used to assess the environmental performance of new designs. See **www.bre.co.uk/breeam**. See also BB87 at **www.teachernet.gov.uk/energy** and BB93 at **www.teachernet.gov.uk/acoustics**



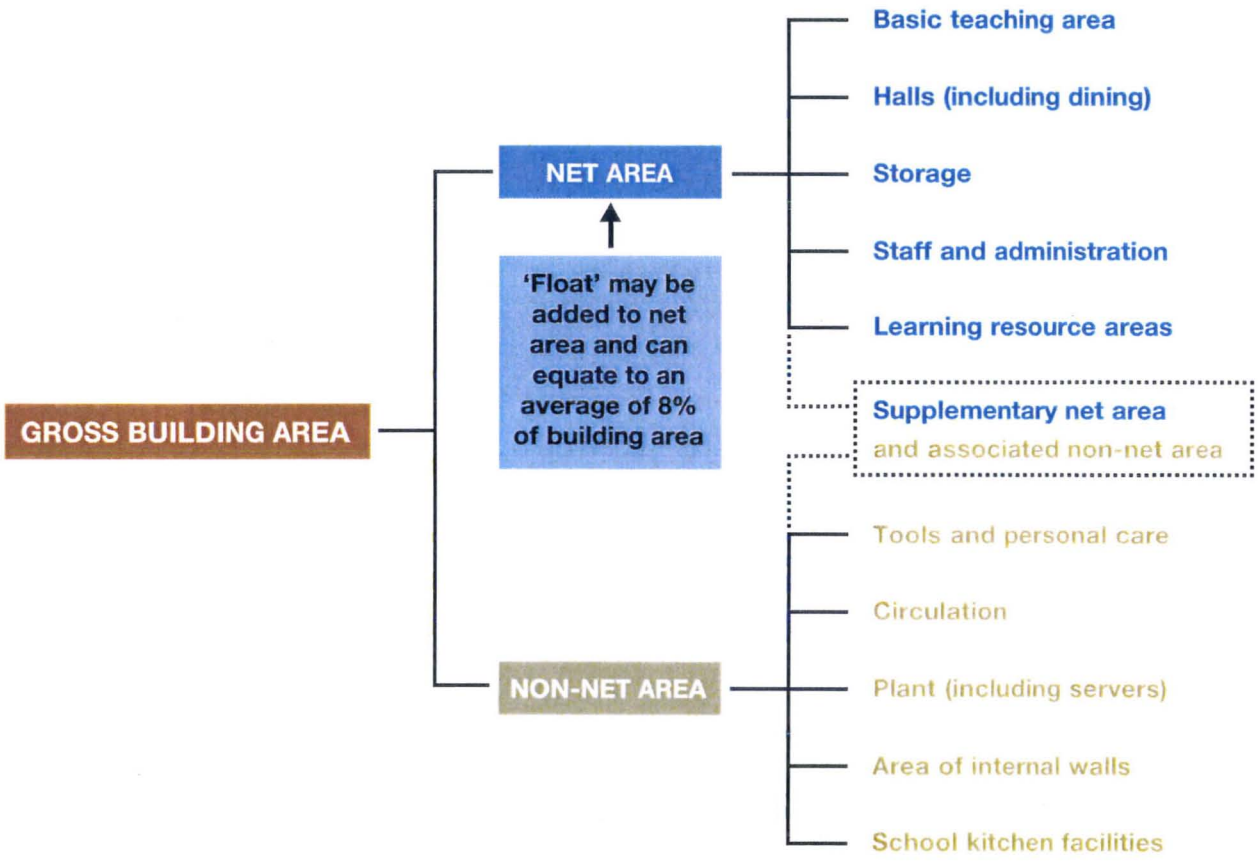

5. See BB87 at **www.teachernet.gov.uk/energy**

6. Ventilation standards are set out in Building Bulletin 101 Ventilation of School Buildings see **www.teachernet.gov.uk/iaq**

7. Refer to speech intelligibility rating and testing in Building Bulletin 93 (see above).

## Figure C.1: Gross and net area defined.

Supplementary net area, which will be separately funded, should be added to the total net area to ensure the non-net area is increased proportionally.



# Part C: The Buildings

Determining the appropriate areas for the different components of the school buildings requires careful and methodical discussion by both the briefing and design teams. The following pages set out clear and simple guidelines for establishing the areas that will make up the accommodation schedule.

## Gross area of buildings

In this document area recommendations for buildings are separated into two categories:

- net area, or usable area, which can be accurately calculated from the formulae in Appendix 4, plus any agreed supplementary net area; and
- non-net area, which will be more variable depending on the design, the configuration of existing buildings and site constraints, but will generally increase in proportion to the net area.

The total of these two categories gives the gross (total) area of the building[1], as described in Figure C.1 on page 24.

The gross area required will depend on the design and layout of buildings. Generally, the gross area of new buildings may vary between 140% and 145% of the net area (such that the net is 69% to 71.5% of the gross), depending on the layout and type of site[2]. In existing buildings, this may rise to as much as 150%. In new buildings the gross area will need to be at least 140% of the net area, unless compromises are made in the provision of circulation space or the kitchen[3].

The total net area required by an inclusive community school should not normally need to exceed the recommended net area for the number of pupil places and age range of the school as shown in Figure C.2.

Further **supplementary net area**, and a proportional increase in non-net area, may be needed if there are specially resourced non-school or support functions on the school site (as discussed on page 50). Facilities to be provided within supplementary net area will vary widely depending on specific local needs and other available funding streams[4].

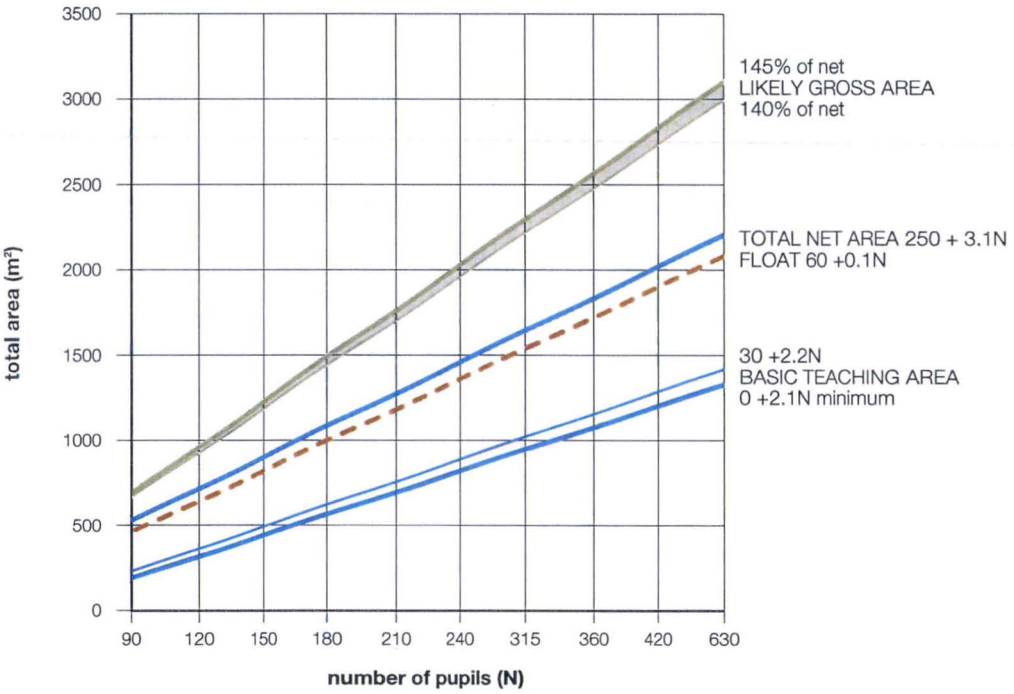


**Hint:** It is important to realise that it will be the budget, rather than the gross area, which will be the determining constraint on the project. So the gross area could be larger than that recommended, as long as it is within the budget allocated.

1. The net area is measured to the internal face of both internal and external walls in all parts of all buildings on the school site(s) that are intended to be secure and weather-tight, except residential or farm buildings in use as such, or buildings condemned by the LEA as structurally unsafe.
2. The budget for new schools should allow for a gross area that is around 142.5% of the recommended net area.
3. Circulation may be less if routes are outside and kitchens may be smaller if they are used for re-heating food only. Conversely, circulation may need to increase in certain circumstances, such as sloping sites, to allow for ramps and kitchens may need to be large to cater for a number of schools. Both will affect the non-net area.
4. It is important that the budget allows for any supplementary area that is required over and above the recommended net area.

## Figure C.2: Recommendations for total net and gross areas

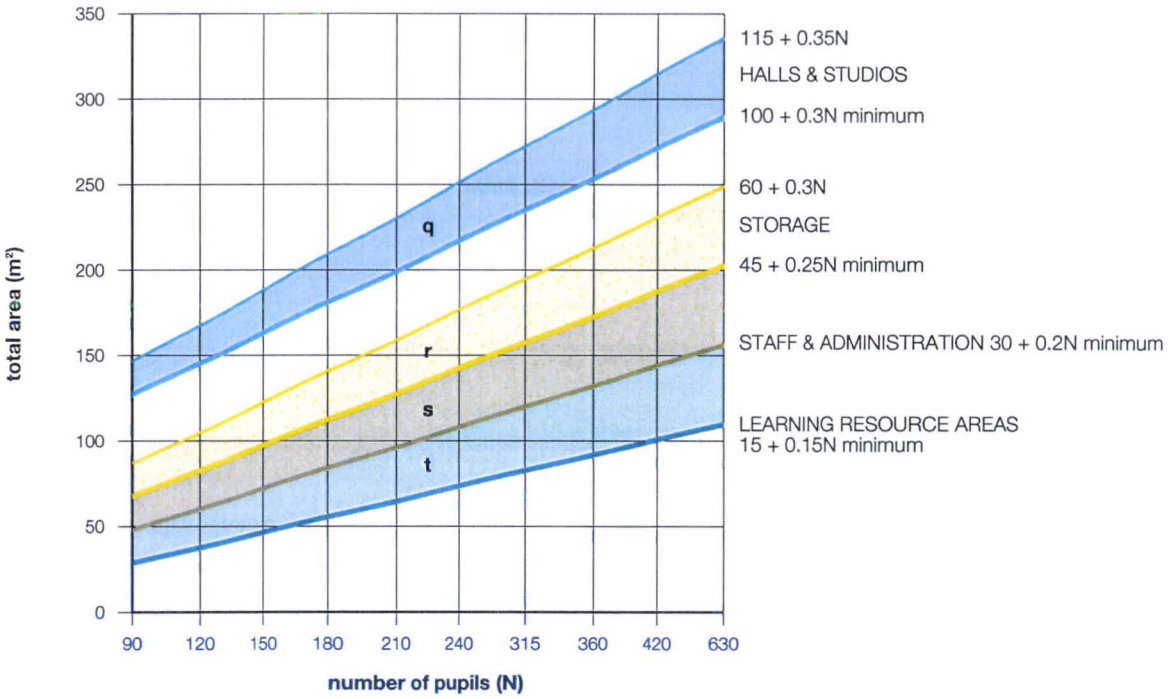
Graph showing the recommended areas for total net and gross area and basic teaching. Note that the areas in this graph are at a different scale to those in C.3.




*Total Net = the sum of the minimum recommended net areas plus float.

## Figure C.3: Categories of net area and related formulae

Graph showing the four remaining categories of net area and their related formulae



# Net area of buildings

The net area is made up of the five categories of space listed below plus any supplementary net areas. In Figure C.2 and C.3, the likely area ranges of each category for all primary schools are shown as zones p to t with formulae given for each.

1. Basic teaching area (zone p);
2. Halls and studios (zone q);
3. Storage (zone r);
4. Staff and administration (zone s);
5. Learning resource areas (zone t).

The bottom of each zone, which can be calculated using the formulae shown, represents the minimum recommended area for that category of space. **The total area for each of these categories should be at least the minimum recommended in this bulletin** (i.e. the bottom of the zone)[1]. If any of the individual categories are insufficient, this is likely to compromise the use of the buildings, even if the total net area is enough.

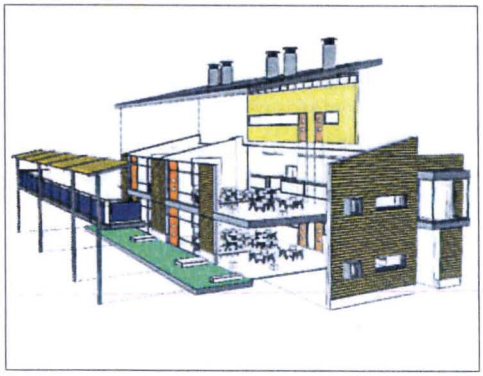
An area greater than the minimum but within the zone will usually be required for each category. The overall recommended net and gross building area, as given in Appendix 4, allows for the area of some categories of space to be more than the minimum through the provision of the 'float', which will help provide extra accommodation where it is most needed by each school, for instance to increase classroom size in order to be fully inclusive[2]; for further staff accommodation; a larger library or a changing room[3]. It may also be used to provide supplementary areas if these are felt to be priorities and funding mechanisms allow it.

Funding for major school projects will generally be based on the recommended gross area (plus any agreed supplementary areas). It is quite likely that this funding will **not** be sufficient for all categories of space to be at the top of each zone – if this is required decisions will therefore have to be made against the particular priorities of the school.

## Nursery classes[4]

Any full-time equivalent (FTE) nursery places will require the same area per pupil place for every category except:

- learning resources – recommended to be a minimum of 0.45m² per FTE nursery place;
- halls – the area of halls does not need to be increased to allow for FTE nursery places.



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**Hint:** bear in mind that these are guidelines. The specific objectives of each school should be considered when making decisions about how much area to allocate to each activity – for instance, taking account of its priorities and ethos.

1. Split sites (where a significant part of the school is provided on each site) will generally need to use the full formulae for each site, except for halls, to allow for the replication of resources required.
2. All classrooms should allow provision for disabled pupils. However a fully inclusive room should provide sufficient circulation space to allow access to all areas of the room without the need to re-arrange furniture and equipment.
3. Appendix 3 lists possible variations of area schedules for a 420 pupil school to illustrate the different uses of the float.
4. Overall, the total net area recommended for nursery places is the same as that for other primary school places. See Appendix 4.

## Schedule of accommodation

A core part of writing the brief will be to determine the schedule of accommodation. A schedule for the whole school will include spaces in all of the five net area categories (zones p to t), as defined on page 27.

This bulletin includes two sets of example schedules that can be used as a starting point.

- In Appendices 1 and 2, schedules for various typical sizes of 5 to 11 infant and junior schools show spaces listed in each of the five categories[1].
- In Appendix 3, different schedules[2] are shown for the same size of school, showing a number of possible variations based on the schools 'proposed priorities'.

Whichever format is used, each category should be totalled and compared to the minimum recommended standard.

The next few pages give some guidance on the spaces required within each of the five categories of net area. In a design brief each category:

- **must** include spaces required by regulation;
- **should** include spaces or areas in line with best practice and non-statutory guidance;
- **may** include other spaces where appropriate to the school's priorities or preferences.



© Tim Soar

1. Similar curriculum based variations for a 420-place 5-11 school with a nursery can be found in the exemplar design primary brief variations 6 and 7. **See www.teachernet.gov.uk/exemplars**

2. In these schedules, areas in red show the variations from the option shown in Appendices 1 and 2.

# 1: Basic teaching area (zone p)

Basic teaching area comprises all the teaching spaces needed for the full range of curriculum subjects[1]. It does, however, exclude space for PE and some music and drama, which usually take place in the hall, studio or library.

The graph in Figure C.4 on page 30 gives area ranges for the various types of basic teaching spaces, depending on the maximum group size, which the school should identify early on in the briefing process[1].

The minimum size for each space, represented by the formulae at the bottom of the relevant zone, generally allows for one wheelchair user (although areas towards the upper part of the zone will allow more freedom of movement around the classroom for wheelchair users) plus assistants and an increasing amount of portable ICT equipment, including projectors. The range of areas allow for local storage furniture but not for any significant[2] coat and bag provision, which is allowed for within the storage category[3].

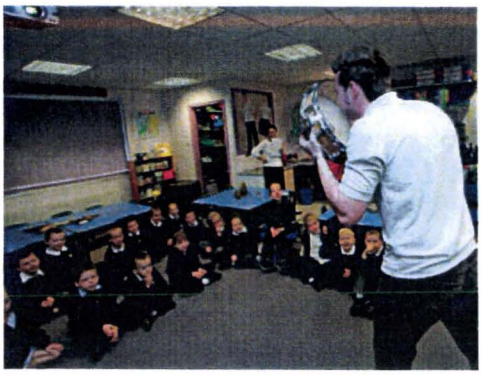
Basic teaching area should therefore include:

- **Classrooms** (enclosed rooms) **or classbases** (opening onto shared teaching areas on one side): one for every class (usually of 30 pupils), providing table space and a chair for each pupil, facilities for a variety of curriculum activities and teaching resources[4];
- **Space for a cooker:** at least a 4m² food bay where a cooker can be situated for small groups, but optionally off a classroom, as part of a shared teaching area or specialist practical space (see below).

Basic teaching area may also include:

- **Shared teaching area:** shared by groups from two or three adjacent class-bases, (and usually able to be partially supervised by the teacher from each class-base) to allow some facilities, usually for practical work, to be shared rather than provided in every classroom;
- **Specialist practical spaces:** enclosed rooms fitted with specialist equipment and shared by a number of classes. May be a specific room ideally for up to 15 pupils;
- **ICT room/base:** if the school prefers a separate space where all or half a class can use computers (see page 37).

A cluster of classbases and shared teaching area will usually also include a small group room (covered under learning resources area, see page 43) and storage (page 40).





**Hint:** To allow for long-term flexibility, it is advisable to use a maximum group size of 30 for all class-bases, six to eight for specialist practical areas/spaces, usually 15 or 30 in an ICT base[5], up to twelve for shared teaching areas and six to eight for group rooms, depending on the size of the school[6].

1. **What is 'basic teaching area'?** This is defined as all types of learning areas other than halls and studios and learning resource areas. These will include the class base; group rooms; ICT bases, practical areas and shared teaching areas; and learning resource areas. Some of these spaces may be enclosed, others open, and activities carried out within them will vary from school to school.

2. In small schools it can be uneconomic to design specialist areas for 30 pupils. Where the number of classes is low (say below 10 classes), the ICT suite will not be well used unless it is also designed for other, additional purposes.

3. Generally any furniture over 2.1m in height counts towards the storage category.

4. In the schedules in Appendix 1 and 2, all general teaching classrooms are at least 57m². This is also the size used in the primary exemplar designs see **www.teachernet.gov.uk/exemplars**

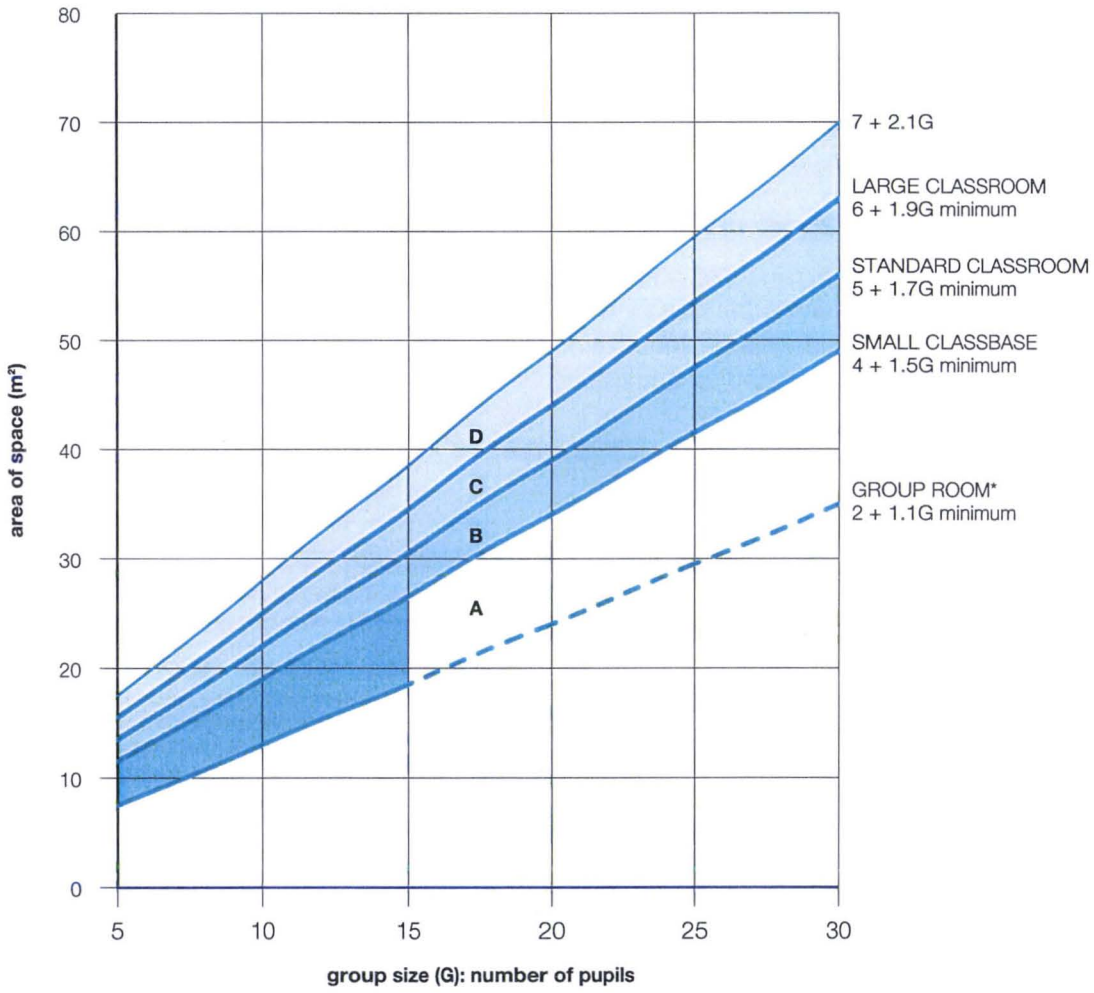
5. Zone D on Fig C.5 gives the range of area for an ICT suite.

6. ICT suites and specialist practical spaces will be defined in any net capacity assessment as 'specialist', and not count towards the capacity of the school. See Assessing the Net Capacity of Schools DfES/0739/2001. **www.dfes.gsi.gov.uk/netcapacity**

## Figure C.4: size of teaching spaces

Graph showing zones of recommended area for basic teaching spaces (zones D-B) and small group rooms (zone A). The bottom of each zone represents the minimum size recommended for the group size, and can be calculated using the formulae shown.

| zone | function |
|---|---|
| D | large classroom (recommended minimum for foundation stage), Information Communication Technology (ICT) suite, specialist practical areas such as creative space (art and design and technology) or science; |
| C | standard classroom (recommended minimum for KS1 and 2); |
| B | small class-base (should be used in conjunction with shared teaching areas); |
| A | small group room, as identified in learning resources provision, see page 43. |




* zone A: group room is not included as part of basic teaching

## Classrooms or classbases

Figure C.4 shows how classrooms or bases can be split broadly into three size bands which are:

- zone D: Large classroom areas of 63m² to 70m², each with designated space for practical work and up to four computers[1] (either PCs or laptops). A 70m² space will allow sufficient space for wheelchair users to access all activities and specialist equipment. Positioned on one side of a circulation route or learning resource area, large classrooms can suit a variety of provision for different schools and for future learning options in Key Stage (KS)1[2] or 2. Using the top of the range is particularly recommended for foundation stage classes in new or remodelled schools.
- zone C: Standard classrooms of 56m² to 63m² will accommodate most activities and at least two desktop computers, but will need to be supplemented by a timetabled specialist practical space, for instance, of 36m² for half a class. This size is recommended for all KS1 and 2 classes in new or remodelled schools, with the top to mid-range used for fully inclusive classrooms.
- zone B: Small classbases of up to 56m² will accommodate the activities crucial to numeracy and literacy. Small classbases will need to open onto a shared teaching area to provide other key facilities such as a wet area or book corner[3]. If shared areas accommodate different practical activities, then they can be timetabled for use by other class groups when appropriate. This arrangement works best in 2FE[4] schools where similar activities are being carried out by both classes[5]. The diagrams in the outer margin show various options. In these examples, shared areas are directly located off the classbase. Alternatively Figure C.6 on page 32 looks at shared areas off corridors.

As part of the research for this document, activities for each key stage were identified. These activities can be accommodated in a variety of spaces within the basic teaching area category, depending on the preferences of the school. Figure C.6 (on page 34) lists the different activities that need to be accommodated either in the classroom or in the classbase and adjacent shared teaching areas. Mobile furniture and changes in floor finishes will help to informally demarcate different zones for the various activities that may overlap, and will vary in size and need depending on the age range.



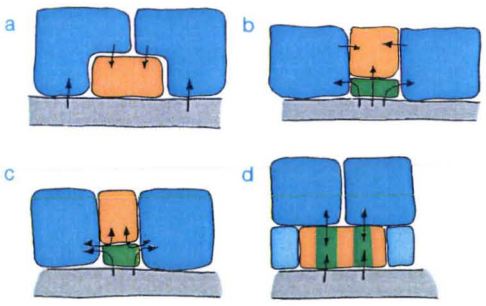
1. Assuming cathode ray tube monitor etc. on 1200mm x 700mm table.

2. **What is a Key Stage?** A key stage is a specific part of child's education and relates to their age and year group.

3. Not including supported work with assistants that might take place in small group rooms (within learning resources area).

4. **What is 2FE?** FE means 'form of entry', in other words the number of classes of 30 in each year. 2FE would therefore be two classes and result in 60 children in each year.

5. A number of arrangements are available for shared areas across pairs of classrooms:




Key:
- = classroom
- = classroom shared area
- = classroom circulation
- = classroom secondary circulation
- = classroom store/group room

a: Shared teaching area allows circulation to the two classrooms and enables the surrounding corridor to be used for ICT/display etc., but creates a difficult classroom plan.

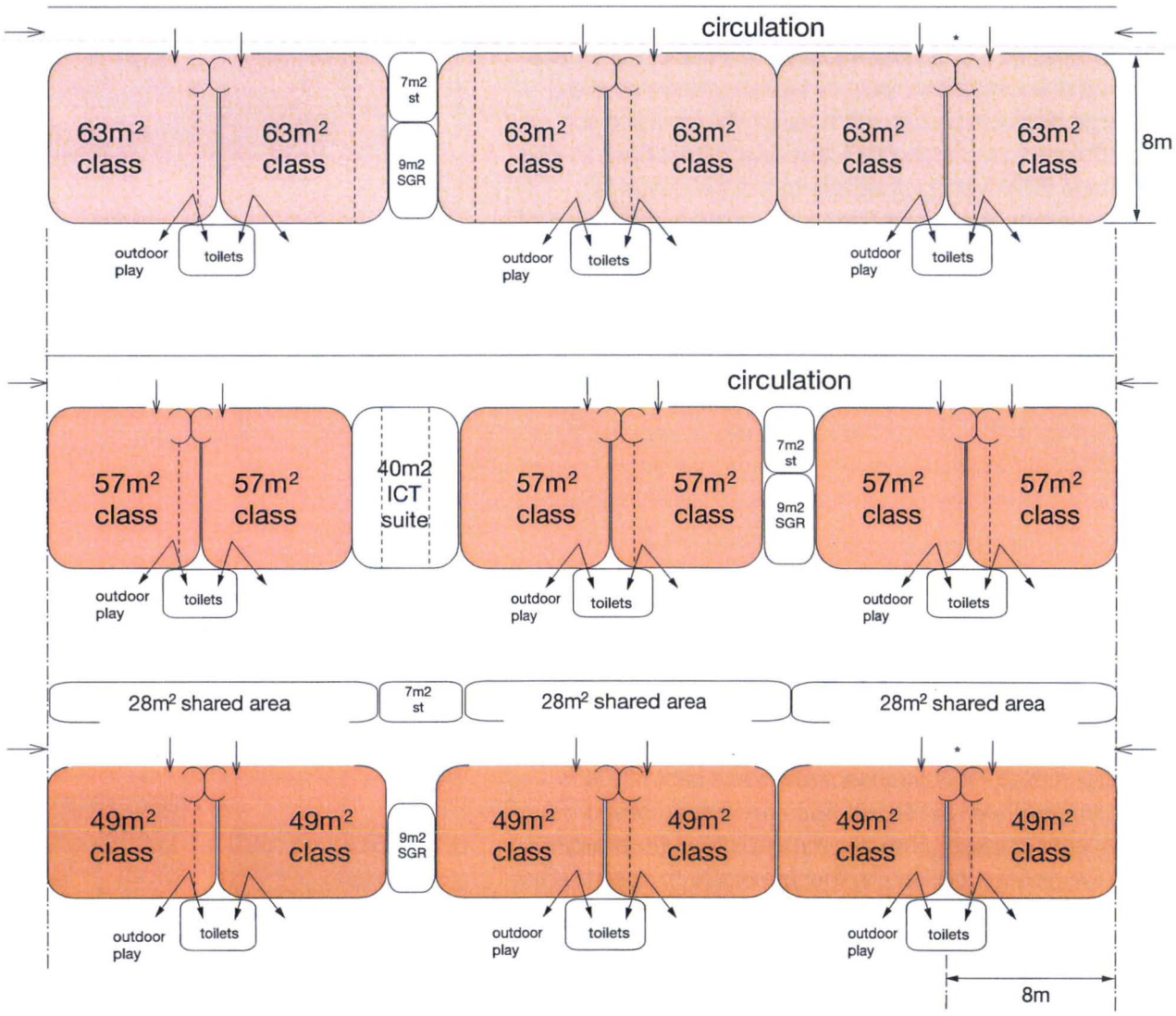
b: Access is directly from the corridors, which allows the shared area to be used more effectively by others but prevents direct access from the classroom.

c: A deep and narrow shared teaching area follows the shape of the classrooms but is more difficult to plan.

d: A shared teaching area opening onto the corridor is flanked either side by storerooms. Circulation into the classrooms leaves little usable space in the shared area.

## Figure C.5: Six classroom options

This diagram indicates how a basic teaching area of 378m², equivalent to six adaptable classroom areas of 63m² (which is at the top of zone C) plus a shared resources store, small group room (SGR), classroom stores and a circulation route can suit a variety of provision for different schools and for future learning options in KS1 or 2. Here, the partition walls are assumed to be moved, whereas toilets, windows and doors remain unaltered.



As an initial exercise, before detailed layouts are determined, 'blocks' of activities can be identified. The diagrams in the outer margin illustrate the activities that take place in classrooms for reception age children; key stages 1 (years 1 and 2); 2a (years 3 and 4) and 2b (years 5 and 6). The diagrams relate to the detailed layouts in the margin of page 35, the list in Figure C.6 and the points covered on page 31.

For the purposes of classroom layout arrangements KS2a refers to years 3 and 4 where activities are sometimes similar to those of 1 and 2. KS2b refers to years 5 and 6 where a more formalised approach is often appropriate.

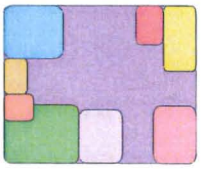
a: reception class most often requires a large carpeted area to allow a whole class to sit together and carry out some aspects of numeracy and literacy as well as other activities such as group discussion and story telling. Next to this is a second carpeted, quiet area where pupils can listen to music tapes or read books. The two areas can be separated by mobile storage units and used together to increase gathering space when necessary. A teaching focus is shown, however some schools may feel a mobile board on the carpeted area is sufficient. A role play zone (or home corner) allows pupils to learn through play. Formalised layouts are not generally necessary, and very often table and chair positions are not required for a whole class.

b: KS1 and 2a classrooms also require a carpeted area, which can double up as quiet space for reading or large-scale construction work. The role-play area provides a space to create, for example, a 'shop' or 'post office' where children can learn about money, transactions and services. Some schools may feel this area is not necessary, however. Chairs and table positions for each pupil will be necessary.

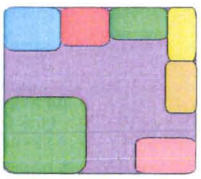
c: KS2b classrooms require a small free area for construction kits etc., but this can double up with the area required in front of the whiteboard (teaching zone). As lessons are more formalised at this stage, pupils will need to see the whiteboard easily, which restricts table layout possibilities. Some schools prefer a formalised table and chair arrangement. A reference book area is provided for books relevant to a particular topic being covered.



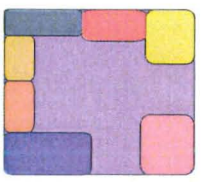

a reception



b KS1 and 2a



c KS2b



KEY:
- teachers base
- role play
- carpet area
- entrance
- wet area
- ICT
- construction area
- quiet area
- teaching zone
- books and reference



## Figure C.6: Activities to be accommodated in the classroom or classbase.

All those activities marked as required can be accommodated in the minimum recommended size of small classroom (the bottom of zone B). Activities marked as preferred or optional will generally need a standard classroom (zone C), while four computers or further tables for wet and messy work will require a large classroom (zone D).

| Activities | Furniture and Equipment[1] | Foundation | Y1 and 2 | Y3 and 4 | Y5 and 6 |
|---|---|---|---|---|---|
| Group discussion, whole class teaching | whiteboard, interactive screen or similar | required | | | |
| Literacy, numeracy, other subjects | adequate table space, generally arranged in groups (half table per pupil assumed) | for 1/3 to 2/3 of class | required for whole class | | |
| Group discussion, literacy and generally not required numeracy, whole class activities, storytelling | free floor space, usually on a carpeted area, for gathering the whole class together sitting on the floor | required | one area used for both | one area used for both | generally not required |
| Large scale construction kits, practical 3D work, some ICT work using robots etc. | [smaller] free floor space for space-consuming work on the floor, including large-scale construction | required | | | required |
| Individual or group reading/research | a book corner or quiet area with room to browse, and cushions (with the option to overlap with the free floor area if small class-base in zone B) | required | preferred | optional | not required |
| For creative play and role play | space for creative play and role play | required | preferred | not required | not required |
| individual, group or whole class ICT based work | desktop computer workstations or laptops (see page 37) | 1 to 2 | 2 to 4 depending on other ICT available | | |
| Individual AV music or language work | audio-[visual] resources (overlapping with book corner) | optional | preferred (if available) | optional | not required |
| Group or whole class music activities | music resources, on trolleys or out on permanent display | optional | optional | available elsewhere | available elsewhere |
| Drawing, sketching and working with 'compliant' materials such as fabric and cardboard etc. | resources for 'dry' practical activities, using the tables available, such as making and testing | required | | | |
| 2D and 3D science, art and design technology work using paint, glue, sand, water etc. | sink, washable floor area and resources for simple 'wet' practical activities | required | required (may be in shared teaching area) | | |
| 2D and 3D design and technology work using resistant materials such as wood and some plastics | further tables or fixed side benching and resources for wet and messy work, some 'heavy duty' tables for hand tool work | required | optional (may be in shared teaching area) | | |
| All activities as identified above | space for wheelchair user, specialist appliances or equipment and possible assistant | required | | | |

1. For further information on furniture and equipment specifications please see 'Furniture and Equipment in schools: A Purchasing Guide' or download it at **www.teachernet.gov.uk/schoolfurniture**

Having established the kinds of activities required by the school, more specific layouts can be drawn up. The classroom layouts in the outer margin show the furniture and equipment required for the activities identified in Figure C.6. In all examples the areas are at the top of zone C as shown in Figure C.4. This allows for greater circulation for non-ambulant pupils to key areas of the classroom. The coloured lines indicate the desired circulation zones for various activities.

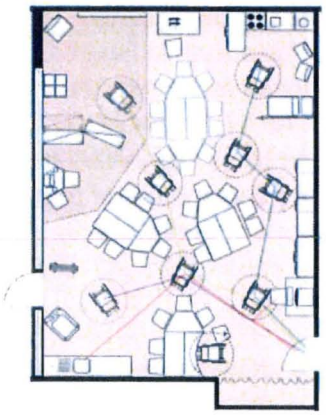
a: standard classroom at 70m² for 30 reception pupils. Tables and chair positions are shown for each pupil, although there is less worktop area. A role play area in the corner provides 'home corner' furniture. More free space is allowed around the sink and an external door is located nearby for messy work to take place outside. Circle time and quiet, individual work are shown on a shared carpet area, which, if furniture is moved, could be used as one space.

b: standard classroom of 63m² for 30 KS1 and 2a pupils. Here, two computers provide network access. A role play area is shown. A carpeted area allows for circle time and gathering space around the whiteboard etc.

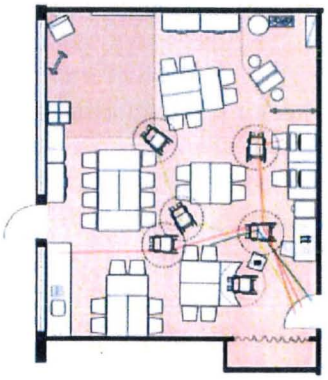
c: standard classrooms of 63m² for 30 KS2b pupils. A small carpeted area allows for floor based construction work and space for pupils to gather in front of the whiteboard. Two networked computers and a run of shelves and racks for books create a reference area.

d: shows a more formalised layout which may be necessary for some activities in years 5 and 6 (KS2b), using the same furniture as (c) above. Here all pupils face the whiteboard.

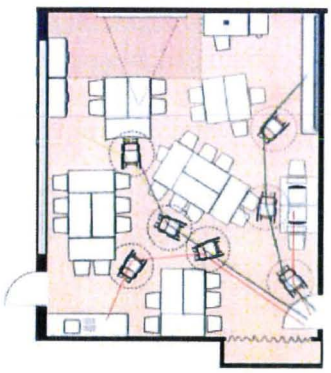
a: standard classroom at 70m² for 30 reception pupils.



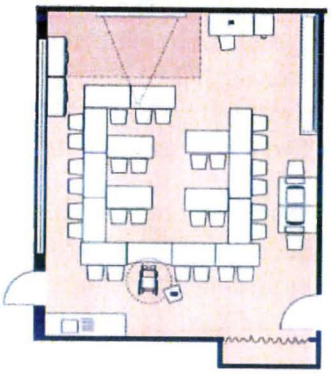
b: standard classroom of 63m² for 30 KS1 and 2a pupils



c: standard classroom of 63m² for 30 KS2b pupils.



d: alternative layout of (c).



## Shared teaching areas

A shared area is often located alongside two or three classbases, as shown in Figure C.5, where it provides additional space away from the classbase but easily supervised. As it is essentially an open area it should be possible for it to be supervised from adjacent classbases, so that pupils can spill out of their classbases for additional activities. It often houses messy, practical activities and is therefore often equipped with a sink and fixed standing height benching.

Historically a shared area has often doubled up as a circulation route to classrooms. For most effective use of the space, however, it is recommended that it is distinct from any circulation, enabling pupils to use the space freely without distraction. Using the range given in zone A, up to 12 pupils can be accommodated in the area, although the area given at the bottom of the range may offer few opportunities for anything other than a standing height worksurface with sink and one large table. A shared area may also provide ICT facilities if the school feels they are an appropriate activity for pupils to carry out without direct supervision.

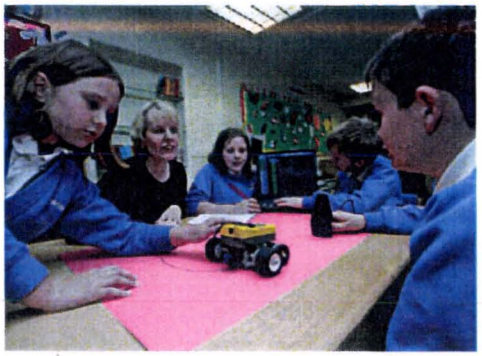
## Specialist practical spaces

The practical activities needed to teach science, design and technology (including food) and art, (i.e. scientific experiments, food preparation, control technology and large-scale constructions) can be: taught in large or standard classrooms; allocated to two or three smaller classrooms; or in specialist teaching spaces.

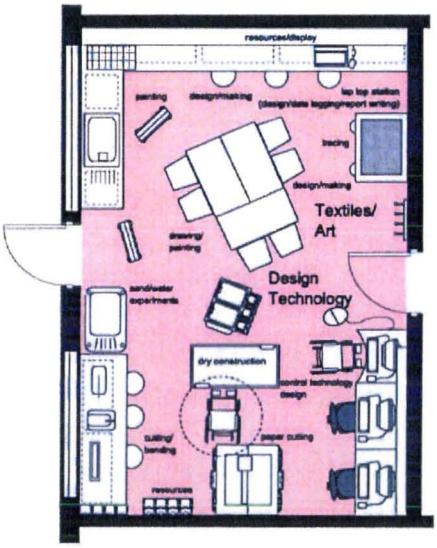
Recommended areas for such specialist spaces, which should be accommodated within the total basic teaching area (zone p), are in zone D as shown in Figure C.4. These spaces allow specialist resources that it would be difficult, costly or impractical to provide in every classroom.

Specialist practical areas have often been designed for groups of six to eight pupils. This may continue to satisfy the teaching methods of the school, for instance if groups of pupils carry out different activities within the same project. Nowadays, however, these spaces are likely to be more effective if they are large enough for half a class.

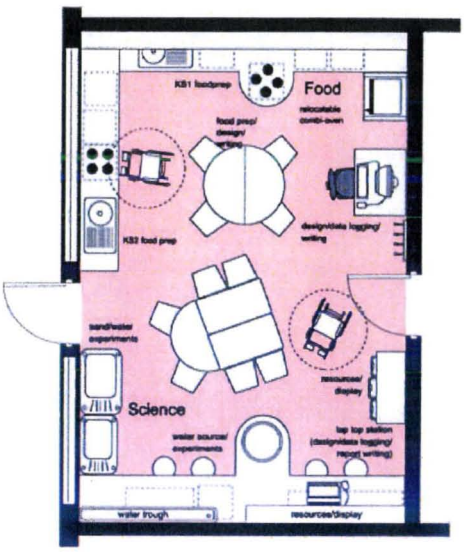
The diagrams in the outer margin show how one space of 38m² can accommodate one or more specialist practical activity, using different furniture and equipment to create a variety of environments for up to 15 pupils.



a: 38m² room for art and design technology.




b: 38m² room for food and science activities.



If the school requires a specialist practical area, its location should be determined early on. Discrete rooms will require a teacher in attendance, whereas practical 'open' bays will allow partial supervision by a teacher or assistant, depending on the activity. Discrete rooms allow for better use of space (more wall space is available) and concentration by pupils but must only be introduced if the school feels it can provide teaching staff to operate them.

## ICT bases

Currently, the most common configuration is for some formal ICT to be taught to a whole or half-class group in a separate room with a provision of 15 to 30 desktop computers. Zone D in Figure C.4 gives area ranges for this space. Other ICT activities are usually carried out either in classrooms, as they allow the teacher to monitor pupils more closely, or in shared teaching areas group rooms in more informal areas, such as libraries and bays in corridors. In larger classrooms, battery-operated laptops can be used, with a bank of desktops providing occasional internet access. However, as technology becomes more reliable and electronic whiteboard use more widespread, some schools are choosing to use portable and wireless technology to teach a whole group of 30 pupils in the classroom. The provision of 30 laptops has little effect on the size of the classroom but may affect storage provision. Such an approach should be determined early on in the briefing process (see page 19).

The type and location of ICT used by pupils will have an impact on the overall design of the building, both now and in the future. If an ICT suite is preferred, it can be used for something else later in the future if wireless laptops or tablets are to be used in the classroom. As laptop and tablet computers take up little space, the room currently required as an ICT base can be usefully converted into a specialist practical space in the future – particularly if it has services such as water and drainage readily available.

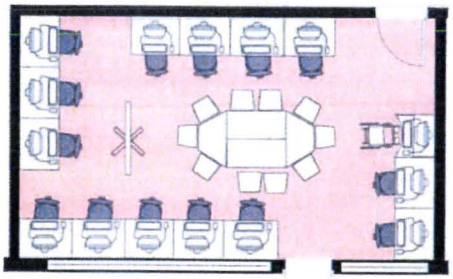
Alternatively the area used for the ICT base could be used to allow bigger classrooms. The diagrams in the outer margin show two layout options for an ICT room that at 38m² can be adapted for future specialist practical use if the school's approach to ICT learning changes. The layouts assume use by half-class groups of 15.



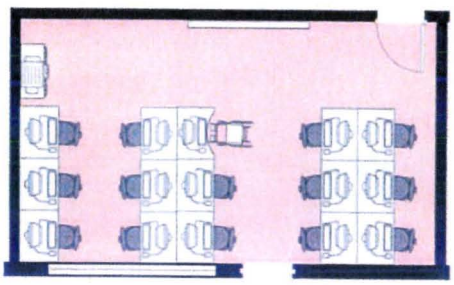
**Hint:** if ICT, practical and music activities are accommodated in timetabled spaces, the minimum size of classrooms can reduce as the age increases. In projects using existing provision, therefore, it would be sensible for the later year groups to be in the smallest classrooms and vice-versa.



a: Perimeter based layout with a central 'free' area for demonstrations, notes and discussion.

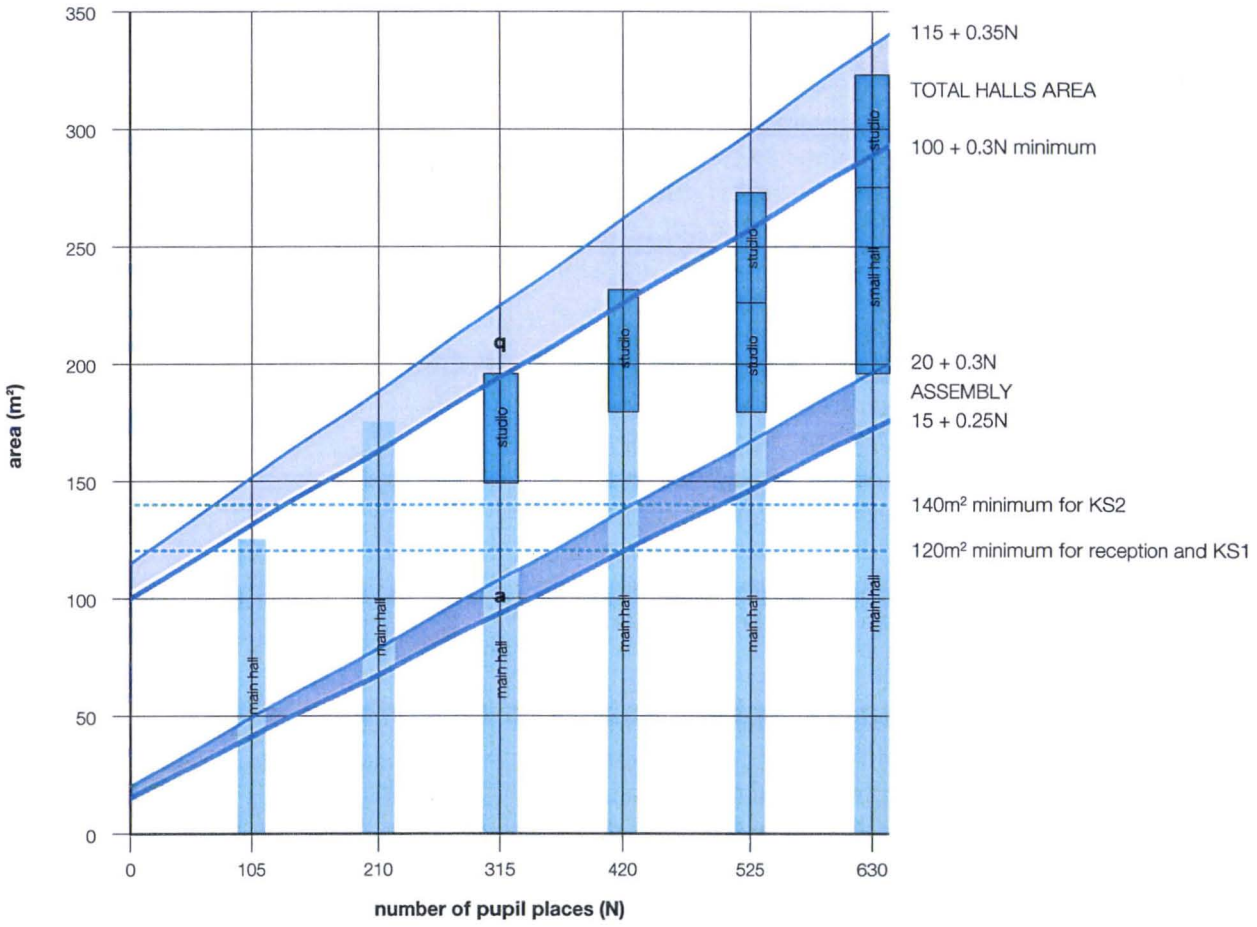


b: Peninsula based layout, here teaching and demonstrations can be done at ICT tables.



## Figure C.7: sizes of halls

Graph shows the recommended area for halls for any primary school. Zone a shows the area needed for assembly, with the bottom of the zone being the minimum for infants and the middle of the zone the minimum for juniors to assemble. The graph can be used to show how many pupils can assemble in a hall. For example in a 630-place school a hall of 140m² would be sufficient to assemble four year groups (or KS2) but a hall of 190m² would be needed to assemble the whole school. The dotted lines show the minimum size of hall for PE for both infants and juniors. Zone q shows the total halls area with the graph as a whole indicating the possible breakdown of this allocation.



# 2: Halls and studios (zone q)

Halls and studios are unfurnished spaces that have particular height, finish and acoustic criteria, and blackout facilities where necessary.

In any primary school, the total area for halls and studios should include:

- a main hall of at least 120m²[1] for infants or 140m² for juniors, sufficient for PE and dance (ideally with a sprung floor and some wall mounted PE apparatus), assemblies of the whole school at one time, public performances, parents' evenings and community events;
- an activity studio of at least 45m² in schools with more than 300 pupil places, for music, drama and 'circle time' if required;
- an additional small hall[2] of at least 80m² in schools with more than 600 pupil places, for PE without apparatus.

These spaces may also be suitable and popular for community use, and this should be considered when specifying their location and other requirements. The hall is also likely to be used for dining, and will need a servery and kitchen adjacent (see page 49).

Where the space within zone q permits, or where further funding is available, the main hall can best suit community use outside the school day by being a 'one-court' 180m² sports hall designed to Sport England's specifications,[3] including the critical minimum dimensions for a badminton court of 18m x 10m x 6.1m high[4];

The graph in Figure C.7. shows how these spaces could fit within the recommended zone for halls in primary schools. In some sizes of school, decisions need to be made as to the use of the 'float' area (see page 1 note 2), which may be used to contribute to the main hall and create a 'one-court' sports hall.

The briefing team should consider where pupils will eat lunch, and the type of catering that will be provided. In a 420-place school, the studio space is needed because the hall is assumed to be out of use for around 30% of the school day for setting up and serving lunch. However, it could be available full-time and the studio space, and/or classrooms could be used for dining (as in Appendix 2). In a 630-place school, the studio and small hall may be used, although this will depend on the location of the kitchen.

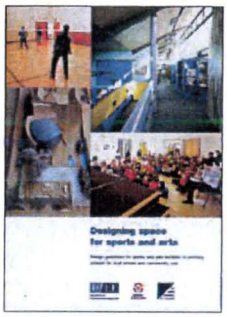


**Hint:** Health and safety considerations should be paramount and close supervision is normally required. Wherever possible furniture and equipment should be of an appropriate size for the age range.

1. Refer to the DfES school of the future guide, 'Sports and PE in Schools' 2005, available from Stationery Office.

2. Halls are generally over 75m², with high ceilings. See net capacity guidance at **www.dfes.gsi.gov.uk/netcapacity**

3. Refer to Sports England Technical Guidance Notes and 'Designing space for sports and arts'. See **www.sportengland.org/resources/resource_ downloads.shtml**




4. A larger area may be provided for some uses if further funding is available. See Sports England guidance notes 'Sports Halls: Sizes and Layouts' (ISBN 1 86078 108 X) and 'Sports Halls: Design' (ISBN 1 86078 094 6). Alternatively, a smaller space can be used for some community uses but not badminton.

# 3: Storage (zone r)

The total area of storage must include: coat and bag storage for all pupils' personal belongings, equivalent to at least 3m² per class[1]. Coat and bag racks may be located in classrooms, in separate cloakrooms or in corridors[2]. The location is also determined by the routes used to access classrooms from the playground.

Total storage areas should include the following **teaching storage**:

- **full height, lockable storage**[3] of at least 1m² for every classroom[4], easily accessible by staff (but not pupils), for resources such as valuable or hazardous items;
- **specialist walk-in stores** for shared curriculum resources: at least two 6m² storerooms in any school, accessible ideally from a corridor or shared teaching area, for numeracy, literacy and practical subjects such as science, design and technology and art;
- **indoor and outdoor PE equipment storage** opening onto the long side of the main hall and accessible from outdoor PE facilities, totalling at least 10% of the area of the hall[5].

It is important that defined teaching storage is provided to avoid the usable area and flexibility of the teaching spaces being compromised[6].

Other **non-teaching storage** should include:

- **secure storage** for valuable items such as school and personal records, usually located off or near the school office;
- **central storage for disabled pupils'** mobility equipment and aids and for storage of bulk stock, such as pens or paper or staging;
- **storage for maintenance equipment** and cleaners' and caretaker's equipment;
- **a chair and table store** when the hall is used for dining. This may be positioned between the kitchen and hall, although it can double up with the servery.

And may include:

- further separate storage for community use if appropriate. This may include lockers and long-term equipment storage, for instance if the hall is to be used for sports activities out of school hours. An additional resources store may be required if after school/holiday clubs are run by separate providers.



1. The Education (School Premises) Regulations 1999 require schools to provide ... "appropriate ancillary facilities in particular: (a) for the storing and drying of pupils' outdoor clothing and for storing of their other belongings."
2. For fire protection reasons ideally in circulation routes that are not dead ends.
3. Full height storage or storage units above 2.1m high, whether in the form of furniture units or walk-in stores, should be classified as storage in any schedule of accommodation or capacity calculation and count as non-teaching area for the purpose of area calculations. Full height storage, such as lockers, coat and bag stores or cupboards, should be counted as storage area rather than teaching area.
4. Most teaching resources in the classroom will generally be stored in additional low level furniture, allowing access for both teachers and pupils, and also allowing plenty of top surfaces for the display of resources or work. The DfES Furniture and Equipment guide gives advice on furniture issues at **www.teachernet.gov.uk/fande**
5. This is a minimum figure. Sports England recommends 12.5% and a minimum of 45m² for a one court hall. Note fire containment issues for mat storage.
6. For instance by PE equipment permanently stacked in the hall.



# 4: Staff and administration (zone s)

The staff and administration area sits mostly within non-teaching area. The diagrams in the outer margin look at layout options for these spaces. The total staff and administration area must[1] include:

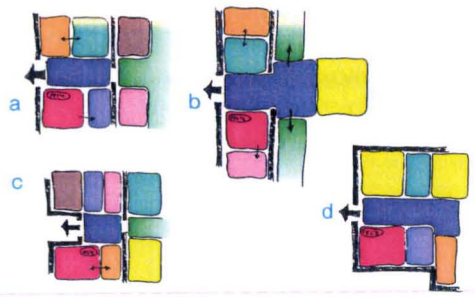
- an office for the head teacher of at least 10m²;
- a medical inspection (MI) room, which may also be used for visiting therapists or other support for pupils with SEN and disabilities, if there is a 'sick bay';
- a work and social space for teaching staff, usually in the form of a central staff room for work and social use. Diagram a in the outer margin of page 43 shows a notional layout for a combined space with designated ICT area and free tables for laptop and general work. Storage units for teachers' personal possessions and papers can be included, particularly for visiting staff who may not have a class base, however this will depend on the school's policy.

And should also include:

- offices for other senior teaching staff, such as the deputy or assistant heads, who may need privacy for interviews and pastoral support;
- a main office for administrative staff, with storage space for confidential records and a link to reception;
- a secure reception area, with access to the rest of the school controlled by the office staff;
- separate reprographic facilities[2].

It may also include:

- an interview/meeting room[3], ideally adjacent to the entrance foyer so that it can be used by visitors without them entering the main school. This could be linked to or shared with a parents' room;
- a caretaker's office;
- a 'sick bay', near to the reception and main office, for pupils who are ill and waiting to be picked up (this is different to the MI room above).




Key:
- = general office with reception
- = headteacher's office
- = interview/meeting room
- = parents room
- = MI/therapy room
- = sick bay
- = staff room
- = primary circulation
- = secondary circulation

a: A reception area is flanked by the office and Headteachers room. The Headteacher's room has a moveable acoustic partition link to a larger interview room for staff or parental meetings. A secondary circulation area provides security for the rest of the school, here, parents who participate in school activities and visiting medical staff can be accommodated.

b: A reception area opens out into a circulation area to the rest of the school. A separately secured secondary circulation route is not shown. Administration areas run along the front of the school, a staff room is located further into the centre of the building.

c: Reception sits by the main entrance, linked to the headteachers office. A secure secondary circulation area has the staff room and meeting room off it, the meeting room could act as additional space for staff when required. A parents' room sits at the front of the school for ease of access.

d: This layout does not show a secondary entrance to the school. Here, the staff room is at the front of the school, offering a link with admin and the Headteacher. The staff room is split between a work area (at the front) and a social space, in between is a meeting room, which is linked via moveable acoustic partitions so as to create a large space for whole staff meetings and functions.

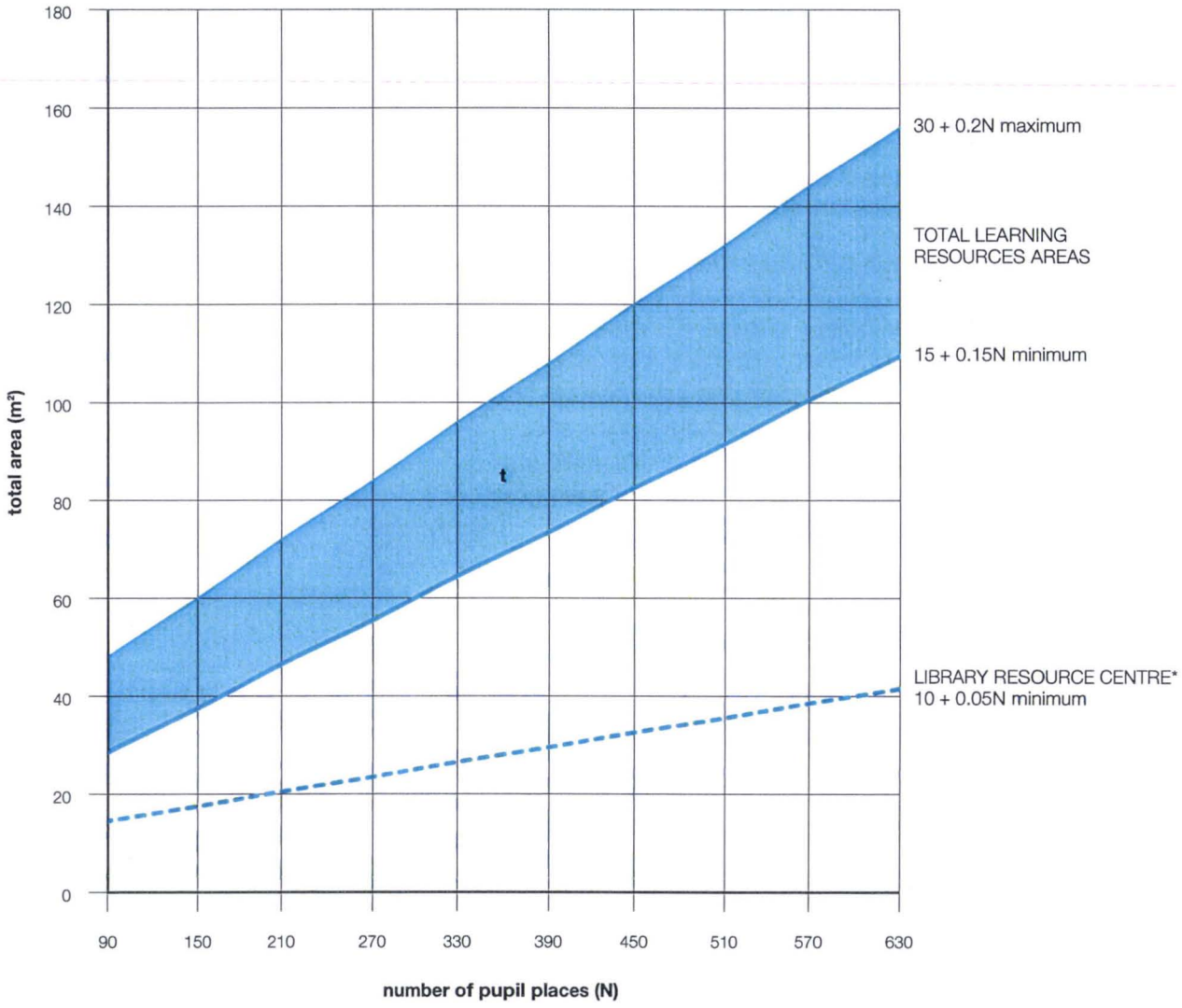
1. The Education (School Premises) Regulations 1999 require any primary school with over 120 pupils to have an office for the head teacher, and all schools to have an MI room and space for staff to work and socialise.

2. Reprographic facilities, and possibly ICT printing services, can usefully be positioned in a central room (but not in circulation areas) with appropriate staff and ventilation services available.

3. If there is not a meeting room, the head's office will usually need to be at least 30m² for meetings. A separate meeting room has the advantage that it can be used while the head's office is occupied.

## Figure C.8: total area of learning resources

Graph showing recommended learning resource area for any primary school (zone t). The dotted line indicates the minimum area for a single library, which is counted within zone t.




* This area is not included within Zone t alllocation.

## Staff room

A staff room is usually centrally located and often provides both a work and social space. Alternatively there may be separate work and social spaces. A combined space does, however, tend to be more efficiently used. The diagrams in the outer margin show two different approaches to staff provision, one which allows work to be carried out in the staff room and one which presumes most staff work is classroom-based but has provision for whole staff meetings and socialising.

# 5: Learning resource areas (zone t)

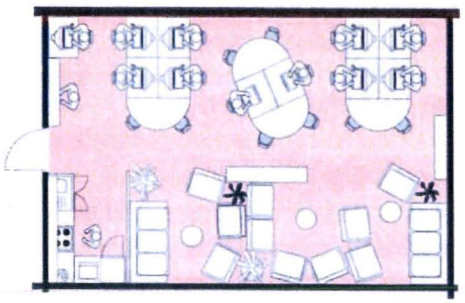
Figure C.8 (previous page) and C.3 on page 26 shows the total recommended area for all learning resources for any primary school (zone r). The higher end of the range could apply to a school with a large number of specialist support spaces, such as small learning resource-related group rooms, to suit a high level of inclusion. Figure C.8 also shows the minimum area for the library resource centre[1] as a separate entity for any primary school.

Learning resource areas are generally spaces used for informal learning and shared by the whole school. The total area for this category of space should include:

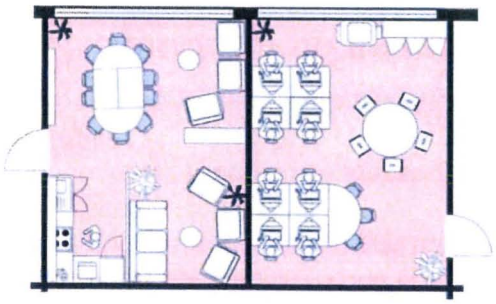
- at least one **library** totalling a minimum of 10m² plus 0.05m² for every pupil place;
- at least one **small group room**: these rooms will be used as SEN resource areas for learning, will accommodate up to six pupils and will provide facilities away from the classroom for a small number of children to work with a teaching assistant, peripatetic teacher or counsellor;
- a further **small group room** for the nursery, where there is one, for quiet activities such as storytelling or withdrawal of individual children.

Learning resource areas may also include:

- an **SEN resource base** for learning, behaviour, therapy support and case conferences. The large group room would generally be towards the top part of zone r for up to 10 pupils.



a: A combined staff and social space suitable for a 420-place school, assuming no more than 30 staff using the space at any one time.



b: Separate social and work spaces allow teachers to work without distraction in non-contact time during the day. Here it is assumed that no more than 20 staff will socialise at any one time. However, provision is made for up to 30 to gather for occasional meetings.

**Hint:** part-time and peripatetic administration staff may share the same workstation if they each have separate storage space.



1. The library resource centre will include books, maps, CD-ROMs and artefacts available to the whole school. For more information see Cambridgeshire library service at **http://www.cambridgeshire.gov.uk/leisure/libraries**

## Library

A school may choose to provide one library, or to disperse several areas around the school. Alternatively they may choose to provide two libraries, one for the infants and one for juniors. Providing separate areas can, however, lead to duplication of resources and staff – this must be weighed against the accessibility, supervision and ownership advantages of local resource areas. Small resource-based group rooms, which are particularly important for the inclusion of pupils with SEN and disabilities, may be centrally positioned, while others may be more dispersed.

## Small group rooms

These rooms usually allow an enclosed space for small groups (usually of around four to six pupils) with a teaching assistant, peripatetic teacher or counsellor, or for particular pupils to use as a quiet space. These group rooms, which are particularly important for the inclusion of pupils with SEN and disabilities, could be dispersed throughout the school and accessible directly from adjacent teaching spaces, as they may be need to be used on an ad-hoc basis. Alternatively, they may be centrally located for ease of access for all. Areas recommended in zone A in Figure C.4 should be used. A range of group room sizes can increase the range of uses but will use some float.



**Hint:** Some schools in the past have provided an enclosed large group room for floor-based work, in lieu of carpeted areas in classrooms, shared by two or three classes. This would count towards basic teaching area (ultimately taking space away from the classrooms). Zone A in Figure C.4 would suit this large group room, but it would not easily accommodate the activities currently required for numeracy and literacy.



# Non-net area of buildings

The non-net area comprises the five categories of space listed below:

1: Toilets and personal care (4 to 7% of net);

2: Kitchen facilities net[1] (zone K);

3: Circulation (20% to 25% of net);

4: Plant, such as boilers (2% to 4% of net);

5: The area of internal walls (4% to 7% of net).

The first two categories of space will depend on the number of pupils, community use and, for kitchens, the type of catering arrangements in the school. The last three categories will generally be directly proportional to the net area, and as such, are presented as a range of percentages of total net area. It is therefore important to include any supplementary net area in the total net area before calculating the requirement for these areas.

**The total area for each of these categories should be at least the minimum recommended in this bulletin.** However, if any of the individual categories are insufficient for the site (even if the total non-net area is enough), or if some categories are disproportionately large, **this is likely to compromise the best use of the buildings.**

An area greater than the minimum but within the zone or range above will usually be required for each category. The overall recommended gross area of between 140-145% of the total net area (such that net area is between 69-71.5% of gross) allows for the area of each category of space to average around the middle of each zone.



# 1: Toilets and personal care

The total area of toilets and personal care facilities must include:

- pupil toilets: at least one for every 20 pupils aged 5 to 11[2] and one for every ten full-time equivalent nursery places. In primary and middle deemed primary schools, the number of washbasins should equal the number of sanitary fittings in each washroom;
- separate staff toilets: two for the first 25 full-time equivalent members of staff and another one for every further 25[3] (not including catering staff). In the case of a small school with a majority of female teachers it may be an option to make one of the two toilets unisex;

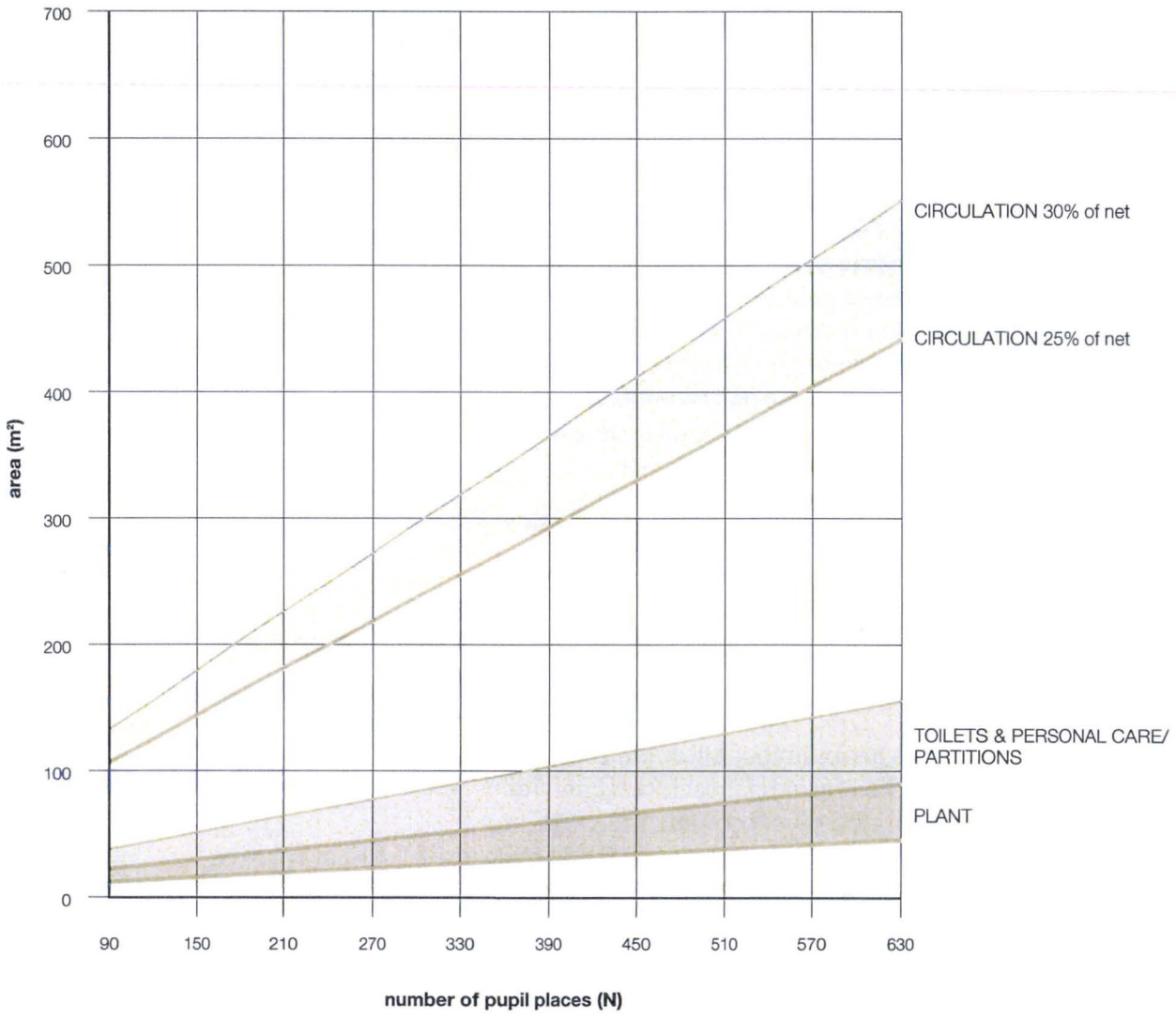
1. zone k does not allow for a servery area

2. The Education (School Premises) Regulations 1999 require one toilet for every 20 pupils (rounded up to the next whole, even number).

3. Appropriate provision for staff is suggested in the Workplace (Health, Safety and Welfare) Regulations 1992, Approved Code of Practice.

## Figure C.9: Non-net areas

The graph shows approximate recommended standards for non-net areas, assuming no supplementary net area. Zones in the graph are based on a percentage of the recommended net area, as on page 26.



- **accessible toilets** for disabled pupils, staff or visitors.[1] Toilets for the disabled may count towards staff provision.

Toilets and personal care should also include:

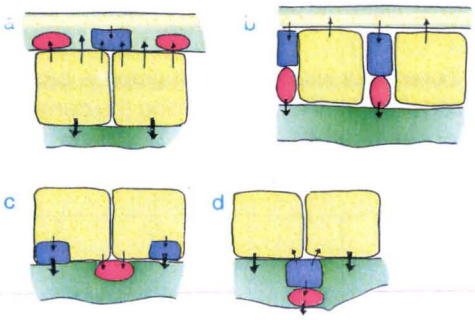
- a **specialist hygiene** room containing a shower, sluice, toilet, a changing trolley, fixed or mobile hoist and space for assistants. If it is adjacent to the nursery playroom then it could also be used for the general hygiene requirements of the nursery.

Some of the spaces listed above may be required to allow for:

- **adult community** use outside the school day, for instance to provide changing facilities to complement the hall[2];
- **changing facilities** for pupils – schools may consider these to be a priority, particularly for older pupils, and may wish to use their 'float' to provide specific facilities. Appendix 3 shows a sample schedule of spaces with changing room provision[3];
- particular **religious requirements**, including orientation and ablutions.

The location and design of toilet and hygiene room facilities should balance the demands of both privacy and adequate supervision. Toilets should have separate cubicles and separate facilities for boys and girls. In washrooms solely for boys, up to two-thirds of the fittings may be urinals. Lavatories for nursery pupils are usually grouped within easy reach of the teaching/play space as well as the playground and can be unisex. The design of the partitions should allow some privacy for children and space for adults to give assistance. Partitions should, however, allow teachers to supervise children from teaching/playroom spaces if necessary.

The size, location and design of toilets can have an impact on the potential for bullying. Supervision and inclusion are also concerns. The options of one or two central toilet 'blocks' or smaller facilities for every pair of classrooms should be carefully considered early on in the planning process. Similarly, direct access to the toilets from the classroom and the playground are also early decisions. The diagrams in the outer margin look at options where coats and bags storage and toilets are directly located off classrooms.




Key: = class base
= external circulation
= internal circulation
= toilet block
= coats and bags

a: Each class has its own toilet with a coats and bags lobby shared. Access to both is from the classroom only. The position of coats and bags storage assumes that children arrive at school via external doorways.

b: Access to external areas is via a coats and bags lobby for each classroom and assumes that children arrive at school via external doorways. Shared toilet block is accessible from the classroom only.

c: Toilets and coats and bags storage for each classroom are back to back, with access to coats and bags via the corridor only (this assumes pupils arrive at school using internal doorways). External access is possible via coats and bags lobby, this frees up the external classroom wall for a variety of furniture layouts.

d: Access to both toilets and coats and bags is possible during playtime. An additional exit via the classroom is also shown, to ease congestion. Both blocks would, however impede on the playground layout.

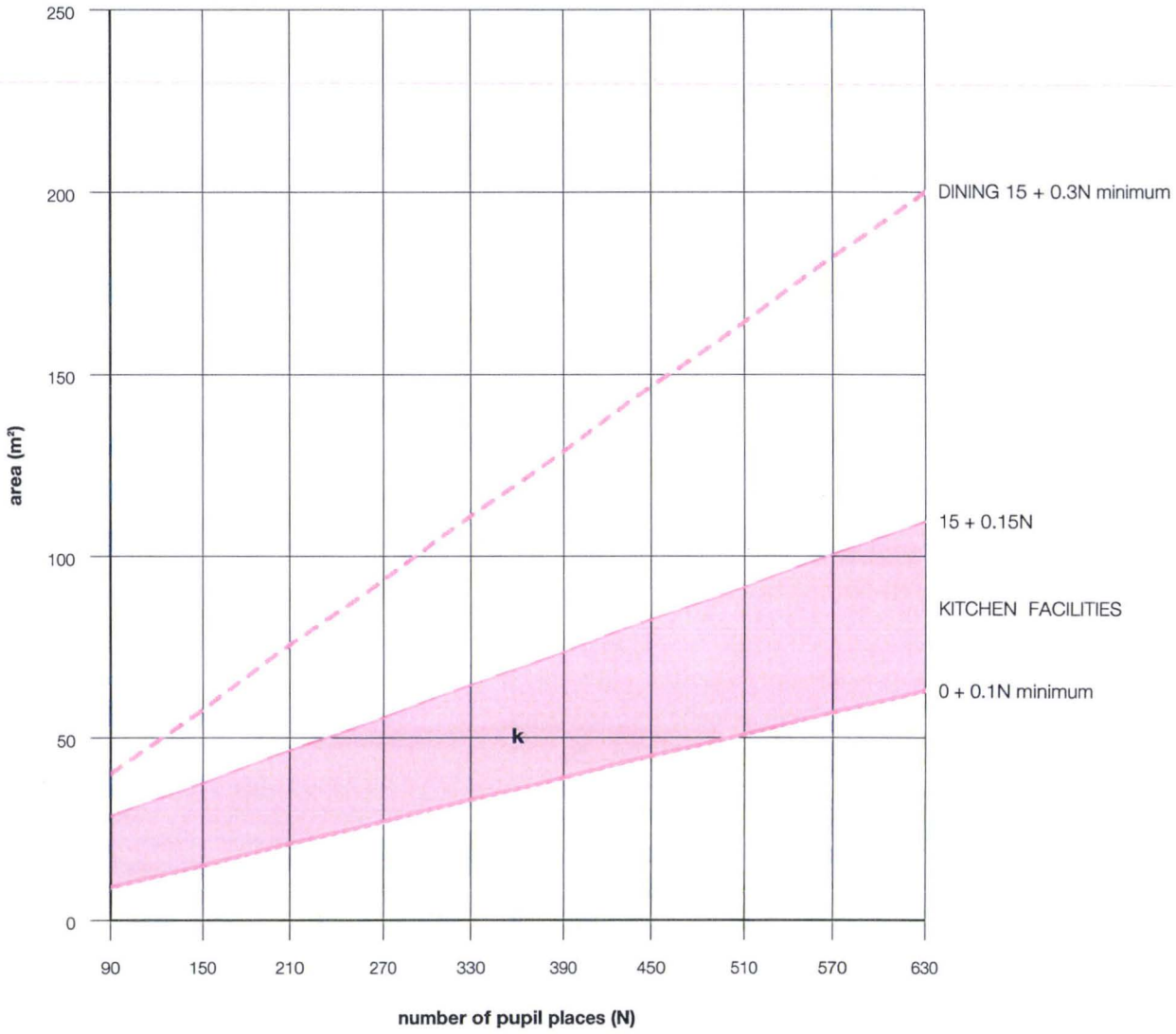
1. Refer to Building Regulations, Approved Document M and BS 8300.

2. For information on changing facilities for community use see Sport England guidance note 'Sports Halls: Design' (ISBN 1 86078 094 6).

3. Changing rooms for primary schools are not generally provided with showers, and as such should be counted within the net area.

## Figure C.10: Kitchen areas.

Zone K for kitchens in the graph is based on the number of places. The broken line above shows the area required for dining, assuming the corresponding number of pupils eat in the equivalent of three sittings.



# 2: Kitchen facilities (zone K)

The kitchen area must[1] include:

- facilities for preparing food and drink, and washing up afterwards[2].

Where the kitchen is used to prepare hot food for pupils, it should also include:

- adequate facilities and area for safely preparing and cooking food;
- facilities for catering staff, including changing areas, toilets and a chef's office;
- separate facilities for storing cleaning materials in accordance with COSHH[3] regulations;
- separate secure storage for dry goods;
- refrigerated and freezer cabinets or rooms;
- adequate circulation for goods in and waste out;
- further space will be required to provide for a servery area[4].

The size of the core preparation area will depend on the equipment needed, which in turn will depend on the type of preparation system to be used, from traditional through cook-chill to pre-prepared food, and also the effective number of sittings. Specialist advice from a kitchen designer should be sought early on in the project to ensure that the space allocated is sufficient and appropriately shaped and located.

The graph in Figure C.10 shows a range of areas for kitchens. The areas give in the lower end of the range would be suitable only for the preparation of drinks and basic food such as sandwiches[5].



**Hint:** Appendices 1, 2 and 3 assume there is a separate dining furniture store and servery area. If these form the same space, with easy access to the dining room, then they can be used more efficiently

1. Some primary schools have no kitchen facilities for hot meals, while others act as a catering centre providing a number of surrounding schools with meals. The range of possible areas needed therefore varies widely.

2. The Education (School Premises) Regulations 1999 require school buildings to be 'adequate to permit the provision of appropriate ancillary facilities for the preparation or serving of food and drinks and the washing of crockery and other utensils.'

3. If this is part of the kitchen then an area should be identified as part of servery allocation. See HSG 97, A Step by Sep guide to COSHH Assessments (revised edition), HSO Books, 2004

4. **What is a servery?** the area taken up by food cabinets, tray returns, tills and area for catering staff.

5. At the time of writing the DfES are planning to issue design guidance on kitchens and dining rooms. See **www.teachernet.gov.uk/schoolbuildings** for more details.

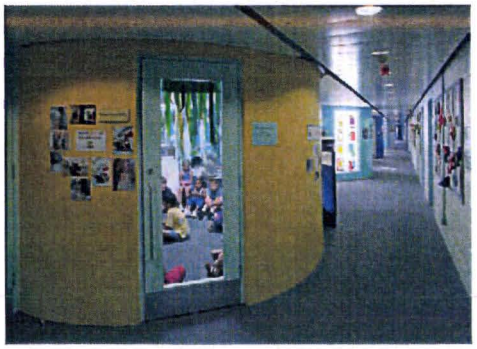
**Hint:** Effective and creative use can be made of circulation area, from spaces for informal gathering and display of work off corridors to atria. However, ensure that any extra space can be effectively used if it is to be heated, lit and maintained.

## 3: Circulation

An area equivalent to at least 20% of the total net area (including any supplementary net area) will be required to ensure that:

- all rooms except storerooms are accessed from a circulation route[1]:
- corridors leading to more than two teaching rooms have a clear width of at least 1.8m (preferably 1.9m in new schools);
- smaller corridors have a clear width of at least 1.2m.

Ideally long corridors should have regular indents or passing places in them, particularly in schools with wheelchair users.



**Hint:** When considering the brief for a complete overhaul of a school, ensure the needs of all stakeholders are included, to avoid any current temporary provision having to remain for the want of funding.

## 4: Plant

An area equivalent to at least 2% of the total net area will be needed to accommodate boiler rooms and a server room in larger schools. Further area will generally be needed if ventilation plant, chimneys or vertical ducts are included in the design. This allocation includes a server room, which may need to be cooled and should be large enough to access the equipment inside.

## 5: Internal walls

Internal walls[2] will occupy an area equivalent to at least 4% of the net area, and up to 7% if the walls are wider to allow for acoustic separation and/or to provide thermal mass. Sliding/folding partition walls must be included in the calculation.



## Supplementary areas

The briefing team should assess whether there is a need for any supplementary net area within the project[3]. It is important to note that a dedicated, additional funding stream needs to be identified for any supplementary net area (unless it already exists in appropriate accommodation), as discussed in relation to extended schools provision on page 19.

1. Circulation area can be the routes within a larger room or atrium, and the remaining area will count towards the usable net area of the school if it is wider than 1.2m. See 'Assessing the Net Capacity of Schools' DfES/0739/2001 REV at **www.dfes.gov.uk/netcapacity**

2. The area of internal walls is included in the measured internal gross area of the buildings.

3. Non-school and support functions require further area over and above the recommended net area. They are not expected to be included in the float.

There are three types of spaces that fall within the category of supplementary area:

- *area to accommodate the enhancement of school facilities:* this will include spaces which have been enlarged beyond the recommended 'standard', for instance to allow for spectators or national standards in the sports hall or changing rooms as part of the sports-hall provision;
- *area to accommodate extra support facilities:* this will include separate spaces available to the school for specific uses, such as a sensory support unit for disabled pupils; and
- *non-school provision:* this is separate space on the school site not normally available to the school, for example facilities for adult education or community use during the day.

Figure C.11 below lists some of the most likely types of non-school or support facilities that would need supplementary area, and the possible funding sources that would cover this.

Although this bulletin does not include recommended standards for the supplementary net area, it is very important to include the desired allowance for supplementary net area in the total net area and the accommodation schedule. This will ensure that the allowance for the related non-net area is sufficient to allow for the circulation, plant and internal walls.

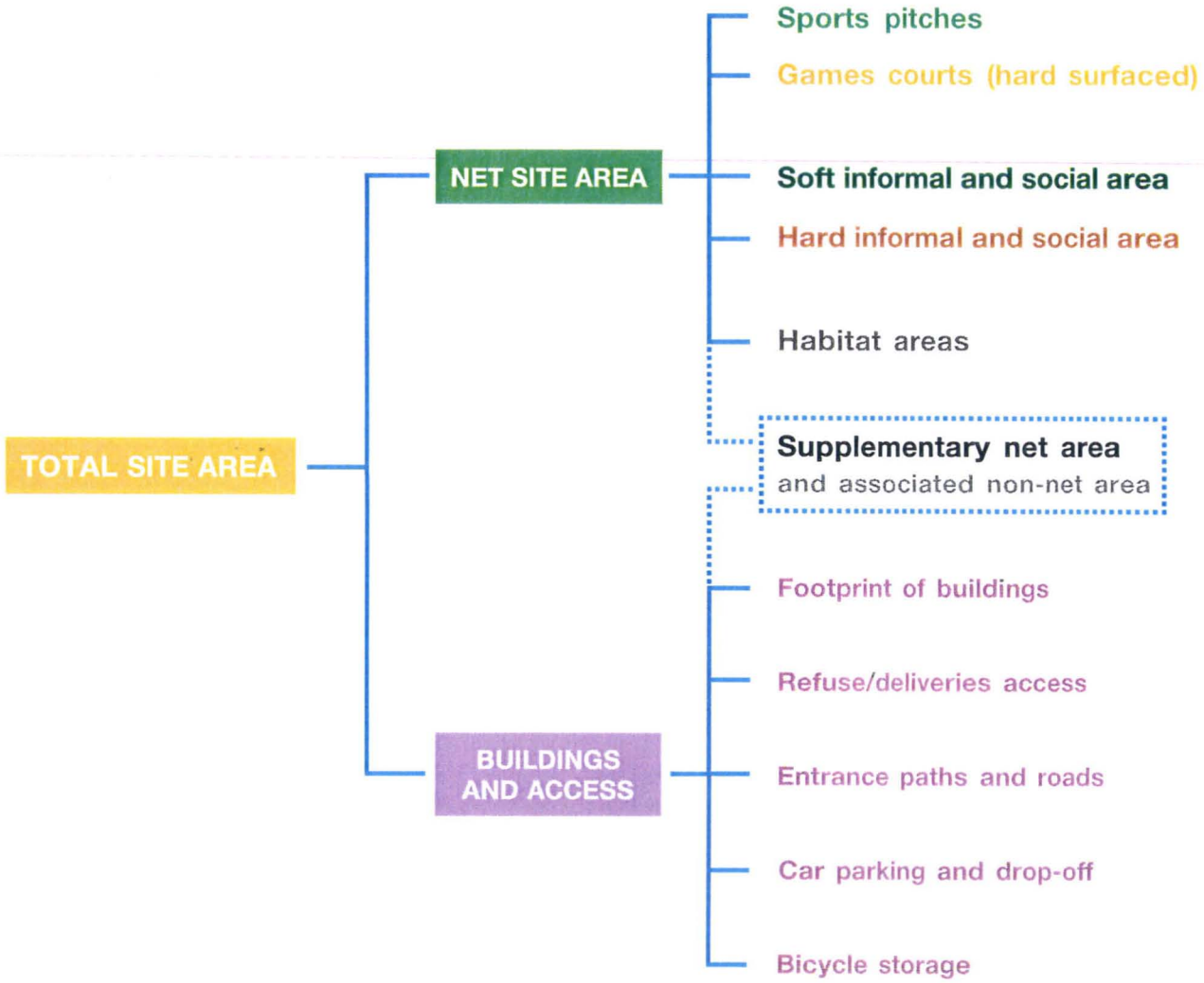


## Figure C.11: Types of supplementary net areas and sources of funding

The table below gives examples of facilities or provision that would normally require supplementary net area, and a proportional amount of non-net circulation, plant and internal walls. These are listed under headings that match those used to identify area that is measured but excluded in net capacity assessments.

| Examples of supplementary net areas | Likely funding |
|---|---|
| • Facilities for 0 to 3 year olds and 'wrap-around' care; | Sure Start |
| • Nursery facilities for 3 to 4 year olds; | Early Years/LA |
| • Specially resourced provision for pupils with SEN or disabilities; | LA |
| • Centres for LA Services, such as staff training; | LA |
| • Extra facilities to allow community use during the school day or not available to the school (such as a club room); | LA leisure or local community groups |
| • Indoor swimming pool; | LA Leisure or New Opportunity Funds |
| • Chapel or prayer room (if it is not available to the school for normal teaching); | Voluntary aided governors liability or dioceses |
| • Health care provision | Primary Care Trust |

Figure D.1: Gross site area and net site area defined



# Part D: The Site

This part deals with the site area for any primary school school. School grounds are a valuable resource and have a significant effect on the ethos of the school and the quality of education pupils receive[1].

The total, or gross, area of the site can be separated into two categories:

- **net site area**, or playing field area, which can be accurately calculated from the formulae in Appendix 4 plus any agreed supplementary net site area, and
- **buildings and access area**, which will be more variable depending on the configuration of new and existing buildings and site constraints, but will generally increase in proportion to the net site area.

The total of these categories gives the gross (total) area of the site, as described in Figure D.1 on page 52.

The total site area required will depend on the position and layout of the site and the design of the buildings. Generally, the gross site area needed for a new 5 to 11 primary school may vary between 110% and 125% of the net site area (such that the net site area is 80% to 90% of the total)[2]. The net site area for infants' schools is likely to be smaller as there is no requirement for pitches. The gross site area may therefore be as high as 135% of the net site area (i.e. the buildings and access area is a larger proportion of the total site). An inclusive community school need not normally exceed the recommended net site area for the number of pupil places and age range of the school, unless pitches are provided off-site.

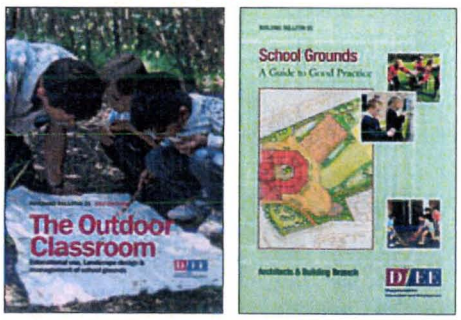
Further **supplementary net site area** may be needed if there are specially resourced supplementary non-school or support functions on the school site (for example an external play area for a community nursery). Conversely a need for supplementary net site area (such as a community all-weather sports pitch) may require a proportional increase in buildings and access area.

Defining the total site area is an important step for a new school. Figure D.2 on page 54 gives the recommended area formulae for gross and net site area. Reviewing the site area against the graph is also useful when considering alterations to an existing school. The range in the graph allows for variation in the shape and contours of the site, and size of the building footprint.




**Hint:** Site layout: dispersed buildings on the site can be easier for community access, and give identity to age related bases, such as foundation stage, and may provide better supervision of enclosed outdoor areas. Linked, concentrated buildings can offer internal circulation, more flexible use of the facilities and more long term adaptability.

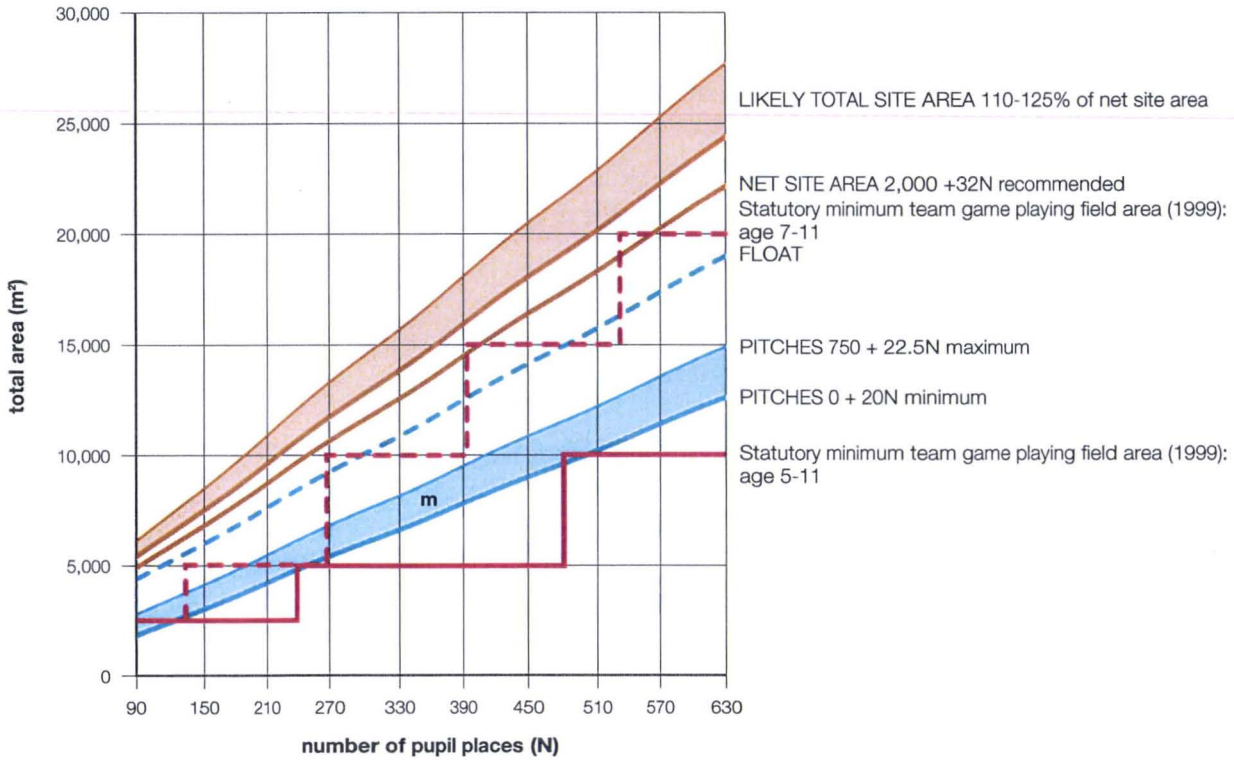
1. Building Bulletin 71: The Outdoor Classroom second edition, TSO 1999 (ISBN 0-11-271061-1) and Building Bulletin 85: School Grounds, A Guide to Good Practice, TSO 1997 (ISBN 0-11-270990-7), give advice on the educational design and management of external spaces.



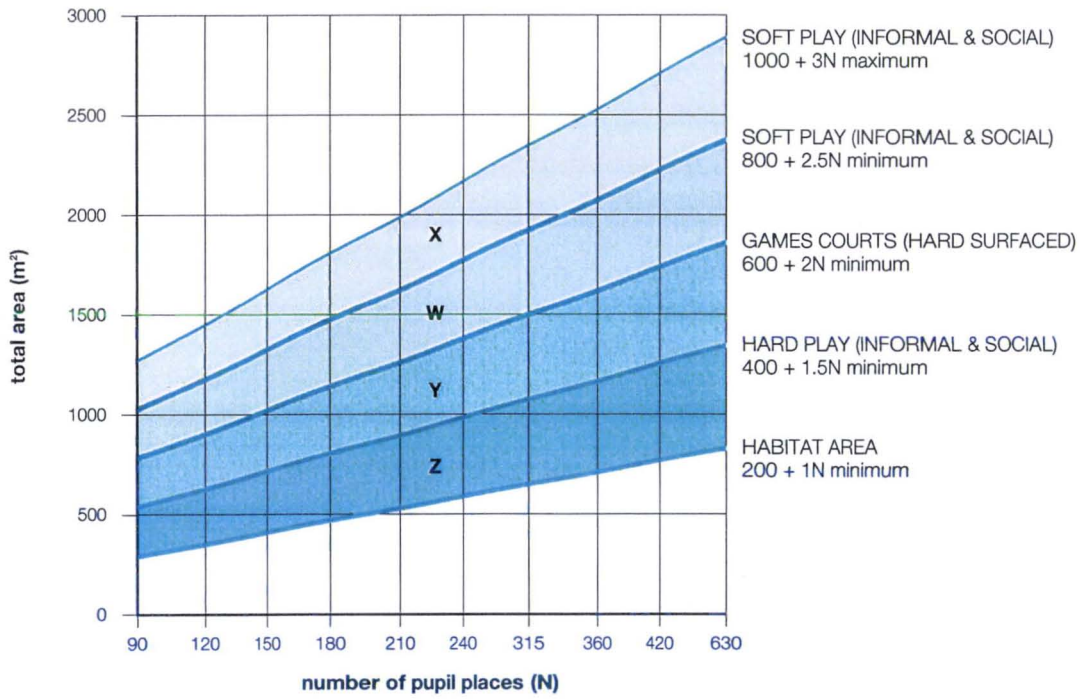

2. This calculation only relates to the total area of the site including playing fields. The proportion of buildings and access area on a confined site, or one where playing fields are elsewhere, will be much higher.

## Figures D.2: Site area

Graph a shows recommended standards for total and net site area and for sports pitches, for various sizes of 5 to 11 primary schools. Graph b shows the minimum recommended areas for games courts, informal and social area (soft and hard play) and habitat in any school.




## Figure D.3: Remaining four categories of outdoor play area



# Net site area

The net site area, known as the 'playing fields area' in some cases[1], is the total of the following five categories of space, plus any supplementary net site area needed for non-school or support functions.

1: Sports pitches
(in schools with junior pupils only) (zone M);

2: Games courts (hard surfaced) (zone W);

3: Soft play (informal and social) (zone X);

4: Hard play (zone Y);

5: Habitat areas (zone Z).

The bottom of each zone, which can be calculated using the formulae shown in Figures D.2 and D.3 on page 54, represents the minimum recommended area for that category of space.

**The total area for each of these categories should ideally be at least the minimum recommended in this bulletin** (i.e. the bottom of the zone)[2]. An area greater than the minimum but within the zone will usually be required for each category. The overall recommended net and gross area allows for the area of each category of space to average around the middle of each zone, through the provision of some 'float'[3], as with the buildings area.

**In confined sites**, the sports pitches area may be provided on a nearby site and/or through a single all-weather pitch. Where there are no other outdoor PE facilities on the site, a multi-use games area (see page 57) within zone W should be provided on the site, to allow easy access for outdoor team games. The area of the remaining three categories of space may only be achievable at the zone or area below that recommended for normal sites. Rooftop play areas or 'playdecks' may be another way of increasing the outside area available to pupils.





1. Section 77(7) of the School Standards and Framework Act 1998, which is designed to protect school playing fields, defines 'playing fields' as 'any land in the open air which is provided for the purposes of physical education or recreation, other than any prescribed description of land'.

2. In split sites the total area for each category should be applied across all sites . So, for instance, the sports pitches may all be provided on one site. Ideally, there should be some informal and social area on each site.

3. **What is the float?** When you add together the recommended minimum area of each category of space within the total net area, it will be around 5 to 10% less than the recommended standard as identified in Figure C.2. This difference provides the 'float' which can be used to enhance some areas, depending on the design of the site.

## Figure D.2: Typical site plan

A site plan of Kings Avenue School, with the various categories of net site area and buildings and access area shown.




Key:

1 sports – volleyball and tennis
2 junior play
3 outdoor classroom
4 performance space
5 rubber play and traversing wall
6 infant playground, talk tubes
7 visitor and maintenance
8 floodlit sports – football and basketball
9 landscaped courtyards
10 covered drop-off
11 external toilets and stores
12 staff and nature areas
13 car park
14 sensory planting
15 pergola/quiet area
16 changing rooms
17 external toilets and stores

(New buildings shown hatched)

# Outdoor PE facilities

The first two categories of net site area add up to the area used for Physical Education (PE)[1] and will generally match the statutory requirement[2] for 'team game playing field area' for pupils aged eight and over.

Careful attention should be given to the layout of pitches, courts and practice areas[3]. Their location, size and shape should be based on a number of considerations including the statutory requirements, safety considerations, gradient, relationships between winter-games pitches and summer athletics and cricket provision (as appropriate), orientation of pitches and accessibility[4].

## 1: Sports pitches (zone V)

The total area of sports pitches must include playing field area laid out to suit team games for pupils aged eight and over, including:

- winter pitches for the school's preferred team games, such as football;
- overlapping summer pitches, such as a 100-metre athletics track and facilities for field events.

All-weather pitches, including synthetic turf pitches[5] or polymeric surfaces[6], allow more intensive use than grass and, particularly with floodlighting, can also offer a popular year-round community resource.

The area of all-weather pitches can be counted twice for the purposes of these guidelines and regulations, as they can be used for significantly more than the seven hours a week required of team game playing fields.

## 2: Games courts (zone W)

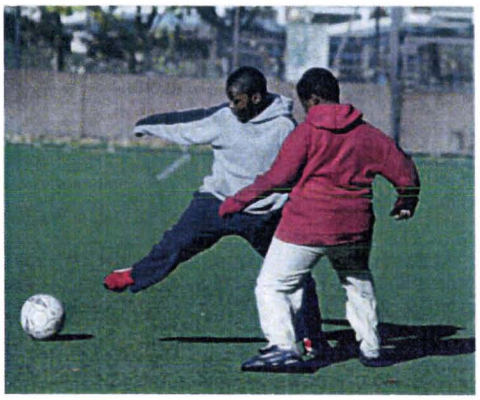
In new schools, the total area of hard-surfaced games courts should include:

- a multi-use games area[7] with a netball court overlaid, with critical dimensions of 22m x 33m plus margins.

Laying out a variety of courts within a single multi-use games area maximises space, makes supervision easier and extends the range of games.

In existing schools, a similar amount of hard-surfaced area should be laid out for games[8].





1. Refer to 'Inspirational design for P.E. and Sports Spaces' Schools for the Future series, 2005 Stationery Office.

2. The Education (School Premises) Regulations 1999 define 'team game playing fields' as 'playing fields which, having regard to their configuration, are suitable for the playing of team games and which are laid out for that purpose'.

3. Refer to Sport England 'Handbook of Sports and Recreational Building Design Volume 1: Outdoor Sports'.

4. Refer to Building Bulletin 91: Access for Disabled People to School Buildings, TSO 1999 (ISBN 0-11-271062-X), Building Bulletin 94: Inclusive School Design, TSO 2001 (ISBN 0-11-271109-X) and Sport England Guidance Note Access for Disabled People (ISBN 1-86078-149-7).

5. See Sport England Guidance Note no. 596: 'Synthetic Turf Pitches'

6. Such as shredded rubber bonded with bitumen, latex or polyurethane, on a base of concrete laid to fall. See Sport England Guidance Notes and BS7044 Part 4: 'Artificial Sports Surfaces – Specification for Surfaces for Multi-Sport Use'.

7. See Sport England Guidance Note 374: 'Multi-Use Games Areas'.

8. This area will count towards the current Education (School Premises) Regulations 1999 requirement for team game playing fields only if it is used for team games.

# Informal and social areas

A variety of informal and social areas should be created to suit the learning development and cultural needs of pupils during breaks and before and after school, and for a range of formal curriculum needs.

## 3: Soft play (zone X)

The 'soft' areas should be conveniently situated, safe and provide some shade. With some imaginative landscaping and planting, the total area could include:

- grassed space to sit and socialise;
- sloping grass areas to form a natural amphitheatre with provision for spectators.

## 4: Hard play (zone Y)

To complement the soft informal areas and social areas, there should be hard surfaced playgrounds and sheltered space for socialising and to encourage healthy, active creative outdoor play.

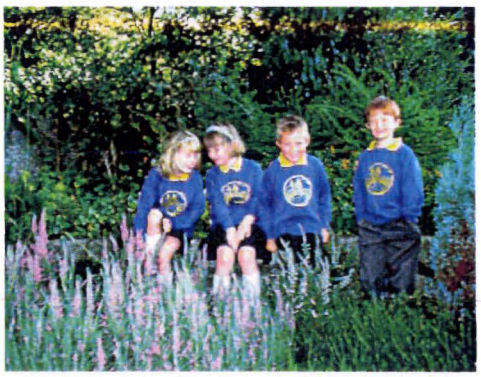
Site furniture, such as seating to accommodate larger outdoor study groups and in smaller, more intimate areas, is important for both social and learning activities. 'Furniture' can be created through the introduction of natural materials which blend into the landscaping[1].These areas should provide scope for pupils to engage in outdoor art, theatre, dance and design activities using a range of hard surfaces and structures.

The total area should include:

- hard surfaced, sheltered space to sit and socialise;
- large hard surfaced areas for more active play.

## 5: Habitat areas (zone Z)

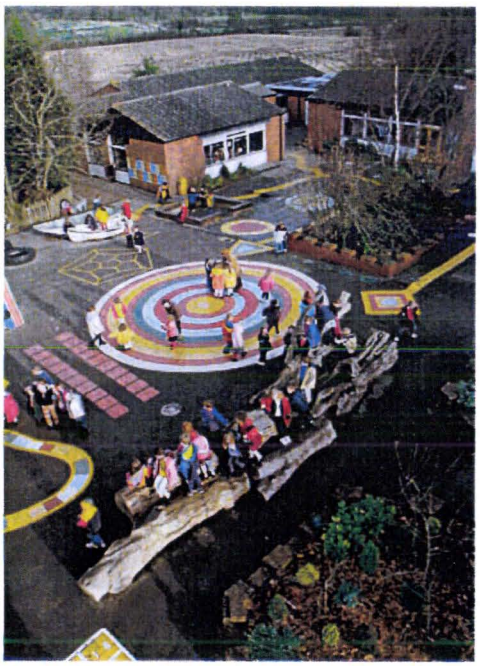
Habitat areas can include a range of outdoor classroom spaces and designs and are a valuable resource for teaching and learning across the whole curriculum. They can help children's emotional, social and cultural development[2]. They are also important for involving pupils in the life and management of the school. The total habitat area should include grounds developed for a wide range of supervised activities, including meadowland, wildlife habitats (such as ponds), gardens and outdoor science areas to support the curriculum and improve play and recreational spaces.



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1. Details and case studies are available from Learning through Landscapes at www.ltl.org.uk and include a range of advisory services on the use design and management of school grounds.

2. A DfES publication on school grounds is to be published in 2006

Increasingly, such spaces are being given a central and accessible location. Landscape design has a great potential for promoting a sense of ownership of space by pupils and staff, thereby encouraging people to take greater care of their surroundings. However, some wildlife areas should normally be undisturbed, so are best positioned away from busy social areas. Such areas usually need to be fenced off, both to protect the habitat and for the safety of pupils.



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## Non-net area

The non-net site area or buildings and access will vary depending on the configuration of the site and buildings. It will include:

- the 'footprint' of all buildings;
- delivery access;
- refuse areas (secure or distant from the buildings);

And will usually include:

- bicycle storage;
- entrance paths, roads and related landscaping not normally available to pupils;
- car parking (usually equivalent to one parking bay per full-time equivalent teaching staff, plus appropriate visitors' and disabled facilities).

And may include:

- coach or bus drop-off provision.

It is most important to consider means of separating children's pedestrian access from vehicular circulation, delivery areas and parking and for providing adequate, visible secure bicycle storage for older pupils.

## Supplementary site area

As discussed on page 50, any school may have supplementary areas for non-school or support functions, which may need to be funded through other joined-up funding streams. For instance, play space for a crèche, extra car parking for community use, or enhancements to sports provision also used by the community.



# Appendices

The following pages include various example schedules of accommodation and the key formulae for primary schools. The schedules are intended to demonstrate just some of the ways that space can be allocated within the recommended zones of net and non-net area. Many others are possible.

**Appendix 1** shows full schedules for two sizes of infant school and three sizes of junior school.

**Appendix 2** shows full schedules for five typical examples sizes of 5 to 11 primary school, any of which (like the infant schools in appendix 1) could have an additional nursery through an extra net area including a 57m² playroom, 12m² small group room, 7m² store and 5m² of staff accommodation, plus 34m² of non-net area.

In both these appendices, the hall is used for serving of hot meals, in either two or three sittings, depending on whether half or a third of the pupils in the school can be accommodated. The size of the chair and table store then relates to the number of places needed in each sitting.

**Appendix 3** shows variations of the schedule for the 420 place 5 to 11 primary shown in appendix 2. Text in red indicates the variations. The net area could vary but totals 1552m² in each example to emphasize the differences possible:

- in the first version, the options of more specialist practical spaces (either two different spaces for half a class, for instance for food and science and for art and design/technology, or one space for a whole class);
- in the second version, an 18m x 10m 'one-court' sports hall;
- in the third, a dining hall rather than a small hall; and
- in the last, fully inclusive classrooms accommodating all activities except those in the halls.

The non-net area ranges from 140% to 145% of net, to show the differences made by variations in the size of the kitchen, circulation (for instance for internal ramps in schools on sloping sites), plant (for instance to suit wood-fired boilers) and partitions (which may be wider for acoustic separation or to provide thermal mass).

# Appendix 1:

## Example schedules for various sizes of infant and junior schools

### Example Schedules for various sizes

| pupil places | | | 90 pupils | | 180 pupils | | 120 pupils | | 240 pupils | | 360 pupils | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| number of classes | | | 3 classes | | 6 classes | | 4 classes | | 8 classes | | 12 classes | |
| Forms of Entry (FE) and type | | | **1 FE infants** | | **2 FE infants** | | **1 FE junior** | | **2 FE junior** | | **3 FE junior** | |
| | max. group size | average area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) |
| **basic teaching** | | | | | | | | | | | | |
| reception class | 30 | 66 | 1 | 66 | 2 | 132 | | | | | | |
| infant classbase | 30 | 60 | 2 | 120 | 4 | 240 | | | | | | |
| junior classbase | 30 | 60 | | | | | 4 | 240 | 8 | 480 | 12 | 720 |
| *specialist practical* | | | | | | | | | | | | |
| food/science/D&T | 8 | 24 | 1 | 24 | 1 | 24 | 1 | 24 | | | | |
| food/science/D&T | 8 | 38 | | | | | | | 1 | 38 | 1 | 38 |
| ICT/ group room: (no. of computers) | | | | | | | | | | | | |
| ICT suite: (no. of computers) | | | (8) | 38 | (15) | 38 | (8) | 38 | (16) | 38 | (24) | 56 |
| **halls** | | | | | | | | | | | | |
| main hall (used for dining) | 30 | | 1 | 125 | 1 | 150 | 1 | 140 | 1 | 180 | 1 | 180 |
| small hall | 30 | 80 | | | | | | | | | | |
| studio | 30 | 50 | | | | | | | | | 1 | 50 |
| **learning resource areas** | | | | | | | | | | | | |
| Library resource centre | 15 to 30 | | 1 | 18 | 1 | 24 | 1 | 21 | 1 | 29 | 1 | 37 |
| small group room (SENco) | 5 to 8 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 |
| small group rooms | 5 to 8 | 9 | | | 1 | 9 | 1 | 9 | 1 | 9 | 2 | 18 |
| **TOTAL TEACHING AREA** | | | | **403** | | **629** | | **484** | | **786** | | **1111** |
| **staff and admin.** | | | | | | | | | | | | |
| head's office/meeting room | | | 1 | 10 | 1 | 12 | 1 | 10 | 1 | 12 | 1 | 14 |
| senior management offices | | 8 | | | | | | | 1 | 8 | 1 | 8 |
| staff room | | | 1 | 18 | 1 | 28 | 1 | 20 | 1 | 35 | 1 | 50 |
| general office | | | 1 | 8 | 1 | 10 | 1 | 8 | 1 | 10 | 1 | 12 |
| sick bay (adjacent) | | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 |
| entrance/reception | | | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 5 |
| copier/reprographics | | | | 2 | | 5 | | 2 | | 5 | | 7 |
| SENco/MI/group room | | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 |
| interview/social services | | 8 | | | 1 | 8 | | | 1 | 8 | 1 | 8 |
| **storage** | | | | | | | | | | | | |
| class storage (reception) | | 3 | 1 | 3 | 2 | 6 | | | | | | |
| class storage (infant and junior) | | 1.5 | 2 | 3 | 4 | 6 | 4 | 6 | 8 | 12 | 12 | 18 |
| specialist stores | | 6 or 8 | 2 | 12 | 2 | 16 | 2 | 16 | 3 | 18 | 3 | 24 |
| PE store (adjacent to hall) | | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 |
| PE store (external) | | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 |
| *non-teaching storage* | | | | | | | | | | | | |
| central stock | | 8 | 1 | 6 | 1 | 8 | 1 | 8 | 1 | 8 | 1 | 8 |
| cloakrooms/lunch box storage | | 3 | | 9 | | 18 | | 12 | | 24 | | 36 |
| dining chair/table store (no. of sittings) | | | (2) | 7 | (2) | 12 | (2) | 8 | (2) | 12 | (3) | 12 |
| staging/appliance store | | | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 8 | 1 | 8 |
| community store | | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 |
| caretakers /maintenance store | | | 1 | 4 | 1 | 5 | 1 | 4 | 1 | 5 | 1 | 6 |
| cleaner's store | | 1.5 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 4.5 |
| **TOTAL NET AREA** | | | | **529** | | **808** | | **623** | | **993** | | **1367** |
| **recommended net area** | | | | **529** | | **808** | | **622** | | **994** | | **1366** |
| **non-net area** | | | | | | | | | | | | |
| kitchen (full-service) | | | 1 | 28 | 1 | 41 | 1 | 32 | 1 | 50 | 1 | 68 |
| servery | | | | 6 | | 6 | | 6 | | 8 | | 8 |
| **toilets (and personal care)** | | | | | | | | | | | | |
| reception toilets | | | 2 | 8 | 3 | 12 | | | | | | |
| other pupil toilets | | | | 10 | | 20 | | 20 | | 40 | | 60 |
| accessible toilets/hygiene facilities | | | | 7 | | 7 | | 7 | | 7 | | 7 |
| staff toilets | | | | 3.5 | | 7 | | 7 | | 10.5 | | 14 |
| **circulation** | | **net x 23%** | | **122** | | **186** | | **143** | | **228** | | **314** |
| **plant (incl. server)** | | **net x 3%** | | **17** | | **25** | | **20** | | **31** | | **42** |
| **partitions** | | **net x 5%** | | **26** | | **40** | | **31** | | **50** | | **68** |
| **TOTAL GROSS AREA** | | | | **757** | | **1152** | | **889** | | **1418** | | **1948** |
| **recommended gross area (net at 70% of gross)** | | | | **756** | | **1154** | | **889** | | **1420** | | **1951** |

# Appendix 2:

## Example schedules for various sizes of infant and junior schools

### Example Schedules for various sizes

| pupil places | | | 105 pupils | | 210 pupils | | 315 pupils | | 420 pupils | | 630 pupils | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| number of classes | | | 3.5 classes | | 7 classes | | 10.5 classes | | 14 classes | | 21 classes | |
| Forms of Entry (FE) and type | | | **0.5 FE JMI** | | **1 FE JMI** | | **1.5 FE JMI** | | **2 FE JMI** | | **3 FE JMI** | |
| | max. group size | average area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) | no. of rooms | total area ($m^2$) |
| **basic teaching** | | | | | | | | | | | | |
| reception class | 30 | 66 | 0.5 | 33 | 1 | 66 | 1.5 | 99 | 2 | 132 | 3 | 198 |
| infant classbase | 30 | 60 | 1 | 60 | 2 | 120 | 3 | 180 | 4 | 240 | 6 | 360 |
| junior classbase | 30 | 60 | 2 | 120 | 4 | 240 | 6 | 360 | 8 | 480 | 12 | 720 |
| *specialist practical* | | | | | | | | | | | | |
| food/ science/ D&T | 8 | 24 | 1 | 24 | 1 | 24 | 1 | 24 | | | | |
| food/ science/ D&T | 15 | 38 | | | | | | | 1 | 38 | 1 | |
| ICT/ group room: (no. of computers) | | | | | | | | | | | (15) | 38 |
| ICT suite: (no. of computers) | | | (8) | 38 | (15) | 38 | (23) | 54 | (30) | 68 | (30) | 68 |
| **halls** | | | | | | | | | | | | |
| main hall (used for dining) | 30 | | 1 | 140 | 1 | 180 | 1 | 150 | 1 | 150 | 1 | 200 |
| small hall | 30 | 80 | | | | | | | 1 | 80 | 1 | 80 |
| studio | 30 | 50 | | | | | 1 | 50 | | | 1 | 50 |
| **learning resource areas** | | | | | | | | | | | | |
| Library resource centre | 15 to 30 | | 1 | 19 | 1 | 26 | 1 | 33 | 1 | 40 | 1 | 54 |
| small group room (SENco) | 6 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 |
| small group rooms | 6 | 9 | 0 | 0 | 1 | 9 | 2 | 18 | 3 | 27 | 5 | 45 |
| **TOTAL TEACHING AREA** | | | | **446** | | **715** | | **980** | | **1267** | | **1825** |
| **staff and admin.** | | | | | | | | | | | | |
| head's office/meeting room | | | 1 | 10 | 1 | 12 | 1 | 14 | 1 | 16 | 1 | 20 |
| senior management offices | | 8 | | | | | 1 | 8 | 1 | 8 | 1 | 8 |
| staff room | | | 1 | 19 | 1 | 32 | 1 | 45 | 1 | 58 | 1 | 84 |
| general office | | | 1 | 8 | 1 | 10 | 1 | 12 | 1 | 14 | 1 | 18 |
| sick bay (adjacent) | | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 |
| entrance/reception | | | 1 | 2 | 1 | 3 | 1 | 4 | 1 | 5 | 1 | 7 |
| copier/reprographics | | | | 2 | | 4 | | 6 | | 8 | | 12 |
| SEN therapy/MI room | | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 |
| interview/ social services | | 8 | | | 1 | 8 | 1 | 8 | 1 | 8 | 1 | 8 |
| **storage** | | | | | | | | | | | | |
| class storage (reception) | | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 2 | 6 | 3 | 9 |
| class storage (infant and junior) | | 1.5 | 3 | 4.5 | 6 | 9 | 9 | 13.5 | 12 | 18 | 18 | 27 |
| specialist stores | | 6 or 8 | 2 | 12 | 3 | 18 | 4 | 24 | 3 | 24 | 4 | 32 |
| PE store (adjacent to hall) | | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 1 | 12 | 2 | 16 |
| PE store (external) | | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 |
| *non-teaching storage* | | | | | | | | | | | | |
| central stock | | 8 | 1 | 6 | 1 | 8 | 1 | 8 | 1 | 8 | 1 | 8 |
| cloakrooms/lunch box storage | | 3 | | 10.5 | | 21 | | 31.5 | | 42 | | 63 |
| dining chair/table store (no. of sittings) | | | (2) | 7 | (2) | 12 | (2) | 16 | (3) | 16 | (3) | 20 |
| staging/ appliance store | | | 1 | 4 | 1 | 4 | 1 | 8 | 1 | 8 | 1 | 8 |
| community store | | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 |
| caretakers/maintenance store | | | 1 | 4 | 1 | 5 | 1 | 6 | 1 | 7 | 1 | 9 |
| cleaner's store | | 1.5 | 2 | 3 | 2 | 3 | 3 | 4.5 | 3 | 4.5 | 4 | 6 |
| **TOTAL NET AREA** | | | | **576** | | **902** | | **1227** | | **1553** | | **2203** |
| **recommended net area** | | | | **575.5** | | **901** | | **1226.5** | | **1552** | | **2203** |
| **non-net area** | | | | | | | | | | | | |
| kitchen (full-service) | | | 1 | 29 | 1 | 45 | 1 | 61 | 1 | 77 | 1 | 109 |
| servery | | | | 6 | | 6 | | 8 | | 8 | | 10 |
| **toilets (and personal care)** | | | | | | | | | | | | |
| reception toilets | | | 1 | 4 | 2 | 8 | 3 | 12 | 3 | 12 | 5 | 20 |
| other pupil toilets | | | | 15 | | 30 | | 45 | | 60 | | 90 |
| accessible toilets/hygiene facilities | | | | 10 | | 12 | | 14 | | 16 | | 20 |
| staff toilets | | | | 3.5 | | 7 | | 10.5 | | 14 | | 21 |
| **circulation** | | **net x 23%** | | **130** | | **203** | | **276** | | **349** | | **496** |
| **plant (incl. server)** | | **net x 3%** | | **18** | | **28** | | **38** | | **48** | | **68** |
| **partitions** | | **net x 5%** | | **29** | | **45** | | **61** | | **78** | | **110** |
| TOTAL GROSS AREA | | | | 821 | | 1286 | | 1752 | | 2215 | | 3147 |
| **recommended gross area (net at 70% of gross)** | | | | **822** | | **1287** | | **1752** | | **2217** | | **3147** |

# Appendix 3:

## Example schedules – various options for 420 place schools

### Example Schedules for variations of one size of 5 to 11 (JMI) school

| priority in net area<br>priority in non-net area<br>420 places | | specialist practical<br>minimal non-net areas | | | community hall &<br>parents' room<br>sloping site | | | dining hall and small<br>ICT room access<br>and hygiene facilities | | | large classrooms<br>toilets and<br>renewable energy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | max. group size | no. of rooms | average area ($m^2$) | total area ($m^2$) | no. of rooms | average area ($m^2$) | total area ($m^2$) | no. of rooms | average area ($m^2$) | total area ($m^2$) | no. of rooms | average area ($m^2$) | total area ($m^2$) |
| **basic teaching** | | | | | | | | | | | | | |
| reception class | 30 | 2 | 63 | 126 | 2 | 63 | 126 | 2 | 66 | 132 | 2 | 70 | 140 |
| infant classbase | 30 | 4 | 57 | 228 | 4 | 57 | 228 | 4 | 61 | 244 | 4 | 63 | 252 |
| junior classbase | 30 | 8 | 57 | 456 | 8 | 57 | 456 | 8 | 61 | 488 | 8 | 63 | 504 |
| *specialist practical* | | | | | | | | | | | | | |
| food bay | 0 | | | | | | | 1 | 4 | 4 | 1 | 4 | 4 |
| food/science/D&T | 15 | 2 | 38 | 76 | 1 | 24 | 24 | 1 | 38 | 38 | | | |
| ICT suite | (no. of computers) | (30) | | 72 | (30) | | 68 | (15) | | 38 | (0) all ICT in classrooms | | |
| **TOTAL (882 to 954 recommended)** | | | | **958** | | | **902** | | | **944** | | | **900** |
| **halls** | | | | | | | | | | | | | |
| main hall | 30 | 1 | | 150 | 1 | | 180 | 1 | | 150 | 1 | | 180 |
| small hall or studio | 30 | 1 | | 80 | 1 | | 80 | | | | 1 | | 50 |
| dining hall | | | | | | | | 1 | | 108 | | | |
| **TOTAL (226 to 262 recommended)** | | | | **230** | | | **260** | | | **258** | | | **230** |
| **learning resource areas** | | | | | | | | | | | | | |
| Library resource centre | 15 to 30 | 1 | | 40 | 1 | | 40 | 1 | | 40 | 1 | | 40 |
| small group room (SENco) | 6 | 1 | | 12 | 1 | | 12 | 1 | | 12 | 1 | | 12 |
| small group rooms | 6 | 3 | 9 | 27 | 3 | 9 | 27 | 3 | 9 | 27 | 4 | 9 | 367 |
| **TOTAL (78 to 114 recommended)** | | **78** | | **79** | **78** | | **79** | **78** | | **79** | | | **88** |
| **TOTAL TEACHING AREA** | | | | **1267** | | | **1241** | | | **1281** | | | **1218** |
| **staff and admin.** | | | | | | | | | | | | | |
| head's office/meeting room | | 1 | | 16 | 1 | | 16 | 1 | | 16 | 1 | | 16 |
| senior management offices | | 1 | | 8 | 1 | | 8 | 1 | | 8 | 1 | | 8 |
| staff room(s) | | 2 | | 60 | 1 | | 58 | 1 | | 55 | 1 | | 58 |
| general office & sick bay | | 1 | | 14 | 1 | | 14 | 1 | | 14 | 1 | | 14 |
| sick bay (adjacent) | | 1 | | 3 | 1 | | 3 | 1 | | 3 | 1 | | 3 |
| entrance/reception | | 1 | | 5 | 1 | | 5 | 1 | | 5 | 1 | | 5 |
| copier/reprographics | | | | 8 | | | 8 | | | 8 | | | 8 |
| SEN therapy/MI room | | 1 | | 12 | 1 | | 12 | 1 | | 12 | 1 | | 12 |
| interview/ social services | | 1 | | 8 | 0 | | 0 | 0 | | 0 | 1 | | 8 |
| parents'/community room | | | | | 1 | | 29 | | | | 1 | | 24 |
| **TOTAL (114 to 150 recommended)** | | | | **134** | | | **153** | | | **121** | | | **156** |
| **storage** | | | | | | | | | | | | | |
| class storage (as appendix 1) | | 14 | | 24 | 14 | | 24 | 14 | | 24 | 14 | | 24 |
| specialist stores | | 3 | 7 | 21 | 3 | 8 | 24 | 3 | 8 | 24 | 4 | 7 | 28 |
| PE store (adjacent to hall) | | 1 | | 12 | 1 | | 12 | 1 | | 12 | 1 | | 12 |
| PE store (external) | | 1 | | 4 | 1 | | 8 | 1 | | 4 | 1 | | 4 |
| changing (without showers) | | | | | | | | | | | 1 | | 20 |
| *non-teaching storage* | | | | | | | | | | | | | |
| central stock | | 1 | | 8 | 1 | | 8 | 1 | | 8 | 1 | | 8 |
| cloakrooms/ lunch box storage | | 14 | 3 | 42 | 14 | 3 | 42 | 14 | 3 | 42 | 14 | 3 | 42 |
| dining chair/table store | | 1 | | 16 | 1 | | 16 | 1 | | 12 | 1 | | 16 |
| staging/ appliance store | | 1 | | 8 | 1 | | 8 | 1 | | 8 | 1 | | 8 |
| community store | | 1 | | 4 | 1 | | 4 | 1 | | 4 | 1 | | 4 |
| caretakers /maintenance store | | 1 | | 7 | 1 | | 7 | 1 | | 7 | 1 | | 7 |
| cleaner's store | | 3 | 1.5 | 4.5 | 3 | 1.5 | 4.5 | 3 | 1.5 | 4.5 | 3 | 1.5 | 4.5 |
| **TOTAL NET AREA** | | | | **1552** | | | **1552** | | | **1552** | | | **1552** |
| **non-net area** | | | | | | | | | | | | | |
| kitchen | | reheat/fast food | 42 | snack/cold food | 53 | cook/chill | 65 | full service | 78 | | | | |
| servery | | | | 0 | | | 0 | | | 8 | | | 127 |
| **toilets & personal care** | (4% to 7% of net) | 5.8% | | | 5.8% | | | 6.1% | | | 6.7% | | |
| reception toilets | | 3 | 4 | 12 | 3 | 4 | 12 | 3 | 4 | 12 | 3 | 4 | 14 |
| other pupil toilets | | 6 | | 60 | 6 | | 60 | 6 | | 60 | 6 | | 68 |
| accessible/visitors' toilets | | 1 | 4 | 4 | 1 | 4 | 4 | 2 | 4 | 8 | 2 | 4 | 8 |
| hygiene room with showers | | 1 | | 12 | 1 | | 12 | 2 | | 24 | 1 | | 16 |
| staff toilets | | | | 14 | | | 14 | | | 14 | | | 14 |
| **circulation** | **(20% to 25% of net)** | **22.5%** | | **349** | **26.0%** | | **403** | **22.5%** | | **349** | **20.4%** | | **317** |
| **plant (incl. server)** | **(2% to 4% of net)** | **3.2%** | | **49** | **3.2%** | | **49** | **3.2%** | | **49** | **4.0%** | | **62** |
| **partitions** | **(4% to 7% of net)** | **5.0%** | | **78** | **4.0%** | | **62** | **5.0%** | | **78** | **7.0%** | | **1092** |
| **TOTAL GROSS AREA** | | 140.0% | | 2172 | 143.0% | | 2221 | 143.0% | | 2219 | 145.0% | | 2250 |

# Appendix 4: Key Formulae

## Key Formulae for Primary, First and Middle, and Middle Deemed Primary Schools

N = number of pupil places (or full-time equivalent where applicable)

| | all primary schools | 5 - 12 first and middle schools | 8 - 12 middle schools |
|---|---|---|---|
| basic teaching | 2.1N | 50 + 2.2N | 50 + 2.3N |
| halls | 100 + 0.3N | 250 + 0.3N | 250 + 0.3N |
| learning resources | 15 + 0.15N | 50 + 0.16N | 50 + 0.17N |
| staff & admin. | 30 + 0.2N | 75 + 0.21N | 75 + 0.22N |
| storage | 45 + 0.25N | 100 + 0.26N | 100 + 0.27N |
| dining & social | - | - | 25 + 0.05N |
| 'float' | 60 + 0.1N | 175 + 0.12N | 150 + 0.14N |
| **TOTAL NET BUILDING AREA** | **250 + 3.1N** | **700 + 3.25N** | **700 + 3.45N** |
| **LIKELY GROSS BUILDING AREA** | **340 + 4.5N** | **1000 + 4.5N** | **1000 + 5N** |

## Minimum Site Areas

| | infant schools (except confined sites) | 5 - 11 primary schools (except confined sites) | primary schools on confined sites |
|---|---|---|---|
| pitches | - | 20N | provided 'off-site' |
| soft play (informal & social) | 800 + 2.5N | 800 + 2.5N | 600 + 2N |
| games courts (hard surfaced) | 600 + 2N | 600 + 2N | 1000 (MUGA) |
| hard play (informal & social) | 400 + 1.5N | 400 + 1.5N | 200 + 1N |
| habitat | 200 + 1N | 200 + 1N | 0.5N |
| 'float' | 5N | 5N | remainder of site |
| **TOTAL NET SITE AREA** | **2000 + 12N** | **2000 + 32N** | **1800 + 4N minimum** |
| **LIKELY SITE AREA: from** | **2300 + 14N** | **2200 + 36N** | **2500 + 5N** |
| **to** | **2700 + 16N** | **2500 +40N** | **3000 + 6N** |

These formulae are the basis of the graphs later in this document. They can be used for 5 - 11 primary schools where there are (approximately) the same number of pupils in each year up to year 7, and all infant, middle or secondary schools. Gross area figures are approximate to allow an easy 'rule of thumb'.
Nursery pupils are not included?

## Calculation for all types of school (except nursery and special)

| | Area for each school: | | | Area for each pupil in: | | | |
|---|---|---|---|---|---|---|---|
| | For any primary school | For any middle school | For any 'first and middle' school | nursery | recep and KS1 | KS2 | KS3 |
| **minimum building areas** | Likely gross area of buildings = net area / 0.7 | | | | | | |
| basic teaching | - | 50 | 50 | 2.1 | 2.1 | 2.1 | 2.9 |
| halls | 100 | 250 | 250 | - | 0.3 | 0.3 | 0.3 |
| learning resources | 15 | 50 | 50 | 0.45 | 0.15 | 0.15 | 0.25 |
| staff & admin. | 30 | 75 | 75 | 0.2 | 0.2 | 0.2 | 0.28 |
| storage | 45 | 100 | 100 | 0.25 | 0.25 | 0.25 | 0.33 |
| dining & social | - | 25 | 25 | - | - | - | 0.2 |
| 'float' | 10 | 150 | 150 | 0.1 | 0.1 | 0.1 | 0.24 |
| **TOTAL NET BUILDING AREA** | **200** | **700** | **700** | **3.1** | **3.1** | **3.1** | **4.5** |
| **minimum site areas** | Likely total site area = net site area x 1.1 to 1.35 | | | | | | |
| pitches | - | 10000 | 7500 | - | - | 35 | 35 |
| soft play (informal & social)*** | 800 | 800 | 800 | 2.5 | 2.5 | 2.5 | 2.5 |
| games courts (hard surfaced) | 600 | 600 | 600 | - | 2 | 2 | 2 |
| hard play (informal & social) | 400 | 400 | 400 | 1.5 | 1.5 | 1.5 | 1.5 |
| habitat | 200 | 200 | 200 | 1 | 1 | 1 | 1 |
| 'float' | - | 1000 | 500 | 5 | 5 | 5 | 5 |
| **TOTAL NET SITE AREA** | **2000** | **13000** | **10000** | **10** | **12** | **47** | **47** |

***infant places** do not require an area per place for pitches, as the informal and social area doubles as playing field area.

This document aims to help primary school staff and governors, with the help of Local Education Authorities (LEAs), dioceses, and building professionals, to develop a 'masterplan' and a brief for building projects, whether major new buildings or minor refurbishments. This is crucial to ensure that the facilities support the educational aims and vision of each school.

It sets out simple, realistic, non-statutory area guidelines for primary school buildings and grounds which supersede those in Building Bulletin 82: Area Guidelines for Schools, published in 1996, and any revisions.

The areas recommended have been calculated to address the requirements of pupils, including those with SEN and disabilities, the school workforce and, the community.

Simple graphs and formulae can be used to check that the number, size and type of rooms in both new designs and existing buildings are at least that recommended for the five categories of usable space. Crucially, a further 'float' is also recommended to accommodate the individual priorities of each school. Similar standards are set for various categories of site area.

