OPDC
OLD OAK AND
PARK ROYAL
DEVELOPMENT
CORPORATION

Social Infrastructure Needs Study Addendum

LOCAL PLAN SUPPORTING STUDY

February 2021

MAYOR OF LONDON

Social Infrastructure Needs Study Addendum 2021

Document Title	Social Infrastructure Needs Study Addendum 2021
Lead Author	AECOM
Purpose of the Study	To update and refine information held within the DIFS and Education and Health Needs Study (2017) and Social Infrastructure Needs Study (2018) to identify: • The infrastructure requirements for education, health, community and emergency services; and • The demands on delivery of social infrastructure across the area.
Key outputs	• Prepare revised population projections based on the new Development Capacity Study figures to form a basis for analysis for education, health, community and emergency service need across the development; • Use updated population projections to derive child yield from the development to cover all educational needs provision including: early years (0 – 4); primary (4 – 11); secondary (11 – 19) and Special Educational Needs; • Identify space requirements for onsite education, health, community and emergency service facilities, along with analysis of off-site improvements to existing facilities; • Identify trigger years for education, health, community and emergency service facilities to meet population increase over the plan period, including both on-site and any capacity identified off-site; • Provide a clear approach to population and child yield for health, education, community and emergency service needs and how this relates to what OPDC will seek from developers in terms of floorspace provision or S106 / CIL contributions; • Provide advice on funding and delivery routes for health and education and OPDC's role in each method / route; • Advise on consequential changes to the infrastructure requirements for education, health, community and emergency service facilities including, where appropriate, identification of locations in the OPDC development area for required on-site facilities; and • Provide case studies of successful delivery of modern best practice facilities.
Key recommendations	• There is ability to use some existing capacity in off-site facilities to meet the needs of the development; • Four super-nurseries and one 3FE primary school (2031) are required to support the development; • Population projections give rise to a significant need for on-site health facilities – one large health hub is identified for delivery in 2024 in North Acton and Acton Wells, in addition to off-site expansions; • Two community hubs are required in 2030 and 2035; and • An expansion of police and ambulance facilities are required.

Key changes made since Submission	• Updates have been informed by health, education and emergency services stakeholders.
	• The change in social infrastructure requirements reflect updated population projections using the GLA Population Yield Calculator 3.2 (2020), child yield estimates, updated capacities of existing infrastructure and updates to OPDC development capacities and phasing.
	• Key changes comprise:
	  • A decrease in size of a required on site primary school from 4FE to 3 FE primary school delivered 1 year later from 2030 to 2031. Location moved from Old Oak North to a location outside of Strategic Industrial Locations.
	  • Removal of the need for an onsite secondary school.
	  • Delivery dates for the two community centres updated to have the first delivered later in the plan period (2030 from 2026) and the second delivered earlier in the plan period (2035 from 2037).
	  • Location of the health hub to be moved from Old Oak North to North Acton and Acton Wells.

Relations to other studies	Outputs have interdependencies with the Development Infrastructure Funding Study (DIFS); Infrastructure Delivery Plan (IDP); Channel Gate Development Framework Principles and Park Royal Development Framework Principles.
Relevant Local Plan Policies and Chapters	• Strategic Policy SP2 (Good Growth), SP3 (Improving Health and Reducing Health Inequalities), SP4 (Thriving Communities) and SP10 (Integrated Delivery) • Place Policy P1 (Old Oak South), P7 (North Acton and Acton Wells) • Town Centres and Community Uses policy TCC3 (Social Infrastructure)

Old Oak and Park Royal

Social Infrastructure Needs Study (SINS)

2020 Addendum Report

Old Oak and Park Royal Development Corporation

Project Number: 60545312

25 January 2021

Rev 4

Quality information

Prepared by	Checked by	Approved by
Sarah Elliott	Matthew Pell	Sam Ellis

Revision History

Revision	Revision date	Details	Authorized	Name	Position
Rev 1	15/12/2020	Draft for OPDC Review		SElliott	Director
Rev 2	11/01/2021	Updated draft for OPDC Review (Trajectory Update 181220, OPDC revisions 070121)		SElliott	Director
Rev 3	19/01/2021	Final draft report issued to OPDC (Chapter 5 review)		SElliott	Director
Rev 4	25/01/2021	Final report issued to OPDC		SElliott	Director

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This report has been prepared while under the UK COVID-19 restrictions. While the full implications of this on the content of this report are not yet known, there may well be medium and long-term implications for Government, Mayoral, OPDC and/or Borough policies and the relative funding priorities as currently set out in this report.

At the time of writing, the draft London Plan was available as an 'Intend to Publish' version which was submitted by the Greater London Authority to the Secretary of State for approval on 9 December 2019. On 13 March 2020, the Secretary of State issued a Direction pursuant to s.337(6) of the Greater London Act 1999[1]. The Direction prevents publication of the London Plan until a range of matters are addressed to the satisfaction of the Secretary of State to achieve consistency with national policy. On 24 April 2020[2] the Mayor wrote to the Secretary of State seeking to resolve the issues that have been raised by the Secretary of State through discussion by their officials, so as to enable the London Plan to be adopted. On 9 December 2020[3] the Mayor wrote to the Secretary of State of his intention to formally approve a new draft London Plan ("the Plan") on 21 December 2020 which will then be sent to the Secretary of State shortly thereafter under regulation 9 of the Town and Country Planning (London Spatial Development Strategy) Regulations 2000. On 10 December 2020[4] the Secretary of State replied indicating changes required to fulfil the Directions issued on 13 March 2020 and issuing two further Directions. On 21 December, the Mayor wrote to the Secretary of State informing him that updates had been made in response to the Secretary of State's 10 December letter. These updates are included in the 'Publication London Plan[5]'.

[1] https://www.london.gov.uk/sites/default/files/letter_to_the_mayor_of_london_13_march_2020.pdf and https://www.london.gov.uk/sites/default/files/annex_to_letter_to_the_mayor_of_london_13_march_2020.pdf
[2] https://www.london.gov.uk/sites/default/files/rt_hon_robert_jenrick_mp_-_london_plan.pdf
[3] https://www.london.gov.uk/sites/default/files/letter_from_the_mayor_of_london_9_december_2020.pdf
[4] https://www.london.gov.uk/sites/default/files/201210_sos_letter_to_mayor_london_plan.pdf
[5] https://www.london.gov.uk/sites/default/files/secretary_of_state_for_housing_communities_and_local_government_21_12_20.pdf

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1. Executive Summary

This report is an addendum update to Supporting Document 54: The Social Infrastructure Needs Study (SINS)[6] used to support the development of the Local Plan submitted to the Planning Inspectorate for independent examination on 4 October 2018.

The 2018 SINS report focussed on social infrastructure needs of education, health, community and emergency services facilities. This report sets out information from the 2018 SINS report relevant to the addendum and updates the study objectives, context, assumptions, analysis, options and recommended strategic approach. It has been developed with OPDC officers to inform proposed modifications to the Local Plan being made as part of the examination process and to address the impacts of the Inspector's interim findings.

Table 1 summarises the social infrastructure projects required to support the anticipated 19,856 homes in the Local Plan period from 2018 to 2038 and the resulting total population of up to 43,016 people[7]. Candidate sites for these facilities have been identified based on a criteria-based assessment of deliverability, lifetime neighbourhoods and environment.

<table>
<tr><th></th><th colspan="2">Super Nurseries</th><th>Primary School</th><th>Secondary School</th><th>Health Centre</th><th>Community Centre</th><th>Emergency Services</th></tr>
<tr><td>Scrubs Lane and Channel Gate</td><td>One super-nursery, (120 children), site to be identified</td><td rowspan="4">One super-nursery, (120 children), site to be identified</td><td rowspan="4">One 3FE primary school (630 pupils), site to be identified in Local Plan review, opening in 2031.</td><td rowspan="4"></td><td></td><td rowspan="4">Two Community Centres, 2,600sq.m, opening in 2030 (within Channel Gate) and 2035 (site to be identified as part of future Local Plan review).</td><td rowspan="4">Three Neighbourhood police facilities, 50sq.m, sites to be identified

Extension to an existing ambulance station, 625sq.m, opening in 2035</td></tr>
<tr><td>North Acton</td><td>One super-nursery, (120 children), site to be identified</td><td>One Health hub, Site within the place of North Acton and Acton Wells, opening at 1,088sq.m in 2024 and expanding to 1,564sq.m by 2038.</td></tr>
<tr><td>Old Oak South</td><td>One super-nursery, (120 children), site to be identified</td><td></td></tr>
<tr><td>Park Royal</td><td></td><td></td></tr>
</table>

Table 1. Summary of Social Infrastructure Projects by Sub-area

This report is set out as follows:

- Section 2 explains the general context to this work including the results of previous studies, current political and development issues, the objectives of the Social Infrastructure Needs Study (SINS) and the assumptions underpinning the analysis.

[6] https://www.london.gov.uk/sites/default/files/47._sins_2018_0.pdf
[7] Assuming a 50% affordable housing target and 25% family housing (defined as 3 bed or larger) across the site.

- Section 3 explains the policy context, population analysis, key assumptions, facility requirements and site selection for Early Years provision.
- Section 4 explains the policy context, consultation & engagement, population analysis, key assumptions, service models, facility requirements, site selection results and procurement routes for Education provision for ages 4 to 19.
- Section 5 explains the policy context, consultation & engagement, population analysis, key assumptions, service models, facility requirements, site selection results and procurement routes for Primary and Community Healthcare provision.
- Section 6 updates the Development Infrastructure Funding Study (DIFS) analysis for community space provision.
- Section 7 updates the DIFS analysis for emergency services provision.
- Section 8 sets out the conclusions from this report and next steps of future work.

OPDC will use the results of this SINS addendum update and the identified facilities details in the following town planning activities:

- OPDC Local Plan – the proposed modifications to the submission draft Local Plan will include the above projects and location requirements as an indication of needs and to secure sites for future provision;
- Planning application negotiations – the above projects will form the basis of OPDC requirements and CIL & S106 negotiations to ensure that development proposals meet the demands of the growing population in Old Oak and Park Royal.
- Duty to cooperate – OPDC will ensure that the assumptions underpinning this report are consistent with the assumptions used in Local Plan reviews by the partner Boroughs and in the London Plan review. OPDC will engage with education, health, community and emergency services agencies as the SINS recommendations are implemented and/or reviewed.
- Plan, Monitor and Manage activities - The Authority Monitoring Report (AMR)[8] is published each year, reporting on the performance of OPDC's planning policies. The AMR includes details of development activity (including completions and starts) and Section 106 and Community Infrastructure Levy (CIL) (including collection and spend of monies). OPDC will add monitoring activities to the AMR in future years as the OPDC development gains critical mass, including the potential use of post-occupancy surveys with residents to collect actual details of trends and choices in using social infrastructure.

Monitoring the impact of COVID-19

This report has been prepared while under the UK COVID-19 restrictions. While the full implications of this on the content of this report are not yet known, there may well be medium and long-term implications which impact the assumptions on the use of social infrastructure facilities addressed in this report that will need to be monitored through OPDC's annual Authority Monitoring Report to inform future social infrastructure planning. For example:

- Home-schooling became the normal way in which education was delivered during the first and third COVID-19 lockdown. It is too early to determine whether this will lead to sustained use of home-schooling once restrictions are lifted and accelerated take-up in future school admission years.
- Primary healthcare settings have implemented virtual consultations (also called telemedicine consultations) to reduce patient flow in order to limit infectious exposures and triage those who require a surgery visit. It is too early to determine the impact of this on patterns of future primary healthcare provision or patient choice.
- Community, sports and leisure facilities have been closed according to either national or local COVID-19 restrictions. Government advice has encouraged outdoor activity and virtual platforms have been used for online health, fitness, community and social activities. It is too early to determine whether this will lead to increased use of other forms of assembly rather than using built-facilities.

[8] https://www.london.gov.uk/about-us/organisations-we-work/old-oak-and-park-royal-development-corporation-opdc/opdc-planning/planning-policy-0/monitoring

2. General Context

2.1 Background

This report is an addendum update to Supporting Document 54: the Social Infrastructure Needs Study (SINS)[9] used to support the development of the Local Plan submitted to the Planning Inspectorate for independent examination on 4 October 2018.

The 2018 SINS report focussed on social infrastructure needs of education, health, community and emergency services facilities. This report sets out information from the 2018 SINS report relevant to the addendum and updates the study objectives, context, assumptions, analysis, options and recommended strategic approach. It has been developed with OPDC officers to inform proposed modifications to the Local Plan being made as part of the examination process and to address the impacts of the Planning Inspector's interim findings. This addendum will be submitted to the Planning Inspector for consideration as an additional supporting document.

2.2 Context - Previous Studies

2.2.1 DIFS Study

In February 2016 OPDC published the Development Infrastructure Funding Study (DIFS) prepared by Peter Brett Associates as a Local Plan supporting study[10]. This report sought to explain the infrastructure requirements of growth at Old Oak, when the demands for infrastructure arise, how much those infrastructure requirements cost; and how those infrastructure requirements might be paid for. The study considered a range of transport, social infrastructure (including open space) and utilities provision.

The bulk of the primary research work was carried out in the summer of 2014 and completed by March 2015. The report reflected the position at that point in time with regard to infrastructure costs and funding, and development costs and values.

2.2.2 AECOM Stage 1 Study 2016

In July 2016 AECOM delivered stage 1 study analysis of social infrastructure, including: Schools, Health Facilities, Emergency Services, Green Infrastructure, Community and Sports Facilities and Socio-Economic Regeneration. The stage 1 work established the quantum, triggers, costs and project delivery programme required to support the growth anticipated at Old Oak.

It was assumed that the infrastructure required to support the proposed development has been predominantly identified in three existing studies[11]. AECOM undertook high-level gap analysis to identify infrastructure project themes that may be missing from the above. These themes included early years education provision; use of existing school places off-site; dentists provisions; and acute hospital bed requirements. AECOM compared the cost assumptions in the existing studies to the AECOM in-house benchmarks used when undertaking comparable studies and provided additional cost information for gaps in the cost information and for the projects identified as part of the gap analysis.

[9] https://www.london.gov.uk/sites/default/files/47._sins_2018_0.pdf
[10] https://www.london.gov.uk/sites/default/files/13._development_infrastructure_funding_study_0.pdf
[11] PBA Old Oak Infrastructure Schedule: Plots released 2016 to 2026, version V2 May 2016 provided by OPDC; OPDC Local Plan Delivery – Infrastructure Delivery: list of infrastructure projects dated 27 January 2016 provided by OPDC; and, OPDC Development Infrastructure Funding Study (DIFS), prepared by PBA, dated March 2015 provided by OPDC

2.2.3 AECOM Stage 2 Study 2017

In May 2017 AECOM delivered stage 2 study analysis focussed on education and health facilities. The report assessed the facility needs associated with the full OPDC development trajectory of 26,967 homes in the OPDC development area and the resulting total population of up to 59,349 people[12]. The report was developed in partnership with OPDC officers in order to inform the Local Plan, the Old Oak Common Masterplan project and planning application determination. The report was published as a supporting study[13] to the OPDC revised draft Local Plan 2017.

Table 2 summarises the education and health facility projects identified in 2017 as required to support the Local Plan. Candidate sites for these facilities were identified based on a criteria-based assessment of deliverability, lifetime neighbourhoods and environment.

	Super Nurseries	Primary Schools	Secondary Schools	All-through Schools	Health Centres
Old Oak North	#1 2020 #2 2022 #3 2025 #4 2030 #5 2035 Sites to be identified	#1 Cargiant site, 4FE, 2026		#1 4FE, 2039 Site to be identified	#1 Cargiant site, 596m^2 in 2025 expanding to 4,483 m^2 by 2050
North Acton			#1 Sword & Shield site, 9FE, 2028		
Old Oak South		#2 Crossrail depot or HS2 station site, 4FE, 2032			
Park Royal					

Table 2. Summary of Education and Health Projects by Sub-area (2017)

[12] Assuming a 50% affordable housing target and 25% family housing (defined as 3 bed or larger) across the site.
[13] https://www.london.gov.uk/sites/default/files/15._education_and_health_needs_study_1.pdf

2.2.4 Local Plan Supporting Document 54: The SINS Study 2018

In June 2018 AECOM delivered Local Plan Supporting Document 54: the Social Infrastructure Needs Study (SINS). This report presented the findings of a 2018 commission focussed on social infrastructure needs of education, health, community and emergency services facilities. This report defined the study objectives, context, assumptions, analysis, options and recommended strategic approach that was developed with OPDC officers in order to inform the Local Plan submitted to the Planning Inspectorate for independent examination on 4 October 2018.

Table 3 summarises the social infrastructure projects required to support the previously anticipated 20,100 homes identified in the 4 October 2018 submission draft Local Plan for the period from 2018 to 2038, and the resulting total population of up to 44,043 people[14]. Candidate sites for these facilities were identified based on a criteria-based assessment of deliverability, lifetime neighbourhoods and environment.

<table>
<tr><th></th><th colspan="2">Super Nurseries</th><th>Primary Schools</th><th>Secondary Schools</th><th>Health Centres</th><th>Community Centre</th><th>Emergency Services</th></tr>
<tr><td>Old Oak North</td><td>One super-nursery, (120 children), site to be identified</td><td rowspan="4">One super-nursery, (120 children), site to be identified</td><td>One 4FE primary school (840 pupils), Cargiant site, opening in 2030.</td><td></td><td>One Health hub, Cargiant site, opening at 1,088sq.m in 2024 and expanding to 1,564sq.m by 2038.</td><td rowspan="4">Two Community Centres, 2,600sq.m, opening in 2026 and 2037</td><td rowspan="4">Three Dedicated Ward Offices, 50sq.m, sites to be identified

Extension to an existing ambulance station, 625sq.m, opening in 2033</td></tr>
<tr><td>North Acton</td><td>One super-nursery, (120 children), site to be identified</td><td rowspan="3"></td><td>One 9FE secondary school (1350 pupils), HS2 Worksite (Acton Wells), opening in 2027.</td><td rowspan="3"></td></tr>
<tr><td>Old Oak South</td><td>One super-nursery, (120 children), site to be identified</td><td></td></tr>
<tr><td>Park Royal</td><td></td><td></td></tr>
</table>

Table 3. Summary of previous Social Infrastructure Projects by Sub-area (2018)

[14] Assuming a 50% affordable housing target and 25% family housing (defined as 3 bed or larger) across the site.

2.3 Political and Development Context

The assumptions of health and education delivery in this report may change because of outside factors:

- **Government policy on schools:** the 2017 budget announced £320 million to fund 140 new Free Schools. The 2018 spring statement included £80 million funding to small and medium businesses if they take on an apprentice. This funding, part of the wider changes DfE are making to the apprenticeship system, will deliver more high quality training so that everyone can benefit from the opportunities apprenticeships bring. In March 2018 the Government announced over £500 million funding to improve and expand school buildings across the country and create more good school places. The funding would support 1,556 projects across almost 1,300 academies and sixth-form colleges in England to help improve the condition or expand their facilities. At Spending Round 2019, the government committed to a £7.1 billion cash increase in funding for schools in England by 2022-23, compared to 2019-20 budgets. This funding settlement included an increase to minimum per-pupil funding levels, a commitment now enshrined in law. The minimum per pupil amount will increase to £3,750 for primary schools and £5,000 for secondary schools in 2020-21, with the primary schools minimum then rising to £4,000 in 2021-22. The settlement also provides for £780 million extra in 2020-21 to support children and young people with special educational needs, to ensure all can reach their potential.
- **Government spending on health:** the 2017 budget announced an additional £325 million to allow the first NHS Sustainability and Transformation Plans to proceed. The second draft of the North West London Sustainability and Transformation Plan was published in October 2016. The STP recognises that In NW London there was significant pressure on the whole system, which must be addressed by a number of factors including the transformation of general practice, with consistent services to the whole population ensuring proactive, co-ordinated and accessible care. This will be delivered through primary care operating at scale through networks, federations of practices or super-practices, in order to ensure it responds to the needs of local communities, provides opportunities for sustainability and drives quality and consistency. Primary care providers, working jointly with social care and the wider community, are at the heart of the new system to deliver integrated care. Budget 2020 includes Health commitments to: 50 million GP surgery appointments by funding the Department for Health and Social Care and the NHS to train, recruit and retain up to 6,000 more doctors in general practice and 6,000 more primary care professionals, such as physiotherapists and pharmacists; and Health Infrastructure Plan (HIP) – As announced in September 2019, a commitment of £2.7 billion to deliver 6 major building and redevelopment schemes in hospitals in England, and a further £100 million of seed funding for other schemes to develop their plans. In total, this programme involves at least 40 hospital building projects.

The current assumptions for education, health, community and emergency facilities in this report are based on discussions with service providers during spring 2018 and autumn/winter 2020. Were national or regional policy to shift or local priorities to change, the assumptions within this study would become outdated. There is therefore a need for OPDC to continually engage with service providers to understand their requirements and OPDC propose to keep information on any infrastructure requirements regularly updated within an Infrastructure Delivery Plan.

2.4 AECOM 2020 Study Objectives

The agreed scope of work for the 2020 Social Infrastructure Needs Study (SINS) Addendum for the themes of education, health, community space and emergency services provision is as follows[15]:

2.4.1 Education

1. Prepare revised projections for education needs (to cover ages 0-19 i.e. early years to secondary school leaving age) using the GLA Child Yield Calculator Version 3.2 and assumptions agreed with Hammersmith & Fulham, Ealing and Brent local authorities.
2. Include analysis of Special Education Needs arising from the new population and any additional allowance in school building sizes.
3. Include updated assumptions on the use of surplus places in existing schools and new capacity from potential school expansion projects based on advice from the Hammersmith & Fulham, Ealing and Brent local authorities.
4. Set out a route map for OPDC on options for securing funding for school place delivery on site.
5. Provide case study examples of models for school funding and delivery and high-quality high-density schools.

2.4.2 Health

1. Identify existing health facilities, their current capacity and their appropriateness for expansion/enhancement to meet the health needs of early development phases.
2. Provide updated population projections to enable the Clinical Commissioning Groups to refresh the health needs modelling used for the 2018 SINS Report and how this relates to what OPDC seek from developers in terms of floorspace provision or S106/CIL contributions.
3. Identification of potential locations in the OPDC development area for health infrastructure facilities.
4. Advise OPDC on health facility delivery mechanisms, procurement options, funding options including securing funding from development, Central Government and health agencies, and the role of OPDC in the delivery process alongside other stakeholders.
5. Advise on appropriate design standards for health facilities and provide case study examples of high-density health facilities and opportunities for co-location with other community uses and mixed-use development.

2.4.3 Community space

1. Revisit the proposals for community space provision identified in the DIFS in 2016 in light of the revised Local Plan development trajectory and associated updated population projections.

2.4.4 Emergency services

1. Revisit the proposals for emergency services space provision identified in the DIFS in 2016 in light of the revised Local Plan development trajectory and associated updated population projections.

[15] The following are excluded from the SINS and are covered by other Local Plan supporting documents: All other social infrastructure themes (Green Infrastructure, Sports Facilities and Socio-Economic Regeneration); and, updates to social infrastructure cost details.

2.5 Study Assumptions

There are a number of assumptions that have been made in undertaking this work. The key assumptions are described below with more detail provided in Appendix A.

2.5.1 Development Trajectory

The Development Trajectory[16] used to generate the housing units and associated population and school age children is based on delivery linked to the proposed modifications to the OPDC Local Plan. The Development Trajectory runs between 2018 and 2048, including the Local Plan period to 2038. This addendum report reviews the social infrastructure required to support the growth identified in the Local Plan period.

2.5.2 Affordable Housing Targets, Affordable Housing Tenure Mix and Unit Size Mix

The following scenarios, tests and assumptions[17] are applied to the Development Trajectory.

- Two affordable housing targets are tested; 50% and 35%[18];
- The affordable housing tenure mix reflects a blend of 25% Affordable Rent (social rent), 37.5% London Living Rent and 37.5% Intermediate Housing (shared ownership);
- The unit size mix[19] applied to the market/private homes and the split of affordable homes by tenure type is blended in order to achieve 25% family housing, i.e. 3 bed units or larger, across the site.

Housing Unit Size Mix	Market/Private	London Affordable Rent (Social Rent)	London Living Rent	Shared Ownership
1 bed	38.75%	23%	39.20%	39.20%
2 bed	38.75%	28%	39.20%	39.20%
3 bed	22.50%	34%	21.60%	21.60%
4 bed	-	15%	-	-

Table 4. Site-wide Housing Unit Size Mix

- A special housing unit size mix has been applied to 50% of the units to be delivered in North Acton[20].

North Acton special assumptions	Market/Private	Shared Ownership	Student Housing
Tenure Mix	53%	25%	22%
Unit Size Mix			
1 bed	54.8%	54.8%	100%
2 bed	38.95%	38.95%	-
3 bed	6.24%	6.24%	-
4 bed			-

Table 5. North Acton Special Assumptions for Housing Unit Size Mix (permitted and allocated).

[16] OPDC Development Trajectory Version 5.0 (with AECOM population additions) - issued to AECOM 6th October 2020 (updated 191120) and 181220).
[17] Confirmed by the OPDC on 1 March 2018 11:45
[18] To reflect advice in Homes for Londoners Draft Affordable Housing and Viability SPG 2016 (November 2016) the calculations are based on affordable housing expressed as habitable rooms.
[19] The Market/Private, London Living Rent and Shared Ownership housing unit size mix is based on a blended London picture of submitted applications determined by a review of the London AMR. The London Affordable Rent housing unit size mix is based on the OPDC Strategic Housing Market Assessment (SHMA).
[20] This is to reflect the unit mix being proposed in early planning applications and pre-application discussions with the OPDC in this sub-area. Excluding student housing

- The remaining 50% of units to be delivered in North Acton are assumed to deliver 10% special housing (5% older persons housing and 5% student housing). The resulting housing mix for 50% affordable housing is as follows:

Housing Unit Size Mix	Market/Private	London Affordable Rent (Social Rent)	London Living Rent	Shared Ownership	Student Housing
1 bed	38.75%	23%	39.20%	39.20%	100%
2 bed	38.75%	28%	39.20%	39.20%	-
3 bed	22.50%	34%	21.60%	21.60%	-
4 bed	-	15%	-	-	-

Table 6. North Acton Special Assumptions for Housing Unit Size Mix (including 10% specialist housing).

- Two schemes are currently being delivered within the OPDC area at First Central in Park Royal and Oaklands in Old Oak South. The housing mix for these sites has been adjusted to match the planning permissions, as follows:

First Central special assumptions	Market/Private	London Affordable Rent (Social Rent)	London Living Rent	Shared Ownership
Tenure Mix	67.4%	8.4%	9.7%	14.5%
Unit Size Mix				
1 bed	28.86%	22.06%	28.21%	34.19%
2 bed	53.86%	27.94%	46.15%	53.85%
3 bed	17.28%	42.65%	24.36%	11.97%
4 bed	0.00%	7.35%	1.28%	0.00%
Oaklands special assumptions	**Market/Private**	**London Affordable Rent (Social Rent)**	**London Living Rent**	**Shared Ownership**
Tenure Mix	60.0%	20.2%	0.0%	19.8%
Unit Size Mix				
1 bed	18.18%	17.21%	0.0%	35.00%
2 bed	80.99%	62.30%	0.0%	65.00%
3 bed	0.83%	20.49%	0.0%	0.00%
4 bed	0.00%	0.00%	0.0%	0.00%

Table 7. First Central and Oaklands Special Assumptions for Housing Unit Size Mix

2.5.3 Population, Child Yield and Household Characteristics

The GLA Child Yield Calculator (Version 3.2) has been used to derive the average household size and age range characteristics to apply to the housing assumptions in Section 2.5.2. Appendix A provides detail on these assumptions and any discounts applied or observations about their use in generating results.

2.6 Total Population by Development Phase & Development Sub-area

Table 8 identifies the total population results from the assumptions set out in this chapter. Subsequent chapters of this report look in detail at social infrastructure needs resulting from this population.

- The 26,006 homes in the full development trajectory from 2018 to 2049 result in a total population of up to 55,368 at a 35% affordable housing target or up to 56,382 total population at a 50% affordable housing target.
- The 19,856 homes in the Local Plan period from 2018 to 2038 result in a total population of up to 42,315 at a 35% affordable housing target or up to 43,016 total population at a 50% affordable housing target.
- Channel Gate, Scrubs Lane and North Acton together contribute 74% of the population in the Local Plan period, in comparison to Old Oak South and Park Royal which together contribute 26%.
- The anticipated population build-up shows strong and sustained delivery over the first 20 years of the development programme. 51% of the total trajectory population will arrive in the first 10 years of the development (between 2018 and 2028). The next 5 years will contribute 14% of the total population. 24% of the population are forecast to arrive beyond the Local Plan period (between 2039 and 2048). This sustained level of build and occupancy will drive the need for social infrastructure facilities.
- The 2020 addendum results are comparable with the 2018 SINS Report findings which indicated a total population of between 56,950 and 58,007 total population for the full development trajectory (26,523 homes) and between 43,295 and 44,043 total population for the Local Plan period (20,172 homes).

Table 9 identifies the total population results by age groups. Depending on the affordable housing target, between 69% and 73% of the Local Plan population to 2038 will be aged between 25-54 indicating the dominance of the working-age population.

- The 2020 addendum results are different to the 2018 SINS Report findings. There are variations in the proportions by age group as a result of the combination of three factors:

  a) the reduced total population;

  b) reductions in average household size; and,

  c) age range differences in those households.

  Factors b) and c) are reported in Table A.2 in Appendix A.1. which highlights the differences in the average household size and age group assumptions in GLA Child Yield Model V2 (as used in the 2018 SINS Report) and Model V3.2 and 3.3 (used in this Addendum report). Taken together, these three factors have reduced the proportion of children in primary and secondary age groups and conversely increased the proportion of adults aged 25-54.

2.7 General Context - Summary

- This report represents the continued efforts by OPDC to understand the social infrastructure facilities that will be needed to support the anticipated population growth at Old Oak and Park Royal.
- The study assumptions used to generate the total population, school and health needs in this report have been tested with relevant stakeholders and include adjustments where necessary to reflect the unit mix being proposed in early planning applications and pre-application discussions with the OPDC.

Affordable Housing Test	35% Affordable Housing							50% Affordable Housing						
Phase	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**	**Local Plan Period**	**Phase 5**	**Phase 6**	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**	**Local Plan Period**	**Phase 5**	**Phase 6**
Years	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2018-2038**	**2039-2043**	**2044-2048**	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2018-2038**	**2039-2043**	**2044-2048**
Scrubs Lane and Channel Gate	2,184	6,155	3,370	2,360	**14,070**	3,205	1,252	2,236	6,302	3,451	2,417	**14,406**	3,282	1,282
North Acton	4,899	7,323	3,643	1,297	**17,161**	0	0	4,948	7,396	3,680	1,310	**17,334**	0	0
Old Oak South	2,525	0	849	2,653	**6,027**	5,200	3,396	2,555	0	869	2,717	**6,141**	5,324	3,477
Park Royal	2,501	2,555	0	0	**5,056**	0	0	2,519	2,617	0	0	**5,135**	0	0
Whole Scheme	**12,109**	**16,033**	**7,863**	**6,310**	**42,315**	**8,405**	**4,648**	**12,258**	**16,315**	**8,000**	**6,443**	**43,016**	**8,606**	**4,759**

Table 8. Total Population by Development Phase and Development Sub-area

Affordable Housing Test	35% Affordable Housing							50% Affordable Housing						
Phase	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**	**Local Plan Period**	**Phase 5**	**Phase 6**	**Phase 1**	**Phase 2**	**Phase 3**	**Phase 4**	**Local Plan Period**	**Phase 5**	**Phase 6**
Years	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2018-2038**	**2039-2043**	**2044-2048**	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2018-2038**	**2039-2043**	**2044-2048**
Early Years (0-3/4)	577	748	366	325	**2,016**	467	258	645	842	412	372	**2,270**	539	298
Primary (4-10/11)	526	689	338	286	**1,840**	398	220	605	791	387	335	**2,118**	473	261
Secondary (11-17/18)	351	457	224	195	**1,226**	276	152	377	543	266	233	**1,419**	332	184
Young adults (18-24/25)	1,117	1,861	913	420	**4,310**	824	514	1,374	1,880	922	722	**4,898**	941	521
Adults (25-54)	8,984	11,362	5,572	4,879	**30,797**	6,061	3,267	8,585	11,344	5,564	4,442	**29,935**	5,894	3,259
Older people (55+)	554	917	450	204	**2,126**	379	237	672	916	450	338	**2,376**	427	236
All ages	**12,109**	**16,033**	**7,863**	**6,310**	**42,315**	**8,405**	**4,648**	**12,258**	**16,315**	**8,000**	**6,443**	**43,016**	**8,606**	**4,759**

Table 9. Total Population by Age Group

3. Early Years

3.1.1 Early Years Context

The London Plan[21] is the strategic plan for London, which considers issues from economics, environment, transport and London's social framework. The London Plan identifies that due to population growth and increasing levels of diversity, there will be increased demand on social infrastructure, particularly schools, libraries, health facilities and spaces for local groups to ensure and support a high quality of life. Policy 3.18 (Education Facilities) states that "The Mayor will support provision of childcare, primary and secondary school and further and higher education facilities adequate to meet the demands of a growing and changing population and to enable greater education choice, including in parts of London with poor educational performance".

The draft new London Plan[22] identifies that access to affordable, accessible and high quality childcare (pre-school and school age) provision can play a significant role in children's development and positively influence school-readiness, future educational attainment, economic participation and health. Universal, high-quality, early childhood education and care not only benefits the whole population but can particularly benefit children from the most disadvantaged backgrounds. As well as the positive benefit for children, it also helps to enable parents to go back to work. The draft estimates that an additional 100,000 childcare places will be needed between 2016 – 2041. Policy S3(A) states that:

> *To ensure there is a sufficient supply of good quality education and childcare facilities to meet demand and offer educational choice, boroughs should:*
>
> 1. *identify and address local needs and any shortages in supply, both locally and sub-regionally, including cross-boundary issues*
> 2. *identify sites for future provision through the Local Plan process, particularly in areas with significant planned growth and/or need*
> 3. *ensure that development proposals for housing and commercial facilities incorporate suitable childcare provision and encourage nursery provision within primary schools, where there is a need.*

Two key policy changes for early years provision took effect in 2017: the introduction of the 30-hour entitlement and the implementation of the early years national funding formula (EYNFF). Both of these have significant implications for the provision of high quality early education and care in London. From September 2017, the entitlement to free childcare for 3 and 4 year-olds doubled for working parents from 15 to 30 hours per week. It is estimated that 42 per cent of 3 and 4 year-olds are eligible for this extended entitlement, although this proportion will clearly vary at the local level[23]. THE new EYNFF is based on three factors: a 'universal base rate' of funding for each child; an 'additional needs factor', to support children with additional needs; and the cost of providing childcare in different parts of the country. The intention is that organisations providing early years care have the financial support they need to deliver the 30-hour free childcare offer to working families. Local authorities, working in partnership with providers, are now able to bid for capital grant funding to support 30 hours delivery. The Mayor's Education and Youth Team advise that the 2017 policy changes will mean a future trend of nursery chains coming together and providing larger-scale facilities that benefit from the increased intake from the 30-hour entitlement and the economies of operating at scale to access EYNFF funding.

3.2 Early Years Population Figures

The 19,856 homes in the Local Plan period from 2018 to 2038 result in total early years population (aged 0-4) of between 2,016 and 2,270 (depending on the affordable housing target). The majority (64%) of early years population in the Local Plan period are generated by Scrubs Lane, Channel Gate and North Acton sub areas.

[21] The London Plan: The Spatial Development Strategy for London consolidated with alterations since 2011 (March 2016).
[22] The current 2016 Plan is still the adopted Development Plan, but the Draft New London Plan is a material consideration in planning decisions. Please refer to footnote 1 and 2.
[23] National Audit Office, 'Entitlement to free early education and childcare', March 2016.

Affordable Housing Test	35% Affordable Housing	50% Affordable Housing
Age	**Early Years 0-4**	**Early Years 0-4**
Scrubs Lane and Channel Gate	782	902
North Acton	618	665
Old Oak South	336	397
Park Royal	280	306
Whole Scheme	**2,016**	**2,270**

Table 10. Early Years Spaces Requirement by Development Sub-area

3.3 Early Years Key Assumptions

A series of assumptions have been agreed with key stakeholders to determine the early years projections:

- Total children aged 0-4 are assumed to be split equally by ages 0-1, 1-2, 2-3 and 3-4.
- The take-up of early years places increases with age[24]:
  - 9% aged 0-1;
  - 25% aged 1-2,
  - 40% aged 2-3; and
  - 85% aged 3-4.
- 0.47% of all children under 5 years of age will have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan in place. For the under 5 group, it is only reception age children (i.e. those who were 4 at the start of the academic year) where a SEN Units or Specially Resourced Provision would be an option, they are not available for children below that age).[25]
- When choosing between stand-alone nurseries and nursery provision in schools, the take-up of school nursery places is 76%[26]. This is because families tend to only send their child to a school nursery if they plan to send them to the reception class afterwards and school nurseries do not work for all families because of the opening hours.

Applying these key assumptions of early years take-up results in a need for between 326-367 places for ages 3-4 in school nurseries and between 451-508 places for ages 0-4 in stand-alone nurseries (depending on the affordable housing target) in the Local Plan period to 2038.

Affordable Housing Test	35% Affordable Housing			50% Affordable Housing		
Phase & years	**Ages 3-4 in pre-school**	**Ages 0-4 in nurseries**	**SEN Statement or Plan**	**Ages 3-4 in pre-school**	**Ages 0-4 in nurseries**	**SEN Statement or Plan**
Phase 1 (2018-2023)	93	129	3.21	104	144	3.60
Phase 2 (2024-2028)	121	167	4.16	136	188	4.70
Phase 3 (2029-2033)	59	82	2.04	66	92	2.30
Phase 4 (2034-2038)	53	73	1.80	60	83	2.06
Total (Local Plan Period)	**326**	**451**	**11.20**	**367**	**508**	**12.66**
Total (Local Plan Period)	**777**			**875**		
Phase 5 (2039-2043)	75	105	2.57	87	121	2.98
Phase 6 (2044-2048)	42	58	1.42	48	67	1.65

Table 11. Early Years Spaces Requirement by Development Phase

[24] These assumptions have been checked with officers from the London Boroughs of Brent, Ealing and Hammersmith & Fulham.
[25] Based on the number of statements and EHC plans combined for 'SEN2 Age Caseload' for Age 11 to 15, Age 16 to 19, Age 20 to 25, Age 5 to 10 and Under 5 from 'Education, health and care plans' in England between 2018 and 2020; 'Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019' published 24 June 2020.
[26] Based on advice from LB Ealing of the number of pupils in reception and nursery at the current state funded primary schools in Ealing.

3.4 Early Years Provision Types

Early Years projects are based on the following assumptions:

- A pre-school nursery class size of 25 pupils[27] for ages 3-4; and
- A model of provision outside of schools in super-nurseries for ages 0-4 which cater for circa 120 children. This is to meet the population needs of the development and make efficient use of space.

The specification requirements for a super nursery are based on operator site search requirements[28]:

Facility	Site Size	Floorspace
120 place super nursery	2,000 sq.m	800sq.m

Table 12. Early Years Facility Size Assumption

3.5 Early Years Requirements

Applying the assumptions in section 3.4 to the early years space results in Table 11 results in a need for between 13.0 and 14.7 early years classes in school nurseries and between 4 and 5 stand-alone nurseries for ages 0-4 (depending on the affordable housing target) in the Local Plan period to 2038.

Affordable Housing Test	35% Affordable Housing		50% Affordable Housing	
Phase & years	**Pre-school classes**	**Super-nurseries**	**Pre-school classes**	**Super-nurseries**
Phase 1 (2018-2023)	3.7	1.1	4.2	1.2
Phase 2 (2024-2028)	4.8	1.4	5.4	1.6
Phase 3 (2029-2033)	2.4	0.7	2.7	0.8
Phase 4 (2034-2038)	2.1	0.6	2.4	0.7
Total (Local Plan Period)	**13.0**	**3.8**	**14.7**	**4.2**
Phase 5 (2039-2043)	3.0	0.9	3.5	1.0
Phase 6 (2044-2048)	1.7	0.5	1.9	0.6

Table 13. Early Years Facility Requirement by Development Phase

3.6 Early Years Site Selection

In order to provide a mix of provision the super-nurseries should be located across the OPDC area and located close to the areas projected for population growth. Indicatively, this will require one hub each in Scrubs Lane, Channel Gate, Old Oak South and North Acton. The location of the fourth facility will be determined by ongoing monitoring of development build-out in the OPDC area. The site requirements for super-nurseries are less restricted than search requirements for schools. Super-nurseries can be incorporated within a number of development types including: office/commercial uses; residential schemes; mixed-use schemes; community hubs including churches/healthcare/other former D1 use classes such as community halls. Super-nurseries can also provide active frontages at ground floor uses. Super-nurseries will be delivered by commercial operators on either leasehold or freehold terms and it is expected that developers will approach operators as part of creating mixed-use proposals.

3.7 Early Years – Summary

- All ages from 0-4 are assumed to require some form of early years care, increasing with age. This report assumes a mix of early years provision in pre-school classes for ages 3-4 in primary schools and super-nurseries for ages 0-4 and those children aged 3-4 who are not sent to a pre-school nursery.
- Four super-nurseries and fifteen pre-school classes will be required in order to meet the early years needs from a 50% affordable housing target in the Local Plan period to 2038.

[27] 2020 liaison with LB Ealing representatives revised the size of pre-school nursery class size from 30 to 25 pupils.
[28] https://www.daynurseries.co.uk/daynursery.cfm/searchazref/65432204282

4. Education

4.1 Education Political/National Context

The National Planning Policy Framework (NPPF)[29] provides guidance on 'promoting healthy communities' under Chapter 8 in which it identifies an important role for planning to facilitate social interaction and create healthy, inclusive communities. This should involve all sections of the community, with a focus on neighbourhood planning. In paragraph 72[30] the government attaches great importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities. Local planning authorities should take a proactive, positive and collaborative approach to meeting this requirement, and to development that will widen choice in education. They should: give great weight to the need to create, expand or alter schools; and, work with schools promoters to identify and resolve key planning issues before applications are submitted.

The London Plan[31] is the strategic plan for London, which considers issues from economics, environment, transport and London's social framework. The London Plan identifies that due to population growth and increasing levels of diversity, there will be increased demand in social infrastructure, particularly schools, libraries, health facilities and spaces for local groups to ensure and support a high quality of life. Policy 3.18 (Education Facilities) states[32]:

A The Mayor will support provision of childcare, primary and secondary school, and further and higher education facilities adequate to meet the demands of a growing and changing population and to enable greater educational choice, including in parts of London with poor educational performance.

B The Mayor strongly supports the establishment of new schools, including free schools and opportunities to enable local people and communities to do this.

C Development proposals which enhance education and skills provision will be supported, including new build, expansion of existing or change of use to educational purposes. Those which address the current and projected shortage of primary school places and the projected shortage of secondary school places will be particularly encouraged. Proposals which result in the net loss of education facilities should be resisted, unless it can be demonstrated that there is no ongoing or future demand.

D In particular, proposals for new schools, including free schools should be given positive consideration and should only be refused where there are demonstrable negative local impacts which substantially outweigh the desirability of establishing a new school and which cannot be addressed through the appropriate use of planning conditions or obligations.

E Development proposals which maximise the extended or multiple use of educational facilities for community or recreational use should be encouraged.

F Development proposals that encourage co-location of services between schools and colleges and other provision should be encouraged in order to maximise land use, reduce costs and develop the extended school or college's offer. On-site or off-site sharing of services between schools and colleges should be supported.

G Development proposals that co-locate schools with housing should be encouraged in order to maximise land use and reduce costs.

H LDFs and related borough strategies should provide the framework:

a for the regular assessment of the need for childcare, school, higher and further education institutions and community learning facilities at the local and sub-regional levels; and

b to secure sites for future provision recognising local needs and the particular requirements of the education sector.

[29] National Planning Policy Framework (NPPF) (2012)
[30] Reiterated in paragraph 94 of the revised National Planning Policy Framework updated on 19 February 2019.
[31] The London Plan: The Spatial Development Strategy for London consolidated with alterations since 2011 (March 2015).
[32] The underlining emphasises key themes relevant to this chapter.

The vast majority of applications for free schools are now put forward by professional school providers e.g. academies opening another academy or multi-academy trusts, very few are parent led groups seeking parental choice to open a new school. There are increasing concerns about under-occupancy and the impact on budgets where a new school opens very close to an existing school and pulls pupils from local schools in its first years of operating. Section 4.9 explains the procurement routes for new schools.

The draft new London Plan[33] identifies that access to affordable, accessible and high quality childcare (pre-school and school age) provision can play a significant role in children's development and positively influence school-readiness, future educational attainment, economic participation and health. The draft estimates there is a growing need for school places in London, with projected demand for an additional 7,000 primary school places for the academic year 2018/19 and 65,000 secondary school places in state maintained schools over the period to 2027/28. Policy S3(A) states that:

> *To ensure there is a sufficient supply of good quality education and childcare facilities to meet demand and offer educational choice, boroughs should:*
>
> 1. *identify and address local needs and any shortages in supply, both locally and sub-regionally, including cross-boundary issues*
> 2. *identify sites for future provision through the Local Plan process, particularly in areas with significant planned growth and/or need*
> 3. *ensure that development proposals for housing and commercial facilities incorporate suitable childcare provision and encourage nursery provision within primary schools, where there is a need.*

4.2 Education – Engagement

The following meetings have been held with the strategic and local Education agencies to inform the education modelling:

- A joint meeting of Education officers from the London Boroughs of Hammersmith & Fulham, Ealing and Brent;
- The Head of Children's Services, the Assistant Director of Education and the Major Projects lead in the Education Team at Hammersmith & Fulham;
- Greater London Authority Economics: with the Demography Manager and Senior Research & Statistical Analyst; and
- One-to-one update meetings with borough education officers in autumn 2020.

4.3 School Age Population Figures

The 19,856 homes in the Local Plan period from 2018 to 2038 result in total primary age population (aged 4-10/11) of between 1,840 and 2,118 and secondary age population (aged 11-17/18) of between 1,226 and 1,419 (depending on the affordable housing target). The majority (70-72%) of school age population in the Local Plan period are generated by Scrubs Lane, Channel Gate and North Acton sub areas.

Affordable Housing Test	**35% Affordable Housing**		**50% Affordable Housing**	
Age	**Primary (Ages 4-10/11)**	**Secondary (Ages 11-17/18)**	**Primary (Ages 4-10/11)**	**Secondary (Ages 11-17/18)**
Scrubs Lane and Channel Gate	666	462	791	556
North Acton	648	401	705	466
Old Oak South	286	198	370	234
Park Royal	239	165	251	163
Whole Scheme	**1,840**	**1,226**	**2,118**	**1,419**

Table 14. School age population by Development Sub-area

[33] The current 2016 Plan is still the adopted Development Plan, but the Draft New London Plan is a material consideration in planning decisions. Please refer to footnote 1 and 2.

4.4 Education Assumptions

4.4.1 Primary & Secondary Schools

A series of assumptions have been agreed with key stakeholders to determine the primary and secondary school projections:

- A 15% discount on child yield is applied to arrive at the number of primary school places needed. This discount is 'leakage' to private education or home-schooling and is based on assumptions discussed and agreed with the three Boroughs[34];
- 3.05% of all children aged 5-10 years of age will have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan in place. 12% of these will need facility provision in SEN Units or Specially Resourced Provision provided in mainstream schools[35].
- School sizes are explained in terms of multiples of Forms of Entry (FE). One Form of Entry (FE) means there is one class of 30 pupils in each year group in the school. Primary Schools have 7 year groups covering the national curriculum from Early Years to Key Stage 2. A one FE primary school is therefore 7 classes x 30 pupils = 210 pupils. A two FE school would have two classes in each year group, i.e. 14 classes x 30 pupils = 420 pupils. The same process is followed to size a 3 FE or a 4 FE primary school.
- Primary school sizes can range from 1FE-5 FE. The norm in terms of school building outside metropolitan cities would be 1 FE- 2 FE with 3 FE in exceptional areas of high demand or restricted land availability. The norm for school building in London is a minimum of 2 FE[36], a standard of 3 FE and a trend to move toward 4 FE in exceptional areas of high demand or restricted land availability. 5 FE is a highly exceptional size of new school[37].
- A 30% discount on child yield is applied to arrive at the number of secondary school places needed. This discount is 'leakage' to private education or home-schooling and is based on assumptions discussed and agreed with the three Boroughs[38];
- 4.18% of all children aged 11-15 years of age will have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan in place. 12% of these will need facility provision in SEN Units or Specially Resourced Provision provided in mainstream schools[39].
- Secondary Schools have 5 years groups covering national curriculum from Key Stage 3 to 4. A one FE secondary school is therefore 5 classes x 30 pupils = 150 pupils. A two FE school would have two classes in each year group, i.e. 10 classes x 30 pupils = 300 pupils. The same process is followed to size larger schools.
- Secondary school sizes can range from 5 FE- 10 FE. The norm in terms of school building outside metropolitan cities would be 5 FE- 6 FE with 8 FE in exceptional areas of high demand or restricted land availability. The norm for school building in London is a minimum of 6 FE, a standard of 8 FE in new school building and a trend to move toward 10 FE in exceptional areas of high demand or restricted land availability[40].
- The larger sizes above are generally the maximum school size that heads and governors will consider on the basis that they can ensure the school operates well and delivers quality outcomes. A simple way to understand this is to consider that a 4 FE primary school has 840 pupils aged 4-10/11 arriving at, moving around and being educated at one site; a 10 FE secondary school means 1500 pupils aged 11-18 on the one site.

[34] Sensitivity testing of an 11% discount rate is included in A.2
[35] Please refer to footnote 25 for source of assumptions. Facility provision based on 2020 details from LB Ealing for the number of children with plans in reception to Year 11 who are in ARPs and Units.
[36] 2020 feedback with borough education representatives on school sizes: LB Brent indicate that 1FE school of 210 pupils or less are not sustainable and are being phased out over time. LB Ealing indicate that DfE minimums for new primary schools is 2FE (420 pupils).
[37] The Byron Court Primary School, Wembley has been expanded from a 3 FE to a 5 FE school in response to an increase in demand for school places and a lack of suitable sites to build new schools.
[38] Sensitivity testing of a 15% discount rate is included in A.2
[39] Please refer to footnote 25 for source of assumptions.
[40] 2020 feedback with borough education representatives on school sizes: LB Brent indicate that new free schools are being built at 4FE (600 pupils) and the largest school is 12FE (1800 pupils). LB Ealing indicate that DfE minimums for new secondary schools is 6FE (900 pupils).

- All-through schools are an emerging model of school provision in the state-maintained sector. All through schools currently comprise 8% (43 in number) of all academy, free schools and local authority maintained secondary schools in London[41]. Of the 46 free schools for ages 11-19 that have opened in London since 2011/12 a total of 9 are all-through schools. Of the 41 free schools for ages 11-19 that are in pipeline development in London a total of 5 are all-through schools. The pupil capacity of all-through schools currently open in London range from 830 to 3000 pupils, with a median size of 1,645 pupils. 16 all-through schools in London include both a nursery and a sixth form.

4.4.2 Ages 16-19

- At the end of key stage 4 pupils can leave school if they are 16 by the end of the summer holidays. However, they must do one the following until they are 18: a) stay in full-time education, for example at a college; b) start an apprenticeship or traineeship, or c) spend 20 hours or more a week working or volunteering, while in part-time education or training. This is commonly referred to as "the extended school leaving age".
- It is important to note the choices available and the fact that staying in mainstream education is not the only option. The secondary schools sizes referred to above will generally also provide sixth form capacity in additional to the places in the five age groups to age 15/16. The proportion of sixth form places to KS4 places is determined on a school-by-school basis looking at the trends for children staying on to do A levels as opposed other types of training and the particular offer at the school i.e. specialism and whether this would attract more pupils to stay on past 16.
- 3.37% of all children aged 16-19 years of age will have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan in place[42].

Applying the assumptions in section 4.4 to the school age population results in Table 15 results in a need for between 1,564 and 1,800 primary school places and between 858 and 994 secondary school places (depending on the affordable housing target) in the Local Plan period to 2038. The maximum forecasts of SEN places is within the range of a typical group size that would trigger Specially Resourced Provision in mainstream schools or a Designated SEN unit[43].

Affordable Housing Test	**35% Affordable Housing**				**50% Affordable Housing**			
Phase & years	**Primary**		**Secondary**		**Primary**		**Secondary**	
	Places (Ages 4-10/11)	**SEN places (Ages 5-10)**	**Places (Ages 11-17/18)**	**SEN places (Ages 11-15)**	**Places (Ages 4-10/11)**	**SEN places (Ages 5-10)**	**Places (Ages 11-17/18)**	**SEN places (Ages 11-15)**
Phase 1 (2018-2023)	447	1.7	246	1.3	514	1.9	264	1.4
Phase 2 (2024-2028)	586	2.2	320	1.6	672	2.5	380	1.9
Phase 3 (2029-2033)	287	1.1	156	0.8	329	1.2	186	1.0
Phase 4 (2034-2038)	243	2.2	136	0.7	285	1.1	163	0.8
Total (Local Plan Period)	**1,564**	**5.8**	**858**	**4.4**	**1,800**	**6.6**	**994**	**5.1**
Phase 5 (2039-2043)	338	1.25	193	1.0	402	1.5	233	1.2
Phase 6 (2044-2048)	187	0.69	107	0.5	222	0.8	129	0.7
Total (Development Trajectory)	**2,089**	**7.7**	**1,158**	**5.9**	**2,424**	**8.9**	**1,355**	**6.9**

Table 15. School Places Requirement by Development Phase

[41] Based on DfE Get Information on Schools and Schools and Pupils by Type of School, Borough table on the London Datastore.
[42] Please refer to footnote 25 for source of assumptions.
[43] As set out in Building Bulletin 104 "Area guidelines for SEND and alternative provision".

4.4.3 Ages 20-24

Part 3 of the Children and Families Act 2014 and associated regulations relates to children and young people with special educational needs (SEN) and disabled children and young people. A 'young person' in this context is a person over compulsory school age and under 25, provision for 19-24 year olds can be as follows:

- 19- to 24-year-olds with EHC plans should have free access to further education in the same way as 16-to18-year-olds.
- Apprentices aged 19 to 24 with EHC plans are fully funded on the same terms and funding rates as 16- to 18-year-old apprentices.
- 19- to 24-year-olds with SEN but without EHC plans can choose to remain in further education.
- 0.72% of 19- to 24-year-olds will have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan in place. SEN Units or Specially Resourced Provision are not an option for 20-24 age young people as they are a school based[44].

Table 16 indicates the number of young person aged 20-25 anticipated to have a Special Education Needs (SEN) Statement or statutory Education, Health and Care (EHC) plan.

Affordable Housing Test	**35% Affordable Housing**	**50% Affordable Housing**
Phase & years	**Young Persons SEN Statement or Plan**	**Young Persons SEN Statement or Plan**
Phase 1 (2018-2023)	5.74	7.07
Phase 2 (2024-2028)	9.57	9.67
Phase 3 (2029-2033)	4.70	4.74
Phase 4 (2034-2038)	2.16	3.71
Total (Local Plan Period)	**22.17**	**25.19**
Phase 5 (2039-2043)	4.24	4.84
Phase 6 (2044-2048)	2.64	2.68
Total (Development Trajectory)	**29.05**	**32.71**

Table 16. SEN Statement or Plan (Young Persons) by Development Phase

4.5 Types of School Service Model

There are two main types of mainstream i.e. publicly provided, school:

- Separate primary and secondary schools, catering for age groups 4-10 and 11-18 in individual managed institutions generally located on separate sites;
  - For the purposes of this analysis a three FE (630 pupils) primary school with associated early-years groups[45] has been assumed. Stand-alone primary schools are assumed to be triggered when 1 FE of children (210 places) are generated.
  - For the purposes of this analysis a nine FE (1,350 pupils) secondary school (encompassing 7 FE for ages 11-15 and two FE for ages 16-18) has been assumed. Stand-alone secondary schools are assumed to be triggered when 4 FE of children (600 places) are generated.
- All-through schools, catering for age groups 3-18 in a combined managed institution, generally located on one site or on linked sites.
  - The OPDC DIFS Study and 2018 SINS Report assumed a four FE all-through school for ages 3-18. The model of all-through school has been amended for the 2020 SINS Addendum[46] to comprise four early-years groups (25 places each/100 total places), two FE primary (420 pupils

[44] Please refer to footnote 25 for source of assumptions.
[45] Based on advice from LB Ealing and LB Brent the size of the early years groups is not constrained to the size of school form, i.e. the number of early years classes can be larger than the reception year.
[46] To reflect 2020 feedback with borough education representatives on school sizes.

aged 4-9), six FE secondary (900 pupils aged 10-18/19). This is a total school roll of 1,420 children. All-through schools are triggered when either 1 FE of primary or secondary age children are generated.

In addition, primary and secondary schools which are managed as individual institutions can be co-located on one site and two primary schools could be co-located on the one site. However the management and governance of the schools is separate.

Appendix D provides a review of the advantages, weakness and challenges to delivery of the different school service models.

The following site sizes have been determined based on advice in Building Bulletins 103 and 104. In light of the changes since the 2018 SINS Report in the number of pupils with special educational needs (SEN) the school sizes include allowance for either Specially Resourced Provision (SRP) or a Designated Unit. The size of these allowances are based on comparable facilities rather than sized to the forecast of pupils with a Statement or EHC Plan in place[47]. Appendix C explains the modelling process and the variables used (such as building storeys and types of outdoor space) which have been included in these assumptions. The site sizes exclude soft outdoor playing pitches.

Facility	Site Size
3FE Primary	0.49 Ha
4FE Primary	0.59 Ha
6FE Secondary (assuming 5FE 10-16 1FE 16+)	0.88 Ha
7FE Secondary (assuming 6FE 10-16 1FE 16+)	0.95 Ha
8FE Secondary (assuming 6.5FE 10-16 1.5FE 16+)	0.99 Ha
9FE Secondary (assuming 7FE 10-16 2FE 16+)	1.03 Ha
10FE Secondary (assuming 8FE 10-16 2FE 16+)	1.10 Ha
All-through 2FE (420 primary) and 6FE (900 secondary school)	1.28 Ha

Table 17. School Facility Size Assumption

4.6 Existing School Capacity

As part of the 2019 Social Infrastructure Needs Study and 2020 Addendum Update the OPDC and AECOM have sought advice from the London Boroughs of Hammersmith & Fulham, Ealing and Brent on the potential for existing schools in the area of influence to the Old Oak and Park Royal development area to help contribute towards meeting needs arising in the early phases of development.

London Borough of Hammersmith and Fulham

- In anticipation of the development in the Old Oak area the London Borough of Hammersmith & Fulham has previously delivered expansions to primary schools in the north of the borough. There is available existing capacity which is projected to continue in some primary schools. However, the current GLA school roll projections used by Hammersmith & Fulham only forecast until 2033.
  - Based on these forecasts there will be enough primary places in the north of the borough to support the increased number of primary aged pupils generated by the OPDC development until 2027. In 2025-2026, arrangements should be made to start primary school expansion programmes which will deliver places in 2028, should school projections at the time indicate a continuing need at that time. According to the current GLA projections, between 2028 and 2033 an additional 3,387 primary places will be needed.
  - There are also sufficient secondary school places in the north of the borough to meet demand until 2032. Post 2032 additional places may be required to ensure the borough's secondary school place provision falls within the minimum DfE requirement.

[47] This assumption provides an element of future-proofing should the number of pupils with special educational needs (SEN) continue to rise as it has for the last three years.

- Therefore the LBHF Education Authority does not seek more primary schools to be delivered in the OPDC area in phase 1 or 2 of the Local Plan period that is likely to undermine the viability of existing primary schools. The Authority will closely monitor the Borough's secondary provision in the OPDC planning area to assess if expansion programmes are required through investment sources such as CIL and S106 contributions from new development in the OPDC area.

London Borough of Brent

- The London Borough of Brent has in the past experienced sustained growth followed by a sustained reduction in the primary-aged population and overall projections indicate a growth over the next 5 years. For primary demand, the LA's School Place Planning Strategy[48] only focuses on projections up to five years in advance but it is likely that there will be growth and continued pressures in some areas of the Borough or in specific year groups. There are a number of new housing developments across Brent, which are likely to impact on local demographics and could change school place demand patterns. Old Oak will impact on Primary School Planning Area 4 where the January 2020 GLA projections indicate a surplus of Reception places and all other year groups over the next 5 academic years to 2025/26. The significant growth in pupil numbers that has been seen in the Primary phase, both in Brent and across London, is now beginning to progress into the secondary phase. However, the latest GLA projections indicate relatively static demand for secondary school places in Secondary School Planning Area South, with significant capacity in every year group over the next 8 years to 2028/29. Demand across the whole Borough is projected to slowly increase over the next 8 years, although there is currently sufficient capacity to meet future demand. Most of the existing spare capacity in Brent is within schools in Planning Area South and the local authority necessarily relies on some of these schools to ensure children are able to access education, particularly for in-year admissions where schools in other planning areas may be full. Longer term forecasts suggest there may be a need to create new provision in Brent from 2030, however, the council recognises that secondary place planning figures can be quite volatile and monitors these closely. Any newly required capacity could be provided through a combination of new schools and expanding existing provision.

London Borough of Ealing

- The London Borough of Ealing's latest projections for primary schools indicate that there will be sufficient primary school capacity to meet demand over the next five years, with an increasing number of surplus places. Planned admission numbers have been reduced in ten primary schools across the borough to help manage this falling demand, with further reductions proposed for 2021 and 2022. It is expected that some of this capacity will subsequently be repurposed to meet SEND demand, so will not then be available to meet future mainstream demand. Ealing is currently experiencing considerable pressure on secondary school places, however the addition of a further secondary free school (Ark Soane) in Acton from September 2021 to existing capacity is projected to meet secondary demand for the next five years. Localised demand from the major housing developments planned in Southall in the west of the borough is not yet fully factored into our modelling and a 2FE free primary school has been allowed for on those developments to meet this demand. Further secondary capacity is also expected to be needed. Demand from OPDC has not yet been factored in to the borough's projections.

Based on the commentary by the three Education Authorities in their School Organisation Strategies and liaison with Borough education officers, the following assumptions have been used to guide the approach to providing on-site new schools within the OPDC development area:

- Primary schools: Sufficient capacity will be available in existing primary schools in Brent and Hammersmith and Fulham (in combination) to meet the needs arising from phases 1 and 2 of the Local Plan period. Therefore the monitoring of on-site provision of primary schools starts from Phase 3 (2029);
- Secondary schools: Sufficient capacity will be available in existing secondary schools in Brent and Hammersmith and Fulham (in combination) to meet the needs arising from phases 1, 2 and part phase 3 of the Local Plan period. Therefore the monitoring of on-site provision of secondary schools starts from mid-way in Phase 3 (2033);

An ongoing process of dialogue between OPDC and the Boroughs will keep under review the take-up of available existing capacity in the area of influence to the Old Oak and Park Royal development area. This will also consider the role of existing schools in the wider area to be part of a complete package of solutions to help meet school place needs (including the pre-school classes identified in section 3.7) and bring

[48] https://www.brent.gov.uk/your-council/about-brent-council/council-structure-and-how-we-work/strategies-and-plans/school-place-planning-strategy-2019-23/

communities together. This will enable the population modelling to be monitored over time and for OPDC and the Boroughs to work together to identify the most appropriate means to deliver new or additional school capacities.

Figure 1. Map of the Existing School Surrounding the OPDC Development Area

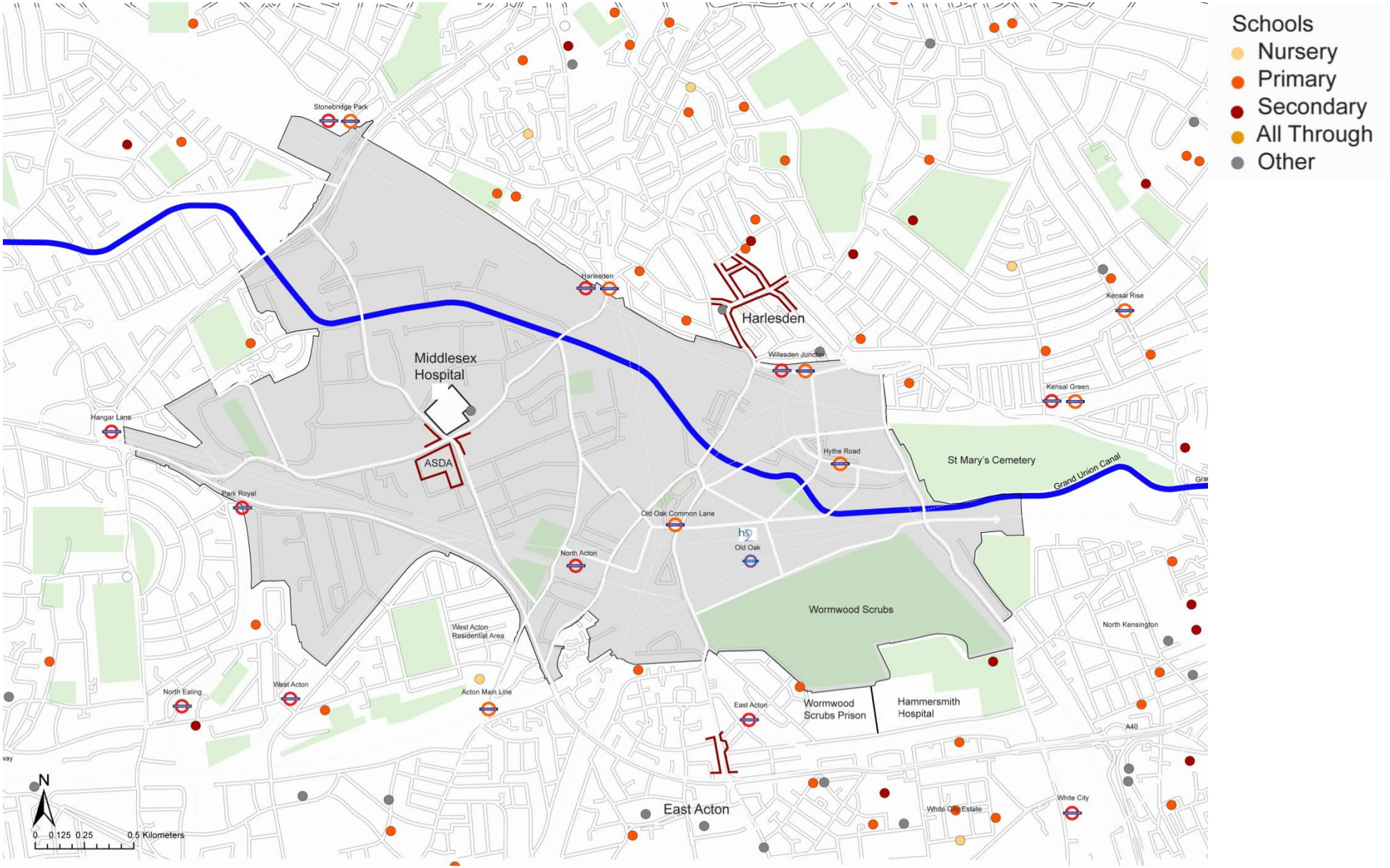


Table 18 illustrates the net results of applying the assumptions of existing school capacity to the pupil places need. Assuming use of existing facilities results in a net need for between 377 and 614 primary school places and between 63 and 199 secondary school places (depending on the affordable housing target) in the Local Plan period to 2038. Table 18 also translates the net pupil places into school forms of entry (FE) indicating a need for between 1.8 and 2.9 forms of primary school and 0.4 and 1.3 forms of secondary school need in the Local Plan period (depending on the affordable housing target).

Affordable Housing Test	35% Affordable Housing				50% Affordable Housing			
Phase & years	Primary places (Ages 4-10/11)	Primary Forms of Entry (210 pupils)	Secondary places (Ages 11-17/18)	Secondary Forms of Entry (150 pupils)	Primary places (Ages 4-10/11)	Primary Forms of Entry (210 pupils)	Secondary places (Ages 11-17/18)	Secondary Forms of Entry (150 pupils)
Phase 1 (2018-2023)	0	0.0	0	0.0	0	0.0	0	0.0
Phase 2 (2024-2028)	0	0.0	0	0.0	0	0.0	0	0.0
Phase 3 (2029-2033)	134	0.6	0	0.0	329	1.6	35	0.2
Phase 4 (2034-2038)	243	1.2	63	0.4	285	1.4	163	1.1
Phase 5 (2039-2043)	338	1.6	193	1.3	402	1.9	233	1.6
Phase 6 (2044-2048)	187	0.9	107	0.7	222	1.1	129	0.9
Total (Local Plan Period)	**377**	**1.8**	**63**	**0.4**	**614**	**2.9**	**199**	**1.3**
Total (Development Trajectory)	**903**	**4.3**	**363**	**2.4**	**1,238**	**5.9**	**560**	**3.7**

Table 18. Pupil Places and Forms of Entry Need (assuming use of Existing School Capacity)

4.7 School Requirements and Trigger Years

Table 19 illustrates how the school forms of entry build-up cumulatively across the Local Plan period. This is only included for the 50% affordable housing test as the maximum scenario of need and to remain in line with Local Plan Policy position. The triggers years for provision of the schools are shown in green.

50% Affordable Housing Test	Phase 1						Phase 2					Phase 3					Phase 4				
Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
PRIMARY FoE	-5.6	-5.4	-5.1	-4.6	-3.7	-3.2	-2.6	-1.9	-1.5	-0.8	0.0	0.5	0.7	0.9	1.3	1.6	1.9	2.3	2.5	2.7	2.9
SECONDARY FoE	-5.3	-5.1	-4.9	-4.6	-4.0	-3.5	-3.0	-2.5	-2.2	-1.7	-1.0	-0.6	-0.5	-0.3	0.0	0.2	0.5	0.8	1.0	1.2	1.3

Table 19. School Forms of Entry Build-up by Development Phase

Table 20 explains the number, size and trigger year of schools required in order to meet the needs arising during the Local Plan period from the 50% affordable housing scenario, based on using existing primary and secondary school capacity in phases 1, 2 and part 3 (as appropriate). One primary school is required to open in 2031. The reduction of one primary school compared to the 2017 Education and Health Needs Study can be attributed to three factors: the reduction in development capacity during the plan period due to key sites being removed; the changes in child yield assumptions as explained in appendix A.1; and, the recommendation from the Boroughs that sufficient capacity will be available in existing primary schools to meet the needs arising from phases 1 and 2 of the Local Plan period. The removal of the secondary school needs compared to the 2018 SINS report is attributed to the recommendation from the London Boroughs of Brent and Hammersmith & Fulham that sufficient capacity will be available in existing secondary schools (in combination) to meet the needs arising from the Local Plan period until 2032.

Affordable Housing Test	**50% Affordable Housing**
Primary (Ages 4-10/11)	**Primary**
School service model	One 3FE primary school – 2031

Table 20. Number of Schools and School Triggers Years

4.8 School Site Selection

OPDC's Local Plan includes a 50% affordable housing policy with 25% family housing, subject to viability. The Local Education Authorities (LEAs) have identified the existing schools that may have the potential to meet the needs of the development in early phases (refer to Section 4.6). Proposals for the expansion or use of existing capacity within these facilities is not yet committed and OPDC will be working with the relevant service providers to further investigate the potential for these facilities to be used. On this basis, the OPDC Local Plan needs to model for on-site requirements based on the education needs as set out in Section 4.7.

The trigger year for on-site primary education school falls within phase 3 of the Local Plan period. Due to this longer-term timeframe, a degree of flexibility is required to select an appropriate site to account for changes in suitability, availability and achievability of potential sites. Monitoring from 2029, or before if required, will be undertaken by OPDC with the host boroughs and relevant education service providers to identify an appropriate site for the required trigger year. Appropriate sites will be selected and allocated in future reviews of the Local Plan utilising the criteria set out in Appendix F. This will inform updates to OPDC's Local Plan and education planning.

4.9 Education Facilities Procurement[49]

- The key agencies involved in education procurement are as follows:
- The **Education and Skills Funding Agency** (ESFA) brings together the existing responsibilities of the Education Funding Agency (EFA) and Skills Funding Agency (SFA), creating a single funding agency accountable for funding education and training for children, young people and adults. The EFSA is accountable for £61bn of funding for the education and training sector.
- The main role of the **Local Authority** (LA) is to: Ensure sufficient school places are available by building or extending schools; get rid of surplus places by closing or reorganising schools; assess and provide home to school transport; provide support services for schools; assist the government in implementing initiatives and legislation relating to schools, children and families and allocate finance to schools. LAs are responsible for school place planning to forecast expected population trends. The **GLA** assist the LAs by providing projections of the number of pupils who will be at schools in the future.
- **Academies**: LAs used to manage all state schools in its area; this is no longer the case following the Learning and Skills Act 2000 and the Academies Act 2010. Academies are state-funded schools in England which are directly funded by the Department for Education and are independent of local authority control. Academies are self-governing non-profit charitable trusts. A number of private and charitable organisations run groups of academies. These major operators include ARK Schools, Academies Enterprise Trust, E-ACT (formerly Edutrust Academies Charitable Trust), Emmanuel Schools Foundation, Harris Federation, Oasis Trust, Ormiston Academies Trust, LSSAT Academies Trust and United Learning Trust. Academies are subject to inspection by Ofsted.
- **Free Schools** are new independent state-funded schools. They provide a way for groups of parents, teachers, charities, existing schools or other organisations to respond to a need for a new school in their community – whether for extra places, to raise standards or offer choice. The ESFA currently have 2 wave rounds a year inviting applications from free school sponsors. Applicant groups have to demonstrate that they have excellent educational expertise and a strong team that is capable of responsibly governing a school. They also have to prove that there is demand for the school in their community and show that they have developed a detailed education plan that will meet the needs of their students. Once established, free schools are legally Academies so have independent governance: free schools are run by an Academy Trust, independent of Local Authority oversight.

The AECOM Stage 1 Infrastructure Advisor analysis included an overview of the process to procure new schools. The commentary below has been updated based on engagement with the ESFA.

- Step 1: Agree the number, type, location and phasing of the new schools and school expansions:
  - Contact the Departments for Children's Services in the Boroughs of Hammersmith & Fulham, Brent and Ealing. The LAs will compare the population projections for OOC with their expected demand for school places and decide if new schools or expansions are necessary.
  - If it is agreed that new schools are needed, the relevant LA must notify the Secretary of State that they plan to seek proposals from sponsors and free school proposers to operate the school. It is also advisable to notify the Regional Schools Commissioner (RSC) for NW London and South Central England and set out the proposals. The remit of RSCs is to uphold the quality of education in their region which includes advising on proposals for new free schools and deciding on applications from sponsors wishing to operate in a region.
  - The Governors of the schools that are scheduled for expansion must also agree the plans.
- Step 2: Agree which organisation will operate the schools
  - The LAs will run a competitive process for Academy sponsors and free school proposers to operate the schools. The preferred party will be recommended to the Secretary of State but they will have the final decision, albeit delegated through the Regional School Commissioner.
- Step 3: Agree how the capital works will be funded

[49] Appendix E includes commentary on recent education procurement examples

- Route 1 - Local Authority run competition/presumption route.
  - Local Authority (LA) identify site for a new school and need for a new school. LA run a mini-procurement exercise to select the academy sponsor, they assess the responses and make a decision.
  - Under route 1, the LA is responsible for funding the site and development of the school.
  - In the case of schools linked to growth from new development, the LA would usually have the site from the developer (at no cost) and use capital to fund the school which is usually predominantly sourced from developer contributions.
  - In the case of schools linked to normal population growth, the LA will access Basic Need funding for the school, this is based on annual pupil growth projections with annual birth rate and GLA projections based on planning permissions (i.e. not Planning Policy allocations as at OPDC).
- Route 2 - Free School Wave route:
  - Anyone can make an application to run a free school. Applications are increasingly made by academy chains e.g. Harris, ARK, DRET, and West London Free School Trust.
  - The ESFA will assess the applications; the views of the LA will be sought on the best fit of school sponsor to the education need in the area. If an application is successful it will be approved for pre-opening. The DfE will then work with the successful applicant to identify a suitable site for the free school.
  - Under route 2, the DfE are responsible for funding the site acquisition and building the school.
  - Applicants can name S106 sites or development sites/regeneration areas in their applications.
  - If the LA owns the potential school site, they will be expected to provide it on a peppercorn rent.

4.9.1 OPDC's Role in Education Facilities Procurement

Figure 2 demonstrates the role of OPDC alongside Local Education Authorities, School providers or proposers and the ESFA in the procurement of new schools. The OPDC are the Plan Making Authority responsible for the regular assessment of the need for childcare, school, higher and further education institutions and community learning facilities and securing sites for future provision recognising local needs and the particular requirements of the education sector. The Local Authorities remain the school place planning authority and the ESFA are responsible for funding for the education and training sector.

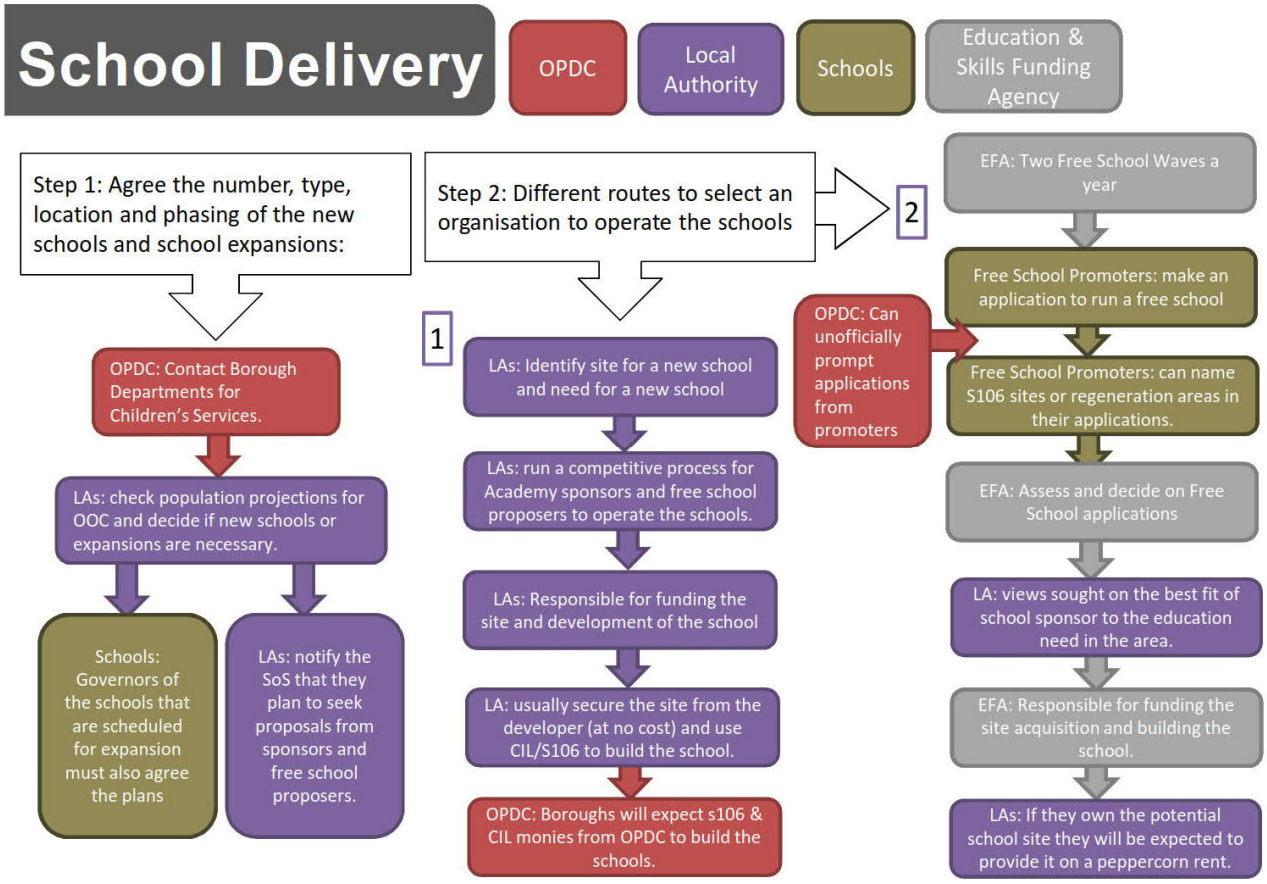


Figure 2. School Delivery & Procurement Steps based on Advice from the ESFA.

4.10 Case Study Examples of High Density & Mixed Use School Designs

Appendix G includes case study examples of primary, secondary and all-through schools which have been built with space savings due to high-density designs or the benefits of co-location, integration and adjacency with other land uses. Table 21 compares the building floorspace, play space and sports provision, other site components and the overall site areas from these examples to the Building Bulletin 103 guidelines.

		The buildings		The site – net site area (sq.m)			The site – non net site area	Site Area
Source	**No: of pupils**	**GIA (sq.m)**	**Building Storeys**	**1. Hard informal & social area**	**2. Outdoor PE MUGA[50]**	**3. Soft informal & social area**	**- Entrance paths & roads - Parking - Refuse & Recycling**	
Primary Schools								
Building Bulletin 103	630	3,275	3	830	799	1,860	350	4,930 sq.m 0.49 Ha
Byron Court Wembley	1050	4,992	2	Sports provision is extensive and beyond that envisaged on OOC. 3no. under 7/8 football pitches, 1no. under 11/12 football pitch, and 1no. athletics track including a 100m running track. MUGA as an all-weather sport pitch for netball, basketball and mini soccer. The central play area space provides opportunities for tennis and netball, alongside everyday play. The proposals also include a hard surfaced, 80m running track and a long jump sand pit.				18,300 sq.m 1.83 Ha
Avenue Primary School Newham	840	5,163	1-2	3,184	975	3,240		14,450 sq.m 1.44 Ha
QEOP PDZ4 school (Bobby Moore Primary)	420	2,289	2	1,456	741 Also 7,540 Soft Outdoor MUGA on adjacent plot to be shared with Bobby Moore Secondary	816		5,726 sq.m 0.57 Ha
Ark Priory	450	2,422	2-3	1,389	408	376	468	6,650sq.m 0.66 Ha

[50] Multi-Use Games Area.

		The buildings		The site – net site area (sq.m)			The site – non net site area	Site Area
Source	**No: of pupils**	**GIA (sq.m)**	**Building Storeys**	**1. Hard informal & social area**	**2. Outdoor PE MUGA[50]**	**3. Soft informal & social area**	**- Entrance paths & roads - Parking - Refuse & Recycling**	
Holy Trinity Dalston	420	3,213	2-3	Included in total building GIA of 12,979sq.m				4,550 sq.m 0.45 Ha
Plimsoll Building Kings Cross	420 + nursery	4,647*	1	The school playground is contained within the building envelope and forms the lower part of a sequence of terraced amenity spaces				1,170sq.m 0.12 Ha
Secondary Schools								
Building Bulletin 103	1350	11,062	5	1,250	2,178	2,700	2,000	10,340sq.m 1.03 Ha
Westminster Academy	1175	13,100	5	1,150	1,302			
QEOP PDZ12 school Bobby Moore Academy	1140	9,461	6	2,100	The school will have access to the Olympic Stadium community track and infield area which will extend to 13,698sqm of space during the school day. The Secondary School will also have use of the 7,540 Soft Outdoor MUGA on adjacent plot to be shared with Bobby Moore Primary	359		7,500 sq.m 0.75 Ha
Bridge Academy Hackney	1050	10,250	7	15,500sq.m total building size includes 450-seat performance hall, the base of the building is a sports hall, sixth form study space and a 180-seat lecture theatre. Sports pitches are provided offsite on Haggerston Park				6,000 sq.m 0.6 Ha

		The buildings		The site – net site area (sq.m)			The site – non net site area	Site Area
Source	**No: of pupils**	**GIA (sq.m)**	**Building Storeys**	**1. Hard informal & social area**	**2. Outdoor PE MUGA[50]**	**3. Soft informal & social area**	**- Entrance paths & roads - Parking - Refuse & Recycling**	
Cardinal Pole Catholic School Hackney	1000	9,600	3	2 on site MUGA				12,900 sq.m 1.29 Ha

Table 21. Building Floorspace and Site Area Comparisons from Recently Built Primary, Secondary and All-through Schools

Key themes emerging from a review of the examples include:

- Minimal or no car parking and use of cycle and scooter parking.
- Residential above primary schools.
- Integrated play/sports spaces at upper storeys within the building.
- Shared school/community use of sports facilities out of school hours.
- Use of off-site sports pitches and arrangements with sports clubs where development sites are constrained.

4.11 Education - Summary

The study assumptions used to generate the school needs in this report have been tested with relevant stakeholders. Based on the commentary by the three Education Authorities in their School Organisation Strategies and liaison with Borough education officers, sufficient capacity will be available in existing primary schools to meet the needs arising from phases 1 and 2 of the Local Plan period and in existing secondary schools to meet the needs arising until 2032. OPDC are committed to an ongoing dialogue and monitoring with the boroughs to work together to identify the most appropriate means to deliver new or additional school capacities.

- One on-site school is needed in the Local Plan period to 2038: one 3FE primary school (630 pupils) opening in 2031.
- Monitoring of on-site provision of a secondary school to start from mid-way in Phase 3 (2033).

5. Health

5.1 Health National Context

In 2014 the NHS Five Year Forward View described the need for a higher proportion of healthcare to be undertaken in community rather than hospital settings, and the need to make best use of available assets including more flexible approaches to how facilities are used. It is important to ensure that existing and planned new health infrastructure supports and facilitates change to enable models of care to evolve in the future.

There are currently three broad types of health infrastructure provision:

- Primary Care: GP practices, plus community pharmacists, dentists and opticians;
- Community Healthcare: covering a wide range of diagnostic and healthcare services , including non-acute mental health services; and
- Acute and Specialist Provision.

The NHS General Practice Forward View[51] supports the provision of primary care at scale, including larger practices and/or more joined up networks of GPs that can offer a wider range of services to patients, including extended opening hours. Community healthcare services provide a means of delivering care closer to home than from a hospital setting. Models of community healthcare are based around larger population catchments or localities (50,000 or more people).

The second draft of the North West London Sustainability and Transformation Plan was published in October 2016[52]. The STP recognises that in NW London there is currently significant pressure on the whole system, which must be addressed by a number of factors including the transformation of general practice, with consistent services to the whole population ensuring proactive, co-ordinated and accessible care. This will be delivered through primary care operating at scale through networks, federations of practices or super-practices.

5.2 Health – Engagement

The OPDC Health Advisor has actively engaged representatives of Brent, Ealing, Hammersmith and Fulham, and West London Clinical Commissioning Groups (CCG) and Directors of Public Health.

In January 2017 a workshop was held with representatives of Brent CCG, Ealing CCG, Hammersmith and Fulham CCG, West London CCG, London Healthy Urban Development Unit (HUDU), Triborough Public Health and Ealing Public Health. It was agreed that the CCGs would work with partners to develop the service model for the new population in the OPDC area in order to determine the longer-term health facilities required to deliver the service model.

In March 2017 the CCGs confirmed a preferred high level long-term strategic vision for the health infrastructure requirement as one large Hub/health centre for Old Oak with one or two spokes. The Hub/health centre would be a new facility preferably integrated and/or co-located with other public sector providers i.e. education, libraries, social care to drive collaborative working and derive economies of scale. The spokes may be existing or new sites; commentary in Section 5.5 considers the enhancement to two potential spokes at Central Middlesex Hospital and Hammersmith Centre for Health. It also outlines the expansion of capacity at Willesden Centre for Health and Care and Cloister Road Surgery.

Brent, Ealing, Hammersmith and Fulham and West London CCGs commissioned Imperial College Health Partners (ICHP) to support them to agree a health service delivery strategy for the OPDC Area. OPDC met with ICHP in December 2017 to provide background information on the development.

OPDC held subsequent meetings with representatives of the respective NWL CCGs in March and April 2018. The OPDC Health Advisor also held telephone meetings with: NHS England's Acting Head of Primary Care Commissioning for the London Region regarding the provision of pharmacy, optometry and dental services in

[51] https://www.england.nhs.uk/wp-content/uploads/2016/04/gpfv.pdf
[52] https://www.healthiernorthwestlondon.nhs.uk/sites/nhsnwlondon/files/documents/nwl_stp_october_submission_v01pub.pdf

March 2018; and the Head of Health Partnerships at London Borough of Hammersmith & Fulham regarding the provision of space for social care in the health hub in Old Oak in April 2018.

OPDC held one-to-one update meetings with officers from NWL CCG in autumn 2020. Following these meetings, CCG officers were required to prioritise responding to health service needs generated by the COVID-19 pandemic limiting their ability to input into the report. Therefore, for the purposes of the addendum update, this report continues to utilise the health assumptions set out in the 2018 SINS.

5.3 Health Assumptions

Since publication of the 2017 Education and Health Study the four CCGs (West London, Brent, Ealing and Hammersmith and Fulham CCG) have commissioned ICHP to undertake horizon-scanning to identify key factors the health sector should be considering when determining the health service provision for the OPDC area. This included benchmarking where possible with other similar development areas and engaging with health colleagues working within these developments.

Taking into consideration the advice received from ICHP, the CCGs recognise that the lengthy trajectory of the development creates a degree of uncertainty around the future health service need for the new population in the OPDC area. Given the new transport links and increased office space, consideration should also be given to a potentially large daytime working population using the local health services in addition to the resident population. It is also possible that technological advancements and changing care models will impact the way care is delivered over the development trajectory. Learning from similar large developments is challenging as many of these remain in progress themselves. As such, the CCGs welcome ongoing engagement and dialogue with the OPDC so that new evidence, as it emerges, can be incorporated into health service provision plans.

Based on best available evidence at time of writing the 2018 SINS report, the CCGs recommended that the OPDC should follow current best practice to forecasting primary care floorspace provision, namely the Department of Health's Health Building Note 11-01 Facilities for Primary and Community Care Services and 00-03 Designing Generic Clinical and Clinical Support Spaces (Health Building Notes).

In order to apply the Health Building Notes, a number of assumptions were made regarding (i) primary care space; (ii) community services projected activity; (iii) provision for adult social services staff; and (iv) dental services and a co-located pharmacy. These assumptions were developed through dialogue between the CCGs and the OPDC and comprise:

Key primary care space assumptions including:

- An access rate of 5,260 annual contacts per 1,000 population;
- A 10% uplift on the residential population to account for the daytime working population;
- Surgery opening an average of 50 weeks a year;
- Appointment duration of 15 minutes in a consulting room and 20 minutes in a treatment room;
- Building operational 56 hours a week;
- 80% room utilisation;
- Consulting and treatment rooms of 16 sq.m, available 45 hours a week.

Community services projected activity are based on Hammersmith and Fulham CCG Strategic Service Delivery Plan (SSDP) assumptions:

- Projected activity for community and outpatient services including therapies, district nursing, health visiting, school nursing, COPD/respiratory, mental health and CAMHS (child and adolescent mental health services) and other services;
- Building opening an average of 50 weeks a year;
- Appointment duration of 20 minutes;
- Building operational 66 hours a week;
- 75% room utilisation;

- Rooms of 16 sq.m, available 49.5 hours a week.

The London Borough of Hammersmith and Fulham is committed to multidisciplinary working between health and social care including the development of joint service hubs at key GP practices. The Council has therefore requested provision for social care services staff to have access to touch down points and meeting rooms in the health facility in Old Oak. The CCGs have confirmed that the modelling of space for community services incorporates this provision. At the time of writing the 2018 SINS report LB Hammersmith and Fulham had not requested any additional clinical space in Old Oak for the delivery of social care services. Further work is required to consider the scale of increased social care services that will need to be catered for through the projected population growth and the potential development of a social care and GP hub at this site. The assumptions to derive additional healthcare floorspace to support dental services and a co-located pharmacy as part of the mixed model hub are derived from:

- Dental services: 154sq.m (NIA[53]) based on the community dental surgery at Parkview Centre for Health & Wellbeing; and
- Pharmacy: 48 sq.m (NIA) based on HBN 11-01 Section 11: Cost Information (with example briefing schedules).

Other types of complementary community focussed floorspace could be provided alongside the mixed model hub identified above, these include café, gym, leisure/sport, retail and community space. Appendix G include details of precedent high-density design and mixed-use proposals which include health and community floorspace.

5.4 Health Facility Model Options

As part of the 2018 SINS analysis the OPDC sought advice from the Heads of Strategic Estate Development for Brent, Harrow, Hillingdon and Ealing CCGs; and Central London, Hammersmith and Fulham, Hounslow and West London CCGs who clarified that the CCGs would **not** be supportive of the development of five new GP practices (with around 10,000 patients per practice) across the OPDC Area as identified in the 2016 DIFS Study.

The national strategy for general practice encourages the delivery of primary care at scale from fewer, larger sites. The NWL CCGs are proactively working to deliver this strategy and this is reflected in the proposed infrastructure solution for health within this study.

The 2017 Education and Health Needs Study considered two options of health facility size based on providing associated community health services alongside primary healthcare floorspace. The two options considered were:

- Option 1: One centrally located facility to serve the OPDC Development Area (circa 50,000 patient list size).
- Option 2: Two facilities, one to serve Old Oak North and one to serve Old Oak South (circa 25,000 – 30,000 patient list size each)

Appendix D provides a review of the advantages, weakness and challenges to delivery of the different health facility models. To remain in line with CCG preferences and NHS policy to deliver primary care at scale the modelling is based on option 1.

As part of the 2018 SINS engagement Hammersmith and Fulham CCG's confirmed their longer term strategy was to create one large health facility (shared public sector community hub) in OPDC (likely to be in Old Oak North or Old Oak South reflecting the focus of development activity) to provide primary care services for the majority of residents in the Hammersmith & Fulham part of the OPDC area. Based on the 2018 SINS population projections of the OPDC area, the CCGs determined that the population growth in the first phase of Old Oak North and South could be accommodated by increasing the capacity in existing infrastructure. All phases of the population growth in North Acton and Park Royal could be accommodated by capacity in the new Park Royal Medical Practice and increasing the capacity in other existing infrastructure. Phases 2-4 of population growth in Old Oak North and South would be accommodated by delivering one

[53] Net Internal Area

new primary and community care health facility in Old Oak with a list size of circa 23,000 patients by 2038, with the flexibility to increase to a list size of 38,000 patients by 2048, if required.

5.5 Off-site Expansion[54]

As part of the 2018 SINS report, the CCGs identified expansions and relocations to existing health facilities within the vicinity of the OPDC development area which will contribute towards meeting the needs of the new population:

- Under the North West London (NWL) Shaping a Healthier Future programme the Central Middlesex Hospital (CMH) site has been identified as a Health and Wellbeing Hub+ with a particular focus on elective care. In addition to the hub+ services, Brent CCG and NHSE London primary care team have worked with London North West Hospital Trust (LNWHT) to move primary care into void space at CMH. Two existing GP contracts, previously located in premises within a mile radius of the CMH site (Acton Lane Surgery and Harness Harlesden practice at 150 Hilltop Avenue) have been re-procured as part of the national Personal Medical Services (PMS) contract review into one new PMS contract. Park Royal Medical Practice is the new Primary Care Centre that opened in Central Middlesex Hospital on 1 March 2018.
- Hammersmith and Fulham CCG have identified that Hammersmith Centre for Health (HCfH) in Hammersmith Hospital is one of the suitable sites for expansion to support early population growth within OPDC. The expansion could provide additional capacity for circa 6,000 patients. The site is a 25-minute walk from the Oaklands development and a 21 minute walk from North Kensington Gate (NKG) development (1.3 miles).
- In May 2018 Ealing CCG agreed that the capacity of Cloister Road Surgery can be expanded using planning contributions to provide additional capacity for circa 3,500 patients to accommodate population growth in North Acton and Park Royal.
- Brent CCG has identified that Willesden Centre for Health and Care is a suitable site where the capacity of the primary care service can be increased, through the use of planning contributions, to support early population growth within Old Oak. The reconfiguration / expansion of the existing site could provide additional capacity for circa 8,000 – 10,000 patients at an estimated cost of circa £1 million.

[54] Appendix B.1 includes more detail on the off-site expansion projects

Practice name	Patient List Size (May 2018)	Proposed Patient List Size	Net additional capacity	Proposed Floor space	Cost Estimate	Estimated date of delivery	Location of site	Current practice catchment area	Walk distance from OPDC
Park Royal Medical Practice	6,416	Initial capacity 12,000 with ability to increase to respond to future growth, up to 15,000	8,600	600 m²	£1.9m	1 March 2018 (Services commenced March 2018).	Central Middlesex Hospital NW10 7NS	Includes full OPDC area.	0.8 miles/ 16 mins from First Central and Portal Way 1.2 miles/ 24 mins from Oaklands
Hillside Primary Care Centre	4 practices operated from this site until 28/2/18.	The transfer of the Harness Harlesden list to Park Royal Medical Practice on 1/3/18 will enable the remaining practices to expand	3,000	Reuse of existing floor space	Nil	March 2018 onwards	NW10 8RY	Covers part of OPDC area	1.7 miles/ 35 mins from Oaklands
Acton Health Centre	3,410	25,000 Several local practices to be relocated here	TBC	2,800 m²	£16.5m	2020/21 Reliant on central and S106 funding	W3 8QE	Does NOT include North Acton	1.4 miles /28 mins from Portal Way (16 mins by bus)
Hammersmith Centre for Health	3,000	9,000	6,000	Additional 200 m² i.e. 4 clinical rooms; waiting and support space.	£400,000	Reliant on S106 contribution and room availability	W12 0HS	Includes most of OPDC area	1.3 miles/ 25 mins from Oaklands* and 21 mins North Ken Gate+ 1.8 miles from Portal Way.

Practice name	Patient List Size (May 2018)	Proposed Patient List Size	Net additional capacity	Proposed Floor space	Cost Estimate	Estimated date of delivery	Location of site	Current practice catchment area	Walk distance from OPDC
Willesden Centre for Health and Care	10,867	18,000 - 20,000	8,000 – 10,000	Additional 500m²	£1.m	2019/20 Reliant on S106 contribution	NW10 3RY	Covers part of OPDC area	1.5 miles/ 31 mins from Oaklands
Cloister Road Surgery	10,308	13,000 - 14,000	3,500	Additional 145 m² (4 clinical rooms, multipurpose group room and additional waiting and support space)	£1.1m	2019/20 Reliant on S106 contribution	W3 0DF	Covers part of OPDC area	0.4 miles/ 9 mins from Portal Way
Total					**£20.9m**				

Table 22. Recommended Health Centre relocations & expansions

*(*circa 18 -22 mins by bus + circa 14 mins by bus)*

Figure 3 illustrates the proximity of these recommended health relocations and expansions related to the OPDC Development Area.

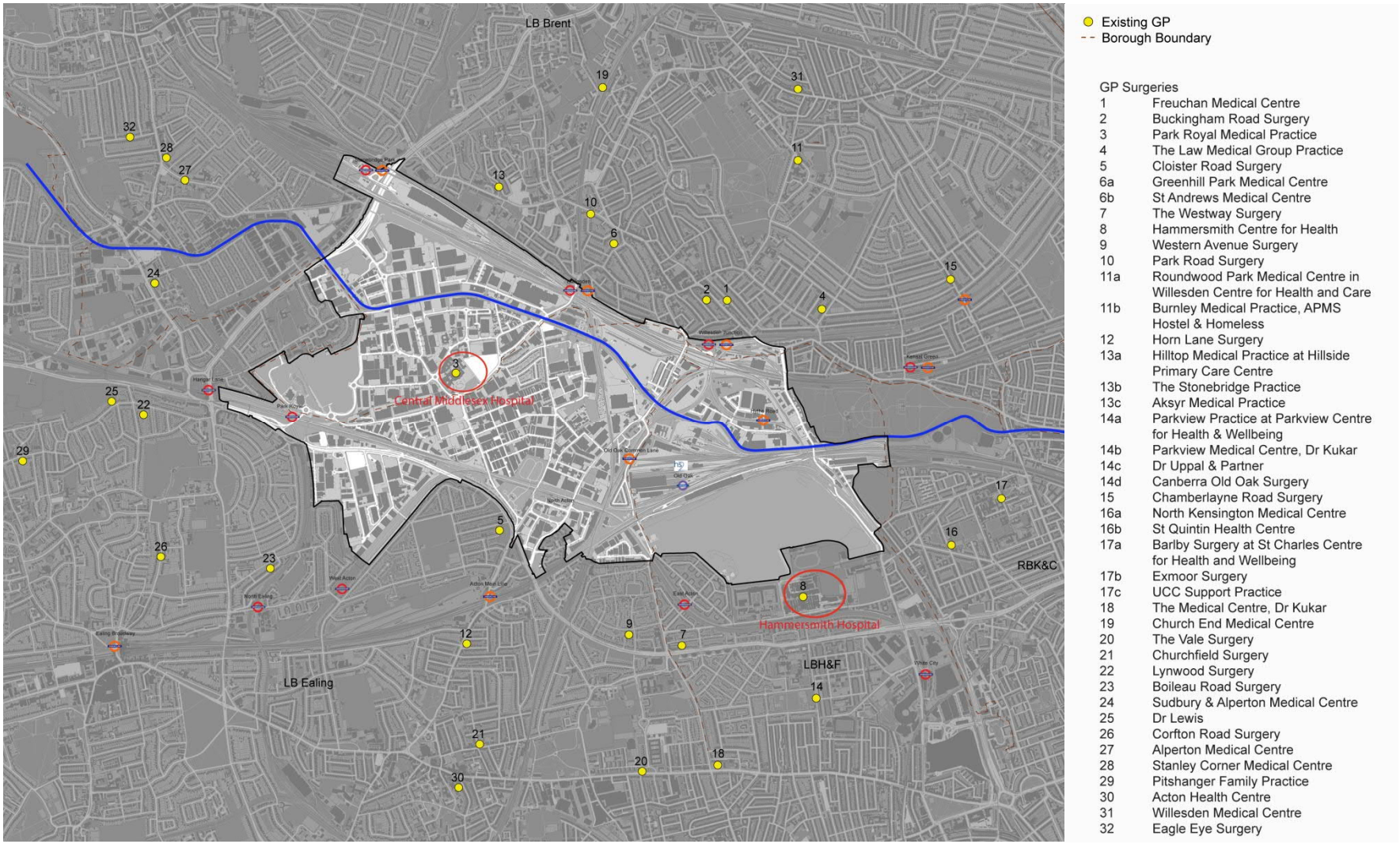


Figure 3. Map of the GP Practices Surrounding the OPDC Development Area

(AECOM (based on OPDC information))

5.6 Health Facility Build-Up by Development Phase

5.6.1 Health Facility Floorspace

Table 23 identifies the on-site floorspace needs based on advice in section 5.3. The floorspace relates to the population results in Section 2.6 for Scrubs Lane, Channel Gate, North Acton and Old Oak South only with a 10% uplift for the daytime working population[55]. In the Local Plan period to 2038 a total of 1,301 sq.m GIA[56] floorspace is required to meet the needs for primary care and community services arising from the population. An additional 262 sq.m is required to provide for associated health services which benefit from co-location with the primary/community floorspace.

- Channel Gate, Scrubs Lane and North Acton together contribute 69% of the population in the Local Plan period, in comparison to Old Oak South and Park Royal which together contribute 31%.

Affordable Housing Test	**50% Affordable Housing**			
Phase & years	**Floorspace type**	**Projected population**	**NIA**	**GIA**
Phase 2 & 3 (2024-2033)	Primary care & community services	18,036	837 sq.m	1,088 sq.m
Phase 2 to 4 (2024- 2038)	Primary care & community services	22,943	1,001 sq.m	1,301 sq.m
Phase 2 to 4 (2024- 2038)	Dental services	N/A	154 sq.m	200 sq.m
Phase 2 to 4 (2024- 2038)	Pharmacy	N/A	48 sq.m	62 sq.m
Phase 2 to 4 (2024-2038)	**Total**	**22,943**	**1,203 sq.m**	**1,564 sq.m**
Phase 5 & 6 (2039-2048)	Primary care & community services	15,360	803 sq.m	1,044 sq.m
Phase 2 to 6 (2024-2048)	**Total**	**38,303**	**2,006 sq.m**	**2,608 sq.m**

Table 23. Health facility size assumption

5.7 Health Facility Requirements and Phasing

Table 24 explains the trigger year and size of the health facility on the assumption that it is built in phases to match the build-up of population on site. This would require the facility to open in 2024 at 1,088 sq.m, expand to 1,564 sq.m at the end of the Local Plan period (2038) and potentially expand to a final size of 2,608 sq.m at the end of the development trajectory period. The floorspace needs in phases 5 and 6 will require monitoring by OPDC and the CCGs to check the need to draw-down the final expansion floorspace.

Affordable Housing Test	**50% Affordable Housing - With off-site surgeries**	
Facility	**Trigger facility size**	**Expanded facility size at end of later phases**
1 facility	Phase 2 (2024) – 1,088 sq.m	Phase 4 – 1,564 sq.m Phase 6 – 2,608 sq.m

Table 24. Health Facility Initial Build Size and Subsequent Expanded size (GIA)

[55] This is based on maintaining the CCG assumptions in section 5.4 regarding the use of capacity in existing and expanded infrastructure to support the first phase of Scrubs Lane and Channel Gate and Old Oak South, all phases in Park Royal and the population growth in North Acton up to the level of the 2018 SINS analysis. The floorspace will therefore support phases 2-4 of Scrubs Lane and Channel Gate & phases 3 and 4 of North Action, with a list size of circa 22,000 patients by 2038 and the flexibility to increase to a list size of 36,600 patients by 2048 (if required).
[56] Gross Internal Area

5.8 Health Site Selection

OPDC's Local Plan includes a 50% affordable housing policy with 25% family housing, subject to viability. The Clinical Commissioning Groups and local authority public health departments have confirmed through the 2018 SINS report the ability to expand sites identified for off-site expansion in Section 5.5 and Appendix B.1. On this basis, the OPDC Local Plan needs to model for on-site requirements based on the health facility needs as set out in Section 5.7.

Using the needs analysis and Local Plan Policy position, the trigger years for required on-site facilities have been matched against OPDC's phasing trajectory in order to derive which Local Plan 'place' will likely offer suitable development sites in the year the facility is required. This place is 'North Acton and Acton Wells' and has been identified reflecting its significant development capacity delivering 8,000 homes during the plan period and reflecting it's accessibility by public transport and active travel networks. The boundary of the North Acton and Acton Wells will act as an area of search for identifying an appropriate site for the delivery of the health facility in 2024.

Ongoing monitoring will be undertaken by OPDC with the host boroughs, North West London CCGs and other relevant stakeholders in order to identify the most appropriate site within the place of North Acton and Acton Wells for the required trigger year. Appropriate sites will be selected and allocated in future reviews of the Local Plan utilising the criteria set out in Appendix F. This will inform future reviews of OPDC's Local Plan and health facility planning.

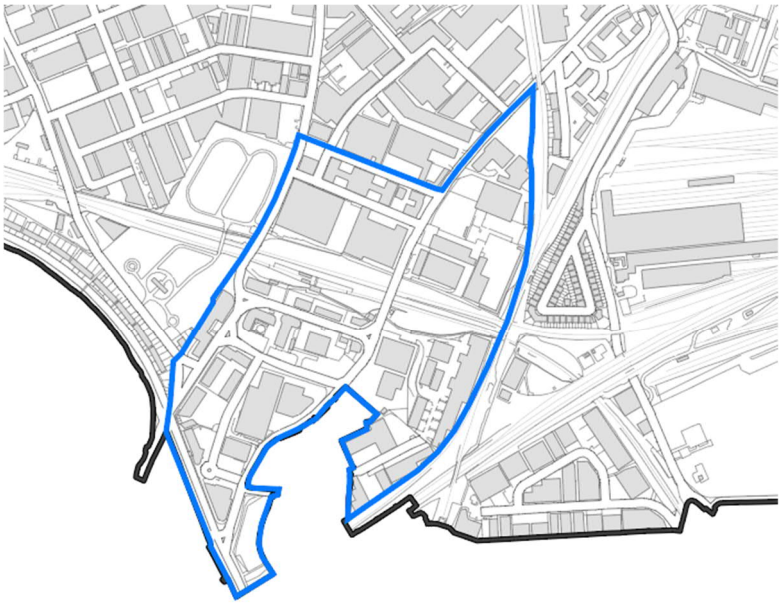


Figure 4. Local Plan place of North Acton and Acton Wells
(OPDC)

The CCG's preferred delivery approach is for a central hub facility. Based on current phasing, this facility is likely to be needed in 2024. As stated in Section 5.7, this hub facility would be delivered in phases. The floorspace provided from the outset would support the needs of the site's planning application. As the population of the wider area increases over time, space would be 'drawn down' from other floorspace in the building and fitted out through planning contributions secured through other development sites. A retrospective pooling contribution mechanism would be employed to facilitate this.

5.9 Health Facilities Procurement

The key agencies involved in health facilities procurement are as follows:

- The **Clinical Commissioning Groups** (CCGs) were created following the Health and Social Care Act in 2012, and replaced Primary Care Trusts on 1 April 2013. CCGs are clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area.

Commissioning is about getting the best possible health outcomes for the local population, by assessing local needs, deciding priorities and strategies, and then buying services on behalf of the population from providers such as hospitals, clinics, community health bodies, etc. CCGs are membership bodies, with local GP practices as the members; led by an elected Governing Body made up of GPs, other clinicians including a nurse and a secondary care consultant, and lay members; responsible for healthcare commissioning such as mental health services, urgent and emergency care, elective hospital services, and community care; and, independent, and accountable to the Secretary of State for Health through NHS England.

- **Local Authorities** have, since 1 April 2013, been responsible for improving the health of their local population and for public health services including most sexual health services and services aimed at reducing drug and alcohol misuse. In addition to public health responsibilities, local authority social services have existing duties to provide welfare services such as residential accommodation for those who are in need of care, because of age, illness or disability, which they cannot otherwise obtain. CCGs and Local Authorities work together through health and wellbeing boards to achieve the best possible outcome for the local community, by developing a joint strategic needs assessment and health and wellbeing strategy.
- **NHS Trusts** - Acute hospitals, mental health services and ambulance services are managed by NHS trusts or NHS foundation trusts. Some acute trusts are regional or national centres for more specialised care, and some are attached to universities and help train health professionals. Hospital trusts can also provide services in the community – for example, through health centres, clinics, or in people's homes
- **Building new facilities** – the responsibilities for estate management are not clear cut. NHS Property Services manages, maintains and improves the properties and facilities within its portfolio which represents around 10 percent of the entire NHS estate. Community Health Partnerships (CHP) is supporting the NHS and wider public sector to develop and implement Local Estate Strategies and is responsible for the overall management of 305 primary and community healthcare buildings across England. Over 300 new integrated community facilities have been developed by 49 LIFT companies which are joint ventures between CHP and a range of Private Sector partners. These are just one of the procurement routes & available frameworks identified in Figure 5.

The AECOM stage 2 study included an overview of the process to procure new health facilities:

For primary healthcare facilities (i.e. GP surgeries and NHS Dentists facilities) the first step is to contact the relevant Clinical Commissioning Group (CCG) for the area. There are 32 CCGs in London. Each CCG is a statutory NHS body with its own governance arrangements; they are responsible for meeting the health needs of their populations and their main focus is on local issues. There are CCGs for Hammersmith & Fulham, Brent and Ealing.

- The relevant CCG will decide which procurement route is appropriate for the new built primary care facilities and manage the procurement process with OPDC.

Every new pharmacy must apply to NHS England (NHSE) to obtain a licence to dispense up to 12 months prior to opening. In order to obtain a licence, the Pharmaceutical Needs Assessment for the borough must demonstrate the need for a new NHS pharmacy to meet the needs of the local population.

NHSE (London Region) commissions NHS dental care pan-London and dental practices must have an NHS contract in order to see NHS patients. NHSE makes the decision to commission a new NHS dental service based on dental needs assessments produced by Public Health England.

Hospitals adjacent to the OPDC development area

For secondary health care facilities: OPDC should ensure that the relevant NHS Hospital Trusts are aware of the projected population growth in the OPDC Area and that they consider this increase in population when planning the future delivery of services.

Table 25 shows hospitals within 5 miles of the Oaklands site, NW10 6DU (representative of the centre of the OPDC core development area). Urgent care centres (UCC) are an alternative to accident and emergency (A&E) and can treat a range of urgent medical problems and minor injuries. Patients who need to be seen quickly, but who do not have life-threatening illnesses or injuries, can walk into UCCs and be seen without an appointment.

- Imperial College Healthcare NHS Trust is one of the largest acute Trusts in the country and, in partnership with Imperial College London, is the UK's first Academic Health Science Centre (AHSC). The Trust operates from five sites: Charing Cross Hospital, Hammersmith Hospital, Queen Charlotte's & Chelsea Hospital, St Mary's Hospital and Western Eye Hospital.
- London North West Healthcare NHS Trust is one of the largest integrated care trusts in the country, bringing together hospital and community services across Brent, Ealing and Harrow. The Trust provides hospital services at: Central Middlesex Hospital, Ealing Hospital, Northwick Park Hospital and St Mark's Hospital and Community services across Brent, Ealing and Harrow, including Clayponds Rehabilitation Hospital, Meadow House Hospice, Denham Unit and Willesden Centre.

	Hospital	Postcode	Distance (miles)	Services
1	Central Middlesex Hospital	NW10 7NS	0.9	UCC (No A&E)
2	Hammersmith Hospital	W12 0HS	0.9	UCC (No A&E) Specialist hospital includes renal, haematology, cancer and cardiology care. Regional specialist heart attack centre. (LAS takes patients with suspected MI direct to Heart Assessment Centre.)
3	Queen Charlotte's & Chelsea Hospital	W12 0HS	0.9	No A&E. Maternity, women's and neonatal care hospital with specialist services for complicated pregnancies, foetal & neonatal care. Midwife-led birth centre.
4	Charing Cross Hospital	W6 8RF	3.1	A&E and hyper acute stroke unit (HASU)
5	St Mary's Hospital	W2 1NY	3.3	A&E and major trauma centre
6	Western Eye Hospital	NW1 5QH	3.7	Specialist eye hospital with a 24-hour eye accident and emergency service.
7	Royal Free Hospital	NW3 2QG	4.0	Provides A&E and general and specialist hospital services
8	Chelsea and Westminster Hospital	SW10 9NH	4.2	Provides A&E and general and specialist hospital services
9	The Royal Marsden Hospital	SW3 6JJ	4.2	Specialist cancer hospital
10	Royal Brompton Hospital	SW3 6NP	4.3	Specialist hospital treating heart and lung disease
11	Ealing Hospital	UB1 3HW	4.4	A&E for adults only
12	Northwick Park Hospital	HA1 3UJ	4.6	A&E and HASU
13	St Mark's Hospital	HA1 3UJ	4.6	Specialist hospital for intestinal and colorectal disorders
14	Royal National Orthopaedic Hospital	W1W 5AQ	4.6	Specialist orthopaedic hospital
15	University College Hospital	NW1 2BU	4.8	Provides A&E and general and specialist hospital services
16	West Middlesex University Hospital	TW7 6AF	4.9	A&E

Table 25. Hospitals within 5 miles of the Oaklands site, NW10 6DU

Source: NHS Choices website www.nhs.uk/pages/home.aspx (accessed 15.05.17)

5.9.1 OPDC's Role in Health Facilities Procurement

Figure 5 demonstrates the role of OPDC alongside the Clinical Commissioning Groups in the procurement of new health facilities.

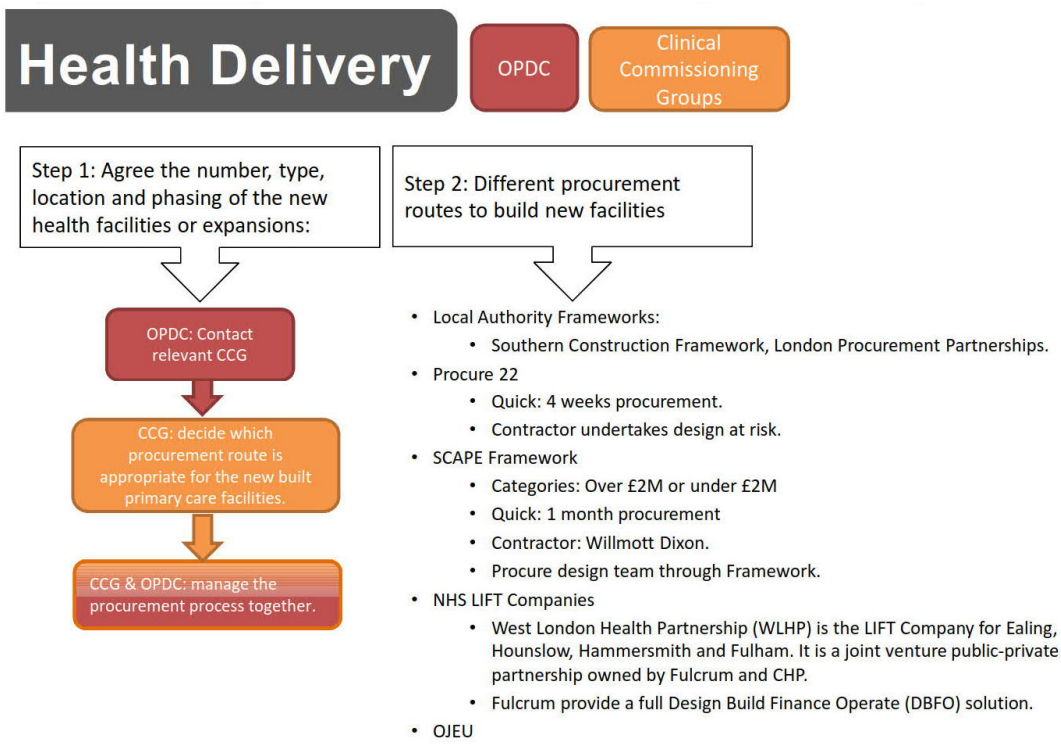


Figure 5. Health Delivery & Procurement Steps

5.10 Case Study Examples of High Density & Mixed Use Health Designs

Appendix G includes case study examples of health facilities which have been built with space savings due to high-density designs or the benefits of co-location, integration and adjacency with other land uses. Table 26 compares the overall site areas from these examples to the modelling explained in section 5.3. Key themes emerging from a review of the examples include:

- Minimal or no car parking and use of cycle and scooter parking.
- Residential above health facilities.
- Integrated health and social services provision with community based access to screening services and other clinics.
- Health services co-located with sports/leisure centre and/or retail, cafe, pharmacy.

Source	Population or List Size	Floorspace
CCG modelling for the OPDC (Primary care, community services, dental surgery and pharmacy)	38,303 population	2,676 sq.m
Parkview Centre for Health and Wellbeing, White City	18,326 patients	3,400 sq.m
Sir Ludwig Guttmann	10,194 patients	3,800 sq.m
West Norwood	6,032 patients	2,705 sq.m
Hillside Medical Practice	16,437 patients	8,504 sq.m*

Table 26. Building Floorspace and Site Area Comparisons from CCG & OPDC Modelling and Recently Built Primary Care Facilities

** This includes the residential, community and health floorspace.*

5.11 Health – Summary

- North West London Clinical Commissioning Group officers were engaged and informed of the proposed modifications to the Local Plan. However, during the development of this update, officers were required to prioritise responding to health service needs generated by the COVID-19 pandemic limiting their ability to input into the report. Therefore, for the purposes of the update, this report continues to utilise the health assumptions set out in the 2018 SINS to define the health facticity requirements to serve the OPDC area. OPDC will continue to engage with the North West London Clinical Commissioning Group to inform future health modelling to inform the future Local Plan review.
- The study assumptions used to generate the needs for health facilities in this report have been tested with relevant stakeholders during the development of the 2018 SINS Report. The Clinical Commissioning Groups and local authority public health departments confirmed the ability to expand sites identified for off-site expansion to meet the needs of the development in early phases. Proposals for the expansion of these facilities is not yet committed and OPDC will be working with the relevant service providers to further investigate the potential for these facilities to be expanded
- The CCG's preferred delivery approach is for a central hub facility. Based on current phasing, this facility is likely to be needed in 2024. The place of North Acton and Acton Wells has been identified as an appropriate area of search for the facility reflecting its significant development capacity and accessibility by public transport and active travel networks. A criteria based approach to site selection will be utilised by OPDC to identify the central hub facility within North Acton and Acton Wells.
- The assessment shows that this facility can be delivered in phases starting with 1,088 sq.m in 2024, expanding to 1,564 sq.m at the end of the Local Plan period (2038) and potentially expanding to a final size of 2,608 sq.m at the end of the development trajectory period (2048). As the population of the wider area increases over time, space would be 'drawn down' from other floorspace in the building and fitted out through planning contributions secured through other development sites. A retrospective pooling contribution mechanism could be employed to facilitate this.

6. Community Space

6.1 Community Space Context

In February 2016 OPDC published the Development Infrastructure Funding Study (DIFS) prepared by Peter Brett Associates as a Local Plan supporting study[57]. The DIFS set out the approach to integrated community facilities (libraries, youth services, community centres and arts).

6.1.1 DIFS Study Assumptions – Community Space

In attempting to size and cost the facilities, the study looked at recent comparable examples and considered the direction of travel of public policy. The most successful buildings all commonly house an anchor tenant, typically a library.

- Whilst the provision of public libraries is statutorily required of local authorities, there is no national minimum standard for facilities to be provided in response to growth. However, the figure of 30 sq.m of library floorspace per 1000 head of population has been commonly adopted by local authorities across the country.
- Taking the growth of 24,145 new homes between 2016/17 and 2050/51 and the population figure in the DIFS provided by the GLA of 52,800 people arising in the area as a result of the growth, this 'standard' suggested a total requirement of (52.8*30 sq.m) = 1,584 sq.m of new library floorspace. This would typically equate to the size of two branch libraries of 800sq.m each. Because of the existing service provisions and direction of travel of library policy it is unlikely that all of this provision would be required in a single facility (or would be split across more than two locations).
- The DIFS assumed that each library would be provided in a multi-use community hub with each one occupying about 30% of the floorspace. The total floorspace of each multi-use community hub would therefore be (800/0.3) = 2600 sq.m.

6.1.2 DIFS Study Recommendations – Community Space

The study suggested providing for two co-located public service facilities. The timescale for provision of the facilities could be linked to the need for provision of library space. This would suggest that the first facility is needed upon occupation by 26,400 people or 12,000 dwellings - around 2030 in the DIFS trajectory. However, with a specification of services which is inherently flexible this would be unnecessarily precise.

The study envisaged that these facilities would best be provided as part of a wider community 'hub' encompassing perhaps healthcare facilities, a primary school and potentially other facilities including police and others.

- The first facility was proposed to be provided as part of a 'community hub', perhaps incorporating a healthcare facility (which had been separately costed for), programmed for 2025 (8,600 homes).
- The second facility was programmed for 2040 (18,000 homes), when a healthcare facility was also to be provided.

6.2 Updating the DIFS Study Recommendations

The task for this addendum is to update the proposals for community space provision identified in the DIFS in light of the revised Local Plan development trajectory and associated updated population projections. All other assumptions of facility type and size remain as identified in the DIFS.

Table 27 indicates the cumulative number of homes in the OPDC Development Trajectory, with 26,006 total homes and 19,856 in the Local Plan period to 2038. Keeping the trigger points the same as the DIFS, i.e. at 8,600 homes and 18,000 homes would result in the first facility provided in the same year as the DIFS (2025), but the second facility being provided five years earlier than the DIFS (2035).

[57] https://www.london.gov.uk/sites/default/files/13._development_infrastructure_funding_study_0.pdf

Phase	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Years	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2039-2043**	**2044-2048**
Homes (cumulative)	5,680	13,201	16,889	19,856	23,816	26,006

Table 27. OPDC Development Trajectory (cumulative homes)

6.2.1 Community Space – Recommendations

The community hubs should provide for a variety of community facilities in addition to the library space and could include facilities such as public toilets, a community café, faith space, youth space and halls for hire. The facilities are best suited to town-centre locations, easily accessible by existing and new communities, to act as hubs for community activity and maximise proximity to other high-trip generating uses, public transport and active travel networks. The community hubs can be co-located with a number of other uses, including emergency services, sports and leisure facilities, early-years provision and commercial uses.

In order to: maintain a reasonable time between the provision of the first and second facility; wait for a build-up of population across the OPDC sub-areas; and, ensure that the design and efficient use of the first facility is not compromised by the second facility opening too soon, this study recommends that the second facility should open approximately 11 years before the end of the full development trajectory build-out. This would maintain the period in the DIFS from the second facility opening to the end of the DIFS development trajectory.

To best serve new populations and fit within available sites within OPDC's Development Capacity Study, it is recommended that the revised triggers for the 'community hubs' are as follows:

- In Phase 1 and 2 of the Local Plan period, OPDC will work with the neighbouring boroughs to support a programme of community-based activities and use of existing community facilities in the surrounding town centres. This will encourage the new and existing communities to come together until the Old Oak major town centre is sufficiently established.
- The first facility (2,600 sq.m) is provided at the latest date of 2030 within Channel Gate.
- The second facility (2,600sq.m) is provided in 2035 to coincide with the delivery of 18,000 homes within the OPDC. The site for delivery will be kept under review and informed by updated development phasing.

OPDC should look to provide drinking fountains as part of the social infrastructure provision for the area. These should be prioritised along key routes, within public open spaces and at key destinations such as rail stations, bus stops and potentially co-located with social infrastructure.

7. Emergency Services provision

7.1 Emergency Services Context

In February 2016 OPDC published the Development Infrastructure Funding Study (DIFS) prepared by Peter Brett Associates as a Local Plan supporting study[58]. The DIFS set out the approach to police, fire service and ambulance service provision.

7.1.1 DIFS Study Assumptions – Emergency Services

7.1.1.1 Police

In attempting to size and cost the facilities, the study considered the ratio of population to police stations and contact points. The total (2011 census) population in the four Boroughs is 990,800 served by nine stations and fourteen contact points. Each station therefore serves around 110,000 people and each contact point 71,000 people. Taking the growth of 24,145 new homes between 2016/17 and 2050/51 and the population figure in the DIFS provided by the GLA of 52,800, this suggests demand for additional service provision of about one-half of a police station (0.48) and three-quarters of a contact point (0.75).

Given the current pattern of service provision and the incremental growth of population across the area during the period in question, it is likely to be inefficient to open a new, very small, police station immediately within the Old Oak area. The DIFS therefore suggested that additional provision is delivered through two extensions or intensifications of existing facilities, each of 425 sq.m. This requirement could be seen more flexibly, and allow the police to reconfigure service provision in the area more generally. In addition the DIFS included a CCTV monitoring suite. Although it is very difficult to project the type of technology likely to be required in the latter phases of development at Old Oak, the study costed on the basis of a standalone monitoring suite of 25 sq.m with the necessary equipment. This could be located securely within a community building, perhaps contact points.

7.1.1.2 Fire Service

In advance of a full fire risk assessment, the DIFS have looked at the existing pattern of service provision across the four Boroughs and considered the growth in resident population as a proxy for estimating the additional infrastructure needs. The total (2011 census) population in the four Boroughs is 990,800 served by twelve fire stations. Each station therefore serves around 83,000 people. Taking the total future anticipated additional population of 52,800 people we can expect demand for additional service provision of about two-thirds of a fire station (0.64).

The existing Park Royal fire station is within the Opportunity Area. Whilst not as old as much of LFB stock it is not of the most modern construction. The DIFS concluded there was scope to demolish the existing facility and rebuild it as a larger facility on the existing site.

7.1.1.3 Ambulance Service

The DIFS looked at the existing pattern of service provision across the four Boroughs and considered the growth in resident population as a proxy for estimating the additional infrastructure needs. The 70 ambulance stations across London served a total population of 8,173,900 in 2011. Thus each station serves slightly in excess of 115,000 people. Growth at Old Oak Common will bring an additional 52,800 people or the equivalent of about one half (0.45) of an ambulance station.

In 2009, the Brent ambulance station was opened in two industrial units on the Falcon Industrial Park, Neasden Lane, NW10, to the north of the study area. At 13,500 square feet (1250 sq.m), it was the second largest ambulance station in London and a base for approximately 70 members of staff including paramedics, emergency medical technicians, A&E support, urgent care, administration and management. It replaced two older, smaller stations at Park Royal and Willesden. Taking the Brent station as an example of a modern facility, the growth at Old Oak Common can be seen to generate demand for about 625 sq.m of ambulance station, comprising offices, stabling for vehicles, equipment storage and rest rooms etc.

[58] https://www.london.gov.uk/sites/default/files/13._development_infrastructure_funding_study_0.pdf

7.1.2 DIFS Study Recommendations – Emergency Services

The study suggested the following facilities:

- 425 sq.m extension/intensification of existing police station incorporating custody centres, offices, public reception areas, evidence storage, police vehicle storage and so on; programmed for 2029 (12,000 homes).
- 425 sq.m extension/intensification of existing police station incorporating custody centres, offices, public reception areas, evidence storage, police vehicle storage and so on; programmed for 2045.
- 20 sq.m CCTV monitoring suite, housed in civic building plus infrastructure to operate; programmed for the first phase of development.
- New fire station comprising 1500 sq.m GIA building, 3 storey with 2 storey void over appliance bay (three of, within the building and an additional three bays in front of the opening doors). Externally a six storey drill tower is provided together with wash-down area, additional vehicle bays, storage bays and parking for staff and visitors. Programmed for 2035 (14,500 homes).
- Extension to an existing ambulance station, comprising 625 sq.m of offices, stabling for vehicles, equipment storage, rest rooms and so on; programmed for 2040 (18,000 homes)

7.2 Updating the DIFS Study Recommendations

The task for this study is to revisit the proposals emergency services provision identified in the DIFS in light of the revised Local Plan development trajectory and associated updated population projections. Additional consultation has been undertaken with the London Fire Brigade and Metropolitan Police Property Services Division to update the project recommendations. All other assumptions of facility type and size remain as identified in the DIFS.

7.2.1.1 Police

There is no clear guidance available at either national or local level which indicates how to translate an increase in development (residential and / or commercial) into additional demand for police services, and thereby into demand for new infrastructure to support the activities of the police service. A similar methodology is being taken by all Police and Crime Commissioners.

The impact of large-scale development on the Metropolitan Police has funding implications, and it is widely accepted that policing infrastructure can be included within CIL and s106 obligations. S106 infrastructure is not limited to buildings and could include equipment such as surveillance infrastructure, CCTV, staff set up costs, vehicles, mobile IT and Police National Database. The Metropolitan Police is currently preparing a calculation formula to enable collection of financial contributions and this will be used when available by the Council.

The MOPAC/MPS Public Access Strategy[59] confirms plans to reduce the number of police front counters in London and save an additional £8 million – equivalent to the cost of 140 police constables – in order to protect and support frontline policing as much as possible, and keep Londoners safe, in the face of Government cuts to police funding.

The MPS have an emerging infrastructure requirement for neighbourhood police facilities that can provide a base of operation for officers of the MPS and can be secured through S106 agreements. Further information on the neighbourhood police facility will be disclosed soon.

Key policies in the Strategy include:

- Whilst some stations will close, a 24/7 police front counter service will be maintained in every borough, with an additional daytime counter in Westminster and proposals for an additional temporary front counter near Grenfell Tower.

[59] https://www.london.gov.uk/mopac-publications/public-access-strategy

- Neighbourhood police facilities – whose numbers the Mayor is doubling by the end of 2017 – Aimed to be based at new hubs far closer to their local ward and the community they patrol, ensuring they spend as much time as possible on their beat.
- Better ways to contact the Met online - a new online reporting service launched for testing in March and which has already delivered a 350 per cent rise in online reporting, with 1,200 reports a week made during its initial phase.

Consultation with the Metropolitan Police Property Services Division has changed the projects to be included in this report. Instead of two 425sq.m police station facilities, Old Oak will have three neighbourhood police facilities. These hubs will be places for officers, who will be expected to spend the large majority of their time out in communities to start and end their shift. They will be equipped with lockers and welfare facilities available for them to prepare for their shifts and facilities for them to dock body worn video devices and access the internet on their remote devices. They will not have public access; rather officers will be expected to get out into their communities quickly on starting their shift to meet the public face-to-face. Each neighbourhood police facility is 50sq.m.

Neighbourhood police facilities can be co-located with a number of other uses, including: fire stations, ambulance stations, community centres, local authority contact points, health facilities (primary care and hospitals), and commercial uses (such as supermarkets). Uses such as schools or residential require consideration of perception and blue-light response noise during evenings, nights and weekends.

7.2.1.2 Fire Service

These services are delivered by the London Fire Brigade. The London Fire Brigade has worked with OPDC to set out the current service patterns and assess the likely infrastructure needs arising from the development.

Current response times for fire engines in the OOC area (based on data for the three wards) are good and well within the London Fire Brigade's attendance time targets of six minutes on average for a first fire engine, and eight minutes on average for a second fire engine. In 2019/20, a first fire engine arrived at locations within the OOC area in 5m:47s, and a second fire engine (where despatched) in 7m:33s. The LFB consider that the expected population growth in the OOC and any increase in the number of emergency incidents that may generate, can be accommodated within the existing resources available from local fire stations within the OOC (from Park Royal fire station) and those fire stations around the OOC.

The existing Park Royal fire station is within the OOC. The station was built in 1960 by the former Middlesex County Council, and transferred to the LFB in 1965. In terms of functional suitability and condition, Park Royal fire station is considered to be 'satisfactory' in the LFB asset management plan 2017 (AMP2017 – available on LFB website[60]). A feasibility study for the 13 Middlesex fire stations in the LFB area has identified a programme of works based on refurbishment. Although there is scope to demolish the existing station and rebuild it as a larger facility on the existing site, the LFB AMP2017 identifies Park Royal fire station site as having potential high to very high latent property value which it suggested could provide a new fire station at nil cost. Advice sought since the AMP was produced indicates that although the site value is relatively high due to the popular location for industrial uses, a sale of the existing property is unlikely to produce proceeds which are of sufficient magnitude to pay for a new station in the vicinity. Therefore it is likely that a refurbishment using the existing site will be progressed, informed by more detailed planning in regard to LFB's Integrated Risk Management Plan due to be effective from April 2022.

7.2.1.3 Ambulance Service

Table 28 indicates the cumulative number of homes in the OPDC Development Trajectory, with 26,006 total homes and 19,856 in the Local Plan period to 2038. Keeping the trigger points the same as the DIFS, i.e. at 18,000 homes would result in the facility being provided five years earlier (2035).

Phase	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Years	**2018-2023**	**2024-2028**	**2029-2033**	**2034-2038**	**2039-2043**	**2044-2048**
Homes (cumulative)	5,680	13,201	16,889	19,856	23,816	26,006

Table 28. OPDC Development Trajectory (cumulative homes)

[60] http://moderngov.london-fire.gov.uk/ieListDocuments.aspx?CId=142&MID=436&_sm_au_=iVV0F3JJBR4Wkj6V

7.2.2 Emergency Services - Recommendations

The revised triggers for the emergency services provision are therefore:

- Three Neighbourhood police facilities of 50sq.m each.
- Extension to an existing ambulance station, comprising 625 sq.m of offices, stabling for vehicles, equipment storage, rest rooms and so on; programmed for 2035 (18,000 homes).

An ongoing process of dialogue between OPDC and the Boroughs will keep these recommendations under review in light of the build-out of the Old Oak and Park Royal development area and the estate plans of these service providers in the wider area. This will enable the population needs to be monitored over time and for OPDC and the emergency services to work together to identify the most appropriate means to deliver new or additional facilities.

8. Conclusion

8.1 Summary of Overall Needs

Table 29 summarises the social infrastructure projects by development sub-area. This indicates the size of the facility, the trigger year for provision and the most suitable site location for the facility (where this has been identified).

	Super Nurseries		Primary School	Secondary School	Health Centre	Community Centre	Emergency Services
Scrubs Lane and Channel Gate	One super-nursery, (120 children), site to be identified	One super-nursery, (120 children), site to be identified	One 3FE primary school (630 pupils), site to be identified in Local Plan review, opening in 2031.			Two Community Centres, 2,600sq.m, opening in 2030 (within Channel Gate) and 2035 (site to be identified as part of future Local Plan review).	Three Neighbourhood police facilities, 50sq.m, sites to be identified Extension to an existing ambulance station, 625sq.m, opening in 2035
North Acton	One super-nursery, (120 children), site to be identified				One Health hub, Site within the place of North Acton and Acton Wells, opening at 1,088sq.m in 2024 and expanding to 1,564sq.m by 2038.		
Old Oak South	One super-nursery, (120 children), site to be identified						
Park Royal							

Table 29. Summary of Social Infrastructure Projects by Sub-area

8.2 Next Steps

8.2.1 OPDC Town Planning Activities

OPDC will use the results of this SINS addendum analysis and the identified facilities details in the following town planning activities:

- OPDC Local Plan – the proposed modifications to the draft submission Local Plan will include the above projects and location requirements as an indication of needs and to secure sites for future provision;
- Planning application negotiations – the above projects will form the basis of OPDC requirements and CIL & S106 negotiations to ensure that development proposals meet the demands of the growing population in Old Oak and Park Royal.
- Duty to cooperate – OPDC will ensure that the assumptions underpinning this report are consistent with the assumptions used in Local Plan reviews by the partner Boroughs and in the London Plan review. OPDC will engage with education, health, community and emergency services agencies as the SINS recommendations are implemented and/or reviewed.

- Plan, Monitor and Manage activities - The Authority Monitoring Report (AMR)[61] is published each year, reporting on the performance of OPDC's planning policies. The AMR includes details of development activity (including completions and starts) and Section 106 and Community Infrastructure Levy (CIL) (including collection and spend of monies). OPDC will add monitoring activities to the AMR in future years as the OPDC development gains critical mass, including the potential use of post-occupancy surveys with residents to collect actual details of trends and choices in using social infrastructure.

[61] https://www.london.gov.uk/about-us/organisations-we-work/old-oak-and-park-royal-development-corporation-opdc/opdc-planning/planning-policy-0/monitoring

Appendices

Appendix A Population and Child Yield Assumptions

A.1 Assumptions Extracted from the GLA Child Yield Calculator (V3.2)

A.1.1 Average Household Size (AHS) and Age Range

The GLA Population Yield Calculator[62] is a tool for estimating population yield from new housing development. The Social Infrastructure Needs Study (SINS) Rev 7 report dated 6 June 2018 (referred to as the 2018 SINS report) used version 2 of the calculator. The 2020 SINS addendum has used version 3.2 (and a bespoke version 3.3 provided by the GLA to enable 5-year age-bands consistent with the 2018 SINS report). Both versions draw on the same underlying census and LDD data, the difference with version 3.2 (and 3.3) is that it allows a choice of geographic location and anticipated PTAL level.

Following engagement with the GLA it was agreed to apply the Inner London and PTAL 5-6 assumptions of average household size (AHS) and age-range to determine the updated population results. The extracted assumptions of average household size and age range are set out in Table A1.

	Market Units (beds)				Social Units (beds)			
Age Range	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
0-4	0.02	0.08	0.16	0.24	0.09	0.52	0.77	0.89
5-9	0.01	0.05	0.12	0.20	0.06	0.35	0.69	0.99
10-14	0.00	0.01	0.06	0.11	0.02	0.10	0.46	0.88
15-19	0.02	0.03	0.08	0.12	0.03	0.09	0.38	0.72
20-24	0.17	0.21	0.29	0.37	0.14	0.18	0.22	0.29
25-54	1.21	1.47	2.05	2.63	1.01	1.29	1.55	2.07
55-59	0.03	0.04	0.06	0.07	0.03	0.03	0.04	0.06
60-64	0.02	0.03	0.04	0.05	0.02	0.02	0.03	0.04
65-69	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.02
70-74	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
75-79	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
80+	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total Average Household Size	**1.53**	**1.96**	**2.91**	**3.88**	**1.43**	**2.62**	**4.19**	**6.00**

Table A.1. GLA Child Yield Calculator V3.2 (and 3.3) AHS and Population Assumptions (Inner London and PTAL5-6)

Table A2 allows a comparison of the AHS and age range between version 2 of the tool as used in the 2018 SINS report, colour coded to show the difference to Version 3.2 of the tool (red is a reduction, green is an increase and orange shows no change). The key differences are:

- The reduction in early years and primary age child yield in 1 and 2-bed market units;
- An increase in primary age and working age yields in 3 and 4-bed market units;
- A decrease in secondary age yield in market units;
- An increase in the AHS of 3-bed and 4-bed market units;
- An increase in early years and primary age child yields in social units;
- A decrease in secondary age yield in 2-bed and larger social units; and
- An increase in the AHS for 3-bed social units.

[62] https://data.london.gov.uk/dataset/population-yield-calculator

	Market Units (beds)				Social Units (beds)			
Age Range	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
0-4	0.05	0.12	0.15	0.25	0.09	0.51	0.74	0.89
5-9	0.03	0.07	0.08	0.14	0.05	0.29	0.43	0.51
10-14	0.00	0.02	0.07	0.15	0.02	0.12	0.59	1.15
15-19	0.02	0.04	0.08	0.15	0.03	0.12	0.48	0.93
20-24	0.17	0.21	0.28	0.37	0.14	0.18	0.22	0.29
25-54	1.23	1.48	1.96	2.61	1.02	1.28	1.54	2.07
55-59	0.03	0.04	0.05	0.07	0.03	0.03	0.04	0.06
60-64	0.02	0.03	0.04	0.05	0.02	0.02	0.03	0.04
65-69	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.02
70-74	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
75-79	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01
80+	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total Average Household Size	**1.61**	**2.04**	**2.78**	**3.86**	**1.44**	**2.60**	**4.12**	**6.00**

Table A.2. GLA Child Yield Calculator V2 AHS and Population Assumptions (High-Density) – as used in the 2018 SINS report (highlighting differences to Model version 3.2 and 3.3)

A.1.2 Applying Population Characteristics to Different Tenures

- Intermediate (shared ownership) units are included as market tenure and not social tenure. This is because the underlying census data include households in shared ownership under the owner occupied heading which forms a large part of the market tenure grouping.
- London Living Rent units are assumed to have intermediate (shared ownership) characteristics and therefore use the market tenure assumptions.

Accounting for How Households Mature over Time and How Children Age through the School Years

The assumptions in table A1 are applied to the units at each year of the Local Plan period and full development trajectory. It has not been possible in this exercise to age the household over time. This means that the population results use an assumed age range of occupancy from the first year they are occupied and for each subsequent year. The ability to age residents and account for lifetime living and moving around the development over time will need to be considered by subsequent work to be undertaken by OPDC.

Accounting for under-occupancy or vacant units

Comments received on the 2017 Education and Needs Study queried whether allowance should be made for under-occupancy of units or units being left vacant as part of the buy-to-let market. OPDC and AECOM sought advice from the GLA on any additional discounts to apply. The GLA advised that this was already accounted for in the GLA model results which cover a wide sample of unit types including those with under-occupancy or vacancy.

A.2 School Place Discount - Sensitivity Test Results

Section 4.4.1 explains the assumptions applied to the school age populations to determine the number if school places needed. This includes a discount 'leakage' to account for private education or home-schooling. The results in the main body of this report use a discount of 15% for primary school places and 30% for secondary school places. Sensitivity testing has considered the implications of 11% discount for primary and 15% discount for secondary. Table A3 shows the results of this testing (as an updated version of Table 18) taking account of use of existing school capacity.

- Primary school needs during the Local Plan period remain within the three FE primary school recommended in section 4.7.
- Secondary school needs during the Local Plan period remain below the trigger for on-site needs.

Affordable Housing Test	**35% Affordable Housing**				**50% Affordable Housing**			
Phase & years	**Primary**		**Secondary**		**Primary**		**Secondary**	
	Places (Ages 4-10/11)	**Primary Forms of Entry (210 pupils)**	**Places (Ages 11-17/18)**	**Secondary Forms of Entry (150 pupils)**	**Places (Ages 4-10/11)**	**Primary Forms of Entry (210 pupils)**	**Places (Ages 11-17/18)**	**Secondary Forms of Entry (150 pupils)**
Phase 1 (2018-2023)	0	0.0	0	0.0	0	0.0	0	0.0
Phase 2 (2024-2028)	0	0.0	0	0.0	0	0.0	0	0.0
Phase 3 (2029-2033)	140	0.7	0	0.0	344	1.6	43	0.3
Phase 4 (2034-2038)	255	1.2	77	0.5	298	1.4	198	1.3
Total (Local Plan Period)	**395**	**1.9**	**77**	**0.5**	**643**	**3.1**	**241**	**1.6**
Phase 5 (2039-2043)	354	1.7	234	1.6	421	2.0	283	1.9
Phase 6 (2044-2048)	196	0.9	130	0.9	233	1.1	156	1.0
Total (Development Trajectory)	**945**	**4.5**	**441**	**2.9**	**1,296**	**6.2**	**680**	**4.5**

Table A.3. School Places Requirement by Development Phase (Sensitivity Test)

Table A4 illustrates how the sensitivity test school forms of entry build-up cumulatively across the Local Plan period. The triggers years for provision of the schools are shown in green. The trigger for the on-site three FE primary school remains in 2031.

50% Affordable Housing Test	Phase 1						Phase 2					Phase 3					Phase 4				
Years	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
PRIMARY Forms of Entry	-5.9	-5.6	-5.3	-4.8	-3.9	-3.4	-2.7	-2.0	-1.5	-0.9	0.0	0.5	0.7	1.0	1.3	1.6	2.0	2.4	2.6	2.8	3.1
SECONDARY Forms of Entry	-6.4	-6.2	-6.0	-5.6	-4.8	-4.3	-3.7	-3.1	-2.6	-2.0	-1.2	-0.8	-0.6	-0.3	0.0	0.3	0.6	1.0	1.2	1.4	1.6

Table A.4. School Forms of Entry Build-up by Development Phase (Sensitivity Test)

Appendix B Off-site Expansion Projects Commentary

B.1 Health Facilities: Existing Capacity and New-build Projects

As part of the 2017 analysis the OPDC sought advice from the Head of Strategic Estate Development for Brent, Harrow, Hillingdon and Ealing CCGs and Head of Strategic Estate Development for Central London, Hammersmith and Fulham, Hounslow and West London CCGs who clarified that the CCGs would **not** be supportive of the development of five new GP practices (with around 10,000 patients per practice) in the OPDC Area. The national strategy for general practice encourages the delivery of primary care at scale from fewer, larger sites. The NWL CCGs are proactively working to deliver this strategy and this is reflected in the proposed infrastructure solution for health within this study.

The aim of the Brent CCG Estates Plan is to maximise the use of the existing health care estate in the Borough by reconfiguring space to support the delivery of newly commissioned services and by relocating some existing services to a more appropriate health care setting. Brent CCG has identified the need for creating three out of hospital Hubs:

- Central Middlesex Hospital (CMH)
- Willesden Centre for Health and Care
- Wembley Centre for Health and Care

Under the North West London (NWL) Shaping a Healthier Future programme the CMH site has been identified as a Health and Wellbeing Hub+ with a particular focus on elective care. The Brent out of hospital strategy sets out a range of services that will be provided at the Hub+.

- Major hub for primary care and community services including additional out-patient clinics and relocation and expansion of community rehabilitation beds from Willesden.
- Elective Orthopaedic Centre.
- Brent's Mental Health Services from Park Royal Centre for Mental Health.
- Regional genetics service relocated from Northwick Park Hospital.

Under the North West London (NWL) Shaping a Healthier Future programme the Central Middlesex Hospital (CMH) site has been identified as a Health and Wellbeing Hub+ with a particular focus on elective care. In addition to the hub+ services, Brent CCG and NHSE London primary care team have worked with London North West Hospital Trust (LNWHT) to move primary care into void space at CMH. Two existing GP contracts, previously located in premises within a mile radius of the CMH site (Acton Lane Surgery and Harness Harlesden practice at 150 Hilltop Avenue), have been re-procured as part of the national Personal Medical Services (PMS) contract review into one new PMS contract. Park Royal Medical Practice is the new Primary Care Centre that opened in Central Middlesex Hospital on 1 March 2018.

Ealing CCG has confirmed that it does not wish to set up a new GP practice in North Acton. The Ealing CCG Estates Plan has identified two practices close to the OPDC Area that are suitable for expansion:

- Cloister Road Surgery. 41-43 Cloister Road, Acton, W3 0DF. List size on NHS choices in May 2018: 10,308 patients. 9 GPs. Ealing CCG and the practice applied for investment from NHSE's 2016/17 Estates and Technology Transformation Fund to expand the size of the practice at a cost of circa £1.1 million. However, the surgery was not successful in securing funding from NHSE. In May 2018 the CCG agreed that the capacity of Cloister Road Surgery can be expanded using planning contributions to provide additional capacity for circa 3,500 patients to accommodate population growth in North Acton and Park Royal.
- Acton Health Centre 35-61 Church Road, Acton, W3 8QE. List size on NHS choices in May 2018: 3,410 patients. 1 GP plus a locum. The CCG is planning to expand the size of this practice and develop it as an out of hospital local services hub with primary care services for circa 25,000 patients, community services and outpatient services. It should be noted that this practice is 1.4 miles walking distance from W3 6RS (approximately a 28 minute walk). The nearest station to the practice is Acton Central.

Hammersmith and Fulham CCG have identified that Hammersmith Centre for Health (HCfH) in Hammersmith Hospital is one of the suitable sites for expansion to support early population growth within OPDC. HCfH is a primary care facility with a current list size of circa 3,000 patients. The expansion could provide additional capacity for circa 6,000 patients at an estimated cost of circa £400k. The CCG has already discussed this strategy with Imperial College Healthcare NHS Trust (ICHT), which includes Hammersmith Hospital and four other hospitals across NW London, and agreed that there is space available for expansion of HCfH. The site is a 25 minute walk from the Oaklands and North Kensington Gate (NKG) developments (1.3 miles).

The CCGs have also identified that Willesden Centre for Health and Care is a suitable site where the capacity of the primary care service can be increased to support early population growth within Old Oak. The reconfiguration / expansion of the existing site could provide additional capacity for circa 8,000 – 10,000 patients at an estimated cost of circa £1 million.

In March 2017 the CCGs confirmed a preferred high level long-term strategic vision for the health infrastructure requirement as one large Hub/health centre for Old Oak with one or two spokes. The Hub/health centre would be a new facility preferably integrated and/or co-located with other public sector providers i.e. education, libraries, social care to drive collaborative working and derive economies of scale.

To support the SINS work, Brent, Ealing, Hammersmith and Fulham and West London CCGs commissioned Imperial College Health Partners (ICHP) to support them to agree a health service delivery strategy for the OPDC Area. OPDC met with ICHP in December 2017 to provide background information on the development. OPDC held subsequent meetings with representatives of the respective NWL CCGs in March and April 2018. OPDC will continue to work with the CCGs going forward to refine the floorspace calculations outlined in section 5.6.

Appendix C Building Bulletin Assumptions

Guidance on space standards for primary and secondary schools can be found in Building Bulletin 103: Area guidelines for mainstream schools[63]. The document sets out simple, non-statutory area guidelines for mainstream school buildings (part A) and sites (part B) for all age ranges from 3 to 19. This guidance can be used to estimate the area needed for new schools, as well as the extra building area that may be needed for schools increasing in size. The guidance is generally written to apply to new buildings in primary and secondary schools. The recommended area in square metres (sq.m) for various categories of space and individual types of spaces, or rooms, are shown on graphs and based on simple formulae. All formulae use a 'base' area and an area per pupil place.

Part A: The buildings

This part sets out how to establish the floor area requirements for spaces within primary and secondary school buildings. For middle schools and all age schools the sizes of spaces can be established by referring to the relevant areas for primary and secondary schools, as explained in annex A.

Part A is in three sections, as shown in figure 1 below:

- **Net area**, which is the usable area and comprises basic teaching area; halls, dining and PE spaces; learning resource areas; staff and administration; and storage;
- **Non-net area**, which supports the functioning of the building, and includes toilets and personal care, kitchen facilities, circulation, plant and internal walls;
- **Supplementary area** (including net and non-net), which is used for non-school or support functions such as specially resourced special needs facilities.

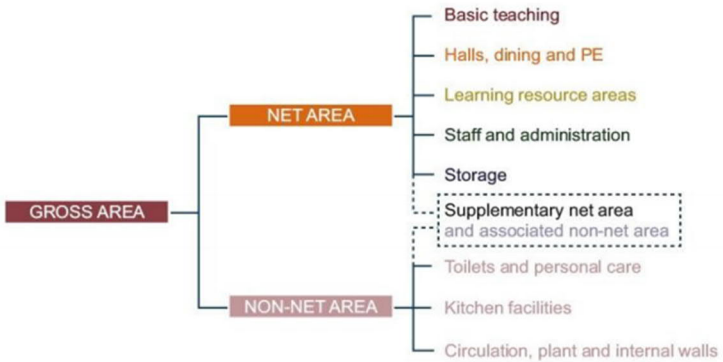


Figure 1: Categories of space that make up gross and net area

Part B: The site

This part of the guide sets out how to establish the site area requirements for a school. For middle schools and all age schools the sizes of spaces can be established by referring to the relevant areas for primary and secondary schools, as explained in annex B. It is in three sections: net site area; non-net site area; and, supplementary area.

Part A is in three sections, shown in figure 19 below:

- **Net site area**, which is the usable site area available to pupils, and is also known as the 'playing field area' when considering land disposals (*Section 77 of the School Standards and Framework Act 1998*);
- **Non-net site area**, which supports the functioning of the site and includes the footprint of buildings and access areas such as paths, roads and parking;
- **Supplementary area,** which is used for non-school or support functions such as specially resourced special needs facilities.

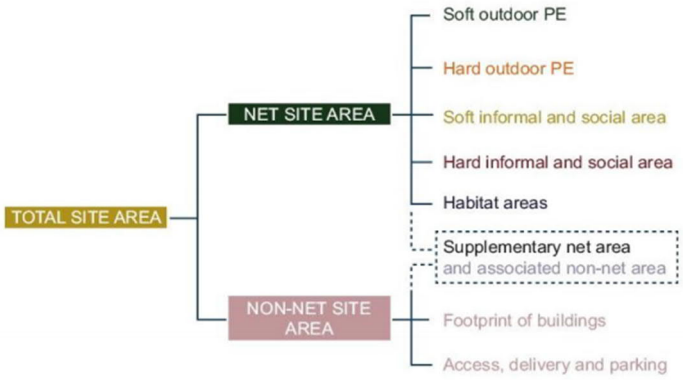


Figure 19: Categories of space for net and non-net site area

[63] DfE and EFA Area guidelines for mainstream schools Building Bulletin 103 (June 2014)

The following assumptions have been used to determine the site sizes set out in Section 4.5.

- **Mid Point** - To achieve the recommended minimum overall net area, which is greater than the sum of the individual minimum areas, the area of each category of space should average around the middle of the recommended range.
- When added together, the recommended minimum for each category of space (the 'sum of minima') will be less than the overall recommended minimum net area. This difference is the 'float' that can be used to enhance some areas, depending on the priorities of the school, for example providing different variations of teaching spaces.
- Some schools will be on restricted sites and will not have enough **Outdoor Space** to meet requirements on site. In these situations pupils will need to be provided with access to suitable off-site provision. On restricted sites, where space will be at a premium, a flexible approach to the site area and the management of the use of that area will be needed, and consideration should be given to providing the following, in priority order (BB103 page 36):
  - firstly, space for hard informal and social area including outdoor play area immediately accessible from nursery and reception classrooms (zone Y);
  - then some hard outdoor PE space to allow some PE or team games to be played without going off site, ideally in the form of a multi-use games area that can also be used as hard informal and social area (zone X);
  - then soft informal and social area for wider range of outdoor educational opportunities and social space (zone W);
  - finally some soft outdoor PE can be provided. If this is in the form of an all-weather pitch, it can count twice towards the recommended minimum (zone U or u).
- **Outdoor space assumptions** the facility sizes in Section 4.5 assume the inclusion of: hard informal and social area space adjacent to the nursery & reception classes, outdoor PE Multi-Use Games Area (MUGA) and soft informal and social areas. The sizes do not assume soft outdoor PE provision.
- **Building heights:** Primary Schools are assumed to be a minimum of three storeys and Secondary/6th Form Schools are assumed to be a minimum of five storeys.
- **All-through schools** above 750 places use the total of the primary and secondary base areas (BB103 page 5).
- A base minimum assumption of 350sq.m for primary schools and 2,000sq.m for secondary schools has been assumed for the **non-net site area**. This would traditionally include the building footprint, paths, roads and parking. To avoid double-counting the footprint the base minimum assumptions have been used.
- School site sizes do not include an allowance for specialist uses including early years or Special Education Needs.

Guidance on space standards for Including special schools, alternative provision, specially resourced provision and units can be found in Building Bulletin 104: Area guidelines for SEND and alternative provision[64]. The document sets out simple, non-statutory area guidelines for ages 3 to 19 at the following educational settings: special schools, alternative provision (AP), specially resourced provision (SRP) and Units. Similar to BB103, the recommended area in square metres (sq.m) for various categories of space and individual types of spaces, or rooms, are shown on graphs and based on simple formulae. All formulae use a 'base' area and an area per pupil place.

As set out in section 4, the assumptions on SEN needs are based on children with a statement or EHC plan in place and the percentage of children who are schooled in Designated SEN Units or SRP in mainstream schools. SRP and Units provide additional specialist facilities on a mainstream school site for a small number of pupils, typically less than 30, who usually have EHC plans or statements of special need. SRP and Units tend to provide for a specific need such as speech, language and communication needs (SLCN), hearing or visual impairment (HI/ VI) or autism. Less commonly they may provide for pupils with a physical disability (PD) or behavioural difficulty. SRP and Units vary widely, often reflecting the local approach to inclusion.

[64] DfE Area guidelines Building Bulletin 104 (December 2015)

There is a difference between SRP and Units. In SRP pupils spend most of their time (usually well over 50% of their timetable) in mainstream classes. They only attend the SRP facilities for individual support, to learn a specific skill (for example braille for VI pupils), to receive medical or therapeutic support (for PD pupils) or to access specialist equipment. The facilities can be in a suite or dispersed throughout the school. Pupils in a Unit spend the majority of their time there, only attending mainstream classes for a few lessons, such as PE, for assembly or for lunch. Pupils in both settings are on the roll of the mainstream school. In practice the difference between SRP and a Unit is often less defined so that careful briefing at the earliest stage is essential to ensure that a suitable range of spaces is provided. In both SRP and Units the facilities are additional to those normally provided in a mainstream school to support special needs, such as a SEN resource room.

The size of provision for SRP or a Designated Unit which are added to the BB103 assumptions and reflected in Table 17 are based on examples of built facilities rather than the number of pupils with a statement or EHC plan from the 2020 SINS population forecasts. This means the size assumptions are higher than the pupil forecasts, providing an element of future-proofing should the number of pupils with special educational needs (SEN) continue to rise as it has for the last three years.

SRP

- Primary School: 10 student capacity. https://www.cherrylane.hillingdon.sch.uk/school-information/learning-support-and-send/srp-unit
- Secondary School: 20 student capacity. https://www.ridgewayschool.com/about/schools-information/asc-srp

Designated SEN Unit

- Primary School: 8 student capacity. https://www.alderwood.greenwich.sch.uk/node/4
- Secondary School: 12 student capacity. https://padgateacademy.co.uk/designated-provision

C.1 Building Bulletin 104 AECOM Assumptions

Specially Resourced Provision (SRP)			No: of Pupils 10
The buildings (BB104 Figure 12)			
Net Area	**Min**	**Max**	**Use Max**
Learning resources, dining & social	15+1.2N 27	20+2N 40	 40
Storage Zone	5+0.8N 13	15+1.6 N 31	 31
Staff & Admin	5+0.2N 7	15+0.8 N 23	 23
Total Net Area (inclu *Float)*	30+3.6N 66	40+4.4 N 84	 84
Gross Area Range (inclu *non-net uses)*	60+5N 110	75+6.5 N 140	 140

Designated Units (SEN Units)			No: of Pupils 8
The buildings (BB104 Figure 14)			
	Min	**Max**	**Use Max**
Learning resources, dining & social	15+1.2N 25	20+2N 36	 36
Staff, Admin & Storage	5+0.2 N 7	15+0.8 N 21	 21
Total Net Area (inclu *Float)*	42+9 N 114	52+10N 132	 132
Gross Internal Floor Area (inclu *non-net uses)*	60+1 2.5N 160	75+14. 5N 191	 191

Table C.1. AECOM Interpretation of Building Bulletin 104 Guidelines – SRP & SEN Unit

The example above is for primary school sizes of SRP or Designated SEN Unit. The maximum amount of gross area is included in the mainstream school space requirements as determined by BB103 and illustrated in appendix C.2.

C.2 Building Bulletin 103 (incorporating BB 104 requirements) AECOM Assumptions

Primary		No: of Pupils	840
The buildings	**Min**	**Max**	**Mid Point**
Net Area			
Learning resources	10+0.1N	30+0.2N	
	94	198	146
Storage Zone	20+0.15N	40+0.25N	
	146	250	198
Staff & Admin	30+0.2N	50+0.3N	
	198	302	250
Halls, dining & PE	100+0.3N	125+0.35N	
	352	419	386
Basic teaching	2N	30+2.2N	
	1,680	1,878	1,779
Total Net Area (inclu *Float)*	240+2.9N	275+3.1N	
	2,676	2,879	2,778
Gross Internal Floor Area (inclu *non-net uses)*	350+4.1N	400+4.5N	
	3,794	4,180	3,987
Including Gross Area Range for	SRP		4,127
	SEN Unit		4,178
The site	**Min**	**Max**	**Mid point**
Net site area			
1. Hard informal & social area adjacent to nursery & reception	200+1N	400+1.5N	
	1040	1660	1,350
2. Outdoor PE MUGA	22mx33m (plus 10% margin)		
	799		
3. Soft informal & social area	600+2N	800+2.5N	
	2280	2900	2,590
Non net site area	Non net site area per pupil space		
Footprint of all buildings	Nursery	1	
Access for people & deliveries	KS1	1	

Secondary ages 11-16		No: of Pupils	1200
The buildings	**Min**	**Max**	**Mid Point**
Learning resources	75+0.15N	125+0.25N	
	255	425	340
Storage Zone	125+0.25N	200+0.4N	
	425	680	553
Staff & Admin	100+0.2N	175+0.35N	
	340	595	468
Halls, dining & PE	300+0.6N	600+0.7N	
	1,020	1,440	1,230
Basic teaching	2.9N	150+3.3N	
	3,480	4,110	3,795
Total Net Area (inclu *Float)*	750+4.5N	875+4.9N	
	6,150	6,755	6,453
Gross Internal Floor Area (inclu *non-net uses)*	1050+6.3N	1270+7.1N	
	8,610	9,790	9,200
Including Gross Area Range for	SRP		9,405
	SEN Unit		9,449
The site	**Min**	**Max**	**Mid point**
Net site area			
1. Hard informal & social area	200+1N	400+1.5N	
	1400	2200	1,800
2. Outdoor PE MUGA	60mx33m (plus 10% margin)		
	2178		
3. Soft informal & social area	600+2N	800+2.5N	
	3000	3800	3,400
Non net site area	Non net site area per pupil space		
Footprint of all buildings	KS3-4	5	6000
Access for people & deliveries			

Primary			No: of Pupils	840
- Entrance paths & roads	KS2	5		
- Parking	5-11	3.3		2772
- Refuse & Recycling				
Base area (to avoid building footprint double count)				350
Total Built & Site Size				
GIA				4,178
Building Footprint	Storeys	3		1,393
MUGA, hard & soft informal				4,119
Parking, circulation, servicing				350
Site Area (sq.m)				**5,861**
Site Area (Ha)				**0.59**

Secondary ages 11-16			No: of Pupils	1200
- Entrance paths & roads				
- Parking				
- Refuse & Recycling				
Base area (to avoid building footprint double count)				2,000
Total Built & Site Size				
GIA				9,449
Building Footprint	Storeys	5		1,890
MUGA, hard & soft informal				6,578
Parking, circulation, servicing				2,000
Site Area				**10,468**
Site Area (Ha)				**1.05**

Table C.2. AECOM Interpretation of Building Bulletin 103 Guidelines – Primary & Secondary schools

Post 16 ages 16-18/19		No: of Pupils	300
The buildings	**Min**	**Max**	**Mid Point**
Learning resources	50+0.4N	75+0.5N	
	170	225	198
Storage Zone	25+0.3N	50+0.4N	
	115	170	143
Staff & Admin	0.2N	25+0.3N	
	60	115	88
Halls, dining & PE	75+0.6N	125+0.8N	
	255	365	310
Basic teaching	32.N	150+3.5N	
	960	1,200	1,080
Total Net Area (inclu *Float)*	250+5.5N	300+5.4N	
	1,900	1,920	1,910
Gross Internal Floor Area (inclu *non-net uses)*	350+7N	430+7.85N	
	2,450	2,785	2,618
The site			
Net site area			N/A
Non net site area	Non net site area per pupil space		

Post 16 ages 16-18/19		No: of Pupils	300
Footprint of all buildings	Post 16	5	1500
Access for people & deliveries			
- Entrance paths & roads			
- Parking			
- Refuse & Recycling			
Base area (to avoid building footprint double count)			-
Total Built & Site Size			
GIA			2,618
Building Footprint	Storeys	5	524
MUGA, hard & soft informal			-
Parking, circulation, servicing			-
Site Area			**524**
Site Area (Ha)			**0.05**

Table C.3. AECOM Interpretation of Building Bulletin 103 Guidelines – Post 16

Appendix D SWOT analysis of Service Delivery Models

D.1 Benefits and Challenges to Delivery of the Different Education Delivery Options

Option	Explanation	Benefits	Risks
1. Separate primary and secondary schools.	In this option all schools are provided as stand-along separate primary or secondary schools • 4 FE primary school = 840 children aged 4-9 and four early years groups (26 places each) per school • 8 FE secondary school = 1200 children aged 10-18 per school	• This is the standard form of new school provision. • EFSA baseline school designs use separate designs and DfE Building Bulletin guidelines are explained as separate schools.	• The separation of school age phases can involve daunting changes for pupils moving from early years, to primary and to secondary. Commentary indicates that up to a year of learning can be lost as a result of this transition. • Stand-alone school designs require separate schools support services (e.g. hall, library, sports, kitchens, canteens) which can mean a duplication of space if schools are located close to each other. • Stand-alone primary schools may not be able to provide the all the facilities that would be found at an all-through school also catering for older pupils, e.g. a greater variety of sport facilities. • Stand-alone schools can take a number of years to fill-up from a development and are generally less able to flex around the changing demographics of place.
2. All-through schools for ages 3-19.	In this option all schools are provided as all-through schools for ages 3-19. • Each school would have: – Four early years groups (26 places each) per school – 4 FE primary places = 840 children aged 4-9 per school – 4 FE secondary places = 600 children aged 10-18 per school	• All-through schools can ease the traditional transition process between key stages, early years, primary and secondary education and ensure smoother adaptation to later key stages. • There are advantages of economies of scale from central services such as catering, caretaking and central facilities e.g. sports' hall, swimming pool, theatre etc.	• This is still a relatively emerging model of school delivery – currently only 8% of all academy, free schools and LA maintained secondary schools in London are all-through. • The design of an all-through school still needs to provide separation so that age groups do not compete for space e.g. in playgrounds. • Teaching staff need to be able to cover all key stages of learning: Commentary from all-through heads indicates that primary-trained leaders are perceived to be less confident in leading all key stages of learning.

Option	Explanation	Benefits	Risks
3. A combination of separate primary and secondary schools and all-through schools	In this option schools are provided through a combination of stand-alone separate primary and secondary schools and all-through schools. For example: • Two 4 FE primary schools, one 7-8 FE secondary school and one 4FE all-through school.	• This would involve the standard form of new school provision; plus • A model that eases the transition between key stages, and fosters role-models and buddies between older and younger children.	• Stand-alone school designs require separate schools support services (e.g. hall, library, sports, kitchens, canteens) which can mean a duplication of space if schools are located close to each other. • This is still a relatively emerging model of school delivery. • Design of all-through schools still needs to provide separation so that age groups do not compete for space e.g. in playgrounds. • Staff in all-through schools will need to be able to cover all phases of learning.

Table D.1. Education Service Delivery Options - Benefits and Challenges to Delivery

D.2 Advantages, Weakness and Challenges to Delivery of the Different Health Service Delivery Options. Assessment undertaken in 2017

Option	Advantages	Weaknesses	Challenges to delivery
1. One centrally located facility to serve the OPDC Development Area (circa 50,000 patient list size).	• More cost effective delivery of primary care services • Gives the CCG the opportunity to provide a range of community services closer to patients' homes • Supported by the CCGs	• Greater travel distances for residents to GP services	• Difficulties funding one very large facility • Difficulties securing land for one very large facility • A mechanism will be required to scale up the size of the facility as the population increases in Old Oak because the NHS cannot fund the full size facility from day 1. •
2. Two facilities (circa 25,000 – 30,000 patient list size each)	• Delivers primary care services at scale • Shorter travel distances for residents to GP services than option 1 • Enhances place making • Less challenging to deliver (funding and land)	• Likely to be less cost effective for CCGs than option 1	• Likely to require mechanism to scale up the size of each facility as the population increases (although less challenging than option 1) • CCGs would prefer option 1 to option 2.

Option	Advantages	Weaknesses	Challenges to delivery
3. Smaller scale facilities delivered at a neighbourhood level as the development builds-out (circa 7-10,000 patient list size each)	• Shortest travel distances for residents to GP services • Enhances place making • Less challenging to deliver (funding and land)	• Does not deliver primary care services at scale (not cost effective) • Not supported by CCGs / health stakeholders • Does not allow CCGs to provide a range of community services closer to patients' homes	• Not supported by CCGs / health stakeholders. OPDC is unlikely to be able to deliver this without their support.
4. Phased facility opening to match the population build-up over time or short-term use of meanwhile floorspace while the population builds-up and sites for facilities become available.	• Health facilities provided from the first phase of development • Potentially shortest travel distances for new residents to GP services. • Potentially allows CCGs to provide a range of community services closer to patients' homes • Enhances place making (establishing a community) • Efficient use of land & buildings (contributes to economic vibrancy & a start-up/grow-on/move-on economic strategy)	• Does not deliver primary care services at scale (not cost effective) • Service model potentially not supported by CCGs / health stakeholders. • Cost burden of temporary or phased delivery and move/scale up to final facility would need to be managed between CCG, OPDC and developers.	• Potentially not supported by CCGs / health stakeholders. • Will require implementation of phased planning approvals with developers. • Will require proactive use of OPDC landholdings.

Table D.2. Health Service Delivery Options - Advantages, Weakness and Challenges to Delivery

Appendix E Recent Education Procurement Examples

E.1 Funding & Delivery

The London Legacy Development Corporation (LLDC) has brought forward the early delivery of the Legacy Community Scheme (LCS) schools, which comprise:

- Mossbourne Riverside Primary Academy - a three-form entry primary school at East Wick, due to open at this site in September 2016 with the Mossbourne Academy Trust as education provider; and
- DRET London Free School - an All-through Free School at Sweetwater and Stadium Island, scheduled to be opened in September 2017 by the David Ross Education Trust (DRET).

Mossbourne Riverside Academy was delivered under Route 1 as described in Section 4.9. The Legacy Corporation and the LB Hackney were successful in their joint bid to the DfE for Targeted Basic Needs Funding (TBNF) to support the delivery of a three-form entry primary school in the East Wick neighbourhood via LB Hackney's pre-procured Local Education Partnership (LEP). The amount awarded by DfE was £6.8m, with LLDC providing an additional £5.6m by way of a grant to ensure the school was of a quality befitting its location.

DRET London Free School is being delivered under Route 2 as described in Section 4.9. In light of the DfE's decision in May 2013 to approve the David Ross Education Trust (DRET) all-through sports specialist Free School, and in particular the desire to locate that school on or adjacent to Queen Elizabeth Olympic Park, a decision was taken by the Legacy Corporation and LB Newham together to work with DfE to explore options to locate the DRET school on a site which would enable it to serve as the LCS secondary school and second primary school. The projected cost of the whole school is £41m, which is made up of EFA Free School capital funding and grant contributions from the LLDC and the David Ross Education Foundation for £3.7m and £1.9m respectively, to enhance design quality. The EFA takes all construction and funding risk on this project.

Figure E.1. Mossbourne Riverside Primary Academy

Figure E.2. Bobby Moore Academy – Primary School

Figure E.3. Bobby Moore Academy – Secondary School

Appendix F Site Selection Criteria & Assessment Results

F.1 Social Infrastructure – Assessment of Sites Against Criteria

OPDC's Local Plan includes a 50% affordable housing policy with 25% family housing, subject to viability. The Local Education Authorities (LEAs), Clinical Commissioning Groups and local authority public health departments identified the existing schools and health facilities that may have the potential for off-site expansion to meet the needs of the development in early phases. Proposals for the expansion of these facilities is not yet committed and OPDC will be working with the relevant service providers to further investigate the potential for these facilities to be expanded. On this basis, the OPDC Local Plan needs to monitor with stakeholders and model for on-site requirements on the basis of the education needs as set out in Section 4.7 and health facility needs as set out in Section 5.7.. In order to identify the most appropriate site, OPDC, in collaboration with AECOM, have defined criteria against which to score the sites. The criteria are set out below.

F.1.1 Deliverability

Criteria	Commentary
Size/shape of the site	The adequacy of the size of the site for the required education facility, with the larger the site the more flexibility the site offers and the more deliverable the facility would be. The size of the site is also considered in the context of the size requirements set out in national space standard guidance. Consideration of appropriate shape arrangements and guided by national infrastructure design standards.
Land use designations	Is the land use identified for the site appropriate for social infrastructure uses? For example, a development site within Strategic Industrial Location (SIL) would score negatively against this criteria.
Public or private land	Social infrastructure facilities may well be more readily deliverable on public land than on private, though some schemes on private land will be of a scale which requires provision of social infrastructure facilities on-site on private land
Other designations	If there are other designations to consider, e.g. metropolitan open land (MOL) or rail freight safeguarding
Other infrastructure requirements	Are there significant infrastructure burdens which would affect the development of the site (either alone or in a reasonable combination) which would be likely to render the delivery of the facility unviable

Table F.1. Site Assessment Criteria - Deliverability

F.1.2 Lifetime Neighbourhoods

Criteria	Commentary
Accessibility by walking, cycling and by public transport	Prioritise sites that are easy to get to on foot, by bicycle and are located near/with easy access to public transport nodes
Accessibility to public open space	The ability to use nearby public open space to meet leisure and recreational needs of school
Proximity to delivered and soon to be delivered (during the Local Plan period) housing, particularly family housing	Minimise the need to travel for new residents
Proximity to existing school/health centre facilities	
Colocation, integration and adjacency	Co-located facilities are single service facilities which are located adjacent to each other on the one plot. Integrated facilities are single service facilities located together on the one plot, in the same complex with shared central services. Adjacent facilities are single service facilities located on adjacent plots. Each provides the ability to cost save and support the function of other social infrastructure

Table F.2. Site Assessment Criteria – Lifetime Neighbourhoods

F.1.3 Environment

Criteria	Commentary
Impact of air and noise polluting sources	Try to ensure education uses are located away from polluting sources
Amenity (including daylight and sunlight, wind etc.)	Education uses should be located in areas with a good standard of amenity.
Ability to appropriately manage any traffic associated with the facility and ensure that access to the facility is safe	Although travel plans would try to ensure that people access the facilities by sustainable transport modes, some will still access the facility by car drop-off. There is also a need to consider the safety of visitors to a facility.

Table F.3. Site Assessment Criteria – Environment

Given the timescales over which the plan is proposed and the complexity of delivery, there is a need for a degree of flexibility in the approach to on-site infrastructure. It is therefore recommended that as part of any policy for on-site delivery, OPDC identifies that the on-site facility can be provided on an alternative site, if this is agreed:

- By the developer/landowner on the allocated site;
- By the developer/landowner of the alternative site;
- By the appropriate social infrastructure service provider; and
- By OPDC itself.

Further, the exact size of the facility may need to flex based on population projections. Therefore, the Local Plan should also recognise this and state that the starting point for the size of the facility should be the assumptions within this study, but that the exact size will be dependent on population projects and that an alternative size for the facility may be appropriate, but would have to be agreed by OPDC and the appropriate service provider.

Appendix G Case Study Precedents of High-density Facility Design and Mixed Use Proposals

G.1 Primary Schools

Ark Priory Primary is a new two-form entry primary academy on Acton Lane which opened in September 2013 and will cater for approx 450 pupils when full.

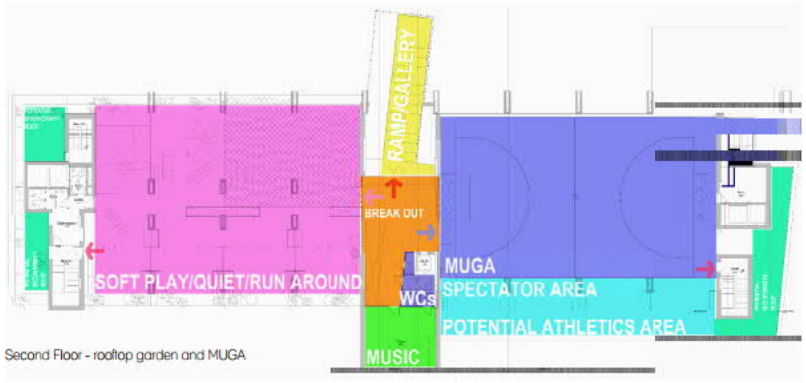
Site Size	95 metres length, 70 metres width 0.33 hectares
Surrounding uses	Two storey terraced houses with short rear gardens to the North. Modern three storey residential flats to the South. A rail corridor (North London Loop Line) to the East. Three storey residential development to the West.
Building size	The new building extends 53 metres along the frontage of the site and extends a maximum of 26.5 metres East, into the site. GIA 2,442 sq. m. FAR 0.36
Internal configuration	Single storey component contains a kitchen with a servery, a large hall that can be divided using bi-fold doors and ancillary facilities. Main building: • Ground floor: a music/cookery room, library, staff room, special education needs room, an administration room, 1 nursery classroom, 2 reception classrooms, a small group room and ancillary facilities. • First & second floors: 6 classrooms, 2 group rooms, an office and ancillary facilities including toilets and stores.
External areas	• Rubber play surfaces and play equipment in the nursery and reception play areas; • A social courtyard with tables, chairs and food garden planter boxes; • Large hard play areas with painted games; • A multi-use games area with two courts surrounded by a 3 metre sports fence; • An adventure playground and astro turf 'story lawn'.
Car Parking/ cycle parking provision	• One disabled car space. • 48 cycle parking spaces.
S106 contributions	£45,000 • To raise the existing Zebra Crossing. • To introduce 'school keep clear' markings. • To implement a new 20 MPH zone.

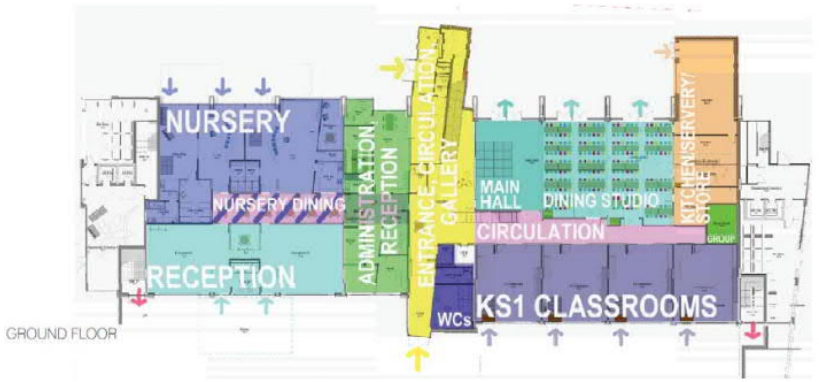
Schedule of External Areas (in square metres)

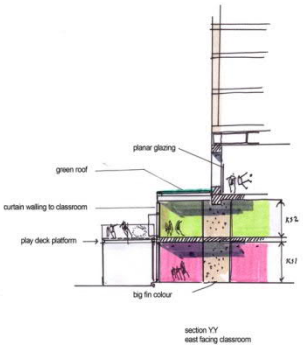
	BB99 Guidelines	Proposed
Games Courts	1500	408
Informal Hard Play	1075	1349
Informal Soft play	1925	376
Habitat	650	102
Circulation Area / Float	2250	366

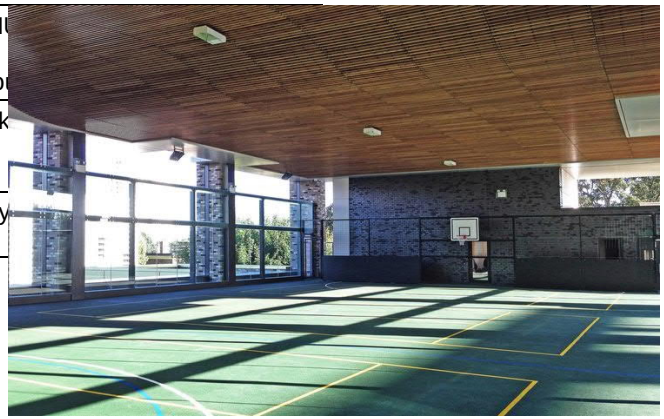
Holy Trinity School, Dalston is a Voluntary Aided CofE School in Hackney, with capacity for 460 pupils. Given the lack of funding available to the school, the primary school site was redeveloped as part of a mixed-use approach; a 2 form entry primary school was built at ground and first level, with a double height play deck on the second, and 101 new apartments above.

Site Size	87.5 metres length, 52 metres width 0.45 hectares
Surrounding uses	Predominantly 2 and 3 storey residential buildings to the south and east, with the Holy Trinity Church. A new development to the west and north means that storeys start at 10 and rise to 19 storeys.
Building size	The new building extends 80 metres from north to south and 35 metres east to west at its widest. GIA 12,979m2
Internal configuration	The school has a gross area of 3,213 sq.m • Ground floor: Main Hall, Dining Studio and Kitchen, 4 KS1 Classrooms, Administration, Reception Classrooms, Nursery and ancillary facilities including toilets. • First floor: 6 classrooms, 8 KS2 Classrooms, Group working rooms, Learning Resource Centre, Staff Rooms and Specialist Learning Facilities. • Second floor: Music Room and breakout spaces.
External areas	Relating to the school, the ground floor spaces are divided into 4 distinct functions: • Nursery Play Space – consists of tricycle track, interactive and sensory planting areas. • Reception Play Space – consists of educational/nature discovery play, spill out space for classrooms and covered outdoor learning areas. • KS1 Play Space – Active space for physical exercise, mounding and seating areas and covered outdoor learning space • Hard landscape area capable of accommodating chairs and tables for outdoor lunches. • Although the space on the second floor is covered by the residential soffit above, there is a 'sky-gap' which allows for natural light and ventilation. Additionally, it is worth noting that the second floor relates closely to KS2. On the Second Floor the following has been provided: • A multi-use games area with two courts surrounded by a glazed screens with a soffit to allow fresh air;



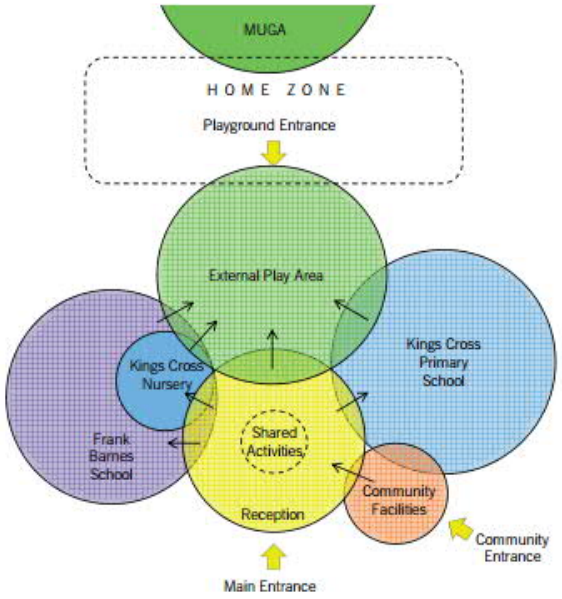


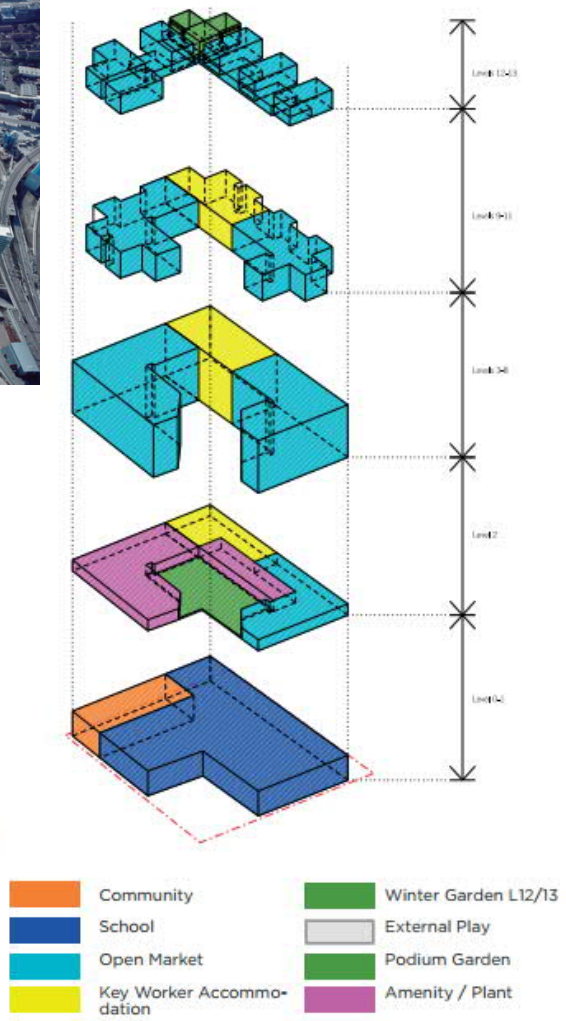




The Plimsoll Building, Kings Cross opened in September 2015 and contains 2 schools on the ground and first floors; Kings Cross Academy and Frank Barnes School for Deaf Children. The schools are co-located together and share integrated, inclusive facilities. The Academy will serve 420 primary school pupils, plus a nursery.

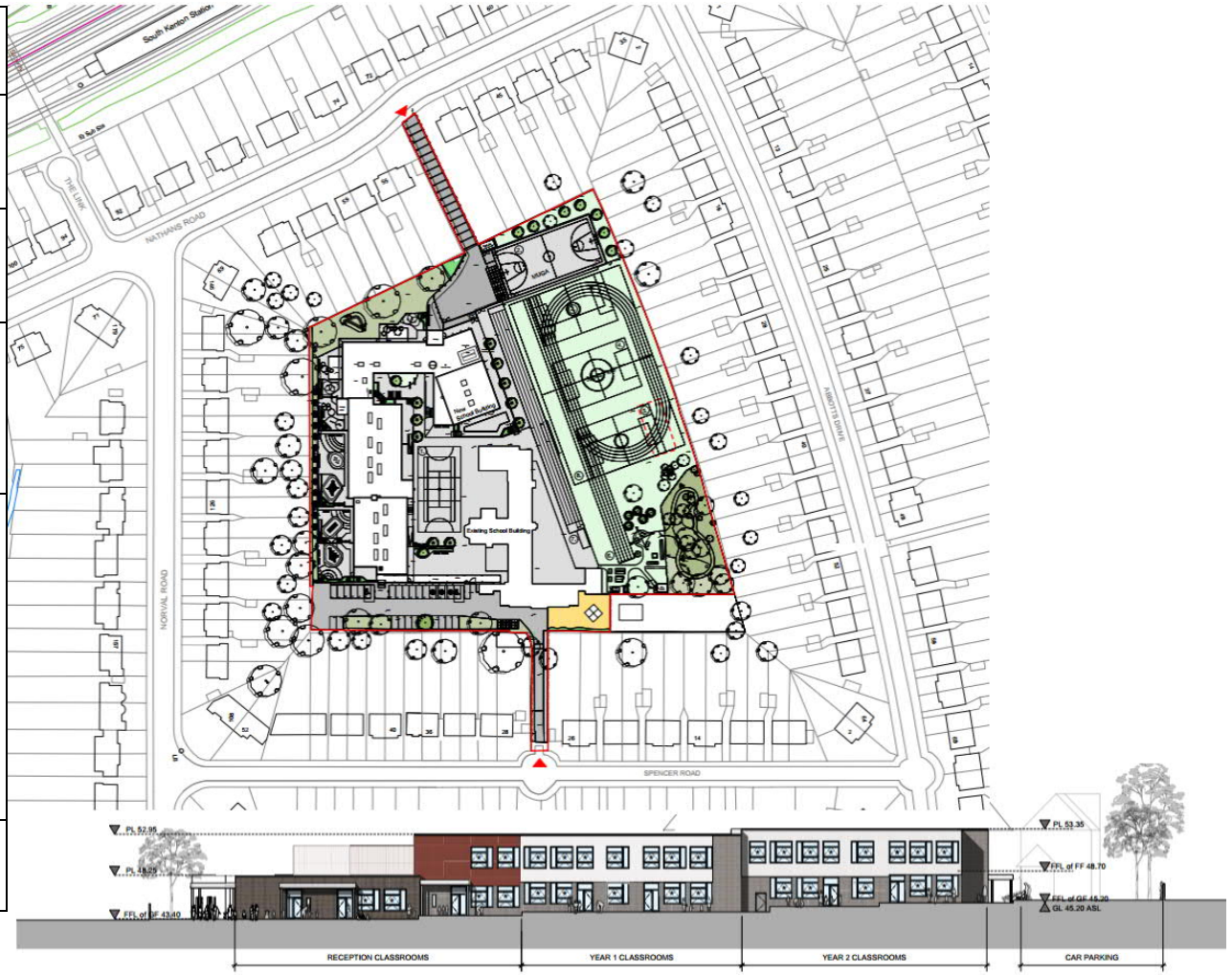
Site Size	39 metres length, 30 metres width 0.12 hectares
Surrounding uses	To the west is primarily residential, with a MUGA and multi-storey car park. To the east a cultural building is proposed, whilst to the south the Regents Canal can be found, with Gasholder Structures. The maximum building height of the Kings Cross redevelopment is set at 72.5m AOD
Building size	The new building is 14 storeys providing 255 residential units above a new primary school, community facilities, a nursery, retail shop and basement level car parking
Internal configuration	The school comprises of 4,647m2 GEA • At ground level, the school accommodation is arranged around a double height 'street' that forms a communal central spine linking through the building from the school main entrance on the east elevation to the playground on the west. • The plan arrangement allows the mainstream classroom accommodation to be broken up into three sections: reception classrooms at ground floor and two groups of six classrooms at first floor.
External areas	The school playground is contained within the building envelope and forms the lower part of a sequence of terraced amenity spaces along with the podium 'courtyard' and residential balconies that overhang it. The location of the primary school means that it benefits from the close proximity of the MUGA on an adjacent lot.
Car Parking/ cycle parking provision	• Dedicated car parking for the school is not provided • 46 spaces in 2 different locations will be for school staff and visitors to the residential aspect of the scheme
S106 contributions	The schools were an obligation of the site wide Kings Cross S106 Agreement





The expansion of **Byron Court Primary School, Wembley** from a 3FE to a 5FE (1,050 pupils) has contributed to the identified need for additional primary school places in Brent. Whilst the primary school does not form part of a mixed-use development it does show how a 5FE primary school can be implemented in a constrained site.

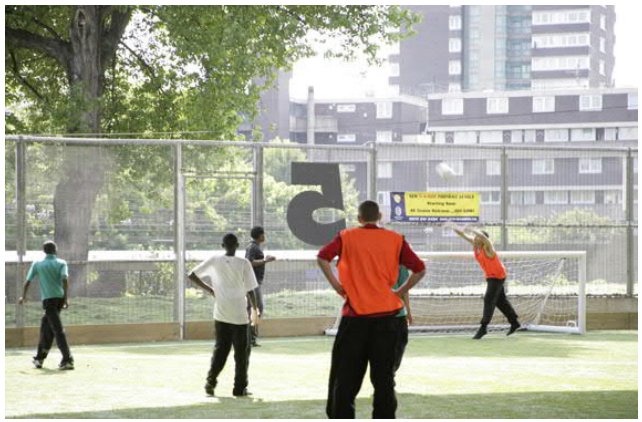
Site Size	158 metres in length, at the longest point, 150 metres in width at the widest point. 1.83 hectares, 2,581m2 current buildings footprint.
Surrounding uses	The Primary School site sits within a residential neighbourhood with most houses 2 storeys in height There are also 2 golf courses to the North. The site is approximately 7 minutes from South Kenton Station.
Building size	There is currently 2,534m2 of existing buildings on site, of which 829m2 will be demolished. The proposed scheme is for an additional 3,217m2. The Building is over 2 storeys.
Internal configuration	The school comprises of 4,922.6m2 GIA • 5 clusters of 5 classrooms each, and a core group space in a 2 storey high new building • A new hall and kitchen • Main reception, administration and years 5 & 6 cluster to remain in the existing building
External areas	The playing field has been consolidated into a multi-use space, allowing students vital access to open soft sports provision. The sports field includes line markings and equipment for 3no. under 7/8 football pitches, 1no. under 11/12 football pitch, and 1no. athletics track including a 100m running track. The MUGA alongside is designed to be an all-weather sport pitch for netball, basketball and mini soccer. The central play area space between the two buildings provides opportunities for tennis and netball, alongside everyday play. The proposals also include a hard surfaced, 80m running track and a long jump sand pit.
Car Parking/ cycle parking provision	• 26 car parking spaces, including 2 disables spaces and 3 electric vehicle charging spaces • 62 cycle spaces & 80 scooter spaces

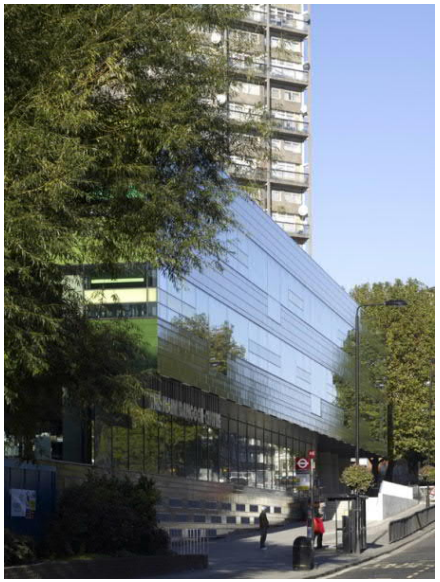


G.2 Secondary Schools

The **Westminster Academy at the Naim Dangoor Centre** opened in September 2007 as 1,175 pupil secondary school.

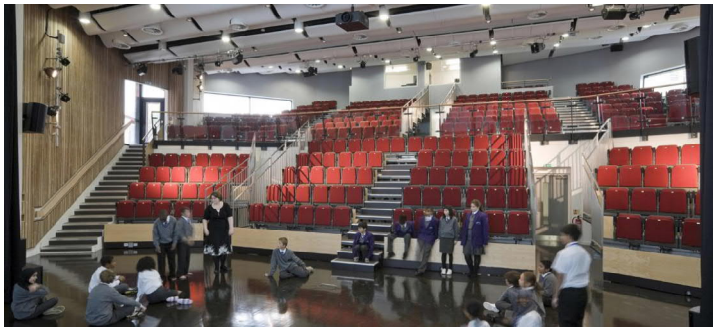
Site Size	3.57 hectares
Surrounding uses	Adjacent to the site is a 21 storey residential tower. To the east is a four-storey post-war block of shops with three floors of residential above. To the north are two 21 storey residential tower block. To the west is Carlton Tennis Club and Murphy's Yard. The site is also crossed by a public right of way and houses several public sports pitches.
Building size	The school is a 5-storey building located along one edge of the site lining the Harrow Road housing all facilities except the 2-storey sports hall separated to allow for year round community use after school hours. • GIA 13,100 sq.m.
Internal configuration	• Lower ground: car park • Ground floor: entrance lobby and library • Levels 1 to 5: teaching areas, dining, halls.
External areas	• The landscape around the two main buildings is one large terraced space leading to seven sport pitches located under the Westway for weather protection. • Westbourne Green sports facilities are arranged in three areas: • Dedicated academy use: MUGA, student habitat zone, school habitat garden and informal play area. • Shared academy/community use: Five 6-a-side football pitches, informal kick-around space, five fitness stations and one informal basketball hoop. • Dedicated community facilities: two 8-a-side pitches, six fitness stations, skate park and one informal basketball hoop.
Car Parking/ cycle parking provision	• 62 car parking spaces (12 for visitors). • 130 cycle spaces (10 for staff and 40 for users of the community sports hall).
S106 contributions	£200,000 bus service improvement contribution.

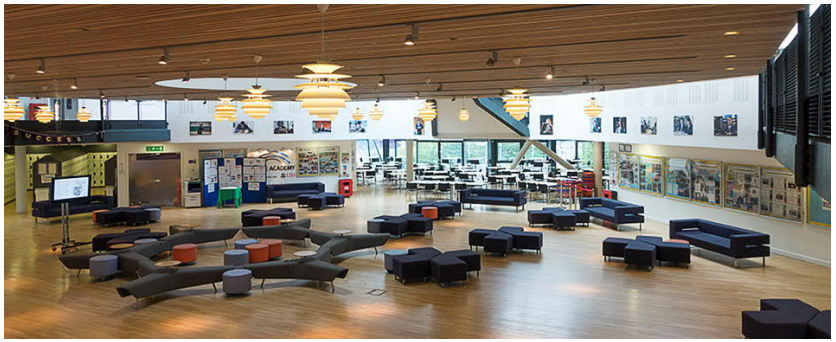




Bridge Academy, Hackney is a secondary school and sixth form for 1,150 pupils aged 11-18. The school is designed as a seven level interactive learning environment in a dense inner city location, adjacent to the Regent's Canal. The school is sponsored by financial services company UBS.

Site Size	6,000m^2 inner city site.
Surrounding uses	The site is bounded to the north by the Regents Canal, and sits within a predominantly residential area, made up of large high rise flats. To the south-east of the site is Haggerston Park.
Building size	• 10,250m^2 with a maximum of 7 storeys (15,500m^2 of learning and recreational space).
Internal configuration	• The academy is built around a Central Square which forms the hub of the building. This is a flexible space accommodating students at break and lunchtimes, as well as concerts, art exhibitions and group tuition. • The learning spaces and classrooms are on upper floors and comprise of standard teaching facilities and specialist curriculum subjects such as Science labs, Design Technology and ICT. There are Art studios at the top of the building. • In the base of the building is a sports hall, sixth form study space and a 180-seat lecture theatre. • A separate 450 seat performance hall with sound, lighting and theatre facilities.
External areas	• Due to the constrained nature of the site, sports pitches are provided offsite on Haggerston Park • The terraces extend the internal learning space on the northern elevation and can be used as either outdoor classrooms or playground areas.
Car Parking/ cycle parking provision	• 30 car spaces • 90 cycle spaces
S106 contributions	MUGA and pavilion on the Haggerston Park Depot Site which is available to the local community outside of school hours, and a S278 to address highway contributions to the immediate area.



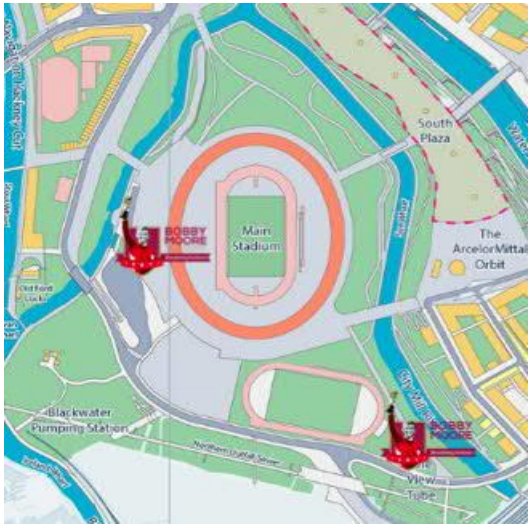


G.3 All-through Schools

The David Ross Education Trust (DRET) London Free School is an all-through free school at Sweetwater and Stadium Island, scheduled to be opened in September 2017. The school will have places for primary students through to 6th formers. It is expected that around 1200 pupils will attend the school; this will comprise of 420 (2FE) primary pupils, 600 (4FE) secondary pupils and 120 places for those undertaking post-16 qualifications. The students will benefit from the range of sporting facilities available in the Queen Elizabeth Olympic Park. The primary school building has been designed to allow for future extension to a part - three storey building to accommodate expansion to a 3 FE school should demand arise.

Site Size	The primary school site including the playing field and permanent Loop Road extends to 16,136sqm. The secondary school site is 0.75 hectares in size and occupies a roughly triangular shaped plot of land approximately 100m south east of the Olympic Stadium.
Surrounding uses	Primary school – To the north will be new housing, prior to which a footbridge across the canal to connect with Fish Island; to the west by the canal towpath, and subsequently by the Lee Navigation canal itself; to the south a private access road serving Lock Keeper's Cottage; and to the east the River Lea. Secondary school - to the north and east by the City Mill River and immediately, a riverine strip of planting. To the south by a retaining wall fronting onto the Loop Road. To the west by undeveloped land which is committed to becoming a community running track.
Building size	Primary school - two storey, 2,469sqm (GEA) building. Secondary school – six storey, 10,045sqm (GEA) building.

Internal configuration	The purpose of locating DRET London Free School within Queen Elizabeth Olympic Park is to deliver an inspiring transformative sporting aspect to the education provision for local children. Sport will be the academy's major specialism and a key aspect of its identity. • Education, sports and social facilities will all be accessible to the wider community outside of school hours. • The shared spaces of the primary school, including the halls, library, and service spaces, can all be accessed outside of school hours for community use whilst keeping the main teaching spaces secure. The specialist teaching spaces of art and science can also be used by the community without impinging on the rest of the school. • DRET intends to have a Business manager and a site supervisor for both the primary and secondary school sites.
External areas	• Reception classes have their own outdoor teaching and play spaces separated from the rest of KS1. • Year 1 have direct access to ground floor play space while Year 2 have their own external play terrace at first floor. • The KS2 classes share a hard play area which is directly accessed from the KS2 entrance to the south of the building. • The primary school will have access to total outdoor space of 7,093sqm, including the playing field, to be provided as a 3G pitch MUGA. • The MUGA has changing rooms for 16 male and 16 female participants. • Both hard and soft informal and social areas will be provided on the secondary school site. 2,100sqm hard informal and social area in the form of spill out space to the front of the school, roof terrace and learning platforms, and 359sqm soft informal and social area



	which can be used for a wide range of outdoor educational opportunities. • The Olympic Stadium Community Track (6,282sqm) will be available for the school's sole use during the school day. 7,407sqm of soft PE space will be provided at the Olympic standard community track and infield. • The school is also exploring opportunities to utilise the existing world class sporting facilities on QEOP, including the Copper Box and the Aquatics Centre and has discussed the potential of using these with the operator, Greenwich Leisure Limited. The School has also discussed using the facilities at the Lee Valley Hockey and Tennis Centre at Eton Manor. DLFS is liaising with the London Borough of Hackney in timetabling and coordinating the use of the existing sports pitches at Hackney Marshes and Victoria Park to provide additional outdoor sporting facilities. There are 82 sports pitches at Hackney Marshes, with a 3G facility at neighbouring Mabley Park.
Car Parking/ cycle parking provision	• Primary school - Parking is restricted on the site to two staff parking spaces. Two blue badge parking spaces are provided on site. A further two parking spaces are provided for minibus parking. 50 cycle parking spaces. • Secondary school - No on-site student pick up and drop off facilities are provided. Three blue badge car parking spaces will be provided. 168 long-stay secure cycle parking spaces

G.4 Health Facilities

Parkview Centre for Health and Wellbeing (previously known as 'The Bloom' White City), by Penoyre & Prasad Architects, is a mixed use development of 170 shared ownership residential units above basement car-parking, retail units and 3,400m² of primary healthcare and social services facilities which was opened in 2014.

Site Size	• 140 metres length, 54 metres width • 0.764 hectares	**Delivery & funding arrangement**	• The health centre was cross-funded through the sale of the apartments. • The scheme was part of the LIFT programme, with Fulcrum. • The scheme was delivered via two stage D&B following financial close.
Surrounding uses	Parkview Centre for Health and Wellbeing forms one edge of a 2.9 hectare urban park. The surrounding urban area is primarily residential with the 4-5 storey White City estates to the east and smaller Victorian and 1930's terraces to the south and west. Some local shopping units are located opposite the site. Queens Park Rangers football ground is located approximately 400m to the east and the BBC white City development is approximately 800m to the east.	**Health services that are provided in addition to general practice and any co-located services**	Health and Social Services provided across two floors. • Space for four separate GP practices on the ground floor. • Specialist child development services including occupational therapy and speech and language therapy. • Community and specialist dental services • Diabetes Services • Community Rehabilitation Service • Adult Social Care Service - assessments and service provision • Respiratory service • Stop Smoking Service • Anticoagulation services • Podiatry • Leg Ulcer Clinic • School Nursing • Sexual Health • Health Visiting • District Nursing • Community social work services • Nutrition and Dietetics • Learning disabilities services The GP's and community health teams work alongside social services to offer joined up care for the local community. There is a shared reception and waiting areas overlooking Wormholt Park. The centre has shared treatment spaces and offices, with rooms and clinics designed as shared resources. In additional to the health centre there are 170 residential units and two retail units one of which has been identified for a local pharmacy.
Building size	• 3,400m² primary healthcare and social services facilities • 170 one, two and three bedroom shared ownership apartments and low cost market discount apartments. • 600m² of retail in two units. • 4,796m² basement including car parking, bike storage and plant. • GIA 17,957m² (including the basement) • FAR 2.35.1 (this uses the GIA above)		
Car Parking/ cycle parking provision	• 89 car parking spaces • 27 disabled car spaces • 12 motorcycle spaces • 254 cycle parking spaces with visitor racks outside the Centre • No visitor car park, bookable access to disabled bays.		

Internal configuration	Main building: • Basement: carpark for residents and health centre staff / plant / cycle parking • Ground & first floor (north): Parkview Centre for Health and Wellbeing, provides a range of services across the two floors • Ground floor (south): Two retail units, one of which is a basket (local) supermarket. • Second to seventh floors: five storey residential section of the development sits above the health centre and retail units as a defined block. The apartments can be reached via four cores each with two lifts and their own secure entrance.	**Design standards / Overcoming constraints (site, co-location and the like)**	• The health centre has a BREEAM rating of Excellent. • The residential units have been designed to Code for Sustainable Homes Level 4. • Lifetime Homes compliant scheme with 24 of the units designed for wheelchair users. • Each apartment has Mechanical Ventilation Heat Recovery Unit technology, whilst the heat load itself is met by a centralised CHP system. • Photovoltaic panels are installed on 80m² of roof. • The health centre was designed to meet the latest HBN and HTM standards based around HBN 11-01. • The design considered the need for acoustic and security separation for each of the separate elements.
External areas	• The Bloom forms the eastern boundary to Wormholt Park and has created a new public piazza along Bloemfontein Road with a grand civic gateway through to the Park.	**Number of patients registered with the GP practices**	• Parkview Medical Centre: 1,939 • Dr. Uppal & Partner: 6,934 • Parkview Practice: 5,660 • Canberra Old Oak Surgery: 3,793 Total = 18,326

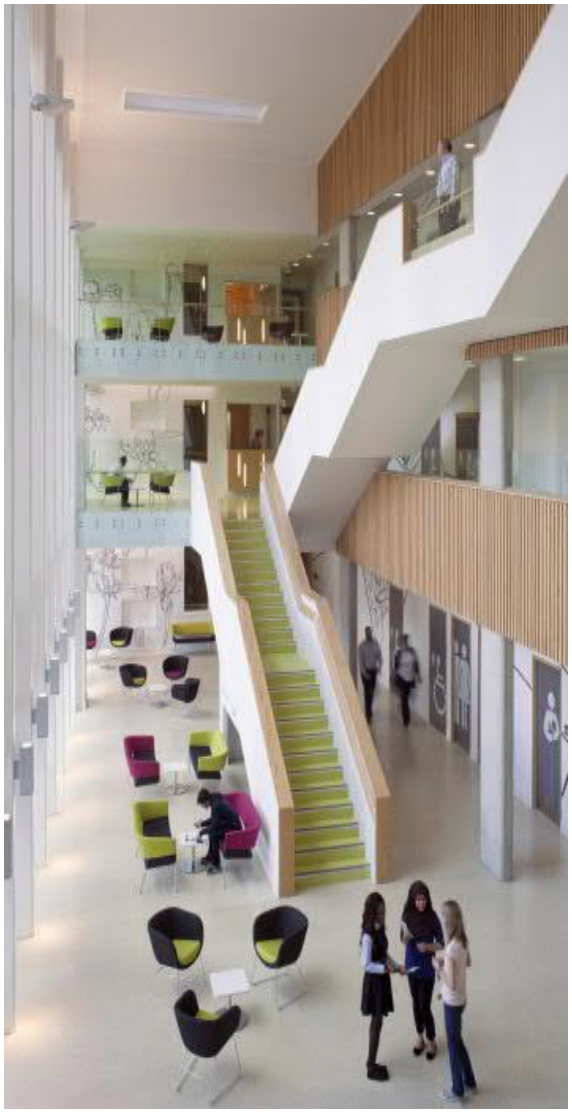
Parkview Centre for Health and Wellbeing, by **Penoyre & Prasad Architects**

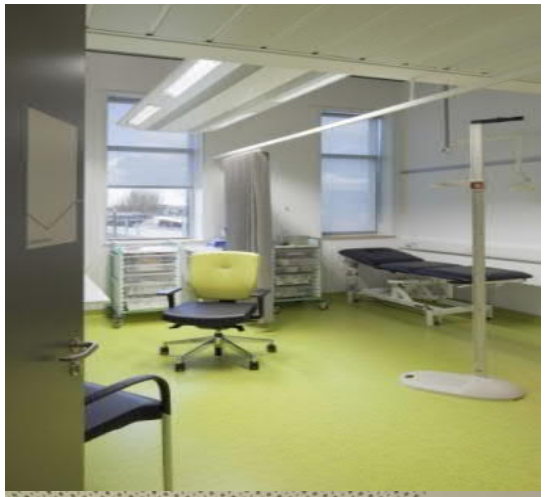
Sir Ludwig Guttmann Health & Wellbeing Centre, by Penoyre & Prasad Architects, is a polyclinic for London 2012 Olympics reconfigured into a community health centre for legacy use. It is a hub for innovative healthcare, wellbeing and community services, comprised of 3,800m² state-of-the-art NHS primary care facility and an additional 1,500m² East Village Community Development Trust. It was completed in December 2011.

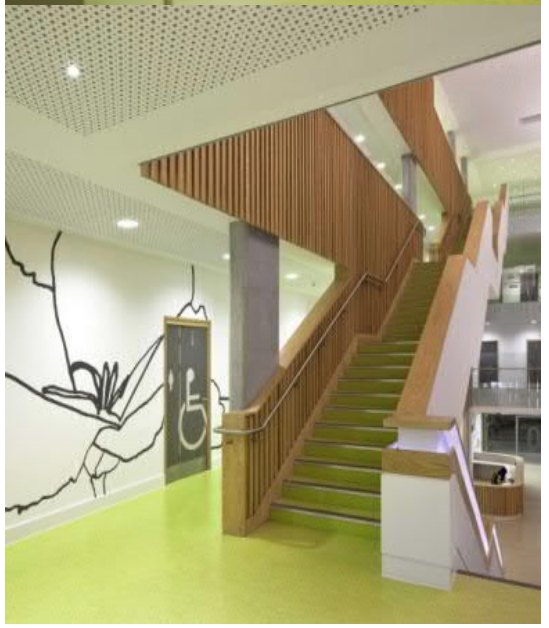
Site Size	• 74 metres length, 74 metres width (site is triangular in shape) • 0.333 hectares	**Delivery & funding arrangement**	• The project was funded by a direct grant from the Department of Health to the ODA. • The scheme was built out as an enabling works package followed by D&B from the main build.
Surrounding uses	The site sits at the edge of the East Village development, used as the Athletes Village for the 2012 Games. The unique promontory site sits between the railway cuttings and retaining structures on three sides with the nine and ten storey residential neighbours of the East Village to the South and East.	**Health services that are provided in addition to general practice and any co-located services**	Following the games, the interior was re-configured to convert the building from games to legacy use. The Centre now provides a wide range of NHS services including: • Abdominal aortic aneurysm screening • Allergy services for children • Gastroenterology • General surgery • Gynaecology services • Hernia service • Mammography • Maternity and fertility services • Nose, sinus and throat clinic for children • Neurology • Opthalmology for adults and children • Phlebotomy • Physiotheraphy and sports exercise medicine • Respiratory service • Talking therapies • Urology services Plus a range of community facilities including; a café; and a pharmacy.
Building size	• The Centre has 4 floors and a basement area. • 3,800m² - accommodation for NHS primary care needs • 1,500m² - East Village Community Development Trust • GIA 5,320m² including the basement carpark • FAR 1.60.1 (this uses the GIA above)		
Car Parking/ cycle parking provision	• 20 car parking spaces in the basement • 2 disabled car spaces in the basement • 3 motorcycle spaces • 40 cycle spaces in the basement with visitor racks outside the Centre • No visitor car park, but with 2 disabled bays in front • Limited public car parking in East Village and Olympic Park • Westfield Stratford City is a 5-minute walk from the Centre and has parking for 5,000 cars		

Internal configuration	• A dramatic four-storey atrium creates a unifying heart for the disparate activities within the building • Around the atrium, a continuous ribbon of double-loaded accommodation on each floor are different types of flexible clinical rooms • During the Olympic Games, the centre was equipped to treat sports injuries. Physiotherapists, podiatrists, osteopaths and dentists would see as many as 200 people a day. • The facility was designed to incorporate future proofing so it could be reconfigured to fulfil its legacy role as an NHS primary care centre for the local community	**Design standards / Overcoming constraints (site, co-location and the like)**	• The Centre has been designed to allow each tenant use of its own shop front and identity, while health and community areas share the use of the unifying atrium and courtyard. • As a visitor, this non-institution feels like a single place, and it benefits from the efficiencies of operating as such. • The unique promontory site between railway cuttings and retaining structures posed practical challenges, but also allows the building to sit sculpturally upon a pedestal. • The health centre has a BREEAM Excellent rating due to sustainable features such as the electricity and cooling fed from the energy efficient combined heat and power plant scheme that supplies the Olympic Park.
External areas	A simple courtyard podium with planting to its edge provides an extension to, and backdrop for the building atrium. Creeping plants are intended to colonize the vertical concrete retaining walls which define the site on two sides.	**Number of patients registered with the GP practice**	• Liberty Bridge Road Practice: 10,194 patients

Sir Ludwig Guttmann Health & Wellbeing Centre, by **Penoyre & Prasad Architects**





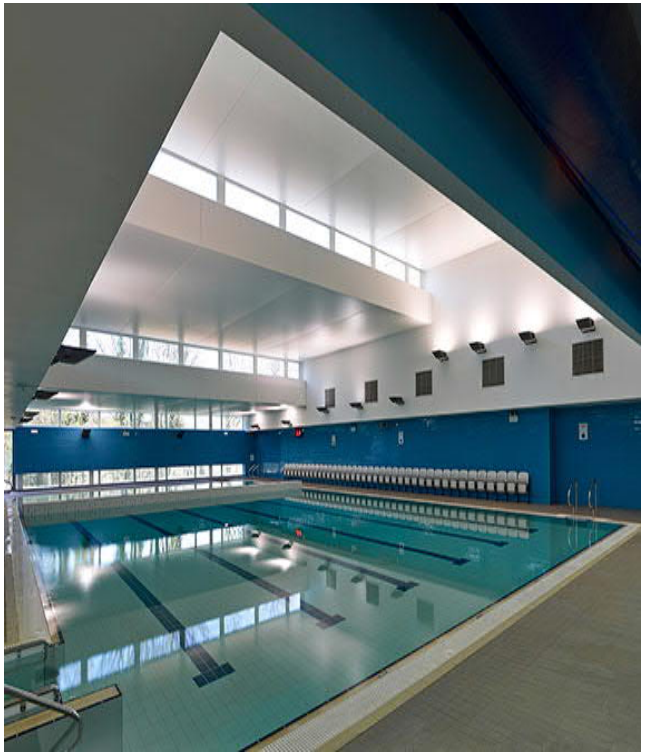


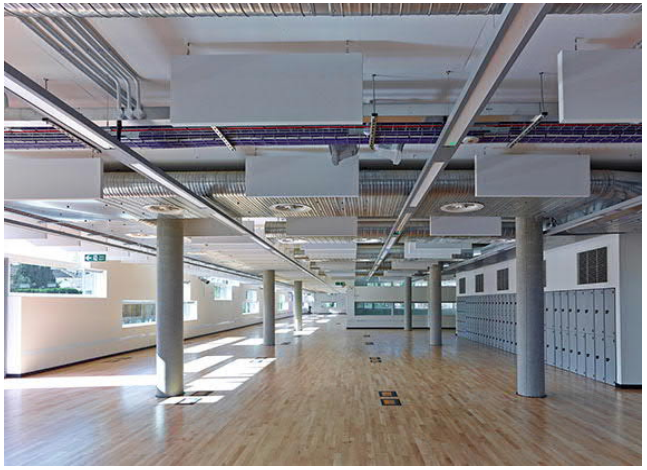
West Norwood Health and Leisure Centre, by Allford Hall Monaghan Morris, is a 5,430m² mixed used facility, which provides a state-of-the-art Lambeth Council customer service centre, as well as an unorthodox mix of community and health facilities to deliver well-being services and improved open space to the Norwood residential population. It was completed in 2013.

Site Size	• 5,430sq.m	**Delivery & funding arrangement**	• The scheme was part of the LIFT programme, with Fulcrum. • The scheme was delivered via two stage D&B following financial close.
Surrounding uses	Adjacent bungalow housings on one side of the site are the closest existing buildings to the development; consequently deserving the most sympathetic relationship. Therefore the building along this edge has been restricted to a single storey height. The parapet level closely corresponds to the ridgeline of the bungalows. From this point the building rises up in half-storey steps to the railway boundary, where the tallest four storey element of the building is akin to the height of the four storey mansions on the opposite side of the railway.	**Health services that are provided in addition to general practice and any co-located services**	The WNHLC is a new community facility which brings together: • Leisure provision (6-lane 25m pool, 100 station fitness gym, dance studio, community meeting venue) • GP services • Kings College University Dental Academy and KCH community dental services • London Borough of Lambeth customer service centre • Commissioned community health services including heath visitor team, speech and language therapy, health trainers, diabetes services, substance misuse and smoking cessation services.
Building size	• The building steps up on site from 1 to 4 storeys high. • Total GIA of 5,430sq.m. 2,705sq.m health centre facilities, 2,609sq.m sport and leisure and 115sq.m customer services.		
Car Parking/ cycle parking provision	• Parking is not available on site, but with 4 disabled bays • 44 spaces for bike storage • The area is well served with great transport link		

Internal configuration	• The building is cut into the slope of the site so that the gym accommodation at the top is a single storey high element that sits comfortably with the height of the bungalows opposite • The GP and dentist waiting areas and the dance studio span over the central space • The floor beneath the ground floor level houses office space, staff facilities, plant, and facilities management areas. • The pool hall roof is stepped, falling to meet the wooded landscape area of the north of the site • The stepped roof of the 'street' space rises up to the height of the wing of the healthcare accommodation • Both the pool hall and shared 'street' space are situated on ground floor, in the middle of the slope	**Design standards / Overcoming constraints (site, co-location and the like)**	• The principle of the massing of the building has been developed as a reaction to the topography of the site and the surrounding buildings. • The steeply sloping site may have been regarded as problematic, but it has been embraced and turned to an opportunity that has informed the layout of the scheme. Utilising this sloped part of the site necessitated cutting and building into the ground. The cut earth excavated from the below-ground portion of the building is used to re-grade the remainder of the site, levelling out the ground around the existing Norwood Hall. This requires none of the excavated earth to be carted elsewhere. • The cutting of the building into the landscape served also to minimise the impact of the building on the existing context; much of the building is effectively underground.
External areas	Using the sloping part of the site as the position of the new building, unlocks the 'better' part of the site for new landscaping. This strategy, not only consolidates the open space and improves the amenity of the area, but also creates a new landscaped setting for the building. The idea of a form emerging from the landscape has been reinforced by conceiving the building as a series of strata, resembling a sediment rock formation.	**Number of patients registered with the GP practice**	• Knights Hill Surgery: 6,032 patients

West Norwood Health and Leisure Centre, by **Allford Hall Monaghan Morris**





Hillside Primary Care Centre, by Cullinan Studio, is part of Stonebridge Estate Hillside Hub. The hub is a flagship development that formed the heart of the Stonebridge regeneration project in the London Borough of Brent. The scheme comprised 59 mixed tenure apartments, health centre and community centre, café and convenience store, private car parking, garden and a public piazza. It was completed in 2009.

Site Size	• The site has a frontage of 65 metres to Hillside and 85 metres to the access road to the West. • 0.49 Ha	**Delivery & funding arrangement**	• The health centre was cross-funded through the sale of the apartments, a government grant, private finance and a Housing Corporation grant. • Client: Hyde Housing Association / Hillside Action Trust
Surrounding uses	The site was immediately adjacent to residential dwellings and a large children's play nursery. This meant extensive muck-away operations to build the below ground floor car park had to be carefully coordinated, giving additional consideration to Hillside, a major route into London.	**Health services that are provided in addition to general practice and any co-located services**	• The health centre provides comprehensive care including: > General practice > Dentistry > Podiatry > District nursing > Women's services, and > A baby clinic • Currently includes 4 GP practices: > Hilltop Medical Practice > The Stonebridge Practice > Aksyr Medical Practice, and > Harness Harlesden Practice • Also includes a Sexual and Reproductive Health Clinic run by Central and North West London NHS Foundation Trust
Building size	• Three-storey community & health centre providing a range of activities including: Primary Care Centre, the Stonebridge Training and Employment Project; IT training; after-school support to help children and young people in their educational attainment; a dance studio; and space for all types of social events. • 8,504m2 GIA		
Car Parking/ cycle parking provision	• 2-storey car park is available at the rear • Basement car parking		
Internal configuration	• The building is split into 2 wings joined by a strongly articulated central section. • The top 4 floors of the wings contain a mixture of shared ownership and privately owned apartments. • Below the apartments in the west wing is the 3-storey health centre; below the apartments in the east wing is a new Tesco Express • Between the 2 wings is a 3-storey Community Centre with a public piazza at the front and a private landscape garden	**Design standards / Overcoming constraints (site, co-location and the like)**	• The building is purposely designed so that, from the outside, a visitor can clearly identify individual elements of the overall scheme. • The Community Centre Hall's zinc roof, formed as a graceful curve in cross and long section, has an extremely high sound attenuation in order to prevent local residents being disturbed by evening events and has been carefully calculated to ensure generous amounts of daylight into all adjacent flats. • Coloured panels between the Primary Care Centre's windows respond to the neighbouring Fawood Children's Centre • During the construction programme, adjacent premises were cleared for demolition necessitating a close working relationship with neighbouring contractors and a phased programme of handover, accommodating the health centre facility in advance of the residential accommodation. • VRF comfort cooling/mixed mode natural ventilation has been provided to the Primary Care Centre's medical and administration areas. • The project also included the provision of two wind turbines, solar hot water heating and rain water harvesting to offset some of the community centre building energy demands.

			• The apartments were designed and constructed to achieve an Ecohomes Very Good rating.
External areas	The development provides a small courtyard garden area which can be accessed by the residents and sited behind the community centre.	**Number of patients registered with the GP practices**	• Hilltop Medical Practice: 3,039 • The Stonebridge Practice: 4,648 • Aksyr Medical Practice: 6,325 • Harness Harlesden Practice: 2,425 Total = 16,437

Hillside Primary Care Centre, by **Cullinan Studio**