



PLEASE READ THIS COVER NOTE CAREFULLY BEFORE READING THE FEASIBILITY STUDIES

Following an extensive programme of primary school expansions, the Local Authority has been considering how additional secondary school provision could be created in the Borough by 2017 to meet the growing demand for secondary school places.

As part of this work, the Local Authority (LA) has identified two potential sites for secondary school provision; (i) The 'Sutton Hospital Site' and (ii) 'The Rosehill Recreation Ground Site'.

In order to understand the potential of these sites, the LA commissioned feasibility studies to assess their suitability in more detail. These studies are technical in nature and look at a variety of issues including size and layout of sites, ground conditions, ecological issues, planning related issues as well as design and cost related issues. They show how additional secondary school provision could be created on each site. The following points are important to note with respect to the feasibility studies:

- The studies do not represent 'final solutions'. More extensive work would be required before a planning application could be progressed for either site.
- The studies do not indicate a preference for one site or the other.
- Proposals for new school provision are necessarily iterative. There has been some early engagement with the Local Planning Authority but there remain planning concerns/risks that have not been fully addressed by these studies.

Prior to the completion of these studies, the Department for Education approved Greenshaw Learning Trust's (GLT) bid to open a Free School in Sutton. Should the Free School meet the standards set out by the Department for Education and OfSTED, it is expected that the school will open in September 2017. The Free School will provide the necessary additional places required in the Borough and there wouldn't be a need in 2017 for further secondary school places beyond that being provided by the Free School. At present, the LA will not be taking these feasibility studies any further. Instead, the LA has passed them to the Education Funding Agency (EFA) and GLT for their consideration as the responsible bodies for taking proposals forward. The following points are important to note in this regard:

- Free Schools are commissioned independently of the LA. The LA has no formal role in the management of Free Schools.
- The EFA/GLT will investigate the sites and consider whether either of these sites are suitable for the proposed secondary free school. Should the EFA identify a suitable site, this may be one of the two sites that are the subject of the feasibility studies but it may be neither.

- Should the free school proceed, the EFA will fund the capital costs of the secondary Free school, will prepare a planning application and will project manage any construction works in partnership with GLT. Proposals from the EFA/GLT may differ from those contained within the feasibility reports.
- Consultation will take place on any proposals as part of the normal planning process but the timing and nature of that consultation is yet to be determined.

Whilst they have been shared with the EFA and GLT, the feasibility studies remain in the ownership of the Local Authority. Please note that cost information has been removed from the feasibility studies on the grounds that it is commercially sensitive. Should you have any questions about them please contact kieran.holliday@sutton.gov.uk

New 8FE Secondary School_Sutton Hospital Site, Belmont Feasibility Report

Document Ref: 5135007 Feasibility Report

April 2015



New 8FE Secondary School on Sutton Hospital Site, Belmont

February 2015

Sutton Borough Council Feasibility Report

Notice

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Executive Summary



1.1 Executive Summary

Purpose of Report

This report has been prepared for the London Borough of Sutton to test the feasibility of the Hospital Site at Belmont accommodating an 8FE Secondary School with a Sixth Form. This would mean the school will have at total capacity of 1,575 students.

Scope of Report

The scope of the Feasibility Report is simply to confirm if the site is suitable to accommodate an 8FE Secondary School with a Sixth Form. This is a high level study which proposes building configuration, location on site and external areas and excludes any detailed information regarding its design. Should the proposals progress, further studies to develop the plan of the building, the adjacencies of spaces and how to resolve some of the more complex issues should be undertaken.

Methodology

The site appraisal and outline proposals are based on a desktop study. All work outlined in this report is based on DfE Building Bulletin 103.

Limited consultations have been undertaken. Full consultation with relevant stakeholders will be required during the next stage.

The proposed site plans are based on area requirements from BB103 and give an indication of the size and location of external areas. Floor plans have been developed as simple schemes following BB103 guidelines. Adjacencies should be further explored and developed during the next stages of the project.

The main report contains much of the text, key images and overall project information. For other detailed information such as surveys that have been undertaken during the course of the study, these are included within the appendices. These surveys have informed the feasibility report.

Total Site Area

Guidance from BB103 establishes that an 8FE Secondary School with a sixth form site requires a site area of between 87,551m² (min) and 109,687.5 m² (max) or if the site is restricted* between 27,426 m² (min) and 43,912.5 m² (max).

*DfE Advice on Standards for School Premises states:

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.

The Hospital Site, Belmont has a total site area of 16,145 m² and is 11,281m² below the minimum restricted site area.

As the site is below the BB103 minimum restricted site area and could not accommodate a playing field, the report suggests a

MUGA will be required to provide an area for external PE.

DfE Building Bulletin 103 recommends the following external areas for an 8FE secondary school with sixth form on a restricted site. Where possible these area guidelines have been used in creating the proposed option:

- Habitat Area: 787 m²
- Hard Informal & Social Area: 1,775 m²
- Hard Outdoor PE Area: 2,762 m²
- Soft Informal & Social Area: 3,750 m²
- Soft Outdoor PE Area: 0 m² (MUGA games court provided)

Site Zoning Options

Two site zoning options were developed during the course of this feasibility study. Option 1 was chosen as the preferred option. Section 4.2 explains rationale behind both options.

Summary of Internal Area Requirement

Based on DfE Building Bulletin 103, the model brief for a 8FE secondary school with sixth form requires a gross internal area of 11,585 m². The full schedule of this accommodation is shown in Section 4.4. A visual schedule of areas is indicated in Section 4.5. Further development of this area schedule will be required in conjunction with the end users, during the next stage.

Building Configuration Options

Three generic options for the school building were explored during the course of the feasibility study and the 'plug-in' option was chosen as the preferred option for this site. This option was chosen as it had a reduced footprint (being four storeys high) and reduced the requirement for soil removal from the site. Section 4.3 illustrates the advantages and disadvantages of the proposal.

Following two meetings with the Planning Department, the Superblock option was also developed and this is included within Section 4.15-4.17.

Planning

Following initial discussions with officers within the Local Planning Authority and Highways Departments early comments were given in response to the developed option. These are noted in Section 4.15. In response to comments a further Option A was developed. Option A does require an increased use of the site area due to the enlarged footprint and therefore further affects the external play areas which may not meet the stakeholders needs. An additional meeting took place to discuss Option A which resulted into developing a further two options based on Option A. These are noted in Section 4.16-4.17.

During the next stage it is recommended that further preapplication engagement with the Local Authorities and relevant stakeholders is required.

Archaeology

The site is not within any known archaeological areas. Further investigation maybe required as the project develops.

Conservation Area

The site is not within any known conservation area. Further investigation maybe required as the project develops.

Highways

The site appears well served by roads, pavements and public services such as bus, railway and tramlinks. Improvements to the connections to the local infrastructure are not required.

Access to the site was discussed with the Highways Department and initial guidance suggests that the site will only require one vehicular access point off Chiltern Road. This would be on the north/east side of the site. Due to the constrained nature of the site, the car parking spaces will be limited. It was suggested that a minimum of 110 car parking spaces would be required.

Pollution

Being surrounded mostly by extensive green areas and low rise residential buildings, it is not expected that noise pollution will cause significant design issues. It is however recommended that an acoustic survey is carried out prior to the next design stage. No air quality surveys were carried out during this feasibility report.

Environmental Impact Assessment

Due to the location and size of the development, it is envisaged that an Environmental Impact Assessment will be required for this site. No surveys of this nature have been carried out during this feasibility report.

Aboriginal Survey

A preliminary Aboriginal Appraisal (Appendix C) has been undertaken for the Belmont site. Further surveys maybe required as the design progresses in respect of specific trees that may affect or influence the design.

Flood Risk

No Flood Risk Assessments have been carried out during this feasibility study. This site is not within a flood risk zone.

Structural, Geotechnical, Topographical & Sewerage

The site was formerly part of the Sutton Hospital and the ground is probably made up of three soil types which are predominant in Sutton: upper chalk, which is in the higher lying southern parts of the Borough, London clay, which is in the north west, and river terrace sands and gravels, which is in the lower lying north east, near the River Wandle.

A topographical survey (Appendix D) has been carried out, which indicates a significant level change of 4.56m from the north to south part of the site.

No sewer records have been sought to enable determination of the capacity of the existing private and public below ground drainage systems to accommodate any additional surface water.

Further surveys would be required to ascertain the below ground drainage and if there are any unknown issues in this regard.

Summary

In summary, the site area is very restricted and will require a building that has a compact footprint due to external play areas being at or below a minimum standard. Planning consultations will be key in the next stage to ensure the school external areas are not compromised. The proposed option and Option A suggests an 8FE secondary school with a sixth form is possible on this site, providing all parties accept compromises to the BB103 recommended area standards.

Introduction & Context



2.0 Introduction and context

Sutton

The Borough

Sutton is an outer London Borough forming part of the South-West London Sub-Region identified in the London Plan, along with the neighboring Boroughs of Croydon, Merton, Lambeth, Wandsworth, Kingston and Richmond.

The Borough largely comprises five categories of place:

- Sutton town centre: the main centre of the Borough;
- The District Centres: spread across the Borough;
- Industrial areas: largely concentrated in the north of the Borough;
- Suburban residential heartlands : the predominantly residential elements of Sutton's suburban fabric, characterised by low-rise, low-density housing; and
- Strategic Open Land: principally Green Belt to the south and west of the Borough and a swathe of Metropolitan Open Land to the north and east.

The southern parts of the borough are suburban in character, consisting predominantly of relatively affluent low-density residential areas. By contrast, the northern parts of the borough, including Rosehill, St Helier and the Wrythe, along with Roundshaw and South Beddington towards the south east, share many of the characteristics of inner London, with significant pockets of social deprivation, environmental degradation and limited access to employment, social infrastructure, community facilities, housing and transport services.

2.1 Demographic Forecasting

According to 2009 GLA projections the total resident population of the borough was estimated at 183,348 in 2010, made up of 89,807 males and 93,541 females, representing an increase of 1.1% since the 2001 Census. Based on projected births, deaths and future migration patterns, the borough's population is predicted to increase by approximately 2.24% to a total of 187,469 by 2016, and is further projected to rise to 190,731 by 2020.

2.2 Housing Requirements

One of the main issues identified in the Core Planning Strategy was the extent of new housing required in the Borough in view of evidence of supply and demand.

According to the GLA's projections, the number of households in London is estimated to be 3.327m in 2011, rising to 3.606m by 2021, an increase of 8.38%. In the London Borough of Sutton it is predicted that the number of households will increase by 6.92% over the same 10 year period.

Looking at the distribution of housing needs in different parts of the borough, shown in map 2.1, it can be seen that the highest level of need occurs in Wandle Valley (where there are also large

amounts of social housing) and Wallington North. The lowest level of need is in Sutton North.

The Core Planning Strategy supports that the provision of new dwellings will be broadly located within the Borough as follows:

- Sutton town centre– 2,000 to 2,150 units (40%);
- Hackbridge – 1,000 to 1,100 units (20%);
- Wallington – 500 to 550 units (10%);
- Other District Centres – 500 to 550 units (10%); and
- Remainder of the Borough – 1,000 to 1,100 units (20%).

These ranges set out the amount of development that may be needed in each location to meet the planned spatial distribution of housing growth. The ranges are based on rolling forward the Mayor's 10 year housing target to cover the whole of the plan period.

2.3 Secondary Schools in Sutton

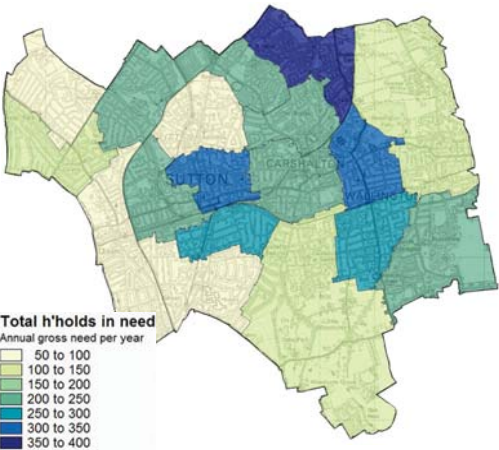
New housing development in Sutton has the potential to increase the number of children within the Borough and therefore to place greater demand upon existing educational resources. Schools in Sutton are currently under pressure in terms of demands on existing educational facilities, particularly in the secondary school sector.

The South London Sub Regional Development Framework notes that there is significant pupil movement from inner London boroughs into schools in boroughs within the sub-region. In relation to the maintained sector, Sutton is a net importer of secondary age pupils with pupils coming mainly from Croydon and Merton. There is a high level of independent sector provision in south London, however Sutton has the lowest level within the sub-region.

There are 14 secondary schools in the Borough attended by over 18,000 pupils and 41 primary schools attended by just under 16,000 pupils. In addition, there are 4 special schools, 10 independent schools and 2 institutions of further education within the Borough.

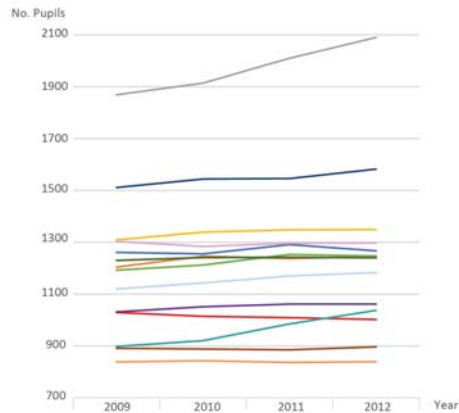
In 2011-12, these schools were attended by a total of 17,335 pupils (an increase of nearly 166 pupils from 2010-11, 440 from 2009-10 and nearly 650 from 2008-09).

Table 2.3 provides a breakdown of secondary school pupil numbers by school over the last years.



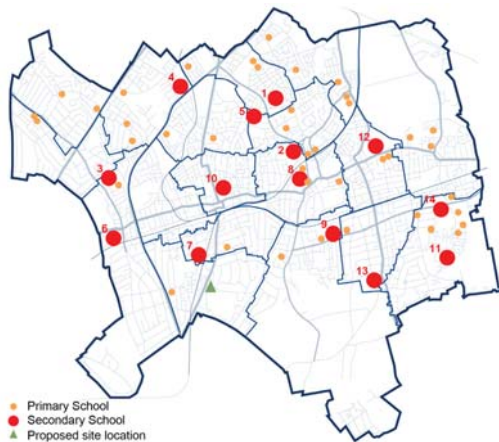
Map 2.1 - Distribution of Housing Need in Sutton

Sutton Secondary Schools



1	1120	1143	1170	1183
2	1204	1246	1237	1245
3	1869	1914	2010	2090
4	1309	1339	1348	1349
5	1511	1544	1546	1582
6	1230	1241	1242	1240
7	1261	1255	1291	1267
8	1192	1212	1253	1247
9	898	920	985	1037
10	838	843	836	839
11	1029	1014	1009	1002
12	891	888	885	896
13	1303	1284	1296	1297
14	1031	1051	1061	1061

1. Carshalton Boys Sports College
2. Carshalton High School for Girls
3. Cheam High School
4. Glenthorne High School
5. Greenshaw High School
6. Nonsuch High School for Girls
7. Overton Grange School
8. St Philomena's Catholic High School for Girls
9. Stanley Park High School
10. Sutton Grammar School for Boys
11. The John Fisher School
12. Wallington County Grammar School
13. Wallington High School for Girls
14. Wilson's School



Map 2.2 - Secondary School Locations Within Sutton

Table 2.3 - Secondary school provision in Sutton

2.4 Sutton Spatial Strategy

(Core Planning Strategy)

The Key Diagram contained in the Core Planning document (Map 2.3) illustrates the Spatial Strategy for the Borough. It identifies areas of future strategic development, broad areas of protection and key infrastructure developments required to ensure the implementation of the Spatial Strategy.

To ensure that Sutton retains its role as an attractive suburb of London in which to live and work, there must be a balance between housing and employment growth. Growth should be concentrated on the town centres as the most sustainable locations and also to secure their long-term renewal and prosperity.

Accordingly, the Council will expect development and investment to be focused in locations as follows.

Sutton Town Centre

Major redevelopment and growth will be targeted at Sutton town centre in order to tackle urban renewal issues and its relative decline as a shopping centre in South London. The Spatial Strategy assumes that there will be significant retail, employment and residential growth in the town centre in the period up to 2024. Sutton town centre will be an appropriate location for tall and landmark buildings.

In order to ensure that Sutton becomes a vibrant town centre, it will be the focus for cultural facilities with the development of a new theatre/arts complex.

The benefits of the proximity of green spaces to the town centre, especially Manor Park, will be maximised and comprehensive improvements to the public realm will be an integral part of any proposals.

Public transport improvements will be required to facilitate this level of development and will be provided through the development of an upgraded public transport Interchange around the station; other improvements to facilitate better bus operation; improved pedestrian/cycle links; and eventually a Tramlink extension.

Changes to the town centre road network, linked to development proposals, will be considered if they secure environmental improvements. Planned improvements to the Thameslink rail service will also increase the accessibility of the town centre.

Hackbridge

This existing local centre is identified as a 'Centre for Growth and Regeneration' involving a comprehensive redevelopment of the wider Hackbridge area, to provide a district centre and a sustainable mix of homes, businesses, shops and community and leisure facilities.

Within the Hackbridge area, established industrial areas such as the Felnex and the Wandle Trading Estate and land north of Hackbridge Station all provide opportunities for mixed-use development including housing.

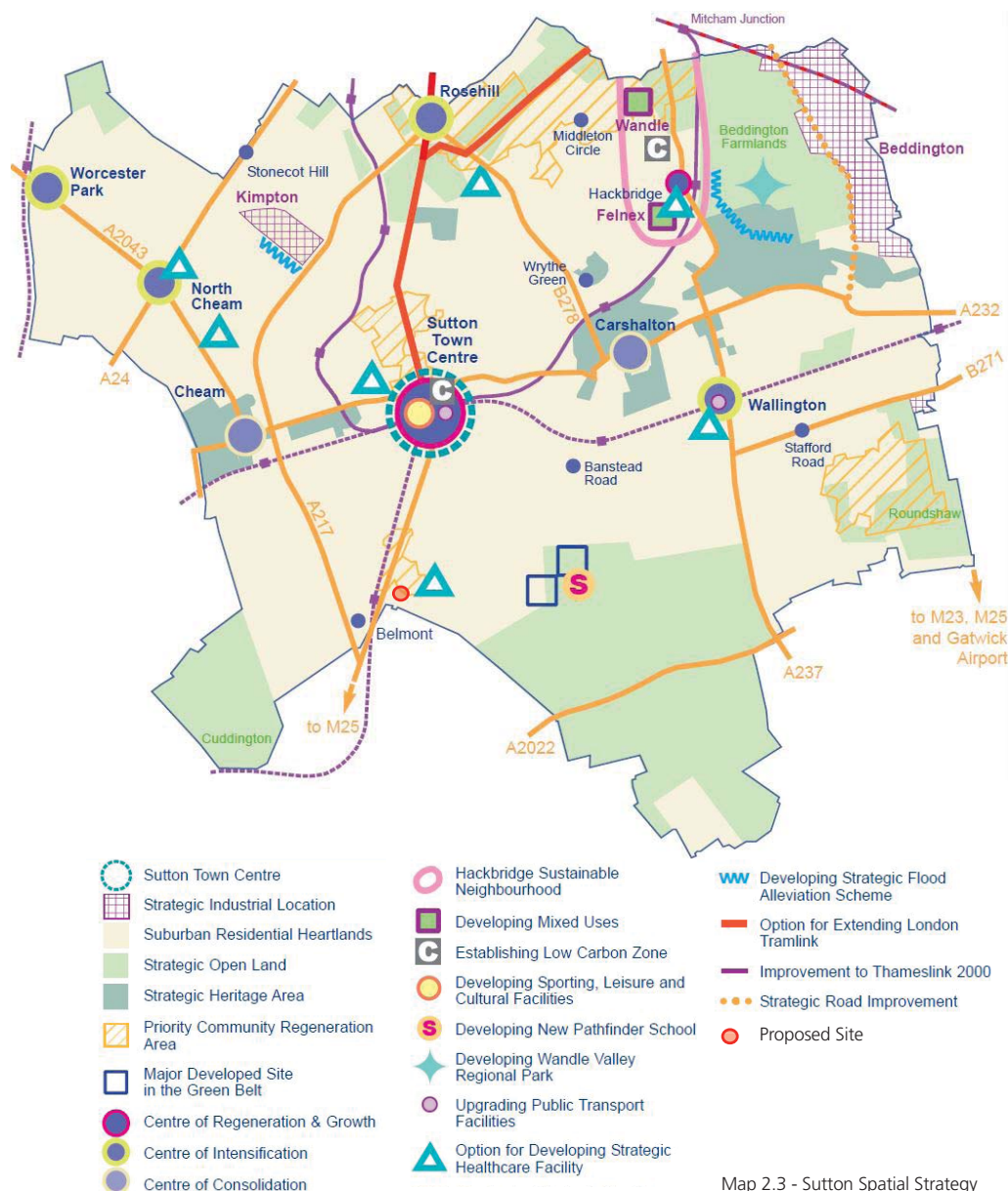
The infrastructure improvements required to support this level of development will include access and environmental improvements to the station, local road, Pedestrian and cycle networks. In terms of social infrastructure the SMPCT has identified the need for the development of a local healthcare centre, and an additional primary school will be required to meet the education needs of the additional children living in the area.

Wallington

This is the most significant district centre in the Borough, with opportunities for 'Intensification'. Within the Centre a number of possible sites have been identified, which will accommodate additional residential, retail and employment development. The Council recognises the need for the current retail offer to be diversified and seeks to promote a café culture in Wallington in line with residents' aspirations, together with significant townscape and pedestrian environment enhancements. An integrated package of sustainable transport improvements is planned for Wallington as part of the 'Enabling Smarter Travel Choices' legacy for the Smarter Travel Sutton project. This will involve significant enhancements to pedestrian and cycle access to the town centre and station and other key destinations within an 800m area as well as improvements to public transport interchange and access. There are also significant opportunities to enhance the environment of the station and adjoining sites. The SMPCT has identified the need for a local healthcare centre in Wallington.

The other Centres for 'Intensification' are **Rosehill**, **Worcester Park** and **North Cheam** – renewal of these centres will largely be achieved through residential development and mixed use, although the SMPCT is seeking a town centre site to develop a local healthcare centre to serve the western wards of the Borough.

As 'Centres of Consolidation', **Cheam Village** and **Carshalton Village** are historic centres, which have been designated as Conservation Areas. Both centres have important heritage assets and heritage centres (which now have museum status). Carshalton also has a theatre and the Ecology Centre. Both are therefore well placed as centres for cultural tourism. Therefore, whilst the Conservation Area status of these District Centres means their potential to accommodate significant growth is limited, there are opportunities for improvement.



Map 2.3 - Sutton Spatial Strategy



Site Overview



3.1 Site Overview

Sutton

The London Borough of Sutton is a London Borough in South London and forms part of Outer London. It covers an area of 17 sq mi and is the 80th largest local authority in England by population. It is South of the London Borough of Merton, West of the London Borough of Croydon and East of the Royal Borough of Kingston Upon Thames.

Sutton has 30 primary and 14 secondary schools.

The Belmont Hospital Site is located to the south east of Belmont town centre within the London Borough of Sutton.

Belmont

Belmont is a village at the southern end of the town of Sutton in the southwest London Borough of Sutton. It is located off the A217 road to Banstead Downs in Surrey. It is a suburban development 10.8 miles south-southwest of Charing Cross.

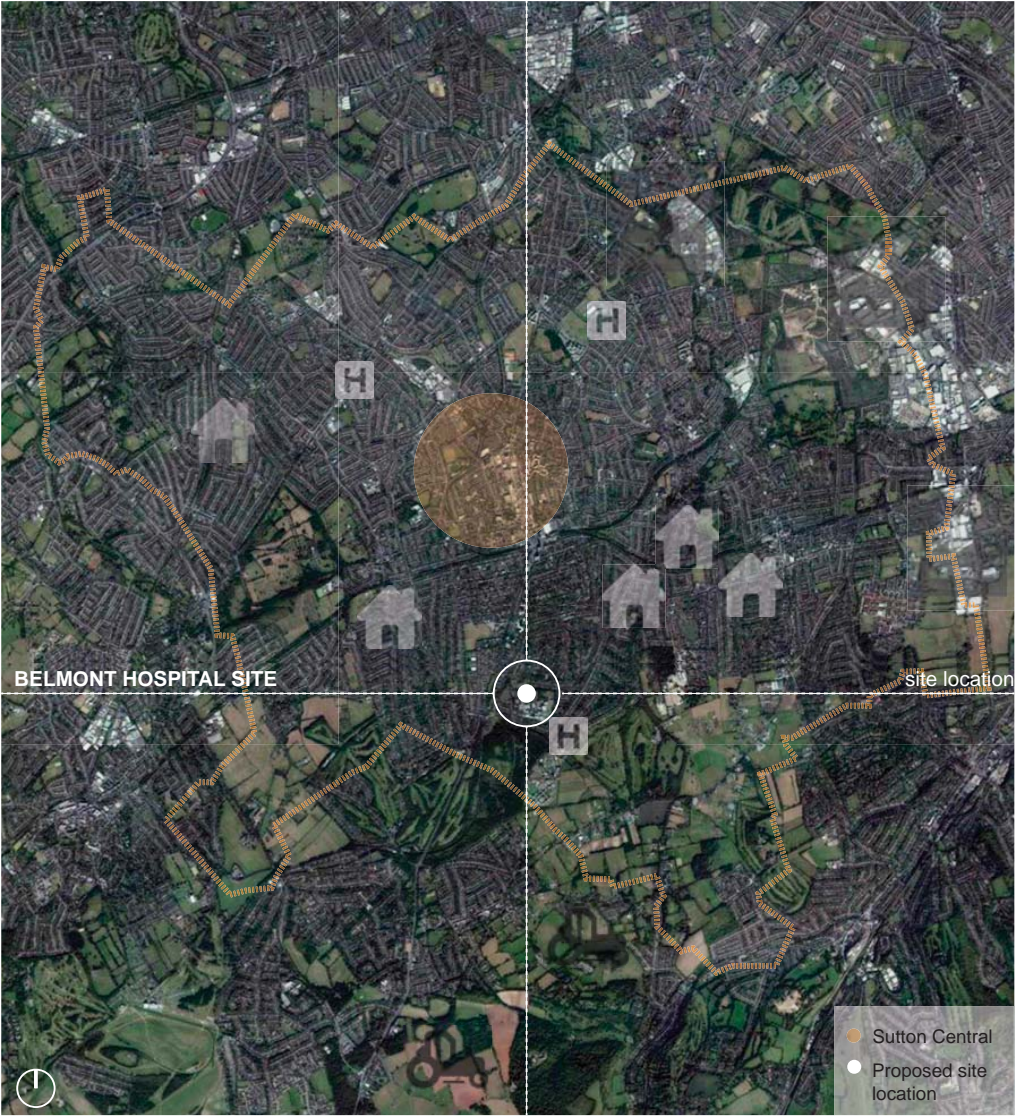
The nearest railway station is Belmont which is on the Sutton to Epsom Downs branchline and the London Victoria to Epsom Downs line.



KEY
London
Borough of Sutton



SUTTON KEY
Belmont District Council
Belmont Hospital Location



Belmont Hospital Site

3.2 Site Overview

3.2 Sutton Conservation Area

Sutton used to be a collection of rural villages, linked to feudal and royal estates. The 'village' feel remains, and people still refer to locations such as Carshalton, Cheam and Belmont as villages. The quality and historic development of the Borough is reflected in the number of high quality heritage areas designated as Conservation Areas and Areas of Special Local Character.

The Borough has 14 Conservation Areas (CAs) with special architectural or historic interest as shown on Map 1. Some Areas have significant heritage value with many listed buildings, others have a more recent twentieth century appearance encapsulating the best architectural and urban design practices of their time.

The Sutton UDP designates 15 Areas of Special Local Character (ASLC's) on the basis of their high quality townscape, architecture and landscape (Map 2). ASLC's are defined in the Sutton UDP as older parts of the Borough that have a special local character in terms of their townscape, architecture and landscape features.

3.3 Sutton Archaeological Heritage

Protection of areas of archaeological importance is of great importance for conserving the Borough's heritage. Statutory safeguards exist for the protection of monuments of national importance under the provisions of the Ancient Monuments and Archaeological Areas Act 1979.

There are 6 Scheduled Ancient Monuments scheduled under this Act within the Borough. In addition, 21 Archaeological Priority Areas (APAs) identified by the Greater London Archaeological Advisory service (GLAAS, English Heritage) are identified in the 2003 UDP.

3.4 Sutton Landscape and Geology

The underlying geology of Sutton has had a significant influence on the settlement patterns in the Borough. Sutton is made up of three predominant soil types: upper chalk in the higher lying southern parts of the Borough; London clay in the North West; and river terrace sands and gravels in the lower lying north east near the River Wandle. As a consequence of the changes in height and the interface between soil types there is a ridge of Thanet Sand along a north/south divide. Here water descends through the deep chalk until it meets impermeable clay, rising through the sand to produce abundant springs and pools used firstly for farming then for industry and subsequently essential as a source of artesian water for the growth and reputation of Sutton. The presence of this water led to the development of the "spring line" settlements of Carshalton, Beddington, Sutton and Cheam.

The site is not within any known Conservation or Archaeological area. Further investigation maybe required as the project develops.



3.5 Site Overview

3.5 Site Description

Location

The proposed site is located in the South of Sutton. The site boundary embraces a part of Sutton Hospital which was a psychiatric hospital. It closed and was demolished in the 1980's. The site is now occupied by the 'Belmont Heights' housing development, which is situated to the west of Brighton Road, to the north of Belmont village.

Sutton Hospital opened after the Second World War. The premises had previously fulfilled a number of different institutional purposes. For example, during World War II it was used as an emergency hospital for military and civilian casualties, including psychiatric cases. An asbestos survey has been carried out on all the buildings. This will information will inform the demolition strategy for the hospital buildings. See Appendix G.

The site boundary is shown on the following aerial view. comprises of extensive residential area, facing directly Chiltern Road to the north and east. The southern and western site boundary is part of the re-development area adjacent to the University of London - The Institute of Cancer to the south-east.

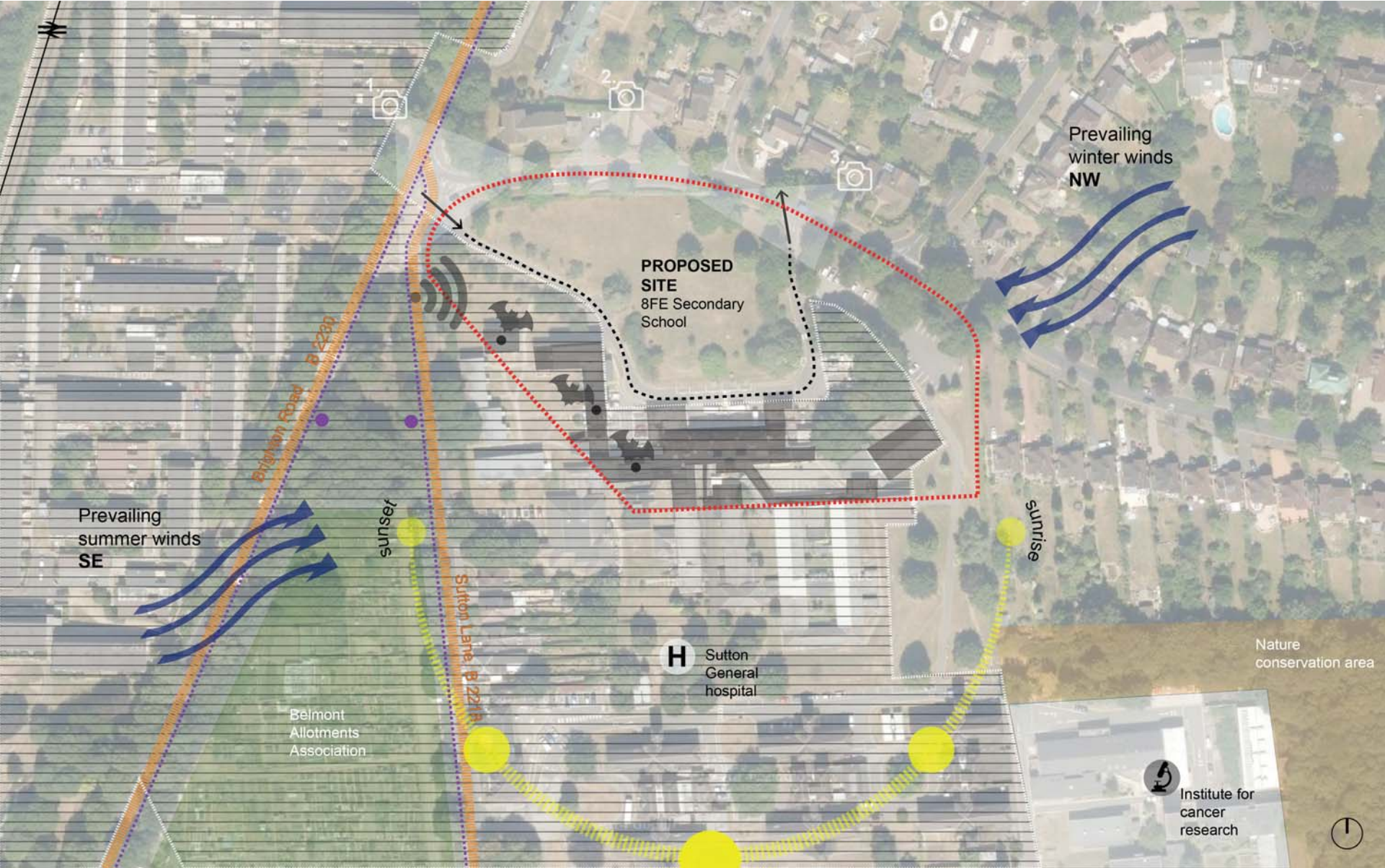
The site is close to the village centre; it is situated 5 minutes walk from Belmont train station and 15 minutes walk from Sutton train station. Direct rail services run to Sutton from Epsom, Croydon, London Bridge, London Victoria, Clapham Junction and Wimbledon.

Access

Currently there is a single vehicular and pedestrian access to the site from Brighton Road which crosses the site leading to Chiltern Road. The site boundary along Chiltern Road has a car park which could be extended to increase the number of the car spaces for the school.



3.6 Site Overview



3.7 Site Analysis

3.7 Site Environmental Analysis

The school site is constrained in nature due to it's location on the Hospital Site and limited access along one boundary. It is located within an open green area and is protected to the winter winds being surrounded by residential buildings and trees. This could be extremely beneficial, protecting the proposed building from cold winds during the winter season.

The absence of any significant buildings surrounding the site and the open nature of the grassed areas provide a good opportunity for solar gains throughout the day. Daylight, being one of the main factors to consider when designing educational buildings, can be used to maximum affect and further solar studies should be carried out as the design progresses to maximise the benefit of these conditions. In order to provide good levels of natural ventilation and daylight, the proposed building will be situated within the northern area of the plot, as its wider spatial configuration will allow the building to benefit from suitable orientations.

In terms of noise, part of the site lies next to Brighton road which could carry high volumes of traffic. As it can be seen from the location map and site views, adjacent to the west boundary of the site there is an existing green barrier, made of leafy trees, which acts as a buffer space, mitigating the traffic noise effect. The northern part of the site is adjacent to a smaller road, Chiltern Road where the surroundings are manly residential buildings. Following these considerations we can ascertain that the site has relatively low noise pollution however further investigation should be carried out at a later stage with a noise survey.

Geotechnical analysis has been carried out in 2003 by Hunter & Partners to establish the past usage of this area and to highlight any potential contaminative concerns. Contaminations of the land has not been found, see Appendix E.

3.7 Site Views

Site View 1: Entrance from Cotswold Road



Site View 2: from Chiltern Road



Site View 3: Site Exit from Chiltern Road



- Proposed site area boundary
- Existing buildings within the plot
- Institute for cancer research
- Regeneration area
- Green areas
- Nature conservation area
- T2 roads
- T3 roads
- Bus routes
- Bus stop
- Railway
- Existing access
- Existing road (to be preserved)
- Prevailing winds
- Bats
- Noise pollution
- Site images (see next page)



3.8 Services and facilities

Belmont is reasonably well served in terms of facilities available within the village, however many of the commercial and industrial areas are found towards Sutton centre, which is 15 minutes walk from Belmont. Conversely, the majority of residential areas and green spaces are towards Belmont. In terms of the educational system, there is a secondary school in Belmont, Overton Grange High School, located on the north side of the village. There are two Primary Schools; The Avenue Primary School and Barrow Hedges Primary School. There are also nurseries adjacent to Sutton Hospital site. Many of the cultural and leisure facilities

are located around the town centre of Belmont and Sutton. In addition, there are four main green areas very close to the Belmont Hospital site. These are linked to each other by pedestrian and cycle routes.

3.9 Site Connectivity

Bus Routes

Sutton is well served by public transport, frequent buses connect

the Borough to Kingston, Wimbledon, Morden, Croydon, Caterham, Purley, Tooting, Crystal Palace and Putney. Regular but less frequent services serve Banstead, Reigate/Redhill, Epsom and Heathrow Airport. Bus routes S1, 280, 420, 773 and 820 serve the proposed site. The nearest one is located in Sutton Lane and Brighton Road.

Roads

The Borough's road network includes three strategic 'Red Routes' which link central London to the M25 (A24 and A217) and

provide an east-west route across the Borough (A232). These roads are managed by Transport for London. The remainder of the road network is managed by the Council. The proposed site extends along Chiltern Road which is a small road leading to a residential area. On the west side of the site there are two main roads, Brighton Road and Sutton Lane which link Belmont to Sutton on the north and Banstead to the south. The whole area has a good cycle and pedestrian network which links all the green spaces of the area.



Cycling Routes

Limited cycling routes have been identified directly connecting the site to the local area apart from the ones running inside parks and open spaces.

Train routes

The Borough is well-served by a number of suburban rail services, with London Victoria, London Bridge and Waterloo as

well as Thameslink, which provides a cross-London service to St. Pancras and Luton. Belmont Hospital site has its own named railway station which it is located 5 minutes walk from the site and Sutton railway station is within a walking distance. Morden tube station is easily accessible by bus. Transport for London is currently undertaking feasibility work looking at options for extending the Tramlink network, including a route to Sutton town centre via Morden.

3.10 Topographic Site Survey

The plan above shows the three distinctive level changes which exist on the Sutton Hospital Site. The difference from Chiltern Road to the southern section of the site is over 4 meters, changing from 88.200 m to 92.500 m. In the middle of the site next to the existing small hospital drop-off area the site area steps which will be used in the proposal as a link between the two volumes of the new building.

Based on this information any proposals for the site and school building could use the level changes as an advantage to not only accommodate the building area required for an 8FE secondary school but to develop a dynamic architectural scheme that enhances the well-being of the students and surround areas.

Proposed Options



4.0 Site Area requirements

Site Area Requirements

DfE Building Bulletin 103 recommends the external areas for a 8FE Secondary School with Sixth Form to be between 109,687.5m² and 87,551m². For sites that are restricted the option is to offer the soft outdoor PE areas off-site. This reduces the recommended site areas to be between 43,912.5m² and 27,426m².

The current site area available is 16,145m² which is significantly below the minimum BB103 (restricted) requirements by 11,281m². Whilst an 8FE building footprint can fit on the site not all the external areas can be provided satisfactorily.

Unrestricted site
Minimum total site area

87,551 m²

MINIMUM

Item	Area
Habitat Area	787 m ²
Hard Informal & Social Area	1775 m ²
Hard Outdoor PE	2762 m ²
Soft Informal & Social Area	3750 m ²
Soft Outdoor PE	60125 m ²
NET SITE AREA	78875 m ²
TOTAL SITE AREA	87551 m ²

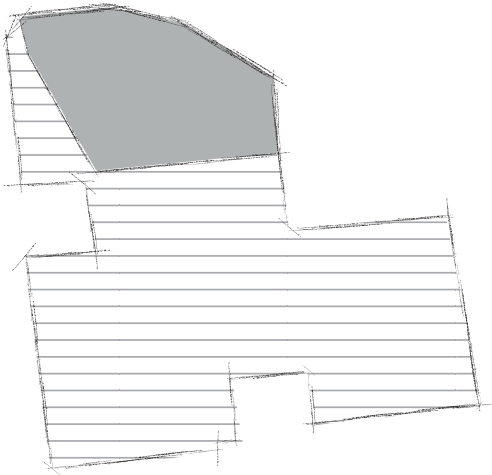
Unrestricted site
Maximum total site area

109,687.5 m²

MAXIMUM

Item	Area
Habitat Area	2762 m ²
Hard Informal & Social Area	3750 m ²
Hard Outdoor PE	4737.5 m ²
Soft Informal & Social Area	5725 m ²
Soft Outdoor PE	65775 m ²
NET SITE AREA	87750.5 m ²
TOTAL SITE AREA	109687.5m ²

Existing Site Area



Existing total site area

16,145 m²

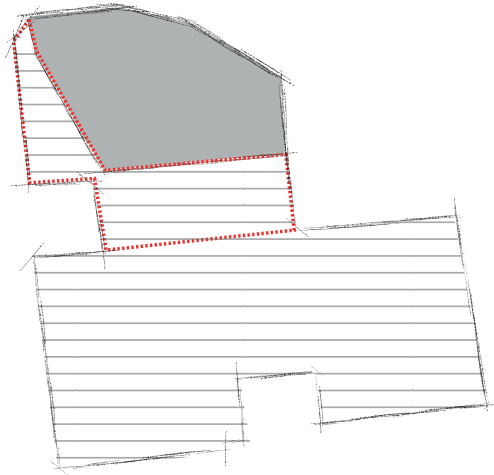
Area required to reach BB103 requirements (restricted site).

Site Area

Sutton Hospital site boundary

8 FE Site Area Requirements (Restricted)

DfE Building Bulletin 103 recommends the following external areas for a 8FE restricted Secondary School with Sixth Form. The red outline highlights the additional area required to meet the minimum and maximum total BB 103 site areas on a restricted site.



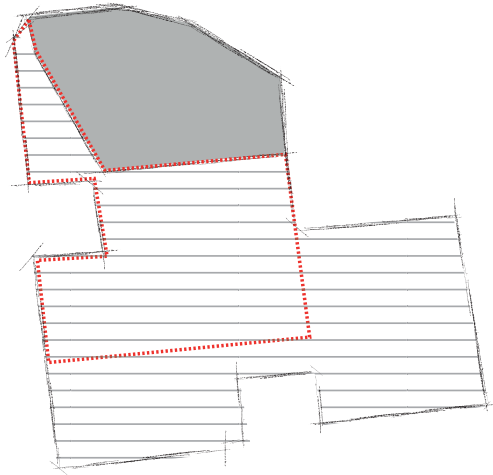
Restricted site

Minimum total site area

27,426 m²

MINIMUM

Item	Area
Habitat Area	787 m ²
Hard Informal & Social Area	1775 m ²
Hard Outdoor PE	2762 m ²
Soft Informal & Social Area	3750 m ²
Soft Outdoor PE	0 m ²
NET SITE AREA	18750 m ²
TOTAL SITE AREA	27426 m ²



Restricted site

Maximum total site area

43,912.5 m²

MAXIMUM

Item	Area
Habitat Area	2762 m ²
Hard Informal & Social Area	3750 m ²
Hard Outdoor PE	4737.5 m ²
Soft Informal & Social Area	5725 m ²
Soft Outdoor PE	0 m ²
NET SITE AREA	21975.5 m ²
TOTAL SITE AREA	43912.5m ²

4.1 Site Layout and Constraints

4.1 Site Layout and Constraints

Having analysed the site there are a number of key points that have been highlighted. These are:

- **Main access:** The main vehicular and pedestrian should use the current access from Brighton Road with a secondary pedestrian access from Chiltern Road which currently acts as an exit point for vehicles. The site has the opportunity to retain the existing access points and expand on them.

Following on from an initial meeting with the various stakeholders it was clear that retaining the through road was favorable.

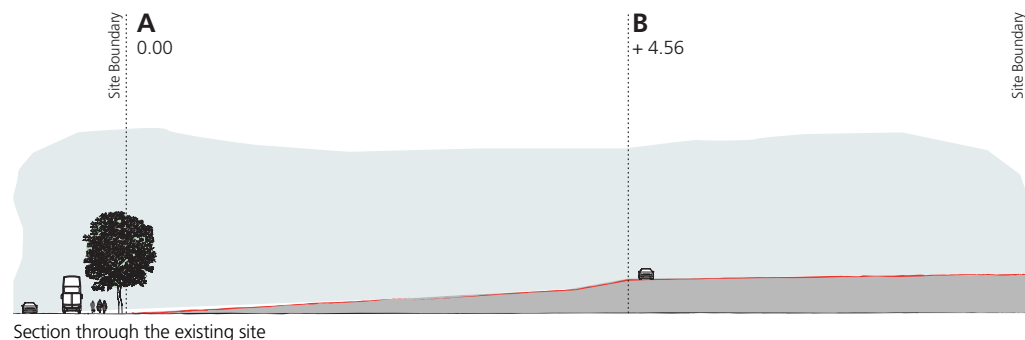
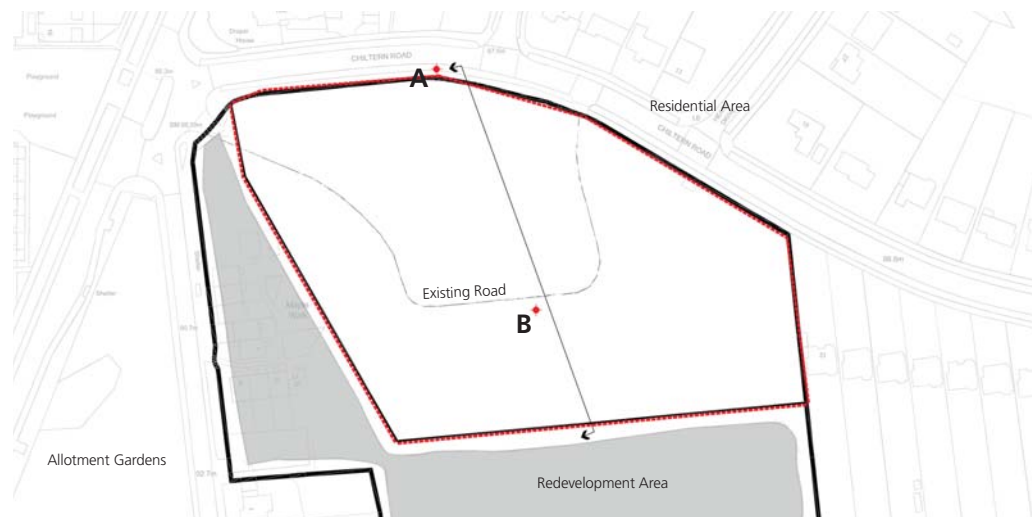
- **Site levels:** After analysing the topographical survey there is a significant level change of 4.56m from the north to south part of the site. The plan and diagrammatic cross-section of the site below illustrates the level changes. Any proposal on this site would need to carefully consider these levels. It would be advantageous to incorporate this into the design.

-- **Zoning of uses:** Due to the constraining nature of the site the likelihood of the building developing into a four-storey structure is relatively high. This would make the building significantly taller than surrounding residential houses to the north and east.

Currently there is no information as to the exact uses for the redevelopment area behind the site to the south.

- **Mitigation of noise pollution from adjacent roads:** A Nature area/ green barrier is proposed along the dividing fence located on the north boundary of the site. This could be extended to enclose majority of the site.

- **Future proofing:** The proposed site allows minimal area for expansion unless more land is made available.



Outdoor teaching space



Plaza



Games Court



Hard social/informal spaces

4.2 Site Zoning

Proposed Zoning 1

The proposed site layout is designed based on the following principles:

- **Zoning of vehicular and pedestrian zones:** by retaining the site access and current one-way through road the car park can be situated immediately adjacent to the site entrance with a provision for a drop off area near the building.

- **Zoning of uses:** The through road separates the building and car parking from majority of the external play spaces such as PE courts, soft informal/social areas and habitat area. This arrangement allows for the external areas to be maximised at the higher level of the site. The proposed building location to the

northern part of the site is at a lowest level which mitigates any extra height of the building.



Proposed Zoning 2

The proposed site layout is designed based on the following principles:

- **Zoning of vehicular and pedestrian zones:** by locating vehicular access to site from Brighton Road and Sutton Lane and the car park immediately adjacent to the entrance. The existing through road crossing the site would extend only as far as the drop-off area and rest of the site would be remain secure from any vehicles.

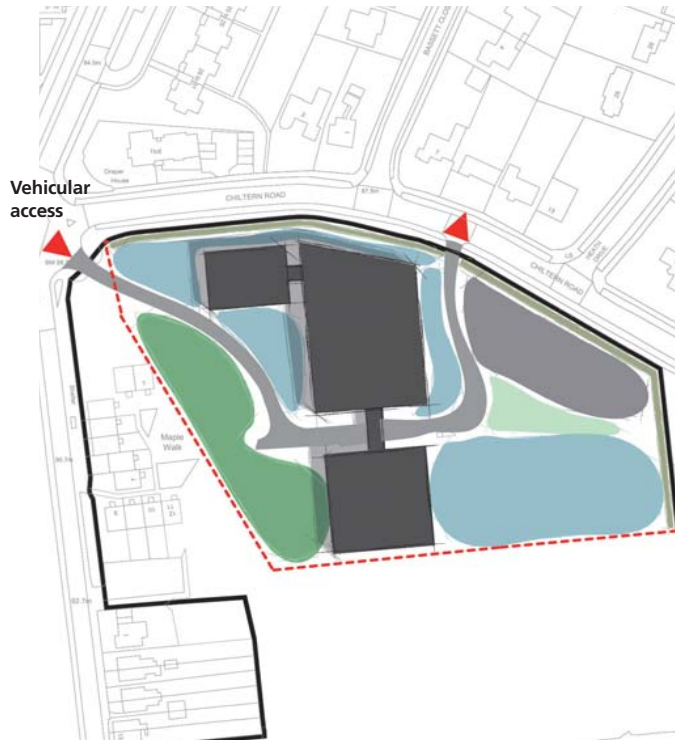
- **Zoning of uses:** This layout separates uses in order to allow for different activities to be carried out simultaneously without interrupting other users. The building will be located to the

south side of the site which is at the highest level with the car parking, games court and part of the soft informal/social areas at the lowest level. This layout helps to increase external spaces which are limited when compared with the requirements for an unrestricted 8FE Secondary school.



4.3 Building Configuration Options

3 Plug-In



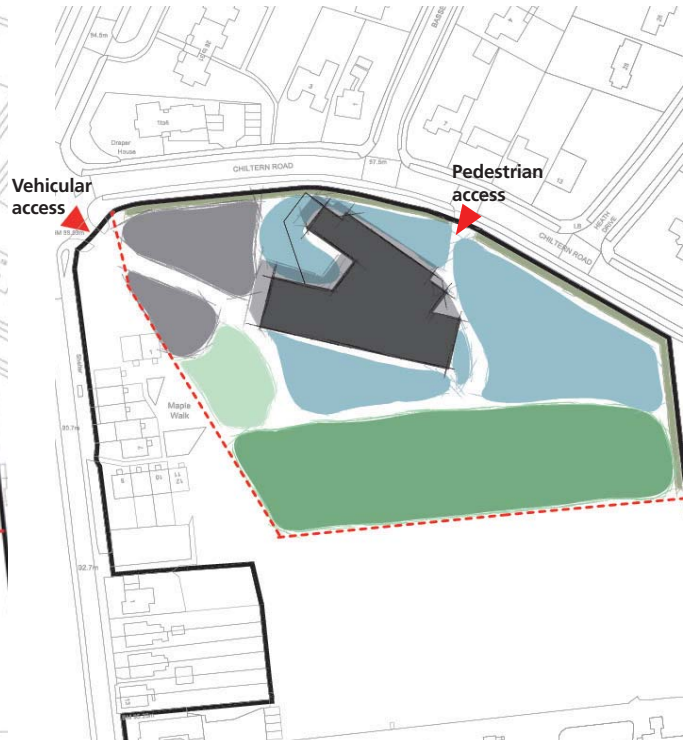
Advantages:

- Good access to the building from pedestrian/vehicular routes - retaining existing road and access.
- Allowance for better zoning of outdoor areas
- Utilises the level changes on site in an effective dynamic way
- Zoning of uses allowing for community use i.e. the Sports Hall/Games Courts
- Only the top north elevation dominates the view from Chiltern Road as the majority of the building is set back.

Disadvantages:

- Limited area for future expansion without further compromising external areas
- Security and safe guarding of the students with through road
- Possible self-shading during certain times of the day
- Dispersed outdoor areas

Parallel Blocks



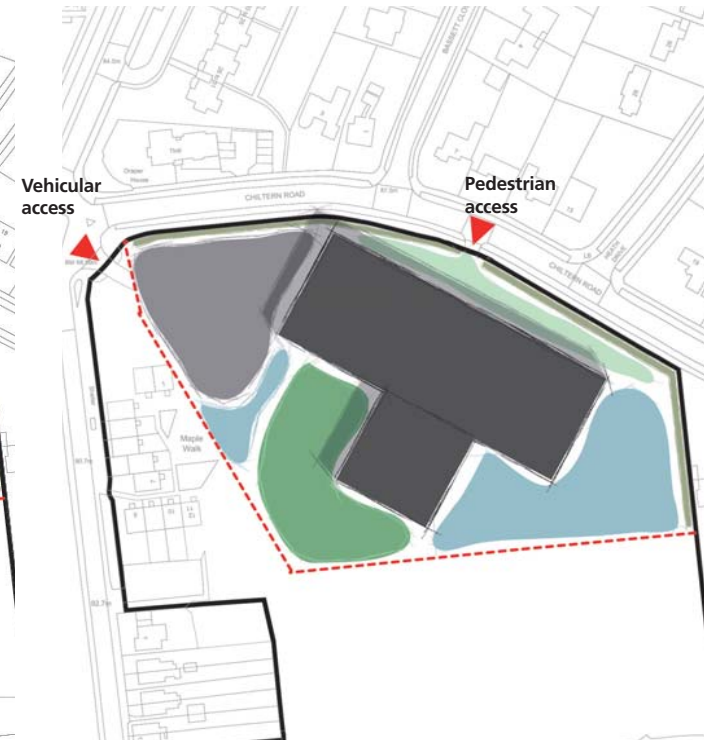
Advantages:

- Good access to the building from pedestrian/vehicular routes - provides a secure zone for vehicles.
- Allowance for improved distribution of outdoor areas
- Compact building footprint
- Correct orientation
- The building is located at the lower level on the site

Disadvantages:

- Long connecting corridors
- Sinuous connections between main blocks
- Dominant at 5-6 storeys high
- Limited area for future expansion without further compromising external areas

Superblock with Plug-In



Advantages:

- Good access to the building from pedestrian/vehicular routes
- Allowance for improved distribution of outdoor areas
- Correct orientation
- Building only 3 storey high

Disadvantages:

- Large dominating northern facade onto Chiltern Road
- Site would have to be fully leveled with large retaining wall to the southern side
- Possible self-shading during certain moments of the day
- The building footprint is much larger than other options therefore the external areas are reduced even further
- limited area for future expansion without further compromising external areas

4.5 BB103 Visual SOA Schedule

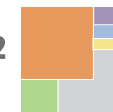
Visual SOA

The adjacent schedule of areas (SOA) is a visual representation of the net internal areas required for the 8FE Secondary school plus 375 Sixth Form building.

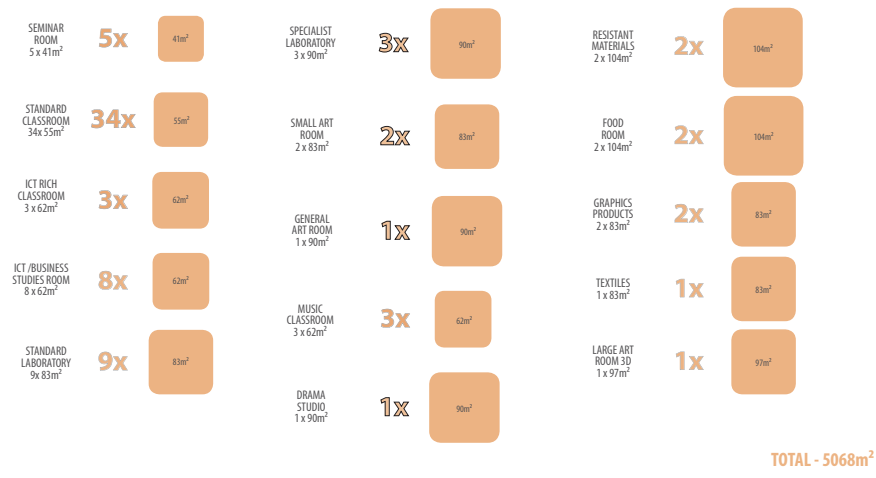
Sutton Secondary School Schedule of Accommodation (BB103)

8FE + 375 Sixth Form = 1575 PUPILS

$$5068\text{m}^2 + 1517\text{m}^2 + 469\text{m}^2 + 578\text{m}^2 + 606\text{m}^2 + 37\text{m}^2 + 3310\text{m}^2 = 11585\text{m}^2$$



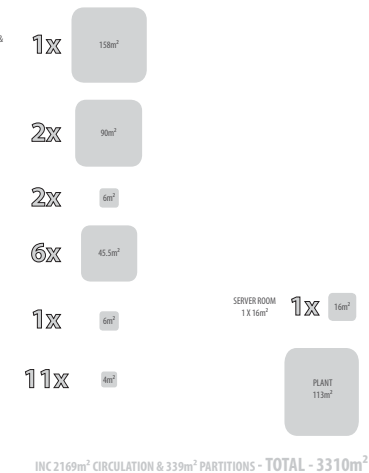
Basic Teaching Area



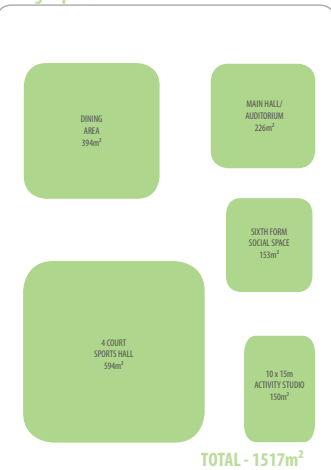
Float



Non Net Area



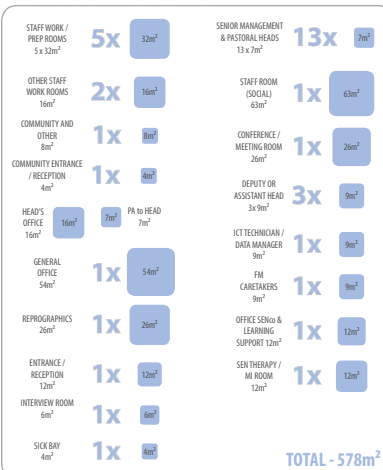
Large Spaces



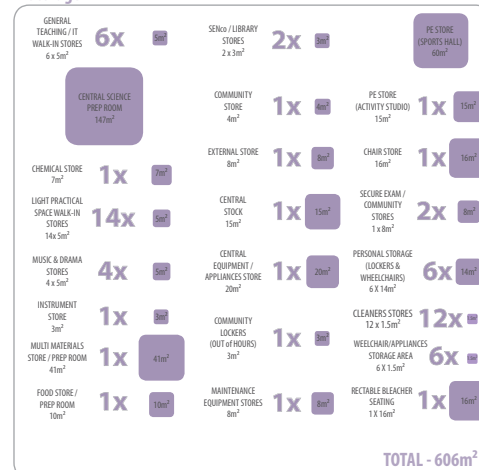
Learning Resource Area



Staff and Administration Area



Storage



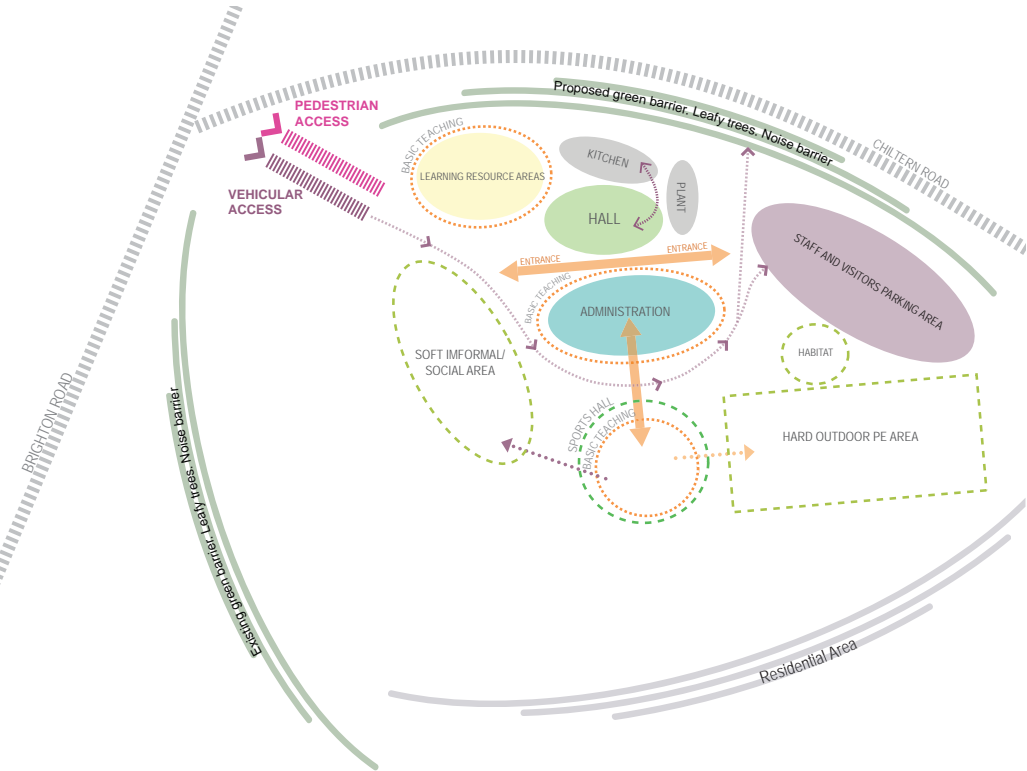
4.6 Proposed Site and Building Zoning

Proposed site and building zoning based on Option 1

Following an initial meeting with the stakeholders the preferred options to proceed with were Site Zoning Option 1 and Building Layout Option 1. It was also suggested to retain the existing car park and extend it.

The building will be located in the northern part of the site which is at a lowest level to compensate for the four storey facade. Administration areas along with social areas such as dining are located at the lower level which is close to the main entrance. At first floor level there will be external and internal access to the Sports Hall and Games Courts as they are located on the higher level of the site.

The proposal is for the main teaching area to be four-storeys high with the Sports, Arts and Sixth Form areas located within the three-storey building behind. The surrounding areas will be the hard and soft social/informal areas as well as habitat areas.



External Area Requirements

The preferred site zoning is Option 1. External area requirements have been calculated using the DfE Building Bulletin 103 based on 1575 students.

In this option the car park is retained in the existing location however car spaces will be increased to 74 in number as requested by the stakeholder team. The site layout provides recommended areas for hard outdoor PE and habitat areas. With this option it is also possible to allow larger areas of soft informal and social areas. It is proposed that the site will be surrounded by a green barrier to protect the school from noise pollution and to create a safer area for the children.

As previously stated the site cannot accommodate any soft outdoor PE area (playing field) and a MUGA (hard PE area) has been provided to replace this requirement. Other external areas are provided to the maximum allowed within the site boundary.

Existing total site area	16,145 m ²
Proposed External site area	
Item	Area
Habitat Area	400 m ²
Hard Informal & Social Area	593 m ²
Hard Outdoor PE	3184 m ²
Soft Informal & Social Area	4424 m ²
Soft Outdoor PE	0 m ²
NET SITE AREA	12000 m ²
TOTAL SITE AREA	16145 m ²



4.7 Precedent

Oasis Academy Enfield, London

Oasis Academy has been chosen as a precedent as it is similar to the site constraints of the Hospital site. This precedent utilises a MUGA pitch and has a similar condensed building arrangement.

The academy is an all through school with primary, secondary and sixth form. The school consists of a three storey building, with a two storey element for the primary school, accommodating upto 1935 pupils with associated facilities, access, cycle and car parking, landscaping and multi use games areas.

Total Floor Area: 12,992m²

Total Site Area (approx): 28,000m²



Landscape proposal

The site is located in Belmont, approximately one mile to the south of Sutton High Street, Surrey. Predominantly bounded by Sutton Hospital, a residential area abuts the site to the north.

The vision is to provide a stimulating and vibrant school environment, focussing on both the internal and the external environments as resources for formal and informal learning.

The landscape and its relationship with the proposed school will be critical to the success of the scheme, and the design strives to create a stimulating and cohesive landscape that provides a high quality educational environment for pupils, parents, and staff alike. The concept that architecture, landscape, and community are intrinsically linked will be promoted by providing efficient circulation routes through a series of age appropriate, dynamic, flexible and robust external spaces.

The external strategy will aim to create a cohesive, high quality exterior space for the entire site, with the objective of creating clear and defined routes for non-motorised users that facilitate safe movement through the site. The proposals will present a legible and ordered spatial pedestrian experience in order to create a strong sense of identity; careful design will ensure that all spaces will be compliant with the guidance of the Equality Act 2010 and as such, these spaces will be accessible to all. Catering for a variety of educational and social needs, the external spaces will reflect their intended uses whilst being conducive to learning and social interaction. Relating directly with the layout of the school, these spaces will be designed to provide a stimulating and rewarding outdoor learning and play environment.

The needs and requirements of motorised vehicles will be accommodated within the new design, and will seek to segregate vehicular and pedestrian movements where possible. The design and functional arrangement of the exterior space as a whole will seek to minimise vehicular impact on both the site and the wider environment, and the layout of the car park will maximise the number of spaces available. Vehicular access will be from the north via Chiltern Road and in order to minimise vehicular movements through the site, the main car park will also be situated adjacent to the vehicular access point.

While existing high quality features will be retained and incorporated into the new design wherever possible, the scheme will exploit a modern palette of materials for both surfacing and external furniture, and a considered approach to detailing will ensure that all external spaces areas are appropriate and safe for their intended age groups and learning requirements. This design tactic will ensure that all spaces are perceived as 'belonging' Sutton Secondary School.



4.9 Proposed Option - Proposed Ground Floor Plan

Building Layout

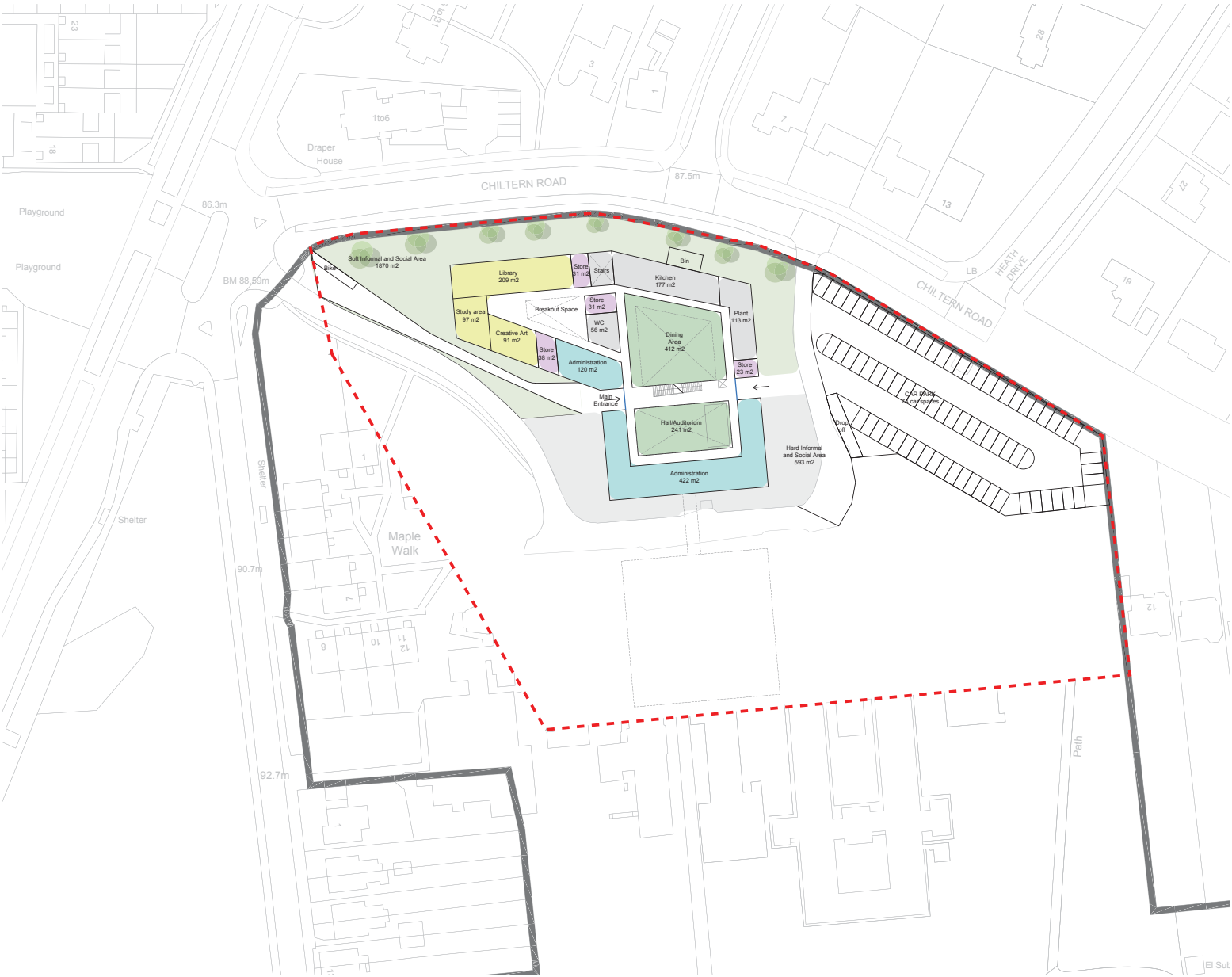
The building layout is based on the area schedule in section 4.4. The total GIA is **11,945m²**.

Ground Floor

The proposed ground floor layout has an estimated GIA of **2,703m²** and it is formed of two main volumes which are connected; the administration block is the central volume linked to the teaching areas which lie on the north side of the site.

The dining hall and hall/auditorium are designed as a double volume with void to the upper floor. The entrance is situated on the main axis of the building which creates a connection through the two elements of the development, the main entrance is also linked through this axis to the service entrance and car park.

The northern elevation sweeps along the contour of Chiltern Road whilst the splayed south-west elevation leads to the main entrance of the building.



KEY:

- Teaching Areas
- Administration Areas
- Halls
- Storages
- WC's and Changing Areas
- Learning Resource Areas

First Floor

The site plan illustrates the layout of the proposed new primary school building and its immediate surroundings. The building is a large, irregular structure with a central courtyard. The main building is divided into several functional areas:

- Classrooms:** 283 m² (top right), 200 m² (bottom left), and 216 m² (bottom right).
- ICT/Business Studies:** 397 m² (top left).
- Dining Hall:** 373 m² (center).
- Store:** 31 m² (top left), 31 m² (top right), and 31 m² (bottom right).
- WC:** 96 m² (top center) and 31 m² (bottom right).
- Void:** 100 m² (top center).
- SEN and support spaces:** 79 m² (bottom left).
- Reception:** 40 m² (bottom left).
- Stairs:** 31 m² (top center) and 31 m² (bottom left).
- Changing Area:** 180 m² (bottom left).
- Social Area and Activity Studio:** 317 m² (bottom center, open space).
- Soft Informal and Social Area:** 2504 m² (bottom left, green area).
- Maple Walk:** (bottom left, green area).
- Habitat Area:** 400 m² (bottom right, green area).
- Hard Outdoor PE Area:** 3184 m² (bottom right, grey area).
- MUGA:** (bottom right, grey area).
- Shelter:** (bottom left, grey area).
- Playground:** (top left, grey area).
- Draper House:** (top left, grey area).
- Chiltern Road:** (top, grey area).
- Heath Drive:** (top right, grey area).
- Path:** (bottom right, grey area).

The plan also shows the building's orientation, with a north arrow pointing towards the top right. The building is surrounded by a green area, and the site is bounded by Chiltern Road to the north and a path to the south. The plan includes a scale bar indicating 0, 10, 20, and 30 meters. The building is outlined in red, and the surrounding areas are outlined in black. The plan is a detailed architectural drawing showing the layout of the proposed new primary school building and its immediate surroundings.

KEY:

- Teaching Areas
- Administration Areas
- Halls
- Storages
- WC's and Changing Areas
- Learning Resource Areas

4.11 Proposed Option - Proposed Second Floor Plan

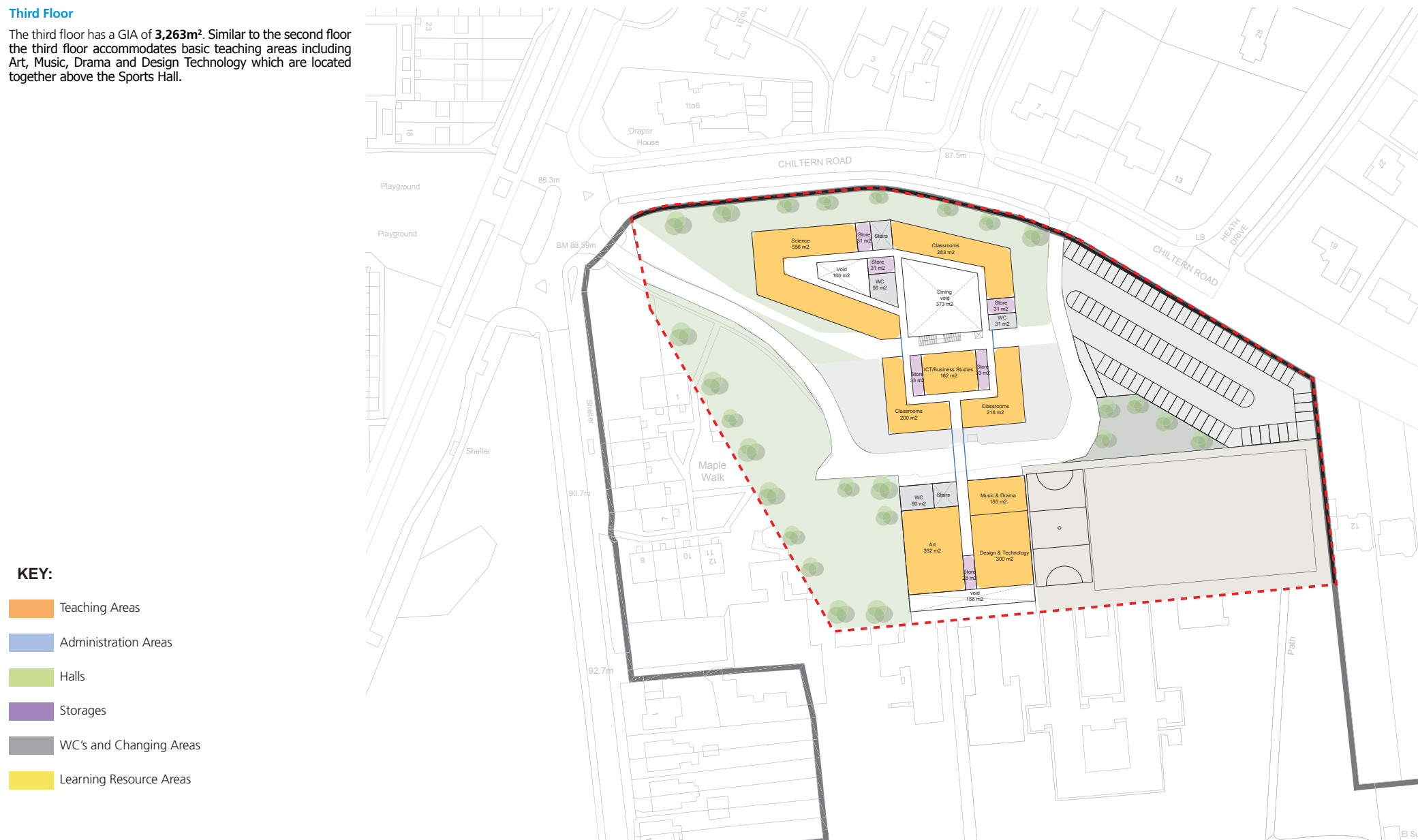
Second Floor

The second floor has a GIA of **2820 m²** which is generally occupied by basic teaching areas. The arrangement of the building reduces circulation to the classrooms and allows for common and breakout spaces to be created off the circulation.



Third Floor

The third floor has a GIA of **3,263m²**. Similar to the second floor the third floor accommodates basic teaching areas including Art, Music, Drama and Design Technology which are located together above the Sports Hall.



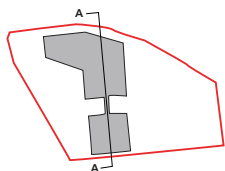
4.13 Proposed Option - Proposed 3D Views

3D Views and General Section

Access to the site is split in two parts, the pedestrian access on the left and the vehicular access on the right. The entrance of the buildings is located in the middle of the site as this is the main administration hub. The building forms a prominent facade to the corner of the site leading through to the main entrance and this elevation then follows the contour of the road. There are two glazed links, one on the entrance which divides the two main volumes and one which forms a suspended bridge from the main hub to the sports hall. This connection resolves the level different on the site as shown below.



View from the main site access



Section A through the site and proposed school

4.14 Proposed Option - Proposed 3D Views

3D Views

Glazed links, internal voids and vertical connections are the main features of the building which is defined by three main volumes.



Ariel view of the site



Ariel view of the North-East section of the school and site



View of the school from Cotswold Road



Ariel view the Games Courts

4.15 Alternative Massing Option A

Alternative massing Option

Following a meeting with officers from Sutton's Local Planning Authority (LPA) and Highways Department on 02.02.2015 several comments were made on the Proposed Option on page 34. It should be noted at the outset that these are informal officer comments and do not represent the formal decision/s of the LPA. It should also be noted that these discussions have been to discuss very broad land use principles and massing studies and have not explored a number of other relevant material planning considerations.

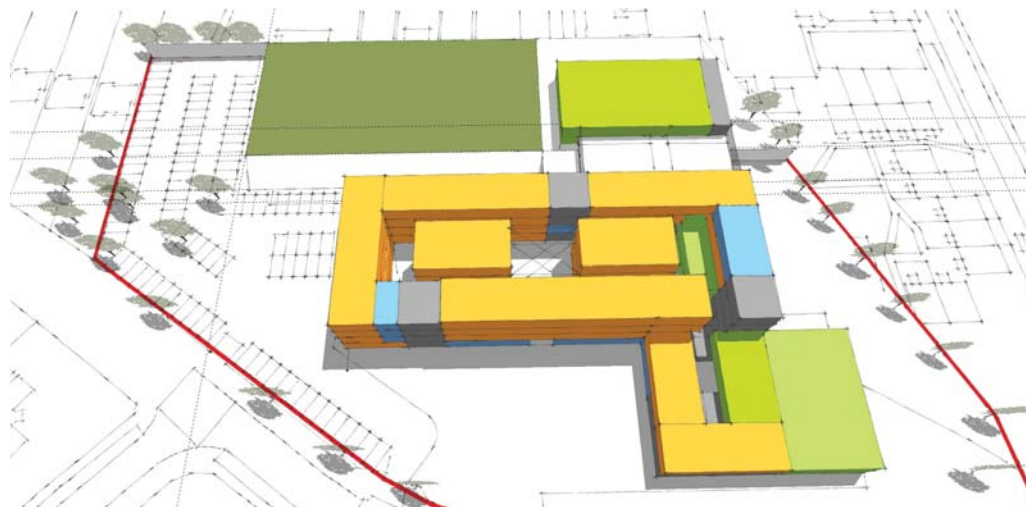
The comments included:

- The site is allocated for a mixed use: residential and health within the LDF (Site Development Policies DPD, BW6). Any proposal for an educational use on this land would represent a departure from development plan policy and the Greater London Authority (GLA) would be required to be notified. The GLA would have the power to direct refusal if they wished should the LPA resolve to grant planning permission.
- Any proposals would have to ensure that the future development potential of adjoining sites is not prejudiced.
- Any proposed building/s should follow the urban grain and respect the suburban character of the area. The area immediately to the north east comprises dwellings set within spacious plots and set well back from the road. More dense residential development is found to the north west and south west with rows of terraces and flatted development.
- Concern raised regarding the scale and massing of development with particular concerns on having a four storey building adjacent to Chiltern Road. It was suggested that options be explored that would move the main mass of the school further back into the site with two storeys to the front. A suggestion was made by officers of the LPA to start with a lower level such as 1 or 2 storeys at the front of the site increasing to the rear. These suggestions were to allow a further review of alternative options for redeveloping the site.
- The amenity of neighbouring occupiers would have to be thoroughly considered within any future proposals. In particular, vehicle parking should be relocated to ensure that neighbours amenity would not be impacted.
- There are a number of trees within the site which have significant visual amenity.
- It would be beneficial for any future development to allow a vehicle access to go through the site and integrate it into the wider Sutton Hospital site.
- Although the existing access point to the North West corner is private and landlocked there is an access agreement in place which was as part of the purchase of the site. Highways Department have also confirmed that a scheme could be provided with only one access point subject to detailed design.
- The Highways Department confirmed that under DM22 of the Site Development Policies DPD four spaces per

five employees would be required. It was likely that an additional area of vehicle parking would be required outside the site but within easy access to it. The current carpark location was acceptable strictly from a highway perspective and subject to detailed design and the review of transport statement/travel plan.

- The Highways Department appreciated that an internal drop off would want to be avoided given the constraints of the site although ideally an on-site drop off should be provided.
- The Highways Department were not overly against coach pick up being on the road as for a limited time only even though there are no sport facilities on site.

Following this meeting, further massing studies were undertaken and an alternative option illustrated was produced for discussion.



Ariel view of two storey front facade and set back of four storey teaching block



Ariel view of the Games Court (MUGA)



Ariel view of entrance, carpark and single vehicle access point

4.15 Alternative Massing Option A Developed

Alternative massing Option A.1

Following a further meeting with officers from Sutton's Local Planning Authority and Highways Department on 17.03.2015 regarding Option A several additional comments were noted on the developed scheme.

These included:

- It was noted that Option A was some improvement on the Developed Option (shown on page 34) but concerns remained.
- The north-east corner of the building was still too dominant and should be scaled back to 2 storeys. Where possible the higher massing should be to the rear of the site. To accommodate the quantum of floorspace required the best possible option could be to have tall buildings to the rear of the site possible up to 5 storeys but this is not to say that design concerns would still not remain. Further options would have to be explored.
- An option should be explored where the massing of the scheme is located further to the rear above the sports facilities.

Following this meeting, further massing studies were undertaken and alternative Options A1 and A2 are illustrated on this and the following page. This option A1 shows a five storey central core with two, two storey front and side blocks. The rear block is three storeys. Officers at the LPA have yet to comment on these latest proposals.



Ariel view of the Games Court (MUGA)



Ariel view of two storey front facade with five storey central block



Ariel view of three storey front facade and set back of five storey teaching block



Ariel view of entrance, carpark and single vehicle access point

4.16 Alternative Massing Option A Developed

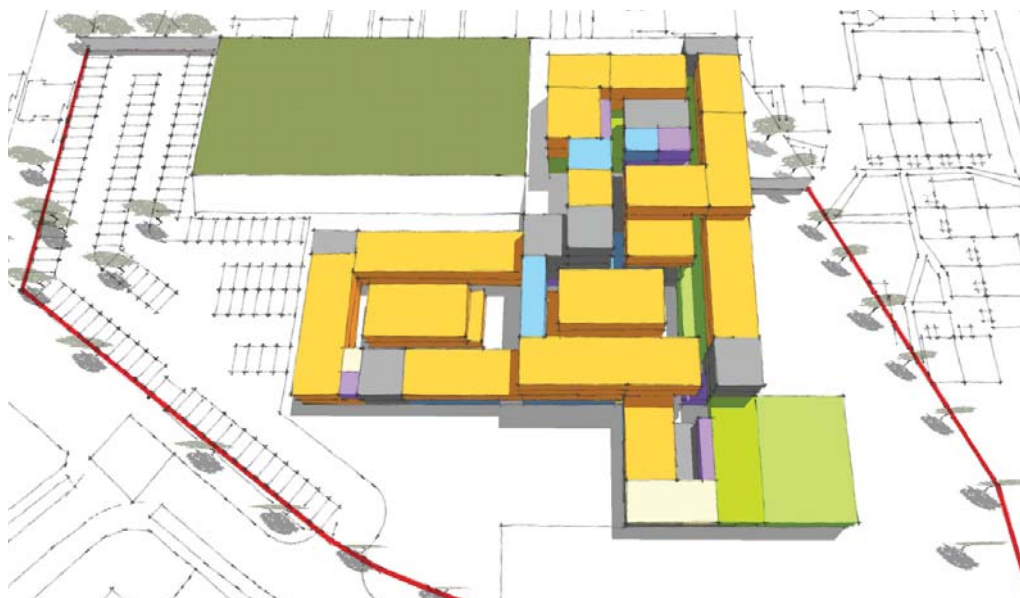
Alternative massing Option A.2



Ariel view of the Games Court (MUGA)



Ariel view of two storey front facade with four storey central block



Ariel view of three storey front facade and set back of five storey teaching block



Ariel view of entrance, carpark and single vehicle access point