

# Public Document Pack



Democratic Services  
White Cliffs Business Park  
Dover  
Kent CT16 3PJ

Telephone: (01304) 821199  
Fax: (01304) 872453  
DX: 6312  
Minicom: (01304) 820115  
Website: [www.dover.gov.uk](http://www.dover.gov.uk)  
e-mail: [democraticservices@dover.gov.uk](mailto:democraticservices@dover.gov.uk)

12 September 2016

Dear Councillor

NOTICE IS HEREBY GIVEN THAT a meeting of the **SCRUTINY (POLICY AND PERFORMANCE) COMMITTEE** will be held in the HMS Brave Room at these Offices on Tuesday 20 September 2016 at 6.00 pm when the following business will be transacted.

Members of the public who require further information are asked to contact Rebecca Brough on (01304) 872304 or by e-mail at [rebeccabrough@dover.gov.uk](mailto:rebeccabrough@dover.gov.uk).

Yours sincerely

Chief Executive

## Scrutiny (Policy and Performance) Committee Membership:

K Mills (Chairman)  
M I Cosin (Vice-Chairman)  
T A Bond  
R J Frost  
B J Glayzer  
J M Heron  
M J Holloway  
S C Manion  
M Rose  
D A Sargent

## AGENDA

### 1 **APOLOGIES**

To receive any apologies for absence.

### 2 **APPOINTMENT OF SUBSTITUTE MEMBERS**

To note appointments of Substitute Members.

3      **DECLARATIONS OF INTEREST** (Page 5)

To receive any declarations of interest from Members in respect of business to be transacted on the agenda.

4      **MINUTES** (Pages 6 - 10)

To confirm the Minutes of the meeting of the Committee held on 12 July 2016 (attached) and 2 August 2016 (to follow).

5      **PUBLIC SPEAKING**

Please note that in accordance with the agreed Protocol for Public Speaking at Overview and Scrutiny, the right to speak only applies to agenda items 12 to 15 (inclusive).

Members of the public wishing to speak must register to do so by no later than 2.00 pm on the second working day before the meeting.

6      **DECISIONS OF THE CABINET RELATING TO RECOMMENDATIONS FROM THE SCRUTINY (POLICY AND PERFORMANCE) COMMITTEE**

There were no decisions taken by the Cabinet at its meeting held on 5 September 2016 in respect of recommendations from the Scrutiny (Policy and Performance) Committee.

7      **ISSUES REFERRED TO THE COMMITTEE BY COUNCIL, CABINET, SCRUTINY (COMMUNITY AND REGENERATION) COMMITTEE OR ANOTHER COMMITTEE**

There are no items for consideration.

8      **ITEMS CALLED-IN FOR SCRUTINY OR PLACED ON THE AGENDA BY A MEMBER OF THE COMMITTEE, ANY INDIVIDUAL NON-EXECUTIVE MEMBERS OR PUBLIC PETITION**

(a) Items placed on the agenda by a Member of the Committee or any individual Non-Executive Member

Any individual Councillor may request that a matter is placed on the agenda of one of the Council's Overview and Scrutiny Committees by providing Democratic Support with notice of the matter prior to the agenda being published.

There are no items for consideration.

(b) Items the subject of Call-In

Executive Decisions may be called-in by the Chairman or Spokesperson of the Scrutiny (Policy and Performance) Committee or any three non-executive members.

There are no items for consideration.

(c) Public Petition



There are no items for consideration.

9      **NOTICE OF FORTHCOMING KEY DECISIONS** (Pages 11 - 13)

It is intended that Members should use the Notice of Forthcoming Key Decisions to identify topics within the remit of the Committee for future scrutiny.

10     **SCRUTINY WORK PROGRAMME** (Pages 14 - 17)

It is intended that the Committee monitor and prioritise its rolling work programme.

11     **PUBLIC SPACE PROTECTION ORDER UPDATE**

To receive a verbal update from the Director of Governance and the Environmental Protection Manager.

12     **LORRY PARKING UPDATE REPORT** (Pages 18 - 21)

To consider the attached report of the Director of Environment and Corporate Assets.

13     **FUTURE FUNDING FOR DOMESTIC ABUSE SERVICE** (Pages 22 - 44)

To consider the attach report of the Director of Environment and Corporate Assets.

14     **PERFORMANCE REPORT - QUARTER 1, 2016/17** (Pages 45 - 71)

To consider the attached report of the Director of Governance.

15     **DOVER LEISURE CENTRE** (Pages 72 - 454)

To consider the attached report of Director of Environment and Corporate Assets.

16     **EXCLUSION OF THE PRESS AND PUBLIC** (Page 455)

The recommendation is attached.

MATTERS WHICH THE MANAGEMENT TEAM SUGGESTS SHOULD BE CONSIDERED IN PRIVATE AS THE REPORT CONTAINS EXEMPT INFORMATION AS DEFINED WITHIN PART 1 OF SCHEDULE 12A OF THE LOCAL GOVERNMENT ACT 1972 AS INDICATED AND IN RESPECT OF WHICH THE PROPER OFFICER CONSIDERS THAT THE PUBLIC INTEREST IN MAINTAINING THE EXEMPTION OUTWEIGHS THE PUBLIC INTEREST IN DISCLOSING THE INFORMATION

17     **DOVER LEISURE CENTRE** (Pages 456 - 837)

These documents form part of the report set out at Agenda Item 15.

- Members of the public are welcome to attend meetings of the Council, its Committees and Sub-Committees. You may remain present throughout them except during the consideration of exempt or confidential information.
- All meetings are held at the Council Offices, Whitfield unless otherwise indicated on the front page of the agenda. There is disabled access via the Council Chamber entrance and a disabled toilet is available in the foyer. In addition, there is a PA system and hearing loop within the Council Chamber.
- Agenda papers are published five clear working days before the meeting. Alternatively, a limited supply of agendas will be available at the meeting, free of charge, and all agendas, reports and minutes can be viewed and downloaded from our website [www.dover.gov.uk](http://www.dover.gov.uk). Minutes are normally published within five working days of each meeting. All agenda papers and minutes are available for public inspection for a period of six years from the date of the meeting.
- If you require any further information about the contents of this agenda or your right to gain access to information held by the Council please contact Rebecca Brough, Team Leader - Democratic Support, telephone: (01304) 872304 or email: [rebeccabrough@dover.gov.uk](mailto:rebeccabrough@dover.gov.uk) for details.

Large print copies of this agenda can be supplied on request.

**Declarations of Interest****Disclosable Pecuniary Interest (DPI)**

Where a Member has a new or registered DPI in a matter under consideration they must disclose that they have an interest and, unless the Monitoring Officer has agreed in advance that the DPI is a 'Sensitive Interest', explain the nature of that interest at the meeting. The Member must withdraw from the meeting at the commencement of the consideration of any matter in which they have declared a DPI and must not participate in any discussion of, or vote taken on, the matter unless they have been granted a dispensation permitting them to do so. If during the consideration of any item a Member becomes aware that they have a DPI in the matter they should declare the interest immediately and, subject to any dispensations, withdraw from the meeting.

**Other Significant Interest (OSI)**

Where a Member is declaring an OSI they must also disclose the interest and explain the nature of the interest at the meeting. The Member must withdraw from the meeting at the commencement of the consideration of any matter in which they have declared a OSI and must not participate in any discussion of, or vote taken on, the matter unless they have been granted a dispensation to do so or the meeting is one at which members of the public are permitted to speak for the purpose of making representations, answering questions or giving evidence relating to the matter. In the latter case, the Member may only participate on the same basis as a member of the public and cannot participate in any discussion of, or vote taken on, the matter and must withdraw from the meeting in accordance with the Council's procedure rules.

**Voluntary Announcement of Other Interests (VAOI)**

Where a Member does not have either a DPI or OSI but is of the opinion that for transparency reasons alone s/he should make an announcement in respect of a matter under consideration, they can make a VAOI. A Member declaring a VAOI may still remain at the meeting and vote on the matter under consideration.

**Note to the Code:**

Situations in which a Member may wish to make a VAOI include membership of outside bodies that have made representations on agenda items; where a Member knows a person involved, but does not have a close association with that person; or where an item would affect the well-being of a Member, relative, close associate, employer, etc. but not his/her financial position. It should be emphasised that an effect on the financial position of a Member, relative, close associate, employer, etc OR an application made by a Member, relative, close associate, employer, etc would both probably constitute either an OSI or in some cases a DPI.

Minutes of the meeting of the **SCRUTINY (POLICY AND PERFORMANCE) COMMITTEE** held at the Council Offices, Whitfield on Tuesday, 12 July 2016 at 6.03 pm.

Present:

Chairman: Councillor K Mills

Councillors: T A Bond  
P M Brivio (as substitute for Councillor M I Cosin)  
B J Glayzer  
S C Manion  
M J Ovenden (as substitute for Councillor M J Holloway)  
D A Sargent

Officers: Chief Executive  
Director of Environment and Corporate Assets  
Public Protection Manager  
Team Leader – Democratic Support

20 APOLOGIES

Apologies for absence had been received from Councillors M I Cosin, R J Frost, J M Heron, M J Holloway and M Rose.

21 APPOINTMENT OF SUBSTITUTE MEMBERS

It was noted that in accordance with Council Procedure Rule 4, Councillors P M Brivio and M J Ovenden had been appointed as substitute members for Councillors M I Cosin and M J Holloway respectively.

22 DECLARATIONS OF INTEREST

Councillor T A Bond declared a Disclosable Pecuniary Interest (DPI) in Minute No. 34 by reason of his wife's employment by Your Leisure and withdrew from the meeting for the consideration of the matter.

23 MINUTES

The Minutes of the meeting held on 24 May 2016 were approved as a correct record and signed by the Chairman.

24 PUBLIC SPEAKING

The Team Leader – Democratic Support advised that no members of the public had registered to speak on items on the agenda to which the public speaking protocol applied.

25 DECISIONS OF THE CABINET RELATING TO RECOMMENDATIONS FROM THE SCRUTINY (POLICY AND PERFORMANCE) COMMITTEE

There were no decisions taken by the Cabinet at its meeting held on 4 July 2016 in respect of recommendations from the Scrutiny (Policy and Performance) Committee.

26 ISSUES REFERRED TO THE COMMITTEE BY COUNCIL, CABINET, SCRUTINY (COMMUNITY AND REGENERATION) COMMITTEE OR ANOTHER COMMITTEE

There were no items of business for consideration.

27 ITEMS CALLED-IN FOR SCRUTINY OR PLACED ON THE AGENDA BY A MEMBER OF THE COMMITTEE, ANY INDIVIDUAL NON-EXECUTIVE MEMBERS OR PUBLIC PETITION

There were no items of business for consideration.

28 NOTICE OF FORTHCOMING KEY DECISIONS

The Team Leader – Democratic Support presented the Notice of Forthcoming Key Decisions to the Committee for its consideration.

RESOLVED: That the Notice of Forthcoming Key Decisions be noted.

29 SCRUTINY WORK PROGRAMME

The Team Leader – Democratic Support presented the Scrutiny Work Programme to the Committee for its consideration.

Members were advised that the meeting of the Committee scheduled for 13 September 2016 had been moved to Deal Town Hall at the Chairman's request to enable the Committee to receive a petition relating to the Regent Cinema, Deal.

In addition, a second meeting would be held in September 2016 to consider the proposals for the Dover Leisure Centre.

RESOLVED: That the Work Programme be noted.

30 REVISED HACKNEY CARRIAGE AND PRIVATE HIRE LICENSING POLICY

The Public Protection Manager presented the report on the Revised Hackney Carriage and Private Hire Licensing Policy.

Members were advised that the key changes to the policy were:

- Removal of mileage limits on vehicles, though age limits on the vehicle would be retained;
- Change to the duration of driver's licences from 1 year to 3 years, although the authority retained the option to grant licences for a lesser period if deemed appropriate;
- The introduction of mandatory training for all new and existing drivers in Child Sex Exploitation Awareness; and
- Changes to payment refunds.

The policy had been subject to a 12 week consultation in early 2016 and letters were sent to key stakeholders as part of it. However, no written responses had been received in response.

RESOLVED: That it be recommended to the Cabinet that decision CAB17 be approved as follows:

- (a) That the revised Hackney Carriage and Private Hire Licensing Policy be approved.
- (b) That the Licensing Team Leader be authorised to make any minor or typographical amendments to the revised Hackney Carriage and Private Hire Licensing Policy.

### 31 SET UP OF THE GROUNDS MAINTENANCE SERVICE

The Director of Environment and Corporate Assets updated the Committee on the progress in setting up a Grounds Maintenance Service. The service would be a hybrid of in-house and outsourced provision.

The key areas of work being undertaken in preparation were:

- The development of contracts for the outsourced provision;
- HR were working on the TUPE arrangements for staff from the existing Grounds Maintenance provider;
- Recruitment of senior management;
- Discussions with the existing contractor in preparation for the service transfer;
- Examination of the service management structure;
- Consultation on leaseholder costs;
- Procurement of equipment (lease or purchase); and
- Statutory consents from the Environment Agency in respect of green waste;

The benefit of an in-house run service was that it provided flexibility to the Council that an outsourced service did not allow for and the potential for greater engagement with local town and parish councils and the wider community. There was also the opportunity for local town and parish council's to fund local improvements.

The Council was working with Thanet District Council, which operated an in-house Grounds Maintenance Service, to see what lessons could be learnt with the intention of exploring opportunities for service enhancement after transfer. Members were assured that the budget for the service had been set and the Council would stay within it.

The Committee was advised that if in the future market conditions changed to favour an outsourced service once again it would be relatively straight forward to transfer by TUPE the staff to the new contractor.

The possibility of a member advisory group to monitor the performance of the Grounds Maintenance Service was raised and the Director of Environment and Corporate Assets advised that this would be examined.

RESOLVED: That it be recommended to the Cabinet that a Member representative be appointed to the Selection Panel for the senior manager of the Grounds Maintenance Service.

### 32 INDOOR SPORTS FACILITY STRATEGY

The Director of Environment and Corporate Assets presented the report on the Indoor Sports Facility Strategy.

The Strategy examined the current and future supply and demand for eight indoor sports facilities across the district. This was in addition to previous studies which had examined the supply and demand for outdoor sports facilities across the district.

The provision of the following eight indoor sporting facilities was considered:

- Indoor swimming pools;
- Sports halls;
- Health and Fitness Suites;
- Indoor bowls;
- Squash courts;
- Indoor tennis;
- Dance/Aerobic Studios; and
- Gymnastics

The strategy would be used to inform future decisions in respect of rationalisation and investment, community use and determining strategic objectives for the district.

The Portfolio Holder for Property Management and Public Protection, Councillor T J Bartlett, informed Members that consultation had already been undertaken with clubs, organisations and the public.

There was concern raised as to whether the range of consultation options had been meaningful in light of the proposals for the new Dover Leisure Centre but Members were advised that the Indoor Sports Facility Strategy while underpinning the proposed new Dover Leisure Centre formed a separate piece of consultation. The importance of accessible public transport links to sports facilities was also raised.

RESOLVED: That it be recommended to Cabinet

- (i) That the proposed responses to the representations received, as shown in Appendix 1, be approved.
- (ii) That the Indoor Sports Facility Strategy as amended and attached at Appendix 2 be approved and adopted.

(Councillor T A Bond declared a Disclosable Pecuniary Interest (DPI) in this matter by reason of his wife's employment by Your Leisure and withdrew from the meeting for the consideration of the matter.)

### 33 EXCLUSION OF THE PRESS AND PUBLIC

It was moved by Councillor P M Brivio, duly seconded and

RESOLVED: That, under Section 100(A)(4) of the Local Government Act 1972, the public be excluded from the meeting for the remainder of the business on the grounds that the items to be considered involved the likely disclosure of exempt information as defined in paragraph 3 of Part I of Schedule 12A of the Act.

ACQUISITION OF LAND FOR DOVER LEISURE CENTRE

The Chief Executive presented the report on the Acquisition of Land for Dover Leisure Centre.

Members raised the importance of meaningful public consultation in respect of the facilities and discussed land acquisition options.

RESOLVED: That it be recommended to the Cabinet:

- (a) That the Director of Environment and Corporate Assets be authorised to negotiate:
  - (i) The Heads of Terms with the owner of the land at White Cliffs Business Park (WCBP) for the purchase of the land at WCBP to facilitate the possible relocation of Dover Leisure Centre.
  - (ii) An option agreement for the sale of the existing leisure centre site at Woolcomber Street, Dover.
- (b) That the Director of Environment and Corporate Assets be authorised to enter into such agreements as he considers appropriate to give effect to the above on terms to be settled in consultation with the Portfolio Holder for Property Management and Public Protection and the Solicitor to the Council.

The meeting ended at 7.24 pm.





# Notice of Forthcoming Key Decisions

[This updated version of the Notice supersedes all other versions issued in previous months.]

Publication Date: 2 September 2016

## Notice of Forthcoming Key Decisions which will be made on behalf of the Council

Key Decisions 2016/17	Item	Date of meeting at which decision will be taken by Cabinet (unless specified otherwise)
1	Preparation of the Dover District Council Draft Community Infrastructure Levy Charging Schedule	3 December 2012 and dates to be confirmed
2	Neighbourhood Plans	June 2013 and ongoing (see entry)
3	Gypsy, Traveller and Travelling Showpeople Development Plan	Date to be confirmed
4	Dover Town Centre Regeneration: To consider progress on the Compulsory Purchase Order and any issues arising which may go beyond the scope of the resolutions incorporated in Minute CAB 87	8 September 2014/24 April 2015/7 March 2016 and ongoing
5	Approval of the award of a contract for the electrical re-wiring of Council-owned properties	Date to be confirmed
6	Revised Hackney Carriage and Private Hire Licensing Policy	1 February 2016 and 4 July 2016
7	To consider: a) the result of consultation on the extension of the Kingsdown Conservation Area boundary and b) the introduction of an Article 4 Direction	a) 29 February 2016 b) 5 September 2016
8	To seek approval for the implementation of the Indoor Sports Facility Strategy and support the work being undertaken to replace Dover Leisure Centre.	7 March and 4 July 2016
9	Approval of Housing Adaptations Policy	9 May 2016
10	To seek Cabinet approval for public consultation on draft Nelson Street, Deal Conservation Area Appraisal	5 September 2016 and date to be confirmed
11	Future provision of Grounds Maintenance Services	9 May 2016
12	Extension to fitness suite at Tides Leisure Centre, Deal	3 October/7 November 2016
13	Parking Strategy Review	9 May and 5 September 2016
14	Approval of Fuel Poverty Strategy for Kent	5 September 2016
15	Review of Aylesham Village Expansion Development Agreement	3 October/7 November 2016
16	Approval to develop detailed plans for replacement of Dover Leisure Centre	25 July and 20 September 2016 (special Cabinet meeting) and ongoing
17	Project approval for the refurbishment of Norman Tailyour House	5 September 2016
18	To agree the Council's requirements for the submission of financial viability assessments	Date to be confirmed (Developer Contributions Executive Committee)

<b>Key Decisions 2016/17</b>	<b>Item</b>	<b>Date of meeting at which decision will be taken by Cabinet (unless specified otherwise)</b>
19	Authority Monitoring Report	5 December 2016
20	Statutory Brownfield Register	5 December 2016
21	Review of Tenancy Strategy and Tenancy Policy	December 2016-February 2017
22	Approval of draft Waterloo Crescent, Dover Conservation Area Appraisal for public consultation	3 October 2016 and date to be confirmed

- Note: (1) Key Decisions which are shaded have already been taken and do not appear in this updated version of the Notice of Forthcoming Key Decisions.
- (2) The Council's Corporate Management Team reserves the right to vary the dates set for consultation deadline(s) and for the submission of reports to Cabinet and Council in respect of Key Decisions included within this version of the notice. Members of the public can find out whether any alterations have been made by looking at the Council's website ([www.dover.gov.uk](http://www.dover.gov.uk)).

# OVERVIEW AND SCRUTINY WORK PROGRAMME 2016/17

## SCRUTINY (POLICY AND PERFORMANCE) COMMITTEE

Month	Scrutiny (Policy and Performance) Committee	Resource Implications for Scrutiny				Action
		Members	Officers  (Corporate Expenditure unless otherwise stated)	Scrutiny Budget Expenditure		
				Projected	Actual	
May 2016	Council Tax Reduction Scheme 2017/18	Single Meeting	Director of Finance, Housing and Community	£0	£0	To consider the report.
	Performance Targets	Single Meeting	Director of Governance	£0	£0	To consider the report.
	Performance Report Q4	Single Meeting	Director of Governance	£0	£0	To consider the report.
	Update on the Council's Plans to Build 500 Council Houses	Single Meeting	Director of Finance, Housing and Community	£0	£0	To receive an update on the proposals to build 500 Council Houses. The Portfolio Holder for Housing, Health and Wellbeing has been invited to attend the meeting.
	Museum and Tourism Strategy	Single Meeting	Director of Environment and Corporate Assets	£0	£0	To receive an update on the Museum and Tourism Strategy. The Leader of the Council and the Portfolio Holder for Skills, Training, Tourism, Voluntary Services and Community Safety have been invited to attend the meeting.
June 2016	NO MEETING HELD					
July 2016	Heavy Goods Vehicles Parking in Residential Areas of Dover	Special Meeting	Director of Environment and Corporate Assets	£0	£0	A special meeting to consider the issue of HGV parking in Residential Areas in Dover

Month	Scrutiny (Policy and Performance) Committee	Resource Implications for Scrutiny				Action
		Members	Officers  (Corporate Expenditure unless otherwise stated)	Scrutiny Budget Expenditure		
				Projected	Actual	
	Set-up of Grounds Maintenance Service	Single Meeting	Director of Environment and Corporate Assets	£0	£0	To receive an update on the proposals for the setting-up of a Grounds Maintenance Services.
	Revised Hackney Carriage and Private Hire Licensing Policy	Single Meeting	Director of Governance	£0	£0	To consider the report.
	Indoor Sports Facility Strategy	Single Meeting	Director of Environment and Corporate Assets	£0	£0	To consider the report.
	Acquisition of Land for Dover Leisure Centre	Multiple Meetings	Director of Environment and Corporate Assets	£0	£0	Pre-decision Scrutiny.
August 2016	NO MEETING SCHEDULED					
September 2016	Parking Strategy Review	Single Meeting 13 September 2016	Director of Environment and Corporate Assets	£0		To consider the report.
	Petition – Reopen the Regent	Single Meeting 13 September 2016	Chief Executive / Head of Regeneration and Development	£TBC		To receive the petition. The September 2016 meeting will be held in Deal at the Chairman’s request.
	Approval to Develop Detailed Plans for the Replacement of Dover Leisure Centre	Multiple Meetings 20 September 2016	Director of Environment and Corporate Assets	£0		To consider the report.
	Performance Report Q1	Single Meeting 20 September 2016	Director of Governance	£0		To consider the report.

Month	Scrutiny (Policy and Performance) Committee	Resource Implications for Scrutiny				Action
		Members	Officers  (Corporate Expenditure unless otherwise stated)	Scrutiny Budget Expenditure		
				Projected	Actual	
	Future Funding for Domestic Abuse Service Provision	Single Meeting 20 September 2016	Director of Environment and Corporate Assets	£0		To consider the report.
	Lorry Parking Restrictions Update	Single Meeting	Director of Environment and Corporate Assets	£0		To consider the report.
	Site Visit - DTIZ	Single Meeting 29 September 2016	Head of Inward Investment	£0		Site Visit to the DTIZ site to see progress.
October 2016	Public Spaces Protection Order 2015	Single Meeting	Director of Governance			To receive an annual update
November 2016						
December 2016	Performance Report Q2	Single Meeting	Director of Governance	£0		To consider the report.
January 2017						
February 2017						
March 2017	Performance Report Q3	Single Meeting	Director of Governance	£0		To consider the report.

Month	Scrutiny (Policy and Performance) Committee	Resource Implications for Scrutiny				Action
		Members	Officers  (Corporate Expenditure unless otherwise stated)	Scrutiny Budget Expenditure		
				Projected	Actual	
April 2017						
May 2017						

*Please note dates are approximate for key decisions as they are based on the latest edition of the Forward Plan and subject to change.*

#### **Municipal Year 2016/17**

To be determined	Coastal Communities Grant	Single Meeting	Cabinet Member / Corporate Management Team	£0		To receive an update on the Coastal Communities Grant
At Key Milestones	Dover Town Investment Zone	Single Meeting	Various	£tbc		To maintain a watching brief, scheduling scrutiny meetings as appropriate.
To be determined	Youth provision and the Young Persons Travel Pass	Special Meeting	Kent County Council	£tbc		This item was added to the work programme by Councillor K Mills.

**Scrutiny (Policy and Performance) Committee**

**13<sup>th</sup> September 2016**

**Update report on LGV parking in Dover District.**

**Introduction**

On Tuesday 5<sup>th</sup> July 2016 the Scrutiny (Policy and Performance) Committee held a meeting to discuss the issue of lorry parking in Dover.

At the conclusion, the Committee recommended that:

- (i) That the Director of Environment and Corporate Assets be requested to investigate the feasibility of introducing a range of parking restrictions in the Dover District to tackle the problem of unsafe, illegal and anti-social HGV parking in residential areas and that a report be submitted to the 13 September 2016 meeting of the Scrutiny (Policy and Performance) Committee on the options available to the Council.
- (ii) That as part of the report the following matters be considered:
  - (1) That a survey of the district be undertaken to identify areas where HGV parking was a problem and investigate potential solutions including signage, traffic restrictions and clamping.
  - (2) That as part of the process of identifying problem areas parish council's be contacted. In addition, the Committee identified particular problems in Coombe Valley as well as issues in Lydden Hill and Sandwich.
  - (3) That as part of investigating the feasibility of clamping for HGV's found to be parked in contravention of parking regulations, the option of clamping on a first occurrence be considered as opposed to on the fourth occurrence as trialled in Ashford.
  - (4) That the Council investigate the feasibility of using the Automatic Number Plate Recognition system at the Port of Dover as a method of identifying foreign HGV's that have outstanding Penalty Charge Notices in the district.

**Current Actions: Hawkesbury Street and Poulton Close, Dover**

Parking Services has been maintaining a log over the past few months of where Large Goods Vehicles (LGV) park across the district. Using that, and complaints from the public as the justification for action, a report was taken to the Dover Joint Transportation Board (JTB) on 9<sup>th</sup> June 2016 seeking consent for a proposal to prohibit lorry parking along appropriate sections of Hawkesbury Street and Poulton Close, Dover, and to formally advertise the proposals.

Double yellow line parking restrictions already exist in parts at both locations already, with such restrictions banning all vehicles 24/7. However, other parts of these roads are not restricted and so LGVs park here to the detriment of residents and other motorists. The JTB supported the proposals



and asked Parking Services to draw up plans to introduce these restrictions with the results of the consultation to be presented to a future meeting of the Board to make its recommendation.

These proposals have been published in the local press on 1<sup>st</sup> September 2016, and the consultation will end on 26<sup>th</sup> September 2016. Following that, a further report will be taken to the JTB with recommendations.

### **District surveys**

As mentioned earlier, a survey has been taking place for some time, with Civil Enforcement Officers recording where LGVs are parking and in what numbers. They also record whether or not any enforcement action has been taken. This information has been used in determining where the experimental LGV ban should be imposed and will be taken into account when considering any other action that might be taken.

Arrangements will also be made for contacting Town and Parish Councils to ascertain any issues they also experience by inconsiderate or illegal LGV parking, and information provided by them will be taken into account when determining future action.

This could lead to action being taken such as that outlined above in Hawkesbury Street and Poulton Close, but is a more measured approach than that taken by Shepway District Council, who introduced an overnight and weekend parking ban for HGVs in some 19 roads across the District in November 2015. The impact of this initiative is being monitored but one concern of such an approach is that it simply displaces the problems caused by HGV parking from one area to another.

### **Legislative Powers**

The civil enforcement of parking regulations is governed by extensive legislation and guidance issued by Central Government.

The Secretary of State's Statutory Guidance to Local Authorities on the Civil Enforcement of Parking Contraventions (2016 version) refers to immobilisation and the fact that this method is not often used by Local Authorities nowadays. Where it is used, it should only be in limited circumstances such as the same vehicle repeatedly breaking parking regulations and where it has not been possible to collect payment for penalties (e.g. vehicle not registered with DVLA).

Local Authorities seeking to immobilise vehicles will need to formulate and publish clear guidelines, and a decision to immobilise may only be made by a properly trained Civil Enforcement Officer.

This statutory guidance refers to circumstances where authorities must not immobilise a vehicle in the first 30 minutes following the issue of a PCN (or the first 15 minutes in the case of a persistent evader). Those circumstances generally relate to pay and display parking spaces.

The Statutory Guidance describes a "Persistent Evader" as having three or more recorded contraventions for the vehicle and these have not been paid, represented against, or appealed against within the statutory time limits, or representations and appeals have been rejected but they have still not paid.

The power to immobilise vehicles is granted by Sections 12 to 14 of the Civil Enforcement of Parking Contraventions (England) General Regulations 2007, which states that where a penalty charge notice has been served in accordance with regulations, a Civil Enforcement Officer may fix an immobilisation device to the vehicle. Section 13 prescribes the limitations on this power, referred to earlier, which relate to paid for parking spaces. Apart from the limitations detailed in Section 13, it appears that there are no other restrictions preventing a vehicle parked in contravention of the regulations from being immobilised whether or not it is a persistent offender.

Within Kent, until recently, Ashford was the only borough actively enforcing rules specifically relating to HGV parking on the Highway. Kent County Council (who are the Highway Authority) and Ashford Borough Council had been working closely together since 2014 to try and address the growing problem of HGV parking and agreed to conduct a 6 month clamping trial starting on 1 April 2015. The trial was carried out in the three areas of the borough that had been identified as having the biggest problem and where the Ashford Borough Council Civil Enforcement team has been regularly enforcing for several years but failed to achieve compliance with the Overnight HGV parking ban, double parking and No Waiting restrictions. The Ashford policy states that HGVs of 5 Tonnes (gross weight) and over that have **at least three unpaid Parking Penalty Charge Notices** may be clamped, if found to be parked in contravention of a parking restriction and issued a fourth Penalty Charge Notice by a Civil Enforcement Officer.

This approach derives from The Department for Transport publication Traffic Management Act 2004 Operational Guidance to Local Authorities: Parking Policy and Enforcement, within which paragraphs 8.96 and 8.97 explain the policy approach:

#### ***Immobilisation/removal***

***8.96 Very few authorities now use immobilisation. The Secretary of State is of the view that it should only be used in limited circumstances such as where the same vehicle repeatedly breaks parking restrictions and it has not been possible to collect payment for penalties, primarily because the keeper is not registered, or is not properly registered, with the DVLA. Where a vehicle is causing a hazard or obstruction the enforcement authority should remove rather than immobilise. Immobilisation/removal activity should only take place where it gives clear traffic management benefits.***

***8.97 An enforcement authority should formulate and publish clear guidelines for CEOs on when it will be appropriate to immobilise or remove. The guidelines should cover the order of priority in which vehicles should be dealt with, based on the nature of the contravention. Powers should not be used randomly and authorities should draw up guidelines in consultation with the police. Immobilisation and removal guidelines should consider the:***

- inconvenience that immobilisation causes drivers;***
- potential obstruction or loss of parking space that results; and***
- effect of immobilisation and removal on public perception and acceptance of CPE.***

Should immobilisation be introduced, there will be clear financial implications as the charges will be far greater than any income generated. Section 4 of The Civil Enforcement of Parking Contraventions (Guidelines on Levels of Charges)(England) Order 2007 states that the charge payable for the release of a vehicle from an immobilisation device must be £40. If the driver of any immobilised vehicle additionally pays the PCN charge at the time, the maximum amount charged would be £35 (Higher level PCN charge is £70, with a 50% discount if paid within 14 days) making a maximum charge collected of £75. If the driver contests the charge, there is no requirement to pay at the time. The current cost of immobilising a vehicle, using an external contractor with the necessary equipment and skills, is £150. Therefore, every time a vehicle is immobilised a minimum cost at today's charges of £75 would be incurred.

#### **ANPR/CCTV**

The utilisation of an ANPR system is a complex area and will take some time to fully explore. Ultimately, it is highly likely that a change in legislation will be required. The types of issues involved in this will include a process for placing information on a database, who will operate/be responsible for the database, what information will be contained (PCNs only? Other motoring offences?), who will be able to place information on the database (Local Authorities from Kent or countrywide? Other law enforcement agencies without the current ability to utilise the existing police systems? Enforcement Agents?), how will motorists be stopped and what powers will be available to detain them pending payment of any outstanding fines, will the type of load being carried have to be taken into account?

Christopher Allen,  
***Head of Community Safety, CCTV and Parking***

***2<sup>nd</sup> September 2016***

<b>Subject:</b>	<b>FUTURE FUNDING FOR DOMESTIC ABUSE SERVICE PROVISION</b>
<b>Meeting and Date:</b>	<b>Cabinet – 5 September 2016</b>
<b>Report of:</b>	<b>Roger Walton, Director of Environment and Corporate Assets</b>
<b>Portfolio Holder:</b>	<b>Councillor Keith Morris, Portfolio Holder for Skills, Training, Tourism, Voluntary Services and Community Safety</b>
<b>Decision Type:</b>	<b>Executive Key Decision</b>
<b>Classification:</b>	<b>Unrestricted</b>
<b>Purpose of the report:</b>	To obtain Cabinet's approval for the recommendation relating to contributing towards funding a countywide domestic abuse service as set out in the report.
<b>Recommendation:</b>	To agree to a joint request from Kent Police and Kent County Council to contribute towards a future domestic abuse service provision.

## 1. Summary

Domestic Abuse service provision across Kent is being redesigned with a view to commissioning an innovative solution to address the increasing demand currently being experienced by the county's domestic abuse services. Clearly there is a cost implication, and Kent Police and Kent County Council are seeking additional funding from a range of partners, including Local Authorities.

## 2. Introduction and Background

- 2.1 Whilst the Police investigate allegations of domestic abuse from a criminal perspective, there can be no doubt that ongoing support for victims of such crimes is the responsibility of many agencies. In particular, for district and borough authorities much of that responsibility falls to the housing services. The total cost of domestic abuse to Kent and Medway public services has been put at £370 million per year.
- 2.2 In the financial year 2013-2014, Independent Domestic Violence Advisers (IDVA) were introduced across the county, to provide specialist advice and support to the most serious domestic abuse cases. Local Authorities were requested to contribute to this service, which Dover District Council initially declined. However, in the two subsequent financial years (2014-2015 and 2015-2016) DDC agreed to contribute £11,900 per year.
- 2.3 For the financial year 2016-2017, Local Authorities were asked to only contribute funding for Quarter 1 (for DDC this amounted to £2,975) whilst research was undertaken into commissioning a broader domestic abuse service across the county. This request later became for a full year's funding (£11,900) to enable the commissioning process to progress with a view to the new integrated service commencing in April 2017. DDC agreed to this request for further funding, and so by the end of this financial year will have contributed to a domestic abuse service for three years.

- 2.4 The DDC contribution has been paid from the Housing Revenue Account, given the likely benefits to that Service area, and it is suggested that if further funding is agreed it should continue to come from that account.
- 2.5 The Dover District Community Safety Partnership plan has tackling Domestic Abuse as its major priority for the planning year 2016-2017.
- 2.6 Kent Police and KCC have now compiled a service specification for a jointly commissioned integrated domestic abuse service which will reduce the impact of domestic abuse on families and communities. The overall aim of a commissioned service will be to not only support victims of domestic abuse and their families, but also to reduce the risk of harm. A copy of the draft Service Specification is attached.
- 2.7 Kent Police held a meeting on 10<sup>th</sup> June 2016 to present the service proposals to Kent Local Authorities and other partners. Most were represented; whilst the invitation had been sent to Chief Executives, only one attended, with the remainder being represented by Community Safety professionals. Medway had declined to attend as they had stated that they wish to commission their own service. No representatives from health or the CCGs were present despite the obvious implications for them of domestic abuse.
- 2.8 The purpose of this meeting was to start the formal consultation process and explain the reasons for exploring the potential for a commissioned service. The timetable for this process is:
- i. Completion of consultation: 5<sup>th</sup> July 2016
  - ii. Commitment of funding from commissioning partners, including Local Authorities, together with indicative amounts of how much funding each partner is prepared to contribute for one year, by 1<sup>st</sup> August 2016
  - iii. Service put out to tender on 1<sup>st</sup> September 2016
  - iv. 5 year contract awarded 31<sup>st</sup> December 2016
  - v. New service operational from 1<sup>st</sup> April 2017.
- 2.9 It was made very clear by the Kent Police and KCC representatives that funding was being sought from Local Authorities to support the proposed service. However, when asked, they did not know how much funding was being sought and agreed to look into this. They agreed to provide this information by 1<sup>st</sup> July 2016. They were also questioned about service provision to those who do not contribute. They stated that Local Authorities who do not contribute funding would still receive a service but they could not elaborate on what type of service this might be, nor the difference in service between those who do and those who do not contribute.
- 2.10 KCC have now stated the amount of funding they are seeking from Dover District Council based on recognised research and a funding formula is £14,051 per year for a 5 year period. This amounts to an annual increase of £2,151 on previous years; over the five year period of the contract, DDC's contribution will amount to £70,255.
- 2.11 Based on analysis of domestic abuse data, Dover district can expect to have a little under 4,000 victims (female and male) of domestic abuse annually.
- 2.12 A draft Service Specification is attached to this report illustrating the expected service the successful provider will give across the county.
- 2.13 KCC has stated that it will not be possible to deliver the full scope of the model in the event of districts and borough councils electing not to contribute. They have decided

that it would not be fair in this instance to those who do contribute to deliver a reduced offer county wide. As a result, any district who does not contribute to the integrated model will receive a reduced offer from the service. Whilst the full details of this cannot be finalised until KCC has clarity on the funding envelope, their expectation is that for non-contributing areas, safe accommodation and a central referral and assessment service would continue to be delivered, alongside a minimal community support offer (probably to be delivered to those at most risk of harm). The integrated service would then refer out to whatever local solution the particular locality has in place.

- 2.14 It should also be noted that whilst the proposed service looks to aftercare for victims of domestic abuse and seeks to reduce repeat victimisation, we will continue to work with our partners on addressing the root causes of domestic abuse.

### **3 Identification of Options**

- 3.1 Not to agree to funding; or
- 3.2. To agree to the requested funding.

### **4. Evaluation of Options**

- 4.1.1 It is easy to argue that tackling domestic abuse and supporting the victims is not a matter for Local Authorities as statutory agencies whose responsibilities these issues are exist. Also, Local Authorities have other statutory responsibilities that we receive no additional funding from our partners for. However, if funding were to be contributed, this would directly support extremely vulnerable members of our communities and is likely to lead, in the long run, to a reduced demand for Council services, particularly in the housing service area.
- 4.2 None of the representatives present at this meeting committed to any funding, nor intimated whether or not they would be willing to contribute. However, it is highly likely that the majority of Local Authorities will agree to provide additional funding as requested. In the case of IDVA funding, disquiet was initially expressed at a request for funding but ultimately the vast majority of Local Authorities agreed to the request.
- 4.3 I would also be concerned that in the event of a death or serious injury where the victim had not received a service due to a Council not providing funding, there would be adverse criticism of that Council
- 4.4 It is recommended that DDC agrees to contribute the requested funding towards the proposed domestic abuse service for a five year period.

### **5. Resource Implications**

- 5.1.1 Funding of £14,051 per year for a 5 year period has been requested. This amounts to £70,255 over the five year period of the proposed contract.

## **6. Corporate Implications**

- 6.1.1 Comment from the Section 151 Officer: Accountancy have no further comments to make. (BW)
- 6.2 Comment from the Solicitor to the Council: The Solicitor to the Council has been consulted in the preparation of this report and has no further comments to make.
- 6.3 Comment from the Equalities Officer: This report does not specifically highlight any equalities implications however, in discharging their responsibilities members are required to comply with the public sector duty as set out in section 149 of the Equality Act 2010 <http://www.legislation.gov.uk/ukpga/2010/15>

## **7. Appendices**

Appendix 1 - Letter dated 16<sup>th</sup> May 2016 from Kent Police to DDC Chief Executive re: proposed meeting

Appendix 2 - Letter dated 21<sup>st</sup> June 2016 from KCC to DDC Chief Executive requesting funding

Appendix 3 - Draft Service Specification v5

## **8. Background Papers**

None.

Contact Officer: Christopher Allen, Head of Community Safety, CCTV and Parking



**Kent  
Police**

**Protecting and serving the people of Kent**

**Jo Shiner  
Assistant Chief Constable (Central Operations)**

Mr. Nadeem Aziz  
Chief Executive  
Dover District Council

Direct Line: 01622 652503  
Fax: 01622 652009  
E-mail: jo.shiner@kent.pnn.police.uk

Via email.

Date: 16 May 2016

Dear Mr. Aziz

Domestic Abuse service provision across Kent is being redesigned with a view to commissioning an innovative solution to address the increasing demand currently being experienced by our domestic abuse services.

Using Home Office tools it is estimated that dealing with the effects of domestic abuse costs public services across Kent in the region of £317 million a year.

In the year before they got help:

- 78% of high risk and 62% of medium risk domestic abuse victims sought help from the Police;
- 23% of high risk and 10% of medium risk victims visited A& E, some up to 15 times;
- 80% of families with a child exposed to domestic abuse are known to at least one agency, which may include housing, children's services, health agencies, criminal justice agencies, substance misuse services (SafeLives).
- It costs £500 per case for an Independent Domestic Violence Advisor and £1,000 per successful outcome (where all forms of abuse have ceased) compared to a minimum of £10,000 in costs to Public services for a high risk victim per year;
- A cost v benefit ratio of 1:10 where all cases of abuse cease and a high yield on investment (SafeLives research).

Following domestic abuse incidents that result in a health service intervention, 75% will be to the GP presenting with anxiety, mental health issues, minor injuries and 25% will be presentations to A&E with a trauma or injury.

I have attached the draft service specification for an integrated domestic abuse service which I would like to discuss with all Chief Executive Officers from our key partner agencies. Part of this discussion will be to consider potential funding arrangements for this new integrated service from April 2017. Therefore I have arranged a meeting to be held on Friday 10<sup>th</sup> June 2016 @ 14:00 hours in the Clift Room at Kent Police Headquarters.

As this is a key opportunity to impact on the development and delivery of this service, can I ask that if you are not able to attend personally, a suitable representative takes your place with the mandate to make decisions on behalf of your Organisation.



I would be grateful if you would please confirm your attendance at this event, by return email to Lynn Thring ([lynn.thring@kent.pnn.police.uk](mailto:lynn.thring@kent.pnn.police.uk)) no later than **Friday 3<sup>rd</sup> June 2016**. I look forward to meeting you soon.

Yours sincerely

A handwritten signature in dark ink, appearing to be 'Jo Shiner', with a stylized loop and a checkmark-like flourish.

**Jo Shiner**

Assistant Chief Constable (Central Operations)



Nadeem Aziz  
Dover District Council

**Social Care, Health and  
Wellbeing**  
Invicta House  
County Hall  
Maidstone  
Kent ME14 1XX

Date: 21 June 2016  
Tel: 07917 038223  
Email: [emily.matthews@kent.gov.uk](mailto:emily.matthews@kent.gov.uk)

Dear Nadeem,

**Re: Domestic Abuse Commissioning**

Thank you for sending a representative to the Domestic Abuse Consultation Event on Friday 10 June 2016 to discuss the future of domestic abuse services in Kent. Contributions to this event were extremely useful.

The consultation period for the proposed model ends on 15 July 2016, so please do take this opportunity to formalise your views on the proposal by responding to the consultation.

A key area of discussion at this event was based in the level of contributions to the model to be requested from District and Borough Councils. As agreed, a funding formula has been devised and I am now able to set out the level of contribution that is being requested from your organisation.

I have attached a copy of the funding formula for your area, to break down how the proposed contribution has been calculated, as a percentage of the total contribution to be sought from District and Borough partners.

The total amount of contribution to be requested has been based on the findings of Sylvia Walby, the UNESCO Chair in Gender Research at Lancaster University who, in 2009, assessed [the cost of domestic abuse](#) to public services in England and Wales, and the local findings of independent consultation Fizz Annand who assessed the cost to housing in Kent to be approximately £4.8 million per year in 2014.

The current IDVA service also commissioned an [independant impact report](#) which was completed by Russell Webster, independent researcher and evaluator who specialises in criminal justice and substance misuse. This report identified that for each £1 spent on domestic abuse support services, a saving of approximately £25 could be realised to public services. As such, a total contribution of £192,000 per year has been identified as the amount required to 'offset' the cost to housing services.

Based on the funding formula attached, the contribution being requested from Dover District Council is **£14,051** per year.

It is recognised that the impact of domestic abuse is felt across many areas within local authorities, but as housing is the area which has had a fiscal cost attached to it this has been used as the basis of the calculation.

I would be grateful if you could consider this proposal, and confirm, in writing whether your authority is able to commit to the model commencing in April 2017, by 1 August 2016.

If you would like to discuss this further, or have any questions, please do not hesitate to contact me.

Yours sincerely,

Emily Matthews  
Commissioning Officer  
**Social Care, Health and Wellbeing**

This document is available in other formats, Please contact  
[supportingpeopleteam@kent.gov.uk](mailto:supportingpeopleteam@kent.gov.uk)

# **SERVICE SPECIFICATION**

## **FOR THE PURCHASE OF**

**Kent Integrated Domestic Abuse Service**

**(1<sup>st</sup> July 2016 – 31<sup>st</sup> March )**

This document defines the  
Kent Integrated Domestic Abuse Service  
purchased by Kent County Council on xxxxxx

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## 1. Introduction

- 1.1. The overarching aim for the jointly commissioned, integrated domestic abuse service is to reduce the impact of domestic abuse on families and communities within Kent and Medway, and keep people safe.
- 1.2. The service will work in partnership to deliver needs led, value for money, high quality domestic abuse support services. The service will be free at the point of access.
- 1.3. KCC is the contracting authority for the Kent Integrated Domestic Abuse Service, working on behalf of the domestic abuse commissioning partnership.
- 1.4. For the purposes of this service, Domestic Abuse includes Domestic Abuse in accordance with the Home Office definition, Stalking, Honour Based Violence, Forced Marriage and Female Genital Mutilation (FGM).
- 1.5. The partnership recognises the valuable role that the service provider fulfils in the promotion of services both within the scheme and within the community. The services funded through this agreement ("the Service/s") are specified in this service specification ("Service Specification").
- 1.6. The Service will be required to work in conjunction with Local Housing Authorities, Social Landlords, criminal justice agencies, healthcare organisations and other relevant partner agencies.
- 1.7. Services commissioned by KCC will focus on improving lives by ensuring every pound spent in Kent is delivering better outcomes for Kent's residents, communities and businesses.
- 1.8. The commissioning partnership reserves the right to review the content and detail of the Service Specification on an annual basis to take account of changes in national policy, priorities and funding. This agreement does not prevent either of us entering into other agreements or contracts for specific negotiated services.

## 2. Service Outcomes

- 2.1. The Service Provider will work in partnership to contribute towards the following outcomes and will consider all opportunities to enhance the aims of the service outcomes:
- 2.2. To support victims of domestic abuse in coping with the immediate aftermath of abuse and empower them to recover from the long term affects of that abuse, with consideration to;
  - 2.1.1 Mental and Physical Health
  - 2.1.2 Shelter and Accommodation
  - 2.1.3 Family, friends and children
  - 2.1.4 Education, skills and employment
  - 2.1.5 Drugs and alcohol
  - 2.1.6 Finances and benefits
  - 2.1.7 Outlook and attitudes

#### 2.1.8 Social interactions

- 2.3. Improved capacity to establish and maintain independent living.
- 2.4. A reduction in the need for interventions by Families and Social Care Services.
- 2.5. A reduction in level of harm caused by domestic abuse
- 2.6. A reduction in homelessness/repeat homelessness and placement in temporary/emergency accommodation amongst people at risk of Domestic Abuse in Kent.
- 2.7. Effective promotion of the wider impact of domestic abuse.

### 3 Service Objectives

- 3.1 The Service Provider will deliver efficient and effective interventions that meet the needs of service users and contribute to the service outcomes outlined above. The service must be closely integrated with other local services and support networks for children, adults and local communities. In doing this the service must work to:
  - 3.1.1 Reduce the risk of harm posed to victims of domestic abuse in Kent and Medway
  - 3.1.2 Support and enable service users to reduce their dependency on statutory services, by acquiring independent living skills and improving self-reliance,
  - 3.1.3 Empower service users to get the most out of services, maximise opportunities and support their re-integration into local communities,
  - 3.1.4 Provide a seamless journey of support for all service users,
  - 3.1.5 Work closely with Social Care, Health and Wellbeing Services and healthcare services (such as Mental Health Service, Health Visitors, Children's Centres) to enable service users to improve their physical and mental wellbeing, and improve personal, social and family functioning,
  - 3.1.6 Work in partnership with a range of local voluntary and community sector (VCS) organisations to deliver required outcomes in each locality,
  - 3.1.7 Provide a safe and supportive environment for service users which is sensitive, non-judgemental and non-oppressive.
  - 3.1.8 Promote, establish and maintain clear and effective pathways to access appropriate support groups and supplementary services and ensure suitable access for those who need them, especially vulnerable groups and / or individuals,
  - 3.1.9 Build links with local primary care services, health and social care professionals to ensure clear referral pathways,
  - 3.1.10 Assess the needs and safety of children living with service users and provide access to appropriate support, working to enhance parenting practice and improve outcomes for families.
  - 3.1.11 Establish and maintain professional and appropriate working relationships with Local Housing Authorities, Registered Social Landlords, providers of private accommodation, training and education providers, DWP and Job Centre Plus, and other appropriate services
  - 3.1.12 Support and promote the use of peer networks at all stages of service delivery and following move on, to promote capacity building
  - 3.1.13 Implement effective practices and integrated approaches to safeguard vulnerable adults in line with the Care Act 2015,

- 3.1.14 Promote stable lifestyles, community cohesion, social inclusion, and physical and mental wellbeing,
- 3.1.15 To meet the needs of 'hard to reach' groups, including, but not limited to those from LGBT communities, male victims, those from Minority Ethnic Communities and gypsy travellers.
- 3.1.16 To galvanise and develop a co-ordinated community response, forging links with organisations outside of those traditionally working with survivors of domestic abuse to progress wider education and awareness, and reintegration of service users into local communities and workplaces

#### 4. Referral and Assessment

- 4.1 Referrals should be accepted from a wide range of sources including but not limited to the Police and Criminal Justice services, Local Housing Departments, Families and Social Care, Health Services, and service users themselves.
- 4.2 The Service Provider must undertake an appropriate level of screening for the service and will assess and manage risk when accepting referrals.
- 4.3 The comprehensive assessment will:
  - 4.3.1 Undertake a full and appropriate risk assessment, which includes risk of self-harm and harm to others, and implement measures to reduce risk and increase safety,
  - 4.3.2 Identify the service users' immediate and long term needs and goals,
  - 4.3.3 Identify relevant family issues that may have an impact on the ability of the service user to establish and maintain independent living,
  - 4.3.4 Establish which other agencies are involved with the service user,
  - 4.3.5 Establish whether any risk management plans are currently in place, and ensure that all management plans are complementary,
  - 4.3.6 Identify any need for and make referrals to other services (e.g. mental health, counselling or sexual health services),
  - 4.3.7 Ensure that the service user has read and understood how information about them will be handled and shared,
  - 4.3.8 Recognise and build on existing skills and networks

#### 5. Support Planning and review

- 5.1 The service provider must work with the service user (and other parties as necessary) to develop and agree a support and risk management plan on the basis of the comprehensive assessment.
- 5.2 At the support planning stage, service users must receive sufficient, proportionate information, which may include:
  - 5.2.1 Details about the service,
  - 5.2.2 Details of service user involvement, peer support and carer support,
  - 5.2.3 General expectations,
  - 5.2.4 Code of conduct,
  - 5.2.5 Policies and protocols regarding suspension or exclusion from support, including eviction for the accommodation based elements of the service,



- 5.2.6 Health and Safety,
  - 5.2.7 Support Planning and Risk Assessment,
  - 5.2.8 Safety Planning,
  - 5.2.9 Safeguarding,
  - 5.2.10 Move on options and planning (for accommodation based elements),
  - 5.2.11 Emergency Procedures,
  - 5.2.12 Summary of clients goals and the activities that will be undertaken to enable the service user to achieve them,
  - 5.2.13 The complaints procedure
- 5.3 The Service Provider must ensure suitable and appropriate support is in place for all service users, and that needs are reviewed throughout the duration of support.

## 6. Interventions/ Support Packages

- 6.1 In working towards delivering the service outcomes and aims, the service must, as a minimum offer the following support options, with appropriate involvement of local partners:
- 6.1.1 Flexible support provision which responds in a timely fashion to the changing needs of service users and their families,
  - 6.1.2 A holistic triage and assessment service, in collaboration with other Kent and Medway agencies, to identify risk and support needs and divert service users to the appropriate elements of the service,
  - 6.1.3 Appropriate, tailored support to meet the needs of 'hard to reach' groups, including, but not limited to those from LGBT communities, male victims, those from Minority Ethnic Communities and gypsy travellers, including the provision of safe accommodation as required,
  - 6.1.4 Through partnership working, delivery of outreach support to domestic victims residing in the community,
  - 6.1.5 To provide coordinated, suitable access points in local communities across Kent to facilitate access to information and support
  - 6.1.6 The availability of qualified IDVAs to support high risk Domestic Abuse victims
  - 6.1.7 Working with local partnerships, delivery and facilitation of therapeutic and supportive activities to promote independence and future healthy relationships
  - 6.1.8 Clear links and referral pathways to specialist support services for children and young people affected by, or at risk of, domestic abuse
  - 6.1.9 Through partnership working, access to a Sanctuary Scheme to facilitate greater safety for service users choosing to remain in their accommodation
  - 6.1.10 Support for victims and their children in a variety of accommodation settings, based across the County to include refuge and 'safe' accommodation,
  - 6.1.11 A Private Sector Rented Access Scheme (to incorporate deposits, bonds and guarantees as appropriate) predominantly to support people moving on from refuge accommodation to obtain suitable move on accommodation,
  - 6.1.12 Resettlement provision to support people moving on from refuge and temporary accommodation,

6.1.13 Innovative social marketing campaigns and activities to raise awareness of domestic abuse issues within the wider community

6.1.14 Contribute towards the Kent and Medway Domestic Abuse Training Programme

## 7. Eligibility Criteria

7.1 The service is open to residents of Kent aged 16 and over, and their families, or those moving to Kent to flee violence and abuse.

7.2 In exceptional circumstances, and with the support of Social Care agencies, support may be offered to clients under the age of 16

## 8. Priority Groups

8.1 In cases where a waiting list to access the service is operating, it should be managed based on the level of need of the service user, and the risk that they are facing. Waiting lists should not be managed based on the length of time a service user has been waiting.

8.2 When service users are on a waiting list it is the service provider's responsibility to fully assess the risks that they are exposed to and devise a comprehensive safety plan.

8.3 Regular contact with service users on the waiting list must be maintained to monitor changing levels of risk, and facilitate access to alternative, interim services.

## 9. Exclusions

9.1 It is expected that this service will support clients with substance misuse, mental health and offending backgrounds, but in instances where the level of risk and/ or need is deemed to be too high to manage by the service in isolation, the service user should be supported to access more appropriate specialist support, by working in partnership with other service providers.

9.2 The service is not expected to routinely support clients with no recourse to public funds, particularly in refuge accommodation, although each case should be considered on its individual merits.

## 10. Exit

10.1 Exit from the service should be planned, with levels of support reduced gradually until clients are able to live independently. In cases where additional support is required following cessation of the service, the support provider should facilitate links with appropriate agencies and support the service user to access these.

## 11. Settings

11.1 The Service will be delivered in locations that are accessible to service users resident in Kent and will demonstrate a balance of provision to meet local need. This will include provision for outlying areas.

11.2 The Service will utilise existing refuge settings,

- 11.3 The Service will operate during evenings, weekends and bank holidays where demand necessitates.
- 11.4 The Service Provider shall endeavour to ensure that a range of other suitable community settings are used for improved access and engagement.
- 11.5 Delivery of services, and settings used must take into account the differing needs of less represented groups within the sector such as male victims, LGBT victims and gypsy/ traveller victims.

## 12. Equality, Diversity and Accessibility.

- 12.1 All service users, irrespective of age, disability, gender, gender identity, race, religion or belief, sexual orientation, pregnancy and maternity, marriage and civil partnerships should be able to secure access to the same services as the rest of the population.
- 12.2 In the delivery of any services commissioned on behalf of KCC, Service Providers must demonstrate awareness and be responsive to the accessibility and needs of groups described above either in or attempting to access services.
- 12.3 Accessibility relates to (but is not limited to); physical and mental impairment, communication needs, those with a hearing or sight impairment, translation / interpretation if English is not a first language, the expectation with regards to acceptance of individuals defined under gender identification and respect of faith and beliefs.
- 12.4 The Equality Act 2010 replaces the Disability Discrimination Act 1995 (reviewed 2005). Proof of compliance will be required in the form of a current and up to date Access Audit with an action plan outlining any needs and how these will be addressed.
- 12.5 The Service Provider will be required to collect and submit equalities monitoring information on a quarterly basis. This will be used to ensure that all clients regardless of protective characteristics are accessing the service.
- 12.6 The Service Provider shall be required to complete an Equality Impact Assessment (EqIA) annually. The EqIA will cover these characteristics: Age, disability, gender, gender identity, race, religion or belief, sexual orientation, pregnancy and maternity, marriage and civil partnership which need to be assessed against delivery.

## 13. Reporting

- 13.1 To enable accurate and timely reporting to the Commissioner, the Service Provider must ensure that all relevant output and outcome data is recorded and submitted. The Service Provider must ensure that the relevant information complies with requirements for submissions.
- 13.2 Meets the specified data quality standards.
- 13.3 The Service Provider must ensure prompt reporting of activity.

## 14. Service Development

- 14.1 This service will be expected to respond in a timely fashion to changing developments in the sector, evolving to deliver innovative and effective interventions in line with evidenced best practice.

- 14.2 Internal performance reporting must be robust, and able to identify changing demands and needs, with available interventions tailored to meet the needs of the local community.
- 14.3 Changes to the service delivered should be instigated through consultation and collaboration with commissioners, local partners, stakeholders and service users.

#### 15. Service Delivery Standards

- 15.1 The needs of service users and risks are assessed on a consistent and comprehensive basis prior to a service being offered, or very shortly afterwards as appropriate.
- 15.2 Needs/risk assessments and support/risk management plans are reviewed regularly.
- 15.3 Needs and risk assessment, packages of support and reviews involve service users and take full account of their views.
- 15.4 Staff carrying out needs and risk assessments are competent to do so.
- 15.5 There is a health and safety policy which is in accordance with current legislation.
- 15.6 The service has a co-ordinated approach to assessing and managing security, health and safety risks that potentially affect all service users, staff and the wider community.
- 15.7 There are appropriate arrangements to enable service users to access help in crisis or emergency.
- 15.8 There are robust policies and procedures for safeguarding in accordance with current legislation, and staff are aware of policies regarding safeguarding and have an understanding of abuse.
- 15.9 Staff are made aware of and understand their professional boundaries.
- 15.10 The service is committed to participating in a multi-agency approach to safeguarding.
- 15.11 Fair access, fair exit, diversity and inclusion are embedded within the culture of the service.
- 15.12 The assessment and allocations processes ensure fair access to the service.
- 15.13 There is a commitment to ensuring fair exit from the service.
- 15.14 Service users are consulted on changes which affect the service they will receive.
- 15.15 Service users are encouraged to participate in the wider community.
- 15.16 There is a written complaints policy and procedure that is linked to service development.
- 15.17 Through partnership working, the service will be outward looking, reaching out to the wider community to embed the support of domestic abuse victims across all areas of the local community, including community groups, local enterprise and businesses.
- 15.18 The service will focus on building self-reliance and resilience within service users, moving away from a culture of dependence.

## 16. Policies and procedures

16.1 The Service Provider must have in place suitable and appropriate policies, procedures and protocols covering the following areas:

- 16.1.1 Domestic Abuse Workplace Policy,
- 16.1.2 Safeguarding children,
- 16.1.3 Safeguarding adults,
- 16.1.4 Complaints and Grievances (staff and service users),
- 16.1.5 Service user and carer complaints,
- 16.1.6 Equalities and Diversity,
- 16.1.7 Business continuity and emergency planning,
- 16.1.8 Health and Safety,
- 16.1.9 Induction and Training,
- 16.1.10 Recruitment and Selection,
- 16.1.11 Disciplinary / Capability (staff),
- 16.1.12 Data Protection, Confidentiality and Information Security,
- 16.1.13 Serious Incidents,
- 16.1.14 Workforce supervision, appraisal and/or performance management,
- 16.1.15 Peer support and volunteering (including handling of expenses for service users and carers),
- 16.1.16 Bullying and Harassment ,
- 16.1.17 Professional boundaries,
- 16.1.18 Risk assessment and risk management.

## 17. Mental Health

17.1 Service users with a mental health diagnosis often have multiple and complex needs, which require a comprehensive, coordinated, seamless, multi-agency response.

17.2 Through partnership working, the Service Provider must:

- 17.2.1 Contribute to the development of clear pathways with mental health services to improve access to appropriate services for those identified with Mental health problems. In particular the service will develop robust joint working protocols with the Community Mental Health and Wellbeing Service.
- 17.2.2 Ensure staff have appropriate levels of training in mental health issues.

## 18. Substance Misuse:

18.1 Service users with substance misuse problems may present with multiple and complex needs. These clients require a multi-agency response with joint working between substance misuse treatment agencies to coordinate support.

## 19. Healthcare Services

- 19.1 Service users may present with other healthcare needs which require support from healthcare services. Often this will need a coordinated response. Working in partnership, the Service Provider must contribute to the development of clear pathways with healthcare services to improve access to appropriate services for those identified with other healthcare needs.

## 20. Access to Information and Confidentiality

- 20.1 The Service Provider must comply with the Kent and Medway Information Sharing Agreement and the Data Protection Act 1998.
- 20.2 Information collected and recorded by the Service Provider (or sub-contractors) in regard to service users who engage with the service will be made available to commissioners in line with the Kent and Medway Information Sharing Agreement.
- 20.3 Commissioners will make anonymous any data and information gained as a result of this access. Any information obtained is for the sole purpose of informing the continued development and improvement of commissioned services.

## 21. Partnership Working

- 21.1 The service provider is expected to contribute towards domestic abuse partnership agendas, including involvement in County and Local domestic abuse groups.
- 21.2 The service provider is expected to work in partnership with the full range of suitable organisations to deliver the outcomes required within this specification, co-ordinating partners to eliminate duplication and gaps in service provision.
- 21.3 Representatives from the Service Provider are expected to attend relevant establishment and/or partnership meetings to improve the effectiveness of the service.
- 21.4 The Service Provider will be required to work in close collaboration with any persons appointed by commissioners to undertake an evaluation of the Service.

## 22. Sub-Contracting Arrangements

- 22.1 Sub-contracting and partnership arrangements are actively encouraged within this contract, with the service provider taking responsibility for managing performance of sub contractors, and for ensuring that the delivery network has the flexibility to respond effectively to fluctuations in demand.
- 22.2 The Service Provider must ensure the effectiveness and efficiency of the service and will remain accountable for all services whether provided directly or sub-contracted to other providers.
- 22.3 The Service Provider must ensure that any sub-contractors have the necessary registrations and licences needed to provide regulated interventions and comply with the specification.

## 23. Capacity or Service Delivery Issues

- 23.1 The Service will be required to ensure that there are appropriate staffing arrangements in place to deliver the service.

- 23.2 The Service Provider will alert commissioners to any capacity or service delivery issues in a timely and appropriate way.
- 23.3 The Service Provider must inform KCC of any urgent issues that arise and will work with the commissioning partnership to agree and implement solutions as necessary. This may include the rerouting of resources as necessary.

#### 24. Serious Incidents

- 24.1 Serious incidents requiring investigation are:
- 24.1.1 Unexpected or avoidable death of one or more service users and their dependants or staff or visitors.
  - 24.1.2 Serious harm to one or more service users or staff, visitors or members of the public where the outcome requires life-saving intervention, major surgical/medical intervention, permanent harm or will shorten life expectancy or result in prolonged pain or psychological harm.
  - 24.1.3 A scenario that prevents or threatens to prevent the Service Provider's ability to continue to deliver this service, for example, actual or potential loss of personal/organisational information, damage to property, reputation or the environment, or IT failure.
  - 24.1.4 Allegations of abuse.
  - 24.1.5 Adverse media coverage or public concern about the organisation.
  - 24.1.6 Serious incidents involving controlled drugs.
  - 24.1.7 Breach of information security.
  - 24.1.8 Breach of professional standards.
- 24.2 The Service Provider must ensure that serious incidents are reported to KCC, using the relevant reporting mechanism.
- 24.3 Serious incidents should also be reported to KCC via email.
- 24.4 The Service Provider must attend any relevant Serious Incident meetings as required by the commissioning partnership. The outcome of Serious Incident investigations should inform agency improvement programmes if they are highlighted and evidence of these improvements should be provided.

#### 25. Safeguarding

- 25.1 The Service Provider must comply with the requirements of the Care Act 2015, associated regulations and guidance, taking appropriate action.
- 25.2 The Service will have policies and procedures in place to deal with Safeguarding issues. The policies and procedures safeguard service users from any form of abuse or exploitation and staff will be familiar with and follow these procedures.
- 25.3 The service will comply with the requirement of the Kent and Medway Multi-agency Safeguarding Adults Policy, Protocols and Guidance, and the Kent and Medway Safeguarding Children Policy.
- 25.4 When any Safeguarding issue is suspected the Provider will immediately notify KCC of relevant actions or decisions.

## 26. Service User and Public Involvement

- 26.1 Service User involvement is integral to the development and delivery of the service. The service provider is expected to ensure that service users have meaningful opportunity to contribute to service development.
- 26.2 Service users must be consulted if changes to the service are proposed. The service provider must ensure that service users are supported to participate in any remote consultations conducted.

## 27. Workforce Development

- 27.1 Developing a competent workforce is crucial to ensuring a high standard of service delivery for service users.
- 27.2 The Service Provider will be able to demonstrate that an appropriate level of funding is allocated to the training and development of staff at all grades, including managers.
- 27.3 The Service Provider will have a Workforce Development Strategy in place. This must include:
  - 27.3.1 Trainee protocols to ensure:
    - 27.3.1.1 All trainees are fully competent within two years.
    - 27.3.1.2 No trainee works with service users until fully competent to manage the support needs of the individual concerned.
  - 27.3.2 An annual Training Needs Analysis and actions plans to ensure:
    - 27.3.2.1 All workers and their line-managers are competent.
    - 27.3.2.2 Continuous professional development of the workforce.
    - 27.3.2.3 All workers and their line-managers have completed, or are undertaking, a training course regarding child protection that is consistent with the Kent and Medway multi agency procedures and any new guidance or legislation that may be introduced. This must be undertaken as a minimum biannually.
    - 27.3.2.4 All line-managers have completed, or are undertaking, a training course in line-management.
    - 27.3.2.5 All workers and their line managers are competent in the requirements of working with adolescents
    - 27.3.2.6 All workers and their line managers are competent in the requirements of the Kent and Medway Information Sharing Agreement.
- 27.4 The Service Provider must record evidence of competence of all staff employed. This must include core generic competence to work with adults and/or children & young people (depending on their client group).
- 27.5 The service will employ appropriately trained and qualified staff, with sufficient expertise in domestic abuse, mental health, substance misuse and family work.
- 27.6 Qualified IDVAs must be employed as part of this service.



## 28. Workforce Compliance

- 28.1 The Service Provider will be required to submit workforce statistics and evidence of workforce competence to KCC on request.

## 29. Workforce Recruitment

- 29.1 During recruitment all job descriptions, person specifications and recruitment processes will be expressed in line with relevant legislation and guidance.

## 30. Communications

- 30.1 The Service Provider must have in place a comprehensive communications plan and structure. It should include, but is not limited to:
- 30.1.1 Proactive communications.
  - 30.1.2 Quick and effective responses to media enquiries, of which commissioners must be informed and kept up to date at all times.
  - 30.1.3 Innovative and appropriate communications activity to effectively engage service users.
  - 30.1.4 Regular communications with partners regarding ongoing support provision and access to services.
- 30.2 The Service Provider is expected to participate in local Public Health activities, campaigns and initiatives such as sexual health campaigns etc.

## 31. Environment and Sustainability

- 31.1 The service should seek to operate in an environmentally sustainable way and minimise any adverse environmental impact it causes.
- 31.2 The Service Provider is expected to be prepared for changing climate and should have in place a robust environmental policy and risk based approach that covers the climate impact.

## 32. Business Continuity and Emergency Planning

- 32.1 The Service Provider must have comprehensive and adequately tested business continuity plans in place in order to ensure continuation of critical services in the event of severe weather, adverse event or major service disruption.

### 33. Performance Management Overview

- 33.1 The Service Provider must performance manage the service effectively in order to ensure that it meets the required standards, delivers the necessary outputs and contributes to the required service outcomes.
- 33.2 KCC will make payments for the service one month in arrears subject to satisfactory performance.
- 33.3 The Provider is required to submit Performance Indicator returns in the prescribed format quarterly within fourteen days of the quarter period end.
- 33.4 Performance Management Meetings will take place on a quarterly basis, during which outputs, outcomes and key themes will be explored.

### 34. Performance Monitoring

- 34.1 Performance in delivering the service outputs and outcomes will be measured by;
  - 34.1.1 Activity and performance monitoring data submitted by the Service Provider.
  - 34.1.2 Unit costing data and value for money information.
  - 34.1.3 Feedback from service users, carers and other stakeholders including complaints, comments, compliments, survey information.
  - 34.1.4 Attainment of prescribed quality standards.
  - 34.1.5 Achievement against outcome standards
- 34.2 The Provider will adhere to the performance targets set by the commissioners.
- 34.3 The Provider will work collaboratively with other agencies and partnerships and actively coordinate the wider contribution to both operational and strategic targets and outcomes.
- 34.4 It is envisaged that the Service shall be subject to formal evaluation through Service Review visits before the contract end date. Such visits may be planned or unannounced and will assess the service against performance targets.

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<b>Subject:</b>	<b>PERFORMANCE REPORT – QUARTER 1, 2016/17</b>
<b>Meeting and Date:</b>	<b>Cabinet – 5 September 2016</b> <b>Scrutiny (Policy and Performance) Committee – 13 September 2016</b>
<b>Report of:</b>	<b>David Randall, Director of Governance</b>
<b>Portfolio Holder:</b>	<b>Councillor Mike Conolly, Portfolio Holder for Corporate Resources and Performance</b>
<b>Decision Type:</b>	<b>Executive Non-Key Decision</b>
<b>Classification:</b>	<b>Unrestricted</b>

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<b>Purpose of the report:</b>	To monitor performance against key objectives
<b>Recommendation:</b>	The Council's Performance Report and Actions for the 1st Quarter 2016/17 be noted

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## 1. **Summary**

The Council's Performance Report for the 1st Quarter 2016/17 reports on performance against key performance targets throughout the Council, East Kent Shared Services and East Kent Housing during the first quarter. It incorporates comments from each Director on performance within their directorate plus any key initiatives and concerns they may have.

## 2. **Introduction and Background**

- 2.1 Monitoring of performance against key targets is key to the achievement of the Council's aims and objectives. The Performance Report provides a summary of the Council's key performance figures for the three months to 30 June 2016.
- 2.2 The Performance Report contains information relating to the performance of the Council against key corporate indicators and considers the performance of a range of indicators against previous year's performance.
- 2.3 The Performance Report identifies areas where performance is on track throughout the first quarter of 2016/17, whilst recognising the need for further improvements in some areas. Each Director provides additional commentary focussing on areas of high or low performance.
- 2.4 The number of households staying in temporary accommodation has increased gradually each quarter during the previous financial year and is continuing into this financial year with an additional 6 households on the previous quarter. Of these households 73% are in bed and breakfast accommodation.
- 2.5 A section is included to show performance within the Shared Services against key indicators. A more comprehensive set of indicators for EK Services and East Kent Housing are monitored through the monitoring structures established by the Agreements under which those services are delivered, with any areas of significant concern being capable of escalation into this quarterly monitoring report, if required.

3. **Identification of Options**

3.1 Not applicable.

4. **Resource Implications**

4.1 None.

5. **Corporate Implications**

5.1 Comment from the Section 151 Officer: Finance has been consulted and has nothing further to add. (HL)

5.2 Comment from the Solicitor to the Council: The Head of Legal Services has been consulted during the preparation of this report and has no further comment to make.

5.3 Comment from the Equalities Officer: This report does not specifically highlight any equalities implications however, in discharging their responsibilities, Members are required to comply with the public sector duty as set out in section 149 of the Equality Act 2010 <http://www.legislation.gov.uk/ukpga/2010/15>

6. **Appendices**

Appendix 1 – Q1 Performance Report

7. **Background Papers**

None.

Contact Officer: Colin Cook, Head of Corporate Services

# Dover District Council Performance Report

## For the Quarter Ending – 30 June 2016

### Introduction

- Summary of Performance Indicators

### KEY

▲	Improved performance
►	Maintained performance
▼	Decline in performance

Status	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Direction of Travel to previous Qtr
	No.	%	No.	%	No.	%	No.	%	
Green	22	65%							▼
Amber	5	15%							▲
Red	7	20%							▼
Total	34	100%							

### Shared Services Performance

#### EK Services

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr where applicable	Direction of Travel to previous Qtr	RAG Status
<b>ICT</b>											
EKS01d	Percentage of incidents resolved within agreed target response time - ICT	99%	95%	96%				96%		▼	Green
EKS02d	Percentage of Service Desk calls resolved within one day	65%	65%	69%				69%		▲	Green

## EK Services

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr where applicable	Direction of Travel to previous Qtr	RAG Status
EKS04d	Percentage availability of email service	100%	97.50%	100%				100%		▶	Green
EKS24d.1	Percentage availability of Finance system	100%	95%	100%				100%		▶	Green
EKS24d.2	Percentage availability of Anite/Housing System	100%	95%	100%				100%		▶	Green

## Customer Services

EKS026d	Average call waiting time in minutes	46 seconds	75 seconds	71 seconds				71 seconds		▼	Green
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## Council Tax

EKS18d	The percentage of council taxes due for the financial year which were received in year by the authority.	97.92%	97.65%	29.43%				29.43%		▶	Green
		£54,966,428	N/A	£17,358,815				£17,358,815		N/A	N/A

## Business Rates

EKS19d	Total Business Rates collectable per NNDR1	99.31%	Information only	32.23%				32.23%		N/A	N/A
EKS50d	Total Business Rates Invoiced	£34,437,527	Information only	£8,934,677				£8,934,677		N/A	N/A

## EK Services

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr where applicable	Direction of Travel to previous Qtr	RAG Status
<b>Benefits</b>											
EKS13d	Pay benefit quickly	5.57 days	9 days	6.60 days				6.60 days		▼	Green
EKS14d	Percentage of correct Housing Benefit & Council Tax Benefit decisions	95.88%	94.00%	96.59%				96.59%		▶	Green
EKS51d	Households affected by reductions in Housing Benefit	520	Information only	519				519		N/A	N/A

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## EK Services Director's Comments

### Performance:

There are no major concerns to flag up as we reach end of Q1. A couple of points to note are:

- A number of ICT and Customer Service targets are trending slightly lower (worse) than the same time last year, these include ICT incidents and average call waiting time but they are still within the overall target and reflect the expected impact of resource constraints as we seek to deliver £1m of savings in year. We continue to explore ways to maintain and indeed improve service whilst delivering cost reduction.
- Collection rates for Council Tax are very slightly below the level we were at last year (29.43% v 29.56% in Q1 2015/16) which equates to circa £73k and we have no concerns at present that we will catch up. Contrasting this is the collection of Business Rates, which is slightly above the same period last year (32.23% v 31.84% in Q1 2015/16) which equates to circa £135k. However, one should not set too much store by these statistics as the collection rates data is complex and therefore it should only be used as a check and balance to identify any serious concerns, for which there are none at present from my own perspective.

## EK Services

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr where applicable	Direction of Travel to previous Qtr	RAG Status
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### Key Initiatives/Outcomes:

Progress on Digital and work to deliver in year improvements within the EKS high volume transactional areas such as Revenues & Benefits is going well. The aim is to create a better end to end process from a customer engaging with the Council (such as Benefits claim transaction, as an example) and then allowing that transaction to be processed swiftly through to the relevant person who can add 'human value' in the decision making and then finally dropping the transaction into the relevant back office system, cutting out manual processes and paperwork where possible along the way. The aim is also to deliver improved customer experience by keeping the person updated on the transaction in an automated manner and making their life 'easier' by having easier log on and authentication only where needed. This also links closely with the need to review how we deliver customer services to the citizen and the drive towards more online and self-serve where possible, smarter use of telephone contact and less face to face, all of which will be subject to a wider discussion and debate with Council Officers and Councillors in due course

### Concerns/Risks:

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As flagged at the end of year performance report, the key risk is the increasing likelihood of service delivery standards and performance dropping as I hold vacancies and reduce capacity in order to deliver against the challenging savings targets set for this year. Moving forward, as further savings are required, whilst Digitisation has a major role to play, it also means that service levels and organisational change will be required to deliver such savings, which will require council decision making at officer and elected member levels in due course.



## EK Housing

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr (where applicable)	Direction of Travel to previous Qtr	RAG Status
EKHL1	Average time taken to re-let council dwellings	13.08 days	15 days	14.5 days				17.33 days		▼	Green
EKHC2	Rent arrears as % of annual debit	1.15%	1.40%	1.33%				1.33%		▼	Green
EKHD1	Total current residential arrears (including court costs)	£234,031	N/A	£267,677				£267,677		▼	N/A
EKHD2	Average current tenant arrears per rented unit	£53.90	N/A	£57.37				£57.37		▼	N/A
EKHM1	Percentage of total responsive jobs completed on time	94.16%	95%	98.72%				98.72%		▲	Green
EKHD3	Total former tenant arrears (including court costs)	£91,595	£101,000	£92,372				£92,372		▼	Green
EKHD4	Amount of former tenant arrears written off	£72,851	N/A	£11,336				£11,336		▲	N/A
EKHM5	Percentage of properties with a valid gas safety certification	99.9%	100%	99.90%				99.90%	4661 of 4666 properties	▶	Amber

### East Kent Housing Director's Comments:

#### Performance:

Rent arrears performance for the quarter is good, with all indicators performing within target:

- Total current residential arrears is also £4,072 lower than at Qtr 1 last year.
- Arrears as a percentage of the annual debit(1.33%) is the same as Qtr 1 last year

## EK Housing

At the end of quarter 1 there were 4 properties without a valid Landlord Gas Safety Record (LGSR). These were all the consequence of access issues. Formal notice had been given to the occupiers that access to complete work would be made and a valid Landlord Gas Safety record is now in place for each. At 12 August 2016 all DDC properties have a current Landlord Gas Safety Record.

EKH have recently restructured the asset management team and a new Compliance Manager has been appointed. More emphasis will be placed upon identifying earlier the most vulnerable tenants (where access may be an issue) and allowing a longer lead in period before the current certificate expires.

### **Key Initiatives/Outcomes:**

Nothing to report for Q1

### **Concerns/Risks**

Nothing to report for Q1

5

## Finance, Housing & Community

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr (where applicable)	Direction of Travel to previous Qtr	RAG Status
ACC004	Percentage of invoices paid on time	97.74%	96%	97.95%				97.95%		▲	Green
HOU010a	Number of households living in Temporary Accommodation including B&B	53	50	59				59		▼	Red
HOU010b	Number of households in bed and breakfast (The data provided in HOU010a and b shows the number of households on the last day of the quarter.)	35	25	43				43		▼	Red
PSH006	Number of DFG applicants waiting more than a year for a grant offer	0	0	0				0		▶	Green
PSH007	Number of DFG applications completed	84	90	11				11		▼	Red
HOU005	The number of households presenting as homeless	243	N/A	66				66		N/A	N/A
HOU011	The number of households presenting as homeless where a duty to re-house is accepted	124	N/A	36				36		▼	N/A
HOU012	The number of children in B&B and temporary accommodation (TA)	New 2016/17	N/A	13 (B&B)				13 (B&B)		N/A	N/A
				46 (TA)				46 (TA)			

## Performance Summary – General Fund, HRA and Capital

### Performance:

#### General Fund Revenue Budget

- The comments below relate to the General Fund at 30<sup>th</sup> June 2016. The final figures for 2015/16 are being audited and are subject to change.
- The General Fund is projecting a surplus of £56k, compared to a budgeted break-even position, as shown in the table below.
- There is a favourable variance of £56k on Enterprise Zone relief grant receivable, representing the additional income relating to 2015/16 above that anticipated in Dover's original budget for that year, which can only be recognised in 2016/17 under legislation. This has been transferred to the Business Rates & Council Tax Reserve.
- Management Fees from East Kent Services have reduced by an additional £49k above the £125k target saving.
- Following the Brexit decision interest rates achievable on deposits have been reducing since June. The investment income will be reviewed in the next quarter to determine any impact on the interest receivable projections. No reduction is included in the June budget monitoring report.
- With uncertainty in the financial markets and deposit rates for six months duration as low as 0.44%, it is considered our best option to focus on security and keep our funds with familiar banks and building societies, rather than diversifying into unknown institutions, as any additional risk to achieve marginally better rates of return at such low rates is considered imprudent.
- A backlog of unresolved business rates appeals with VOA make the final figures for 2016/17 and future years volatile, difficult to predict and subject to change, with ongoing business rates income subject to erosion by successful appeals. Allowance has been made for erosion of income by appeals in the Business Rates projections, alongside a specific provision against the backdating of successful appeals totalling £2.8m. This is expected to be offset by increases in income from new businesses. A 'Business Rates & Council Tax' reserve has been established to help smooth out the impact of timing and changes in business rates income being recognised.
- The variances arising in the first quarter do not indicate any specific need for management action at this stage, but will feed into the next cycle of planning and budgeting that begins with the revision of the Medium Term Financial Plan that starts in September.
- In addition, Members will note that General Fund balances are projected to be maintained at about £2.6m, which is above the forecast of £2.5m for 2016/17 in the Medium Term Financial Plan 2016/17–2019/20 approved by Council on 2<sup>nd</sup> March 2016.

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<b>General Fund Budget Summary (30<sup>th</sup> June 2016)</b>	
	<b>£000</b>
<b>Original budget surplus</b>	<b>0</b>
Supplementary Approval	0
Budget variations	(56)
<b>Projected budget surplus</b>	<b>(56)</b>
Balances Brought Forward	(2,995)
	450
<b>Projected Year End Balances</b>	<b>(2,601)</b>

The main variances in the General Fund budget are shown below:

<b>General Fund Budget Variances (30<sup>th</sup> June 2016) - cumulative</b>	<b>Variance £000</b>
Enterprise Zone Relief - additional grant from 2015/16 recognised in 2016/17 under statutory provisions	(56)
Transfer of additional Enterprise Zone Relief grant to Business Rates & Council Tax Reserve to offset potential future pressures on business rates income	56
East Kent Services - additional management fees savings above the £125k target budgeted	(49)
Other net variances	7
<b>Total Variances - favourable</b>	<b>(56)</b>

### **Housing Revenue Account**

- The HRA balance as at 30<sup>th</sup> June 2016 is estimated at £1,034k, reflecting a reduction in the expected surplus for the year from £90k to £22k.
- The main variances are set out in the Housing Revenue Account Budget Variances table below.

Housing Revenue Account Budget Summary:

£	<b>Housing Revenue Account Budget (30<sup>th</sup> June 2016)</b>	<b>£000</b>
	<b>Original budget favourable</b>	<b>(90)</b>
	Budget variations - adverse	68
	<b>Projected budget favourable</b>	<b>(22)</b>
	Balances Brought Forward	(1,012)
	<b>Projected Year End Balances</b>	<b>(1,034)</b>

The main variances in the Housing Revenue Account budget are shown below:

<b>Housing Revenue Account Budget Variances (30<sup>th</sup> June 2016)</b>	<b>Total Variance £000</b>
Stock condition survey	50
HRA contribution towards payment card industry compliance and eFin system improvements.	17
Miscellaneous – Other sundry variances	1
<b>Total Variances - adverse</b>	<b>68</b>

## Medium Term Capital Programme

- Within the capital programme, all projects approved to proceed are fully financed, and there are no significant project overspends. Further details were provided in the budget monitoring report circulated to Members.

The main changes in the Medium Term Capital Programme are shown below:

	Current Year	Total Cost of Programme
	£000	£000
<b>Capital Budgets (30th June 2016)</b>		
2015/16 position as at 31st March 2016	15,429	62,803
<b>Changes made during Closing of the 2015/16 Accounts:-</b>		
Phasing changes	(3,829)	0
Decrease relating to projects that completed under budget ( including redevelopment of 12-14 Castle St, Dover)	(44)	(40)
Additional funding for existing projects (Kingsdown Timber Groyne Works - Environment Agency grant; Private Sector Housing/Renovation Loans - repayments received in 15/16; Disabled Facilities Grants – KCC Better Care funding)	226	797
Reduced Capital requirement for existing project following review (Up on the Downs project)	(24)	(24)
Reduction on HRA 15/16 requirement following review of actual expenditure on Property Projects during Closing of the Accounts	(388)	(388)
<b>2015/16 Final Position</b>	<b>11,370</b>	<b>63,148</b>
<b>2016/17 Opening Position</b>	<b>20,811</b>	<b>63,148</b>
15/16 expenditure deleted re DFGs, PSH/Renovation Loans and HRA Property projects following Closing of the 15/16 Accounts	0	(5,177)
Expenditure deleted relating to projects that completed in 15/16	0	(5,416)
Additional income for existing projects (including net income generated by regeneration sites for DTIZ)	51	51
New grant funded project added (Deal Beach – emergency beach recycling)	80	80
<b>Total Capital Programme – projected spend</b>	<b>20,942</b>	<b>52,686</b>

## Concerns/Risks:

- Business Rates Income is subject to on-going pressure from unresolved appeals and, from 2017/18, the unknown impact of the 2017 revaluation by VOA. Business rates income has been fully reviewed in the first quarter and, while slightly better than budget, remains volatile, and further adjustments may be required as the year progresses and further appeals are settled. Regeneration in Dover is progressing, but significant improvements in income are unlikely to be seen until 2017/18. In recent years, improvements in income from completed developments have been exceeded by the ongoing erosion of year-on-year income by appeals, including GPs surgeries, Tesco, Cable Link to Thanet Wind Farm, etc. While some provision for the prior year impact of such appeals has been made, the ongoing erosion is a concern, and remains hard to fully evaluate. A further dispute over back-dated rates chargeable to another significant customer may impact appeals and/or bad debt provisions, which is only partially provided for at the moment.
- DCLG have advised HRAs to decrease Housing rents by 1% in cash terms per annum for 4 years from 2016/17 – leading to circa 12% shortfall in rent against the HRA Business Plan by year 4 (est. £7m cumulative loss by 2019/20) and pressure to make significant HRA savings. Representations are being made to Central Government by the District Councils' Network to rethink their proposals.

## Key Initiatives/Outcomes:

The projected outturns for the General Fund, HRA and Capital Programme do not indicate the need for corrective action in 2016/17. The variances identified will be taken into account in work on the 2017/18 budget and MTFP.

Following confirmation of the £3m HLF funding, the team continue to progress the Parks for People project.

Homelessness presentations continue to stay at high levels. The team are working with partners to increase the level of alternatives to B&B accommodation.

**Note:** Please refer to the June 2016 Budget Monitoring Report for full details of the Capital, General Fund and HRA data in the tables above.

## Governance

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr (where applicable)	Direction of Travel to previous Qtr	RAG Status
GOV003	The number of second stage complaints referred to the Council's Complaints Officer	34	N/A	8				8		N/A	N/A
GOV004	The number of FOI requests received	1085	N/A	301				301		N/A	N/A
LIC006	The percentage of unopposed licensing and permit applications processed within 5 working days	94.25%	85%	96%				96%	255	▲	Green
LIC005	The percentage of licensed premises inspections completed by target date	72%	80%	55%				55%	11	▼	Red
ENH012	Number of Fixed Penalty Notices issued for litter	84	N/A	22				22		N/A	N/A
ENH015	Number of Fixed Penalty Notices issued for dog fouling	11	N/A	1				1		N/A	N/A
ENH016	Number of Envirocrime prosecutions completed	23	N/A	5				5		N/A	N/A
ENH013	Percentage of stray dog enquiries responded to within target time.	99.5%	95%	100%				100%	122	▲	Green
ENH005	Percentage of complaints regarding nuisance responded to within 5 working days	98.38%	95%	97.30 %				97.30%	222	▼	Green
GOV001	Number of working days/shifts lost due to sickness absence per FTE	7.09 days	N/A	1.80 days				1.80 days		▼	compare to Q1 2015/16
GOV002	Number of working days/shifts lost due to long term sickness absence over 10 days per FTE	2.61 days	N/A	1.13 days				1.13 days		▼	compare to Q1 2015/16



## Governance

### Governance Director's comments

#### Performance:

Staff within regulatory services continue to work diligently to provide a fair and consistent service that promotes public health and safety and this is clearly demonstrated by the PI's where there is, despite challenging resources, continued and encouraging performance in key areas.

The Enviro-crime Team have served numerous Fixed Penalty Notices including 22 for littering, which generated an income of £1350.00 this quarter, primarily for cigarette butts in the following areas:

Ward FPNs issued	No. of FPNs issued
Buckland	1
Castle	5
Eythorne & Shepherdswell	1
Little Stour & Ashstone	1
Maxton, Elms Vale & Priory	4
Mill Hill	1
St Radigunds	1
Tower Hamlets	2
Walmer	2
Whitfield	4

One Dog Fouling - Fixed Penalty Notice was also served and this activity continues to be a priority for the team who successfully completed 5 prosecutions within the period, with collective fines of £1587 and court costs of £900 awarded to DDC.

The Licensing Team has unfortunately experienced a significant level of staff sickness during this quarter, which has subsequently impacted negatively on one of the PI's (LIC005) *licensed premise inspections completed by the target date*. These inspections are not statutory and unfortunately there is no resilience within the team to cover non-mandatory duties, when staff are absent for unplanned periods of time. In such circumstances priority is placed on statutory functions and dealing with complaints and live situations etc. to ensure Public safety. Despite this the team did exceed PI LIC006 processing 96% of unopposed licensing and permit applications within 5 working days.

#### Key Initiatives/Outcomes:

During this period a further Child Sexual Exploitation Awareness training session was held for 43 taxi drivers bringing the current total of licensed drivers trained to 136. The training has been well received and will play an invaluable part in protecting the most vulnerable of our community.

## Governance

This quarter officers of the Public Protection Team have inspected an unprecedentedly high number of unsatisfactory food premises, resulting in 11 closures (2 Formal and 9 Voluntary). Of concern, 9 of the 11 premises were located in the Dover Town area and were concerning poor hygiene conditions and infestations (mouse, rat and cockroach). It is surmised that the increase in pest activity in this area is largely contributed by a warm, wet winter combined with poor practices and structural repair in low income, commercial premises.

Despite this, the Public Protection Team is extremely pleased to see an increase in the overall number of '5' rated premises and thus a decrease in those rated unsatisfactory. This demonstrates amongst other things, how the continued work of the team to raise awareness and educate food business operators on food safety matters is starting to impact positively on standards and ratings, which is especially encouraging for consumers. An increase in the overall standard of food premises and their ratings will inevitably improve trade and help to further develop and encourage people into our district to enjoy good food.

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NFHS Score	April 2012	April 2013	April 2014	January 2015	April 2015	April 2016
0	4 (0.6%)	2 (0.2%)	3 (0.3%)	2 (0.2%)	2 (0.2%)	1 (0.1%)
1	47 (7%)	27 (3%)	40 (4%)	37 (3.7%)	31 (3.1%)	20 (1.9%)
2	42 (6%)	39 (4%)	20 (2%)	18 (1.8%)	12 (1.2%)	10 (1.0%)
3	171 (26%)	180 (20%)	132 (13%)	122 (12%)	122 (12%)	99 (9.4%)
4	189 (29%)	248 (28%)	265 (27%)	267 (27%)	277 (28%)	251 (24%)
5	202 (31%)	390 (44%)	522 (53%)	547 (55%)	562(56%)	668 (64%)
Total % with rating of 3 or better	86%	92%	93%	94%	96%	97%
Total	655	886	982	993	1006	1049

### Concerns/Risks:

The Council's Public Protection team is starting to assess the implications of leaving the EU on its service. Once Article 50 is initiated and any revised import control's determined, the team will need to respond to the substantial change that is predicted, which will most likely result in the need for significant additional resources in terms of the provision of professionally qualified staff, training and equipment at the Port of Dover.

As already highlighted above, there has been a dramatic increase in pest activity within commercial premises. As a result the Public Protection team have sent a news bulletin to registered food premises with some helpful tips/guidance on what to look out for and do etc. This theme will be continued during their planned food forums for food businesses that will be held over the coming months. We continue to monitor the situation.

DDC Headcount Analysis			
Division	FTE @ 1 April 2016	(Leavers)/ Joiners/ Transfers	FTE @ 30 June 2016
Chief Executive	31.25	+1	32.25
Governance	43.40	0	43.40
Finance, Housing and Community	38.30	+0.11	38.41
Environment and Corporate Assets	73.80	+1	74.80
HR & Audit	26.50	+2.60	29.10
Total Staff FTE	<b>213.25</b>	<b>+4.71</b>	<b>217.96</b>

## Environment & Corporate Assets

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr (where applicable)	Direction of Travel to previous Qtr	RAG Status
<b>CSU001</b>	Percentage of ASB cases resolved within 30 days	93.28	95%	100%				100%	25	▲	Green
<b>PKG003</b>	Number of PCNS issued	11997	N/A	3716				3716		N/A	N/A
<b>MUS002</b>	The number of visits to the museum in person per 1,000 population	123.64	150	29.65				29.65		▼	Amber
<b>WAS003</b>	Number of collections missed per 100,000 collections of household waste.	13.84	15	17				17		▼	Amber
<b>WAS010</b>	Residual household waste per household	379.78 kg (Est)	390KG	387kg				387kg		▼	Green
<b>WAS011</b>	Household waste sent for reuse, recycling or composting	41.52% (Est)	45%	44%				44%		▲	Amber
<b>WAS012</b>	Environmental cleanliness: Percentage of streets containing litter	6%	5%	Measured at 4 month intervals				N/A		N/A	N/A
				N/A							
<b>WAS013</b>	Environmental cleanliness: Percentage of street containing detritus	9%	10%	Measured at 4 month intervals				N/A		N/A	N/A
				N/A							

### Environment & Corporate Assets Director's comments

#### Performance:

Performance against the measured indicators within service areas remains generally strong, with no significant areas of concern. It is worth noting that the residual waste per household performance is second only to Ashford in Kent, and the recycling performance is close to the average for Kent with recycling rates across the Districts ranging from 25.3% to 55.1% in Q3 (most recent data available).

## Environment & Corporate Assets

### Key Initiatives/Outcomes:

#### Community Safety, CCTV and Parking:

- A new Community Safety Partnership Officer, with specific responsibility for the Dover District Community Safety Partnership, has been recruited and is due to start her role on 1<sup>st</sup> July 2016.
- The Folkestone Road Hub continues to be well supported and attended. New premises in the community are now being used and we welcome the support of local people in providing this. We are also in discussion with a local charity on how to progress this project to give the community greater ownership of it.
- The CSU staff dealt with an additional 25 cases as well as supporting many others with advice and expertise. All were completed within the required 30 days.
- As part of the modernisation programme within Parking Services, the CEOs have been provided with more up-to-date Hand held Computers which has improved effectiveness and efficiency. Also, new parking software has been ordered and preparatory work for installation is taking place. This will improve the efficiency of the parking support service and eventually allow permit holders to apply on-line and in one transaction.
- The new Pay and Display machines have been ordered and installation is planned to start in late August..

#### Recycling, Waste and Street Cleansing

- Cleansing on the A2 and A20 was a major concern through the winter months; since then regular litter picking has been carried out under traffic management on the A20 and A2. Around 1 tonne of litter was removed from the A20 on the last cleanse and around 5 tonnes removed the time before.
- Pressure is being placed at a local and county level to ensure that work is coordinated through partnership working with Highways England and KCC Highways and access allowed when required to litter pick.
- A further cleanse is planned for October 2016.

#### Assets & Building Control

- Work on the Dover Maison Dieu HLF bid is progressing well, with a series of consultation events planned over the summer. Officers have met HLF grant officers and the bid is due to be submitted in December 2016.
- There has been much activity on the Dover Leisure Centre proposals with the completion of the Feasibility Study and extensive public consultation undertaken through July with 673 responses, showing broad support for the proposals.
- Following the termination of the contract with JC Decaux, the new operator Adspace2000 has been busy installing new bus shelters across the District.
- The Council's small housing scheme at Castle Street, Dover received an award as the Best Small New Housing Development at the 2016 South East Regional LABC Building Excellence Awards and was also a finalist in the Best Social or Affordable New Housing Development category. It has also been shortlisted as a finalist in the Structural Timber Awards in the Social Housing category. Congratulations are due to the Property Services staff who worked on the scheme.
- Design work has progressed well on the proposed adaptation and extension of the existing sheltered housing accommodation at Norman Tailyour House in Deal, and planning consent has now been granted.

## Environment & Corporate Assets

- Work is progressing well on implementing the proposals to in-source the Grounds Maintenance service from April 2017.

### Museums & Tourism

- The decision has been taken to offer free admission at Dover Museum from 1<sup>st</sup> August. This should have a significant impact on visitor numbers and will enhance the visitor offer within the town ahead of the opening of the St. James's development. This proposal has been supported by grant funding from Dover Town Council.
- The promotion of tourism in Dover town is being encouraged through a new partnership 'Destination Dover', which is a new body developed through the Big Local initiative, designed to leverage these unique assets to assist in promoting Dover as a destination for visitors. Recruitment processes have commenced to appoint a Destination Manager, who will be employed by Dover Town Council.

### Concerns/Risks:

Members will recognise that service areas are working under significant pressure in terms of staffing levels and capacity, with little resilience to deal with short term absence whilst the budget allocation for property maintenance work limits the scope for much needed enhancements. All of this is understood and accepted. The Council's recycling rate continues to plateau, which whilst this is in line with national and county statistics remains a concern. Whilst most material types collected are consistent the amount of waste thrown away has increased and the amount of food waste recycled in the district is dropping. To ensure that the food waste collection continues to provide a value for money service that is fully optimised by residents, a project plan is being put in place to look at increasing the amount of food waste captured in the district to try to ensure that the recycling rate for 2016/17 is met.

## Regeneration & Development

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr	Direction of Travel to previous Qtr	RAG Status
PLA002	Percentage of <b>major</b> planning applications determined in 13 weeks (exc. section 106 agreements) or within an agreed extension of time or Planning Performance Agreement	66%	60%	41%				41%	12	▼	Red
PLA003	Percentage of <b>minor</b> planning applications determined in 8 weeks (exc. section 106 agreements) or within an agreed extension of time or Planning Performance Agreement	69.43%	65%	61%				61%	72	▶	Amber
PLA004	Percentage of <b>other</b> planning applications determined in 8 weeks (exc. section 106 agreements) or within an agreed extension of time or Planning Performance Agreement	77.50%	80%	72%				72%	190	▼	Red
PLA001	The percentage of appeals against planning decisions which were successful for the applicant	13.50%	20%	42%				42%	7	▼	Red
PLA007 (new)	Number of new houses completed	51,531 <i>Base Figure</i>	N/A	153				153		N/A	N/A
PLA008 (new)	Growth in Business Rates base (number of registered businesses)	3,970 <i>Base Figure</i>	N/A	-43				-43		N/A	N/A

## **Regeneration & Development Director's comments:**

### **Performance:**

It has been a very busy quarter that has resulted in some slippage in performance. Having reviewed the statistics, a number of these applications exceeded the target by only a day or two and there have also been a number at Committee. It is accepted that extensions of time agreements could have been more widely used and this would have improved the PI.

The target for appeals is a concern and the Department will need to review decision making if this trend continues. The appeals statistic is subject to a more comprehensive report that is considered quarterly by Planning Committee

### **Key Initiatives/Outcomes:**

A recent meeting with Planning Agents has agreed a service level agreement that aims to ensure timely communication on the progress of applications and greater collaborative working

Although Planning Enforcement is not included as a PI, processes are currently under review to more effectively prioritise complaints

### **Concerns/Risks:**

Regeneration continues to bring forward proposals for strategic schemes, but resources remain challenging. Further recruitment is ongoing, although this is in an environment of a shortage of experienced planning officers, aided by the emergence of the private sector in general Development Management work.

A note on the new PI 007 and 008 - These are very broad figures derived from the increase in both the Council Tax and Business Rates base – these are the number of homes and businesses currently paying the charge. It can only give a general sense of direction, rather than detailed reasoning.



## Digital

PI	Description	Outturn 2015/16	DDC Target 2016/17	Q1	Q2	Q3	Q4	Current Cumulative figure	Absolute Number of Cases this Qtr	Direction of Travel to previous Qtr	RAG Status
<b>WEB001</b> (was <b>EKS05d</b> )	Percentage availability of the corporate website (DDC responsibility)	99.50%	99.50%	99.9%				99.99%	N/A	▲	<b>Green</b>
<b>WEB002</b> (new)	Number of Keep me Posted subscribers	N/A	N/A	45,593				45,593	N/A	<b>N/A</b>	<b>N/A</b>
<b>WEB003</b> (new)	Facebook subscribers	N/A	N/A	4528				4,528	N/A	<b>N/A</b>	<b>N/A</b>
<b>PLA005</b>	Percentage of electronic planning applications received	74.50%	75%	77.46%				77.46%		▲	<b>Green</b>
<b>ACC011</b> (new)	Percentage of on-line payments to cash and cheque	N/A	N/A	86%				86%	24,553	<b>N/A</b>	<b>N/A</b>

## **Quarterly Focus**

### **Regeneration**

#### **Albert Road**

Planning Consent for a mixed-use development, including a new access road has been granted subject to the prior completion of a Section 106 Agreement. Contribution of LEP funding towards the access road has agreed following the approval of the Business Case by LEP Accountability Board in February 2016. A Section 278/S38 Agreement is being progressed to enable early construction of the access road

#### **Aylesham**

A C£8.5m investment in Strategic Infrastructure has been undertaken. 196 units have been drawn down, with 162 already completed. Planning consent given for two thirds of Phase 1B where construction has already begun.

#### **Bus Rapid Transit System**

Acquisition of land at Whitfield Court completed, with HCA support. DDC is liaising with KCC on the study requirements that will be required to support the preparation of the submission of a detailed planning application for the bridge over the A2 which is being progressed. Further discussions continue in relation to the extension of the route through White Cliffs Business Park.

#### **Commonwealth War Memorial**

The Chancellor has allocated £500,000 from the LIBOR fund for the preparation of the scheme and a Grant Agreement has been completed for the scheme. Preparation work will commence in the near future following clarity at Western Heights.

#### **Connaught Barracks**

Fort Burgoyne transferred by the HCA to the Land Restoration Trust along with £11m dowry. Options for future use being explored. An outline planning application for the residential development at Officers Mess site has been granted following the prior completion of a Section 106 Agreement.

A Prime Ministerial announcement was made on 4 January indicating that Connaught Barracks is one of five sites to be included in the HM Government Accelerated Delivery Programme. This will enable demolition and infrastructure works to be undertaken and up to 40% starter housing to be provided on site. . The HCA will be taking Officers Mess site to the market in the autumn. Demolition of the remaining vacant properties on the site has also been commenced

## **Discovery Park Enterprise Zone**

Discovery Park Enterprise continues to progress as one of the exemplars in the EZ programme, attracting a diverse range of science and pharma businesses clustering on the site, with multiple support businesses and educational offers now present

### **Generally:**

150 companies

2,500 jobs

### **Housing planning conditions:**

Detailed work, particularly in relation to the drainage and Environment Agency requirements has been undertaken. This has delayed the submission of detailed planning applications, which are now anticipated to be made in the autumn commencing with the infrastructure for the residential development.

### **Supermarket site:**

Discovery Park Limited has been examining options for the site. It is expected that the housing proposals, approved as part of Masterplan for the site, will be modified to include the supermarket site, resulting in a lower overall density and enhanced quality across the site

### **Industrial buildings:**

Two applications for manufacturing at the site have been approved, being Instro Precision and OFP Timber. Work has commenced on site. Further applications are expected.

## **Dover Priory Car Park**

Demolition of the former Goods Yard Building has been completed. The owner of the Goods Yard is in active dialogue with DDC and other parties regarding options for car parking, following which a planning application has been submitted for a 140 space surface car park. The application is currently being progressed and it is anticipated that an early decision will be given in the event that favourable consultations are received to the application.

### **Dover Town Centre and Dover Waterfront**

Following the decision by Government not to privatise the Port of Dover, the Council has engaged with Dover Harbour Board and others as part of the recently established Port of Dover Community Forum. Regeneration remains a key requirement going forward. The Port of Dover has commenced the scheme known as the Western Docks Revival, with the construction of two new junctions on the A20 forming the first phase of activity. It is expected that the junctions will be substantially complete in 2016. Alongside this, works have also commenced on the demolition of part of the Prince of Wales Pier. A further Harbour Revision Order has been approved to modernise the Harbour Board's constitution while strengthening the links between the Port and community through the appointment of two Community Directors. Active consideration is being given to the master planning of Dover Waterfront which is now the subject of a current tender process,

It is intended that Consultants will be appointed in August to undertake a comprehensive master planning process which will also include part of the town centre along with accessibility and public realm linking key heritage assets.

### **DTIZ (St James's)**

Planning consent has been agreed for a revised retail/leisure scheme and a successful Compulsory Purchase Order has been progressed following a Public Inquiry. The site has been vested in the Council's ownership and demolition of the remaining properties has been completed save for a small section of the multi-storey car park which is protecting the electricity substation which remains in place prior to the commissioning of a new substation. A range of pre-construction works are now in progress, including the traffic calming in Castle Street. Separate archaeological investigations have also been undertaken across the site. Major activity is taking place with service utility diversions and the relaying of mains across the site along with foundation works. Piling for the Cinema Block and the Hotel has been completed. The remainder of the piling will recommence once the utilities are addressed. In addition, a separate residential element at the corner of Castle Street/Maison Dieu Road has recently been completed on site and has received a number of commendations. The remainder of the scheme, comprising the retail and leisure elements, will now be undertaken as part of a comprehensive scheme. Beyond the site, the former Centurion House has been demolished and temporary car parking has been provided. Legal and General has been confirmed as the funder and announcements regarding tenants are will be made in due course.

### **Hadlow at Betteshanger**

A Memorandum of Understanding has been entered into with Hadlow College who now own the site. We continue to work with Hadlow College and the HCA to bring forward and enable a comprehensive development of the former business park and adjacent country park. The Council has worked with Hadlow on the preparation of Grant Funding bids under the Coastal Communities Fund and Heritage Lottery Fund which have been approved. Development commenced on the country park during autumn 2015 and is progressing. Proposals for the business park are also expected in 2016.

### **Thanet Parkway Station**

DDC is participating in the Project Board on the basis of the relationship to the Enterprise Zone. Design work continues. It is currently anticipated that the station will be open in September 2020.

### **Viking Maritime Academy**

Phase 1 of the Academy, the Deep Immersion Pool and gallery training area has been completed and is due to be formally opened in September 2016. Expansion East Kent loan funding has been secured to support the project. It is anticipated that a submission for Phase 2 will follow-on, linked to the relocation of the temporary fire training facility.

### **Whitfield**

**Housing:** A range of engagement is taking place to assist with the progress of the discharge of planning and highway conditions for Phase 1. Work has commenced on site for the first 94 units along with the infrastructure which includes a new access road and roundabout connecting into the A256. Temporary access arrangements are currently in place via Archers Court Road. Work also continues on the Phase 1A site at Sandwich Road, Whitfield being developed by Abbey Homes. Planning applications have also been submitted for Whitfield Phase 2 and for a site at Singledge Lane.

**White Cliffs Business Park:** Consideration has been given around the options for the new leisure centre as one of two potential locations, the other location being Buckland Mill which has now been discounted following confirmation from the HCA that the site is not available. An application for a new Lidl Supermarket at White Cliffs Business Park has also been the subject of extensive pre-application consultations in advance of a planning application being submitted in August

### **Western Heights and Farthingloe**

The Council's Decision to grant planning consent has been the subject of a judicial challenge from the Campaign for Protection for Rural England (CPRE). Despite a successful defence of the Council's decision prior to Christmas, the CPRE is sought leave to appeal to the Court of Appeal. This was accepted in relation to one ground, which is due to be heard at an expedited hearing to be held on either 31 August or 1 September. Significant investment interest in the site continues to be made

### **Westmount**

Demolition of the dangerous structure/building has been completed. It is anticipated that a revised residential scheme will be submitted for the site in the near future following the examination of options.

<b>Subject:</b>	<b>DOVER LEISURE CENTRE</b>
<b>Meeting and Date:</b>	<b>Cabinet – 20 September 2016</b> <b>Scrutiny (Policy and Performance) Committee –</b> <b>20 September 2016</b> <b>Cabinet – 21 September 2016</b> <b>Council – 21 September 2016 (subject to Cabinet approval of Recommendation 8)</b>
<b>Report of:</b>	Roger Walton, Director of Environment and Corporate Assets
<b>Portfolio Holder:</b>	Councillor Trevor Bartlett, Portfolio Holder for Property Management and Public Protection
<b>Decision Type:</b>	Key Decision
<b>Purpose of the report:</b>	To seek approval to replace Dover Leisure Centre.
<b>Recommendations:</b>	
<b>CABINET:</b>	<p>Cabinet are asked to approve the recommendations 1 to 8 below and indicate whether they prefer option 3a or 3b and to note the project can only proceed subject to the Council approving Recommendation 9.</p> <ol style="list-style-type: none"> <li>1. Approve the proposal to construct a new leisure centre on a new site at Whitfield identified in Annex 1 and to then close the existing Dover Leisure Centre at Townwall Street, Dover.</li> <li>2. Authorise the Director of Environment and Corporate Assets to appoint Faithful &amp; Gould, as lead consultancy team, using the Scape National Asset Management, Surveying and Design Services Framework or a similar framework should that be available and be advantageous to the Council.</li> <li>3. <ol style="list-style-type: none"> <li>(a) Approve the proposed facility mix at Table 1 and proceed with the project now, or;</li> <li>(b) Approve the proposed facility mix at Table 1 and adopt the recommendation of the Project Advisory Group that “a further report be commissioned to explore the addition of a spa facility” and authorise the Director of Environment and Corporate Assets to appoint a specialist spa consultant to assess the feasibility of including a spa in the facility mix and report back to Cabinet.</li> </ol> </li> <li>4. Delegate the decision on the split between borrowing and use of reserves to finance the project to the Director of Finance, Housing and Community in consultation with the Portfolio Holder for Performance and Resources.</li> </ol>

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5. Authorise the Director of Environment and Corporate Assets to prepare an application for planning consent for a new leisure centre at Whitfield, (including negotiation of possible development contributions) and report back to Cabinet prior to submission.
  6. Authorise the Director of Environment and Corporate Assets to select the contractor using the Southern Construction Framework as set out in this report and subject to a further report to Cabinet and planning permission being granted, the Director of Environment and Corporate Assets then be authorised to make the necessary appointment.
  7. Authorise the Director of Environment and Corporate Assets at the appropriate times and in the appropriate sequence to:
    - (a) Tender the contract to manage the new leisure centre on the open market, and to include management of the Tides Leisure Centre complex in the tendered management contract.
    - (b) Terminate the leases of Dover Leisure Centre and Tides Leisure Centre complex by service of 12 months' notice under the break clauses in the leases.
    - (c) Appoint The Sports Consultancy to manage the tendering of the leisure management contract for Dover Leisure Centre and Tides Leisure & Indoor Tennis Centre and provide ancillary legal services
  8. Request that the Council amends the budget and policy framework to include this project in the capital programme.
- COUNCIL:**
9. To amend the budget and policy framework to include this project in the capital programme
- 

## 1. Summary

- 1.1 This report recommends replacement of the leisure centre in Dover with a new leisure centre in Whitfield, featuring an increased range of facilities and parking. A feasibility study of the proposals indicated that the new leisure centre would attract many more visits than the existing centre, and would therefore make a significant contribution to achieving the corporate priority of working towards healthier people and communities.
- 1.2 Approval of the recommendations in this report does not commit the council to full expenditure at this point. It provides authority for officers to proceed with developing the project. Further cabinet reports are to be presented at key milestones so that members have control over costs.

- 1.3 The anticipated cost of the new facility is currently estimated at £26.4m. This figure includes land purchase, consultant fees (e.g. for design), preparation of a planning application, construction, financing costs, demolition of the existing leisure centre, site clearance and includes the capitalisation of internal staff costs. The capital finance will be met through a mix of grants, borrowing, capital receipts and Council reserves. Financing of the cost of borrowing is to come primarily from operational savings and increased income to be generated by the new leisure centre.
- 1.4 A great deal of evidence has been gathered to underpin the proposed project. The rest of this report summarises key information including:
- Previous Reports
  - Why a new leisure centre is needed in the Dover Urban Area
  - Financial Feasibility
  - Facility mix
  - Site Options
  - Consultation
  - Environmental Considerations
  - Project Procurement
  - Project Financing
  - Project Timetable and Resources
- 1.5 Annex 1 provides more detail on the main aspects of the proposal that are discussed in summary in this report below.

## **2. Previous Reports**

- 2.1 Cabinet has previously considered reports on the Dover Leisure Centre (DLC) in March 2015, September 2015, January 2016 and July 2016 at which a number of decisions were taken including:
- *That £200,000 be set aside from the Capital Programme, to be drawn down as required by the Director of Environment and Corporate Assets, in consultation with the Director of Finance, Housing and Community, to support the next stage of the project, and to authorise the Director of Environment and Corporate Assets to prepare and submit a grant application to Sport England's Strategic Facility Fund.*
  - *That a cross-party advisory group be established, and Mr Peter Ward invited to serve as a public representative. Wider public consultation will be considered as the project evolves*
  - *That the relevant Portfolio Holder(s) attend meetings of the Scrutiny (Policy and Performance) Committee in order to provide it with regular updates on progress, including any proposals for public consultation*
  - *That the viability of Whitfield should be investigated as the first option, with the viability of Buckland Mill as the second option.*
  - *That the Director of Environment and Corporate Assets be authorised to engage with prospective partners and funders on the options for financing the new leisure centre.*



- *That the Director of Environment and Corporate Assets be authorised to negotiate:*
  - (i) *The Heads of Terms with the owner of the land at White Cliffs Business Park (WCBP) for the purchase of land at WCBP to facilitate the possible relocation of Dover Leisure Centre.*
  - (ii) *An option agreement for the sale of the existing leisure centre site at Woolcomber Street, Dover.*
- *That the Director of Environment and Corporate Assets be authorised to enter into such agreements as he considers appropriate to give effect to the above, on terms to be settled in consultation with the Portfolio Holder for Property Management and Public Protection and the Solicitor to the Council.*

2.2 The various decisions taken by Cabinet have been implemented and this report provides details of the progress made, and seeks approval to move the project forward to deliver a new leisure centre.

### **3. Why a new leisure centre is needed in the Dover Urban Area**

3.1 Dover Leisure Centre is 40 years old and the Council's maintenance plan indicates that expenditure of circa £1.5 to £2m may be required over the next 5 years simply to maintain the existing fabric. Even if these repairs and refurbishment were undertaken it would result in a building with a limited lifespan. In addition, although it would be in good decorative order the building would still be expensive to maintain, could not generate significant additional income to invest in the service and, due to the size of the current site, there would be no realistic options for growing the level of provision. Therefore, refurbishment of the existing facilities would fail to meet the future needs and expectations of our community.

3.2 The Council's Corporate Plan 2016-2020 recognises the importance of ensuring that 'our district is clean and safe with a good range of leisure, tourism and cultural activities'. Clearly, a high quality leisure centre in the District's largest settlement is a crucial part of this vision, and the Corporate Plan commits the Council to prioritising the provision of 'a new leisure centre for Dover (subject to viability assessment)'. The main considerations of any assessment are the financial feasibility of a new centre, the facility mix required, identification of a suitable location and development of an approach to its procurement and future management.

### **4. Financial Feasibility**

4.1 In March 2016 Dover District Council appointed a consultancy team, led by The Sports Consultancy, to complete a Feasibility Study (to RIBA Stage 2) regarding a new leisure centre in the Dover urban area. The study has now been completed and a copy of the report is included at Annex 1.

4.2 The report received at the Cabinet meeting held in January represented the initial 'Options Appraisal' stage in developing the project. It included benchmarked capital and revenue costs and the outline business case for the initial options to enable the Council to decide whether to proceed and, if so, which is the Preferred Option(s) to carry forward. The report provided an estimated capital cost for each option, with a cost of £19.9m being indicated for Option 4, which was the preferred option agreed by Cabinet.

- 4.3 In presenting these figures, the report noted that given the relatively early stage of project development, all capital and revenue costs were likely to be subject to change as the options are developed and refined. It also noted that the £19.9m figure excluded costs such as land acquisition, landscaping and those related to the planning process such as S106 payments.
- 4.4 The current report provides a revised figure with the total cost of the project now estimated at £26.4m. The variation arises from adding more facilities to the core facility mix, increased parking provision, rise in construction costs due to inflation, as well as revised costs for land purchase, demolition of the existing centre, Section 106 contributions and capitalisation of internal staff costs.
- 4.5 This study comprises a detailed investigation into preferred options, as previously identified by the initial feasibility study reported to Cabinet in January 2016. The objectives included mitigation of key financial risks as far as possible, giving the Council a higher degree of cost certainty as it decides whether, and how best, to proceed. This has been achieved by taking a prudent approach to individual cost elements and the inclusion of substantial contingency in the projected total cost.
- 4.6 The main conclusions of the report are that, based upon:
- the proposed facilities mix (see section below);
  - the proposed location
  - the estimated costs of land acquisition, planning (including development contributions) and construction;
  - the demolition and clearance of the old centre;
  - the reduced operating costs of a new, more efficient centre; and
  - the additional income that can be generated;

The proposals would be viable, if the revenue improvement is used as a saving that can finance borrowing and an additional commitment of the Council's own resources are applied. Further explanation is provided in the Project Financing section.

## **5. Facility Mix**

- 5.1 Following consideration of various facility mix options in January 2016, Cabinet approved a preferred mix that should be taken forward for further development.
- 5.2 Since that time, the approach to identifying a suitable level of facility provision has been refined by means of site visits by the Project Advisory Group, engagement with key stakeholders, public consultation, advice from the Council's consultants, soft market testing with leisure operators and the affordability of the scheme. In parallel with the Feasibility Study, DDC worked with The Sports Consultancy to develop an Indoor Sports Facility Strategy (ISFS) which was subject to public consultation and then adopted in July 2016. The Council's consultants were also asked to investigate viability of additional facilities that fall outside the scope of the ISFS, including unstaffed soft play, toning tables, a confidence water area, climbing wall, 3G football provision and full spa.

5.3 Table 1 shows the proposed mix alongside the current level of provision.

Activity Area	Current Leisure Centre	New Leisure Centre	More / less
Main pool	6 lane 25m pool	8 lane 25m pool	More
Spectator seating	140 person capacity	250 person capacity	More
Learner pool	12.5m x 7.5m static floor	15mx 8.5m with moveable floor	More
Sports hall	8 courts	4 courts	Less
Health & fitness	37 station	120 stations	More
Multi activity studio	1 x studio	2 x studios	More
Multi-purpose room (ground floor)	None	1 x room for meetings /parties/soft play/ crèche etc.	More
Spin studio	None	1 x studio	More
Squash court	3 x courts	2 x courts	Less
Interactive climbing	None	Included	More
Small sauna and steam room	Included	Included	Same
2 Five a side football pitches (Outdoor 3G)	None	Included	More
Café	Included	Included	Same
Parking Spaces	95 spaces	250 minimum	More
Spa	None	Ongoing investigation	To be confirmed

5.4 These proposals would result in the new Dover Leisure Centre having a much wider range of state of the art sport and leisure facilities, with an increase in the level of provision for most types of activity. The proposed facility mix would also deliver many of the strategic priorities set out by the ISFS. Soft market testing with leisure operators and informal feedback received from centre managers during leisure centre visits concluded that operators generally supported the proposed level of provision.

5.5 The key elements that were subject to debate at the request of Cabinet and during consultation were the sports hall and pool size. Other areas of interest include squash provision and the possible spa. These are considered below; further information regarding the rationale for the proposed facility mix is set out on page 27 of Annex 1.

#### Sports Hall

5.6 A clear recommendation was provided by The Sports Consultancy that a 4 court hall would be most appropriate. The ISFS considered detailed evidence regarding this type of facility, including Sport England's Facility Planning Model, which demonstrates that a 4 court hall is sufficient to meet needs now and in the future, provided that community access to certain school halls can be retained at current levels and increased at others. Progress is already occurring in this area, for example Dover Christ Church Academy recently opened a new sports hall in Whitfield, which is used regularly by community sports groups. DDC officers will

continue to engage with operators and liaise with key clubs to help facilitate increased community use of school facilities. In addition, given that much of the current activity within the hall at Dover Leisure Centre is five-a-side football, the provision of 2 purpose build artificial grass pitches will reduce pressure on the leisure centre sports hall. An 8 court hall would create a significant affordability gap<sup>1</sup> of approximately £2M (see Annex 1, page 26).

#### Main Pool Size

- 5.7 A clear recommendation was provided by The Sports Consultancy that an 8 lane, 25m pool would be most appropriate. The option of providing a 50m pool has been investigated in detail and is not recommended; the ISFS considered detailed evidence regarding this type of facility, including Sport England's Facility Planning Model, which showed that creation of a 50m pool would lead to over-provision of pool space in the district and therefore would probably be underused. This would create an affordability gap<sup>2</sup> of over £7M (see Annex 1, page 26). The Amateur Swimming Association (ASA) has advised that for a 50-metre swimming pool to succeed in East Kent, at least two local authorities would need to combine and rationalise their swimming pool stock before providing a jointly funded 50-metre swimming pool. The ASA has examined the proposed plans for Dover and supports the approach taken.

#### Squash Courts

- 5.8 The Sports Consultancy recommended that 2 squash courts would be an appropriate level of provision and is the most financially viable option as part of the overall facility mix.

#### Spa

- 5.9 The one significant area of the facility mix that has not been resolved is the possible provision of a full spa, which was been discussed by the Project Advisory Group on 30 June 2016 following site visits. In response, advice was sought from The Sports Consultants who prepared a report that was presented to the Project Advisory Group meeting on 26 July 2016. It concluded that:

*'the addition of a Spa requires further work before a decision to include it can be made (at additional cost to the Council), this is likely to delay progress of the project, with no certainty over whether the outcome of the work will support inclusion of a Spa. If it is added, it is likely to represent a risk in terms of future income generation. It is not a facility with a clearly identified strategic need and, as a specifically designed space; it cannot easily be used for other activities, if it is not viable as a spa.'*

- 5.10 The Sports Consultancy advised that *'The need and demand for the Spa would need to be investigated further by a specialist consultant'* and accordingly the Project Advisory Group recommended that specialist consultants should be engaged to

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<sup>1</sup> The affordability gap comprises a combination of additional capital construction costs and increased operating costs caused by additional floor maintenance, heating and lighting costs etc. over the period of the project.

<sup>2</sup> The affordability gap comprises a combination of additional capital construction costs and increased operating costs caused by additional plant maintenance, heating, water treatment and lifeguarding costs etc. over the period of the project.

undertake a more detailed analysis on the feasibility of adding a full spa to the facility mix (the full minutes can be found at Annex 3). Members of the Project Advisory Group highlighted the need to consider the wider health and wellbeing agenda, and suggested that a spa facility could extend the attractiveness for the leisure centre beyond those who wished to take part in competitive sport.

5.11 If Members were minded to adopt recommendation 3b and proceed with further investigating the spa option, this would require the appointment of specialist consultants to advise on options. This will include:

- Potential design layouts;
- Determination of features ranging from premium to “value”;
- Whether facility is incorporated or standalone spa;
- The impact on existing layout proposals;
- Associated costs of construction and future operation;
- Income likely to be generated;
- Any other consequential effects on the wider scheme, such as the possible need for additional car parking;
- Impact on completion date;

5.12 Before completing the consultancy brief for the spa consultant, it is proposed that the Director of Environment and Corporate Assets will engage with the PAG to ensure it reflects Members’ wishes. On conclusion, a further report will be presented to Cabinet as soon as possible on the implications of including a spa within the scheme including presentation of a revised proposal and to seek approval of any recommendations required. In the meantime officers will progress the project where possible, including the appointment of lead consultants, in order to avoid undue extension to the project timetable and costs.

## **6. Site Options**

6.1 The process of selecting a suitable site for the replacement centre has, as agreed, continued in parallel with the identification of an agreed facility mix and the viability appraisal. While a site at Whitfield was identified as the preferred location by Cabinet in January 2016 in response to the initial Feasibility Appraisal, this needed to be tested further to ensure it remains the preferred option. Having refined the facility mix for the new centre at Whitfield, the issue of site identification was re-examined; see page 29 of Annex 1 for further information.

6.2 The Whitfield site has the space to accommodate all the proposed facilities including outdoor football pitches and a significant increase in parking provision. In addition, it is owned by a willing seller at a price that still makes the scheme viable. The other site identified being worthy of further investigation (at Buckland) is not currently available for purchase.

6.3 Any planning application for a new leisure centre in Whitfield would need to be accompanied by a sequential test because it lies outside both the defined town centre and edge of town centre, and would therefore be contrary to Paragraph 24 of the National Planning Policy Framework. The sequential test would consist of a list of possible alternative sites accompanied by an assessment of their suitability and viability as an alternative option to the Whitfield site. An initial sequential test report is attached at Appendix 6 of Annex 1 and complete assessment will be presented to Cabinet prior to any planning application.

## **7. Consultation**

- 7.1 An open public consultation was undertaken on the proposals for a new leisure centre in Whitfield between 4<sup>th</sup> and 24<sup>th</sup> July 2016. The format of the consultation was a series of public engagement events combined with an on-line questionnaire. Paper copies of the questionnaire were also available at the events. The consultation was widely promoted by means of advertisements in local papers, the Council's website, social media and posters provided to leisure centres, libraries and council offices. Email alerts were distributed through the Council's Keep me Posted initiative and Your Leisure's customer database. In addition, information boards were displayed at Dover and Tides leisure centres throughout this period.
- 7.2 The consultation events were organised at various locations and times of day to maximise contact with a range of user groups. Representatives from 152 key stakeholders were invited to attend a workshop on 7 July, including all consultees listed in Appendix 1 of Indoor Sports Facility Strategy plus all primary schools in the district, nineteen representatives from protected characteristic groups and three town societies. Public drop-in sessions were held at Dover Leisure Centre on 14, 16 and 19 July, at Whitfield Farmer's Market on 21 July and the Dover Community Regatta on 23 July. Members of the project team were present at all the consultation events to engage with consultees, answering any queries and encouraging members of the public to feedback their views by completing the questionnaire.
- 7.3 A high level of take-up was achieved both in terms of attendance at the events and written responses. Some thirty people attended key consultee workshops representing a range of clubs and interested groups including Dover Town Council, Sandwich Town Council, Whitfield Parish Council, Shepherdswell Parish Council, KCC, Your Leisure, Kent Cricket, Dover Lifeguard Club, Dover Table Tennis Association, Deal Gymnastics Club, Dover Gymnastics Club, Dover DASH, Aspen Disability Swim Group, Dover Trampoline Club, Vista Twisters and the Dover Society. All the public events were busy throughout and 673 questionnaires were completed, representing one of the highest response rates achieved in a DDC online public consultation.
- 7.4 The key finding of the survey was strong support for a new Dover Leisure Centre (89%) with the majority of respondents supporting the proposed site in Whitfield (69%) and 53% of consultees said they would use the new facility more frequently. The top three facilities most important to consultees were identified as the main swimming pool, health & fitness gym and the learner pool. Currently, most users travel to the leisure centre by car, with a similar number of respondents saying they would also use a car to reach a new facility in Whitfield. More details are presented at Annex 1.
- 7.5 Generally the informal feedback received during the events was positive; in particular support for the proposed investment was very strong amongst attendees at the Dover Leisure Centre and Whitfield farmer's market sessions. There was widespread recognition that improvements in the provision of indoor sports are necessary and the proposed facility mix was generally supported. Consultees liked the movable floor in the learner pool as this offered flexible programme of use, the clip n' climb and proposed free parking. Club representatives at the key stakeholders workshop were largely supportive and some provided specific information regarding their requirements, e.g. for lighting and flooring in the sports hall and accessibility features associated with the swimming pool. Dover Gymnastics & Vista Twisters discussed their need for access to bespoke facilities to aid their continued expansion and some clubs sought reassurances on booking programmes and access. The need

to target people with protected characteristics in programming terms was raised by DASH & Aspen Disability Swim Group. This response informed the Equality Impact Assessment, attached at Annex 3.

7.6 A number of concerns were raised by attendees at the consultation events:

- **50m Pool**  
Whitfield Parish Council indicated that they would prefer a larger leisure centre with more facilities, including a 50m pool and Dover Lifeguard Club also felt a 50m pool would be good for Dover. As discussed with these groups, a 25m 8 lane pool is considered the best way of meeting the need for an improved community pool, which also caters for competition swimmers. Dover Lifeguard Club queried the specification of the pool; officers have therefore reviewed the proposed designs with a representative of the ASA Facilities Team who stated *'The draft designs considered at our meeting are what the ASA would define as a County Competition Swimming Pool... A pool of this size would accommodate all local district activities and also be suitable for county short course competition'*.
- **Sports Hall**  
Concerns were raised by some users of the sports hall about the proposed reduction in size from 8 courts to 4 courts, particularly by participants in badminton, cheerleading and basketball. As detailed in the Indoor Sports Facility Strategy, evidence from various sources, including Sport England's Facility Planning Model, demonstrates that a 4 court hall is sufficient to meet needs now and in the future assuming that community access to sports hall space at identified schools is realised. In addition, the provision of 2 five-a-side artificial grass pitches will also reduce pressure on the leisure centre sports hall. However, it is recognised that early engagement between clubs and schools will help to increase community use of these currently under-used facilities and will build confidence amongst club members. To this end, a meeting between Vista Twisters and Dover Christchurch Academy is scheduled for September.
- **Squash**  
Similarly, Squash & Racquetball attendees were disappointed with the reduction in squash provision from 3 to 2 courts, and a meeting has therefore been arranged with the Duke of York's Royal Military School in September, to explore possible club use of their 4 court facility.
- **Location**  
Concerns were also raised about the proposed location. For example, the Dover Society have made it clear that they oppose the loss of a town centre facility and would like some kind of ongoing 'leisure facility' at the site of the existing leisure centre in Dover. Some elderly & disabled users expressed concern around connectivity from town centre to Whitfield in terms of the cost of buses and number of buses it would take to get to Whitfield from areas such as Maxton Elms Vale ward. A substantial minority of attendees at the Dover Community Regatta event were unhappy that the proposed site is outside the town centre, particularly those who access the existing leisure centre on foot.

Town centre sites have been considered during the development of the proposed plans, but it would not be possible to provide the improved level of sports facilities in Dover town centre. A transport plan will be required as part of any planning application and this will examine public transport links to the new leisure centre.

## 8. Project Procurement

8.1 If Cabinet agrees to proceed, then three distinct areas of work will be procured:

- Consultancy team
- Contractor
- Operator

### Procurement of Consultancy Team

8.2 The Sports Consultancy was initially appointed in July 2015 to undertake feasibility work (RIBA stage 1) to provide an initial review of options and a financial business case. This review also explored the options for investment that would sustain leisure provision at the level required to meet local demand now and in the future.

8.3 Recommendations were approved by Cabinet on 11 January 2016 (CAB 88), including advancing the project into the next phase of detailed feasibility work (RIBA Stage 2). The Sports Consultancy was appointed to lead the project. This enabled a continuity of approach as work continued on the development of an outline scheme.

8.4 The work has also involved a number of sub-consultants, including:

- Hadron Consulting      Project Management
- GT-3 Architects        Architectural Services
- Faithful & Gould        Cost Consultant
- Engenuiti                Structural Engineer
- BDP                        M&E Consultant
- DHA Planning            Planning Consultant

8.5 In addition the Council has directly appointed Lloyd Bore to undertake environmental surveys in support of the planning work.

8.6 It is now necessary to appoint a consultancy team to take the project through the design and construction phases to completion. The successful delivery of a project of this scale is inevitably complex and will be supported by the expertise of a range of specialist consultants, covering both the specialisms noted above and also including, landscape architect, pool design and transportation planning. These will need to be appointed under an OJEU compliant process.

8.7 There are several options for appointment of the consultancy team, advantages and disadvantages of each approach are set out in Table 2 below;

Table 2: Consultant Team Appointment options

<b>Single Appointment through a lead consultant</b>	
<b>Advantages</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"><li>• Least time consuming option.</li><li>• Single point of responsibility.</li><li>• More likely to get a cohesive team.</li><li>• Lead consultant has contractual control over other consultants and can exert more control over the</li></ul>	<ul style="list-style-type: none"><li>• Not as much opportunity to pick and choose team members, although some frameworks do have this option.</li><li>• Can be difficult to change individual consultants if they don't perform.</li></ul>



performance of the team.	<ul style="list-style-type: none"> <li>Project manager and cost consultant is not completely independent of the Design Team and other consultants.</li> </ul>
<b>Separate Appointments</b>	
<b>Advantages</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"> <li>Total flexibility and ability to appoint preferred team members.</li> </ul>	<ul style="list-style-type: none"> <li>More time consuming to tender, put legal agreements in place and manage.</li> <li>No guarantee the individual consultants will work well as a team.</li> <li>No single point of contact/responsibility for consultant team.</li> </ul>
<b>Hybrid approach; separate teams for project management and design</b>	
<b>Advantages</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"> <li>Able to select preferred PM and QS, and separate design team.</li> <li>PM and QS is independent of the design team.</li> <li>PM can be brought on board quickly to put delivery strategy in place and run the design team tender.</li> <li>Single point of responsibility for the design team.</li> </ul>	<ul style="list-style-type: none"> <li>More time consuming than a single appointment. Ideally the PM appointment would be made first, which lengthens the overall timescale to appoint the entire consultant team.</li> <li>Design team still comes as a package.</li> <li>No guarantee PM and design team will work well together, but this is improved if the PM is involved in the selection of the design team.</li> </ul>
<b>Appointment through the contractor</b>	
<b>Advantages</b>	<b>Disadvantages</b>
<ul style="list-style-type: none"> <li>The contractor will help ensure that the design is coordinated and input on buildability</li> <li>The contractor will manage the design team.</li> <li>Some flexibility to select the preferred design team.</li> </ul>	<ul style="list-style-type: none"> <li>The client can feel removed from the design process, and unable to fully influence the design team.</li> <li>Contractor will often add a mark up to the design fees.</li> <li>Difficult to separate contractually if changes are required to the contractor or the design team.</li> </ul>

8.8 A single appointment through a lead consultant is recommended. In making such an appointment we can either offer the opportunity on an open tender basis or work through one of the Framework contracts.

8.9 The National Asset Management, Surveying and Design Services (NAMSDS) Framework developed by Scape<sup>3</sup> offers the Council the quickest and most efficient approach to procuring the consultancy team. As Faithful & Gould (F&G) are currently the sole framework partner, making an appointment through this framework would enable the retention of the existing consultancy team, which will provide project continuity. The framework covers the appointment of the design team, e.g. architect,

<sup>3</sup> Scape Group Ltd is a local authority owned built environment specialist offering a full suite of national procurement frameworks and innovative design solutions originally established by Nottinghamshire County Council.

engineer, and other members of the consultant team can be appointed through F&G, including Project Manager. The role of the Project Manager will include overseeing the appointment of specialist consultants. Professional fees have been budgeted to reflect this arrangement.

- 8.10 The NAMSDS Framework came into operation on 1 October 2012, following the conclusion of the procurement process undertaken by Scape and the decision to award the contract to Faithful + Gould. The contract duration for the framework was four years and the NAMSDS Framework is due to expire on 30 September 2016 and so subject to Cabinet and Council decisions prompt action will need to be taken to appoint the team.
- 8.11 If the Council doesn't appoint under this framework before its expiry, then it would need to undertake its own OJEU compliant procurement process. Alternatively, the Council could potentially consider making an appointment through Scape's newly launched four-year Built Environment Consultancy Services (BECS) framework, which features a single contractor; Perfect Circle, a consortium comprising the contractor's Gleeds, Aecom and Pick Everard. However, both scenarios would result in significant delays to the project and officers consider that there are considerable advantages in retaining continuity with F&G.
- 8.12 Permission is therefore sought to appoint F&G under this framework before 30 September 2016. The appointment will not be drawn upon unless and/or until the project proceeds, so there is no financial risk for the Council in taking this step, but it does mitigate the potential for significant delays. Annex 4 provides further information on the expiry of the SCAPE Framework.

#### Contractor Procurement

- 8.13 There are advantages to be gained by early contractor involvement in the development of the detailed designs and specifications for the project.
- 8.14 Appendix 12 to the Feasibility report (Annex 1) includes a detailed analysis of the options available to the Council, which include; traditional tendered contract, management contract, single stage design & build, two stage design & build, fixed price, guaranteed maximum price and target cost/shared risk.
- 8.15 The consultants recommend that a fixed price approach where the design and the client requirements are fully detailed will provide the Council with a high degree of cost certainty and risk transfer. It should be noted that fixed price does not mean final price. Costs can change and/or risk can add to project costs.
- 8.16 The Contractor procurement process will of course need to be OJEU compliant, which can be a lengthy and administratively costly process; however there are several contractor frameworks available, which will minimise delays. The consultants recommend the Southern Construction Framework (SCF)<sup>4</sup> which is similar to the Scape Framework, with broadly similar rates, but there is more than one contractor on the framework and therefore an element of competition will be achieved.
- 8.17 The benefits of using the SCF are:
- Fast access to market – considerably quicker than full tendering

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<sup>4</sup> The Southern Construction Framework (SCF) is a collaboration between London Construction Programme (LCP) and the SE7 to join up existing SW, SE and London frameworks.

- A proven, well established framework
- Certainty – high levels of time and cost predictability
- Competitive process – delivers value
- Locally focused / adaptable to local requirements
- Shared best practice across suppliers
- Contractor led continuous improvement
- OJEU compliant

8.18 Annex 1 Appendix 12 sets out in detail how contractors are appointed to the framework via a two-part mini competition process, based on quality and fee bids.

8.19 As part of the Feasibility study, The Sports Consultancy has undertaken soft market testing, with the contractors on the SCF. A summary document was issued to the contractors via the framework manager to provide an overview of the project, including the following project information:

- Overview of work completed to date
- Proposed facility mix
- Estimated capital costs
- Initial floor plans designs and area schedule
- Procurement route
- Indicative programme.

8.20 Of the seven contractors on the framework, three have expressed a strong interest in working on the project, each of whom are active in the south east and the Dover region, with a strong track record of delivering leisure centres similar to this project. These results support the recommendation to use the Southern Construction Framework.

## 9. **Operator Procurement**

9.1 The recommendation to build a new facility will require new operating arrangements.

9.2 A high level appraisal of leisure management options was undertaken by the consultant to support the detailed feasibility report. The available options are as follows:

- (a) Option 1 - External delivery via outsourcing to an existing trust or a leisure operator. There are two principal types of organisations, both of which benefit from the tax advantages of a trust set-up; existing charitable trusts and private sector organisations with their own trust structures (hybrid trusts).
- (b) Option 2 - In-house management. This entails direct management by the council employing all staff, retaining all income and retaining responsibility for all expenditure with continued reliance on the Councils central support functions such as legal, accountancy and human resources.
- (c) Option 3 - External delivery via creation of new leisure trust. The Council could choose to set up its own trust. There are a number of different social enterprise models to choose from that all fall under the banner of Non-Profit Distributing Organisation.

- 9.3 The suitability of each option was scored against a range of criteria. Results are presented in Table 3 below, using a scale of 0-3, with 0 representing the lowest fit with the criteria and 3 the highest fit.

Table 3; Appraisal of Leisure Management Options

Criteria	Option 1	Option 2	Option 3
	External Delivery via out sourcing to existing Trust or Leisure Operator	In - House	New Trust
Level of Council influence	1	3	2
Ability to transferring risk	3	0	1
Strength of financial covenant	3	3	1
Potential for initial savings (NNDR or VAT)	3	0	3
Potential for sustainable operational savings	3	1	2
Flexibility for future asset strategy and adding additional services	1	3	1
Improvement in service delivery	3	0	1
Scope for community partner involvement	1	3	2
Scope for investing surplus services	2	1	3
Total	20	14	16

- 9.4 Following this review, Option 1- external delivery via outsourcing to a leisure operator /existing trust is recommended. The key strengths of this option compared to others are:

- The ability to transfer and manage risk
- The strength of the financial covenant of established operators
- Potential for initial savings (NNDR and VAT)
- Potential for sustainable operational savings
- Improvement in service delivery
- Expertise in increasing revenue via increased recruitment and retention of members

- 9.5 The current leisure centre is managed by Your Leisure (YL) under a lease which is due to end on 31 March 2021, and is supported by a funding agreement. A similar arrangement is also in place for Tides Leisure Centre, Deal including the Indoor Tennis Centre. YL has managed the Council's leisure centres since 2001, firstly as Vista Leisure, which was formed in 2001, and more recently as YL following the merger with Thanet Leisure Force in 2013. Although the Council acknowledges the improved service leisure delivery this has brought to the District, the Council's

relationship with YL is based on a lease rather than a contract and there is no legal obligation on the Council to automatically offer YL a lease on the new centre.

- 9.6 As part of the Feasibility Study, The Sports Consultancy undertook a soft market testing exercise with leisure operators. Nine of the leading operators in the market, including YL, were asked for their views on the proposed facility mix and their preferences concerning the details of the potential management contract. Eight of the nine operators expressed an interest in tendering for the contract to manage the new Dover Leisure Centre, demonstrating that there is significant interest in the new centre.
- 9.7 Subsequent to the soft market testing exercise, YL submitted a proposal which set out a business case for staying with YL as operators at the new leisure centre, rather than tendering the leisure management contract. The proposal examined the benefits this would bring to the new Dover leisure centre and Tides, and the district in terms of service and future investment levels. It has been reviewed by members of the project team and was circulated to cabinet members. For reasons of commercial sensitivity the proposal is included in the confidential part of the Agenda and attached at annex 6.
- 9.8 The Financial Business Case supporting the development of a new leisure centre places significant weight on achieving an improved revenue position to help fund facility developments. Currently annual funding of £265,000 is paid to YL to support the operation of leisure services in the district. This is made up of £300k funding for Dover Leisure Centre and Tides Leisure Centre, offset by £35k contribution from YL towards Deal Tennis Centre. The consultants advise that it will be possible to achieve a payment by the contractor to DDC for the right to operate the new Dover Leisure Centre which should provide a significant positive turnaround to the annual operating cost of the centre. A competitive procurement process should be conducted to appoint an operator in order to secure this level of improvement in the financial performance at the new facility.
- 9.9 Appointment of the most suitable operator is clearly key to the success of the project. Early procurement of the leisure management contract, in parallel with the construction contract, will ensure that the commercial position for the operator is known before entering into the construction contract. It would also enable the design team to work with the future operator as they finalise the design details. Notice will therefore have to be given to YL, at the appropriate time, to terminate the current lease on the existing Dover Leisure Centre.
- 9.10 The soft market testing also investigated whether the operators would be interested in a combined contract to manage both the new Leisure Centre and Tides. There was strong support for this proposal.
- 9.11 Whilst this report is focused on Dover Leisure Centre, members will be aware through the financial information contained within the Medium Term Financial Plan (MTFP) that Tides is also likely to require significant capital investment over the coming years. Outline proposals have been put forward by YL involving the construction of a new fitness suite at a cost of circa £2M. The soft market testing exercise revealed that a majority of the operators contacted would be able to provide significant finance to enable enhancement of the facilities if the Council required investment.
- 9.12 The most suitable length of any management contract has not been investigated in detail yet, but operators contacted through the soft market testing exercise are

currently seeking contract lengths of at least 10-15 years. Contracts of this length give greater financial certainty to Councils and operators alike and help maximise the commercial offer from operators.

- 9.13 It is recommended that a competitive procurement process should be conducted to appoint an operator for both the new leisure centre and Tides. As a consequence, in addition to the notice given to YL regarding termination of the lease on the existing Dover Leisure Centre, notice will also be given at the appropriate time to terminate the current lease at Tides Leisure & Indoor Tennis Centre. This approach would allow the Council to seek capital investment from the operator to improve facilities at Tides as part of the joint contract. It should be noted that such an arrangement would have to take account and balance any impact that this might have on the revenue position.
- 9.14 Procurement of an operator typically takes 12 months to complete and the Council will require external leisure consultant and legal support. The Sports Consultancy has prepared a proposal for the management and tendering of the leisure management contract for Dover Leisure Centre and Tides Leisure & Indoor Tennis Centre and to provide ancillary legal services.

## **10 Financial Resource Implications**

### Project Costs

- 10.1 The anticipated cost of the new facility is estimated to be £26.4m. The addition of a spa facility is currently thought to add in the region of £1.5m to the capital costs, however further work is required to assess this option and provide an estimated costing and business case.

### Project Funding

- 10.1 As noted at paragraph 4.2 above, the report to Cabinet in January quoted a draft figure of £19.9m for the new centre. This was a draft figure, based on the initial proposals and facility mix at that time, and required more detailed work and analysis. Further analysis has led to an increase in estimated construction costs of £2.4m, due to revised estimates for the internal and external works based on the revised facility mix and more detailed design proposals. Other items which make up the full cost of the project include the land purchase, consultant fees (e.g. for design), preparation of a planning application, construction, financing costs, demolition of the existing leisure centre and site clearance.
- 10.2 It is proposed to finance the new leisure centre from a combination of grants, borrowing (funded from the forecast improved revenue position), capital receipts (from the disposal of the existing leisure centre site) and Council reserves.
- 10.3 The existing leisure centre is managed by Your Leisure and at present the Council provides funding to support the provision of services at both Dover & Tides Leisure centres. Initial soft market testing with leisure providers has indicated that the new centre (excluding a spa) is likely to generate an improvement in the Council's revenue position of at least £850k per annum. This turnaround is key to the financing of the new centre.

- 10.4 It is currently forecast that borrowing from the Public Works Loan Board (PWLB) will be undertaken at no more than 2.5%<sup>5</sup> for a period of at least 40 years, on an annuity basis. At this level the annual payments (interest and capital) would equate to £40k per £1m borrowed per year. A revenue turnaround of £850k would therefore fund £21.3m of borrowing with no impact on the General Fund revenue budget.
- 10.5 Initial discussions with Sport England indicate that funding of c£1.5m<sup>6</sup> may be available to support the project and our next meeting with them is scheduled for later this month. It is assumed this external funding and the capital receipt from the future sale of the existing DLC site would also be applied to the project funding.
- 10.6 The remaining funding for the project will be met from earmarked revenue reserves, for which up to £7m has currently been allocated in the capital programme of the Medium Term Financial Plan for 2016/17, funded from the District Regeneration and Economic Development (DRED) Reserve.
- 10.7 The total estimated funding with borrowing options are summarised below:

<b>Funding</b>	<b>Maximum borrowing Option £000</b>	<b>Minimum Borrowing Option £000</b>	<b>Comments</b>
Sport England	1,500	1,500	Estimated grant
Borrowing funded from revenue turnaround	21,350	17,150	PWLB at 2.5% over 40 years @ £40k per £1m, assuming £850k revenue turnaround
Capital Receipt from DLC site	750	750	Estimated
DRED Earmarked Reserve	2,800	7,000	As per the MTFP 2016/17 capital programme.
<b>Total</b>	<b>26,400</b>	<b>26,400</b>	

- 10.8 In the table above the “maximum borrowing option” assumes that all of the savings from the revenue turnaround have been applied to service the borrowing. In the “minimum borrowing option” all of the revenue reserves included in the capital programme for financing this project have been applied, leaving an improved General Fund revenue budget position with an annual saving of circa £130k to contribute towards the council’s budget savings target.
- 10.9 The decision on the split between borrowing and use of reserves is delegated to the Director of Finance, Housing and Community in consultation with the Portfolio Holder for Performance and Resources. The decision will take into account the prevailing interest rates from the PWLB and the European Investment Bank, anticipated future interest rates and the return on the council’s investments (the

<sup>5</sup> Based on the PWLB estimates provided by the 10 August 2016 Capita Asset Services daily bulletin

<sup>6</sup> Any amendment to this figure will be offset by an equivalent adjustment in the level of funding by DDC from borrowing or earmarked reserves.

“opportunity cost”), the future availability of reserves, the actual saving from tendering the management of the new centre and the impact on the revenue budget.

### Sensitivity and Risks

- 10.10 The consultant’s report includes a detailed Risk Register covering issues such as cost, design, planning consent, programme, site ownership, utilities etc. which can be found at Annex 1, Appendix 11. With regard to financial risks, the figures quoted above are all estimated based on information available at the time of producing this report. The table below summarises the key financial risks & sensitivities that could impact the final expenditure and funding positions.

<b>Variable</b>	<b>Range</b>	<b>H,M,L</b>	<b>Comments</b>
Construction Costs	+/- £2m	M	The current projections include a significant element of contingency but there remains uncertainty on the capital costs. The costs have been calculated on a prudent basis and so it is currently assumed that the project will be delivered well within the available resources but this can only be demonstrated once the tendering process is undertaken.
Interest Rates	1.5% - 3.5%	M	For every 0.5% change in PWLB interest rates the borrowing that can be funded from the revenue turnaround will change by approximately £1.5m.
Term of borrowing	30 – 50 years	L	The term of the borrowing could be revised resulting in an amended annual repayment, this should be considered in line with the anticipated life of the leisure centre and future plans.
Leisure provider income	+/- £100k pa	H	The soft market testing undertaken by the consultants has provided an estimated figure for the expected income from leisure providers, however there remains uncertainty in this value until a provider is contractually committed.
Development contributions	+/- £250k	M	Until the planning process is undertaken there is uncertainty as to the level of development contributions that will be required.
Sport England Funding	+/- £500k	M	The level of Sport England funding may not be at the value currently anticipated.



Variable	Range	H,M,L	Comments
Lifecycle costs	£250k pa	M	The current figures assume DDC will remain responsible for lifecycle costs (the periodic replacement of facilities) to provide a direct comparison to the existing position. If the leisure providers are asked to cover these costs there is likely to be a reduction in the level of income they will give the Council for provision of services however this would also reduce the investment needed by the authority in future years.
Additional facilities	Per £1m expenditure	L	If additional facilities are considered for inclusion in the project that cannot be funded from an improved revenue position with operators they will need to be funded through either savings in the General Fund revenue budget or through raising additional Council Tax Income. For every £1m additional borrowing undertaken an additional £40k per annum will be required to fund the interest & loan repayments. To fund this increase through Council Tax income would require an additional increase (over and above the increases forecast in the current MTFP) in the Band D rate of 0.6% (£1.10) for every additional £1m spent. Any increase over the current 2% capping limit would require a district referendum to implement.

## 11 Project Timetable and Resources

- 11.1 A detailed outline programme for the delivery of the project has been prepared and sees construction commencing towards the end of 2017 with the new leisure centre being completed by the first quarter of 2019. This is an ambitious working programme with some dates likely to alter as the project develops and it is advised to be regarded as a target timetable. It will require the Council to move forward promptly and take a series of important decisions to sign off the project at key milestones without making significant changes. Key project milestones are attached at Annex 5.

## 12 Corporate Implications

- 12.1 Comment from the Section 151 Officer: Finance have been consulted in the production of this report and have no further comments to add. (HL)
- 12.2 Comment from the Solicitor to the Council: The Solicitor to the Council has been consulted in the preparation of this report and has no further comments to make. (JH)

- 12.3 Comment from the Equalities Officer: The Equality Officer has been consulted during the development of this report and has made suggested recommendations to address the equality impact. Members are reminded that, in discharging their responsibilities they are required to comply with the public sector equality duty as set out in section 149 of the Equality Act 2010 <http://www.legislation.gov.uk/ukpga/2010/15>

## **13 Appendices**

- |         |  |
|---------|--|
| Annex 1 | Dover Leisure Centre Feasibility Study – August 2016 (for reasons of commercial sensitivity redactions on pages 12, 13, 16, 62-66, 74, Appendix 7 including Appendix A, Appendix 8 and Appendix 9 and Appendix 12) |
| Annex 2 | Equality Impact Assessment   |
| Annex 3 | Project Advisory Group minutes of 30 June 2016 and 26 July 2016  |
| Annex 4 | Scape Framework Expiry Update  |
| Annex 5 | Key Project Milestones   |
| Annex 6 | Your Leisure Proposal – The Management of Dover Leisure Centre & Tides Indoor Tennis Centre (for reasons of commercial sensitivity the proposal is included in the confidential part of the Agenda).               |
| Annex 7 | Un-redacted Dover Leisure Centre Feasibility Study – August 2016 (for reasons of commercial sensitivity the un-redacted version of this study is included in the confidential part of the Agenda).                 |

## **14 Background Papers**

None.

Contact Officer: Roger Walton, Ext: 2420



# Dover Leisure Centre Feasibility Study

For Dover District Council  
August 2016



## Version Control

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Version No	Date	Comments	Author	Reviewed by	Issued to
3	08/08/2016	Draft report for client review	G Thomason/T Pinnington	T Pinnington	Laura Corby

## Disclaimer

It is not possible to guarantee the fulfilment of any estimates or forecasts contained within this report, although they have been conscientiously prepared on the basis of our research and information made available to us at the time of the study.

Neither the authors or contributors will be held liable to any party for any direct or indirect losses, financial or otherwise, associated with any contents of this report. We have relied in a number of areas on information provided by the client, and have not undertaken additional independent verification of this information. Where applicable, assumptions have been agreed with the client's representatives and have been clearly stated.

## Principal Project Team Members

The principal project team members and their roles are listed below:



Sports  
Consultant



Project  
Management Consultant



Architect



Structural  
Engineer



Quantity  
Surveyor



M&E Engineer & BREEAM  
Advisor



Planning Consultant

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2 - Civil & Structural Engineer's Report
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4 - BREEAM Pre-Assessment
5 - Drainage & Flood Risk Reports
6 - Sequential Test Report and Initial Highways Comments from KCC
7 - Capital Costs
8 - Detailed Revenue projections
9 - Sensitivity Analysis
10 - Detailed Programme
11 - Risk Register
12 - Procurement Options Paper

# Executive Summary



### INTRODUCTION

In April 2016 the consultant team, led by The Sports Consultancy, was appointed by Dover District Council (the Council) to complete a Feasibility Study (to RIBA Stage 2) for a new, Sport England compliant, Leisure Centre proposed to replace the existing Dover Leisure Centre.

The Feasibility Study was commissioned in parallel with development of the Indoor Sports Facility Strategy, which included a recommendation to 'Commission detailed feasibility and site investigation studies required to identify the preferred option for the replacement of Dover Leisure Centre'.

The main purpose of this Feasibility Study is to investigate the preferred options, from the options appraisal study, in greater detail and to ensure that key financial risks are mitigated as far as possible, giving the Council a higher degree of cost certainty as it decides whether, and how best, to proceed.

### EXISTING LEISURE CENTRE

The existing dover leisure centre was built in 1975. It is in relatively poor condition and does not provide the range and quality of facilities required to meet the current and future needs of the population of the district.

### DEVELOPING A NEW FACILITY

The initial options appraisal study, completed in December 2015, involved completion of an options appraisal study for the improvement and replacement of the existing Dover Leisure Centre, to provide a new leisure centre to serve Dover and, importantly, the wider district. During that study a number of different facility mix options were developed to test their feasibility.

In addition, a number of potential sites within Dover were identified and the different facility mix options were considered on each site, including the existing Leisure centre site in the Town Centre.



## Executive Summary Facility Mix and Design Brief

### FACILITY MIX

Following the review of additional facility options, a facility mix was established as the basis of the preferred option. The table below contains a list of the activity areas proposed in the new centre, compared to those in the existing Dover Leisure Centre. This demonstrates a considerable improvement in the range of facilities as well as the quality of them. The only areas where there will be a decrease in provision is the reduction in sports hall space from 8 badminton courts to 4 badminton courts and the reduction from 3 to 2 squash courts.

Activity Areas	Current Facility Mix	Proposed Leisure Centre Facility Mix	Change Compared to Current
Main pool	6-Lane 25m pool	8 lane x 25m pool	Increase
Spectator seating	140 person capacity	250 person capacity	Increase
Learner pool	12.5m x 7.5m Learner pool	15m x 8.5m with moveable floor	Increase
Sports hall	8 courts	4 courts	Decrease
Health and fitness	37 stations	120 stations	Increase
Multi activity studio	1 x studios	2 x studios	Increase
Multi purpose room (ground floor)	None	1 x room for meetings / parties / soft play / crèche etc	Increase
Spin studio	None	1 x studio	Increase
Squash court	3 x courts	2 x courts	Decrease
Clip Interactive climbing	None	Included	Increase
Small sauna and steam room	Included	Included	No change
2 x five a side football pitches (outdoor 3G)	None	Included	Increase
Café	Included	Included	No change
Parking spaces	95 spaces	250 minimum	Increase



## Executive Summary – Preferred Site

### PREFERRED SITE

Following an extensive assessment of potential sites for the new leisure centre and area at White Cliffs Business Park (Whitfield) is considered preferable to other identified alternatives in the urban area.

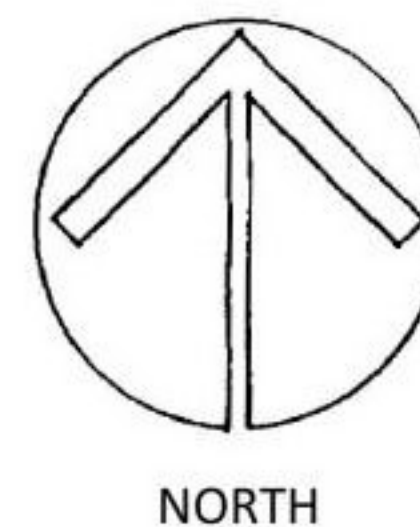
While the conclusions of the sequential test and the wider assessment support the selection of the Whitfield site, it will be for any subsequent planning application to provide the sufficiently detailed planning case for the development, including a thorough assessment of accessibility relative to alternatives and the existing site.

The Council's preferred site for the proposed leisure centre is located as indicated by the redline boundary on the aerial photo opposite. The site is located approximately 1.1km to the south east of Whitfield, 2.7km to the north-north west of Dover and is centred on National Grid Reference 631100, 144230. It is designated as Employment Zone.

Currently the site comprises open farm land, occupying an area of around 5.26 acres / 22,688m<sup>2</sup>, bound to the North by Honeywood Parkway. The Northern part of the site is bound to the West by commercial developments off Kedleston Road and to the east by a spur road from Honeywood Parkway.

The site lies in a fairly open area with some further commercial development to the North West and a little to the North East and with residential areas to the South and South East. Land to the North of the A2 is largely undeveloped, with the exception of Whitfield to the North West and smaller villages to the North and North East.

Images of the proposed site are provided opposite.





## Executive Summary – Proposed Site Plan

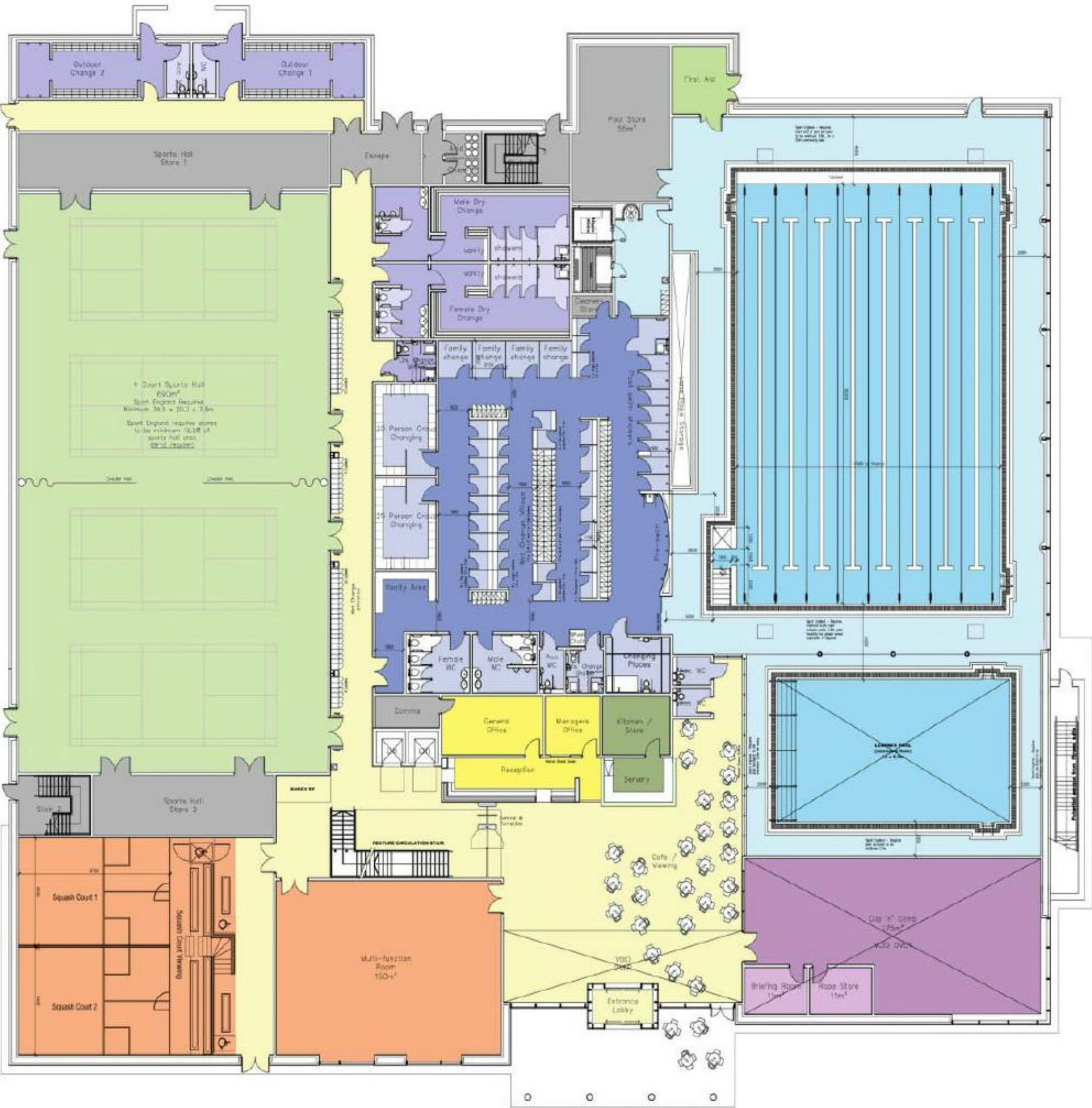
The proposed site plan is shown below:





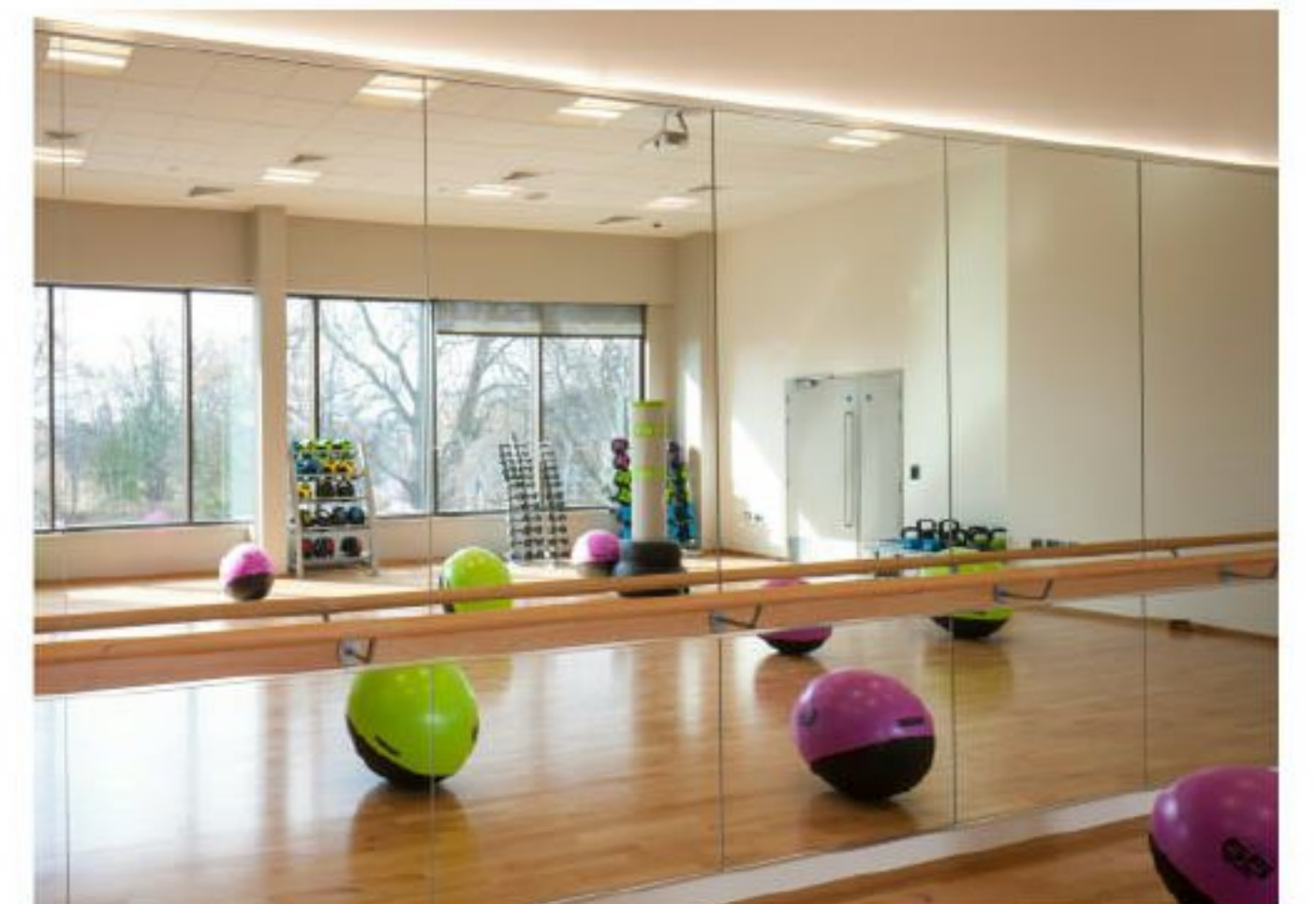
Executive Summary – Proposed Ground Floor Plan

The proposed ground floor plan is shown below:





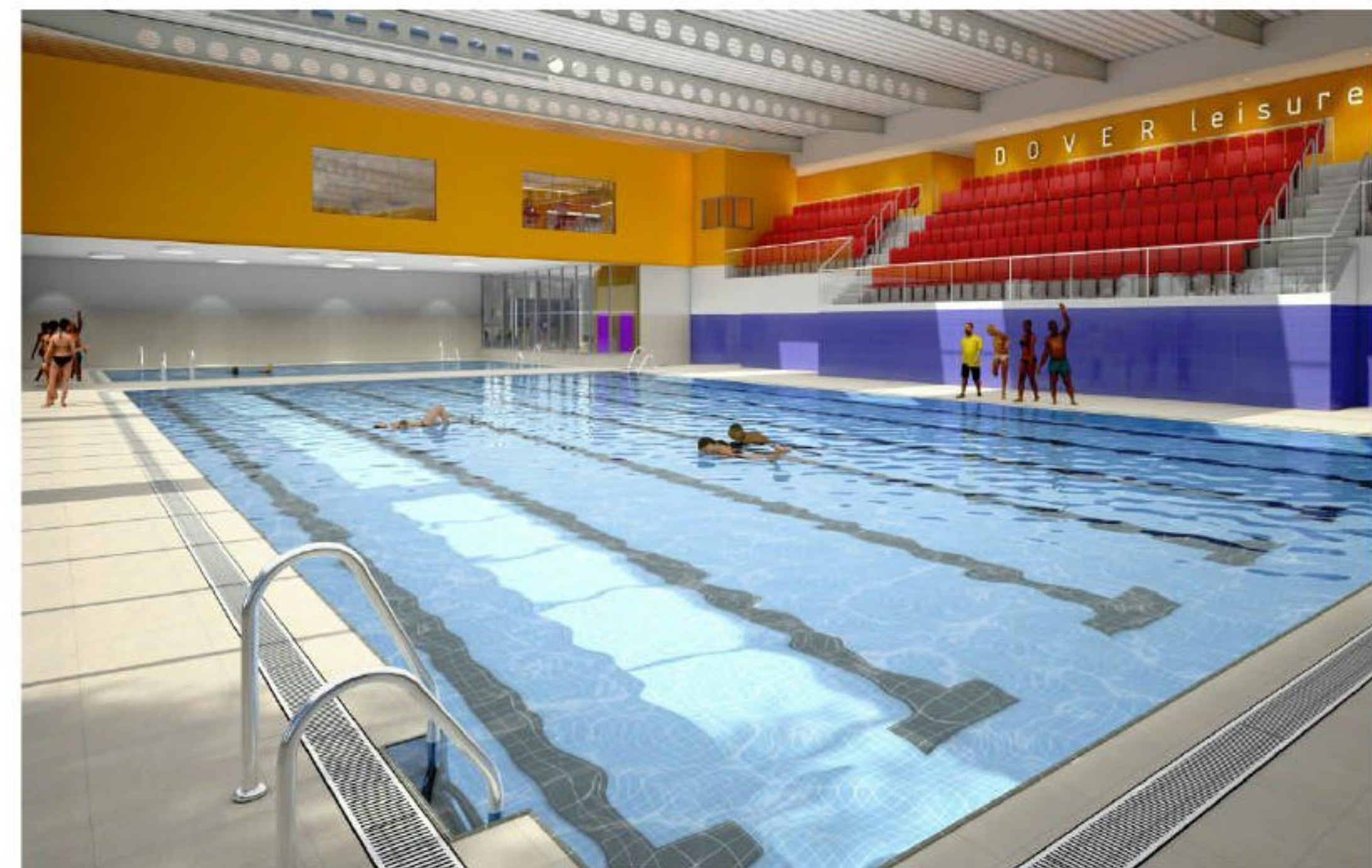
## 102

[illegible]



## Executive Summary – Indicative Visualisations

A series of indicative visualisations are included below:





## Executive Summary – Capital Costs

### CAPITAL COST ESTIMATES

Capital cost estimates have been completed by Faithful + Gould. The purpose of this RIBA Stage 2 Cost Plan is to give a magnitude of capital cost to Dover District Council for the proposed new Dover Leisure Centre at the Whitfield site, Dover. The costs are based on the schedule of accommodation and concept design information supplied by the project team.

The current projected capital cost is [REDACTED]

The approximate cost for the optional addition of green roof to the proposed scheme is [REDACTED] inclusive of percentage additions for contingency, inflation and professional fees. The Council will investigate other, lower cost options that will achieve similar outcomes, in terms of the BREEAM assessment.

The estimated cost is an outturn cost and therefore inflation is included based on construction commencing in October 2017 with a 15-month construction period.

The overall Gross Internal Floor Area (GIFA) for the new build is 5,548m<sup>2</sup> with an overall site area of approximately 22,688m<sup>2</sup>.

The Design Development / Construction Contingency has been reduced from 15% at feasibility stage to 12.5% in order to reflect the improved level of design information. This provides a contingency sum of circa [REDACTED]

A summary of the capital cost estimates is provided in the following table.

Description	Stage 2 Cost Plan
Internal Works	[REDACTED]
External Works	
Design Development / Construction Contingency	
Building Cost Inflation	
Professional Fees including Main Contractor's Design Fees	
<b>Sub Total</b>	
Fixtures, Fittings and Equipment (Sports)	
Clip n Climb Equipment	
<b>Total Capital Cost</b>	
<b>Additional Options</b>	
Extra over for green roof – say 50% of roof area	[REDACTED]
<b>Total</b>	[REDACTED]
<b>Gross Internal Floor Area</b>	<b>5,548m<sup>2</sup></b>
<b>Build Cost Rate per m<sup>2</sup></b>	[REDACTED]



## Executive Summary – Business Case

### BUSINESS CASE

A financial business case has been completed, based on the schedule of areas and design contained within this report. The purpose of the business case is:

- To confirm the revenue position of the existing Dover Leisure Centre
- To provide detailed 10-year income and expenditure projections for the operation of the new Dover Leisure Centre
- To define the known and potential capital funding for the project
- To assess the affordability of the project
- To provide conclusions and advise on business case related issues as the project develops.

The opposite table contains a summary of the findings from the business case work. As with most projects of this scale and nature, the proposed funding structure is based on a combination of funding sources. The table shows that the estimated funding gap is between c.£ [REDACTED] (including lifecycle costs) and c.£ [REDACTED] (excluding lifecycle costs).

**Lifecycle costs** – It is important to consider the treatment of lifecycle costs, for the periodic refurbishment and replacement of facilities. Expenditure on lifecycle costs is important to ensure the facilities are kept in good condition and that income does not diminish over time, due to deteriorating facilities. A typical allowance equal to 1.5% of the build costs (excluding fees and contingencies) should be allowed for, on an annual basis. We have presented the revenue projections including and excluding lifecycle costs.

The revenue projections 'excluding' lifecycle costs provide a like for like comparison with the existing revenue figures for Dover Leisure Centre, as the Council does not currently allow for lifecycle costs in the revenue budget. The revenue projections 'including' lifecycle costs show the impact on expected revenue performance if operators are required to include lifecycle costs in their operational revenue performance

The funding gap will need to be closed if the new centre is to be developed. Options for raising the additional funding should be considered by the Council.

	Including Lifecycle Costs	Excluding Lifecycle Costs
Annual revenue income/(cost) to the Council	[REDACTED]	[REDACTED]
Improvement in revenue compared to current centre (2014-15)	[REDACTED]	[REDACTED]
Total capital cost	[REDACTED]	[REDACTED]
Sport England funding	[REDACTED]	[REDACTED]
Prudential borrowing potential*	[REDACTED]	[REDACTED]
Funding Deficit/Surplus	[REDACTED]	[REDACTED]
Potential Revenue Deficit/Surplus after funding repayments	[REDACTED]	[REDACTED]

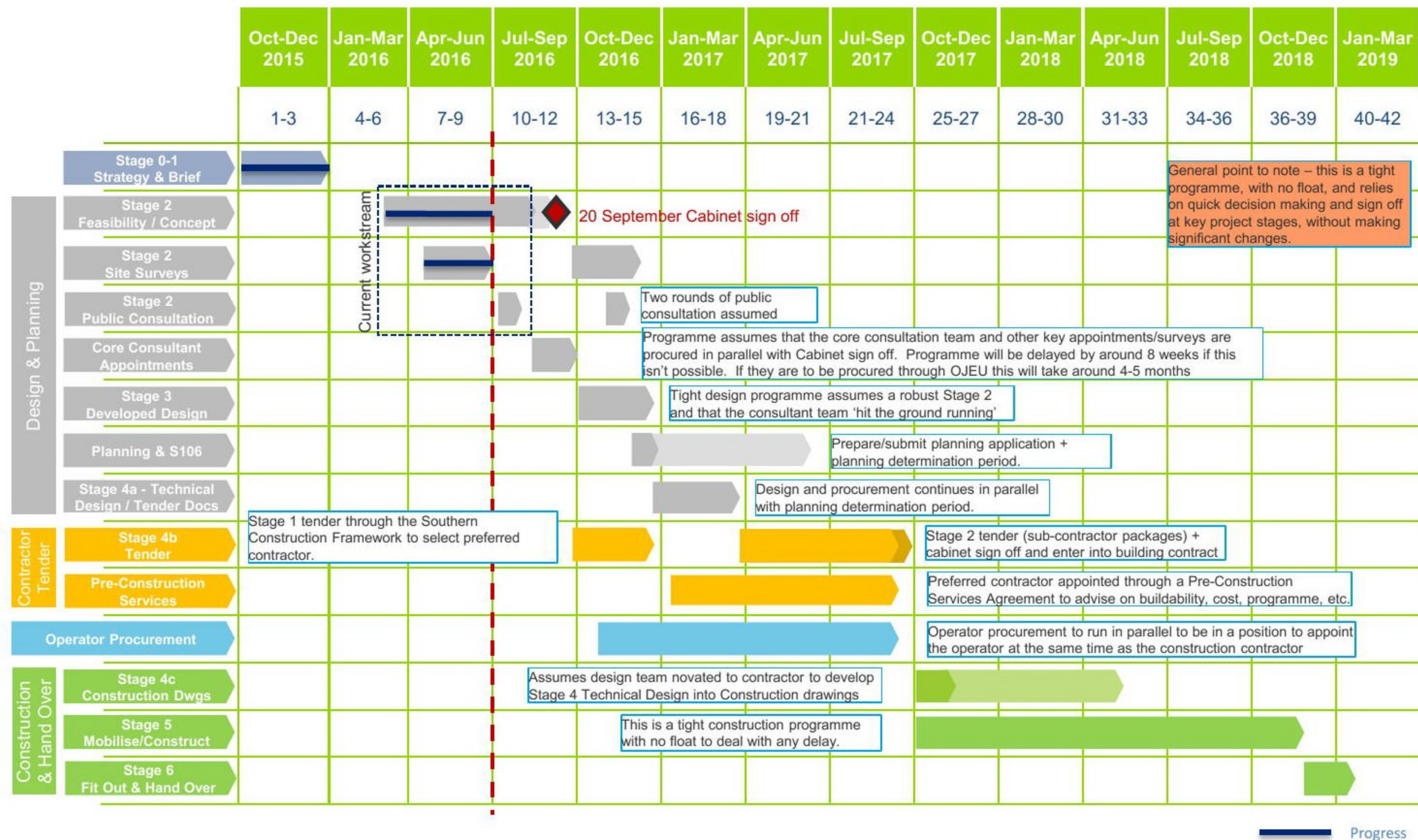
\*The principal source of funding is prudential borrowing. The amount of prudential borrowing available is based on an assumption of a 40 year loan @ 3.75%, on an annuity basis, costing £50k per £1m borrowed per year.



## Executive Summary – Project Programme

### PROJECT PROGRAMME

We have prepared a detailed target programme, which shows that the centre could be open by early 2019. A high-level summary of the target programme is also shown below. This is a tight programme, with no float, and relies on quick decision making and sign off at key project stages, without making significant changes. This should therefore be seen as a target programme and the Council should allow some programme contingency when reporting dates publicly.





## Executive Summary – Key Risks

### KEY RISKS

An initial Risk Register has been prepared. An extract from the risk register showing the highest project risks is included on opposite. This identifies risks and states the probability of occurrence and the likely extent of impact on cost or programme.

The initial register has been prepared based on our understanding of the critical objectives for the project. The ratings have also been informed by survey work carried out during the feasibility stage and the way the design has been developed. Where further surveys should be undertaken to establish or mitigate risk this is also identified.

The risk register should be used in future phases to identify risks to enable the risk to be managed by the risk owner, mitigated and transferred to the contractor wherever possible. Due to the nature of some risks and the cost premium to transfer the risk to the contractor, some risks will need to be retained and managed by the Council.

The risk register should be updated regularly as the design development progresses, during tender stage and post-contract during the construction phase.

Risk Area	Risk Description	Assessment of Risk		
		Impact (1 - 5)	Likelihood (1 - 5)	Score
Site Ownership	Delay / unable to purchase the site.	5	5	25
Utilities	Insufficient water supply capacity to serve the proposed development. Increased cost and programme delay. Payment required for offsite works.	5	5	25
Cost	Land purchase is more than anticipated and/or makes the project unaffordable.	5	4	20
Finance/Funding	Sport England funding not obtained.	5	4	20
Planning	Planning application is rejected or consent is delayed. (See also other planning risks, which could have an impact on this, and the proposed mitigation measures)	5	4	20
Planning	S106 Agreement/Developer Contribution required for offsite highway improvements or contribution to Bus Rapid Transit	4	5	20
Programme	Construction programme is insufficient.	4	5	20
Site	Poor ground conditions.	5	4	20
Utilities	Insufficient electrical supply and/or nothing local to the site.	5	4	20

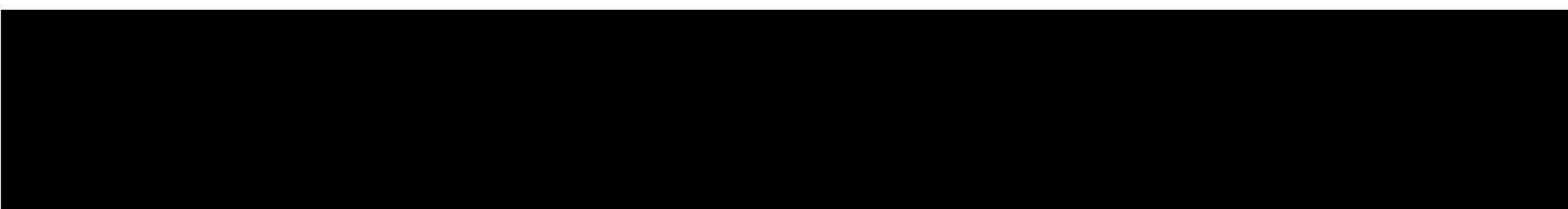


### OVERALL PROCUREMENT RECOMMENDATIONS

To summarise, we consider the approach outlined in the opposite table be the most appropriate procurement approach.

### CONTRACTOR SOFT MARKET TESTING

Soft market testing was completed with the contractors on the Southern Contractors framework to establish the level of interest in the project.



The results support the recommendation to use the Southern Construction Framework.

### OPERATOR PROCUREMENT RECOMMENDATION

It was agreed that the leisure management contract and construction contract should be procured separately. It was also agreed that the procurement of the leisure management contract should be progressed in parallel with the construction contract so that the commercial position for the operator is known before entering into the construction contract.

### OPERATOR SOFT MARKET TESTING

Nine operators were engaged with during the soft market testing exercise, to seek their views on the proposed plans for the new Dover Leisure Centre and to gauge interest in outsourcing of its management alongside that of Tides Leisure Centre in Deal.

Overall, operators are supportive of the proposals and there is clearly significant interest in the management contract opportunity encompassing Tides and Dover Leisure Centre. This should help ensure a competitive tendering process to maximise the financial offer from potential operators.

Approach
Contractor and operators to be procured separately. This will discount a DBOM, DBFO and Asset Transfer approach.
A two stage develop and construct procurement route to be adopted.
Design developed to Stage 4 (previously Stage E) in conjunction with the contractor and for the completion of the second stage tender.
A fixed lump sum price is obtained for the works.
Key designers, e.g. architect and civil/structural engineer would be appointed by/novated to the contractor to complete the design.
The contractor is procured through the Southern Construction Framework.
Procurement of the leisure management contract should be progressed in parallel with the construction contract so that the commercial position for the operator is known before entering into the construction contract.



## Consultation

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### CONSULTATION PROCESS

Following completion of the draft report the Council undertook a wide ranging consultation exercise. The purpose of this was to share the findings of the work to date and to invite comments from a broad range of stakeholder groups and the community of the District. The aim was to maximise engagement and to encourage groups and individuals to respond to the consultation questionnaire.

The following groups were included in the consultation process:

- Leisure centre users (existing and potential)
- Your Leisure and potential new operators
- Sport England
- National Governing Bodies of Sport (e.g. ASA)
- Local sports clubs and community groups
- General public
- Elected members
- Project Advisory Group
- Kent County Council
- Kent Community Health NHS Foundation Trust
- South Kent Coast Clinical Commissioning Group
- Kent Sport and sports networks
- Local primary and secondary schools
- Dover District Disability Association
- Town and Parish Councils
- Your Leisure database of existing customers
- protected characteristic groups
- local civic groups
- Local media.

The following communications channels were used for the consultation process:

- Website content
- Social media (#NewDoverLeisureCentre)
- 'A to Z' Leisure Facilities
- Keep Me Posted

- Media Relations
- Public consultation events
- Survey monkey questionnaires
- FAQs
- local adverts in papers
- posters at area offices
- leisure centres and libraries
- direct contact with Key stakeholders
- consultation displays at Dover & Tides Leisure centre.

### RESULTS OF CONSULTATION

The level of response to the consultation process was relatively high, at 673. The results generally demonstrate there is a good level of support for the proposals. There are some notable comments relating to the facility mix, location and accessibility, which should be considered further as the project develops.

Overall, the results of the consultation to date have been positive and will feed into the next stage of work, as designs are refined.



# Introduction & Background



## Introduction & Background

In April 2016 the consultant team, led by The Sports Consultancy, was appointed by Dover District Council (the Council) to complete a Feasibility Study (to RIBA Stage 2) for a new, Sport England compliant, Leisure Centre proposed to replace the existing Dover Leisure Centre.

This Feasibility Study was commissioned in parallel with conclusion of the Indoor Sports Facility Strategy, which included a recommendation to 'Commission detailed feasibility and site investigation studies required to identify the preferred option for the replacement of Dover Leisure Centre'.

In parallel with completion of the Indoor Sports Facility Strategy, an initial options appraisal study was completed in December 2015. This involved completions of an options appraisal study for the improvement and replacement of the existing Dover Leisure Centre. The outputs from the study were used by the Council as the basis of decisions on whether, and how best, to proceed with the development of a new leisure centre to serve Dover and the wider district.

The main purpose of this Feasibility Study is to investigate the preferred options, from the options appraisal study, in greater detail and to ensure that key financial risks are mitigated as far as possible, giving the Council a higher degree of cost certainty as it decides whether, and how best, to proceed. The key stages of work that have been completed are listed below:

- Stage 1 - Project Initiation
- Stage 2 – Sequential Test and Planning Consultancy
- Stage 3 - Background Review & Surveys for the Whitfield site
- Stage 4 - Stakeholder Consultation and Brief Development
- Stage 5 - Development of the Facility Options
- Stage 6 - Management Options and Soft Market Testing
- Stage 7 - Public Consultation
- Stage 8 - Refinement of Options
- Stage 9 - Recommendations & Conclusions
- Stage 10 - Meetings and Presentation.

A number of surveys and investigations were commissioned to inform the work completed by the project team during the Stage 2 Feasibility Study. These are listed in the following table.

Consultant Surveys/Investigations
Sequential test report
Planning strategy review
Pre-application highways advice from KCC
Infiltration report from British Geological Survey
Sewer records from Southern Water
Surface water capacity check
Foul water capacity check
Topographic survey
Below ground services trace
Statutory services record
Desktop Site Investigation
BREAAM Stage 1 Assessment
Council Surveys/Investigations
Photographic work preliminary to preparing an LVIA
Preliminary ecological appraisal
Reptile survey

The remainder of this report contains a summary of the findings and recommendations from the study.



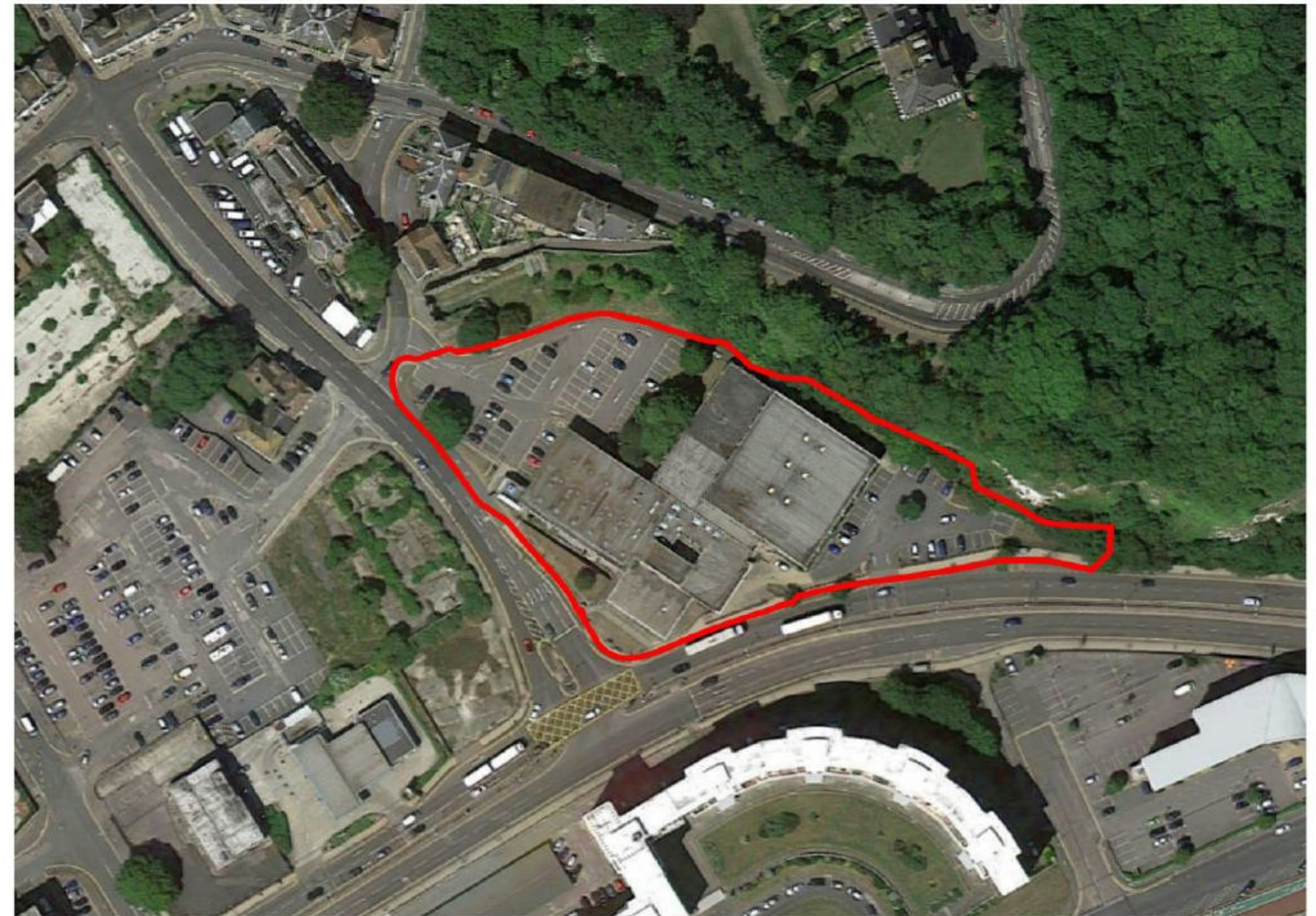
## Introduction & Background

### Existing Leisure Centre

The existing dover leisure centre was built in 1975. It is in relatively poor condition and does not provide the range and quality of facilities required to meet the current and future needs of the population of the district. It contains the facilities listed below:

Activity Areas	Current
Main pool	6-Lane 25m pool
Spectator seating	140 person capacity
Learner pool	12.5m x 7.5m Learner pool
Sports hall	8 courts
Health and fitness	37 stations
Multi activity studio	1 x studios
Squash court	3 x courts
Small sauna and steam room	Included
Café	Included
Parking spaces	95 spaces

A site image and photographs of the existing centre are shown opposite.





## Introduction & Background

### Indoor Sports Facility Strategy for Dover District

The Council recently completed an Indoor Sports Facility Strategy. Following Sport England's recommended methodology. This study included a detailed needs analysis to identify current and future (up to 2026) provision required to meet the indoor sport facility needs of Dover residents.

It provides a robust evidence base for decisions taken on the scale of facilities required in each of the facility options considered for the replacement of Dover Leisure Centre. In line with the brief, we reviewed the supply and demand issues affecting the following facility types:

- Indoor swimming pools
- Sports halls or flexible indoor space with 1 court or more
- Fitness suites
- Indoor bowls
- Dance/aerobic studios
- Indoor tennis courts
- Squash courts
- Gymnastics centres

A high level summary of the findings from the district wide needs analysis, taken from the Indoor Sports Facilities Needs Assessment report, is contained in the opposite table. This contains the recommendations by facility type for the whole district.

Facility Type	Recommendations for Dover Leisure Centre
Main pool	<ul style="list-style-type: none"> <li>• 6 or 8 lane 25m pool should be considered (100 spectator seats in 6 lane option and 250 in 8 lane option).</li> <li>• 6 lanes would replace the existing provision. 8 Lanes would increase provision and would reduce the current, district wide shortfall in provision from 6 to 4, 25m lanes.</li> </ul>
Learner pool	<ul style="list-style-type: none"> <li>• A learner pool should be provided with a moveable floor to focus on swimming lessons. A learner pool should be provided with a moveable floor to focus on swimming lessons. This space will also be used for other activities including aqua aerobics, which contribute to wider health and wellbeing objectives.</li> </ul>
Sports hall	<ul style="list-style-type: none"> <li>• 4 – 8 courts should be considered.</li> <li>• According to Sport England's FPM analysis, a reduction in the amount of sports hall space, from the current 8 courts to 4, a new replacement Dover Leisure Centre does not appear to have a detrimental impact on satisfied demand in Dover. However, this assumes that community access to sports hall space at Dover College, Sir Roger Manwood's School, Duke Of York's Royal Military School and Dover Christ Church Academy is realised. This also assumes continued community access to sports hall space at Castle Community College.</li> </ul>
Health and fitness	<ul style="list-style-type: none"> <li>• The latent demand analysis indicates that 120 stations could be supported.</li> </ul>
Multi activity studio	<ul style="list-style-type: none"> <li>• It is recommended that 2 - 3 x studios should be provided in a facility of this scale.</li> </ul>
Spin studio	<ul style="list-style-type: none"> <li>• A dedicated spin studio should be provided in larger facility options.</li> </ul>
Squash court	<ul style="list-style-type: none"> <li>• A maximum of 3 courts should be considered, in the larger facility options, to retain existing levels of provision</li> <li>• The Council could decide not to provide any in smaller options however, England Squash suggest that the courts at Dover Leisure Centre are very important for the area.</li> </ul>
Gymnastics	<ul style="list-style-type: none"> <li>• There is latent demand identified (through waiting lists) at Dover Gym Club and Deal Gym Club. However, it should be noted that these facilities are often developed as commercially viable businesses.</li> </ul>
Parking spaces	<ul style="list-style-type: none"> <li>• Indicative parking requirements should be calculated based on the scale of each facility option and based on Kent County Council parking standards.</li> </ul>



## Introduction & Background

### Recommendations of the Initial Feasibility and Options Appraisal Study for Dover Leisure Centre

The initial feasibility and options appraisal study was completed in January 2016. It involved consideration of a number of options that address the priorities identified Indoor Sports Facility Strategy and the district wide strategy and action plan, contained therein. The key conclusions of the study are summarised below:

- While significant refurbishment of the centre could provide improvement in the quality of provision, there are a number of key risks and disadvantages associated with refurbishment, compared to the new build options. On balance, it is recommended that a new build centre will provide a better long-term solution for the needs of Dover and the wider district and as a consequence offers better value for money to the Council than refurbishment.
- Of the new build options considered, Option 2 is the most affordable option to balance the identified needs for the district and affordability. However, it does represent a reduction in sports hall space from the current 8 courts to 4 courts. This option would also see the loss of squash from the centre. This would have a negative impact on squash and current users may find it difficult to secure bookings at alternative sites during peak times.
- Work completed during the indoor leisure needs assessment and strategy, including results from Sport England's Facility Planning Model, indicates that recent and planned developments, by other providers in the area, has and will (if delivered) increase the supply of accessible 4 court sports halls at peak times. This will relieve some of the requirement for the Council to provide the existing level of indoor sports hall space, supporting the potential reduction in provision.
- Option 4 provides the best option in terms of meeting the identified needs for the wider district, although it is less affordable than Option 2.
- Option 1 is the most affordable option but will result in a greater shortfall in sports hall provision in Dover and the wider district. While more affordable, this removal of sports hall provision is not recommended.

- Options 3 and 5 are larger in scale and arguably represent over provision. The affordability gap is greater the larger the facility option. These options are far less affordable and are not aligned to the findings from the needs analysis. They are not recommended for these reason (see opposite table).
- Overall, Option 2 is the most affordable while Option 4 provides the best option in terms of meeting identified needs. Both options should be taken forward to the next stage of project development (RIBA Stage 2 Feasibility).

### Site Options Appraisal

During the initial feasibility and options appraisal study, the selection of the most appropriate site for a new leisure centre was a key consideration. Five potential sites were identified by the Council for consideration. The sites are listed below and their locations shown on the following page:

- Buckland Mill
- Dover Leisure Centre
- Maison Dieu
- Waterfront
- Whitfield.

The site appraisal work concluded that, only Buckland Mill and Whitfield have the capacity to fully accommodate the facility options identified. Both are subject to a range of advantages and disadvantages and factors which could influence the final decision by the Council. It was recommended that Selection of either site would necessitate the completion of a full sequential test, as part of a planning application. This could identify further alternative sites to be considered.

### REFURBISHMENT VERSUS NEW BUILD

As noted previously, during the Initial Feasibility and Options Appraisal Study refurbishment and reconstruction of the existing Dover Leisure Centre was considered. We assumed that refurbishment and reconstruction would involve retaining some or all of the existing structure and undertaking significant works. No specific plans were developed for refurbishment at that stage but it was assumed that refurbishment would include significant layout changes to the building structure and full replacement of plant and mechanical and electrical installations and external finishes. The intention is to provide a refurbished building, containing a

similar facility mix to the current offer but this would not address identified long term needs of Dover & the wider District. Refurbishment would extend the life span of the existing building by another 20 years or so. The estimated cost was circa £13m - £15m. Refurbishment was discounted for the following reasons:

- Refurbishment of the existing building is the cheapest option, if the existing facility mix is to be retained. However, current and future needs, identified in the recently completed Indoor Sports Facility Strategy, cannot be met by this option so there will be little improvement in the facilities provided for the community of Dover and the wider district.
- The centre would be closed for between 12 and 18 months while the works are carried out, with very limited alternative provision for users in the district, particularly swimmers.
- The existing building is over 40 years old. Full refurbishment is likely to extend the lifespan of the building by another 20 years or more, whereas a good quality new build will be designed to provide a facility that will last for 35 - 40 years, providing a longer term solution.
- The layout of the existing building is inefficient with a large areas used for circulation. While this can be improved to some extent through remodelling, underutilised spaces may remain in places. A new build would be based on a far more efficient layout, minimising the capital and revenue costs. Refurbishing the existing building is likely to result in compromises that would not occur in a new build.
- Refurbishment and remodelling carries significant risks in terms of, for instance, structural, plant, mechanical and electrical issues and asbestos contamination. These risks can be mitigated to some extent by completing invasive surveys and investigations during feasibility work but risks remain which can have significant cost implications.
- There is likely to be less interest from building contractors for a major refurbishment project compared to a new build. The main reason for this is that the level of risk associated with refurbishment projects is far higher than for a new build. In the current, buoyant construction market many contractors are less willing to tender for this type of work. Where they do tender, they are likely to price additional risk/contingency within their tender.



## Introduction & Background

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- The capacity of the existing leisure centre site to accommodate the facilities, and parking required to support future growth in use, is restricted. Alternative sites could provide a greater level of on site parking, making them more accessible to visitors travelling by car.
- The site options appraisal and sequential test demonstrated that the existing location is not the preferred location for a facility with district wide appeal.

# Facility Mix



## Facility Mix

### STARTING POINT

The conclusions of the Indoor Sports Facilities Strategy and the Initial Feasibility and Options Appraisal Study for Dover Leisure Centre resulted in the identification of a preferred facility option (Option 4), to form the basis of the Stage 2 Feasibility Study.

The proposed facility mix was reviewed at the outset of the Stage 2 Feasibility Study to provide a core facility mix. This is contained in the following table.

Activity Areas	Proposed Leisure Centre Facility Mix (Option 4)
Main pool	8 lane x 25m pool
Spectator seating	250 person capacity
Learner pool	15m x 8.5m with moveable floor
Sports hall	4 courts
Health and fitness	120 stations
Multi activity studio	2 x studios
Multi purpose room (ground floor)	1 x room for meetings / parties / soft play / crèche etc.
Spin studio	1 x studio
Squash court	3 x courts
Interactive climbing	Included
Small sauna and steam room	Included
2 x five a side football pitches (outdoor 3G)	Included
Café	Included
Parking spaces	250 minimum

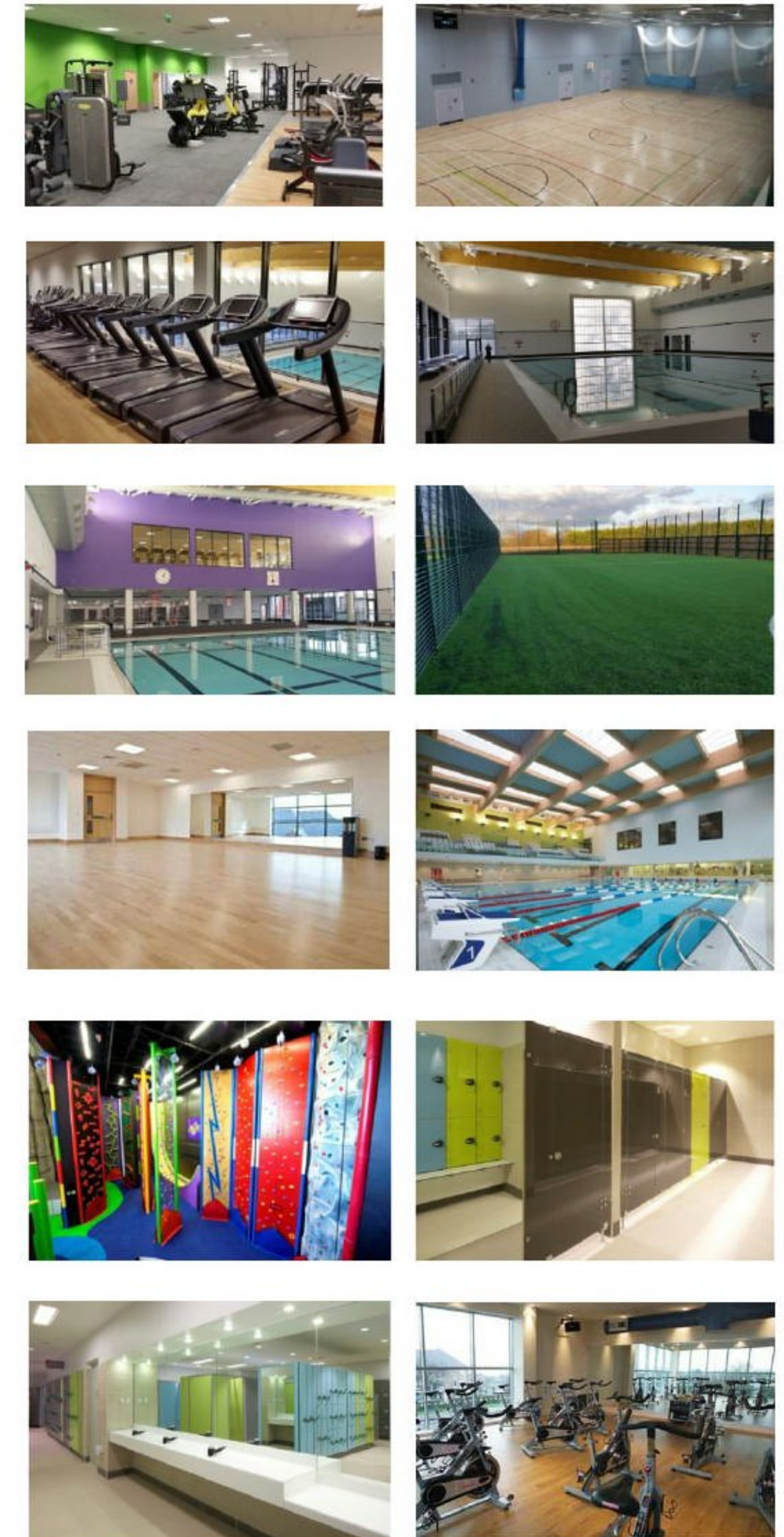
### SITE VISITS

To inform the development of the facility design and layout, members of the project team visited a number of recently developed leisure centres containing comparable facilities.

The purpose of the visits was to view comparable facilities and to learn lessons from them to inform decisions on facility mix and specification. The facilities visited included:

- Westminster Lodge Leisure Centre – St Albans
- Flitwick Leisure Centre - Central Bedfordshire
- Watford Central Leisure Centre – Watford
- Ramsgate Leisure Centre – Ramsgate
- Elmbridge Leisure – Walton-on-Thames
- Clip n Climb – Chelsea.

A selection of photographs from the sites visited are shown opposite.





## Facility Mix

### REVIEW OF FACILITY MIX

During the early stage of the Stage 2 Feasibility Study further facility options, were identified and tested before finalising the facility mix for the new centre. The following facilities were identified by the Council's project team, Project Advisory Group and following initial stakeholder and public consultation:

- Full size 3G pitch
- Soft play (not staffed)
- Clip and climb / interactive climbing
- Toning tables
- 50m pool with 500 spectator seats
- Additional 4 Court Sports Hall
- 2 x five a side football pitches (outdoor 3G)
- Confidence water area
- Full Spa (e.g. Ramsgate model).

The review of the impact of these additional facilities included the following work:

- Estimating the additional capital cost of each option.
- Estimating the net revenue implications.
- Calculating the impact on affordability / funding based on the increase in capital costs versus the increase or decrease in revenue performance.

The table opposite contains a summary of the results of the analysis. The additional facilities are listed in descending order, in relation to their impact on affordability. The results of the analysis were discussed with the Council's project team and it was agreed that the following facilities should be added to the Core facility mix to increase the range of activities and to improve the financial viability of the centre:

- Clip and climb / interactive climbing
- 2 x five a side football pitches (outdoor 3G).

The majority of the remaining facilities are likely to have a negative impact on the affordability of the project, as the additional net revenue generated is not sufficient to fund the prudential borrowing repayments required to access the capital required to finance the additional build costs.

The table opposite contains a summary of the results of the affordability analysis. The additional facilities are listed in descending order, in relation to their impact on affordability. The rows shaded green indicate facilities that are recommended for inclusion in the facility mix, due to their positive impact on affordability. Rows shaded in amber are facilities that will potentially have a negative impact on affordability. Their inclusion in the facility mix should be carefully considered. Rows shaded red contain facilities that will have a significantly negative impact on affordability. Their inclusion in the facility mix would increase the affordability gap significantly and will have a negative impact on the financial viability of the project.

Description	Affordability Comparison with Core Option	Recommendation and Rationale
2 x five a side football pitches (outdoor 3G)	£421,165	Include, as this has the most significant positive impact on affordability. Provision of outdoor five a side pitches can mitigate the impact of the loss of 4 courts compared to the existing centre, so important from a participation perspective.
Clip and climb / interactive climbing	£268,716	Inclusion should improve financial viability significantly. It should be regarded as a 'nice to have' facility. There is a risk associated with providing such a specific activity area, if trends change in the future, so the area should be designed to be able to accommodate other activities in future, if required.
Full size 3G pitch	£117,666	The Council could provide this to meet a clear strategic need, though other organisations in Dover are considering provision of similar facilities. Suggest the Council works towards provision in partnership with another organisation e.g. Dover Christchurch Academy, possibly in partnership with football and rugby clubs. Initial consultation has suggested these clubs are interested in a partnership.
Small sauna and steam (poolside)	£38,890	Should include based on the improved affordability. Not a strategically important facility, so it perhaps should be regarded as a 'nice to have' facility. It is noted that the current centre includes these facilities. If they are not included this would represent a reduction in provision.
Toning tables	-£385,786	Do not include on grounds of affordability. Should only be included if there is a specific and clearly identified need from a health and inclusion perspective. Also, there is the possibility of adding similar facilities at Tides and they are unlikely to be sustainable if added at both sites.
Full Spa (e.g. Ramsgate model)	-£472,259	Do not include on grounds of affordability. This option presents a risk, in terms of financial viability, and should be regarded as a nice to have facility. Could be considered as a potential future phase / extension. Operator consultation has identified this is an option that would require further detailed viability assessment before a decision is made on inclusion.
Soft play (not staffed)	-£762,083	Do not include on grounds of negative impact on affordability. It was also noted that similar facility, previously operating in the Whitfield area, has closed. While the reasons for this are not known it suggests that this was not a sustainable location.
Confidence water area	-£1,214,501	Do not include on grounds of affordability and competition with the leisure water provision at Tides (Deal), which meets this need for the district better. Tides should remain the focus of family leisure swimming.
Additional 4 Court Sports Hall	-£2,193,210	Do not include. Likely to have a negative impact on affordability of the project, increasing the affordability gap significantly. Provision of outdoor five a side pitches can mitigate the impact of the loss of 4 courts compared to the existing centre, as much of the activity that takes place in the hall at peak time is five a side football.
50m pool with 500 spectator seats	-£7,660,487	This option creates the largest affordability gap of all options. Do not include on grounds of affordability and no strategic need identified. It would result in over provision in terms of pool water and is aimed more at elite/competition swimmers. Dover is not currently identified as a priority for a 50m competition pool by the Amateur Swimming Association.



## Facility Mix

### AGREED FACILITY MIX

Following the review of additional facility options, a facility mix was established as the basis of the preferred option. The opposite table contains a list of the activity areas proposed in the new centre, compared to those in the existing Dover Leisure Centre. This demonstrates a considerable improvement in the range of facilities as well as the quality of them. The only areas where there will be a decrease in provision is the reduction in sports hall space from 8 badminton courts to 4 badminton courts and the reduction from 3 to 2 squash courts. The rationale for these changes is provided below:

#### Sports Hall

The recently completed Indoor Sports Facility Strategy concluded that the potential reduction (from 8 courts to 4 courts) in the amount of sports hall space provided at a new replacement Dover Leisure Centre does not appear to have a detrimental impact on satisfied demand in the District. However this assumes that community access to sports hall space at Dover College, Sir Roger Manwood's School and Duke of York's Royal Military School is realised and that there is community access to sports hall space at Castle Community College. Operator consultation, and analysis of typical programmes of use, showed that the programme of use is dominated by a significant amount of five-a-side football use. It was concluded that this could be provided for in a more financially viable way through provision of 2 x five a side football pitches (outdoor 3G) at a new centre, thereby reducing demand for indoor sports hall space.

#### Squash Courts

The reduction from 3 to 2 squash courts in the new centre is based on a requirement to provide the most financially viable range of facilities. Consultation with the existing operator and soft market testing with potential operators generally supported the proposed level of provision, with one operator questioning the need for any squash provision. The recently completed Indoor Sports Facility Strategy highlighted that access to courts at Duke Of York's Military School should be explored and could mitigate the loss at Dover Leisure Centre, particularly for clubs, if the reduction in provision a Dover Leisure Centre causes and issue for users.

Activity Areas	Current Facility Mix	Proposed Leisure Centre Facility Mix	Change Compared to Current
Main pool	6-Lane 25m pool	8 lane x 25m pool	Increase
Spectator seating	140 person capacity	250 person capacity	Increase
Learner pool	12.5m x 7.5m Learner pool	15m x 8.5m with moveable floor	Increase
Sports hall	8 courts	4 courts	Decrease
Health and fitness	37 stations	120 stations	Increase
Multi activity studio	1 x studios	2 x studios	Increase
Multi purpose room (ground floor)	None	1 x room for meetings / parties / soft play / crèche etc	Increase
Spin studio	None	1 x studio	Increase
Squash court	3 x courts	2 x courts	Decrease
Clip Interactive climbing	None	Included	Increase
Small sauna and steam room	Included	Included	No change
2 x five a side football pitches (outdoor 3G)	None	Included	Increase
Café	Included	Included	No change
Parking spaces	95 spaces	250 minimum	Increase



# Site Appraisal



### SEQUENTIAL TEST ASSESSMENT SUMMARY

Having agreed the facility mix for the new centre at Whitfield, the issue of site identification was examined. While a site at Whitfield was identified as the preferred site during the initial Options Appraisal Study, this needed to be tested further to ensure it is the preferred option.

Dover District Council is pursuing plans for a replacement to Dover Leisure centre, which comprises a 'Main Town Centre Use' as defined within the National Planning Policy Framework (NPPF). Accordingly, and as directed by policy, a Sequential Test Assessment is required in the event that an out of centre site is proposed. DHA Planning was commissioned to complete the sequential test assessment, in close consultation with planning officers from the Council.

The assessment fulfils that requirement and follows the available and applicable guidance, given that the Council identified an out of centre site at White Cliffs Business Park, Whitfield as the likely preferred site during the initial options appraisal study.

The sequential test report offers an independent assessment of potential alternative sites having regard to suitability and availability for the proposed development, the minimum requirements of which have been informed by thorough feasibility work carried out in 2015 and 2016.

The assessment has drawn upon a range of evidence and methods to identify and assess potential sites. It is intended to inform the Council's ongoing review and decision-making process in the delivery of a new leisure centre and should be subject to ongoing review as and when any new evidence becomes available (such as the results of the recent Brownfield Call for Sites) or new sites identified or suggested. This ongoing review should continue up to the point of planning application submission, if pursued, to ensure a robust document is presented as part of any application that both informs the proposals and informs the local planning authority's determination of the application.

### CONCLUSIONS OF THE SEQUENTIAL TEST ASSESSMENT

No site, located within the town centre, has been identified

that can reasonably be considered available, suitable and viable for the proposed leisure centre development, even when allowing for some disaggregation of facility in the form of the proposed artificial turf 5-a-side football pitches.

No site located in an edge of centre location, as defined by policy (within 300m of the defined town centre), has been identified to date that can reasonably be considered available, suitable and viable for the proposed leisure centre development, even when allowing for some disaggregation of facility in the form of the proposed artificial turf 5-a-side football pitches.

Accordingly, it is considered that the proposals for the site at Whitfield satisfy the sequential test, as set out within and required by the NPPF.

### Wider Assessment

Separate from the sequential test, other potential sites in the wider urban area have been considered in the interests of informing the overall planning balance and consideration, particularly in light of the Land Allocations Local Plan stating that 'given that the existing building is near the end of its useful life, an opportunity exists to create a landmark building. Leisure facilities could be located at a different site, so long as it is equally accessible to residents'.

Other sites, suitable in size, have been identified at Buckland Mill and Coombe Valley Road, however these are all allocated for housing. In contrast, the currently favoured site by the Council, as facility provider, is allocated for employment, which although not strictly consistent with a leisure use, does still offer employment opportunities. Buckland Mill is confirmed by the site owners as unavailable.

In locational terms, the potentially available and suitable sites (Coombe Valley Road and Whitfield) are not currently highly accessible by public transport, although the Local Plan does make direct future provision for improved bus services at Whitfield and it provides a more strategically advantageous and prominent location.

Therefore, in the wider planning sense, owing to the nature of its allocation (relative to Coombe Valley Road) and the greater

scope for public transport access, land at White Cliffs Business Park (Whitfield) is considered broadly preferable to other identified alternatives in the urban area.

### Preferred Site

The principle advantages of developing a leisure centre on the Whitfield site are listed below:

- It can be developed while maintaining full continuity of service at the existing leisure centre.
- This is a large site which has adequate capacity to accommodate new leisure centre and parking.
- The site is serviced by an existing road and more space is available for parking at this site than the town centre and edge of centre locations.
- There is an aspiration to introduce a Bus Rapid Transit service that will provide good public transport links with the town centre and Whitfield; if the leisure centre were relocated to Whitfield the project could contribute towards the cost of creating the BRT.
- This greenfield site offers fewer design constraints than an urban location, e.g. it is not adjacent to a conservation area
- It is located on the edge of the Dover urban area with good access to the trunk road network and would be readily accessible by car from the wider district.
- As a greenfield site, buildability and deliverability is likely to be more straightforward than brownfield site. This should help minimise the build programme and consequently the impact of building cost inflation.
- It has the ability to develop into a wider sports hub, with potential pitches, external leisure facilities, etc.
- Use of this site, which is designated as employment land would involve investment within the Council's premier business park.

While the conclusions of the sequential test and the wider assessment support the selection of the Whitfield site, it will be for any subsequent planning application to provide the sufficiently detailed planning case for the development, including a thorough assessment of accessibility relative to alternatives and the existing site.



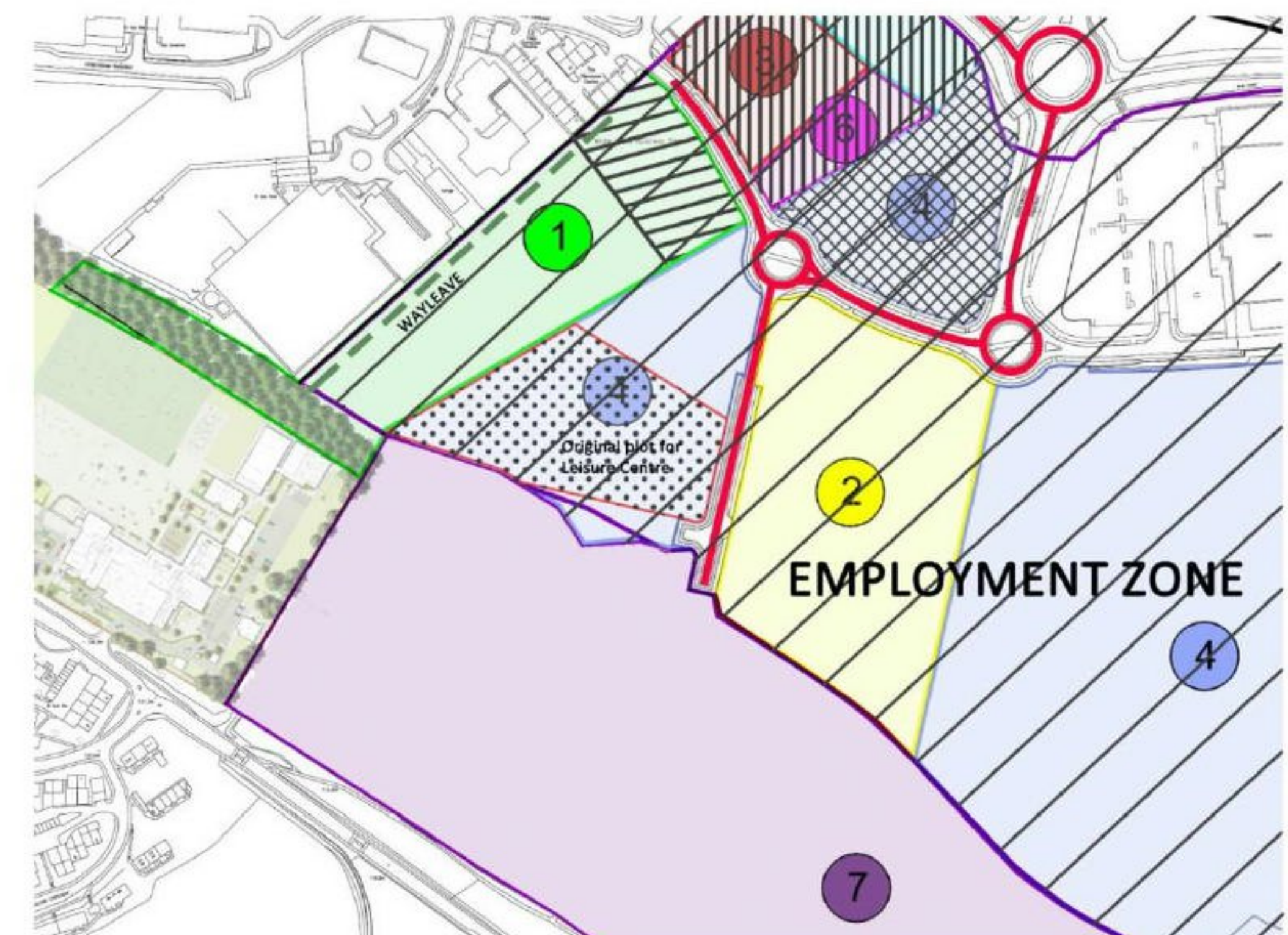
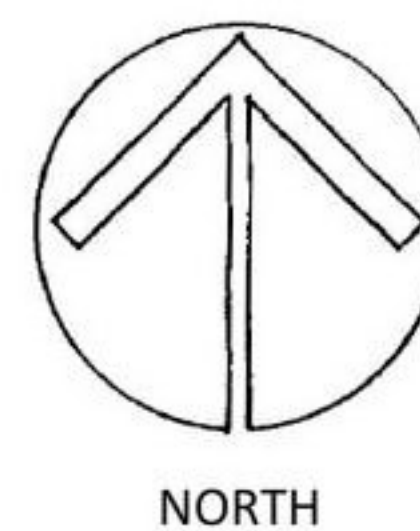
# Site Appraisal

## SITE LOCATION AND SETTING

The Council's preferred site for the proposed leisure centre is located as indicated by the redline boundary on the aerial photo opposite. The site is located approximately 1.1km to the south east of Whitfield, 2.7km to the north-north west of Dover and is centred on National Grid Reference 631100, 144230. It is designated as Employment Zone.

Currently the proposed site comprises open farm land, occupying an area of around 5.26acres / 22,688m<sup>2</sup>, bound to the North by Honeywood Parkway. The Northern part of the site is bound to the West by commercial developments off Kedleston Road and to the east by a spur road from Honeywood Parkway.

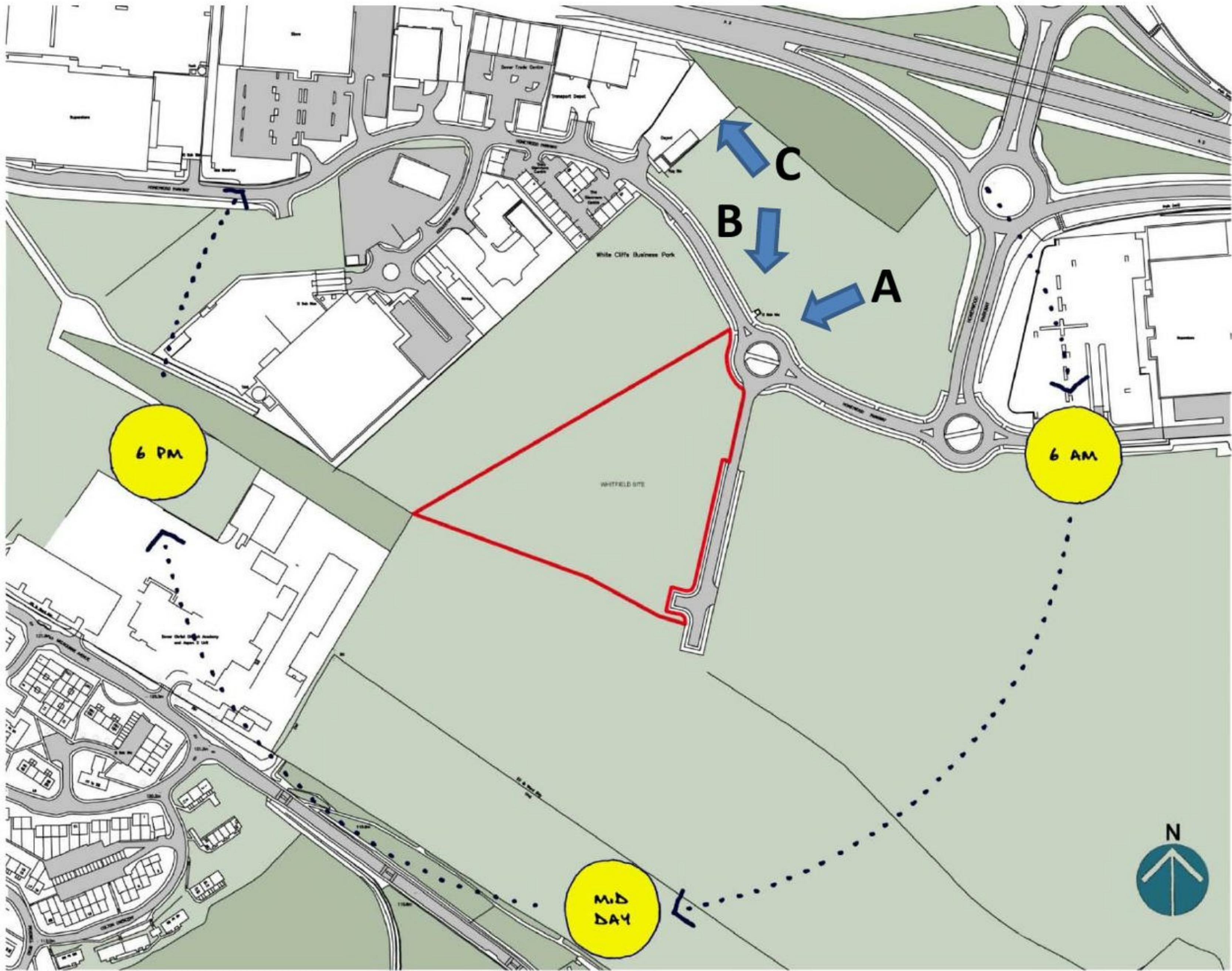
The proposed site lies in a fairly open area with some further commercial development to the North West and a little to the North East and with residential areas to the South and South East. Land to the North of the A2 is largely undeveloped, with the exception of Whitfield to the North West and smaller villages to the North and North East.





Site Appraisal

The site diagram below shows the red line boundary for the site and the sun path. The arrows labelled A, B and C indicate the position from which the accompanying photographs have been taken.





## Site Appraisal

### LOCATION AND ASPECT

The building should be located to maximise visibility at from key viewpoints, such as towards the existing roundabout and main road.

### SITE ACCESS

The intention is to use the existing spur from the established highway in order to minimise potential works and costs associated with affecting existing road networks

### BUILDING DESIGN

The layout and design are a response to the brief, the conceptual framework of the spatial relationship diagram and the site

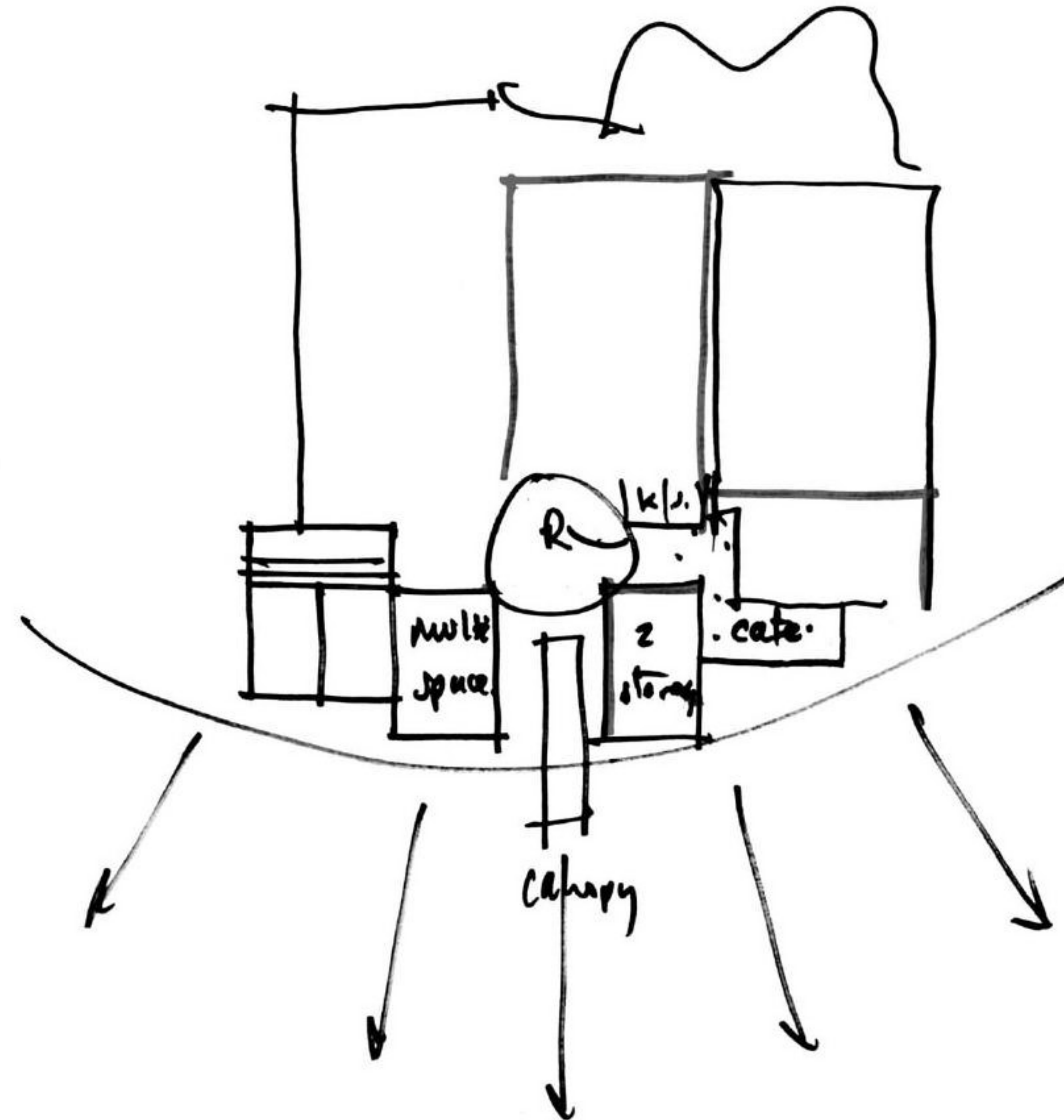
The concept of the building is to maximise the active frontages of the building facing key view points and major access routes to create a lively and vibrant facility, which is welcoming to the building users and also gives a good idea of what is going on inside the building. Essentially, the activities themselves act as a shopfront for the new leisure centre.

The building is roughly divided into three key elements:

- Wet side leisure – the pools. Highly serviced, and with specific design requirements and technical design criteria
- Dry side leisure – The four court sports hall, squash courts, studios and fitness suite
- A central service spine – wet and dry change facilities, back up, stores and admin spaces.

In addition, a double height reception space overlooked by the fitness suite, a café with views into key spaces and spilling out onto an external terrace, and a clip n' climb facility will all add to the vibrancy and experience.

The aim is to distil and resolve these many, varied and often conflicting factors into a clear, legible and readable architectural concept.



# Concept Design

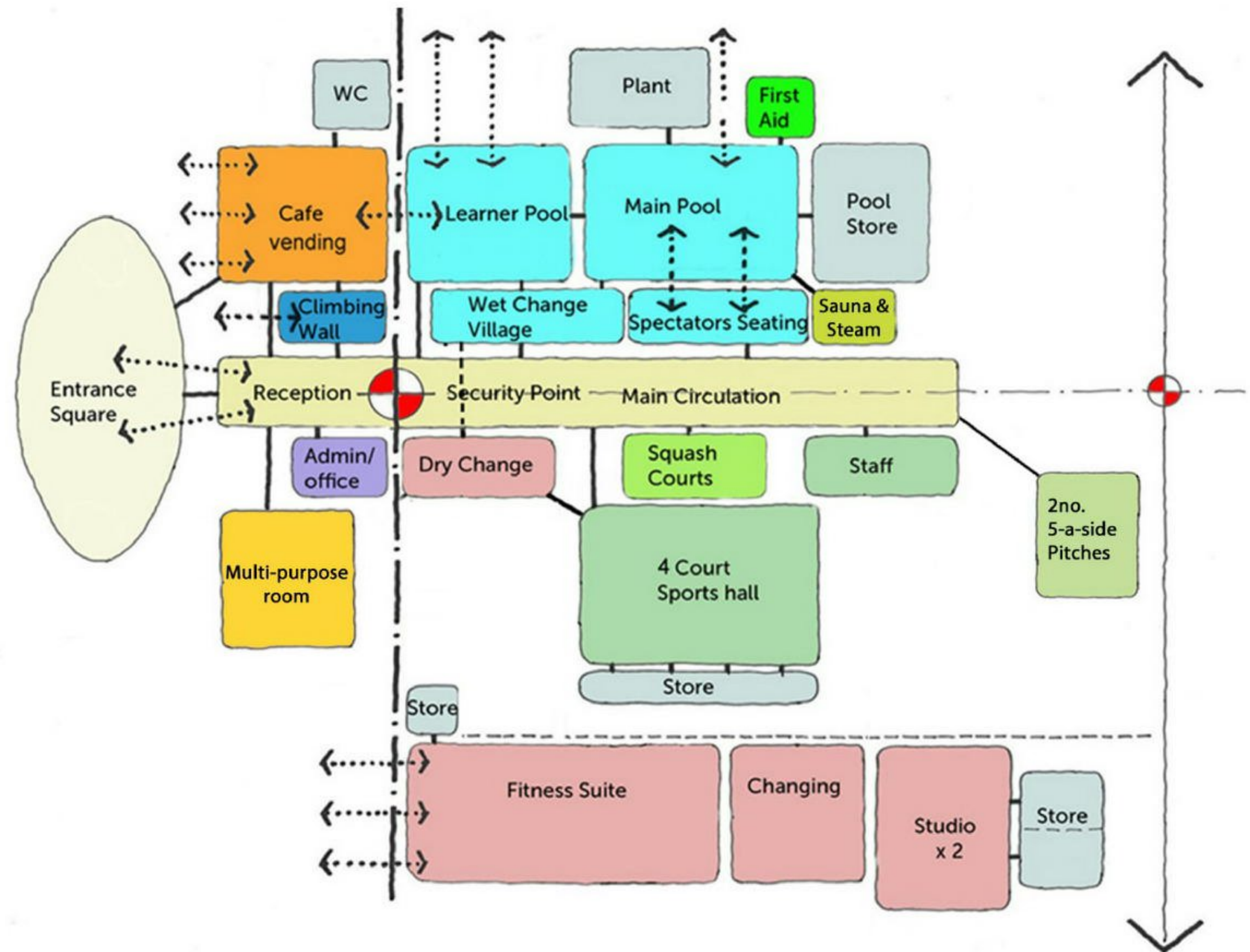


## Concept Design - Relationship Diagram

Leisure centres are complicated building types, with numerous different requirements for each space. Some spaces work best next to each other whilst others are better further apart; some spaces require public access and some must remain private with secure access. Other adjacencies may be desirable such as a view from a cafe area into the pool space. Some room relationships are an inherent part of a leisure building brief, others may be specific client requirements affected by political, economic or market factors.

In each project, we try to examine these spatial relationships by creating a simple and clear concept diagram of how these linkages might work in the proposed building design. It is not a building plan, but rather a method of taking a complex brief and understanding how spaces might fit and work together.

It is a very useful design tool in the early stages, and we refer back to this diagram as the building develops to ensure that key spatial relationships are maintained throughout the design process, from first concepts to delivery on site.





## Concept Design - Site Plan

The agreed site plan is included opposite. This shows the arrangement of the following elements of the development.

- Leisure Centre
- Two five-a-side external football pitches
- Parking for minimum 250 cars.

The leisure centre is located close to the Northern corner of the site boundary, with five a side pitches adjacent to the sports hall and outdoor changing rooms. The car park is wrapped around the building to the South, the main entrance directly access from the pavement on the existing access road.

The building is in a prominent position, close to the existing roundabout, increasing visibility.

The main entrance is visible from both the roundabout and the access road, and whilst there is a benefit in hiding the car parking behind the bulk of the building from view of the main road, the building location does result in some long distances between the main entrance and the parking, in particular, towards the Western corner of the site.

This location has a number of benefits:

- More breathing space for the building – Not jammed into the corner of the site
- Improvements to landscaping and setting – In particular, when viewed from the existing roundabout, and the potential to create improved pedestrian links
- Improved connection to parking - Proximity of parking to the main entrance, in particular accessible bays.

### BUS AND COACH DROP OFF

We have indicated a bus layby directly opposite the proposed main entrance to the building. This seems the simplest and easiest to incorporate. An alternative would be to incorporate a loop within the site with two coach bays adjacent to the sports hall. Final design is to be considered at next stage.



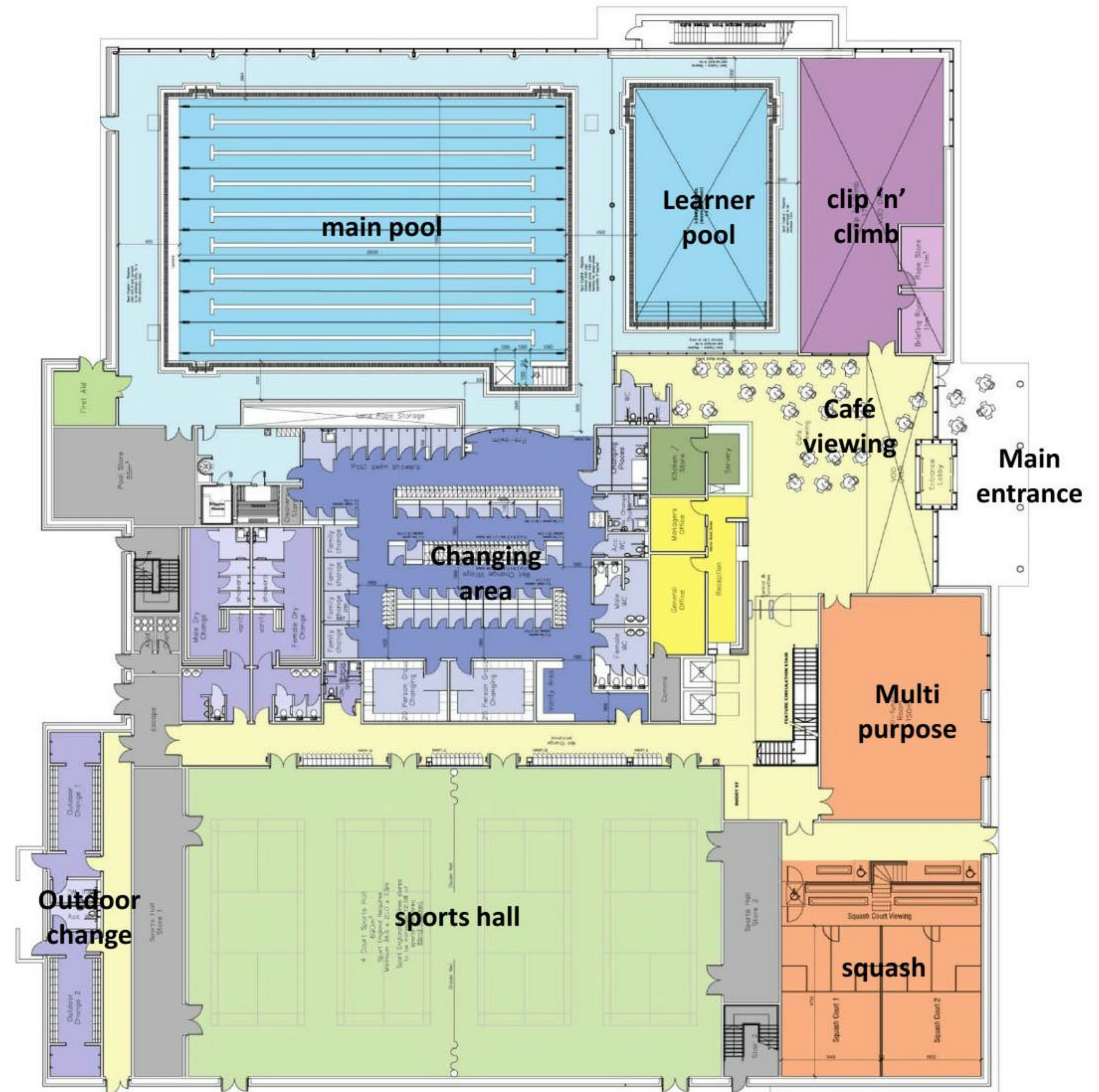


## Concept Design - Ground Floor Plan

The following design features are included in the ground floor plan, which is shown opposite:

- Main entrance highly visible facing the main road, framed by a high level canopy and full height glazing to allow natural light into the space
- Full height void at main entrance overlooked by windows to fitness suite
- Reception, admin offices and security control point for the building located directly opposite main entrance
- Clip n' climb space directly adjacent to reception and visible upon approach to the building from outside, occupying a two storey high space
- Café area with views into learner pool and clip n' climb, with link to external café tables
- Multipurpose room at ground level for functions and children's parties etc adjacent to reception
- Two squash courts with spectator seating
- Main stair access to upper floor with roof light above allowing natural light from high level
- Main pool and learner pool visible from car park
- Wet change village with direct access to pools
- Four court badminton sports hall accessed via circulation corridor
- Dry change area directly opposite the sports hall
- Outdoor changing rooms accessible by people using the external five-a-side football pitches
- First aid, store rooms and plant space.

*NOTE – Allowance made for basement pool plant which may be relocated to ground level during detailed design stage*



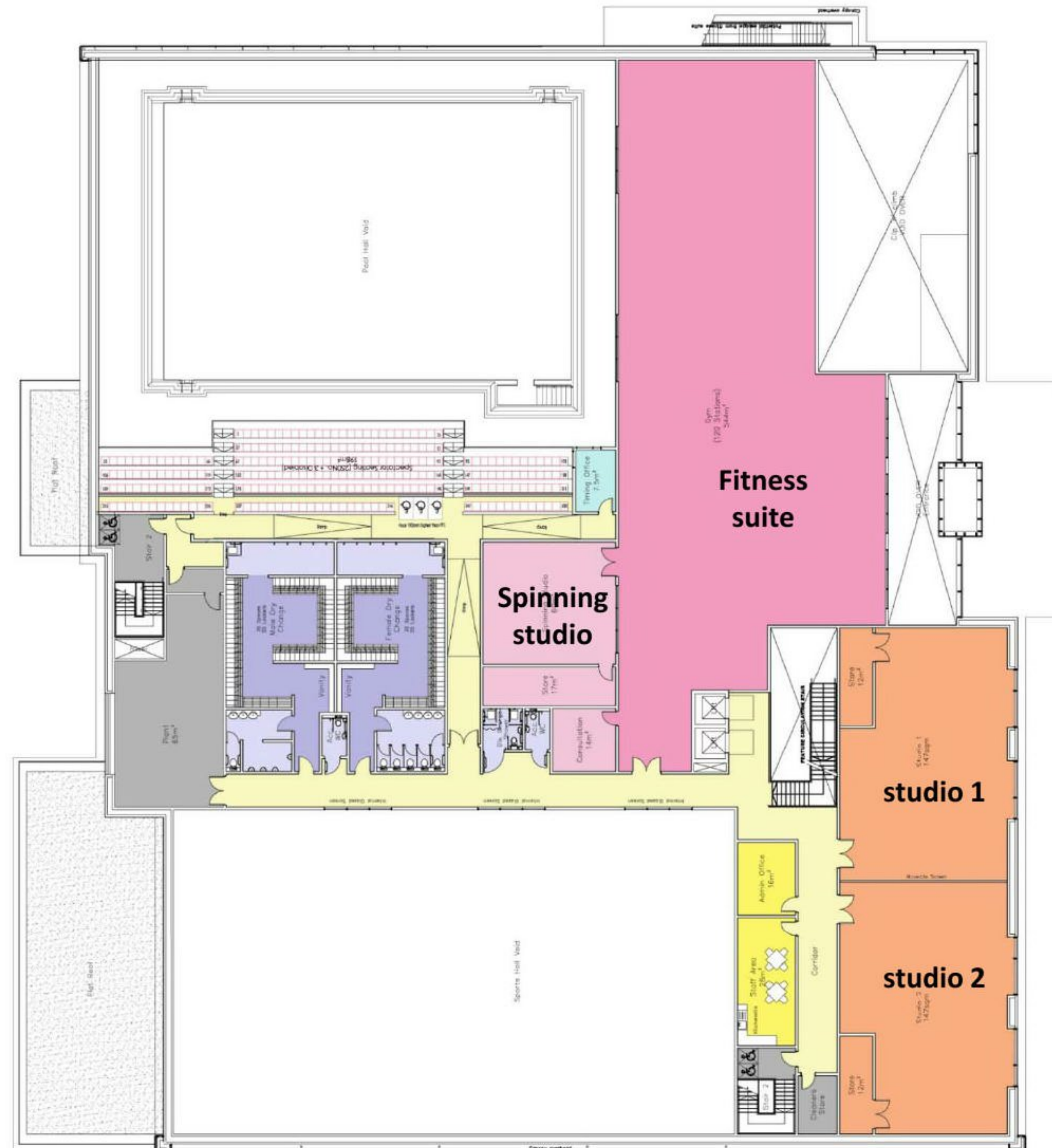


## Concept Design - First Floor Plan

The following design features are included in the first floor plan, which is shown opposite:

- Main spaces organised along key facades to maximise active frontages
- Full height void at main entrance overlooked at high level by windows from the fitness suite to create a dramatic and dynamic space filled with natural light
- Fitness suite built over the learner pool and with potential views to exterior facing the roundabout and main road; views into the full height void at reception, into the void above the clip n' climb space and into the main pool area at high level.
- Separate dedicated spinning studio
- Two studios easily accessible and visible from the exterior, facing the proposed car park and existing access road
- 250 spectator seats overlooking the main swimming pool
- Dry changing areas
- Staff rest room
- Stores and plant space.

*NOTE – Allowance made for additional plant space at roof level which is to be designed in further detail at the next design stage.*





## Concept Design - Schedule of Accommodation

A schedule of areas for the preferred option is included in the following table:

	Area type	Area (m <sup>2</sup> )
<b>Basement</b>		
	Basement plan	100
	<b>Net useable area</b>	<b>100</b>
	<b>GIFA</b>	<b>100</b>
<b>Ground Floor</b>		
	4 court sports hall	690
	Sports hall store 01	65
	Sports hall store 02	42
	Learner Pool	228
	Main Pool hall	746
	Pool store	56
	Sauna	7
	Steam	6
	Sauna/Steam lobby	23
	Drench shower	4
	Chemical store	3
	Acid store	3
	First aid	14
	Cleaners Store	4
	Wet Change	289
	Group change 01	21
	Group change 02	21
	Changing places	12
	Access wc	4
	Unisex Acc. Change/Shower	6
	Female Wc	13
	Male Wc	13
	<b>CHANGING VILLAGE TOTAL</b>	<b>379</b>
	Squash Courts	125
	Squash Court Viewing	86
	Outdoor Change (inc. Corridor)	113
	Multi-Function Room	150
	Clip 'n' Climb	152
	Briefing Room	11
	Rope Store	11
	Entrance lobby	8
	Circulation	264
	Reception	27
	General / Admin Office	23
	Comms Room	8
	Duty Managers Office	12
	Access wc	4
	Access wc	4
	Kitchen	15
	Servery	12
	Café / Viewing	122

	Buggy Store	7
	Unisex Acc. Change/Shower	6
	Male Dry Change	39
	Female Dry Change	39
	Male Wc	15
	Female Wc	15
	Lifts	7
	Escape Lobby	17
	Stair 02	17
	Stair 03	16
	<b>Net useable area</b>	<b>3,595</b>
	<b>GIFA</b>	<b>3,733</b>

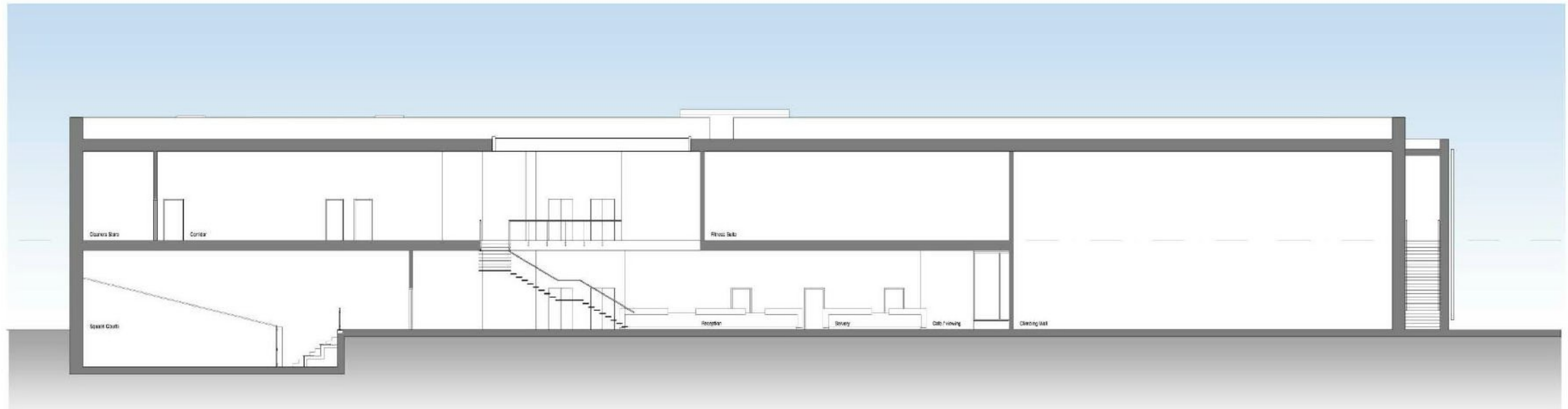
<b>First Floor</b>		
	Fitness gym	545
	Spinning Studio	60
	Store	19
	Consultation Room	14
	Male dry change	66
	Male Wc	21
	Female Dry Change	66
	Female Wc	21
	Access Wc	4
	Access Wc	4
	Disabled Shower WC Change	6
	Spectators seating	206
	Timing Office	9
	Studio 1	147
	Studio 1 Store	13
	Studio 2	147
	Studio 2 Store	13
	Staff Area	28
	Admin Office	16
	Plant Room	80
	Cleaners Store	8
	Circulation	129
	Stair 02	8
	Stair 03	14
	Stair 3 Lobby	8
	<b>Net useable area</b>	<b>1,652</b>
	<b>GIFA</b>	<b>1,715</b>

<b>Roof</b>		
	Roof top plant	300
	<b>Net useable area</b>	<b>300</b>
	<b>GIFA</b>	<b>300</b>
<b>Total GIFA</b>	<b>Not including roof plant</b>	<b>5,548</b>



## Concept Design - Typical Sections

Typical sections of the building are provided below:



**SECTION A-A**



**SECTION B-B**



## Concept Design - Elevations : Materials

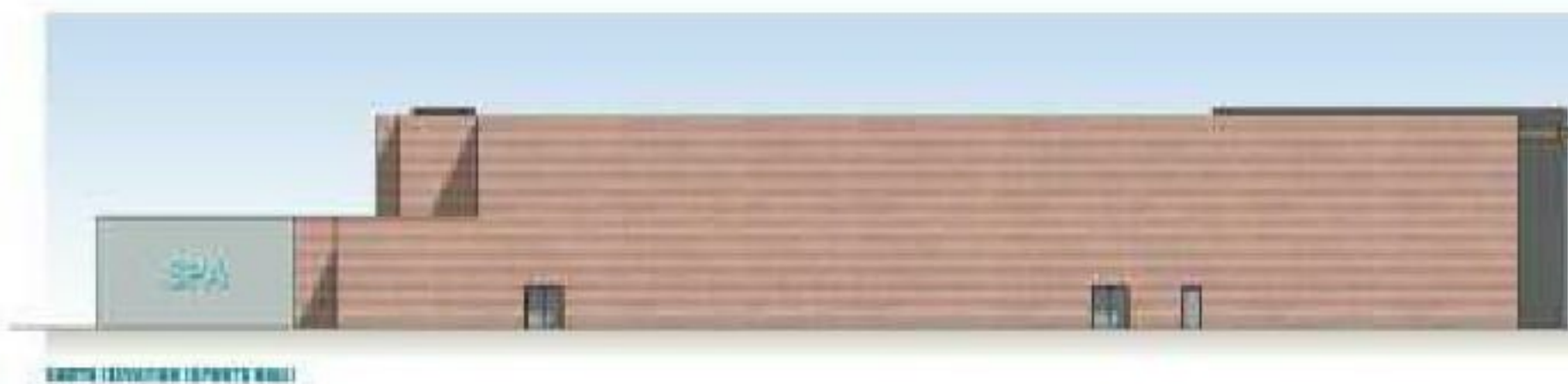
Building volumes, massing and detail are indicative at this stage, for further discussion at the next detailed design stage. However, the general guiding principles are:

- Forms and massing are simple to maximise space efficiency and to minimise potential cost.
- Natural daylight will be introduced where possible, for example the full height screen at the main entrance and a roof light above the main stair.
- Glazing to pool halls can provide natural light which is desirable, but can produce potential glare and heat gain which are unwanted. There is also a delicate balance to be struck between visibility of the function of the space, and unwanted overlooking. We propose a larger element of glazing to the main pool, which could be partially or completely obscure glazed. For further consideration and discussion.
- Full height canopy to signify and identify the main entrance.
- Full height glazing to the corner of the two storey clip n' climb facility facing the main roundabout for maximum visual impact.
- Polyester powder coated aluminium thermally broken curtain walling for larger expanses of glazing, with smaller windows in a matching material and palette.
- Signage feature facing the roundabout, and hiding an escape stair behind.
- In general, render is proposed as the main external façade material. This allows different elements within the building to be expressed externally if desired. In addition, render can provide a welcome splash of colour suitable for this building type.

All colours and materials are to be agreed following further consultation.



An exploration of alternative materials for the external facades



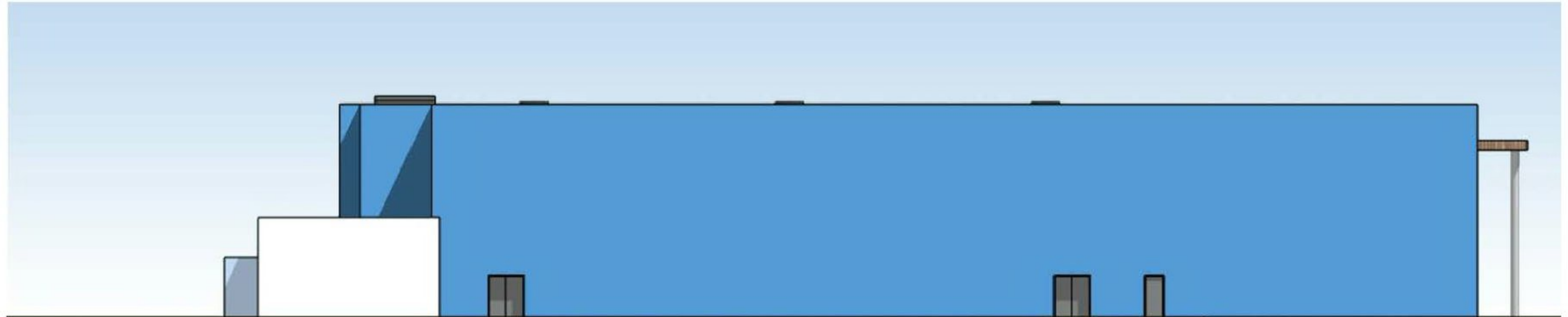
DOVER ELEVATIONS

DOVER LEISURE CENTRE  
SK023



## Concept Design - East & South Elevations

Typical elevations are provided in the following pages:

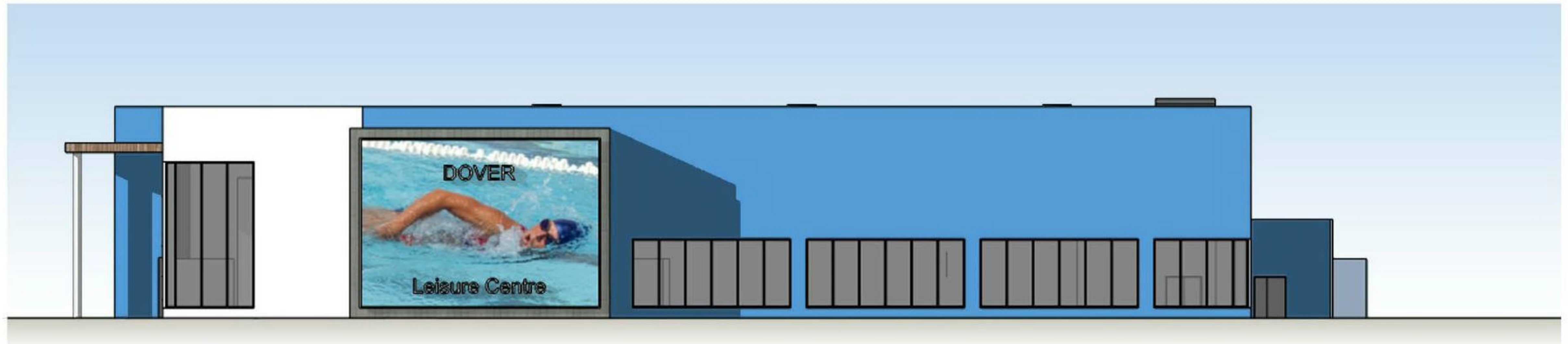


**SOUTH ELEVATION (SPORTS HALL)**

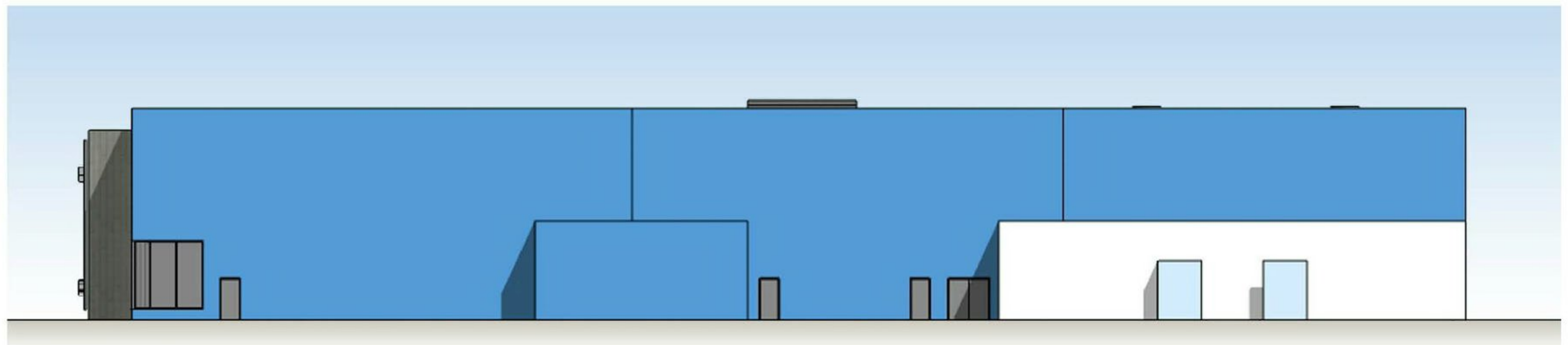


**EAST ELEVATION (FRONT)**

## Concept Design - North & West Elevations



**NORTH ELEVATION (POOL HALL)**



**WEST ELEVATION (REAR)**



The Sports Consultancy



engenuiti



**BDP.**

dha planning



## Concept Design - 3D Images – Massing & Volume

A selection of 3D visualisations of the building are included in the following pages









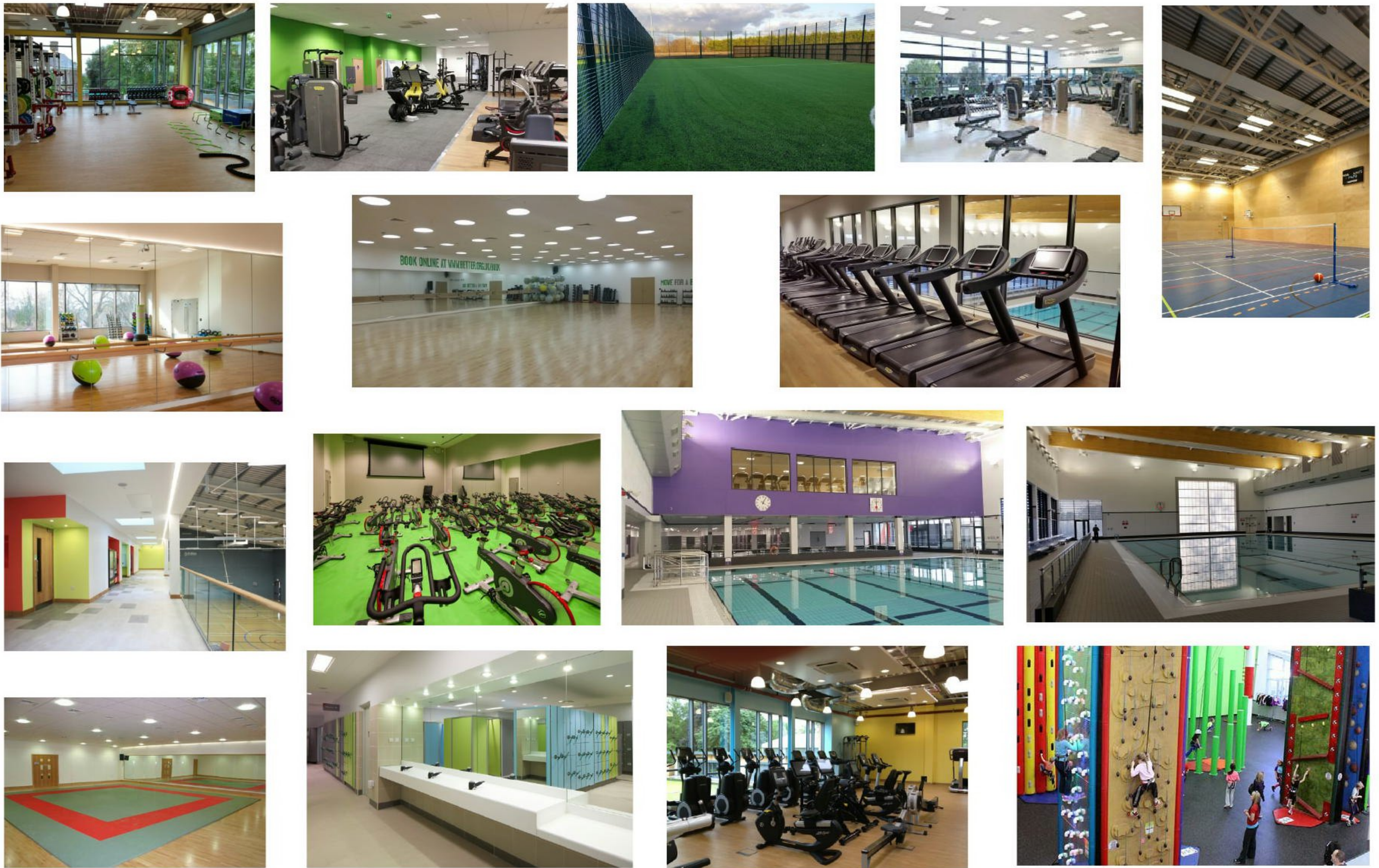






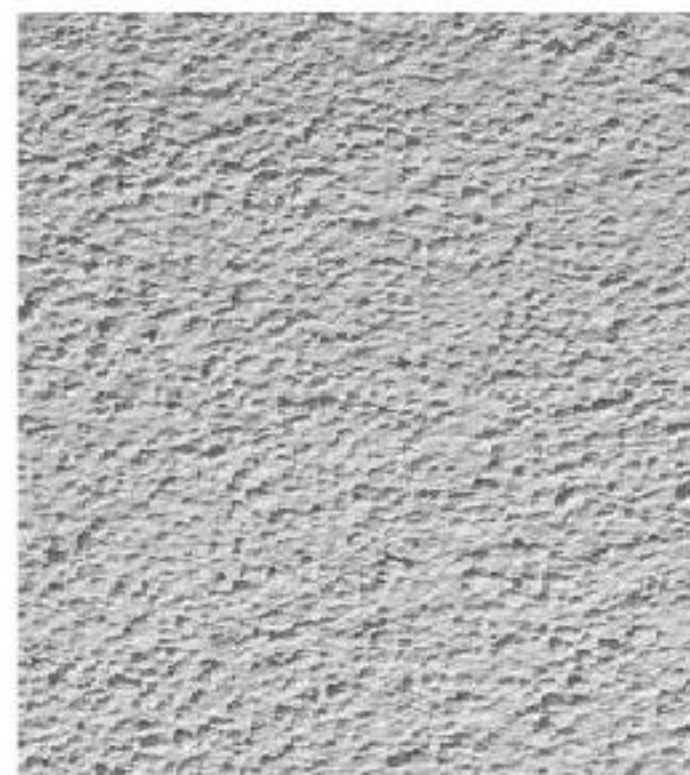
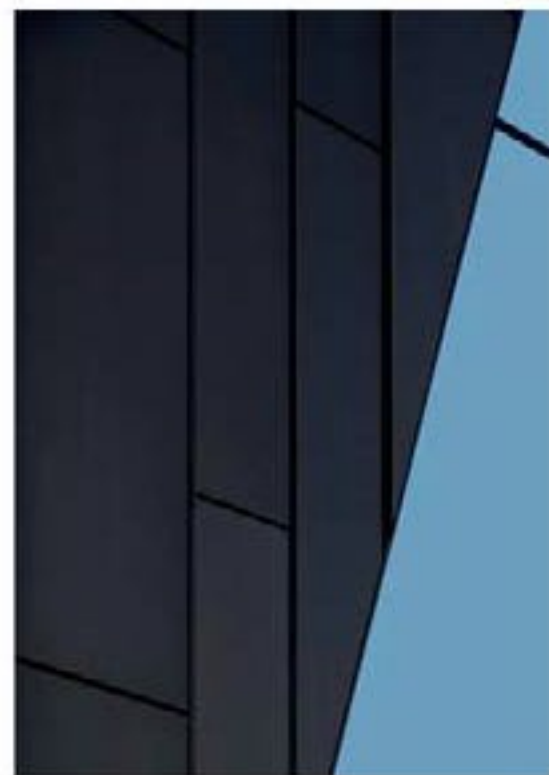


## Concept Design - Precedent Images - Internal





## Concept Design - Precedent Images - External





# Civil and Structural Engineering



### SUMMARY OF REPORT FINDINGS

Engenuiti has been appointed by GT3 Architects to provide civil and structural engineering design services for the proposed new leisure centre for Dover.

The purpose of this Structural & Civil Engineering Feasibility RIBA Stage 2 Report is to describe the civil & structural engineering concept design of the proposed development to support the preliminary cost estimates for the project.

The proposed leisure centre is located in Whitfield, Dover. The site postcode is CT16 3FH. The site location is south of Honeywood Parkway and east of The Glenmore Centre.

The site is currently a greenfield location bounded by Honeywood Parkway and a spur road to the east of the site.

The proposed leisure centre is a new build facility. The new facility will be designed around the following accommodation mix:

- 8 lane 25m pool
- Learner pool with moveable floor
- Wet changing village
- Activity zone around a new café space
- 4 court sports hall with associated changing
- Treatment rooms
- Gymnasium
- 2 large dance studios
- 2 Squash courts
- Spinning studio.

The proposed building superstructure can be conceptually split into four key components as follows:

- Long-span roof structures over swimming pools, sports hall and studios (column free areas)
- Floor slabs to studio and office spaces supported on a regular grid of vertical support
- Secondary structure to façade and building envelope
- Swimming Pool structures

Several structural framing solutions can be applied to the proposed architectural form. The long span roofs can be framed using cellular steel beams, steel trusses or glulam timber beams or trusses. The floor slabs to studio and office areas can be framed using steel columns and beams with composite reinforced concrete slabs cast on metal deck or using precast concrete soffit panel systems. Cross Laminated Timber (CLT) floor options are also possible.

Secondary structural framing to building envelope can be through the use of metal decks, timber cassettes, composite panel systems, concrete block walls, cold formed steel backing systems and CLT panels.

The swimming pool structure can be constructed out of in situ reinforced concrete, stainless steel systems or sprayed concrete.

The British Geological Survey (BGS) online map indicates that the sites bedrock geology is Margate Chalk Member. The sites superficial deposits are of Clay with flints formation, consisting of clay, silt sand and gravel.

Based on the desktop study of the local geology and borehole data available on the BGS website we suggest that the proposed structure and ground conditions may be suitable for shallow pads and ground bearing slabs founded on the chalk.

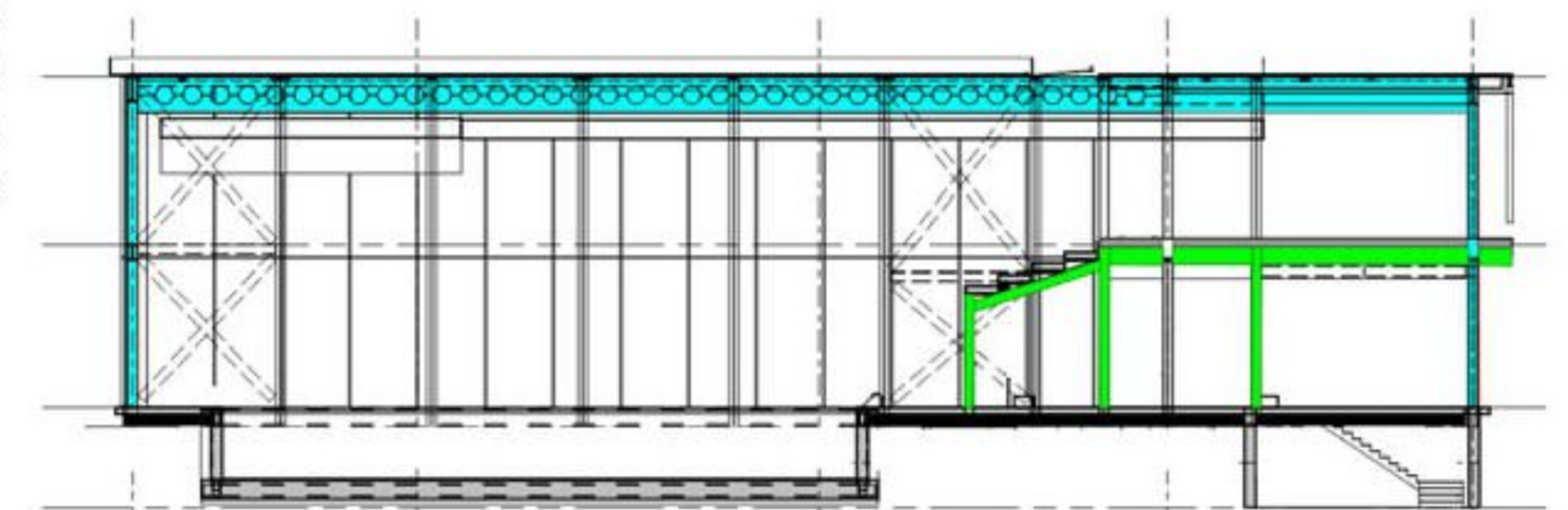
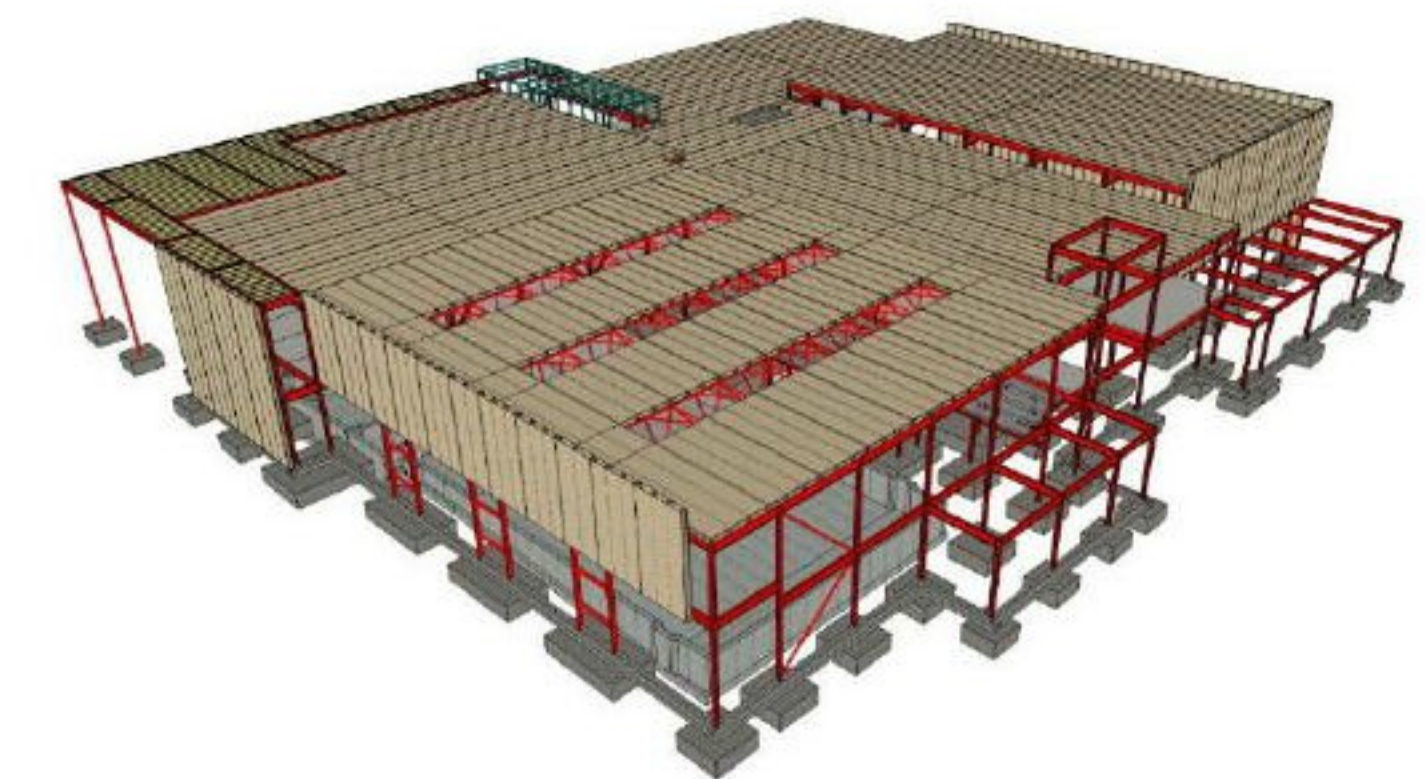
Our experience of leisure centre construction suggests that shallow foundations and a ground bearing pool structure are the most favoured starting point from a cost perspective but that allowance should be made for a piled foundation solution until further ground information is available.

Applications and consultation will be required to Southern to agree a method of discharge and flow rate from the swimming pools. Additional applications will be required to Southern Water if connecting to the public sewer network and also to the Environment Agency if the final proposal incorporates discharge to ground.

As the development is considered Major, the Local Lead Flood Authority: Kent County Council SuDS pro-forma will need to be completed as part of the planning application process.

The feasibility of discharging surface water to ground through additional SuDS measures will also be studied and considered further at the next design stage, incorporating results from infiltration testing.

At this stage we suggest using a baseline structural option of a steel frame with long span truss over the swimming pool and long span cell beam roof, shallow reinforced concrete foundations and in situ RC swimming pool. We have progressed the cladding design using a timber cassette envelope solution.





# Mechanical and Electrical Engineering



## SUMMARY OF REPORT FINDINGS

The leisure centre is to incorporate a 25m. x 8 lane main pool and a 15m. x 8.5m. teaching pool.

### Filtration & Water Treatment Systems

The filtration and water treatment systems are to incorporate medium pressure sand filtration with PAC (polyaluminium chloride) for coagulation, chlorine disinfection in the form of sodium hypochlorite (complimented by UV treatment) and hydrochloric acid for pH correction.

The systems are to be designed in accordance with the PWTAG Guidelines together with the relevant criteria as follows:

#### Main Pool

Volume	638m <sup>3</sup>
Turnover	3 hours
Hourly Flow	213m <sup>3</sup>
Filters	2 x 2.4m. diameter vertical
Filter Area Total	9.04m <sup>2</sup>
Filtration Rate	23.56m./hour
Maximum Instantaneous Bathing Load (based on circulation rate)	125

Volume	120m <sup>3</sup>
Turnover	1 hour
Hourly Flow	120m <sup>3</sup>
Filters	2 x 1.8m. diameter vertical
Filter Area Total	5.09m <sup>2</sup>
Filtration Rate	23.6m./hour
Maximum Instantaneous Bathing Load (based on circulation rate)	71

### Balance Tank

A balance tank is to be incorporated for each of the systems and these are to be located under the pool surround at the side of each respective pool. The positions and physical sizes of the tanks are to be agreed with the Architect and Structural Engineer and tanks are to comply with the requirements in relation to the Regulations on 'Access to Confined Spaces' and the Recommendations laid down by PWTAG.

Main pool minimum operating volume	35m <sup>3</sup>
Teaching pool minimum operating volume	20m <sup>3</sup>

### Filter Backwashing

It is proposed that filter backwashing will be carried out at the end of each operating day. Under normal bathing load conditions it will probably be necessary to wash each filter once per week, but this may increase during heavy bathing load periods.

At the current time, on most new swimming pool projects it is usual practice for the local Water Company to limit the flow rate to foul to within approximately 5 litres/second. If this Regulation is applied on this particular contract it will be necessary to include an attenuation/backwash holding tank as part of the drainage systems. The size of the tank is to be based on the following:

Item	Each of the Main Pool Filters	Each of the Teaching Pool Filters
Backwash flow rate	38 litres/second	22 litres/second
Length of backwash process	7 minutes	7 minutes
Volume discharged	15.96m <sup>3</sup>	9.42m <sup>3</sup>

Assuming that the attenuation tank is allowed to drain after backwashing each filter, the tank would have to have a minimum operating volume capacity of 16m<sup>3</sup>. If it is necessary to design the system to enable two filters to be washed consecutively, then the volume of the tank would have to be increased to 32m<sup>3</sup>.

The engineer responsible for drainage is to determine how the tank is to be drained to foul and vented.

### Drainage Requirements

Approximately five drainage gullies will be required in the floor of the filtration plantroom.

Drench shower drainage still to be agreed

### Services

#### Electrical

Electrical supplies will be required as follows:

Main filtration plantroom	50Kw.
---------------------------	-------

All the above supplies are to be 415 volt, 3 phase and neutral and the above figures do not take into account power factor correction.

### Water Supply

A makeup water supply will be required, terminating at an agreed point in the filtration plantroom and this should be based on a flow rate of 2 litres/second. The maximum flow rate will be required after filter backwashing for pool water makeup. Filter backwashing is usually carried out at the end of the operating day, which allows the pool water makeup to operate overnight when the demand for water in the remainder of the building is low.

Additional water supplies will be required for the following:

- The sink in the main plantroom.
- Hose down point in the main plantroom.
- Hose down point in each of the chemical rooms.
- Drench shower in each of the chemical rooms.



Heat Requirements

We assume that low pressure hot water will be provided to initially heat the pool water, raising the volume of the water temperature by 0.5°C per hour. Plate heat exchangers should be provided as part of the filtration contract and it is usual practice, for the controls on the low pressure hot water side, to be provided by the mechanical contractor. LPHW – 70°C supply and 50°C return.

Pool	Anticipated Pool Water Temperature	Anticipated Heat Load
Main	28 - 29°C	371Kw.
Teaching	29 - 30°C	70Kw.

Ventilation

Chemical Rooms

Whilst the PWTAG Guidelines indicate that natural ventilation is acceptable it would be preferable to incorporate forced ventilation, the recommended rate being four air changes per hour.

Filtration Plantroom

The mechanical and electrical consultant should assess whether or not forced ventilation is required in the main plantroom, giving consideration to the fact that this room also accommodates the boilers, electrical equipment etc.

Balance Tank

A balance tank is to be incorporated for each of the systems and these are to be located under the pool surround at the side of each respective pool. The positions and physical sizes of the tanks are to be agreed with the Architect and Structural Engineer and tanks are to comply with the requirements in relation to the Regulations on ‘Access to Confined Spaces’ and the Recommendations laid down by PWTAG.

# Drainage and Flood Risk



## Drainage and Flood Risk

### SUMMARY OF REPORT FINDINGS

#### EXISTING SITE TOPOGRAPHY

The development is triangular in shape and is located on a greenfield site of 2.26 hectares. The site can be seen to fall from a high point of 126.0m AOD on the southern boundary to a low point of 122.0m AOD on the northern boundary adjacent to Honeywood Parkway.

#### EXISTING DRAINAGE

##### Surface Water

There is no surface water outfall from the existing site with any runoff soaking into the ground. Southern Water asset plans show there to be no public sewers within the development site itself with the nearest surface water sewer being a 225mm sewer located approximately 40m from the North West of the site in Honeywood Parkway, which in turn discharges to soakaways. It is very unlikely that these soakaways will have any additional capacity for the proposed development. There are no watercourses on the site.

##### Foul Water

There is no foul water outfall from the existing site. The nearest foul water sewer is a 225mm sewer in Honeywood Parkway which drains to a pumping station located approximately 40m from the North West corner of the site. From this pumping station the foul water is pumped via a rising main to the South.

##### Geology

A report from the British Geology Survey has been obtained to assess the properties of the sub surface and the suitability for the installation of infiltration SUDs on the site. This assesses constraints such as geology, ground stability and groundwater quality protection.

The report summarised that the site is underlain by the Margate Chalk member made up of chalk. Superficial deposits made up of clay, silt, sand and gravel are seen to overlie the bedrock.

The report summarised that there is a very significant possibility of localised subsidence that could be initiated or made worse by infiltration. The bedrock deposits are likely to be free draining with very high infiltration rates expected.

Any infiltration would therefore need to be at depth within the bedrock via deep bored soakaways.

#### PROPOSED DRAINAGE

The proposed drainage system for the new leisure centre will comprise of a separate foul and surface water gravity system.

##### Surface Water

Given that there are neither surface water sewers or a watercourse in the vicinity of the site, the only method available for the disposal of surface water will be via infiltration. Given the local geology and the risk of subsidence with additional infiltration at a shallow depth, the likely method for infiltration will be via deep bored soakaways. A desktop site investigation study is currently being carried out which will confirm the suitable methods for infiltration.

Surface water from the roof and hardstanding areas will be collected in underground sewers and will be taken by gravity to a number of deep bored soakaways on the northern boundary.

Specific on site testing will determine the infiltration rate and in turn the number of soakaways that will be required. These may need to be supplemented by below ground attenuation tanks.

##### Foul Water

Foul water from the new leisure centre development will be collected in a system of underground sewers, which subject to available capacity will discharge into the existing foul water manhole reference 2305 located Honeywood Parkway. The foul water capacity check when completed will identify any upgrades required to the existing infrastructure including sewers and pumping stations.

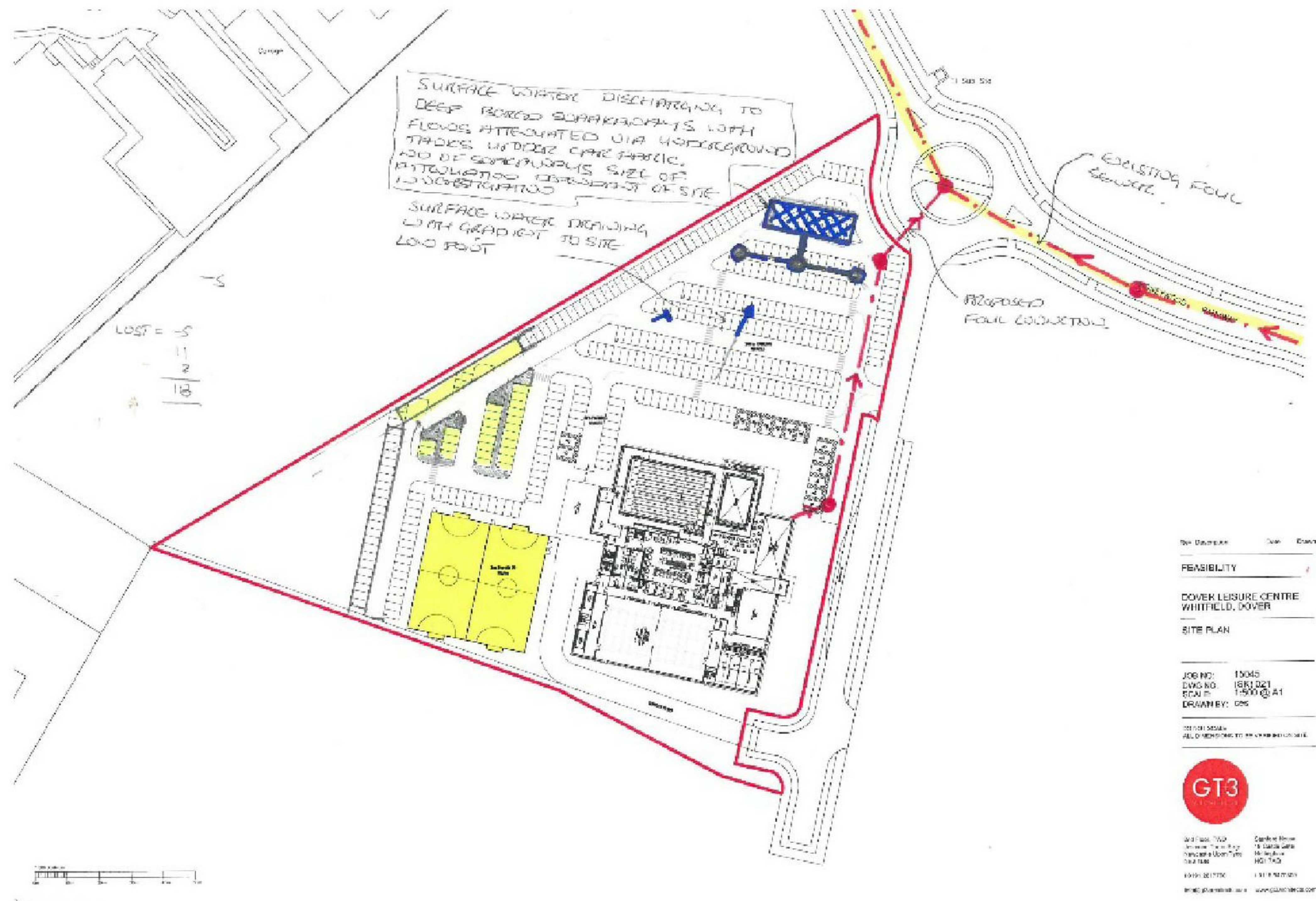
#### Flood risk

Based the Environment Agency flood maps, the site can be seen to be located entirely within Flood Zone 1 which is the lowest probability of flooding. All forms of development are appropriate within Flood Zone 1 and as such the site is considered to satisfy the sequential test.



Drainage and Flood Risk

The following sketch plan shows initial drainage proposals.





# Transport



# Transport

## SUMMARY OF REPORT FINDINGS

### Access

Access to the site is proposed from the southern arm of the Honeywood Parkway roundabout junction, which provides easy access to the A2.

### Site Servicing

Site servicing will take place via a dedicated access to the south of the main entrance, reducing any potential conflicts with any vehicles, pedestrians and cyclists using the car park. A swept path analysis will be undertaken of the proposed layout with three different vehicle types; a refuse truck, a fire tender and a standard delivery vehicle.

### Vehicle Parking

Kent County Council stipulates that the maximum parking standards for leisure centres is 1 space per 22m<sup>2</sup>. Based on a proposed total developable floor area of 7605m<sup>2</sup>, the maximum number of parking spaces is 345, therefore the proposed 340 spaces is considered to be acceptable in policy terms.

### Cycle Parking

This will be provided in accordance with the minimum standards set out in the Dover District Council's standards to promote sustainable transport. The standards state 1 space per 10 patrons and 1 space per 10 staff. These will be located in a prominent position; more than likely within the plaza to provide convenient access to the main entrance.

### Disabled Parking

The proposed design will comply with the latest version of the London Plan and Sport England guidance, which stipulates that 6% of the total parking capacity should be allocated to disabled parking bays. Based on 340 parking spaces, this equates to 20 of which are allocated for disabled users.

### Coach Drop-off and Parking Provision

A dedicated coach drop-off bay has been proposed on the western side of the access road immediately outside the main entrance to the proposed leisure centre to allow larger vehicles and groups of visitors to avoid conflicts with car park users. Coach parking will also need to be considered and provided.

### Public Transport Accessibility

The site is conveniently located approximately 50m from two bus stops on Honeywood Parkway (stops B and Q); regular services to Dover town centre, Canterbury, Whitfield and Deal are served from these bus stops. Dover rail station is approximately 4 miles away from the site therefore is not realistically a likely mode of travel for staff or visitors at the centre.

### Transport Assessment Scoping

A scoping exercise will be undertaken with Kent County Council Highways and Transportation. This will help to understand the assessment work required as part of the Transport Assessment that will accompany the planning application for the proposed development, including any traffic surveys and junction modelling required.

### Trip Generation

A trip generation assessment will be undertaken using a first principle approach supplemented by the TRICS database.

### Road Safety

Personal Injury Accident data will be sourced from Kent County Council and will be assessed to understand any local road safety concerns.

### Travel Plan

A Framework Travel Plan will be produced as part of the planning application, which will set out the measures and targets that will be implemented at the leisure centre to encourage sustainable travel to and from the development.



# BREEAM



## SUMMARY OF REPORT FINDINGS

The Dover District Local Development Framework Core Strategy (Adopted February 2010) stipulates that all new non-residential developments >1000m<sup>2</sup> floor area must achieve BREEAM 'Very Good' rated certification.

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's most foremost environmental assessment rating system for buildings. The Whitfield Leisure Centre development will be assessed under the BREEAM 2014 New Construction (non-domestic) scheme and 'Other Buildings' criteria.

The assessment is typically split into three stages:

1. Pre-assessment: This is a non-certified stage outlining the credit strategy with regards to achieving the required rating.
2. Design stage: The design stage assessment is typically based on design stage drawings, specifications and assurances from the project team that the development will comply with BREEAM criteria. Following review of the design stage report by the BRE, an interim BREEAM certificate will be issued.
3. Post construction stage: This stage of assessment is based on the development as built. Providing compliance is evidenced, the final BREEAM certificate will be awarded following review of the final report and BREEAM assessor site inspection.

In addition to achieving a minimum score of 55%, achieving BREEAM 'Very Good' requires a number of mandatory and minimum requirements to be met. These are as follows:

- Ene 02 (Energy Monitoring): The first credit for sub-metering of major energy uses must be met.
- Wat 01 (Water Consumption): At least 1 credit is required for 'Very Good'. This requires a 12.5% improvement in water consumption over the notional baseline.
- Wat 02 (Water Monitoring): A water meter must be installed on the mains supply to the building. The meter must have a pulsed output or/and be connected to the BMS.
- Mat 03 (Responsible Sourcing of Materials): All timber

- procured for the project must be legally harvested and traded.
- LE 03 (Minimising Impact on Existing Site Ecology): The change in ecological value of the site as a result of the development must be no worse than -9.

A pre-assessment exercise was carried out between BDP Sustainability, BDP M&E, GT3 Architects and Engenuiti (civil and structural engineers). The BREEAM Assessor (BDP Sustainability) compiled an initial credit strategy for achieving BREEAM 'Very Good' based on location details and current drawings. A meeting was then held with the aforementioned parties at the GT3 offices on 1<sup>st</sup> June 2016 to discuss and review the strategy, highlighting any potential areas for improvement or any constraints of the project with regards to achieving the relevant credits. The pre-assessment and credit strategy was revised following this discussion. The revised model for achieving 'Very Good' is outlined Table 1.

Although only 55% is required for 'Very Good', a score of 61.75% is currently targeted. This allows for a 'buffer' should any further information come to light or any design changes occur that prohibit the award of any targeted credits.

The development has the potential to score well within the management, water, waste and materials sections. This will require careful planning and consideration regarding the BREEAM criteria related to these issues, bearing in mind the 'time limited' credits which require actions by particular RIBA stages in order to be achieved.

Based on a site area of 22,688m<sup>2</sup>, assuming 100% of the pre-developed site is classed farmland (i.e. no border vegetation / hedges etc), then a minimum of 1,450m<sup>2</sup> typical garden planting / possible green roof area (or a combination of both) would be required in order to achieve the 1 required LE 03 ecology credit (assuming the remaining 21,238m<sup>2</sup> will consist of building and hard landscaping).

N.B. These are initial calculations, and further confirmation from an ecologist must be sought regarding any ecology-related decisions.

Section	Number of credits available	Number of credits targeted	Section weighting	Section score
Management	21	18	12.0%	10.3%
Health and Wellbeing	18	8	15.0%	6.7%
Energy	23	15	15.0%	9.8%
Transport	11	6	9.0%	4.9%
Water	9	6	7.0%	4.7%
Materials	14	9	13.5%	8.7%
Waste	8	6	8.5%	6.4%
Land Use and Ecology	10	4	10.0%	4.0%
Pollution	13	7	10.0%	5.4%
Innovation	10	1	10.0%	1.0%
Total (target score):				61.75%

At this early stage it is thought that the development may score poorly in the transport and land use and ecology sections. This is due to the location of the site in relation to amenities and public transport. A further constraint relates to the site's position within a greenfield site, posing a threat to the ecology and surface water runoff credits.

It should be noted that early appointment of a BREEAM assessor is a further advantage to the project. This ensures that opportunities and obstacles in achieving the required rating are identified at an early stage, thereby facilitating a cost and time efficient route to certification.



# Capital Costs



## Capital Costs

### SUMMARY OF REPORT FINDINGS

Capital cost estimates have been completed by Faithful + Gould. The Feasibility Cost Study is contained in Appendix 7. Included within the report is a Stage 2 Cost Plan, updated benchmarking exercise, schedule of information used in preparation of this cost estimate, a list of key assumptions and exclusions.

The purpose of this RIBA Stage 2 Cost Plan is to give a magnitude of capital cost to Dover District Council for the proposed new Dover Leisure Centre at the Whitfield site, Dover. The costs are based on the schedule of accommodation and concept design information supplied by the project team.

The current projected capital cost is £[REDACTED], indicating an increase of £[REDACTED] from the Feasibility and Options Appraisal Study issued in October 2015. The reasons for this increase can be attributed to the increase in gross internal floor area by 330m<sup>2</sup>, additional allowance for clip 'n' climb equipment, an increase in external works costs which are now based upon the current Whitfield site option and an increased allowance for sports fixtures, fittings and equipment.

The approximate cost for the optional addition of green roof to the proposed scheme is £[REDACTED], inclusive of percentage additions for contingency, inflation and professional fees.

The estimated cost is an outturn cost and therefore inflation is included based on construction commencing in October 2017 with a 15-month construction period.

The overall Gross Internal Floor Area (GIFA) for the new build is 5,548m<sup>2</sup> with an overall site area of approximately 22,688m<sup>2</sup>.

The Design Development / Construction Contingency has been reduced from 15% at feasibility stage to 12.5% in order to reflect the improved level of design information. This provides a contingency sum of circa £[REDACTED].

A summary of the capital cost estimates is provided in the following table. This shows the original costs from the Options Appraisal Study, the current Stage 2 Cost Plan and the variance between the two, as described in the previous paragraphs.

Description	Options Appraisal (Option 4)	Stage 2 Cost Plan	Variance
Internal Works	[REDACTED]	[REDACTED]	[REDACTED]
External Works	[REDACTED]	[REDACTED]	[REDACTED]
Design Development / Construction Contingency	[REDACTED]	[REDACTED]	[REDACTED]
Building Cost Inflation	[REDACTED]	[REDACTED]	[REDACTED]
Professional Fees including Main Contractor's Design Fees	[REDACTED]	[REDACTED]	[REDACTED]
<b>Sub Total</b>	[REDACTED]	[REDACTED]	[REDACTED]
Fixtures, Fittings and Equipment (Sports)	[REDACTED]	[REDACTED]	[REDACTED]
Clip n Climb Equipment	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total Capital Cost</b>	[REDACTED]	[REDACTED]	[REDACTED]
<b>Additional Options</b>			
Extra over for green roof – say 50% of roof area	-	[REDACTED]	[REDACTED]
<b>Total</b>	[REDACTED]	[REDACTED]	[REDACTED]
<b>Gross Internal Floor Area</b>	5,218m <sup>2</sup>	5,548m <sup>2</sup>	330m <sup>2</sup>
<b>Build Cost Rate per m<sup>2</sup></b>	[REDACTED]	[REDACTED]	[REDACTED]



# Revenue Projections and Business Case



## Revenue Projections and Business Case

### INTRODUCTION

A financial business case has been completed, based on the schedule of areas and design contained within this report. The purpose of the business case is:

- To confirm the revenue position of the existing Dover Leisure Centre
- To provide detailed 10-year income and expenditure projections for the operation of the new Dover Leisure Centre
- To define the known and potential capital funding for the project
- To assess the affordability of the project
- To provide conclusions and advise on business case related issues as the project develops.

The following pages contain a summary of the findings from the business case work. Further detail is contained in Appendix 8.

### CURRENT REVENUE PERFORMANCE AND THROUGHPUT

The existing Dover Leisure Centre contains the activity areas listed in the following table, as well as a range of ancillary accommodation including staff areas, changing rooms, storage, plant and circulation.

Area	Description
Main pool	6-Lane 25m x 12.5m Swimming pool
Spectator seating	140 person capacity tiered seating
Learner pool	12.5m x 7.5m Learner pool
Sports hall	8 courts
Health and fitness	37 stations
Multi activity studio	1 x studios
Squash court	3 x courts
Small sauna and steam room	Included

It is important to compare the estimated revenue performance of the new centre with the current performance of the existing centre, or 'Base' position, particularly as the projections are used to calculate the amount of borrowing

that can be funded. Historic revenue and usage figures were supplied by Dover District Council and the Operator (Your Leisure).

The past 3 years income and expenditure accounts for Dover Leisure Centre have been reviewed. These are summarised in the following table. They show that an annual grant of £265,000 is paid to Your Leisure to support the operation of Dover Leisure Centre and Tides Leisure Centre and to help deliver strategic objectives linked to the funding agreement with the operator.

The £265,000 payment is apportioned equally between Dover Leisure Centre and Tides. Therefore, the cost to the Council for subsidising Dover Leisure centre is £132,500. In addition, other revenue and repair and maintenance costs were covered by the Council, at a total cost of circa £150,000 in 2014/15. It should be noted that these figures exclude depreciation and internal recharges.

Income*	2012-13	2013-14	2014-15
Dry side			
Health & Fitness			
Wetside			
Rentals			
Secondary			
Other			
Total Income			
Expenditure	2012-13	2013-14	2014-15
Staffing			
Premises			
Management			
Food and beverage cost of sales			
Central costs			
Total Expenditure			
Net Revenue*			
Deficit			
*excludes annual grant			

DDC Expenditure	2012-13	2013-14	2014-15
Total Revenue Costs*			
Capital Works			
Total Expenditure			

\*Revenue costs include £132,500 revenue grant for DLC and expenditure by the Council on repairs and maintenance elements for which it retains liability.

### 10-YEAR REVENUE PROJECTIONS

Detailed revenue projections have been completed for the new leisure centre options. The projections have been checked against The Sports Consultancy's Operational Benchmark Database. This contains over 900 records of financial and throughput information from operational leisure facilities across the United Kingdom. As such, it is a 'high-level' model which depends on results from other, similar facilities, rather than specific programmes of usage and local pricing.

The database generates a range of benchmark levels (e.g. mean, upper quartile, lower quartile) and in choosing the benchmarks to use, it is important to consider the specific local context and current facility performance. For this study we applied the upper quartile data, as this will be a new facility in an area with significant existing and potential demand.

We have also considered the projected swimming revenue contained in Sport England's guidance for the development of affordable leisure centres which was developed in close consultation with the Amateur Swimming Association.

The following approach was adopted for selecting the benchmarks:

- **Income** - this took into account the performance of the existing swimming pools, the fact that the new centre will be designed to a higher specification than is currently the case and the need for the business plan to be relatively prudent
- **Expenditure** - this took into account the fact that the facilities will be new and more efficient than the existing one
- **Throughput** - this took into account the throughput levels at the existing Centre and the likely increase due to the opening of a new facility.



## Revenue Projections and Business Case

The operational revenue analysis includes a number of key expenditure areas, which are listed below:

- **Staffing costs** - based on a bespoke staffing structure and costs for similar facilities
- **Utilities** – costs are based on benchmark rates for similar new facilities
- **Repairs and maintenance** - based on benchmark rates for similar facilities
- **Cleaning** - based on benchmark rates for similar facilities
- **Insurances** - based on benchmark rates for similar facilities
- **Cost of sales** - based on benchmark rates for similar facilities
- **Operator profit** - at 4% of income
- **Overheads and central costs** - at 4% of income
- **National Non-Domestics Rates** - Assumed 80% rate relief.
- **Health and fitness membership** - A latent demand report was commissioned to provide an accurate assessment of the likely health and fitness membership numbers based on specific sites. The report concluded that total health and fitness membership of c.3,100 should be achieved. We have forecast growth in membership, up to this level, over a 5 year period. However, with good management and marketing we would expect this target to be exceeded sooner than this
- **Health and fitness pricing** - Full price health and fitness membership is assumed at £32.5 per month.
- **Lifecycle costs** – It is important to consider the treatment of lifecycle costs, for the periodic refurbishment and replacement of facilities. Expenditure on lifecycle costs is important to ensure the facilities are kept in good condition and that income does not diminish over time, due to deteriorating facilities. A typical allowance equal to 1.5% of the build costs (excluding fees and contingencies) should be allowed for, on an annual basis. We have presented the revenue projections including and excluding lifecycle costs.

The revenue projections 'excluding' lifecycle costs provide a like for like comparison with the existing revenue figures for Dover Leisure Centre, as the Council does not currently allow for lifecycle costs in the revenue budget. The revenue projections 'including' lifecycle costs show the impact on expected revenue performance if operators are required to include lifecycle costs in their operational revenue performance

The following summary table contains a comparison of the estimated revenue performance of the new centre (including and excluding lifecycle costs) with the existing centre. Detailed projections are contained in Appendix 8.

	Including Lifecycle Costs	Excluding Lifecycle Costs
Income	10-year average	10-year average
Dry side	£137,713	£137,713
Health & Fitness	£1,368,360	£1,368,360
Wetside	£752,095	£752,095
Other Memberships	£0	£0
Rentals	£100,037	£100,037
Secondary	£412,204	£412,204
Outdoor	£79,995	£79,995
<b>Total Income</b>	<b>£2,850,404</b>	<b>£2,850,404</b>
Expenditure	10-year average	10-year average
Staffing costs:	(£946,074)	(£946,074)
Premises costs:	(£655,750)	(£454,750)
Management costs:	(£375,834)	(£335,634)
Cost of sales:	(£185,492)	(£185,492)
Other costs:	(£228,032)	(£228,032)
<b>Total expenditure</b>	<b>(£2,391,182)</b>	<b>(£2,149,982)</b>
Net Revenue	10-year average	10-year average
<b>Surplus / (Deficit)</b>	<b>£459,221</b>	<b>£700,421</b>
Membership Numbers	10-year average	10-year average
Health and Fitness Membership	3,009	3,009
Throughput	10-year average	10-year average
Total Throughput	675,744	675,744
<b>Comparison with existing centre revenue performance</b>	<b>£609,314</b>	<b>£850,514</b>

The projections show that the new centre will operate at a revenue surplus of c.£459,221 per annum (including lifecycle costs) and c.£700,421 (excluding lifecycle costs), an improvement of between £459,221 and £700,421 compared to the current deficit of £150,000.

Based on the findings from the latent demand report, health and fitness membership numbers are forecast to increase from c.1300 to c.3,000 and annual visitor numbers are expected increase to c.675,000 per annum.

### POTENTIAL FUNDING AND AFFORDABILITY

As part of the business case, The Sports Consultancy reviewed the potential funding sources for the project. This review was completed in close consultation with finance officers from the Council and built on the work completed previously during the Options Appraisal Study.

The findings, summarised in the following paragraphs, are intended to inform decision making by the Council, as to whether to proceed with the project. The findings will require further review and updating, if the project proceeds to the next stage of development, as they are based on a number of significant assumptions regarding design, capital costs, timeframe, potential to achieve planning consent, and the value of assets and receipts.

The review of funding considered the following:

- The funding requirements for the project
- The potential funding options available to the Council
- Conclusions and recommendations.

The following table contains a summary of the financial challenge facing the Council in delivering the project based on the figures contained in this report.



## Revenue Projections and Business Case

	Including Lifecycle Costs	Excluding Lifecycle Costs
Annual revenue income/(cost) to the Council		
Improvement in revenue compared to current centre (2014-15)		
Total capital cost		
Sport England funding		
Prudential borrowing potential*		
Funding Deficit/Surplus		
Potential Revenue Deficit/Surplus after funding repayments		

\*The principal source of funding is prudential borrowing. The amount of prudential borrowing available is based on an assumption of a 40 year loan @ 3.75%, on an annuity basis, costing £50k per £1m borrowed per year.

We have also included an assumption of capital funding from Sport England. Initial consultation with Sport England have indicated that a sum of between £1m and £1.5m could be available to the Council. At this stage we have assumed the lower amount.

As with most projects of this scale and nature, the proposed funding structure is based on a combination of funding sources. The table shows that the estimated funding gap is between c.£1.5m (including lifecycle costs) and c.£1.0m (excluding lifecycle costs).

The funding gap will need to be closed if the new centre is to be developed. Options for raising the additional funding should be considered by the Council.

### SENSITIVITY ANALYSIS

The revenue projections completed to date are based on best estimates, using the information available to The Sports Consultancy. However, it is recognised that there is scope for variations in the final revenue figures, as the project moves

forward to operator procurement. Therefore, a sensitivity analysis has been conducted in relation to the revenue performance and the impact this would have on the Council's ability to finance prudential borrowing towards the project.

Using the initial revenue projections as the 'Base' case, a number of scenarios have been tested with changes in income and expenditure of + or - 8%. The results of the sensitivity analysis are included in Appendix 9 and summarised in the following tables. These show that changes in the revenue performance will have a significant impact on the borrowing potential and therefore the affordability of the project. It is important to ensure that the net revenue improvement from the new centre is maximised through conducting a competitive operator procurement process. Only when financial offers are received from operators will the final position be clear.

#### Sensitivity Analysis Including Lifecycle Costs

Scenario	Net Revenue	Potential Borrowing
<b>Base</b>		
Higher income & base costs		
Higher income & higher costs		
Higher income & lower costs		Best case
Base income & lower costs		
Base income & higher costs		
Lower income & higher costs		Worst case
Lower income & Lower costs		

#### Sensitivity Analysis Excluding Lifecycle Costs

Scenario	Net Revenue	Potential Borrowing
<b>Base</b>		
Higher income & base costs		
Higher income & higher costs		
Higher income & lower costs		Best case
Base income & lower costs		
Base income & higher costs		
Lower income & higher costs		Worst case
Lower income & Lower costs		



# Project Programme



## Project Programme

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### INTRODUCTION

We have prepared a detailed target programme, which shows that the centre could be open by early 2019, and a copy of this is included in Appendix 10. A high-level summary of the target programme is also shown on the following page.

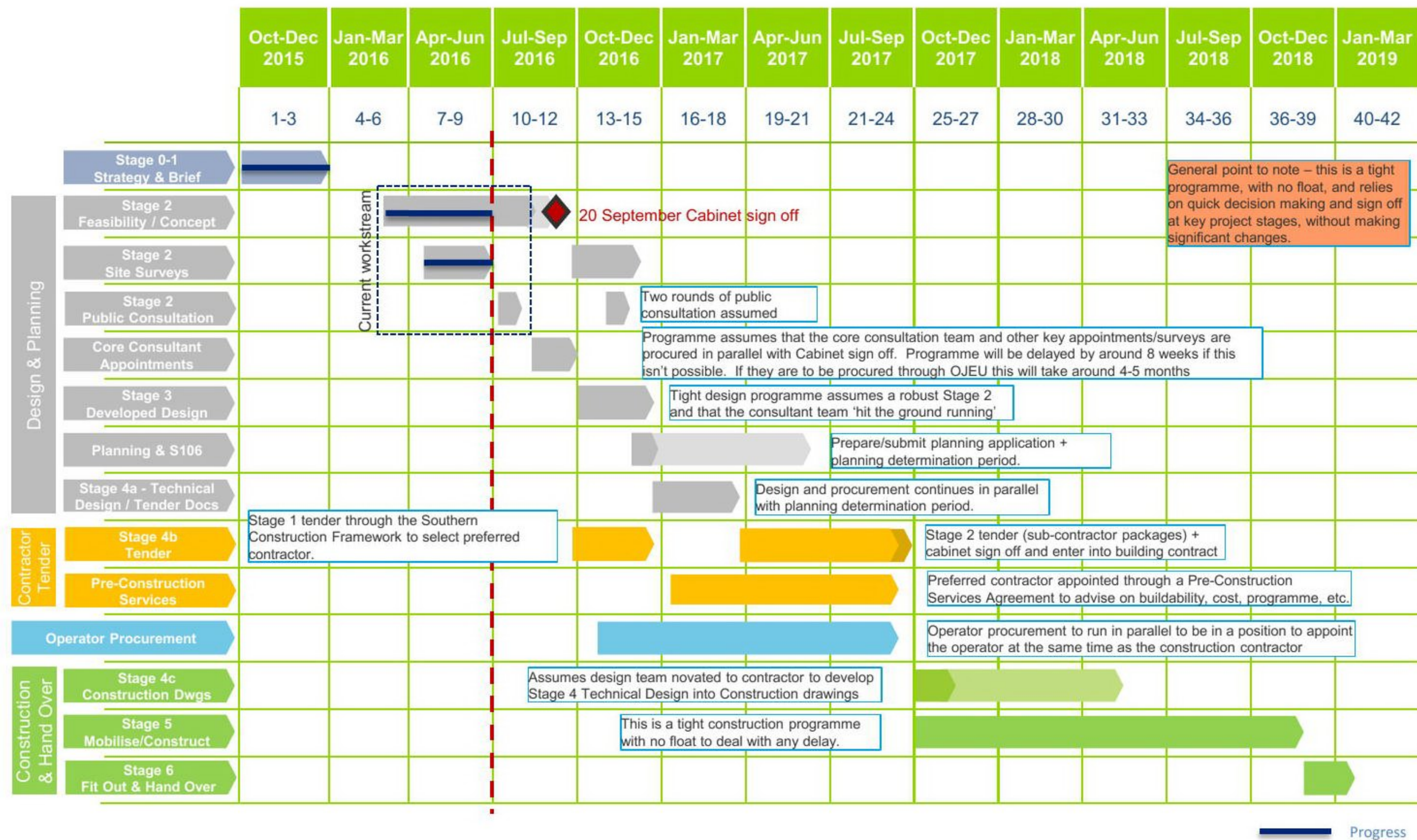
This is a tight programme, with no float, and relies on quick decision making and sign off at key project stages, without making significant changes. This should therefore be seen as a target programme and the Council should allow some programme contingency when reporting dates publicly.

The programme is also based on the following assumptions:

- Cabinet approval is received on 20 September 2016 to proceed with the project in accordance with the Stage 2 Feasibility Study.
  - A 'two stage develop and construct' procurement route is adopted for the construction contract, and the preferred contractor is appointed as early as possible in Stage 3 through a Pre-Construction Services Agreement (PCSA) to work closely with the consultant team.
  - The Southern Construction Framework is used to procure the construction contractor.
  - The Leisure Management Contract for the new centre is procured in parallel with the design and procurement of the construction contractor, such that the financial position of both can be report to the same Cabinet meeting for approval.
  - The core consultant team, including the project manager, architect, civil/structural engineer, services engineer, cost consultant and principal designer (CDM regulations), and other key consultants, such as the business planner, planning consultant, landscape architect and pool consultant, are procured so they are ready to commence work on Stage 3 upon Cabinet approval.
  - Critical surveys, including ground investigations and ecological surveys are carried out prior to the 5 September Cabinet meeting.
  - The consultant team 'hits the ground running' and doesn't have to revisit the Stage 2 design work.
  - Completion of key stages are linked to planned Cabinet dates.
- Design is progressed in parallel with the determination of the planning application.
  - The design is progressed to an early Stage 4 (previously referred to as Stage E).
  - The design team is 'novated' to the construction contractor to complete the Stage 4 construction drawings.
  - The contractor can deliver to the tight construction programme. Initial discussions with contractors suggest some nervousness with this and this should be tested further through the first stage procurement of the preferred contractor.



## Project Programme





# Risk Analysis



## Risk Analysis

### INTRODUCTION

An initial Risk Register has been prepared and is included in Appendix 11. An extract from the risk register showing the highest project risks is included on opposite. This identifies risks and states the probability of occurrence, the likely extent of impact on cost or programme, and the owner (the entity best placed to manage each risk). The risk register also outlines where risks have been or can be mitigated in the future, to reduce the Council's exposure.

The initial register has been prepared based on our understanding of the critical objectives for the project. The ratings have also been informed by survey work carried out during the feasibility stage and the way the design has been developed. Where further surveys should be undertaken to establish or mitigate risk this is also identified.

You will note that the Council are currently allocated the ownership of all of the risks. This will change as consultants and the contractor are appointed and other key stakeholders become involved in the project.

The risk register should be used in future phases to identify risks to enable the risk to be managed by the risk owner, mitigated and transferred to the contractor wherever possible. Due to the nature of some risks and the cost premium to transfer the risk to the contractor, some risks will need to be retained and managed by the Council.

The risk register should be updated regularly as the design development progresses, during tender stage and post-contract during the construction phase.

Risk Area	Risk Description	Assessment of Risk		
		Impact (1 - 5)	Likelihood (1 - 5)	Score
Site Ownership	Delay / unable to purchase the site.	5	5	25
Utilities	Insufficient water supply capacity to serve the proposed development. Increased cost and programme delay. Payment required for offsite works.	5	5	25
Cost	Land purchase is more than anticipated and/or makes the project unaffordable.	5	4	20
Finance/Funding	Sport England funding not obtained.	5	4	20
Planning	Planning application is rejected or consent is delayed. (See also other planning risks, which could have an impact on this, and the proposed mitigation measures)	5	4	20
Planning	S106 Agreement/Developer Contribution required for offsite highway improvements or contribution to Bus Rapid Transit	4	5	20
Programme	Construction programme is insufficient.	4	5	20
Site	Poor ground conditions.	5	4	20
Utilities	Insufficient electrical supply and/or nothing local to the site.	5	4	20
Site Ownership	Delay / unable to purchase the site.	5	5	25
Utilities	Insufficient water supply capacity to serve the proposed development. Increased cost and programme delay. Payment required for offsite works.	5	5	25
Cost	Land purchase is more than anticipated and/or makes the project unaffordable.	5	4	20
Finance/Funding	Sport England funding not obtained.	5	4	20



# Procurement



### INTRODUCTION

The options for the procurement of the Operator and the Main Contractor, have been considered. This section contains a summary of the options considered and the recommendations. Appendix 12 contains a detailed report on the contractor procurement options.

### PROCUREMENT REQUIREMENTS

A structured and systematic approach is required in order to select the most suitable option for the project. The client's project objectives, especially in terms of cost, time, quality, risk and control must be clearly defined and the above options are reviewed against these to determine the most appropriate form of procurement for this project.

The broad purpose of contract procurement is to appoint an appropriately skilled contractor and/or operator, with the right team, agreed costs, programme and appropriate transfer of risk. This simple objective has become more difficult to achieve as project programmes are condensed, and both clients and contractors/operators seek to protect their position with regard to apportionment of risk.

### MARKET CONTEXT

The construction market contracted during the recession and is struggling to cope with the increase in construction projects coming to the market. Contractors are therefore being more selective about the projects they bid for and will often only tender for those projects where their bid costs are kept to a minimum. The location of the project also reduces the number of contractors with the capability and experience to do this type of project.

### COUNCIL PRIORITIES

When considering the procurement route, the following key considerations should be looked at, as they will directly influence the procurement route adopted.

The following priorities were established during the Procurement Workshop, and the proposed way forward reflects these priorities.

- Programme – Whilst the Council would like the centre to be open as soon as possible, programme is not the key driver.
- Cost certainty – A fixed price needs to be obtained for both the operator and construction contract before works start on site.
- Risk transfer - Risk should be transferred to the contractor and operator where appropriate.
- High quality – This is a high priority, however this must be balanced against obtaining cost certainty and risk transfer where appropriate. It will therefore be important to ensure the design is developed to a reasonably high level of detail to protect the design intent.
- Compliant with Public Contract Regulations – e.g. OJEU compliant.

### PROCUREMENT OPTIONS

This report sets out the options available for the procurement of the operator and contractor for the Dover Leisure Centre. The options considered are:

#### Operator

- Design & Build contract and separate leisure management contract.
- Design, Build, Operate and Maintain (DBOM).
- Design, Build, Finance, Operate and Maintain (DBFO).
- Asset transfer/long lease.

#### Contractor

Procurement Routes:

- Traditional.
- Management Contracting & Construction Management.
- Partnering.
- Design and Build.

Procurement Options:

- Single stage.
- Two stage.

Commercial approaches:

- Fixed price (lump sum).
- Guaranteed maximum price.
- Target cost.

OJEU Compliant Procurement:

- A framework.
- Use the OJEU procedure.

### PROCUREMENT WORKSHOP

A Procurement Workshop was held on 28 April 2016 with Council officers and members of the Consultant Team. Soft market testing has also been carried out with key operators and contractors on the proposed contractor framework, which supports the recommended way forward.

The following topics were reviewed as part of the Procurement Workshop:

- Procurement options/routes, including:
  - Separate construction contract and leisure management contract
  - Design, Build, Operate and Maintain (DBOM)
  - Design, Build, Finance, Operate and Maintain (DBFO)
  - Asset transfer/long lease.
- Summary of current operator market
- Why test the market?
- Timescales for procurement and when best to appoint the operator
- Operator input to design and final specification
- Funding from operators
- Key contract terms and considerations:
  - Length of contract (co-termination)
  - How to maximise interest from contractors
  - Maintenance responsibilities
  - Management fee arrangements.
- Soft market testing.



## OVERALL PROCUREMENT RECOMMENDATIONS

To summarise, we consider the following to be the most appropriate procurement approach.

Approach	Rationale
Contractor and operators to be procured separately. This will discount a DBOM, DBFO and Asset Transfer approach.	<ul style="list-style-type: none"> <li>To maximise competition and meet the project programme.</li> </ul>
A two stage develop and construct procurement route to be adopted.	<ul style="list-style-type: none"> <li>Programme – to achieve completion by the end of 2018.</li> <li>Early contractor involvement.</li> <li>More attractive in the current tender market.</li> <li>Collaboration with contractor to obtain high quality product.</li> <li>Risk transfer where appropriate.</li> </ul>
Design developed to Stage 4 (previously Stage E) in conjunction with the contractor and for the completion of the second stage tender.	<ul style="list-style-type: none"> <li>Ensure a high quality product is obtained.</li> <li>To enable a fixed price to be obtained for the works on completion of the second stage tender.</li> </ul>
A fixed lump sum price is obtained for the works.	<ul style="list-style-type: none"> <li>Obtain cost certainty before starting on site.</li> <li>Risk transfer where appropriate.</li> </ul>
Key designers, e.g. architect and civil/structural engineer would be appointed by/novated to the contractor to complete the design.	<ul style="list-style-type: none"> <li>Continuity of design.</li> <li>Programme – to avoid downtime whilst a new team get up to speed.</li> <li>Obtain a high quality product.</li> <li>Transfer design risk to the contractor.</li> </ul>
The contractor is procured through the Southern Construction Framework.	<ul style="list-style-type: none"> <li>OJEU compliant.</li> <li>Avoids full OJEU process and associated programme impact.</li> <li>Mini-competition to select contractor.</li> <li>National contractors with relevant experience on the framework.</li> <li>Bring on board a contractor at an early stage to work with the Council and the Design Team, and advise on, programme, buildability, cost, etc.</li> </ul>

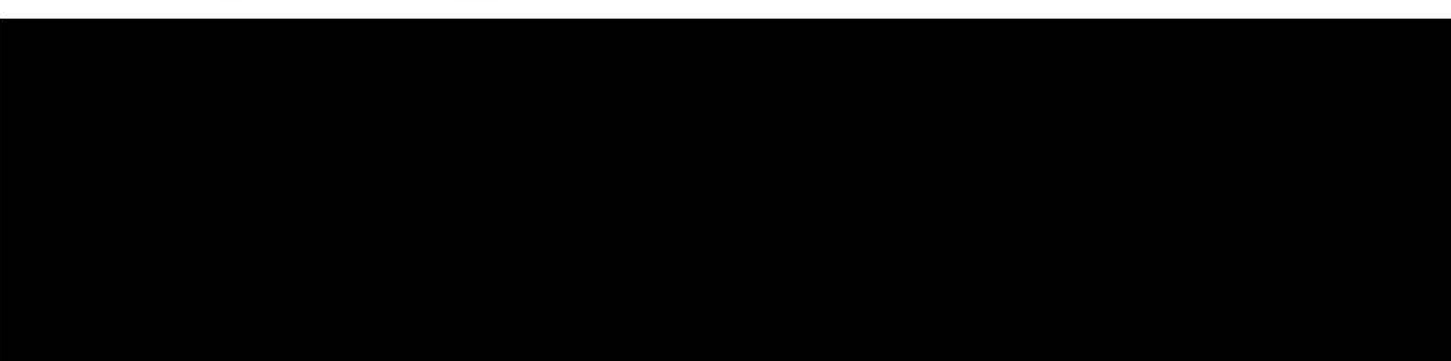
## CONTRACTOR SOFT MARKET TESTING

In June 2016 we conducted soft market testing with the contractors on the Southern Contractors framework to establish the level of interest in the project.

A background document was issued to the contractors via the framework manager to provide an overview of the project. This included the following project information:

- Overview of work completed to date
- Proposed facility mix
- Estimated capital costs
- Initial floor plans designs and area schedule
- Procurement route
- Indicative programme.

### Summary of Findings



The results support the recommendation to use the Southern Construction Framework.

## OPERATOR PROCUREMENT RECOMMENDATION

We have not included a full operator procurement review in this report, due to the commercial sensitivities, and further discussion required to conclude this.

It was however agreed that the leisure management contract and construction contract should be procured separately. It was also agreed that the procurement of the leisure management contract should be progressed in parallel with the construction contract so that the commercial position for the operator is known before entering into the construction contract.

## OPERATOR SOFT MARKET TESTING

Nine operators were engaged with during the soft market testing exercise, to seek their views on the proposed plans for the new Dover Leisure Centre and to gauge interest in outsourcing of its management alongside that of Tides Leisure Centre in Deal.

### Summary of Findings

All 9 operators responded in full to the soft market testing, indicating a high level of interest from the market. Questions included a range of topics focussing on the proposed facility mix and preferences concerning the details of the potential management contract. The purpose of the soft market testing exercise was to inform the development of plans for the new Dover Leisure Centre and decisions on the future management of it. A summary of the main findings is provided below:

- 8 out of 9 respondents expressed an interest in tendering for the contract to manage the new Dover Leisure Centre.
- There is strong support for combining the management of the new Dover Leisure Centre and Tides.
- The responses suggest that the minimum length of contract should be 10 years and that anything over 15 years in total may be less attractive.
- The majority of operators stated that they would be able to provide between £1-5m worth of finances if the Council required investment at either centre. Three operators could provide £5-10m.
- A number of refinements to the facility mix were suggested but these varied between operators.
- Consideration should be given to providing additional car parking capacity at the site, over and above the planned 250 spaces, a higher capacity was recommended by most respondents, up to 400 spaces.
- Additional comments received expressed respondents keen interest in the project and willingness to engage further with the Council as the project moves forward.

Overall, operators are supportive of the proposals and there is clearly significant interest in the management contract opportunity encompassing Tides and Dover Leisure Centre. This should help ensure a competitive tendering process to maximise the financial offer from potential operators.



# Consultation Results



## Consultation

### Consultation

Following completion of the draft report the Council undertook a wide ranging consultation exercise. The purpose of this was to share the findings of the work to date and to invite comments from a broad range of stakeholder groups and the community of the District. The aim was to maximise engagement and to encourage groups and individuals to respond to the consultation questionnaire.

The following groups were identified to be included in the consultation process:

- Leisure centre users (existing and potential)
- Your Leisure and potential new operators
- Sport England & other National Governing Bodies of Sport
- Local sports clubs and community groups
- Protected characteristic groups
- General public
- Elected members
- Local media.

The following stakeholders were a specific target for consultation:

- Sport England
- National sports governing bodies (e.g. ASA)
- Project Advisory Group
- Kent County Council
- South Kent Coast Clinical Commissioning Group
- Kent Sport and sports networks
- Local primary and secondary schools
- Dover Association for Disabled People
- Town and Parish Councils.

The key messages promoted during consultation were:

- The Council wants people to have access to first class sport and leisure facilities to help them lead healthier lifestyles, realise their sporting ambitions, or simply have fun keeping fit.
- The Council is committed to working with the local community and sports governing bodies to build a new leisure centre fit for the 21st century.
- Decisions on a new leisure centre will be evidence based, meet local needs and be sustainable and financially viable.

The following communications channels were used for the consultation process:

#### • Website content

The Council website was used as the primary source of information on the proposed new Dover Leisure Centre. The content was updated with regular information on project phasing and progress. All materials relating to the public consultation were published on the website, along with a link to an online survey. Content was designed to be engaging, easy to read, and included strong visuals. Links were provided to relevant documents such as the Indoor Sports Facility Strategy.

A new web page on the proposed development of a new Dover Leisure Centre was created, and included details on the vision and initial scoping work on the project. A link to the summary findings from the Feasibility and Options Appraisal Study was also provided.

#### • Social media (#NewLeisureCentre)

The use of social media is highly effective in delivering information in a timely manner about the development, and was particularly useful for encouraging interaction and linking to website content. The Council currently has over 11,800 'Friends' and 'Followers' across its social media platforms. This was used to provide information on the project and on the consultation process.

#### • 'A to Z' Leisure Facilities

The development of a new leisure centre for Dover and the consultation on the Indoor Sports Facility Strategy provided an opportunity to highlight the broad range of facilities accessible to people across the Dover district. As part of the communication plan, the Council developed an 'A to Z' of leisure facilities across the district. This was promoted through social media.

#### • Keep Me Posted

A new topic for Dover Leisure Centre was created on Keep Me Posted. This service currently has over 36,900 subscribers and provides an opportunity to communicate directly with people who sign-up to receive email updates on the project. Updates were linked to website content.

#### • Media Relations

The local media play a key role in people's awareness and perception of new developments in the district. Press releases were issued at key stages of the development process starting with the appointment of The Sports Consultancy for the detailed feasibility and design studies. Opportunities to involve the media were explored for the public consultation. Key messages, briefings, and Q&As for Officers and Members were developed to accompany the political and planning decision making process. As part of the soft market testing exercise, the Council also looked at opportunities for trade press coverage.

#### • Public consultation

Engaging the local community in the decision making process will be a key factor in the successful delivery of the project.

Public consultation should include an opportunity for the local community to be involved in reviewing options, and expressing opinions on locations and facility mix. There should be a range of opportunities for them to engage in the consultation, including events and online.

Public consultation events included an event for key stakeholders at St Mary's Parish Hall in Dover, three drop-in sessions at the existing Dover Leisure Centre, along with a display of the proposals throughout the 6-week consultation period. A similar display was made available at the Dover Community Regatta event and a drop in session was held at Whitfield village hall. All attendees at the events were encouraged to respond to the online questionnaire.



## RESULTS OF CONSULTATION

The Council conducted public and stakeholder consultation via a survey on their website in July 2016. A summary of the results are contained in Appendix 13 and summarised in the following paragraphs.

In total, 673 responses were received. The questions are outlined and results summarised below.

### On average, how many times a month do you currently use Dover Leisure Centre?

- Approximately 38% of people never use the facility
- 31% use the leisure centre 1-5 times a month
- 14% 5-10 times a month
- 17% more than 10 times a month.

### Do you support plans for a new Dover Leisure Centre?

- A significant majority, 89% of people, agreed with this statement. Only 11% disagreed.

### Which facilities are most important to you?

- 83% of people cited a main swimming pool as one of the three most important facilities
- 42% included a health and fitness gym,
- 28% a learner pool
- 23% a sports hall
- 20% multi-purpose studios
- 18% a café
- 17% a sauna and steam room
- 9% 5-a-side football pitches
- 8% 'clip-and-climb'
- 6% a spin studio
- 6% also included squash courts in their three priority facilities.

### Do you have a view on the proposed site at Whitfield?

- 69% of respondents support the proposed site
- 19% who oppose
- 12% who have no strong view.

### How do you usually travel to the existing Dover Leisure Centre?

- 63%, travel by car or motorcycle
- 21% walk or run
- 8% use public transport
- 7% other
- 2% travel to the Leisure Centre by bike.

### How would you most likely travel to the new leisure centre in Whitfield?

- 65% of respondents stated that they would travel by car or motorcycle to the Whitfield site
- 13% would use public transport
- 11% would walk or run
- 7% stated other
- 2% would use a bike.

### If the Whitfield proposals go ahead, how often would you use the new leisure centre?

- 53%, would use the facility more regularly
- 27% about the same
- 11% less frequently
- 10% of respondents would never use the facility.

### What do you like most about the plans for the new leisure centre?

- The proposed location and parking facilities are popular with many. The increased pool size is also highlighted as a positive, however around 10% would like it to be 50m. The range of facilities is another major theme, particularly mentioned were the clip-and-climb and fitness studios.

### Is there anything that you would like to see changed to improve the plans for the new leisure centre?

- The main complaints are around the lack of a 50m pool and the size of the sports hall. The sports hall was mentioned by various users, including badminton payers and cheerleader.
- Location is also an issue; although many people approve of the new location, there were consistent concerns, primarily by those aged 65 and over, about the move away from Dover and lack of public transport links.
- The 'changing village' was also highlighted as a problem by some people.

## VERBAL FEEDBACK FROM CONSULTATION EVENTS

In addition to the online questionnaire a series of stakeholders and public consultation events were held. These were attended by Council members, officers and representatives of the consultant team.

### Stakeholder's workshop (7th July 2016)

- 29 people attended the event, representing 17 organisations within the local councils, schools and sports and civic societies. The proposed facility mix was discussed.

- Most delegates provided positive feedback, alongside some detailed suggestions regarding specific aspects of the proposals. For example, the representative from Kent Cricket was interested in the type of flooring in the main hall, table tennis club members provided information about the lighting levels required for their sport and Dover Dash were particularly interested in access to the pool for people with disabilities. Some attendees raised concerns; Whitfield Parish Council stated that more facilities should be provided, including a 50m pool, the Dover Society would prefer a town centre location. Vista twisters and Deal Gymnastics explained that their numbers are increasing and ideally are looking for stand-alone facilities.

### Drop-in consultation (14, 16, 19, 23rd July 2016)

A stand was set up at the Dover Community Regatta which was well visited throughout the day.

- Verbal responses from the consultees were mixed: many were enthusiastic about the project but a substantial minority were unhappy that the proposed site is outside the town centre. This probably reflects the fact that many of the people who attended the regatta live in or near the town centre.
- Concerns were raised about the frequency and cost of public transport links from the town centre.
- There was widespread recognition that improvements in the provision of indoor sports are necessary and the proposed facility mix was generally supported.

## SUMMARY

The level of response to the consultation process was relatively high, at 673. The results generally demonstrate there is a good level of support for the proposals. There are some notable comments relating to the facility mix, location and accessibility, which should be considered further as the project develops.

Overall, the results of the consultation to date have been positive and will feed into the next stage of work, as designs are refined.

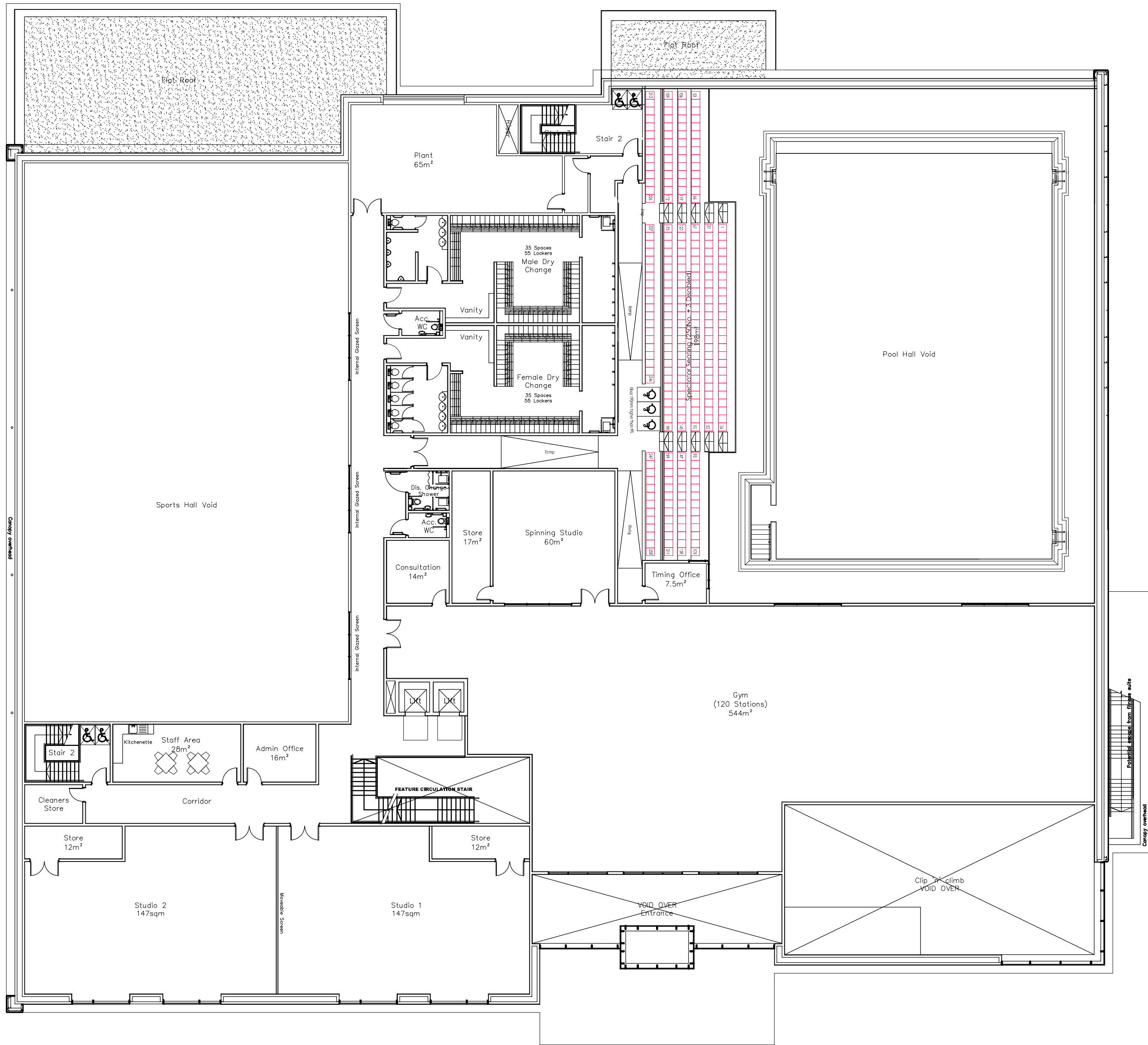
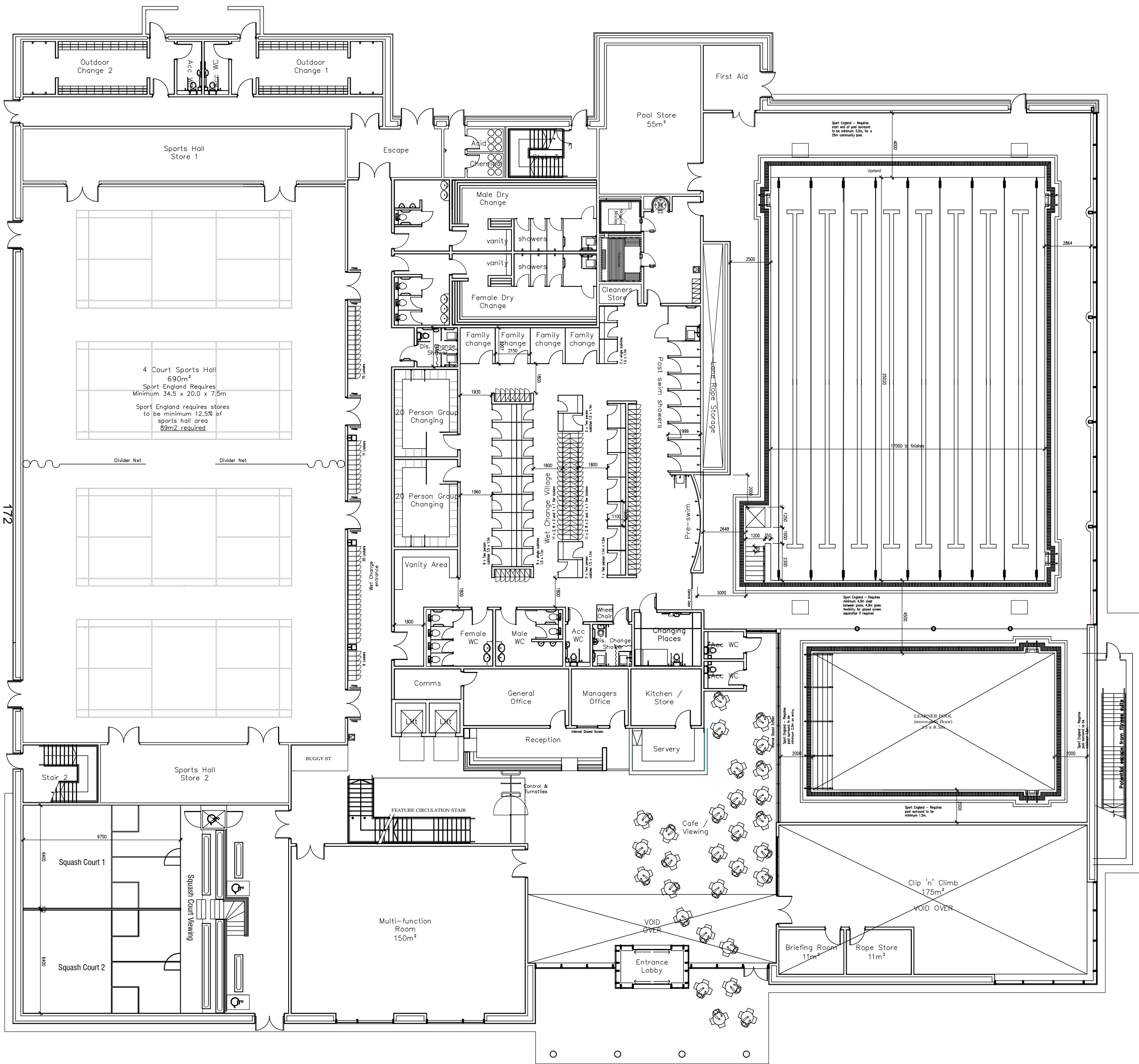


# Appendices



# Appendix 1 –Architectural Drawings





D	Entrance, cafe, climbing wall amended following client comments	22.06.16	ces
C	Feature Stair and Outdoor change revised as per client comments	16.06.16	ces
B	Clip 'n' Climb included as part of overall development	13.06.16	ces
A	Size/location of Spa, Pool Store and First Aid amended	08.06.16	ces

Rev	Description	Date	Drawn
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## FEASIBILITY

## DOVER LEISURE CENTRE WHITFIELD, DOVER

## GROUND AND FIRST FLOOR AS PROPOSED

JOB NO: 15042  
DWG NO: (SK) 020  
SCALE: 1:200 @ A1  
DRAWN BY: ces  
REV: D

DO NOT SCALE  
ALL DIMENSIONS TO BE VERIFIED ON SITE



2nd Floor, TWO  
Jesmond Three Sixty  
Newcastle Upon Tyne  
NE2 1DB

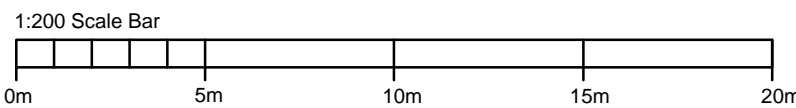
Stanford House  
19 Castle Gate  
Nottingham  
NG1 7AQ

t 0191 2817700

t 0115 9470800

info@gt3architects.com

www.gt3architects.com





## Appendix 2 – Civil and Structural Engineers Report



## DOVER LEISURE CENTRE

STRUCTURAL & CIVIL ENGINEERING RIBA STAGE 2 REPORT

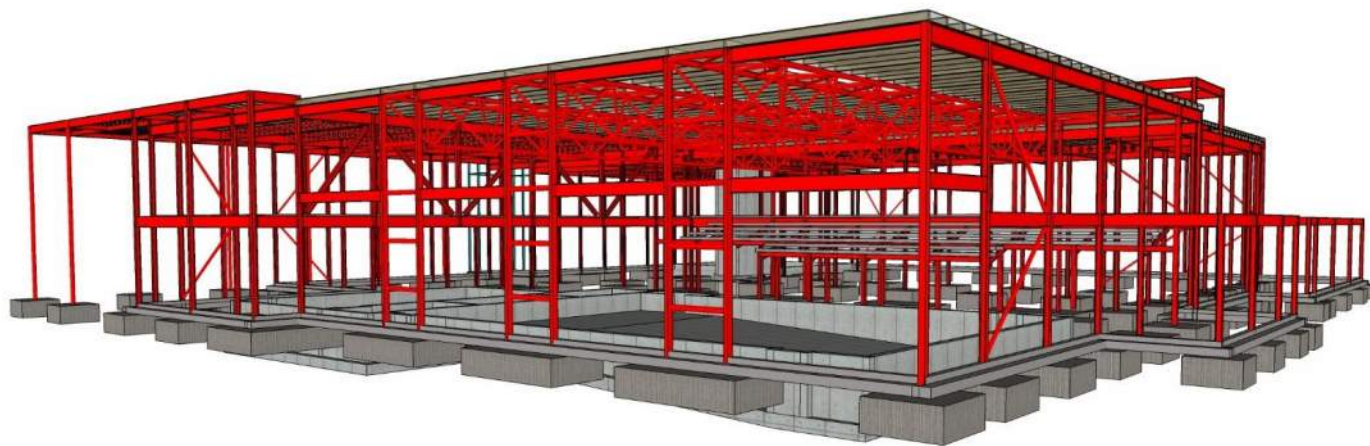
for

GT3 Architects

17<sup>th</sup> June 2016

634-S-REP-001  
Rev 0

Engenuiti  
2 Maltings Place  
Tower Bridge Road  
London, SE1 3JB





STRUCTURAL & CIVIL ENGINEERING RIBA STAGE 2 REPORT

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Revision History

Rev	Date	Purpose/Status	Document Ref.	Comments
00	24 June 2016	Draft	633-S-REP-001	Issued for Information

Prepared by:



Chris Law  
Senior Engineer

Reviewed & Approved by:



Sarah Curran  
Associate



Paul Grimes  
Director

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# 1 EXECUTIVE SUMMARY

- 176
- 1.1.1

Engenuiti has been appointed by GT3 Architects to provide civil and structural engineering design services for the proposed new leisure centre for Dover.

1.1.2

The purpose of this Structural & Civil Engineering Feasibility RIBA Stage 2 Report is to describe the civil & structural engineering concept design of the proposed development to support the preliminary cost estimates for the project.

1.1.3

The proposed leisure centre is located in Whitfield, Dover. The site postcode is CT16 3FH. The site location is south of Honeywood Parkway and east of The Glenmore Centre.

1.1.4

The site is currently a greenfield location bounded by Honeywood Parkway and a spur road to the east of the site.

1.1.5

The proposed leisure centre is a new build facility. The new facility will be designed around the following accommodation mix:
  - 8 lane 25m pool
  - Learner pool with moveable floor
  - Wet changing village
  - Activity zone around a new café space
  - 4 court sports hall with associated changing
  - Treatment rooms
  - Gymnasium
  - 2 large dance studios
  - Spinning studio.

1.1.6

The proposed building superstructure can be conceptually split into four key components as follows:
  - Long-span roof structures over swimming pools, sports hall and studios (column free areas)
  - Floor slabs to studio and office spaces supported on an regular grid of vertical support
  - Secondary structure to façade and building envelope
  - Swimming Pool structures

1.1.7

Several structural framing solutions can be applied to the proposed architectural form. The long span roofs can be framed using cellular steel beams, steel trusses or glulam timber beams or trusses. The floor slabs to studio and office areas can be frames using steel columns and beams with composite reinforced concrete slabs cast on metal deck or using precast concrete soffit panel systems. Cross Laminated Timber (CLT) floor options are also possible.

1.1.8

Secondary structural framing to building envelope can be through the use of metal decks, timber cassettes, composite panel systems, concrete block walls, cold formed steel backing systems and CLT panels.

1.1.9

The swimming pool structure can be constructed out of in situ reinforced concrete, stainless steel systems or sprayed concrete.

1.1.10

The British Geological Survey (BGS) online map indicates that the sites bedrock geology is Margate Chalk Member. The sites superficial deposits are of Clay with flints formation, consisting of clay, silt sand and gravel.

1.1.11

Based on the desktop study of the local geology and borehole data available on the BGS website we suggest that the proposed structure and ground conditions may be suitable for shallow pads and ground bearing slabs founded on the chalk.

1.1.12

Our experience of leisure centre construction suggests that shallow foundations and a ground bearing pool structure are the most favoured starting point from a cost perspective but that allowance should be made for a piled foundation solution until further ground information is available.

1.1.13

Applications and consultation will be required to Southern to agree a method of discharge and flow rate from the swimming pools. Additional applications will be required to Southern Water if connecting to the public sewer network and also to the Environment Agency if the final proposal incorporates discharge to ground.

1.1.14

As the development is considered “Major”, the Local Lead Flood Authority: Kent County Council SuDS pro-forma will need to be completed as part of the planning application process.

1.1.15

We will investigate the feasibility of discharging surface water to ground through a soakaway, incorporating results from infiltration testing. Additional SuDS measures will also be studied and considered further at the next design stage.

1.1.16

At this stage we suggest using a baseline structural option of a steel frame with long span truss over the swimming pool and long span cell beam roof, shallow RC foundations and in situ RC swimming pool. We have progressed the cladding design using a timber cassette envelope solution.



2 INTRODUCTION

2.1 General

- 2.1.1 Engenuiti has been appointed by GT3 Architects to provide civil and structural engineering design services for the proposed new leisure centre for Dover District Council.
- 2.1.2 The purpose of this Structural & Civil Engineering Feasibility RIBA Stage 2 Report is to describe the civil & structural engineering concept design of the proposed development to support the preliminary cost estimates for the project.
- 2.1.3 This report has been produced for the exclusive use of GT3 Architects and should not be used in whole or in part by any third parties without the express permission of Engenuiti in writing.
- 2.1.4 This report should not be relied upon exclusively for decision making purposes and should be read in conjunction with other documents and drawings produced by the design team.

2.2 Proposed Development

- 2.2.1 The proposed leisure centre is located in Dover, Kent. The site location is near the Whitfield Interchange just south of the main A2 road and is bounded by Honeywood Parkway.
- 2.2.2 The site is currently a greenfield location bounded by Honeywood Parkway and a spur road to the east of the site.
- 2.2.3 The proposed leisure centre is a new build facility. The new facility will be designed around the following accommodation mix:
  - 8 lane 25m pool
  - Learner pool with moveable floor
  - Wet changing village
  - Activity zone around a new café space
  - 4 court sports hall with associated changing
  - Treatment rooms
  - Gymnasium
  - 2 large dance studios
  - Spinning studio.



Figure 2.1: Architectural Concept Design Proposal View 1

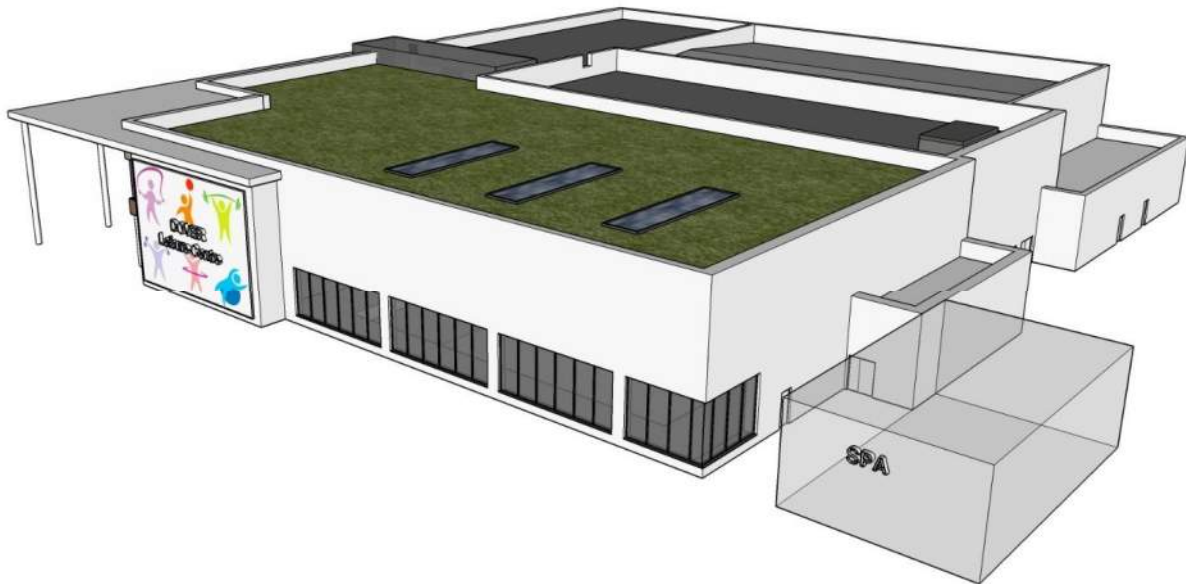


Figure 2.2: Architectural Concept Design Proposal View 2



3 DESIGN BRIEF & STRUCTURAL FRAMING OPTIONS

3.1 Development of Key Structural Design Criteria

3.1.1 From an understanding of the Architect's (GT3 Architects) aspirations a list of key structural questions have been developed as shown in Table 3.1 below.

Driver	Comments
Aesthetics	Long span roof structures above the Swimming Pool and Sports Hall are to designed and detailed to high aesthetic standards. Steel and Timber options to be considered.
	Sports Hall and gymnasium roof soffits to be expressed and provide acoustic performance. Swimming pool roof to feature timber ceiling cassette roof, acoustic metal deck or similar.
	Facade Glazing – standard high quality system for clear edges to swimming pool hall.
Cost	Lowest cost for required quality.
Flexibility	Administration and studio spaces to be flexible for future configurations, consider structural grids to minimise layout impact.
	Imposed load for general areas 4 kN/m <sup>2</sup> (3+1), with studio and gymnasium spaces designed as 5 kN/m <sup>2</sup> .
	Fabricated steel sections with 300 / 350mm dia. openings are provided in central change and entrance areas at high-level ground floor and first floor for services distribution.
	Swimming Pool plant room located adjacent to pool hall building to avoid building a basement if possible.
Programme	Procurement route unknown at this stage
Restrictions	Early consultation with local specialists to ensure swimming pool tanks and roof structure options are detailed to most economic solutions.
	The studio and party room areas are required to achieve an 8.4Hz system frequency as these areas will be subject to rhythmic dance activities.
	Consideration of the chalk ground conditions
Sustainability	Sustainability should be an important consideration balanced with cost implications.

Table 3.1: Key Structural Questions

- 3.1.2 From these key design questions/criteria the primary structural requirements developed are:
- Cost is key to each design consideration – best cost for required quality.
  - Aesthetics are very important especially with the desire to create an expressive and efficient long span roof structure. This spans approximately 28m in the swimming pool area.

- Sustainability design criteria are likely to be key, but subject to further development (including consideration of Capital Cost Vs Whole Life Cost Vs Low Carbon Design).

3.2 Structural Framing Concept

3.2.1 The proposed building superstructure can be conceptually split into four key components as follows:

- Long-span roof structures over swimming pools, sports hall and studios (column free areas).
- Floor slabs to studio and office spaces supported on a regular grid of vertical support.
- Secondary structure to façade and building envelope.
- Swimming Pool structures.

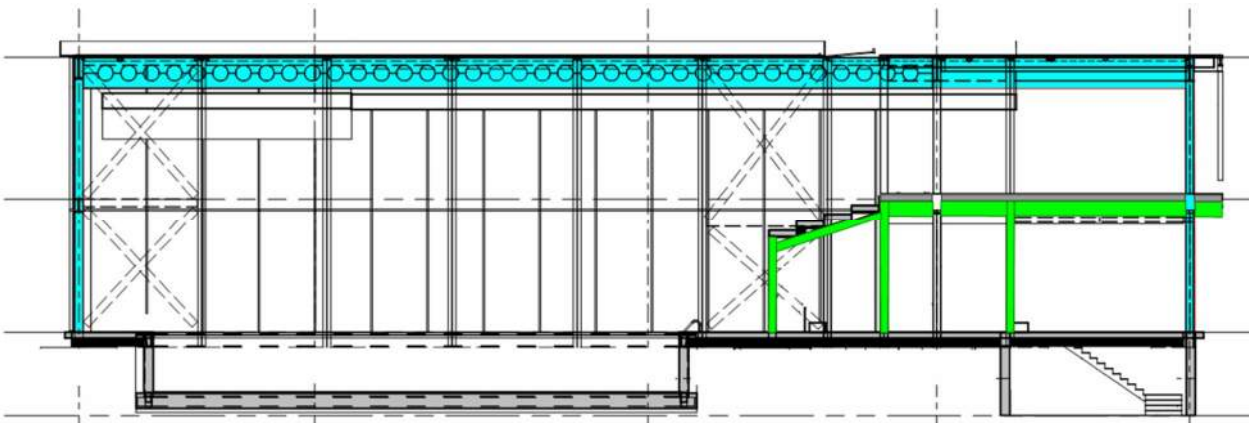


Figure 3.1: Structural Framing Concept – Long Span enclosure (blue) over traditional framed floor structures (green)

- 3.2.2 The sports hall and swimming pool are effectively covered with long-span structures (steel or timber).
- 3.2.3 The first floor deck (studios and offices) is generally supported by a regular grid of columns or walls (spanning to first floor only) allowing a wide variety of efficient floor structures to be considered in steel, concrete, timber, or hybrid combinations.
- 3.2.4 Column free areas beneath first floor slabs can be formed with additional transfer structures (steel or timber).

3.3 Long-Span Roof Structures

3.3.1 The architectural proposal for the sports hall and swimming pools suggests a flat roof with some allowance for roof lights. There are several structural options for framing these types of roofs but a driving factor will be an ambition to make the structure as economic as possible and to try to reduce the main span of the roof beams by adding intermediate columns on major wall lines.



- 3.3.2 Deep steel beams can be used to form the primary beams. These could be fabricated steel beams or beams with cellular openings. By increasing the depth of the steel beams, a lighter section can generally be used, though deeper beams may reduce natural daylighting to the areas below. Provision of beams with cellular openings provides an efficient primary support structure and allows services to pass through the cells of the beams.
- 3.3.3 Similar structural framing can be formed with fabricated steel trusses. These provide a lighter visual appearance (and generally require a lower tonnage of steel compared to solid beam sections, which can make this a cost-competitive option). Trusses can be delivered to site in sections with splices formed on site, to ease transportation difficulties. Services can more easily co-ordinated with the open structural form.
- 3.3.4 The use of glu-laminated solid timber beams over the swimming pool may be considered as it provides the major benefit of significantly reduced maintenance programme as timber does not require sacrificial protection against corrosion. This choice of structural material is also a major consideration in low carbon design. Glu-laminated beams would be designed on the basis that the moisture and temperature levels within the pool would be controlled ('service class 2'), to be discussed further with the design team.
- 3.3.5 The secondary roof structure spanning between the main roof beams can be provided in several ways including secondary steel purlins, metal deck cassettes, solid timber CLT roof panels and also timber roof cassettes.
- 3.3.6 A more detailed appraisal of some of the long-span roof options discussed above is found in Appendix C ('Long Span Roof Studies', June 2016)



Figure 3.2: Timber / Steel Long-Span Roof Options

3.4 Floor Decks and structural framing: Studios and Offices Studio Spaces

- 3.4.1 The first floor slabs (studios and offices) can be primarily framed in steel, in situ concrete or timber glu-laminated beams supported on steel or in situ concrete columns or timber (CLT walls).

- 3.4.2 Floor decks can be formed in in situ concrete (on falsework or steel decking), pre-cast concrete decks or solid timber (cross laminated timber structures) depending on function, durability issues, visual aspirations and cost.
- 3.4.3 Columns would be provided on an open grid to allow circulation around changing rooms, entrance halls etc. Closer column grids could provide a thinner and lighter overall structure, but would impact these areas and their future ability to be altered.

3.5 Steel Framed Floor Decks

- 3.5.1 A steel frame either with fabricated beams (with cellular openings or with services running under standard beams) is an economic framing solution for leisure centre structures as it has great flexibility for creating clear spans over secondary layouts such as changing areas and entrance foyers.

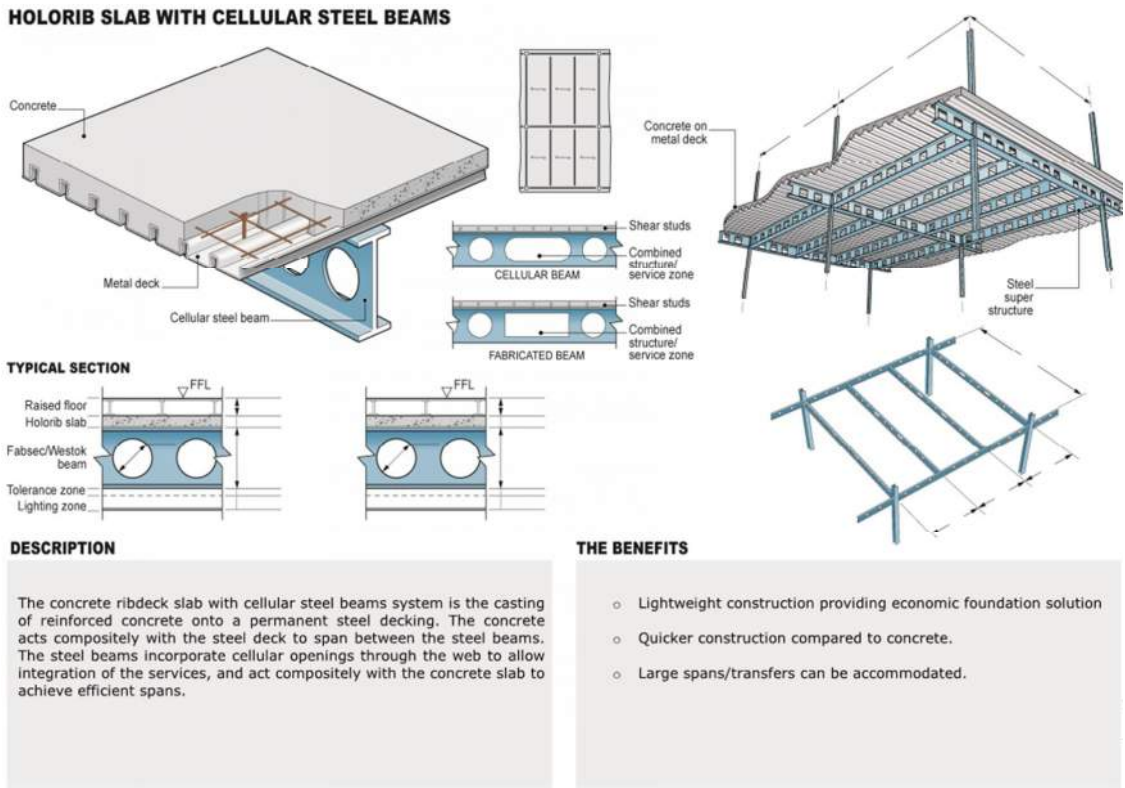


Figure 3.3: Structural Slab options – Composite concrete/steel decks on steel frame

- 3.5.2 The negative issues with steel frames and composite decks are primarily concerned with long-term corrosion protection in the "wet-areas" of the buildings.
- 3.5.3 In conjunction with a steel frame, a slab may be formed using either composite decking or pre-cast RC units (omnia deck) with a structural concrete topping. The corrosive atmosphere requires special measures to be taken where composite decks are used, where in situ concrete, omnia decks or timber panels would be best suited.



3.5.4 Composite decks sometimes require temporary propping during construction, which we would aim to avoid. This is feasible with a trapezoidal deck profile. Propped floor solutions are generally avoided due to the detrimental effect on construction programming.

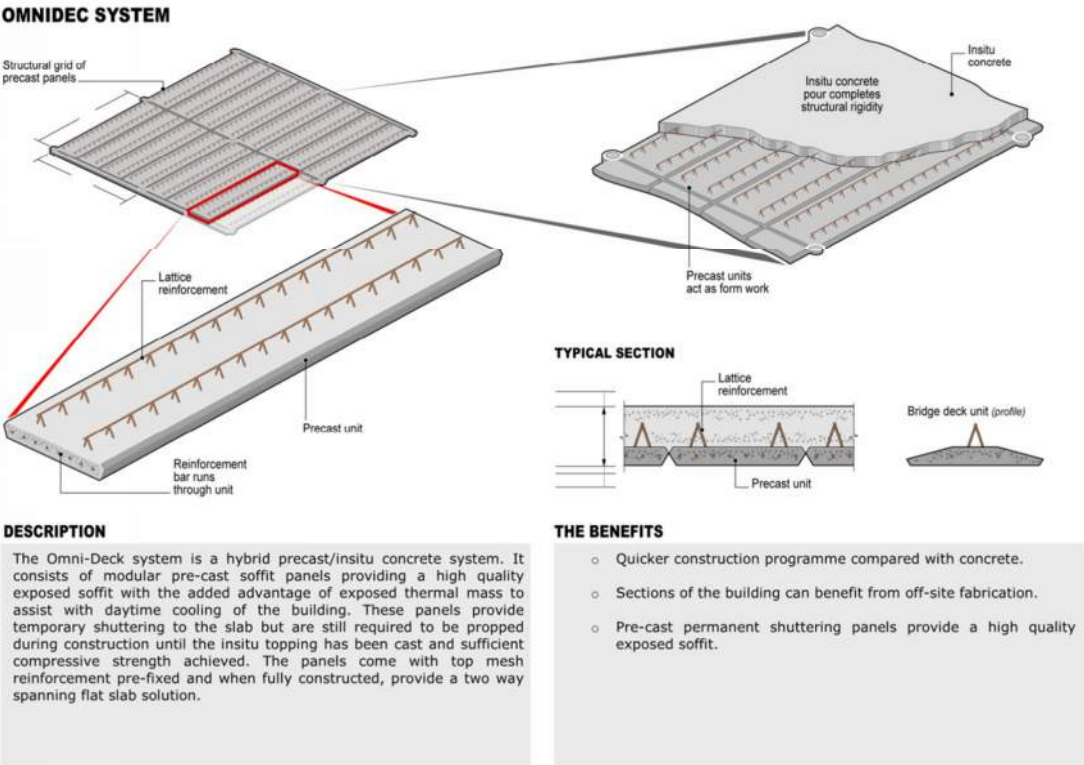


Figure 3.4: Structural Slab options –Omnia pre-cast concrete decks with structural topping (below)

3.5.5 Steel framed floor decks on a regular grid of columns will provide a fairly lightweight structure which is likely to suit a pad foundation strategy.

3.5.6 Column free areas can be easily formed by using deeper cellular beams or by forming upstand trusses connecting the first floor and roof steel beams.

### 3.6 In situ reinforced concrete frame with flat slabs

- 3.6.1 An in-situ reinforced concrete flat slab on in-situ columns typically has several advantages:
- The damp and potentially corrosive atmosphere in the wet change area would result in expensive protection requirements to the steel. With a concrete flat slab the required protection can be achieved by increasing the cover to protect the reinforcement.
  - The lack of downstand beams facilitates the distribution of services.
  - The concrete will offer an improved vibration and acoustic performance below the fitness suite over and above a steel/concrete composite option.
  - It offers the option of an exposed concrete slab over the reception area, with the associated exposed thermal mass to regulate heating and cooling.

3.6.2 An in situ concrete frame (flat slab construction) would be suitable for some areas of the first floor structure but the requirement for large column free areas could make this solution unfeasible over the training pool and atrium areas.

### 3.7 Hybrid Options

3.7.1 A variety of schemes can be offered which follow a hybrid approach to combine the advantages of each material. An example of this would be the use of CLT floor slabs and walls at first floor with additional steel beams and columns to provide additional rigidity and stability.

### 3.8 Disproportionate Collapse & Overall Stability

3.8.1 The structural building design will consider the requirements to prevent disproportionate collapse in accordance with the relevant guidance, either by the key element design method or by designing appropriate ties as necessary.

3.8.2 For steel framed structures (including composite steel/timber) braced bays could be used to provide stability. Where open facades are to be uninterrupted by vertical bracing, this could be replaced with moment frames and plan bracing (as detailed on the feasibility proposals). Omission of bracing would generally be considered a less economical solution, but has large advantages in terms of the architectural merit of the building and may also allow improved daylighting to certain spaces.

3.8.3 The use of RC walls and cores could also be considered as an alternative to some braced bays.

3.8.4 Global stability of the long-span roof structures needs to be considered carefully in the final detailing of the building.



4 SWIMMING POOL CONSTRUCTION OPTIONS

4.1 Swimming Pool Construction

4.1.1 The approach to the construction of the swimming pools is a key consideration in the design of any 'wet side' leisure centre. Likewise, careful consideration must be given to the implications of chlorinated pool water in selecting structural materials and protection systems for the pool hall structural framing. These issues are further discussed below.

4.2 Types of Swimming Pool Construction

4.2.1 The types of pool construction most likely to be suitable for a ground floor level pool in a leisure centre context are:

- 1(a) Shuttered in-situ reinforced concrete to BS 8007 / BS EN 1992, part 3.  
This is reinforced concrete which is detailed so that it is capable of acting as a water-retaining structure. This detailing extends to the use of hydrophilic strips or waterbars at joints and the arrangement of reinforcement to restrict crack widths (usually to 0.2mm). A water resisting additive may also be employed in the concrete mix.
- 1(b) Sprayed concrete (shotcrete or gunite)  
This is concrete which is applied pneumatically through the use of a pump or hose or nozzle. The wet concrete is sprayed over the reinforcement cage to form a continuous wall with minimal construction joints. Mixes with lower water content can be employed than is the case for conventional cast in-situ concrete, enabling the use of fewer joints.
- 2(a) Stainless steel side walls, with structural steel back framing, bolted down onto reinforced concrete slab and lined internally with PVC membrane. An example of this is the system supplied by *Myrtha*.
- 2(b) Stainless steel side walls and floors, with structural steel back framing and welded seams.

4.2.2 Other forms of pool construction which are unlikely to be appropriate in the leisure centre context include:

- 3 Concrete blockwork formwork filled with reinforced concrete  
*Used primarily for private and hotel pools. Robust detailing would depend on specialist input.*
- 4 Reinforced concrete, not designed to BS 8007, but internally tanked  
*Not recommended due to potential risk of damage to internal membrane, e.g. via thermal shock*

4.2.3 Options 1a, 1b, 2a, and 2b are compared in the following table. This table is derived from the 'Pool Tank Constructions' table provided in **Sport England; Swimming Pools Design Guidance Note; February 2011; revision 003**. Additional comments which do not derive from this reference document are provided in italics

	1a. Reinforced Concrete In-situ	1b. Sprayed Concrete	2a. Stainless Steel Side Walls and PVC Liner	2b. Stainless Steel Walls and Floor with Welded Seams
Structural	Monolithic design for whole of tank and pool surrounds when constructed from in-situ water retaining concrete to BS 8007 / BS EN 1992 Part 3 gives a highly stable structure.	Gunnite sprayed reinforced concrete. Usually with integrated transfer channel. Fixtures and fittings need to be integrated into the tank design. <i>Particularly efficient method for pools with curved and irregularly shaped edges. Requires an experienced subcontractor.</i>	Stainless steel side walls incorporating structural back framing fixed to a reinforced concrete floor.	Polished stainless steel side walls and floors incorporating structural back framing and welded seams. Stainless steel panels usually available up to depths not greater than 3m. Junction with pool surrounds and floor structure requires special care.
Waterproofing	Inherent if pool well constructed and detailed in accordance with BS 8007 / BS EN 1992 Part 3. Can be augmented by waterproof liner and/or render.	<i>Inherent if constructed correctly, and with the benefit that there are fewer joints (weak points) than is the case in a conventional cast in-situ walls.</i>	Typically factory applied PVC facing to wall panels and loose PVC floor liner with seas thermally welded.	<i>Inherent.</i> Bare polished stainless steel wall and floor panels with welded joints.
Finishes	Ceramic tiles on render backing recommended.	Ceramic tiles on render backing recommended.	PVC as described above. Can apply tile finishes on top.	No finish or ceramic tile options to upper wall sections subject to design and stiffening.
Robustness	Robust – minimal risk of damage from vandalism or pool hall activities. Durable. Stable construction. Workmanship critical.	Robust – minimal risk of damage from vandalism or pool hall activities. Durable. Stable construction. Workmanship critical.	PVC lining is liable to mechanical damage from sharp objects e.g. puncture resulting in leakage. Potential movement issues at junctions with loose linings and more rigid surrounds. Workmanship critical.	<i>Junctions between stainless steel tank and surround is obvious weak point. Workmanship critical.</i>
Service Life	Proven long service life. Examples c.100 years+.	<i>Method only in common usage since 2000, so extent of lifetime not yet proven, but would expect long lifetime if workmanship adequate.</i>	Periodic replacement of liners required (c.10 years). Oldest examples c.40 years.	Oldest examples c.40 years.
Maintenance	Minimal long term maintenance of structure. <i>Inspection and cleaning of grout anticipated on 5-7 year cycle.</i> Re-grouting of ceramic tiles may be required at c.20 year intervals. Life of finishes will depend on quality of materials, maintenance of pool water quality, wave action and chemicals utilised.	Minimal long term maintenance of structure. <i>Inspection and cleaning of grout anticipated on 5-7 year cycle.</i> Re-grouting of ceramic tiles may be required at c.20 year intervals. Life of finishes will depend on quality of materials, maintenance of pool water quality, wave action and chemicals utilised.	Regular inspection and quick repair of PVC liner damage required. Annual inspection of stainless steel structure to check for pitting/corrosion.	Annual inspection of stainless steel structure to check for pitting/corrosion.



Construction	Long construction period for concrete shell. Wet trade for pool finishes require an extensive period for application and curing. Lack of long term warranty.	extensive period for application and curing. Lack of long term warranty.	Lengthy off-site design and prefabrication time requires early placement of contract. Short installation period. Maximum warranty period 15 years. Reductions in programme time are possible compared with a concrete pool.	Lengthy off-site design and prefabrication time requires early placement of contract. Short installation period. Maximum warranty period 15 years. Reductions in programme time are possible compared with a concrete pool.
Quality Control	Resolution of severe defects and leakage can be complex requiring potential drainage of pool and resulting in extended closure. Dimensional control dependent on quality of workmanship on site.	Resolution of severe defects and leakage can be complex requiring potential drainage of pool and resulting in extended closure. Dimensional control dependent on quality of workmanship on site ( <i>allow zone of finishes for tolerance</i> ).	Resolution of severe defects and leakage can be complex requiring potential drainage of pool and resulting in extended closure. Dimensional control achieved through factory prefabrication and site control.	Resolution of severe defects and leakage can be complex requiring potential drainage of pool and resulting in extended closure. Dimensional control achieved through factory prefabrication and site control.
One stop shop for Responsibility	No	Not fully	Yes	Yes
Cost	Usually used as benchmark option for costing. Allowance needs to be made for cost of periodic closures for repairs to tiles and grouting (e.g. tile replacement from 25 years onwards).	Allowance needs to be made for cost of periodic closures for repairs to tiles and grouting (e.g. tile replacement from 25 years onwards).	Can be cheaper in terms of capital costs and short term expenditure. Allowance needs to be made for cost of periodic closures for repairs (e.g. replacement of lining from 10 years onwards).	<i>Usually expected to be more expensive up front than option 2a. No need for liner replacement but ultimate tank lifetime unproven.</i>

4.2.4 Reinforced concrete, cast in situ, remains the most common and tried-and-tested approach to the construction of leisure centre swimming pools. It relies on good workmanship that, if achieved, can result in durable tank structures with a surface which can be relatively easily finished. This remains the team’s recommended starting point for leisure centre pool construction, and this will be the approach that is adopted as the design progresses unless obvious project specific factors act to drive the design strategy in another direction.



5 SITE CONDITIONS

5.1 Background

- 5.1.1 A preliminary desk- top study of the geology has been undertaken for the site based on historical and current topographic maps and British Geological Society borehole records.
- 5.1.2 A detailed site investigation including boreholes, in situ and laboratory geotechnical testing and testing for any potential ground contamination has not been undertaken at this stage.

5.2 Site Location & Existing Use

- 5.2.1 The proposed leisure centre is located in Dover, Kent. The site location is near the Whitfield Interchange just south of the main A2 road and is bounded by Honeywood Parkway.

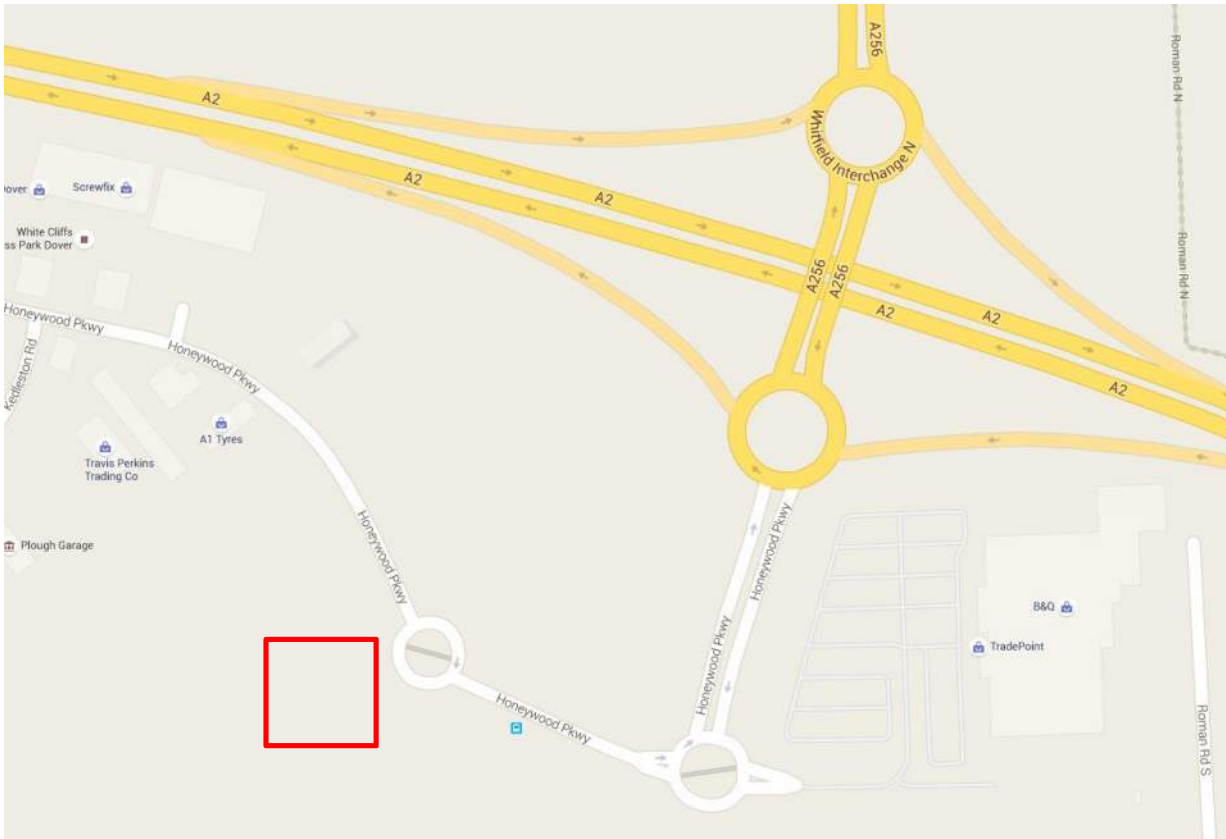


Figure 5.1: Site location (extract from Google Maps)

- 5.2.1 The site is currently a greenfield location bounded by Honeywood Parkway and a spur road to the east of the site.



Figure 5.2: Site Photograph with indicative redline boundary (Google Earth)

5.3 Geotechnical Considerations

- 5.3.1 The British Geological Survey (BGS) online map indicates that the sites bedrock geology is Margate Chalk Member. The sites superficial deposits are of Clay with flints formation, consisting of clay, silt sand and gravel.

5.4 Underground Services and Structures

- 5.4.1 A services search must be commissioned by the client in order to confirm the location of all the services in the areas where excavations are to take place.

5.5 Geo-environmental Risk Assessment

- 5.5.1 A ground contamination Preliminary Risk Assessment has not yet been undertaken.

5.6 Unexploded Ordnance Risk

- 5.6.1 An unexploded ordnance risk assessment has not yet been undertaken.



5.7 Ground Investigation

5.7.1 A ground investigation (GI) comprising fieldwork and corresponding laboratory testing will be required to assess and mitigate the geotechnical issues and risks associated with the construction of the proposed leisure centre and to assess the potential for contamination related risks.



Figure 5.3: Superficial & Bedrock Geology (BGS)



6 SUBSTRUCTURE & FOUNDATIONS

6.1 Foundation Solutions

- 6.1.1 Based on the desktop study of the local geology and borehole data available on the BGS website we suggest that the foundation solution may be suitable for shallow pads and ground bearing slabs founded on the chalk.
- 6.1.2 Our experience of leisure centre construction suggests that shallow foundations and ground bearing pool structure are the most favoured starting point for foundation solutions from a cost perspective. From a cost perspective, allowance should be made for a piled foundation solution until further ground information is available.

6.2 RC Ground Bearing Slabs, Edge Beams & Upstands

- 6.2.1 At this stage of the design, a 200mm RC ground bearing slab with two layers of reinforcement has been assumed, to take account of any soft spots that may exist. This slab would have cut joints at regular bay centres to avoid cracking of architectural finishes.
- 6.2.2 The slab would be isolated from columns and pad foundations. A minimum 200mm zone is to be provided between underside of pad and foundation. In general areas the slab would be placed on a minimum of 300mm layer of engineered backfill, type 6F2, compacted in layers of 150mm. The final thickness of the engineering fill needs to be reviewed depending on the agreed site strip level and also depends on areas that might be over-dug to allow for ease of construction of substructure elements such as the pool.

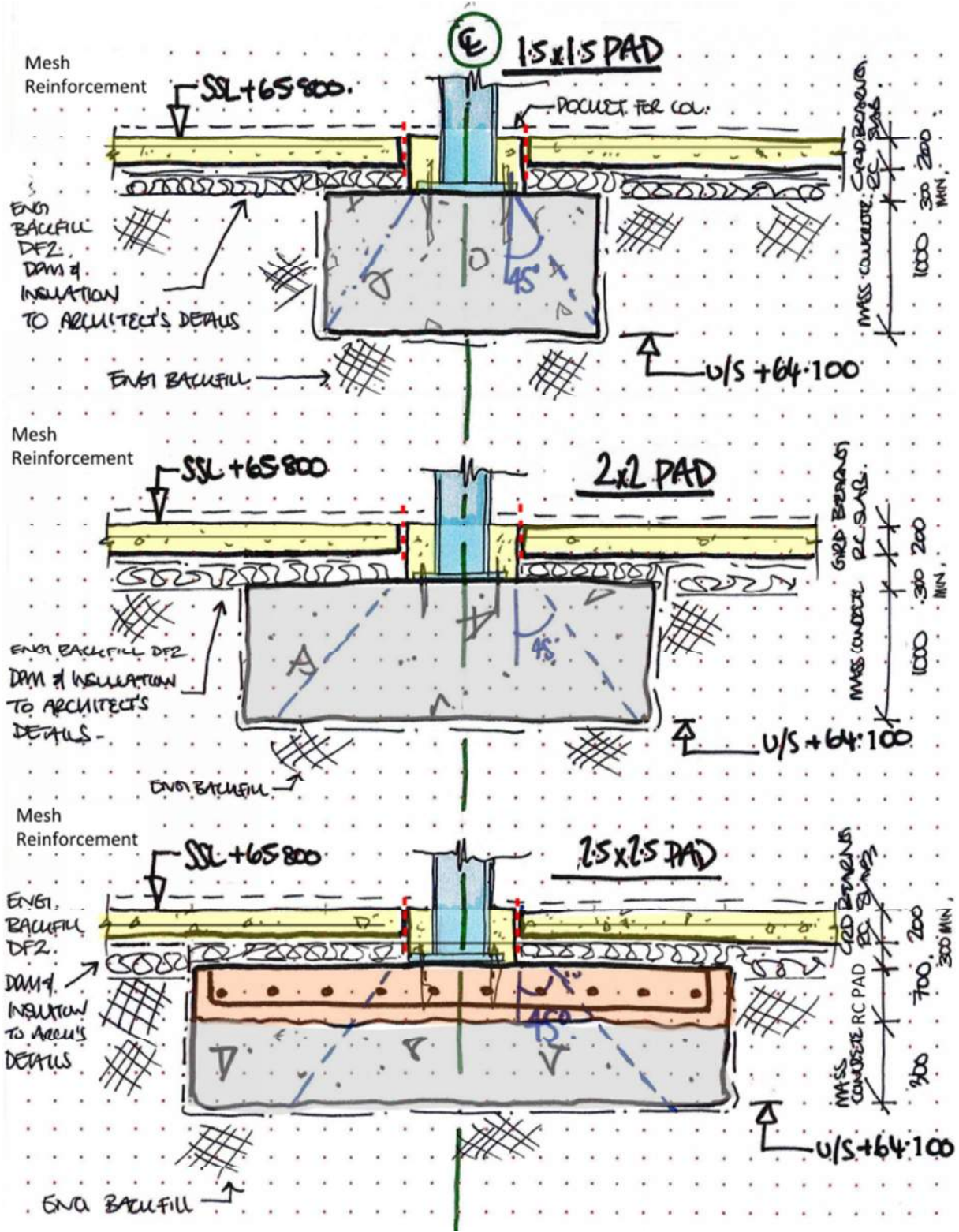


Figure 6.1: Typical Foundation Pad Options



- 6.2.3 The architectural finishes will determine the founding level of the slab. These typically range from 15mm for a skimming screed up to 300mm in changing areas. Where the slab changes level a 300mm RC thickening is to be provided. The final level of slabs will be coordinated at design Stage 4a.
- 6.2.4 The perimeter of the building has an in-situ ground beam that incorporates a step for masonry support. This spans between pad foundations is tied into the ground bearing slab. This edge beam can also be constructed in precast concrete if required for programme reasons.
- 6.2.5 The swimming pool area and changing village will require RC upstands and bunds to separate different areas. At this stage of the project typical details are provided by the Architect and should be allowed for in the cost plan.

### **6.3 Swimming Pool RC Walls and Slabs**

- 6.3.1 We suggest that subject to ground conditions the swimming pool walls and base slab are to be built as in-situ reinforced concrete with a tiled finish.
- 6.3.2 The in-situ reinforced concrete option has been suggested at this design stage on the basis that it is a tried-and-tested method, with good availability of ground workers who can complete the works. Crack control will be managed through reinforcement scheduling. It should be noted that the concrete specification will have higher workmanship tolerances to ensure that the clear distances are achieved. These RC boxes will be designed to limited crack widths to provide water tightness without the need for any additives, however options for additives can be considered if thought to be advantageous from a programme perspective.
- 6.3.3 The swimming pool reinforced concrete walls generally vary from approximately 1.0m to 2.5m depth. The walls are typically 300mm thick and local areas will be thickened to 450mm to allow for scum channels to be incorporated in the wall. A horizontal movement joint is to be provided between the pool walls and ground bearing slab.
- 6.3.4 The base of the swimming pool is to be a 300-400mm thick reinforced concrete ground bearing slab. This thickness is required to enable reinforcement to lap from the wall into the base to resist bending from backfill placed behind the wall. The base slab will also be subject to hydrostatic pressures from the water table. As the pool depth is to be approximately 2.5m in the deepest location it is anticipated that by providing a 300-400mm base thickness will be approximately equal to the hydrostatic uplift forces.
- 6.3.5 Generally the pool construction is a programme critical activity. Given this, it is assumed that the reduced dig to formation level of the swimming pool will be one of the first works packages. It is assumed that the ground will be reduced and battered back to allow for the in-situ formwork to be

erected. It is understood that foundations in close proximity to the pool tanks will be constructed at this lower level.



**Figure 6.2: In-situ Reinforced Pool Tank Design at Grade**



## 7 SUPERSTRUCTURE

### 7.1 Structural Framing

- 7.1.1 At this stage we suggest using a baseline structural option of a steel frame with long span truss over the swimming pool and long span cell beam roof, shallow RC foundations and in situ RC swimming pool. We have progressed the cladding design using a timber cassette envelope solution.
- 7.1.2 Other options to be explored include substituting the long span steel cell beam roof structure with steel trusses, glu-laminated beams or glu-laminated/steel truss combinations. Hybrid options incorporating cross laminated timber for floors, roofs and façade secondary elements can also be considered.
- 7.1.3 A more detailed appraisal of some of the long-span roof options discussed above is found in Appendix C ('Long Span Roof Studies', June 2016)

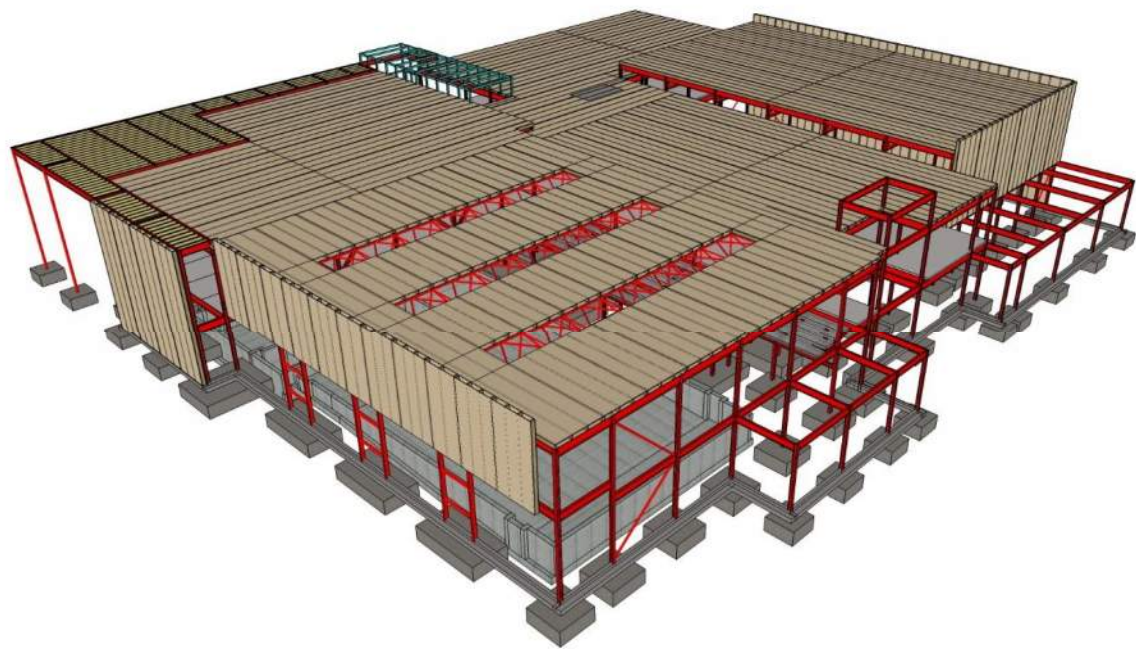


Figure 7.1: Baseline Option - Steel Frame with Timber Cassette Envelope

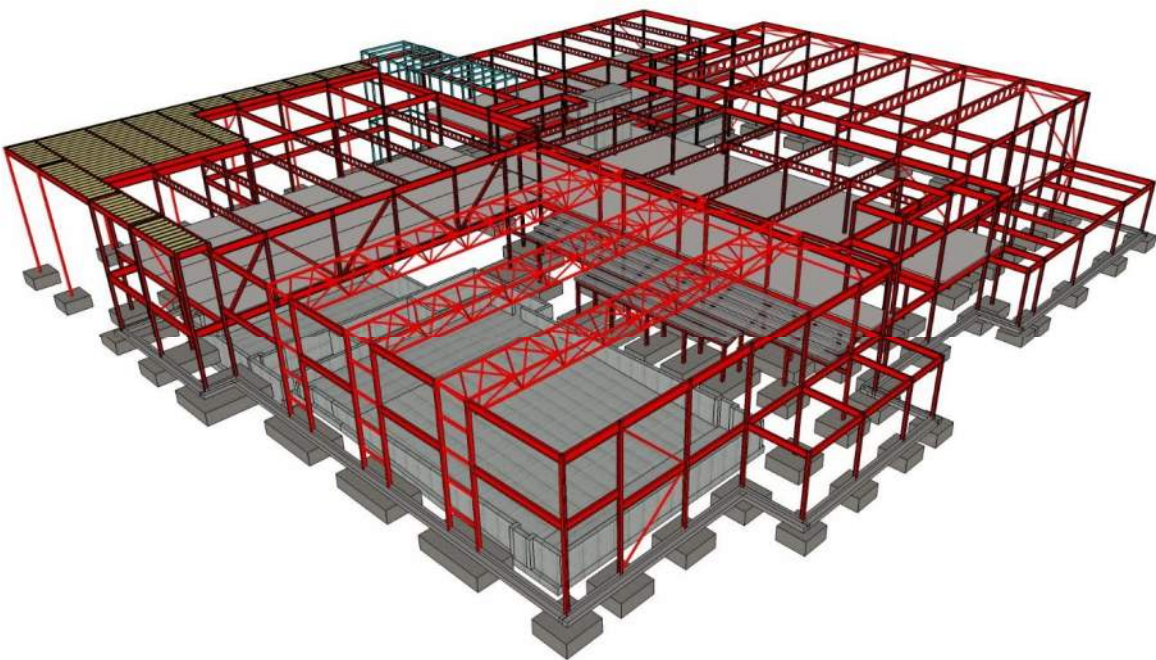


Figure 7.2: Baseline Option - Steel Frame with Truss & Cellular Beams



## 8 BUILDING ENVELOPE

### 8.1 Overview

- 8.1.1 The building envelope is a key structural component in all buildings. The coordination of external and internal skins provides an efficient building envelope solution and there are several structural components to the envelope.
- 8.1.2 The building envelope for leisure centres generally comprises of the following components:
- Roof Options – Timber cassette, Cross laminated Timber (CLT), and light weight steel and aluminium decking.
  - Sports Hall & Swimming Pool high level cladding - Lightweight cladding panels (Kingspan) with secondary steel cold form backing system, timber cassettes
  - Open elevations – glazed curtain walling with secondary steel cold form fixings as required.
  - Sports Hall & Swimming Pool low level cladding – concrete block / brick masonry cavity system or other cladding material. Blockwork for solid wall construction.
  - It should be noted CLT panels can also be used for wall elevations in lieu of blockwork and secondary steel systems.

### 8.2 Timber Cassette

- 8.2.1 Timber cassette panel with a high quality aesthetic to the soffit. This system typically spans multiple bays and is delivered to site as a sandwich panel with insulation and top ply board. The width of cassettes can be customised but typically are in widths of 2.4m to enable efficient stacking on transportation.
- 8.2.2 The deck consists of timber joists within the sandwich system that can normally span up to distances of 7.5m (though longer spans can sometimes be achieved with careful design). A weatherproof membrane is laid down upon an insulation layer and then finished with a zinc standing seam roof or other finish such as sarnafil etc.

### 8.3 Sports Hall Roof - Lightweight Steel Metal Deck

- 8.3.1 A lightweight metal deck panel is a common solution to large roofs over such buildings. The deck is fitted so that it can provide acoustic performance, as specified by the project acoustician. The deck is shot fired onto support structure to provide lateral restraint to the top flange. The deck span varies from 3m for the Tata Steel D100 profile to up to 8.5m for the Tata Steel D210 profile.



Figure 8.1: Timber Cassette System – Typical Details

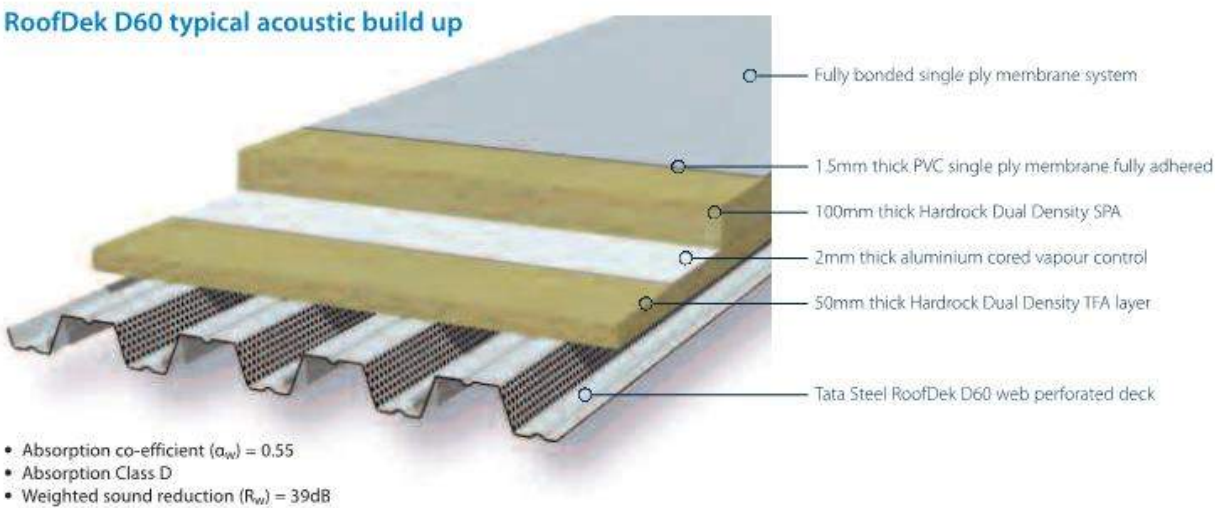


Figure 8.2: Steel Metal Liner Tray – Typical Details



8.4 Lightweight Cladding Panels

- 8.4.1 At high level in the swimming and sports hall areas a light-weight cladding panel system can be used to provide an efficient and quick to erect envelope. The Kingspan KS1000 (or similar) can span vertically or horizontally up to 5.0m, over multiple bays, to provide an effective cladding system.
- 8.4.2 The Kingspan panels can be used above the masonry zone in both halls, enclosing up to 6m between the top of the cavity wall and the underside of the roof structure. Trimming steels are included within the primary steelwork package to ensure the cladding panels have adequate support and lateral headers.

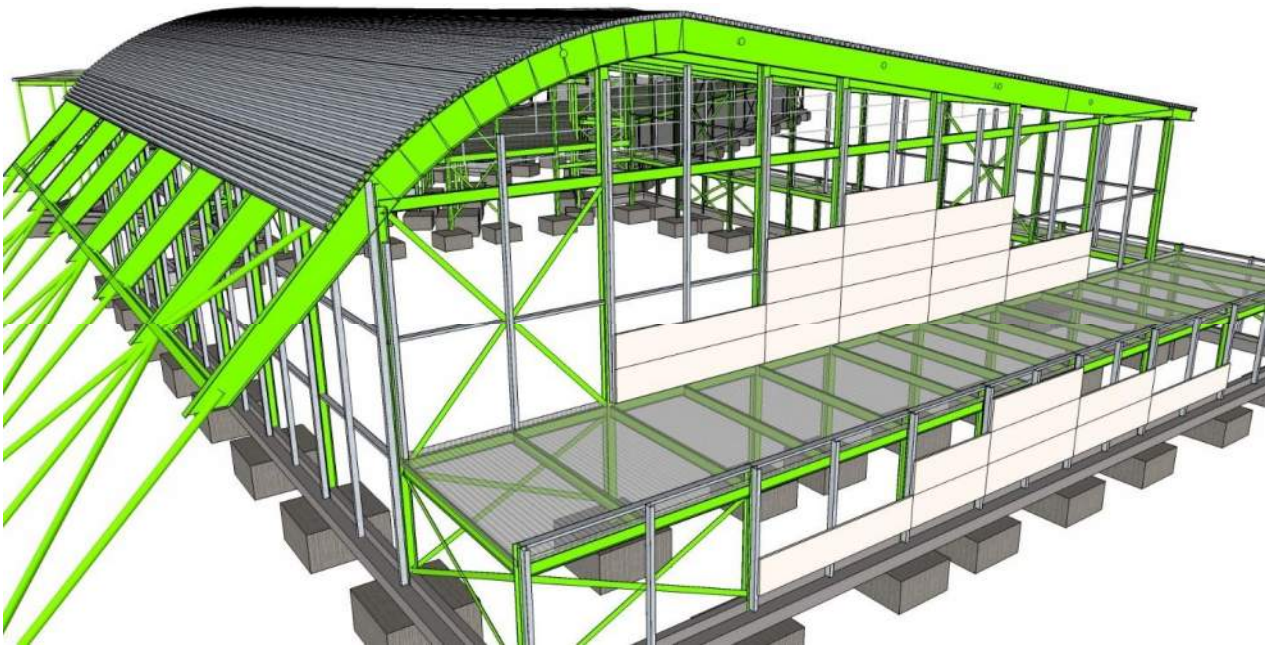


Figure 8.3: Suggested layout for Kinspan KS100 system with vertical secondary steelwork

8.5 Curtain Walling

- 8.5.1 The open zone features a glazed curtain wall system that wraps around the front elevation. This is supported from mullions and transoms at regular centres that hold the glazed panels in place. This secondary system is supported by the primary steelwork above and floor slab below.
- 8.5.2 The steelwork at first floor and roof will be designed for a deflection of span/500 to limit deflection for cladding sensitive areas.



Figure 8.4: Typical Façade System for Glazing

8.6 Block work and Brick Masonry

- 8.6.1 To provide a robust and durable façade at ground a masonry cavity system is generally proposed by the Architect.
- 8.6.2 This will feature a facing lignacite concrete outer skin and a lightweight concrete inner block, such as the Acheson and Glover A308 block. Masonry ties and windposts will be provided at regular centres transferring lateral loads back the primary frame.

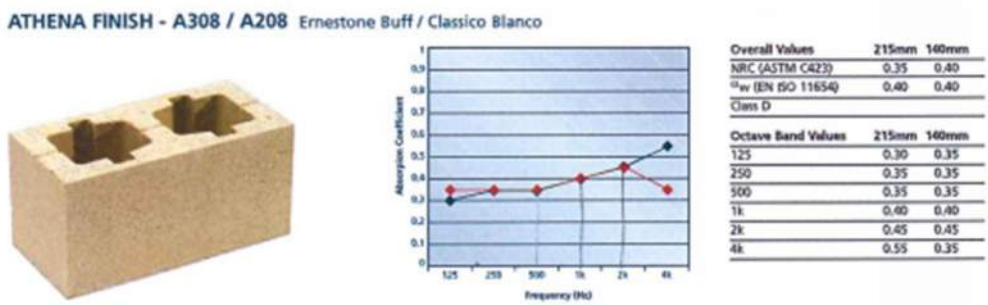


Figure 8.5: Typical lightweight Blockwork



## 9 CIVIL ENGINEERING WORKS

### 9.1 Hydrology

- 9.1.1 The Dour River is sourced approximately 1.5km to the south west of the site and is classified as an Environment Agency 'River' which is served by a catchment of 24.531 km<sup>2</sup>. The stream joins the Kent South Coastal Water downstream.

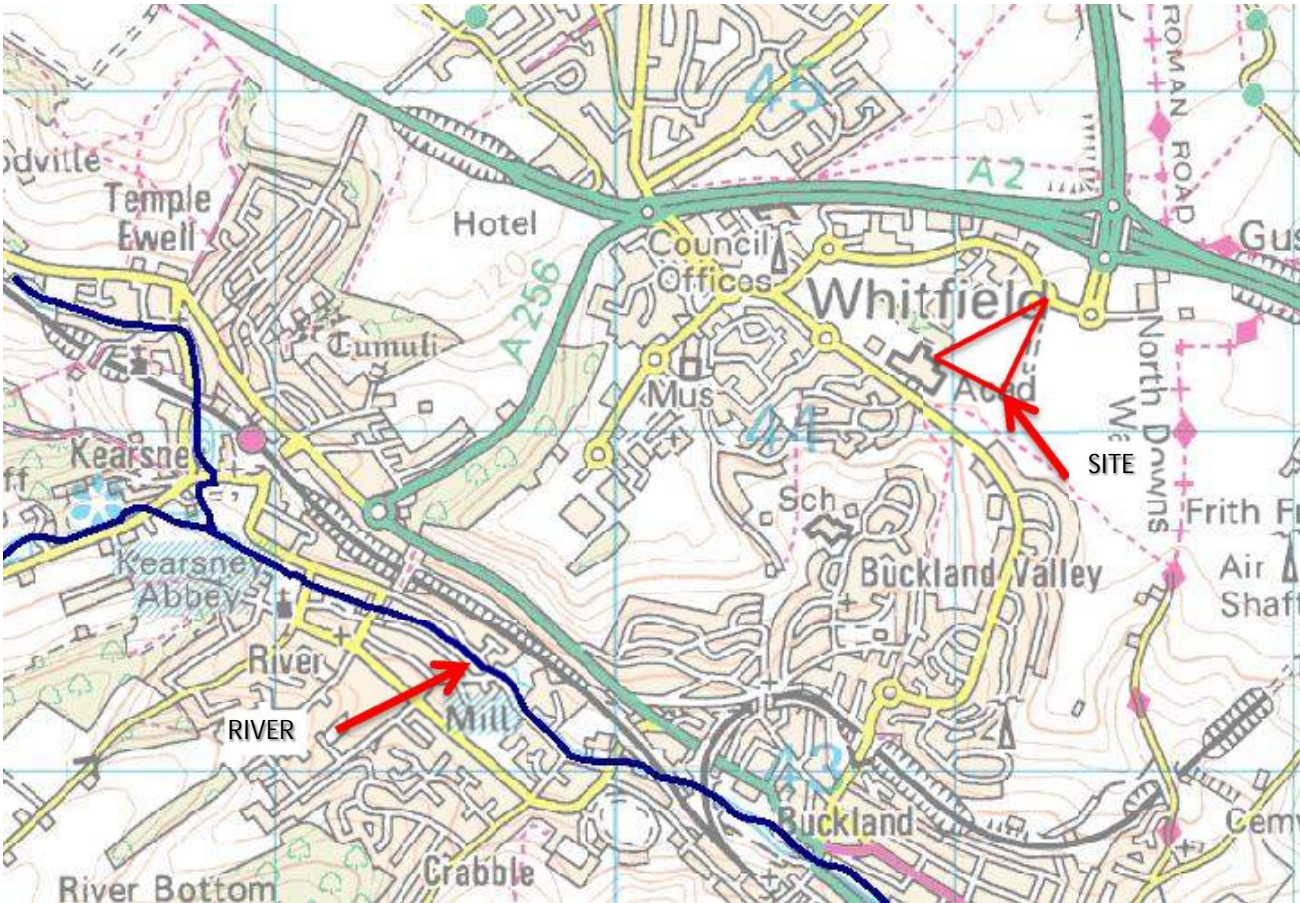


Figure 9.1: Site location to Salt Hill Stream (extract from OS Online Maps)

- 9.1.2 The Environment Agency groundwater map shows that the site is located in the total catchment (Zone 3) ground water protection zone and the groundwater vulnerability zone map shows the site located in a major aquifer intermediate area.

### 9.2 Geology

- 9.2.1 The British Geological Survey (BGS) online map indicates that the sites bedrock geology is Margate Chalk Member. The sites superficial deposits are of Clay with flints formation, consisting of clay, silt sand and gravel.
- 9.2.2 A detailed site investigation will be carried out to establish the sites local geology and ground conditions to determine if infiltration can be used as a method for disposal of clean surface water from the proposed development site.

### 9.3 Flood Risk

- 9.3.1 A review of the Environment Agency web based Flood Zone map indicates the development site does not fall within a dedicated flood zone, which means that the potential for flooding from rivers or sea is 0.1% (1 in 1000 year) or less. However as the site is over 1 hectare a site specific flood risk assessment will be required to support the site planning application.

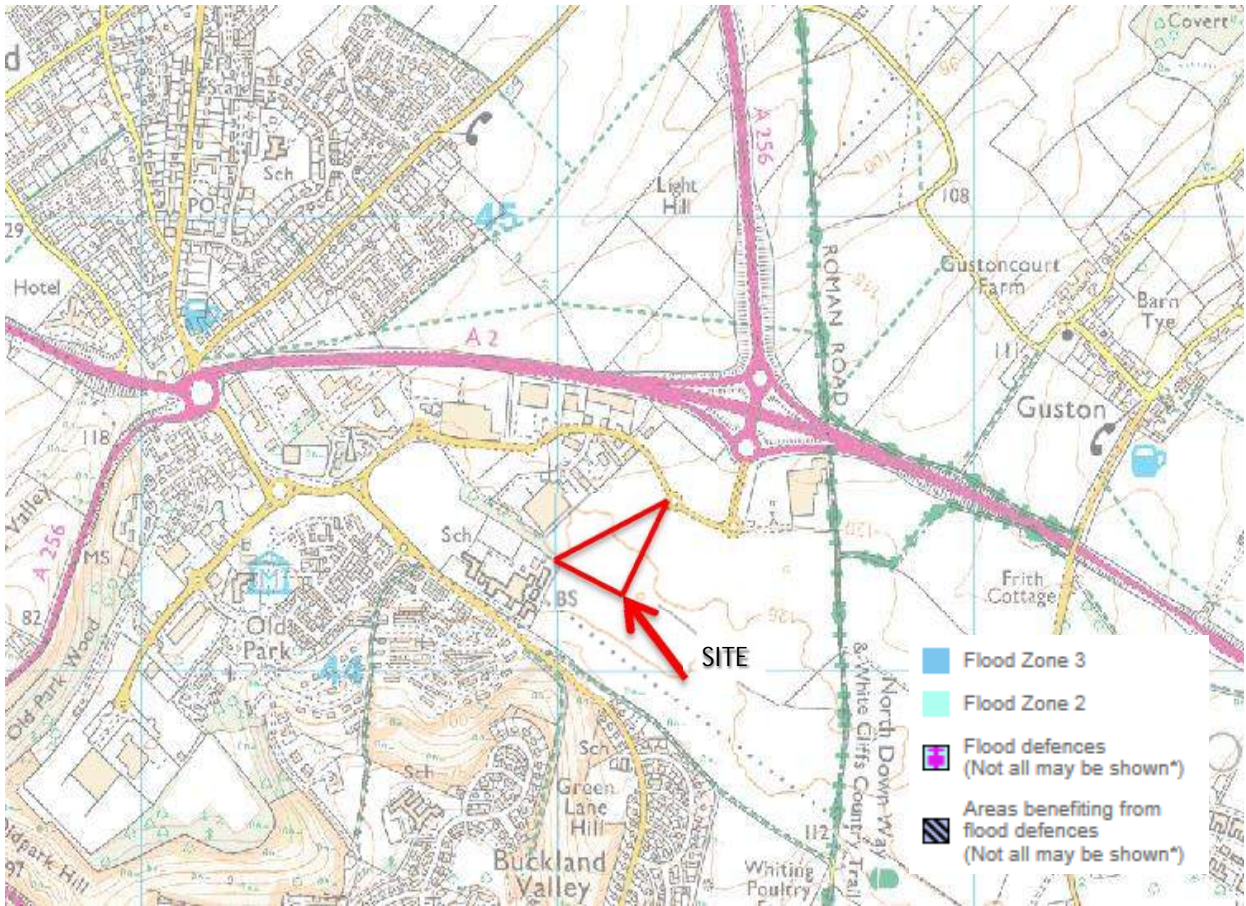


Figure 9.2: Environment Agency Flood Zone Map

### 9.4 Foul & Surface Water Drainage Strategy

- 9.4.1 The operational aim of the drainage infrastructure is to design a system that will meet the following minimum requirements:
- The required design life and structural integrity will be achieved for the new drainage system.
  - The entire system is operational at all times and functions within the design performance requirements set out by the relevant statutory undertakers and end users.
  - Meet current design standards as well as statutory and health and safety requirements.
  - The operation of the system is safe, environmentally acceptable and economically efficient.
  - To separately drain foul and surface water to an appropriate point of connection.



- To provide points of connection for proposed soil vent pipes, stub stacks and floor gullies as identified by the Public Health Engineer and Pool Specialist.
- To provide points of connection for proposed roof water downpipes as identified by the Architect.
- To provide drainage of hardstanding areas as identified by the Landscape Architect.
- To provide a means of controlling the rate of discharge of surface water run-off from the development, along with the appropriate storage, to prevent undue rush of flooding on or off site.

9.4.2 The design of the new drainage works is undertaken in accordance with:

- BS EN 752:2008 Drain and sewer systems outside buildings.
- Sewers for Adoption 7th Edition.
- Building Regulations Part H (Drainage and waste disposal).
- Kent County Council –The Soakaway Design Guide (July 2000)

**9.5 Existing Drainage**

- 9.5.1 As the site is currently a greenfield site it is not anticipated that there will be any below ground drainage on the site.
- 9.5.2 An asset map will be requested from Southern Water to ascertain the location of the nearest public foul and/or surface water sewer to the site. Following a review of planning applications for neighbouring lands on the Dover District Council Planning Portal, there appears to be a 225mm diameter foul sewer running in Honeywood Parkway with a 150mm foul spur adjacent to the proposed site, by the roundabout. According to Southern Water records this sewer is approximately 4.27m deep at an invert of 116.72m.
- 9.5.3 There is no record of a surface water sewer in the area.
- 9.5.4 A topographical survey should be carried out on the site, this will indicate if there are any ground features that suggest there is ditches/drains crossing/serving the site.

**9.6 Proposed Foul Water Drainage**

- 9.6.1 Relevant applications to Southern Water should be made as required, including pre-development enquiries and connection applications.
- 9.6.2 Access throughout the new drainage system will be provided through the use of manholes or rodding eyes at branch connections and changes in direction to allow the system to be properly maintained and for blockages to be removed.
- 9.6.3 Given the depth of public foul sewer it would be assumed that the foul water could drain by gravity to the public network. This will be dependent on the site layout and topography.
- 9.6.4 As swimming pools are proposed in the leisure centre it will be necessary to discuss the impacts of a trade effluent license with Southern Water. Having previously carried out discussions with statutory

bodies for similar projects it is likely that the rate of discharge will need to be restricted and therefore a holding tank for the backwash water will be required. The volume and rates will be determined following discussions with the pool specialist and Southern Water.

- 9.6.5 The British Water Code of Practice for Flows and Loads will be used to calculate the proposed foul run-off. The anticipated foul sewerage flows will be determined for the proposed development when occupational values are available. Typically, for a sports centre, a foul loading rate of 50 litres per head per day would be used.

**9.7 Proposed Surface Water Drainage**

- 9.7.1 The strategy for the design of the surface water system will consider the hierarchical approach laid down within Part H of the Building Regulations, which requires the run-off from any new development to consider the following in order of preference:
- store rainwater for later use.
  - use infiltration techniques, such as porous surfaces in non-clay areas.
  - attenuate rainwater in ponds and open water features for gradual release.
  - attenuate rainwater by storing in tanks or sealed water features for gradual release.
  - discharge to watercourse.
  - discharge rainwater to surface water sewer/drain.
  - discharge rainwater to the combined sewer.
- 9.7.2 Given the geology of the site, it is anticipated that the surface water drainage will infiltrate to ground via soakaways or similar systems.
- 9.7.3 Given a large car park is proposed to serves the development a petrol interceptor will be required to treat the surface water runoff from this area. The use of permeable paving within the car park will eliminate the requirement for a petrol interceptor. This will be subject to agreement with the Environment Agency.
- 9.7.4 Relevant applications to the Environment Agency and the Lead Local Flood Authority (LLFA); Kent District Council; should be made, as required, including completing the council’s SuDS pro-forma as part of the major development planning application.
- 9.7.5 The Greenfield runoff rate for the site was estimated to be 1.08 l/s. This was calculated using the IH 124 Greenfield runoff method. Based on the site location an SAAR and SPR value of 800 and 0.15 were used, respectively.
- 9.7.6 Calculations will be carried out for various storm return periods, as required by the SuDS proforma. These calculation will determine the volume of attenuation storage required for the development in order to prevent flooding.



9.7.7 The scheme will also incorporate sustainable urban drainage systems, where practicable. Refer to section 9.8 for details.

9.8 SuDS Proposals

9.8.1 In accordance with best practice requirements Sustainable urban Drainage Systems (SuDS) proposals are being considered for the development in order that the completed development run-off characteristics mimic the existing Greenfield as closely as possible, or to the rate agreed with relevant LLFA.

9.8.2 A concept known as SuDS Management train (also known as the treatment train) is shown on Figure 9.3. Drainage techniques similar to the way natural catchments function can be used to alter the flow and quality characteristics of the flow. This is achieved at different stages:

- Source Control: Managing the site could increase the quality (by minimising the use of de-icing products and garden chemicals, keeping paved areas clean to reduce first-flush pollution) and quantity problems (by reducing the paved areas).
- Site Control: Water should be returned to the natural drainage system as near to the source as possible.
- Regional Control: For large public areas storage could be shared between a number of sites.

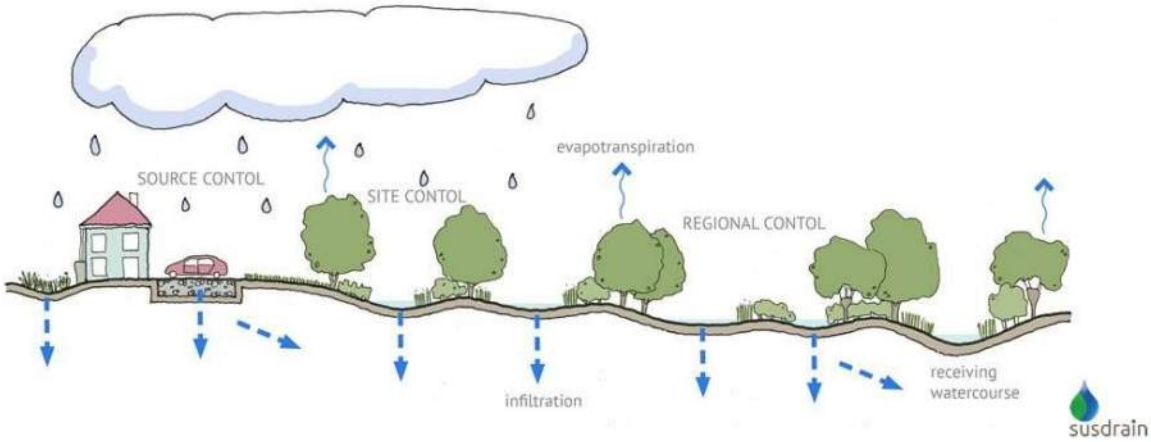


Figure 9.3 - SuDS Management Train

9.8.3 There are many SuDS technologies available to improve the quality and decrease the quantity of the storm water run-off from a development. The measures proposed for the site were selected to suit the particular circumstances of the development.

9.8.4 Table 9.1 details the SuDS measures that will be considered for the proposed development

	Proposed	Comment
Filter Drains	✓	Infiltration testing to be undertaken to confirm suitability
Swales	✓	Infiltration testing to be undertaken to confirm suitability
Infiltration Basins	✓	Infiltration testing to be undertaken to confirm suitability
Soakaways	✓	Infiltration testing to be undertaken to confirm suitability
Ponds	✓	To be investigated further ,although space may be an issue
Retention / Detention Basins	✓	To be investigated further ,although space may be an issue
Wetlands	X	Insufficient space on site
Trees	✓	To be investigated further
Pervious Surfaces	✓	Infiltration testing to undertaken to confirm suitability
Attenuation Tank	✓	Site conditions indicate feasibility
Brown/Green Roofs	✓	To be investigated further
Rainwater Harvesting	✓	To be investigated further

Table 9.1 – SuDS Measures Proposed

9.8.5 Once the proposed layout, geological and hydrological information and proposed runoff rates have been finalised the SuDS features will be fully assessed and a detailed drainage design will be developed. Further details of SuDS measures are listed below.

9.8.6 **Green Roofs** comprise a multi-layered system that covers the roof of the building with vegetation cover/landscaping over a drainage layer. They are designed to intercept and retain precipitation, reducing the volume of runoff and attenuating peak flows.



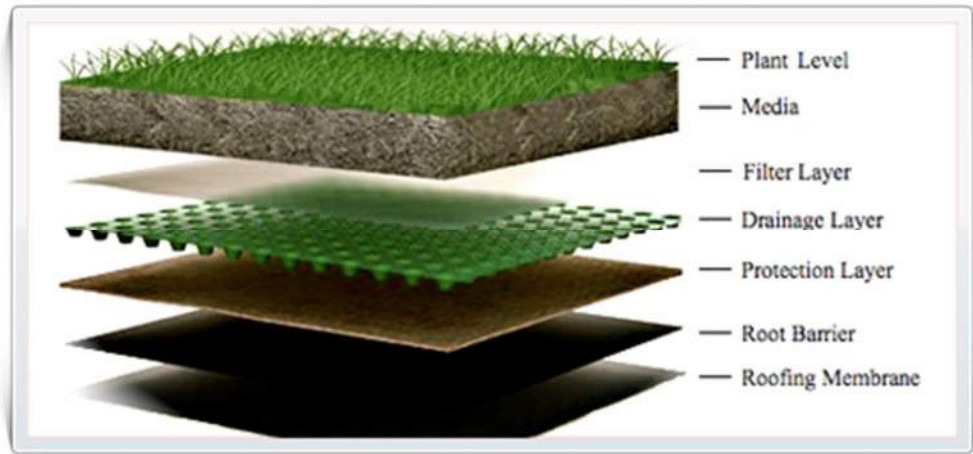


Figure 9.4 – Typical Green Roof Build Up

9.8.7 **Rainwater harvesting** stores rainwater from roofs, which can then be reused to serve the development toilets and landscaping. These systems can reduce the rates and volumes of surface water runoff from the site.



Figure 9.5 – Indicative Rainwater Harvesting Layout

9.8.8 **Pervious surfaces** provide a surface suitable for pedestrian and/or vehicular traffic, while allowing rainwater to infiltrate through the surface and into underlying layers. The water can be temporarily

stored before infiltration to the ground, reused, or discharged to a watercourse or other drainage system. Surfaces with an aggregate sub-base can provide good water quality treatment.

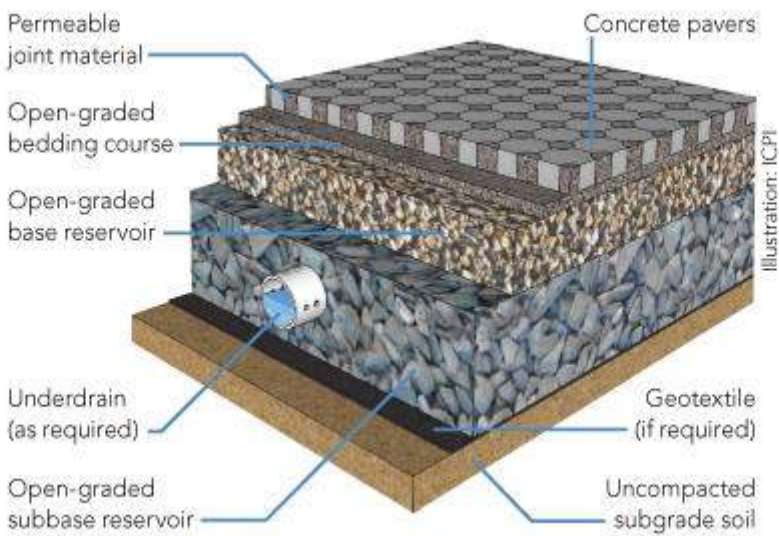


Figure 9.6 – Typical Pervious Paving Build Up

- 9.8.9 **Detention basins** are surface storage basins or facilities that provide flow control through attenuation of stormwater runoff. They also facilitate some settling of particulate pollutants. Detention basins are normally dry and, in certain situations, the land may also function as a recreational facility. However, basins can also be mixed, including both a permanently wet area for wildlife or treatment of the runoff and an area that is usually dry to cater for flood attenuation.
- 9.8.10 **Retention ponds** can provide both stormwater attenuation and treatment. Runoff from each rain event is detained and treated in the pool. The retention time promotes pollutant removal through sedimentation and the opportunity for biological uptake mechanisms to reduce nutrient concentrations.



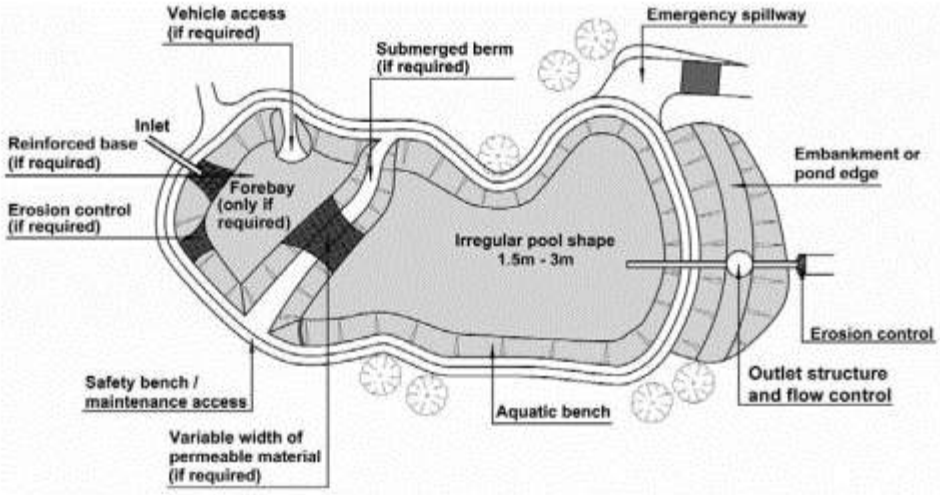


Figure 9.7 – Example of a Retention Pond / Detention Basin

9.8.11 **Soakaways** are square or circular excavations either filled with rubble or lined with brickwork, pre-cast concrete or polyethylene rings/perforated storage structures surrounded by granular backfill. Soakaways provide stormwater attenuation, stormwater treatment and groundwater recharge.

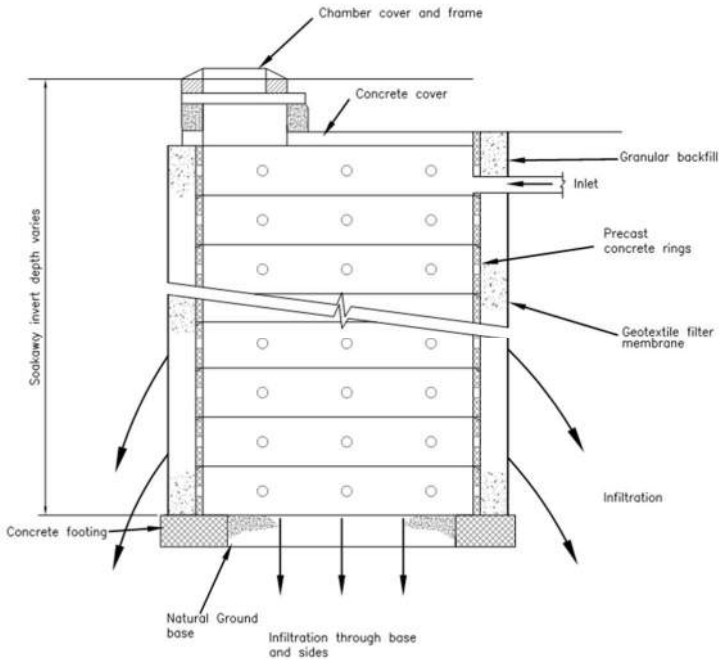


Figure 9.8 – Typical Soakaway Layout

9.8.12 **Infiltration basins** are vegetated depressions designed to store runoff on the surface and infiltrate it gradually into the ground. They are dry except in periods of heavy rainfall.

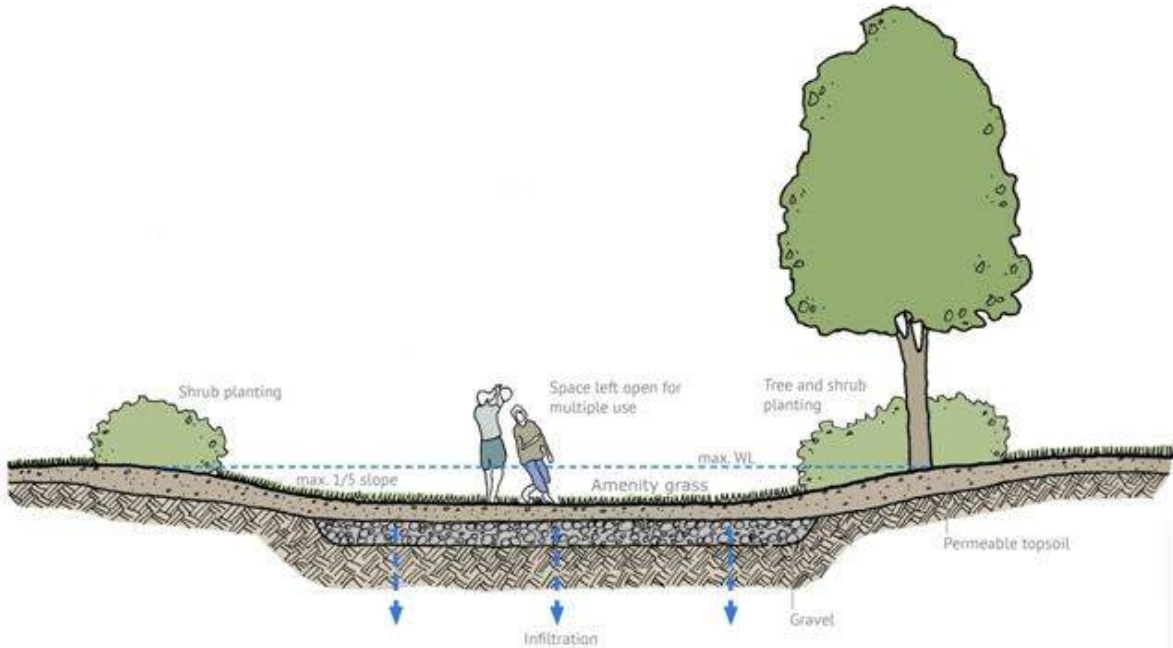


Figure 9.9 – Typical Infiltration Basin Layout

9.8.13 **Swales** are shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants. They are designed to promote infiltration where soil and groundwater conditions allow. Check dams and berms also can be installed across the flow path of a swale in order to promote settling and infiltration.

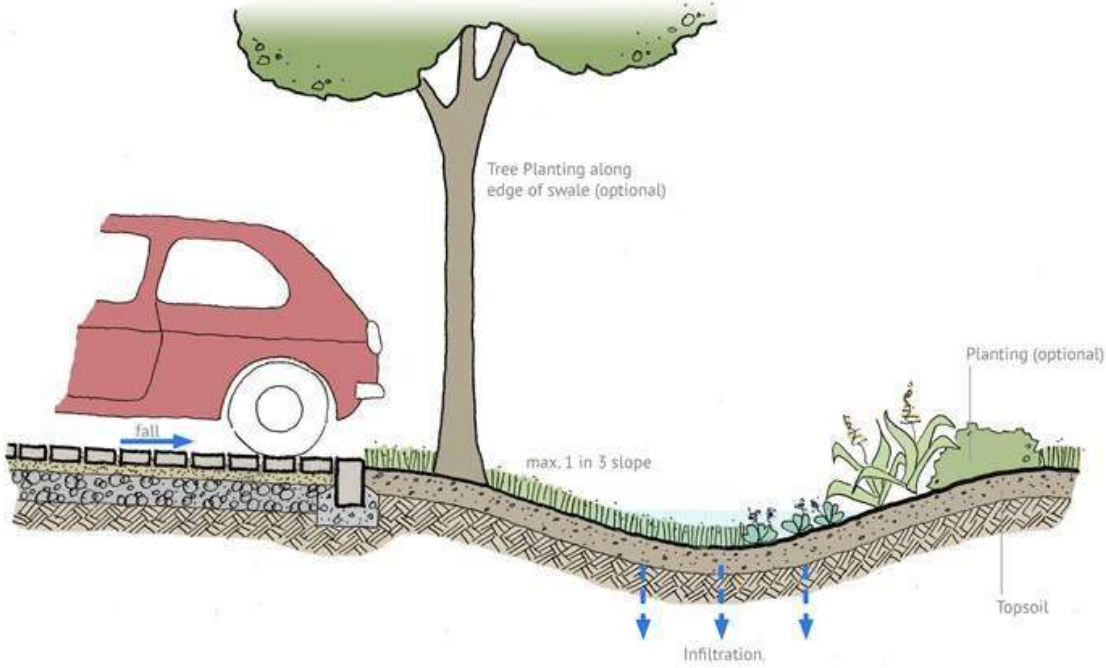


Figure 9.10– Example of a Swale



9.8.14 A **filter strip** is a gravel filled trench, generally with a perforated pipe at the base. Runoff flows slowly through the granular material, trapping sediments and providing attenuation. Flow is then directed to a perforated pipe, which conveys run-off either back into the sewerage network or into a waterbody.

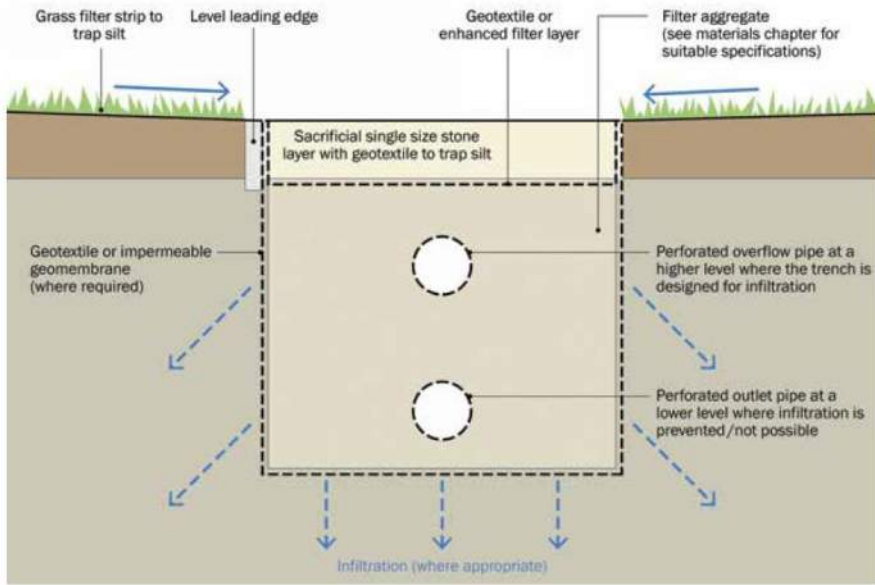


Figure 9.11 – Typical Filter Strip Build Up



10 SUSTAINABILITY

10.1 General

- 10.1.1 Sustainability is a key feature in the design processes that Engenuiti undertakes. As an industry we use a significant amount of the Earth’s natural resources and by default this means we can significantly reduce our resource and energy demands in the projects we design.
- 10.1.2 For this project a number of sustainability considerations have been included in the design and a number more should be considered in the future. In particular the use of solid timber in lieu of structural steel and either block work or cold formed steel secondary backing systems should be explored.
- 10.1.3 Concrete will be proposed in which the cement content could be reduced by using cement replacements such as pulverised fuel ash or ground granulated blast furnace slag to form a more sustainable mix. The decision to use concrete has been based on sound engineering principles and hence reducing the impact of using a large quantity is the most sustainable option. Where exposed concrete is to be used, careful selection of additives should be made to ensure that colour consistency is not degraded to the point where the finish is left unacceptable and requires painting.

10.2 Concrete

- 10.2.1 The global cement industry accounts for around 5% of global CO<sub>2</sub> emissions (source: World Business Council for Sustainable Development). The construction and demolition of buildings accounts for around 120 million tonnes of waste material in the UK, about half the national total waste.
- 10.2.2 There are significant opportunities for concrete construction to reduce its environmental impact through the specification and construction processes.

10.3 Conservation of Natural Resources

- 10.3.1 Although global supplies of the raw materials used to make cement, and aggregates used in concrete are not in short supply, their extraction can cause damage to their local environment. It is generally more sustainable to make use of a waste product in lieu of extracting more raw material: it has the double benefit of conserving natural resources for use by future generations and reducing the problem of disposal of unwanted materials.
- 10.3.2 Cement replacements – GGBS and PFA cannot replace 100% of the OPC used in cement as they rely on the hydration products from the lime to ‘kick start’ their own hydration reactions. However, 30 - 50% replacement is very common and will have limited effects on the concrete. Replacement rates of 80% are possible in certain circumstances. This has the potential to save a large amount of reserves of lime and clay, the raw materials used to make OPC.

- 10.3.3 Recycled aggregates – as the material that makes up the largest proportion of concrete by mass, the use of recycled coarse aggregates have a significant effect on reducing the mass of raw material used to make cement. The use of recycled fine aggregates is also possible and beneficial for similar regions.
- 10.3.4 Water – concrete manufacturers with a well developed environmental management systems should be recycling much of their water, as a great deal can be wasted in batching plants, through washing out machinery and lorries. Simple procedures minimise the use of water, with obvious benefits, especially in dry climates where it is a resource in short supply.
- 10.3.5 Formwork – by increasing the number of times formwork panels can be reused, the volume of material required on a project will be greatly reduced.
- 10.3.6 Release agents – there are many different types of release agents for use on formwork systems, made from different raw materials. Those that are derived from vegetable oil or other biodegradable sources, rather than petroleum based materials are preferable from a sustainability point of view, as they are made from readily renewable materials. They may cost more per litre, but the coverage rate of the petroleum based versions should be checked: often they require more coats, so the cost per m<sup>2</sup> of formwork is similar and the labour cost may be more.

10.4 Embodied Energy and Embodied CO<sub>2</sub>

- 10.4.1 Although the cement industry has been making significant steps to improve efficiency and so reduce its CO<sub>2</sub> emissions, it will always be a major emitter as the chemical reaction involved in the manufacture of OPC produces CO<sub>2</sub> as a waste product. The drive to reduce the carbon footprint of industrial processes has resulted in significant interest in using cement replacement materials in concrete to reduce its carbon footprint.
- 10.4.2 Measuring the embodied CO<sub>2</sub> of raw materials is not a simple process, and depends very much on the boundary conditions and methodologies that are applied.
- 10.4.3 However, Table 10.1 shows data that can be used to make ‘order of magnitude’ comparisons. WRAP (Waste Reduction Action Programme) is private company in the UK which works in partnership with organisations to reduce waste and increase recycling.



	Embodied Energy MJ / tonne	Embodied CO <sub>2</sub> Kg CO <sub>2</sub> / tonne
OPC	4770	800
GGBS	436	100
PFA	12	1

Table 10.1 - Embodied energy and CO<sub>2</sub> data (WRAP carbon calculator)

10.4.4 It can be seen that significant savings can be made by replacing OPC with replacements. An early estimate of the volume of concrete to be used in the project is around 9500m<sup>3</sup>. Assuming a typical mix that contains around 16% of cementitious materials by mass, and the use of a blended cement of 50% OPC, 50% replacement material, the CO<sub>2</sub> saving on the project will be approximately 1000 tonnes or 1500 tonnes, depending on whether GGBS or PFA are used.

10.4.5 It is not thought that the use of recycled aggregates offers a saving in embodied energy or CO<sub>2</sub> due to the significant processing that it must undergo in order to be used in most circumstances (transport from its original location, crushing if necessary, washing, grading etc.).

10.5 Use of Thermal Mass in Building Cooling Strategies

10.5.1 Internal temperature control is typically a large source of energy consumption and CO<sub>2</sub> emissions of buildings.

10.5.2 Concrete framed buildings can be used to reduce this energy demand by acting as a ‘heat sink’ during the day when the building is heated by internal activity and sunlight. It can then release this heat during the night time, provided it is adequately ventilated by a supply of fresh air to which it can transfer its stored heat. The overall effect is to reduce the peak temperatures within the building and introduce a time lag between the peak external and internal temperatures, reducing the load on ventilation systems working to maintain a comfortable temperature for the people inside.

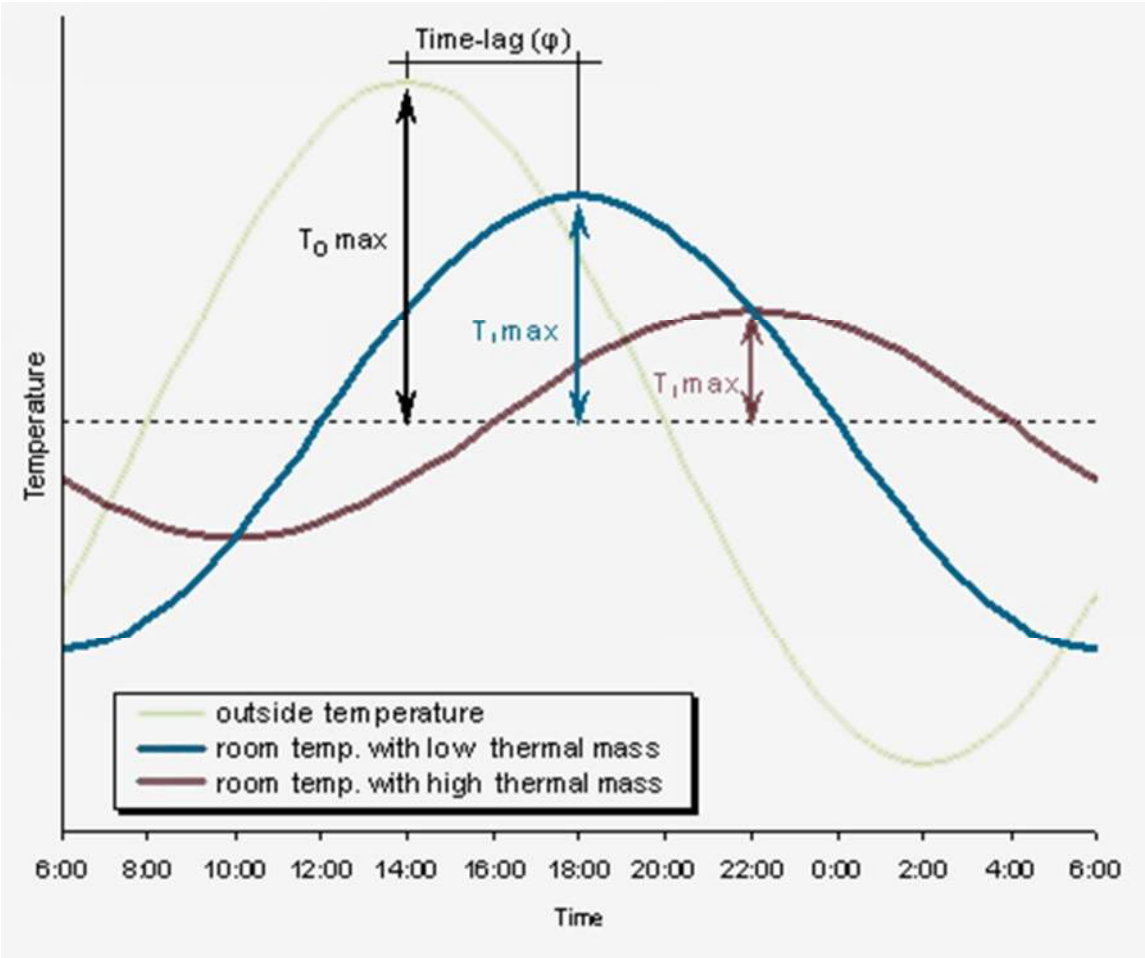


Figure 10.1 - Effect of high thermal mass on the internal temperature of a typical building (European High Quality Low Energy Buildings (EULEB) project)

10.6 Transport of Materials

10.6.1 The movement of heavy materials across long distances can account for large amounts of energy and CO<sub>2</sub> emissions. Table 10.2 gives approximate values for emissions per mile of various modes of transport.

	CO <sub>2</sub> emissions / passenger-mile
Typical large car	0.4 kg
Train	0.1 kg
Plane	0.25 kg

Table 10.2 - Embodied CO<sub>2</sub> emissions for transport modes (Transport Direct)



**10.7 Socio-Economic Factors**

- 10.7.1 Some materials used in construction can be certified under a 'chain of custody' scheme, provided the supplier can demonstrate they source responsibly and have an environmental management system in place that restricts the environmental impact of their product. The FSC & PEFC certification systems that applies to all timber used in construction, including plywood formwork panels, is one such scheme that is now standard practice in the UK. 'Eco-reinforcement' is another example, introduced very recently, that will apply to steel reinforcement used in concrete structures: having the eco-reinforcement certification will verify the product is made from 100% recycled steel.
- 10.7.2 There are strong sustainability arguments for using local labour resources wherever possible. Construction is a major source of employment and it is thought this project will provide work to a large number of local people. Offering training to local people will increase their capacity to contribute to their local economy.



11 FURTHER STUDIES & INVESTIGATIONS REQUIRED

11.1 Further Surveys & Investigations Required

11.1.1 The following surveys and investigations are required in order to support the next phase of design:

Survey	Reason / scope	Proposed Timescale
Topographic Survey	To establish site levels and boundaries.	ASAP
Geotechnical Site Investigation	To establish geotechnical design parameters, ground conditions etc.	ASAP
UXO Desk Study	To establish site risk.	ASAP

Table 11.1 - Additional Surveys and Investigations Recommended



APPENDIX A

STRUCTURAL & CIVIL ENGINEERING DESIGN CRITERIA & MATERIALS



## DOVER LEISURE CENTRE

STRUCTURAL & CIVIL ENGINEERING DESIGN CRITERIA & MATERIALS

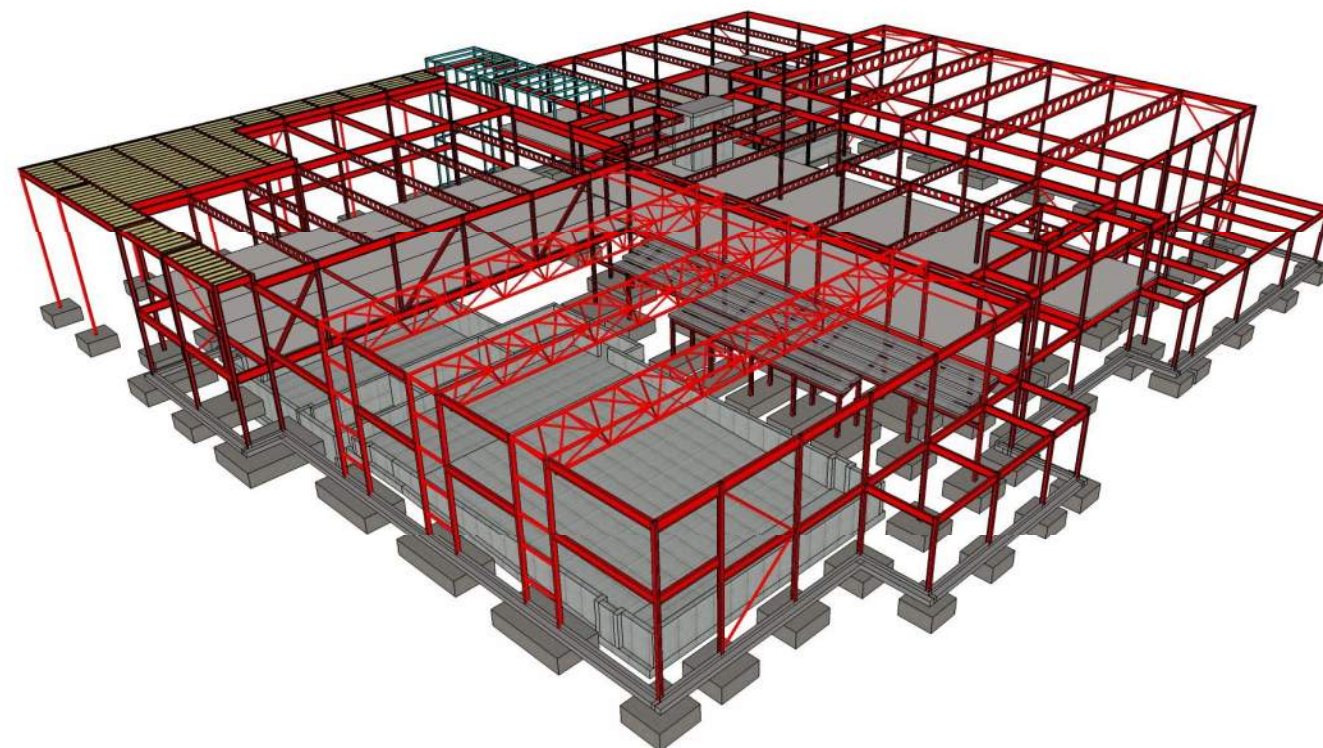
for

GT3 Architects

17<sup>th</sup> June 2016

634-S-REP-002  
Rev 0

Engenuiti  
2 Maltings Place  
Tower Bridge Road  
London, SE1 3JB





STRUCTURAL & CIVIL ENGINEERING DESIGN CRITERIA & MATERIALS

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Prepared by:

Reviewed & Approved by:



Chris Law  
Senior Engineer

Sarah Curran  
Associate

Paul Grimes  
Director

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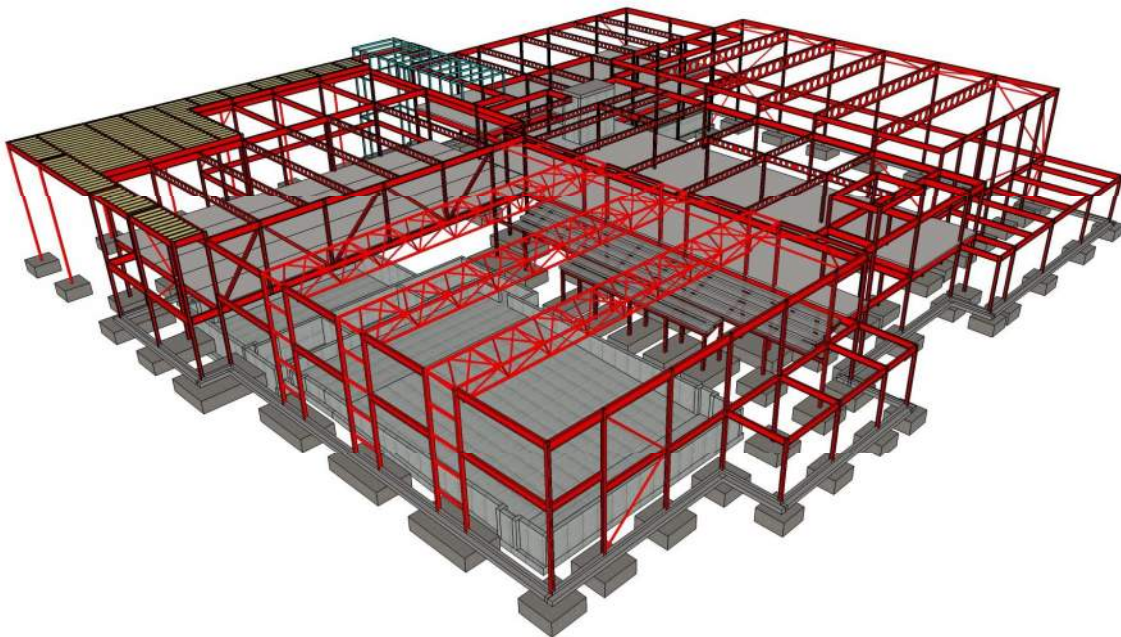
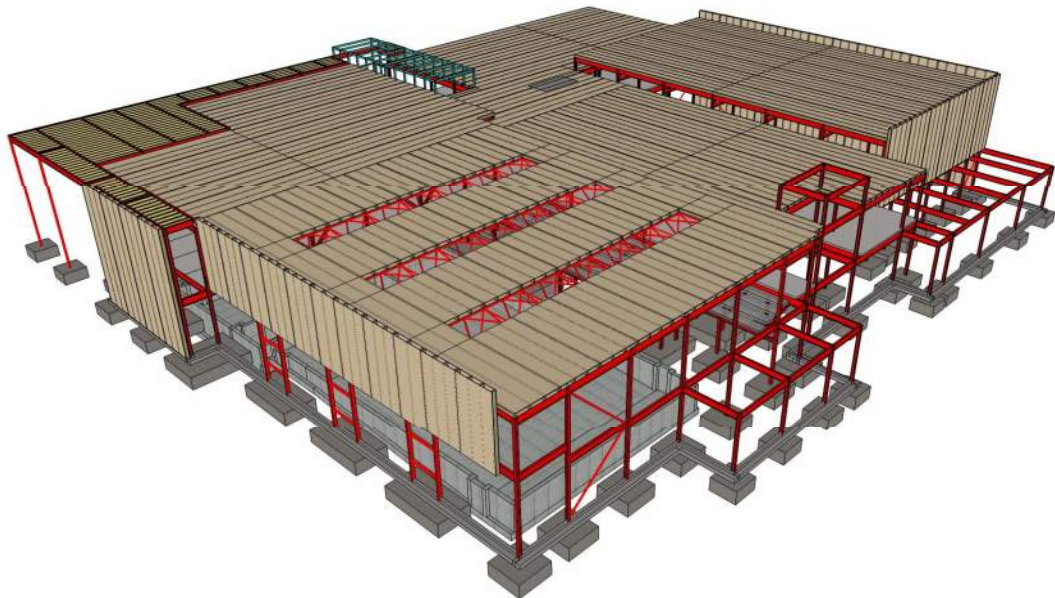
# 1 INTRODUCTION

## 1.1 General

- 1.1.1 Engenuiti has been appointed by GT3 Architects Limited to provide structural & civil engineering design services for the proposed new Dover Leisure Centre.
- 1.1.2 The purpose of this Structural & Civil Engineering Design Criteria & Materials report is to describe the structural and civil engineering design criteria of the proposed development and provide outline material specifications to enable GT3 Architects to finalise the design parameters for the project.
- 1.1.3 This report has been produced for the exclusive use of GT3 Architects Limited and should not be used in whole or in part by any third parties without the express permission of Engenuiti in writing. This report should not be relied upon exclusively for decision-making purposes and should be read in conjunction with other documents and drawings produced by the design team.

## 1.2 Proposed Development

- 1.2.1 The proposed leisure centre is located in Whitfield, Dover. The site postcode is CT16 3FH. The site location is south of Honeywood Parkway and east of The Glenmore Centre.
- 1.2.2 The site is currently a greenfield location bounded by Honeywood Parkway and a spur road to the east of the site.
- 1.2.3 The proposed leisure centre is a new build facility. The new facility will be designed around the following accommodation mix:
- 8 lane 25m pool
  - Learner pool with moveable floor
  - Wet changing village
  - Activity zone around a new café space
  - 4 court sports hall with associated changing
  - Treatment rooms
  - Gymnasium
  - 2 large dance studios
  - Spinning studio.
- 1.2.4 At this stage this Design Criteria & Materials report is based around a structural solution of steel frame with long span cell beam roof, shallow RC foundations and in situ RC swimming pool. The document will be developed as the design evolves.



2 DESIGN CODES

2.1 Design Codes

Eurocode Ref	Eurocode	National Annex
BS EN 1990:2002+A1:2005	Eurocode - Basis of structural design	NA to BS EN 1990:2002  (UK National Annex for Eurocode 0 – Basis of structural design)
BS EN 1991-1-1:2002	Eurocode 1: Actions on structures –  Part 1-1: General actions – Densities, self-weight, imposed loads for buildings	NA to BS EN 1991-1-1:2002  (UK National Annex to Eurocode 1: Actions on structures – Part 1-1: General actions – Densities, ...)
BS EN 1991-1-2:2002	Eurocode 1: Actions on structures –  Part 1-2: General actions – Actions on structures exposed to fire	NA to BS EN 1991-1-2:2002 (UK National Annex to Eurocode 1: Actions on structures – Part 1-2: General actions – Actions on structures exposed to fire
BS EN 1991-1-3:2003	Eurocode 1: Actions on structures –  Part 1-3: General actions – Snow Loads	NA to BS EN 1991-1-3:2003 (UK National Annex to Eurocode 1: Actions on structures –  Part 1-3: General actions – Snow Loads)
BS EN 1991-1-4:2005	Eurocode 1: Actions on structures –  Part 1-4: General actions – Wind actions	
BS EN 1991-1-5:2003	Eurocode 1: Actions on structures – Part 1.5: General actions – Thermal actions)	NA to BS EN 1991-1-5:2003 (UK National Annex to Eurocode 1: Actions on structures – Part 1.5: General actions – Thermal actions)
BS EN 1991-1-7:2006	Eurocode 1: Actions on structures –  Part 1-7: General actions – Accidental actions	
BS EN 1992-1-1:2004	Eurocode 2: Design of concrete structures –  Part 1-1: General rules and rules for buildings	NA to BS EN 1992-1-1:2004 (UK National Annex to Eurocode 2: Design of concrete structures –  Part 1-1: General rules and rules for buildings) (+A1:2009)
BS EN 1992-1-2:2004	Eurocode 2: Design of concrete structures –  Part 1-2: General rules – Structural fire design	NA to BS EN 1992-1-2:2004 (Uk National Annex to Eurocode 2: Design of concrete structures –  Part 1-2: General rules – Structural fire design)
BS EN 197-1:2000+A1:2004+A3:2007	Cement – Part 1: Composition, specifications and conformity criteria for common cements	
BS EN 934-2:2009	Admixtures for concrete, mortar and grout Part 2: Concrete admixtures – Definitions, requirements, conformity, marking and labelling	n/a
BS EN 206-1:2000+A1:2004+A2:2005	Concrete – Part 1: Specification, performance, production and conformity	BS 8500-1:2006 BS 8500-2:2006

Eurocode Ref	Eurocode	National Annex
BS 8102:2009	Code of practice for protection of below ground structures against water from the ground	
BS 8500-1:2006	Concrete – Complementary British Standard to BS EN 206-1 – Part 1: Method of specifying and guidance for the specifier	
BS 8500-2:2006	Concrete – Complementary British Standard to BS EN 206-1 – Part 2: Specification for constituent materials and concrete	
BRE Special Digest 1:2005 Third Edition	Concrete in aggressive ground	n/a
BS EN 1993-1-1:2005	Eurocode 3: Design of steel structures – Part 1-1: General rules and rules for buildings	NA to BS EN 1993-1-1:2005 (UK National Annex to Eurocode 3: Design of steel structures Part 1-1: General rules and rules for buildings) (2008)
BS EN 1993-1-3:2006	Eurocode 3: Design of steel structures – Part 1-3: Cold-formed thin gauge members and sheeting	
BS EN 1993-1-5:2006	Eurocode 3: Design of steel structures – Part 1-5: Plated structural elements	
BS EN 1993-1-8:2005	Eurocode 3: Design of steel structures – Part 1-8: Design of joints	NA to BS EN 1993-1-8:2005 (UK National Annex to Eurocode 3: Design of steel structures Part 1-8: Design of joints) (2008)
BS EN 1994-1-1:2004	Eurocode 4: Design of composite steel and concrete structures – Part 1-1: General rules and rules for buildings	NA to BS EN 1994-1-1:2004 (UK National Annex to Eurocode 4: Design of composite steel and concrete structures – Part 1-1: General rules and rules for buildings) (2008)
BS EN 1995-1-1	Eurocode 5: Design of timber structures – Part 1-1: General – Common rules and rules for buildings	
BS EN 1995-1-2	Eurocode 5: Design of timber structures – Part 1-2: General – Structural fire design	
BS EN 1996-1-1:2005	Eurocode 6 - Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced masonry structures	NA to BS EN 1996-1-1:2005 (UK National Annex to Eurocode 6 - Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced masonry structures) (2007)
BS EN 1997-1:2004	Eurocode 7: Geotechnical design – Part 1: General rules	NA to BS EN 1997-1:2004  (UK National Annex to Eurocode 7: Geotechnical design – Part 1: General rules)
BS EN 1997-2:2007	Eurocode 7: Geotechnical design – Part 2: Ground investigation and testing	



3 GEOTECHNICAL DESIGN PARAMETERS

The following values have been taken from the ??? SI Report (TBC).

- SI included TBC
- Site Profile TBC
- The British Geological Survey (BGS) online map indicates that the sites bedrock geology is Margate Chalk Member. The sites superficial deposits are of Clay with flints formation, consisting of clay, silt sand and gravel.
- Concrete sulphate class Ds-1 and AC-1 required? TBC. Ground contamination TBC.
- Ground gases TBC

4 LOAD ACTIONS & COMBINATIONS

4.1 Ultimate Limit States (BS EN 1990:2002, Section 6.4)

Combinations of actions for persistent or transient design situations (BS EN 1990:2002, Cl. 6.4.3.2, Eq. 6.10):

$$\sum_{j \geq 1} \gamma_{G,j} G_{k,j} + \gamma_P P + \gamma_{Q,1} Q_{k,1} + \sum_{i \geq 1} \gamma_{Q,i} \psi_{0,i} Q_{k,i}$$

Combinations of actions for accidental design situations (BS EN 1990:2002, Cl. 6.4.3.3, Eq. 6.11a/b):

$$\sum_{j \geq 1} G_{k,j} + P + A_d + (\psi_{1,1} or \psi_{2,1}) Q_{k,1} + \sum_{i \geq 1} \psi_{2,i} Q_{k,i}$$

4.2 Serviceability Limit States (BS EN 1990:2002, Section 6.5)

Characteristic combination used for irreversible limit states (BS EN 1990:2002, Cl. 6.5.3, Eq. 6.14a/b):

$$\sum_{j \geq 1} G_{k,j} + P + Q_{k,1} + \sum_{i \geq 1} \psi_{0,i} Q_{k,i}$$

Frequent combination used for reversible limit states (BS EN 1990:2002, Cl. 6.5.3, Eq. 6.15a/b)(i.e., temperature loads):

$$\sum_{j \geq 1} G_{k,j} + P + \psi_{1,1} Q_{k,1} + \sum_{i \geq 1} \psi_{2,i} Q_{k,i}$$

Quasi-permanent combination used for long-term effects and the appearance of the structure (BS EN 1990:2002, Cl. 6.5.3, Eq. 6.16a/b) (i.e., long-term deflections [for reinforced concrete floor framing] which include creep and shrinkage effects):

$$\sum_{j \geq 1} G_{k,j} + P + \sum_{i \geq 1} \psi_{2,i} Q_{k,i}$$

where:

G<sub>k,j</sub> = characteristic value of permanent action j (i.e., self-weight or superimposed dead load)

P = value of a prestressing action  
A<sub>d</sub> = design value of accidental action  
A<sub>Ed</sub> = E in load combinations below = design value of seismic action = γ<sub>i</sub>A<sub>E*k*</sub> where A<sub>E*k*</sub> is characteristic value of seismic action  
Q<sub>k,1</sub> = characteristic value of leading variable action 1 (e.g., Live, Wind, Temperature, etc.)  
Q<sub>k,i</sub> = value of accompanying variable action i  
  
γ<sub>G,j</sub> = partial factor for permanent action j  
γ<sub>Q,1</sub> = partial factor for leading variable action 1  
γ<sub>Q,i</sub> = partial factor for accompanying variable action i  
  
ψ<sub>0</sub> = factor for combination value of a variable action  
ψ<sub>1</sub> = factor for frequent value of a variable action  
ψ<sub>2</sub> = factor for quasi-permanent value of a variable action

4.3 Partial Factors for ULS design situations

Per the UK NA to BS EN 1990:2002 Tables NA.A1.1, NA.A1.2 (B) (same as A1.2 (B)) and NA.A1.2 (C) (same as A1.2 (C)), the following factors will be applied:

Action	ψ <sub>0</sub>	ψ <sub>1</sub>	ψ <sub>2</sub>
Imposed loads in buildings			
Category A: domestic, residential areas	0.7	0.5	0.3
Category B: office areas	0.7	0.5	0.3
Category C: congregation areas	0.7	0.7	0.6
Category E: storage areas	1.0	0.9	0.8
Category F: traffic area ≤ 30kN veh wt	0.7	0.7	0.6
Category G traffic area >30kN veh wt ≤160	0.7	0.5	0.3
Category H: roofs	0.7	-	-
Snow alt <1000m	0.5	0.2	0
Wind loads on buildings	0.5	0.2	-
Temperature (non-fire) in buildings	0.6	0.5	-

For the design of structural members not involving geotechnical actions (Set B):

Permanent actions (unfavourable), γ<sub>Gj,sup</sub>=1.35  
Permanent actions (favourable), γ<sub>Gj,inf</sub>=1.00  
Partial factor for leading variable action, γ<sub>Q,1</sub> = 1.50 (where unfavourable, 0 where favourable)  
Partial factor for accompanying variable action, γ<sub>Q,i</sub> = 1.50 (where unfavourable, 0 where favourable)

For the design of structural members involving geotechnical actions and resistance of the ground (both Set B and Set C in separate calculations, the most unfavourable):

Set B as above.  
Set C:  
Permanent actions (unfavourable), γ<sub>Gj,sup</sub>=1.00  
Permanent actions (favourable), γ<sub>Gj,inf</sub>=1.00  
Partial factor for leading variable action, γ<sub>Q,1</sub> = 1.30  
Partial factor for accompanying variable action, γ<sub>Q,i</sub> = 1.30

4.4 Design Combinations

Ultimate Limit States (BS EN 1990:2002, Section 6.4) using partial factors for ULS design situations to the UK National Annex:

- 1.35D
- 1.35D+1.5L
- 1.35D+1.5T
- 1.35D+1.5L+0.9T
- 1.35D+1.5T+1.05L
- 1.35D+1.5W
- 0.9D+1.5W
- 1.35D+1.5L+0.75W
- 1.35D+1.5W+1.05L
- 1.35D+1.5W+1.05L+0.9T
- 1.35D+1.5L+0.75W+0.9T
- 1.35D+1.5T+1.05L+0.75W

Note: where L is a storage load and is not the leading variable 1.35L should be used in lieu of 1.05L

Serviceability Limit States (BS EN 1990:2002, Section 6.5) using partial factors for SLS design situations (UK National Annex):

- 1.0D
- 1.0D+1.0L
- 1.0D+1.0T
- 1.0D+1.0L+0.6T
- 1.0D+1.0T+0.7L
- 1.0D+1.0W
- 1.0D+1.0L+0.5W
- 1.0D+1.0W+0.7L
- 1.0D+1.0W+0.7L+0.6T
- 1.0D+1.0L+0.75W+0.9T
- 1.0D+1.0T+0.7L+0.5W
- 0.9D+1.0W

Note: where L is a storage load and is not the leading variable 0.9L should be used in lieu of 0.7L

Where D = dead load, L = live load (roof, floor or storage), W = wind load (+W<sub>x</sub>, -W<sub>x</sub>, +W<sub>y</sub>, -W<sub>y</sub>), T = temperature load.

Note: clause 3.3.2 of BS EN 1991-1-1: 2002 states that imposed loads on roofs (L) need not be applied in combination with wind actions (W)

5 PERMANENT ACTIONS

The following values have been assumed for the purposes of this design and will need to be confirmed by the Architect before moving to the next stage of design. In the absence of detailed loading design criteria, the loads are based on experience on similar projects.

Tag	Description	Area	Uniform Load	Point Load
-	Self-weight of structure	All	as calc.	-
GROUND FLOOR				
G1	Ground Bearing RC Slab – as calc. 75mm Screed – 1.50 Floor Finishes – 0.20 Water - depth x 10kN/m <sup>3</sup>	Swimming Pool	1.70kN/m <sup>2</sup> + water load	-
G2	Ground Bearing RC Slab – as calc. 125mm Screed – 3.00 Floor Finishes – 0.20 Floor Services (U/F Heating System) – 0.10	General Ground Floor, High Screed Levels	3.30 kN/m <sup>2</sup>	-

G3	Ground Bearing RC Slab – as calc. Sprung Timber/Studio Floor System – 1.00	Sports Hall/Studio, Ground Floor	1.00 kN/m <sup>2</sup>	-
G4	Ground Bearing RC Slab – as calc. 75mm Screed – 1.50 Floor Finishes – 0.20	General Ground Floor	1.70 kN/m <sup>2</sup>	-
FIRST FLOOR				
G5	130mm SMDTR60 0.9 Gauge Deck – as calc. Max 25mm Screed – 0.5 Floor Finishes – 0.20 Ceiling & Services – 0.30	Typical First Floor	1.00 kN/m <sup>2</sup>	-
G6	130mm SMDTR60 0.9 Gauge Deck – as calc. Sprung Floor System – 0.75 Ceiling & Services – 0.30	First Floor Studio	1.05kN/m <sup>2</sup>	-
G7	130mm SMDTR60 0.9 Gauge Deck – as calc. 125mm Screed – 2.50 Floor Finishes – 0.20 Ceiling & Services – 0.30	Typical First Floor, High Screed Levels	3.00 Kn/m <sup>2</sup>	-
ROOF (Metal deck weight included where it is not part of a composite slab system)				
G8	Steel Deck (Tata D100 0.9mm Gauge) – 0.15 Roof Finishes – 0.15 Ceiling & Services – 0.20	Typical Flat Steel Roof	0.50 kN/m <sup>2</sup>	-
G9	130mm SMDTR60 0.9 Gauge Deck – as calc. Concrete Pavers – 1.50 Roof Finishes – 0.15 Ceiling & Services – 0.25	Roof Plant	1.90 kN/m <sup>2</sup>	-
G10	PV Allowance – 0.20 Deck(Tata Steel D159 1.25mm Gauge) – 0.20 200mm Insulation – 0.050 50mm Acoustic Insulation – 0.050 Standing Seam External Roof– 0.050 Services – 0.10	Sports Roof with PV Panels	0.65 kN/m <sup>2</sup>	-
G11	PV Allowance – 0.20 Deck(Tata Alu D159 1.5mm Gauge) – 0.10 200mm Insulation – 0.050 50mm Acoustic Insulation – 0.050 Standing Seam External Roof – 0.050 Services – 0.10 Timber Soffit Panels – 0.15	Swimming Roof with PV Panels & Timber Soffit	0.70 kN/m <sup>2</sup>	-

6 VARIABLE ACTIONS

The following values have been assumed for the purposes of this design and will need to be confirmed by the Architect before moving to the next stage of design. In the absence of detailed loading design criteria, the loads are based on experience on similar projects.

Tag	Area	Uniform Load	Point Load
Q1	Ground Floor Plant	10.0 kN/m <sup>2</sup>	9.00 kN
Q2	Sports Hall, Gymnasia, Studios & Roof Plant	5.0 kN/m <sup>2</sup>	4.50 kN
Q3	Typical Floor	3.0 + 1.0 kN/m <sup>2</sup>	4.50 kN to Corridors, 2.70 kN otherwise
Q4	Typical Flat Steel Roof	0.60 kN/m <sup>2</sup>	-
Q5	Sports & Swimming Hall Roofs	0.40 kN/m <sup>2</sup>	-
Q6	Swimming Pool Surrounds	4.0kN/m <sup>2</sup>	4.50 kN

Notes: 1. Categories per NA to BS EN 1991-1-1:2002.



7 WIND LOADING & SNOW LOADING

7.1 Wind Loading & Snow Loading

The following values have been assumed for wind loading.

Parameter	Value	Reference
V <sub>bmap</sub>	21.5m/s TBC	BS EN 1991-1-4 UK NA (Figure NA.1)
C <sub>alt</sub>	1.12	BS EN 1991-1-4 UK NA (NA.2.5, A = 120m)
C <sub>prob</sub> (60 years)	1.01	
Q <sub>b</sub> (worst case based on c <sub>dir</sub> =1.0)	0.360 kN/m <sup>2</sup>	BS EN 1991-1-4 (Figure A.NA.2)
Q <sub>p</sub> (Westerly wind direction) (at max building height)	0.860 kN/m <sup>2</sup>	BS EN 1991-1-4 (Figure A.NA.2)

The following values have been assumed for snow loading:

Area	Value	Reference
Zone number	3	BS EN 1991-1-3 UK NA (Figure NA.1)
Typical Roof (Pitch 0-30°, un-drifted)	0.43 kN/m <sup>2</sup>	BS EN 1991-1-3 Table 5.2 (μ <sub>1</sub> = 0.8)

8 PARAPETS / HANDRAILS LOADING

8.1 Parapets/Handrails Loading

Feature	Line Load	Reference
All parapets, balustrades balconies: Category A (ii) (conservative loading, for robustness of structure)	0.74 kN/m <sup>2</sup>	BS EN 1991-1-1 UK NA (Table NA.8)

9 STABILITY & ROBUSTNESS

9.1 Stability Overview

TBC

9.2 Robustness

In accordance with Building Regulations Approved Document A – A3 Disproportionate collapse:  
Building Class: Section 5 - Table 11: The structure is defined as a **consequence class 1 structure**.  
Detailing of the building will be undertaken as per a consequence class 2B building.

9.3 Design Tie Forces

Parameter	Value	Reference
CLT panel – CLT panel and CLT panel – RC ground floor structure, Horizontal tie force (applied as shear along panel length or across panel length)	Internal Ties - $F_{t,hor,int,d} = \max\{15 \text{ or } 0.8(g_k + q_k)s_L\}$ (kN)  Perimeter Ties - $F_{t,hor,per,d} = \max\{7.5 \text{ or } 0.4(g_k + q_k)s_L\}$ (kN)	Structural Timber Association – 5. Structural Timber Engineering Bulletin: <i>Timber frame structure – platform frame construction (part 3)</i> , Table 3

10 PARAPETS / HANDRAILS LOADING

10.1 Deflection Limits

The following deflection criteria have been assumed in the design:

Area	Limit
<b>Vertical Deflection:</b> Typical Floors (beams and slabs) Typical Roof (Tiled)	Lesser of: Span/250 under total loading Span/360 post-construction movement 20mm post-construction movement for areas with partitions
<b>Vertical Deflection:</b> Flat Roof	Lesser of: Span/150 under total loading Span/250 post-construction movement 20mm post-construction movement for areas with partitions
<b>Horizontal Deflection</b> Glazed/Stone Clad/Rendered Walls	Height or Span/500 (or 14mm if less)
<b>Horizontal Sway/Storey</b> Structural Frames	Height/300 (per storey)

Notes: SLS deflections assessed under characteristic dead and imposed loads in accordance with BS EN1990.

11 FLOOR VIBRATION

11.1 Vibration Criteria

Floor vibration to be evaluated per, Floor Vibrations Due to Human Activity in conjunction with the Steel Construction Institute (SCI) P354 'Design of Floors for Vibration'

*For Steelwork*

General Areas

Typical floors and corridors are designed for an element frequency limit of 5Hz and a combined system frequency limit of 4Hz.

Studio & Party Room

Studios and the Party Room are designed for an element frequency limit of 8Hz and a combined system frequency limit of 8.4Hz.

12 FIRE RESISTANCE

12.1 Fire Resistance

The following fire resistance periods have been assumed in design based on the architect’s specifications. TBC by Fire Engineer.

Area	Minimum fire period of resistance
Floors	60mins
Roofs	30mins
Beams/Columns/Walls supporting roof only	30mins
Beams/columns/walls supporting floors	60mins

The strategy for the design of structural elements for the given minimum fire period of resistances is summarised below.

Element	Value	Method	Alternative
Roofs	R(30), EI(0)	Inherent in CLT floor panel	N/A
Beams/Columns/Walls supporting roof only	R(30), EI(0)	Inherent in CLT/Glulam member	All fire protection provided by plasterboard finishes

Notes:

- It is assumed that all steel structures, where supporting fire rated floors or roofs, are to be fire protected by fire board protection or intumescent paint.
- It is assumed that plasterboard finishes do not generally contribute to fire resistance of timber elements.
- All CLT panels are designed for fire on one side only. Should protection be required on both sides this should be established by the architect who should design and specify additional boarding or other protection.

13 TEMPERATURE & HUMIDITY EFFECTS

13.1 Fire Resistance

The effect of temperature and humidity will have an influence on the structural elements. When considering these effects it should be noted that the external temperature will not in all cases directly influence structural elements and the sheltering and insulating of elements should be considered.

The effects of differential thermal movement should also be considered not just for elements with different thermal coefficients but also for similar elements partially insulated by varying amounts to temperature change effects.

Temperature ranges

The following temperature ranges should be considered:

- Internal elements: 5°C to 25°C
- External elements: -10°C to 40°C
- Plant rooms: -10°C to 40°C

In the absence of further information 3/4 of this temperature range should be considered for free expansion and contraction of elements.

14 MOVEMENT & TOLERNACES

14.1 Movement & Tolerances

This section outlines the movements and tolerances of the structural elements of the development that could reasonably be expected during the frame life. This section should be used by the Architect, MEP, Main and Trade Contractors to understand the initial fit and behaviour under loading of the primary structural elements such as beams, columns, decking, floor plates and load bearing walls.

Some of the materials that make up the structural elements such as steel, concrete and other metals have properties that are well understood and established over a narrow range. The interaction of the structure with elements such as floor finishes, cladding and internal partitions, that, although not designed to stiffen structural elements, may never the less stiffen in an unpredictable and unreliable manner the span of slabs and beams etc or the sway of columns and walls.

Connections of elements is another area where unpredictable effects may take place and elements tend not to behave elastically in these locations causing discontinuities across the connection which should be considered for interfacing elements. Indeed many simply supported beams and slabs are deliberately designed to rotate at end connections and this effect should be noted for interfacing beams.

The net results of all the above effects is that although limits can be established for the range of movement of structure under applied loads, the actual deflection or movement is not predictable and may vary from place to place in the structure even for similar elements under similar load conditions. Consideration should be given to the effects if deflection etc did not happen to one element but happened to another.

14.2 Construction Tolerances

The following should be considered. The sources of tolerance include:

- Setting out, Erection, Fabrication manufacture
- Movement joints in cladding where noted on GA and sections, typically +/- 25mm.

15 CONCRETE

The concrete grades used for design are listed in below:

Concrete Grade Section

- > Grade 32/40 ~ Composite Metal Decks (fcu =25 N/mm2) - All concrete metal decks
- > Grade RC40 / GEN3 ~ C32/40 (fcu = 40 N/mm2) - All foundations, retaining walls, ground beams and ground bearing slabs

Concrete Material Properties:

Material Property Grade C32/40  
Young’s Modulus, E = 33.35 kN/mm2  
Poisson’s Ratio, v = 0.2  
Co-efficient of thermal expansion, 1.0 x 10 –5 per oK  
Shear Modulus, G = 13.9 kN/mm2



16 STEEL

The design, details, fabrication and erection of structural steelwork shall be in accordance with BS EN 1993-1-1: 2005: Eurocode 3: Design of steel structures. Structural steel shall be Grade S355 unless noted otherwise (UNO).

Form	Material	Tolerances
Universal Beams and Columns	BS EN 10025	BS EN 10034
Joists		BS EN 10024
Channels		BS EN 10279
Angles		BS EN 10056-2
Rolled Tees		
Plates		BS EN 10029
Flats		BS EN 10029
Hollow sections (hot finished), Typ., U.N.O.	BS EN 10210-1 For weathering steels: BS 7668	BS EN 10210-2
Hollow sections (cold formed)	BS EN 10219-1	BS EN 10219-2
Galvanised open sections and strip	BS EN 10147	BS 2989
Ordinary bolt assemblies	Property classes 8.8: Full-threaded bolts to BS EN ISO 4017 (s/s BS 3692) Part-threaded bolts to BS EN 4014	Bolts: BS EN ISO 4018 or 4016 (s/s BS 4190) Nuts: BS EN ISO 4034
	BS 4395	
Holding down (foundation) bolt assemblies	Bolts to BS 7419 Nuts to BS EN ISO 4032 Washers to BS EN 7091	
Welding consumables	BS EN 756:2004 BS EN ISO 14171:2010 tbc BS EN 760:1996 BS EN ISO 2560: BS EN ISO 14341: BS EN ISO 17632:  BS 639 BS 2901-1 BS 4165:1984 BS 7084	
Shear studs (headed)	BS EN ISO 13918 min $f_y=350\text{ N/mm}^2$	
Profiled steel sheeting for composite slabs	BS EN 1993-1-3, Sections 3.1 and 3.2 Steel per BS EN 10025 Cold-formed steel sheet per BS EN 10149-2 or -3 Galvanised steel sheet per BS EN 10326 Nominal thickness $t=0.70\text{mm}$	

16.1 Steel Properties

Density: 7,850 kg/m<sup>3</sup>  
Young's Modulus: E = 210,000 MPa  
Poisson's Ratio:  $\nu = 0.30$   
Coefficient of linear expansion:  $\alpha_T = 12 \times 10^{-6}/^{\circ}\text{C}$  (per BS EN 1991-1-5:2003 Table C.1)

16.2 Welding Electrodes

Consumables for use in metal arc welding shall comply with BS EN 756 (or BS EN ISO 14171 tbc), BS EN 760, BS EN ISO 2560, BS EN ISO 14341, or BS EN ISO 17632 as appropriate. These standards will be added to those in QCS 2007 Section 16 Part 5 (Welding).

Consumables used for completing welding of steels to BS EN 10025-5 shall have a weather resistance at least equivalent to the parent metal.

17 TIMBER

- 1. All structural timber will be service class 1 (inside insulation and vapour barrier), including the pool area where specific climate control is to be provided (by others).
- 2. CLT to be TBC
- 3. Glulam frame members are specified as TBC

18 SWIMMING POOL CONSTRUCTION

TBC

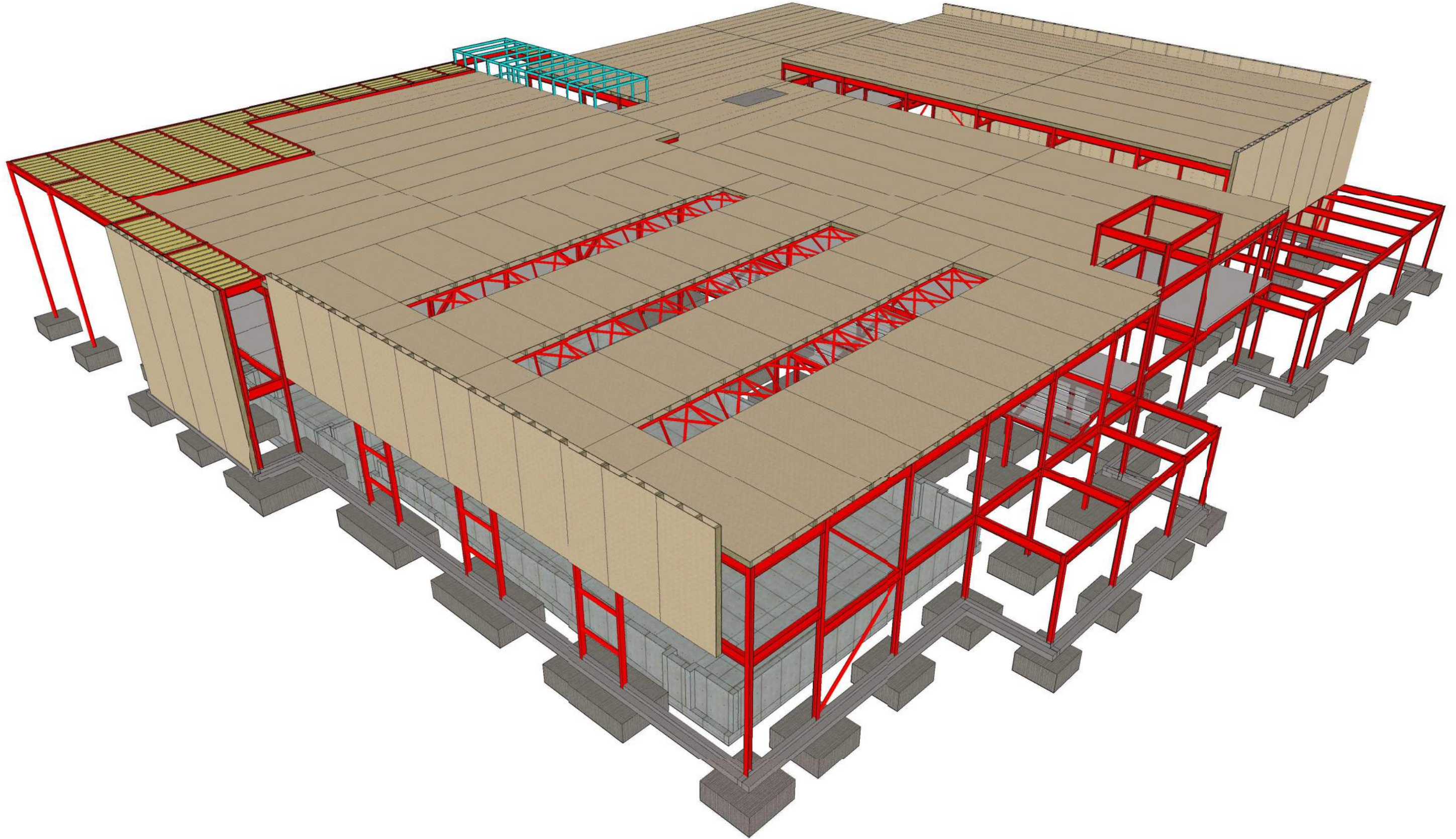
19 DRAINAGE & HARDSTANDING

TBC

APPENDIX B

STRUCTURAL ENGINEERING SKETCHES





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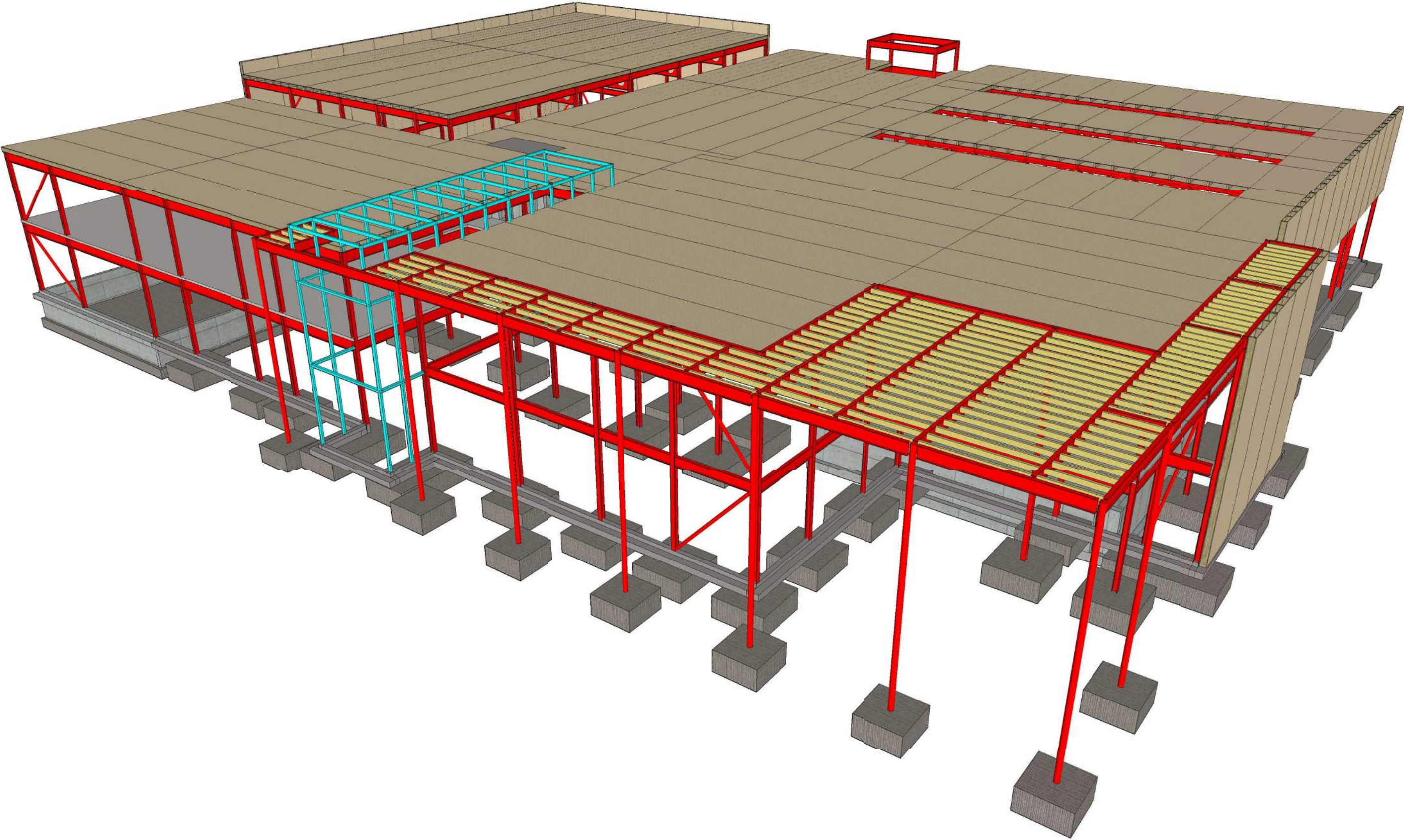
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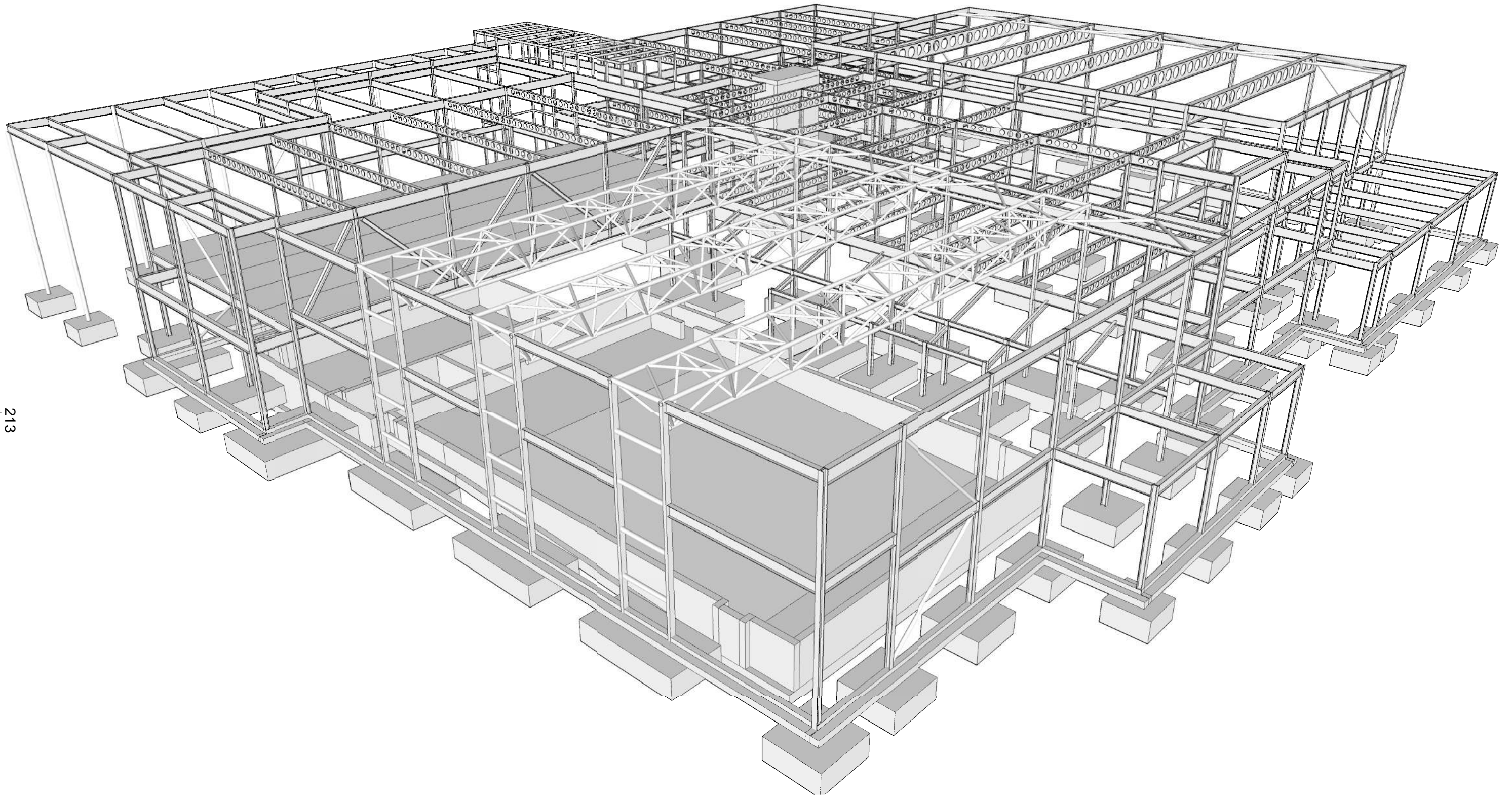
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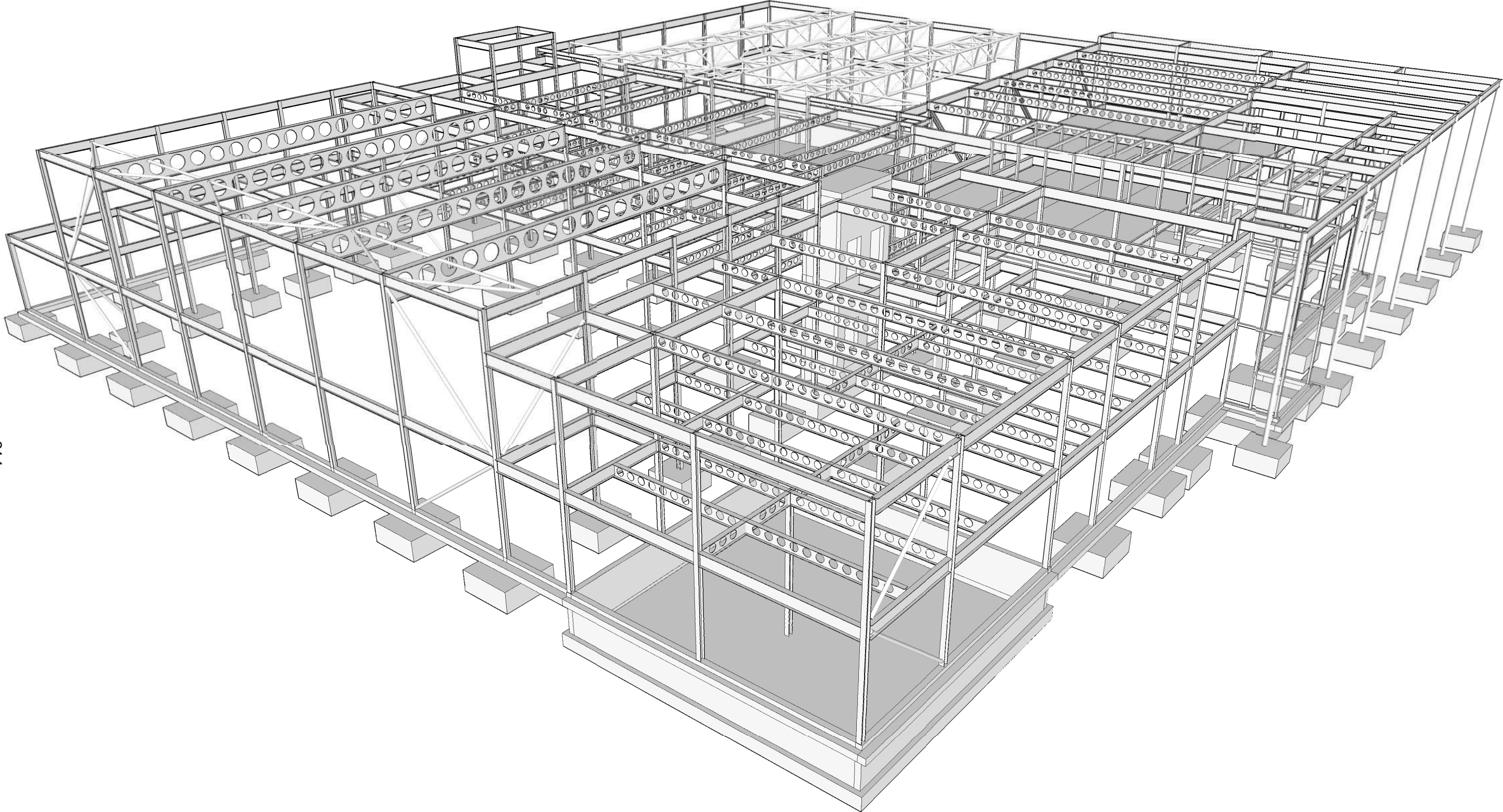
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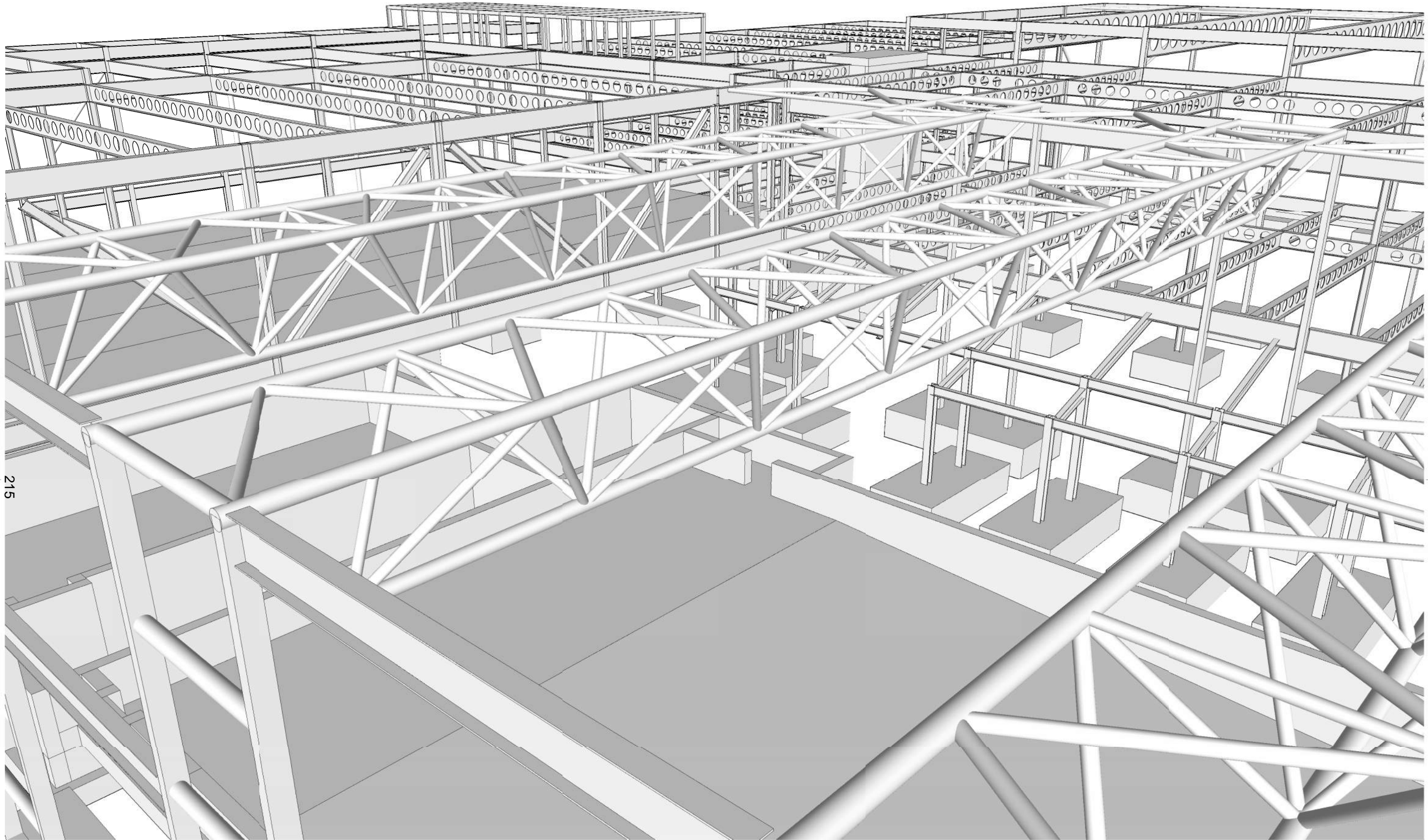
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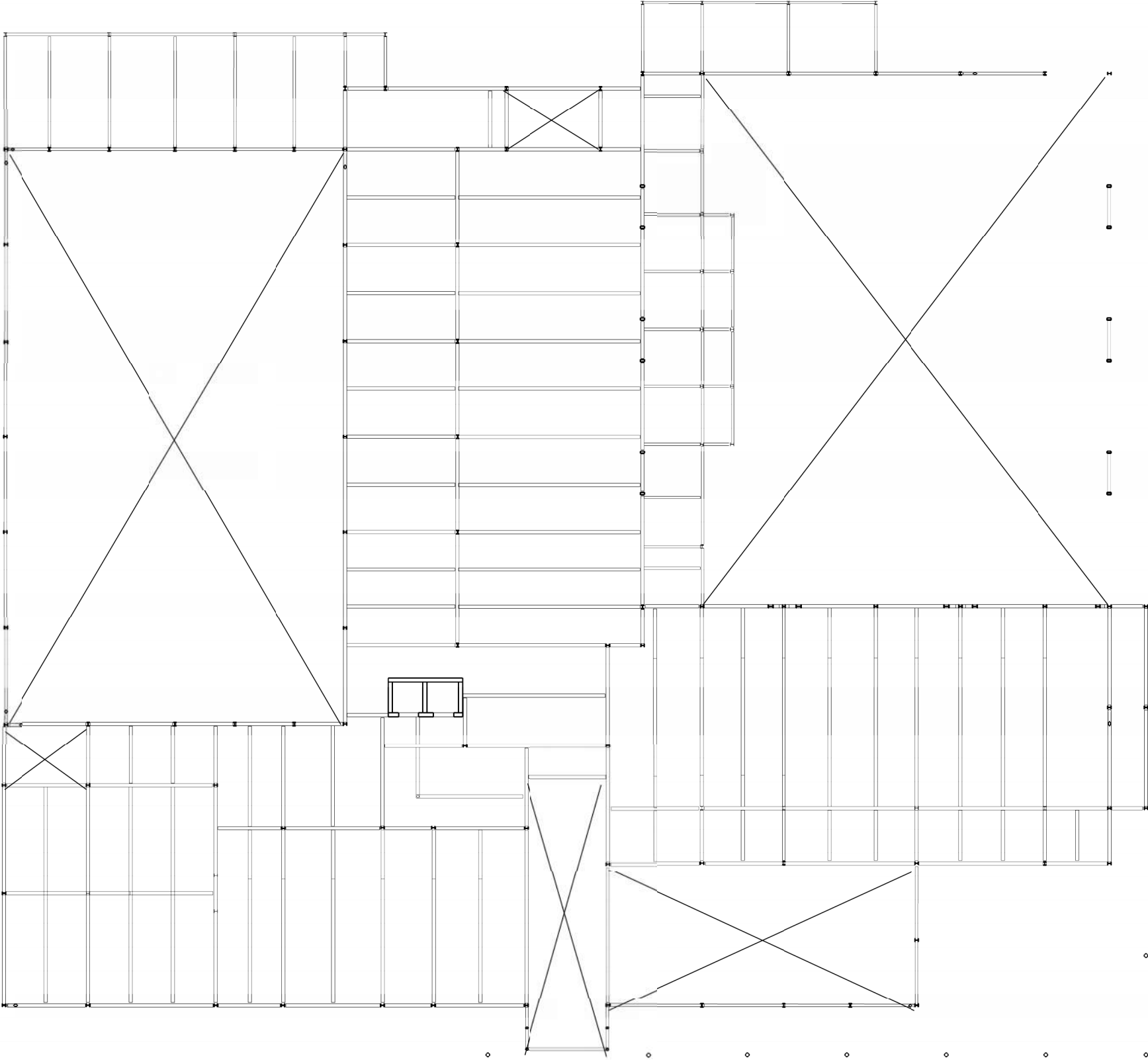
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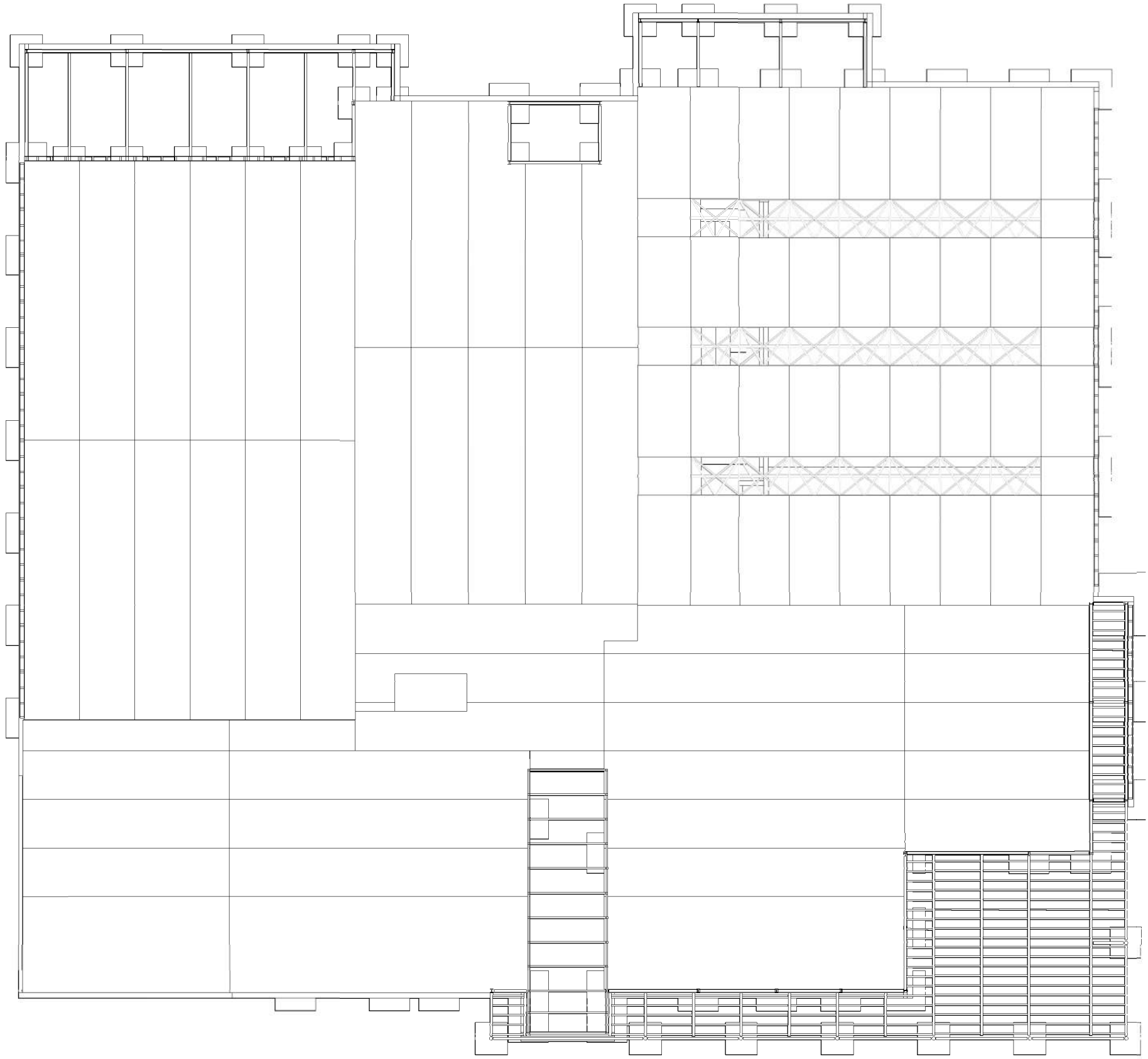
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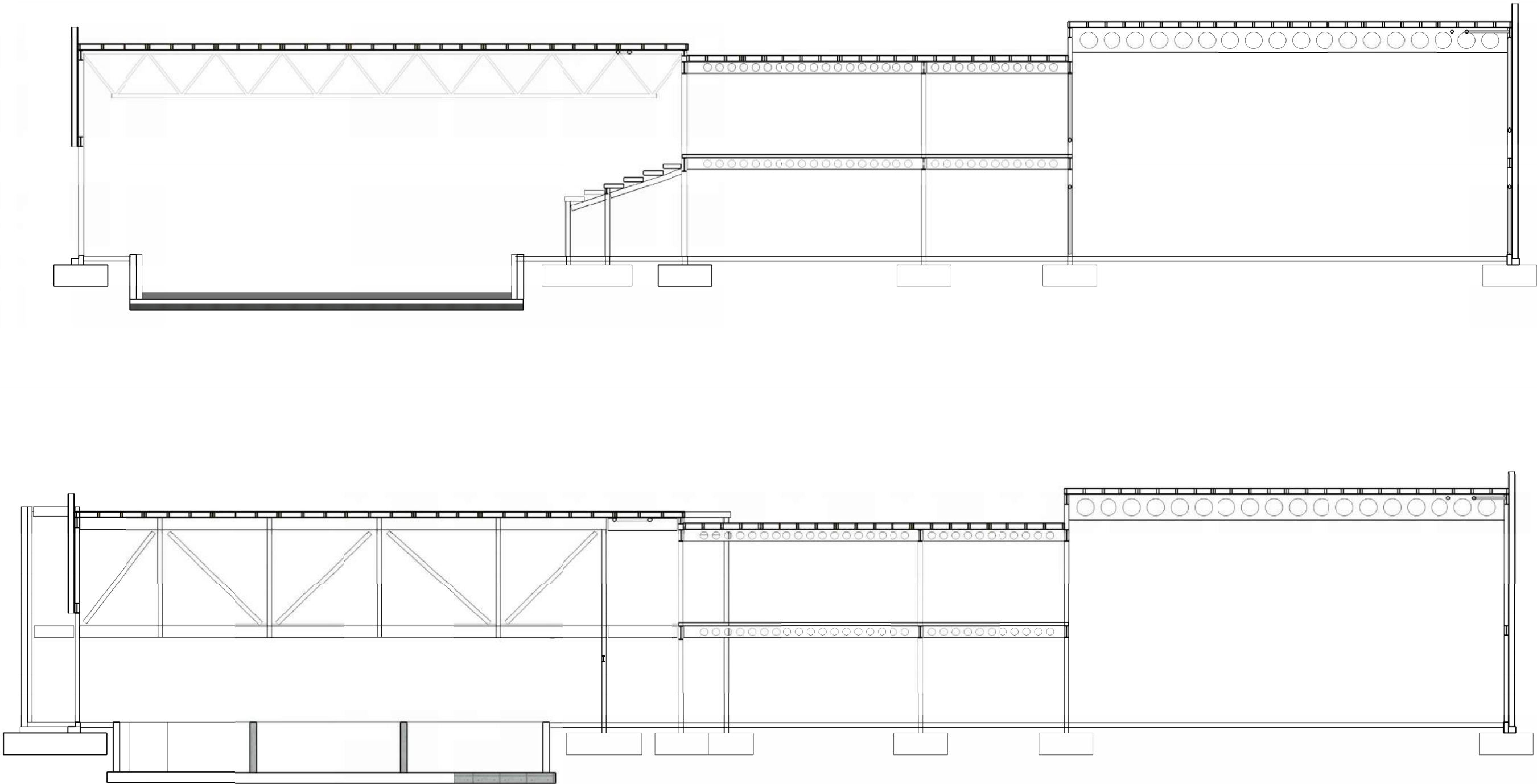
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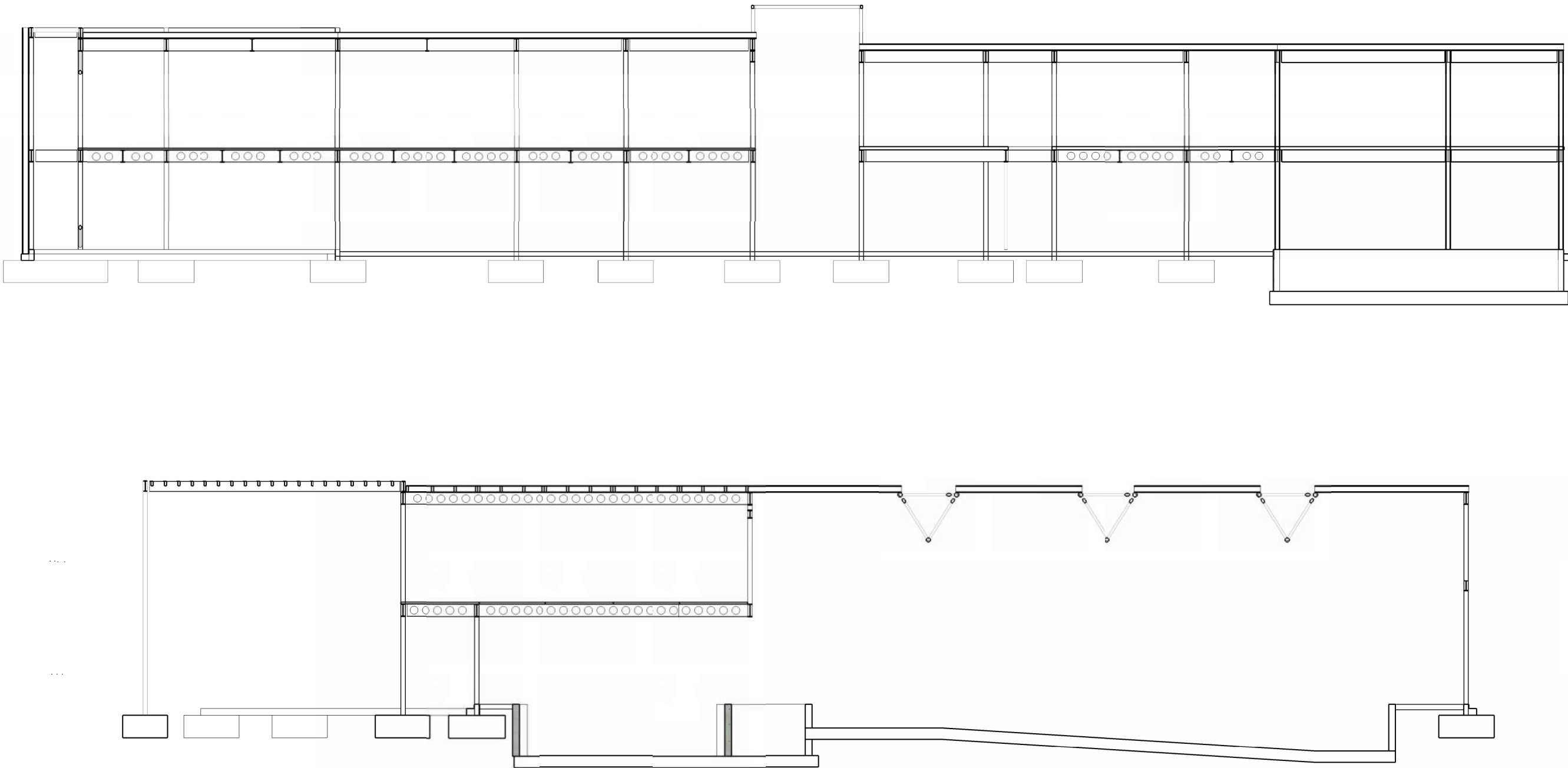
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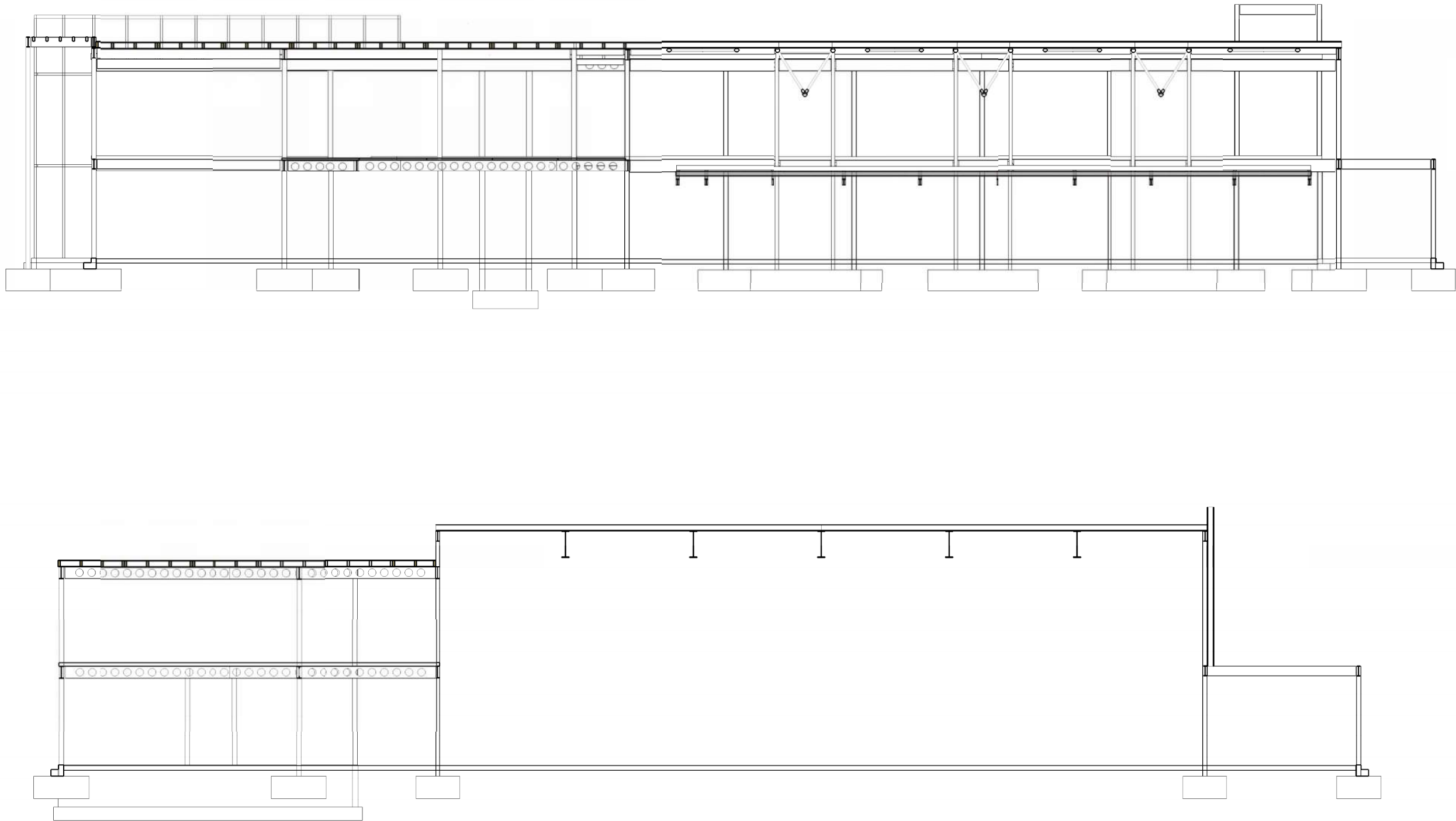
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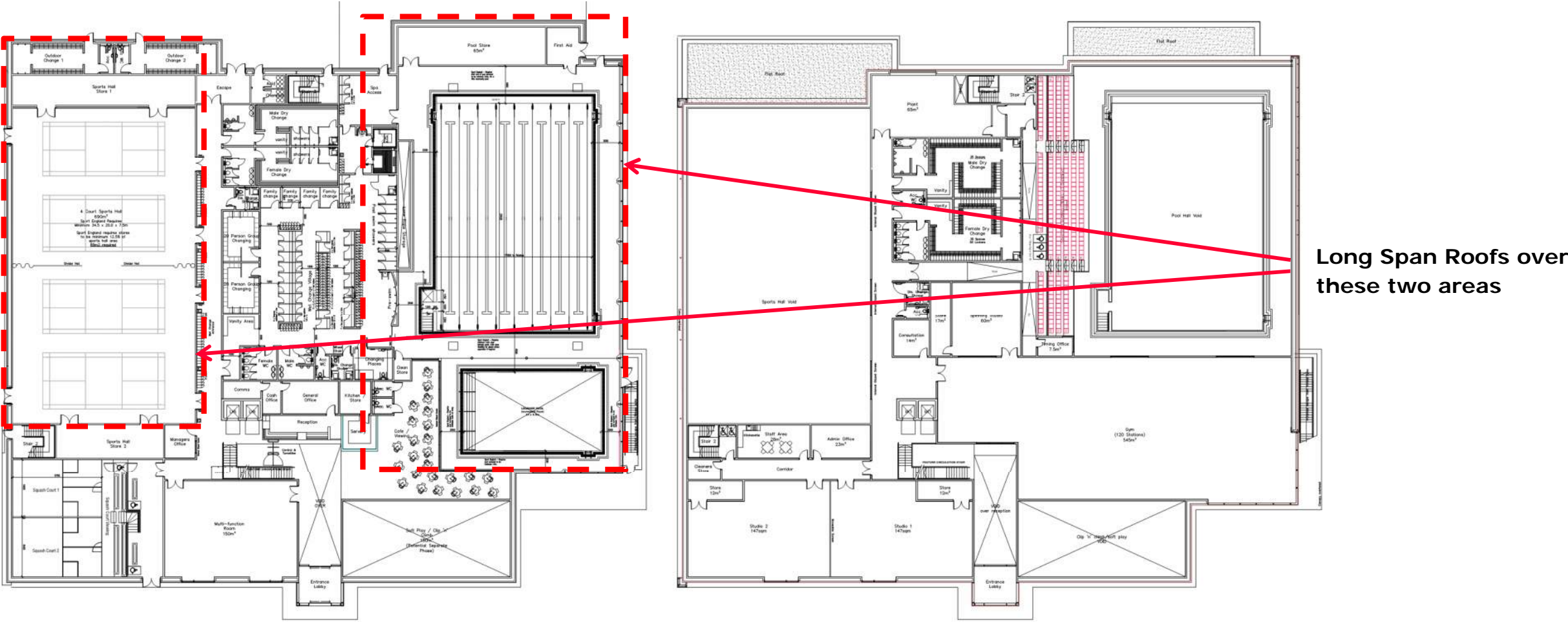
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APPENDIX C  
LONG SPAN ROOF STUDIES

# Long Span Roof Studies

## Introduction

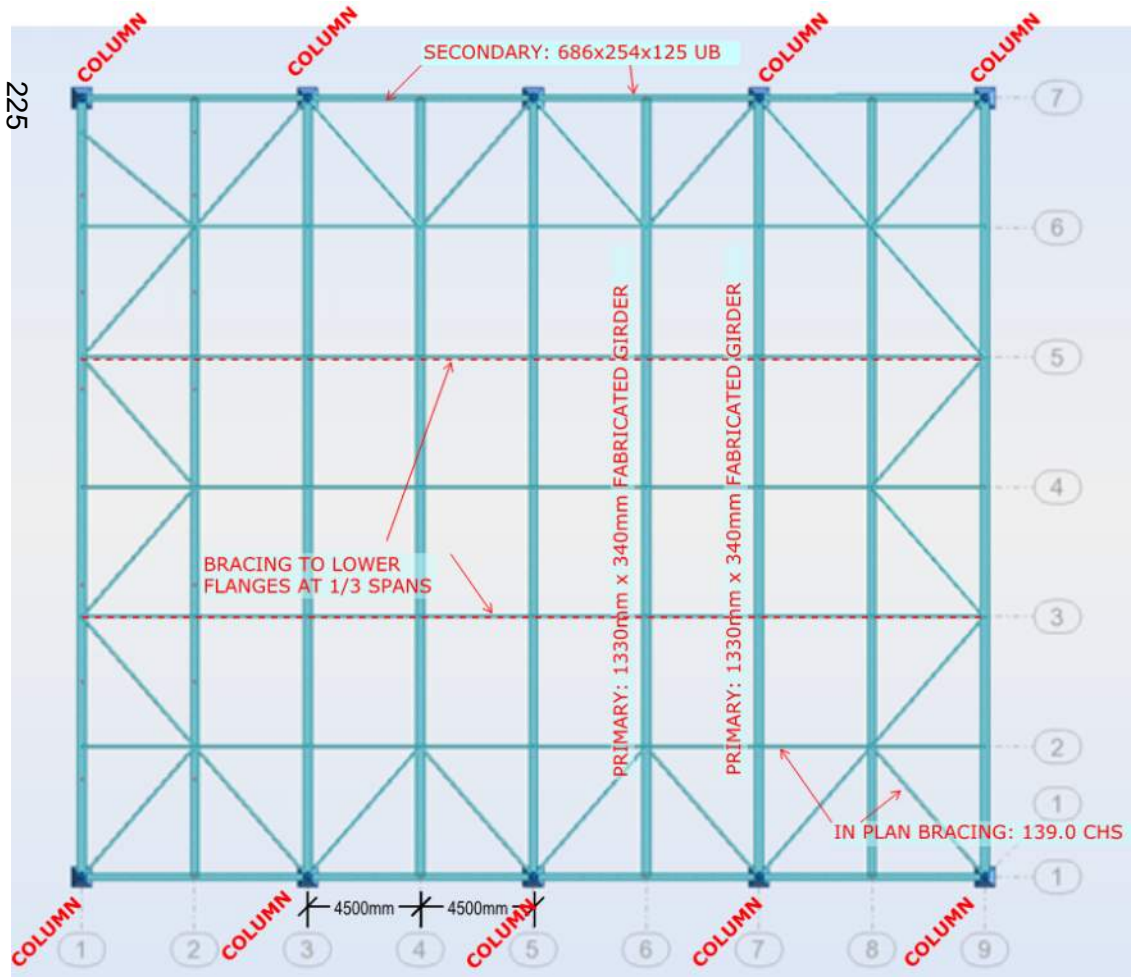
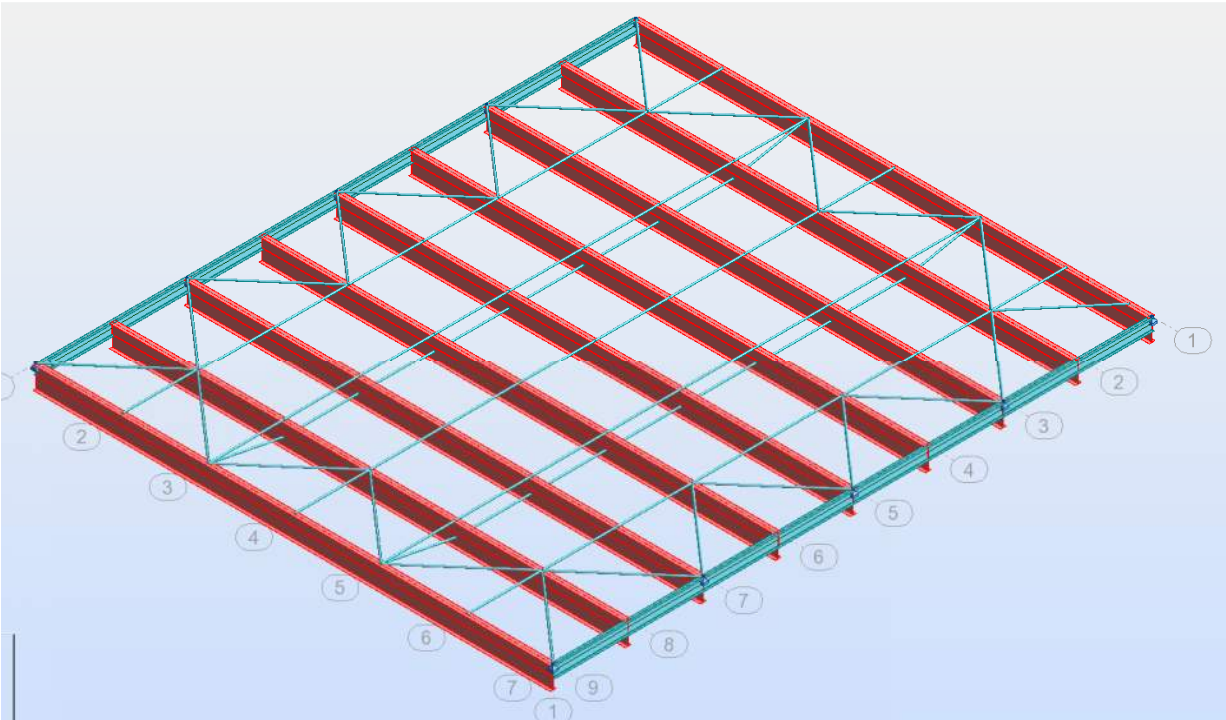


- This study aims to explore possible structural arrangements to the long-span roofs over the swimming pool and sports hall.
- This report explores the various options for roof beam arrangements, suitable roof decks and columns grids. The combinations of these parameters presented are not an exhaustive list – there are many more permutations.
- Alternative arrangements could be developed with column/beam spacings and roof decks varied.
- The study is based on the roof over the swimming pool (the larger of the two roofs) and thus can also be applied to the sports hall
- Five roof variants (A-E) of primary beam options are presented, each combined with a suitable column grid and roof deck option.
- Various column grids are considered along the main facades, with columns either at 7.2m or 9.0m centres.
- Long span beams are considered at both 7.2m and 4.5m spacings.
- Timber and trussed roofs have been proposed with CLT roofs which are heavier than steel versions and thus increase overall roof weight.
- Estimated quantities and weights for the whole roof (excluding columns) are given for initial guidance. Further studies would be required to refine these estimates and chose final configurations.
- To limit the potential for wind flutter, a limit of 2Hz has been placed on the natural frequency of long-span roofs. This is an onerous requirement and further refinement of this area would aim to lighten the roof and allow slightly shallower structural zones.
- Use of pre-cambering is not considered at this stage.
- Beams/Trusses have been designed to be stable during construction.



# Long Span Roof Studies

## Variant A – Fabricated Steel Girder



BEAM SPAN:	31.0m
COLUMN SPACING:	9.0m
PRIMARY BEAM SPACING:	4.5m
PROPOSED ROOF SLAB:	METAL DECK ON PURLINS (ELEMENT LENGTH: 9m – DOUBLE SPAN)

### DESIGN CRITERIA

#### LOADING

SW	AS CALCULATED
Gk (SID)	DECK (0.35), FINISHES (0.25), SERVICES (0.25): 0.85 kN/m <sup>2</sup>
Qk (ROOF)	0.60 kN/m <sup>2</sup>
Qk (SNOW)	0.60 kN/m <sup>2</sup>
Qk (WIND)	+0.20/-0.75 kN/m <sup>2</sup>

#### SERVICABILITY LIMITS

DEFLECTION (TOTAL):	SPAN/150
DEFLECTION (POST CONSTRUCTION):	SPAN/250
VIBRATION (WIND):	2Hz MIN

### MATERIAL QUANTITIES

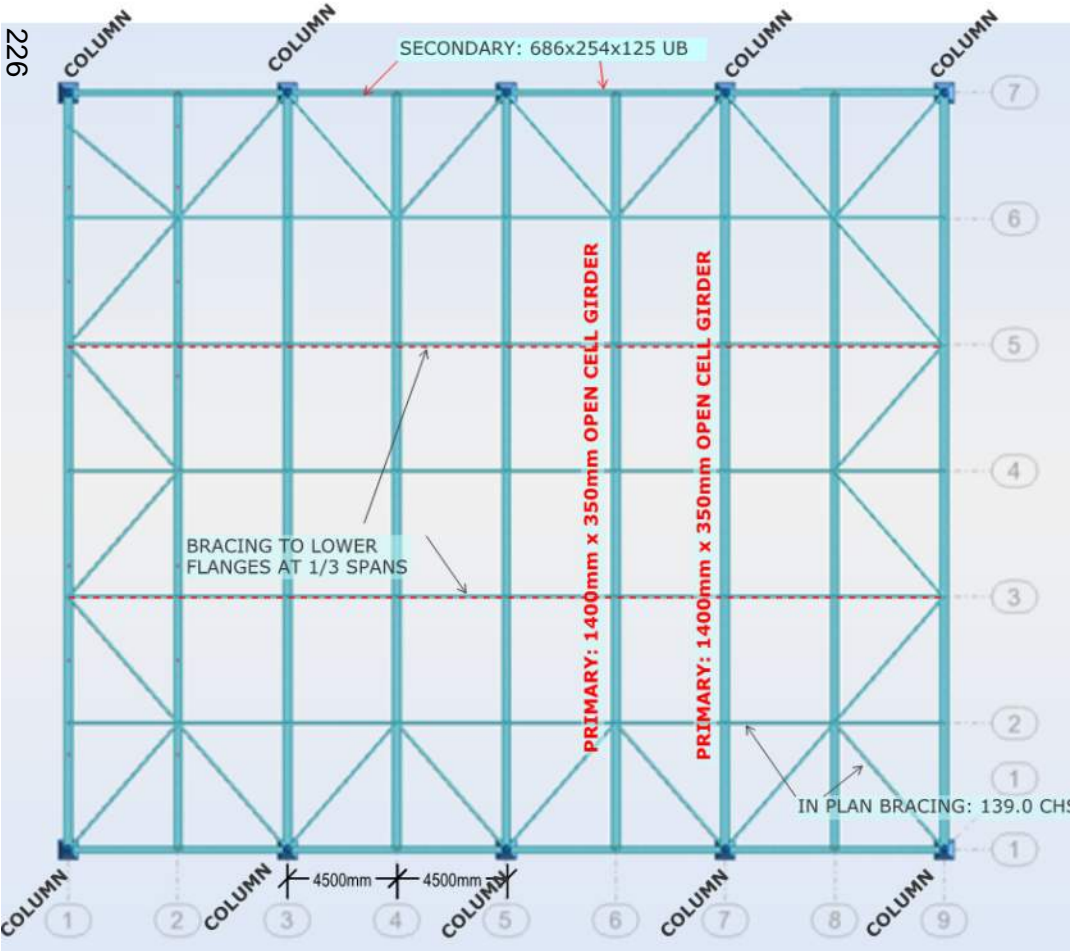
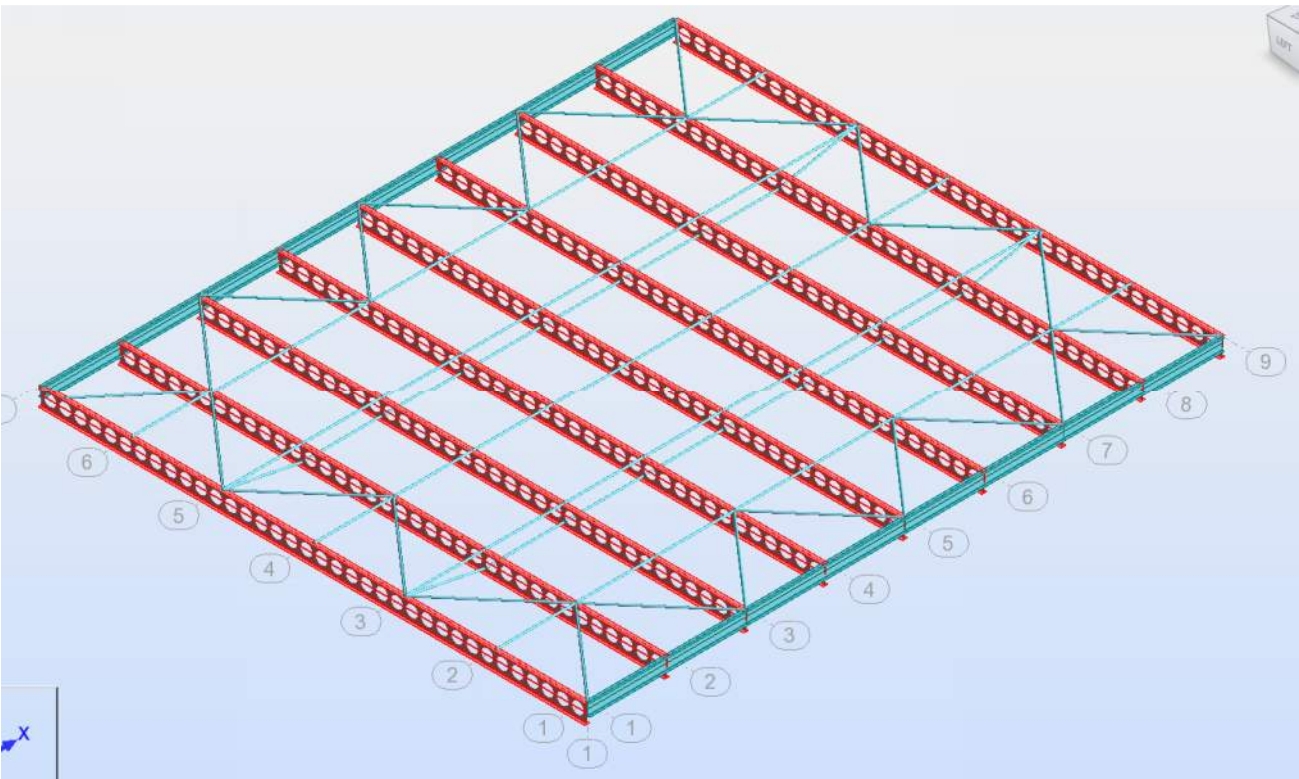
Steelwork – primary/secondary beams:	71 Tonnes
Steelwork – In plane bracing: (Purlins and Roof Deck additional)	4.5 Tonnes
Miscellaneous Steelwork/Connections:	Allow 20% additional tonnage

### NOTES

- Primary Beams brought to site in three sections (splices at 1/3 points). Assembled on ground and lifted into place
- Diagonal bracing installed as roof erected
- Services zone beneath beams

Long Span Roof Studies

Variant B – Fabricated Steel Beams + Open Cells



BEAM SPAN:	31.0m
COLUMN SPACING:	9.0m
PRIMARY BEAM SPACING:	4.5m
PROPOSED ROOF SLAB:	METAL DECK ON PURLINS (ELEMENT LENGTH: 9m – DOUBLE SPAN)

DESIGN CRITERIA

LOADING

SW	AS CALCULATED
Gk (SID)	DECK (0.35), FINISHES (0.25), SERVICES (0.25): 0.85 kN/m <sup>2</sup>
Qk (ROOF)	0.60 kN/m <sup>2</sup>
Qk (SNOW)	0.60 kN/m <sup>2</sup>
Qk (WIND)	+0.20/-0.75 kN/m <sup>2</sup>

SERVICABILITY LIMITS

DEFLECTION (TOTAL):	SPAN/150
DEFLECTION (POST CONSTRUCTION):	SPAN/250
VIBRATION (WIND):	2Hz MIN

MATERIAL QUANTITIES

Steelwork – primary/secondary beams:	63 Tonnes
Steelwork – In plane bracing:	4.5 Tonnes
(Purlins and Roof Deck additional)	
Miscellaneous Steelwork/Connections:	Allow 20% additional tonnage

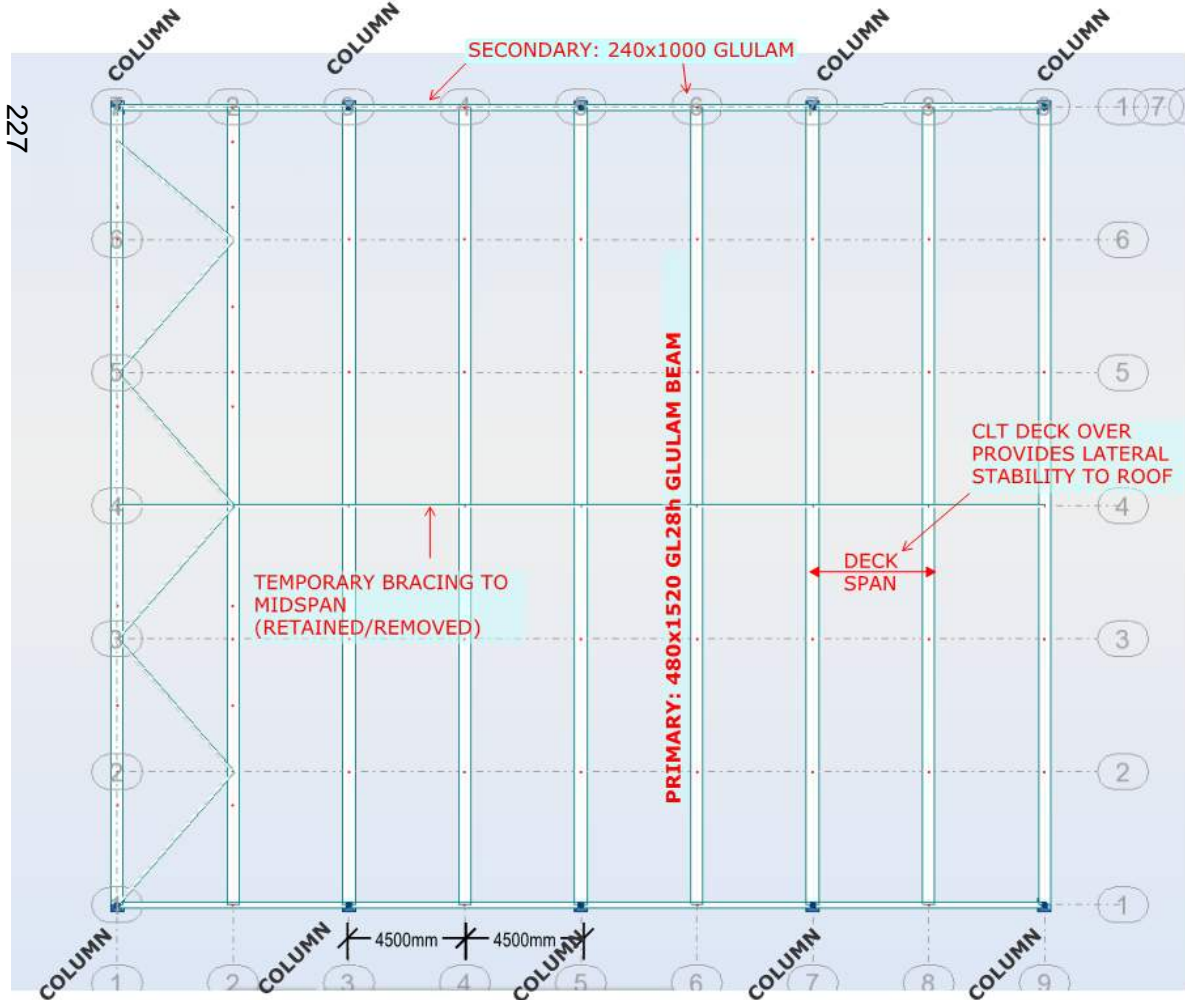
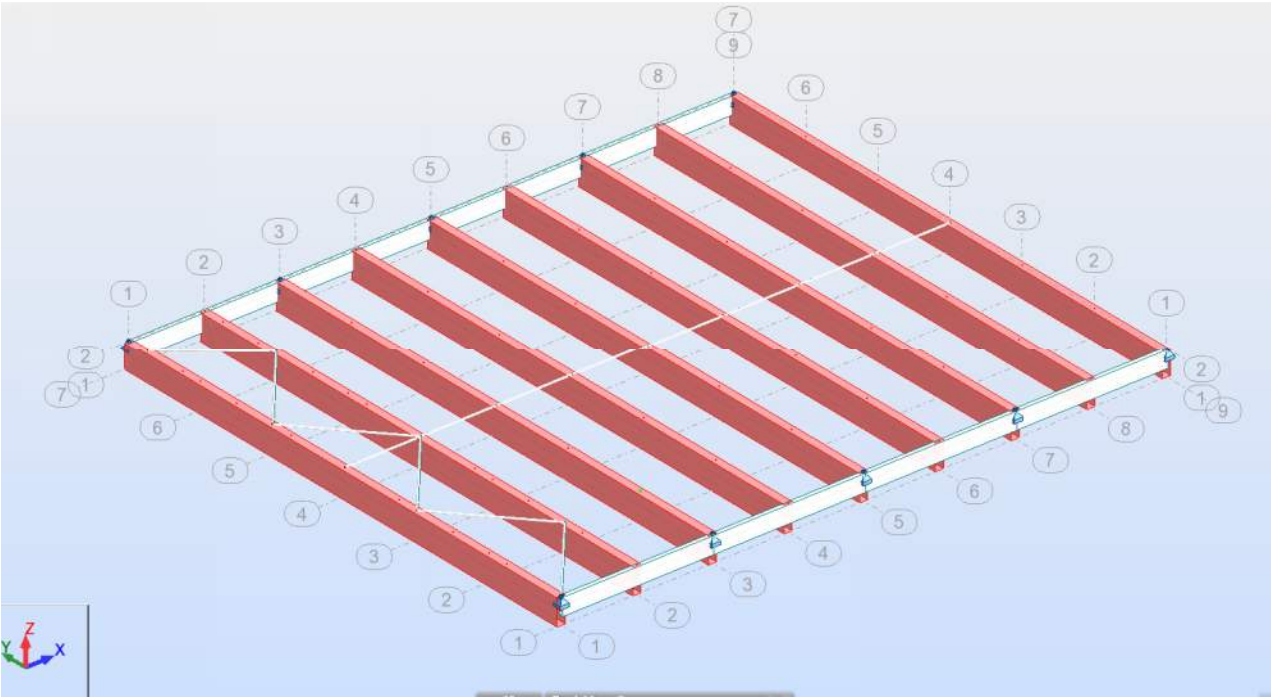
NOTES

- Primary Beams brought to site in three sections (splices at 1/3 points). Assembled on ground and lifted into place
- Diagonal bracing installed as roof erected
- Open cells (750mm) allows services to pass through



Long Span Roof Studies

Variant C – Solid Glulam Beams



BEAM SPAN:	31.0m
COLUMN SPACING:	9.0m
PRIMARY BEAM SPACING:	4.5m
PROPOSED ROOF SLAB:	100mm 3-Layer CLT Deck (ELEMENT LENGTH: 9.0m – DOUBLE SPAN)

DESIGN CRITERIA

LOADING	
SW	AS CALCULATED
Gk (SID)	DECK (0.50), FINISHES (0.25), SERVICES (0.25): 1.00 kN/m <sup>2</sup>
Qk (ROOF)	0.60 kN/m <sup>2</sup>
Qk (SNOW)	0.60 kN/m <sup>2</sup>
Qk (WIND)	+0.20/-0.75 kN/m <sup>2</sup>

SERVICABILITY LIMITS

DEFLECTION (TOTAL):	SPAN/150
DEFLECTION (POST CONSTRUCTION):	SPAN/250
VIBRATION (WIND):	2Hz MIN

MATERIAL QUANTITIES

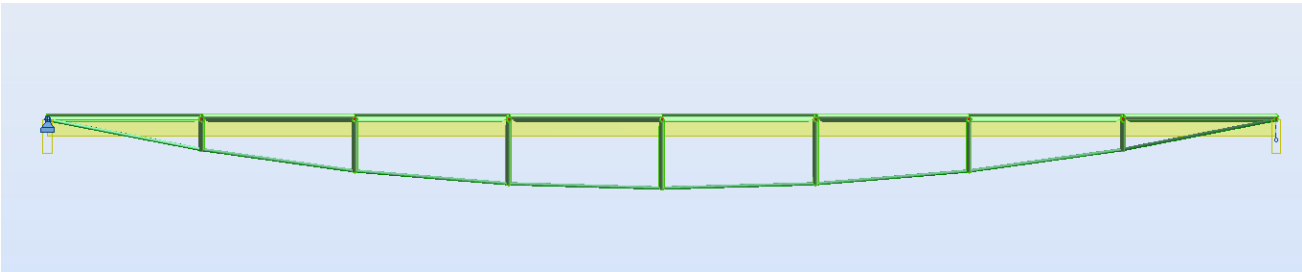
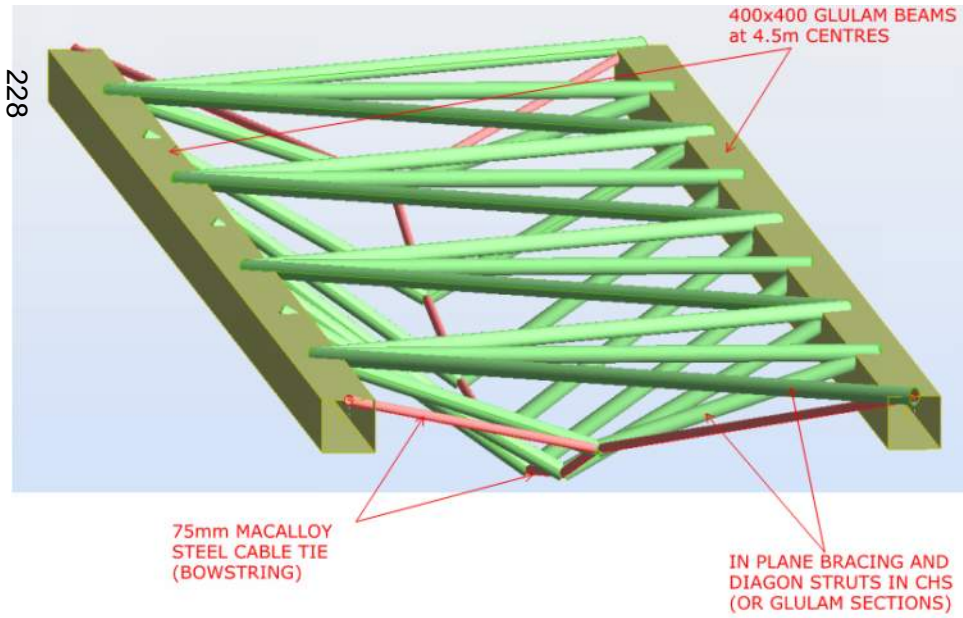
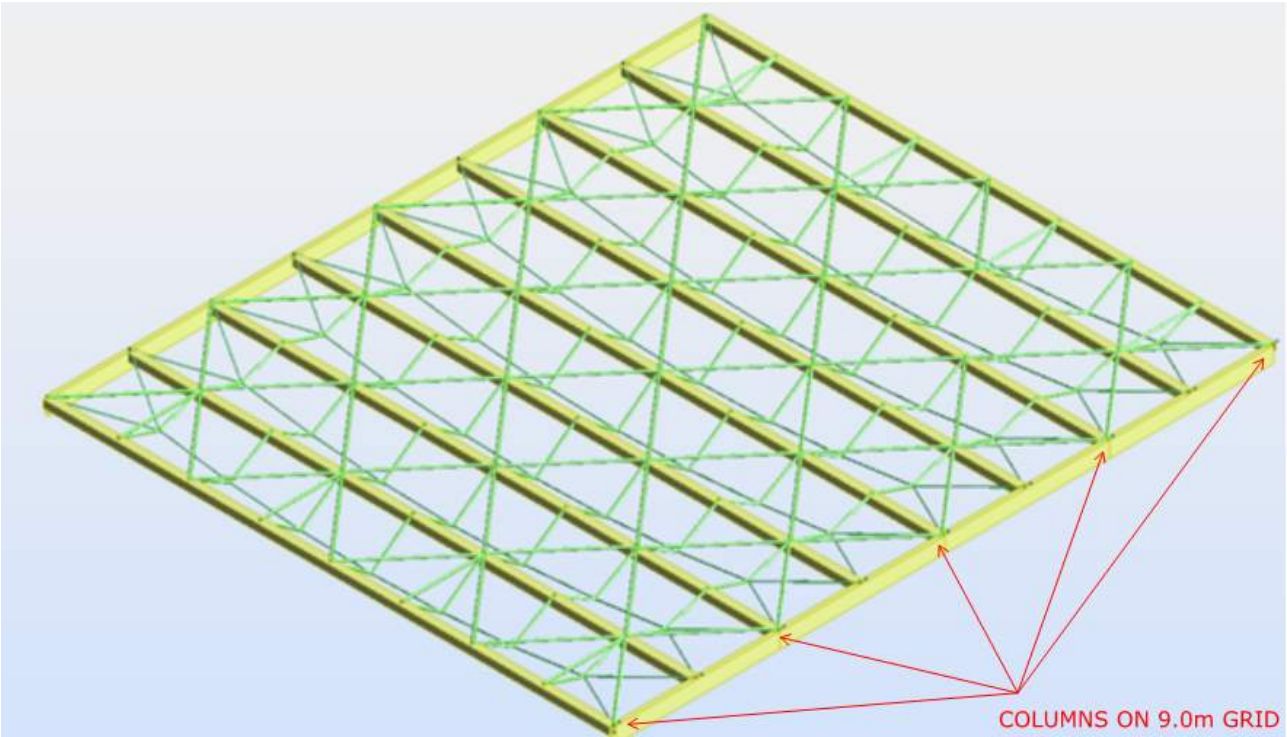
Glulam Primary/Secondary Beams	99 Tonnes
CLT Roof Deck	50 Tonnes
Temporary in-plane bracing	2 Tonnes
Miscellaneous Steelwork/Connections:	Allow 10 Tonnes

NOTES

- Primary Beams brought to site in three sections (splices at 1/3 points) with steel plates and bolts. Connection plates/bolts to be high grade stainless steel.
- Diagonal bracing installed as roof erected for temporary lateral restraint – may be removed after installation when CLT deck provides roof diaphragm action
- System could be coupled with Glulam Columns and CLT walls in sports hall as a viable alternative to steel columns and masonry infill

Long Span Roof Studies

Variant D – 3D Hybrid Bowstring Truss



BEAM SPAN:	31.0m
COLUMN SPACING:	9.0m
PRIMARY BEAM SPACING:	4.5m
PROPOSED ROOF SLAB:	140mm 3-Layer CLT Deck (ELEMENT LENGTH: 9.0m – DOUBLE SPAN)

DESIGN CRITERIA

LOADING

SW	AS CALCULATED
Gk (SID)	DECK (0.75), FINISHES (0.25), SERVICES (0.25): 1.25 kN/m <sup>2</sup>
Qk (ROOF)	0.60 kN/m <sup>2</sup>
Qk (SNOW)	0.60 kN/m <sup>2</sup>
Qk (WIND)	+0.20/-0.75 kN/m <sup>2</sup>

SERVICABILITY LIMITS

DEFLECTION (TOTAL):	SPAN/150
DEFLECTION (POST CONSTRUCTION):	SPAN/250
VIBRATION (WIND):	2Hz MIN

MATERIAL QUANTITIES

Glulam Primary/Secondary Beams	29 Tonnes
Steel Bowstring/Struts/Bracing	25 Tonnes
CLT Roof Deck	72 Tonnes
Miscellaneous Steelwork/Connections:	Allow 5 Tonnes

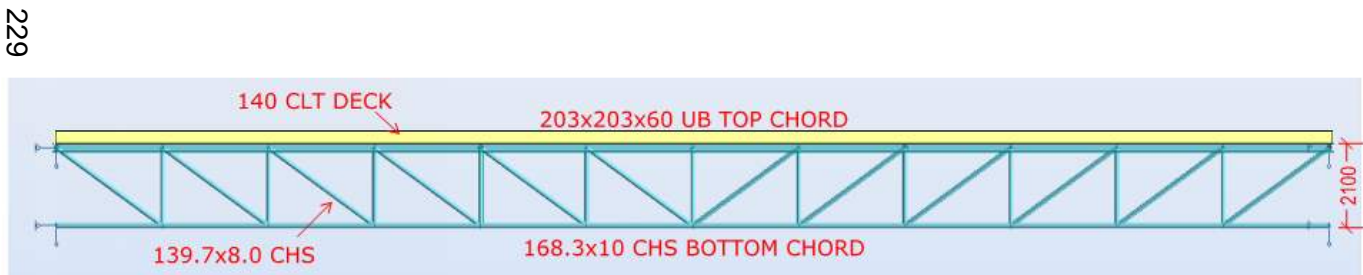
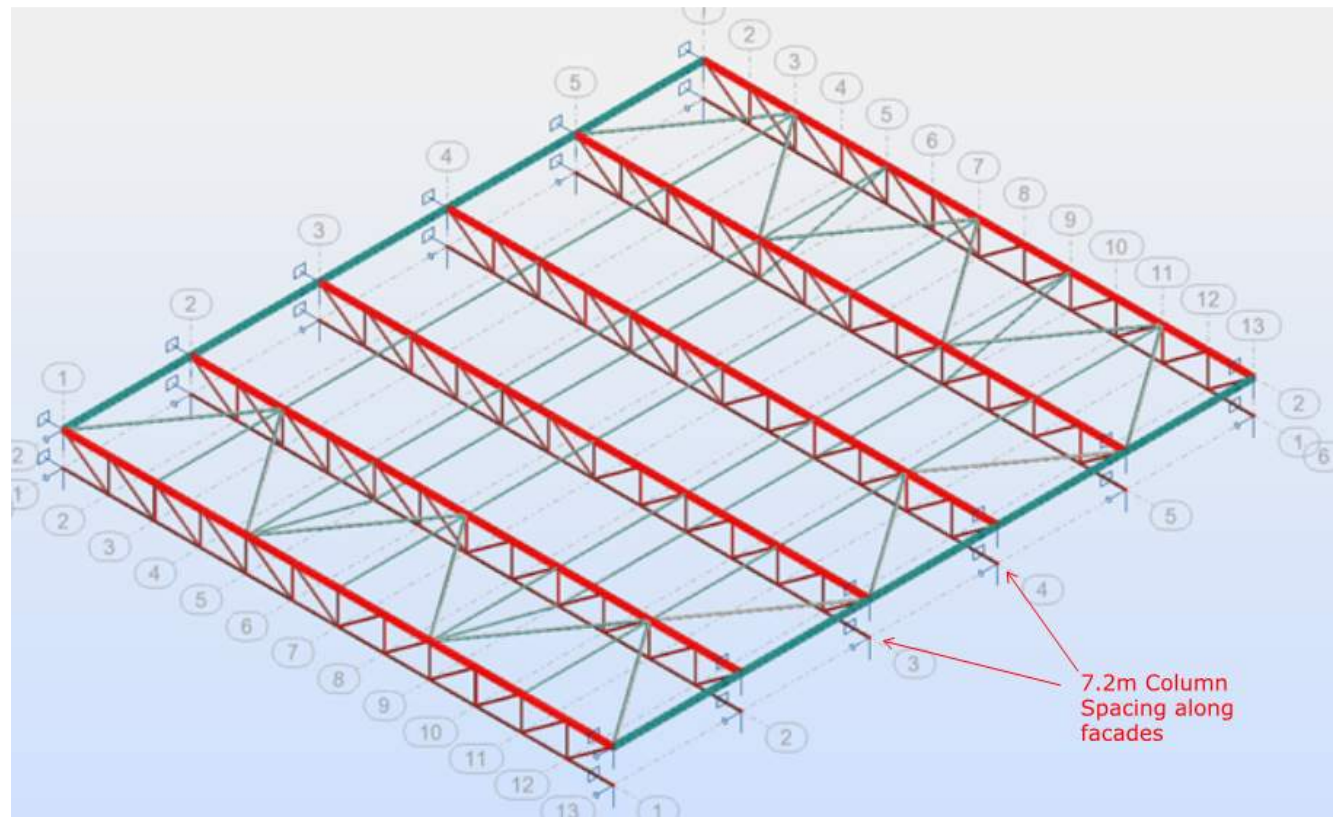
NOTES

- Thick CLT Deck required to restrain lightweight cable truss against load reversal from wind suction
- System could be coupled with Glulam Columns and CLT walls in sports hall as a viable alternative to steel columns and masonry infill



Long Span Roof Studies

Variant E – Steel Truss (Pratt)



BEAM SPAN:	31.0m
COLUMN SPACING:	7.2m
PRIMARY BEAM SPACING:	7.2m
PROPOSED ROOF SLAB:	140mm 5-Layer CLT Deck (ELEMENT LENGTH: 14.4m – DOUBLE SPAN)

DESIGN CRITERIA

LOADING

SW	AS CALCULATED
Gk (SID)	CLT DECK (0.75), FINISHES (0.25), SERVICES (0.25): 1.25 kN/m <sup>2</sup>
Qk (ROOF)	0.60 kN/m <sup>2</sup>
Qk (SNOW)	0.60 kN/m <sup>2</sup>
Qk (WIND)	+0.20/-0.75 kN/m <sup>2</sup>

SERVICABILITY LIMITS

DEFLECTION (TOTAL):	SPAN/150
DEFLECTION (POST CONSTRUCTION):	SPAN/250
VIBRATION (WIND):	2Hz MIN

MATERIAL QUANTITIES

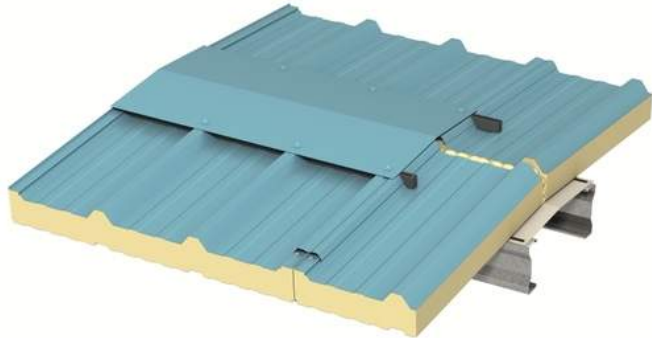
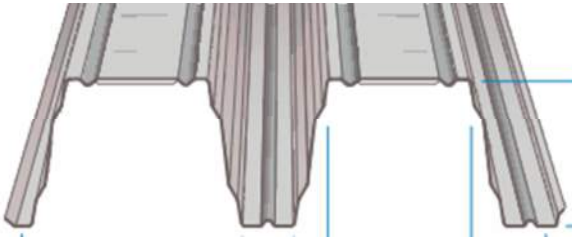

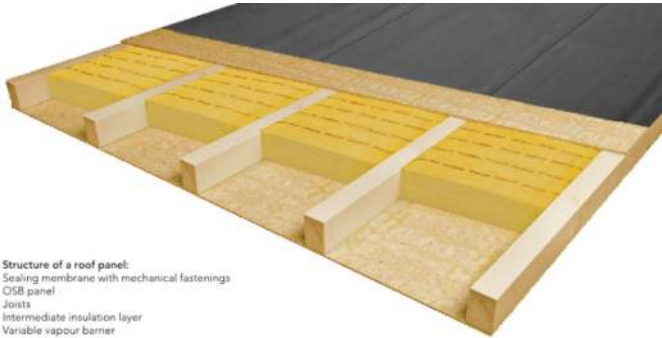
Steelwork – primary/secondary beams:	28 Tonnes
Steelwork – In plane bracing:	5.0 Tonnes
CLT Roof Deck	72 Tonnes
Miscellaneous Steelwork/Connections:	Allow 20% additional tonnage

NOTES

- Overall Depth of Truss: 2100mm
- Trusses brought to site in three sections (splices at 1/3 points). Assembled on ground and lifted into place
- Diagonal bracing installed as roof erected
- Use of CLT roof would allow some in-plane bracing to be removed after installation.
- CLT decks on shorter span areas offer good plant area platforms

Long Span Roof Studies

Roof Deck Options

Roof Deck		Typical Spans Achievable	Weight	Notes
COMPOSITE METAL DECK ON PURLINS		Roof Decks: Upto 3.0m Purlins: Upto 7.5m (400mm purlins)	Deck: 20 kg/m <sup>2</sup> Purlins: 15 kg/m <sup>2</sup>	Roof deck thickness dependant on U-Value required. Typical decks are 100-200mm thick.  Special versions available to support plant loads
SINGLE PLY LONG-SPAN METAL DECK		8.5m	Deck: 10-20 kg/m <sup>2</sup> Finishes: 20 kg/m <sup>2</sup> allowance	Build-up of finishes over liner typically includes insulation and single ply weatherproof membrane  Special versions available to support plant loads
CROSS LAMINATED TIMBER (CLT) PANEL		7.5m	45-72 kg/m <sup>2</sup>	Typical deck thicknesses 100-160mm depending on span  Typically able to support moderate plant loads without special measures
TIMBER CASSETTE	 <p>Structure of a roof panel: Sealing membrane with mechanical fastenings OSB panel Joists Intermediate insulation layer Variable vapour barrier Internal facia</p>	7.5m	40 – 65 kg/m <sup>2</sup>	Typical Deck Thicknesses 200-400mm  Not generally suited for supporting plant loads



## Appendix 3 – Mechanical and Electrical Engineers Report

## DOVER LEISURE CENTRE

### DESIGN & SERVICE REQUIREMENTS WATER TREATMENT SYSTEMS

Date	7 <sup>th</sup> June 2016
Issue	A
Contract	Dover Leisure Centre
Sheerwater Consultancy Limited	13 Stocks Brow, Tintwistle, Glossop, Derbyshire, SK13 1LG
Landline	01457 857264
Mobile	07766 738167
Email	<a href="mailto:sheerwater123@btinternet.com">sheerwater123@btinternet.com</a>
Registered in England	No. 4408935



## **Scope**

The leisure centre is to incorporate a 25m. x 8 lane main pool and a 15m. x 8.5m. teaching pool.

### **1. Filtration & Water Treatment Systems**

The filtration and water treatment systems are to incorporate medium pressure sand filtration with PAC (polyaluminium chloride) for coagulation, chlorine disinfection in the form of sodium hypochlorite (complimented by UV treatment) and hydrochloric acid for pH correction.

The systems are to be designed in accordance with the PWTAG Guidelines together with the relevant criteria as follows:-

#### **Main Pool**

Volume	638m <sup>3</sup>
Turnover	3 hours
Hourly Flow	213m <sup>3</sup>
Filters	2 x 2.4m. diameter vertical
Filter Area Total	9.04m <sup>2</sup>
Filtration Rate	23.56m./hour
Maximum Instantaneous Bathing Load (based on circulation rate)	125

#### **Teaching Pool**

Volume	120m <sup>3</sup>
Turnover	1 hour
Hourly Flow	120m <sup>3</sup>
Filters	2 x 1.8m. diameter vertical
Filter Area Total	5.09m <sup>2</sup>
Filtration Rate	23.6m./hour
Maximum Instantaneous Bathing Load (based on circulation rate)	71

### **2. Balance Tank**

A balance tank is to be incorporated for each of the systems and these are to be located under the pool surround at the side of each respective pool. The positions and physical sizes of the tanks are to be agreed with the Architect and Structural Engineer and tanks are to comply with the requirements in relation to the Regulations on 'Access to Confined Spaces' and the Recommendations laid down by PWTAG.

Main pool minimum operating volume	35m <sup>3</sup>
Teaching pool minimum operating volume	20m <sup>3</sup>

### 3. **Filter Backwashing**

It is proposed that filter backwashing will be carried out at the end of each operating day. Under normal bathing load conditions it will probably be necessary to wash each filter once per week, but this may increase during heavy bathing load periods.

At the current time, on most new swimming pool projects it is usual practice for the local Water Company to limit the flow rate to foul to within approximately 5 litres/second. If this Regulation is applied on this particular contract it will be necessary to include an attenuation/backwash holding tank as part of the drainage systems. The size of the tank is to be based on the following:-

Item	Each of the Main Pool Filters	Each of the Teaching Pool Filters
Backwash flow rate	38 litres/second	22 litres/second
Length of backwash process	7 minutes	7 minutes
Volume discharged	15.96m <sup>3</sup>	9.42m <sup>3</sup>

Assuming that the attenuation tank is allowed to drain after backwashing each filter, the tank would have to have a minimum operating volume capacity of 16m<sup>3</sup>. If it is necessary to design the system to enable two filters to be washed consecutively, then the volume of the tank would have to be increased to 32m<sup>3</sup>.

The engineer responsible for drainage is to determine how the tank is to be drained to foul and vented.

### 4. **Drainage Requirements**

4.1 Approximately five drainage gullies will be required in the floor of the filtration plantroom.

4.2 DRENCH SHOWER DRAINAGE STILL TO BE DECIDED.

### 5. **Services**

#### 5.1 **Electrical**

Electrical supplies will be required as follows:-

Main filtration plantroom	50Kw.
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All the above supplies are to be 415 volt, 3 phase and neutral and the above figures do not take into account power factor correction.



## 5.2 Water Supply

A makeup water supply will be required, terminating at an agreed point in the filtration plantroom and this should be based on a flow rate of 2 litres/second. The maximum flow rate will be required after filter backwashing for pool water makeup. Filter backwashing is usually carried out at the end of the operating day, which allows the pool water makeup to operate overnight when the demand for water in the remainder of the building is low.

Additional water supplies will be required for the following:-

- The sink in the main plantroom.
- Hose down point in the main plantroom.
- Hose down point in each of the chemical rooms.
- Drench shower in each of the chemical rooms.

## 5.3 Heat Requirements

We assume that low pressure hot water will be provided to initially heat the pool water, raising the volume of the water temperature by 0.5°C per hour. Plate heat exchangers should be provided as part of the filtration contract and it is usual practice, for the controls on the low pressure hot water side, to be provided by the mechanical contractor. LPHW – 70°C supply and 50°C return.

<b>Pool</b>	<b>Anticipated Pool Water Temperature</b>	<b>Anticipated Heat Load</b>
Main	28 - 29°C	371Kw.
Teaching	29 - 30°C	70Kw.

## 6. Ventilation

### 6.1 Chemical Rooms

Whilst the PWTAG Guidelines indicate that natural ventilation is acceptable it would be preferable to incorporate forced ventilation, the recommended rate being four air changes per hour.

### 6.2 Filtration Plantroom

The mechanical and electrical consultant should assess whether or not forced ventilation is required in the main plantroom, giving consideration to the fact that this room also accommodates the boilers, electrical equipment etc.

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## Dover Leisure Centre

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### MEP Basis of design stage 2 report

Doc No:	P2007256 – WLC_BDP_ZZ_ZZ_RP_MEP_ZZ_0002
Issue:	Stage 2
Rev:	P01
Date:	June 2016
Author	SS/AM
Checked	SM



## Contents

1.0 Executive summary

2.0 Qualitative requirements

3.0 Quantitative requirements

4.0 Part L

5.0 Information required

Appendix A – BDP MEP Planning deliverables

Appendix B – Basis of Design

### Revision History:

Revision	Description	Issued by	Date	Checked
P01	Stage 2 Issue	AM	16.06.2016	SM

## 1.0 Executive Summary

This document has been produced to record the current interim stage 2 basis of design, and the MEP process through to issue of planning information.

The general approach to the MEP servicing strategy is as follows;

- BDP programme and deliverables provided in the appendices.
- Adoption of mechanical ventilation strategy in line with requirements of the building function.
- Design of the MEP systems to be primarily as below with early supply chain engagement to drive efficiencies: -
  - Standard above ground drainage by services,
  - Rainwater harvesting required.
  - Rainwater design by GT Architect
  - Domestic water services to break tank and booster set with hot water generation
  - Heating options under consideration
    - Gas fired boilers with lead CHP plant complete with thermal buffer
  - Air source heat pumps and heat recovery for cooling in Gym, etc.
  - Variable speed air handling plant for pool, gym, studios, spinning, wet and dry changing areas
  - Consideration for natural ventilation to general circulation and hall – subject to suitable flow rates
- Pool Process plant sketch information has been provided by Sheerwater and interpreted onto layout drawings BDP MEP sketch Drawings included as Appendix.
- Requirements to meet general development guidance and the intention is to improve upon the carbon requirements of Part L 2013 by up to 10% by being LEAN and MEAN any further enhancement to this would be proposed by renewables following a suitable feasibility study (likely options are micro CHP, solar thermal, solar photovoltaics and air source heat pumps) i.e. BE GREEN.
- Requirement to meet the brief requirements of BREEAM VERY GOOD
- No spare capacity to be allowed within the mechanical systems design beyond standard engineering margins.
- 25% spare capacity to be allowed for within electrical distribution systems for future load increases.
- 20% spare capacity to be allowed for data cabling future requirements.
- There is currently no requirement for Sprinklers system and/or gas suppression within ICT server room
- GT Architects to incorporate full plant, risers and horizontal distribution requirements as indicated upon the MEP spatial requirement sketches.
- Room data sheets will be developed during the stage 3 process.
- Public Address system will be provided.



- Assumption of limited use of access control and CCTV provisions will be included.
- Fire alarm system design category to be advised by the Fire Consultant

## 2.0 Qualitative Requirements

The following standards and guidance will be followed in the design of the MEP design of the leisure centre;

- 10% Improvement on the requirements of part L.
- BREEAM Very Good.
- Generally the mechanical & electrical services shall be designed in compliance with current editions of:
  - The Gas Safety Regulations
  - BS EN 12056 – Above ground drainage
  - BS EN 806 – Specifications for installations inside buildings conveying water for human consumption
  - BS 6173 Installations of gas-fired catering appliances for use in all types of catering establishments (2nd and 3rd family gases)
  - CIBSE Design Guides Building Services Industry Standards
  - CIBSE Guide A: Environmental Design
  - CIBSE Guide B: Heating, Ventilation, Air-Conditioning and Refrigeration.
  - CIBSE Guide F: Energy Efficiency in Buildings
  - CIBSE Guide G: Public Health Engineering.
  - CIBSE Guide H: Building Control Systems.
  - CIBSE Guide L: Sustainability
  - CIBSE Applications Manual 10: Natural Ventilation in Non-Domestic Buildings:
  - CIBSE TM13 – Minimising the Risk of Legionnaires Disease.
  - Sport England – Swimming Pool Design Guidance Note
  - Sport England – Badminton Design Guidance Note
  - Sport England – Artificial sports lighting design guide 2012
  - Sport England - Sports halls: Design and Layouts design guide
  - Sport council - Swimming Pools Guidance Notes - Building Services
  - Standards for Swimming pool - SPATA - Volume 02
  - Institute of Gas Engineering Publication IGE/UP/1&2
  - IM25 – Gas safety in educational premises
  - BREEAM
  - BS 8300, Design of buildings and their approaches to meet the needs of disabled people
  - ISO 11801 - 2nd Edition International Standards
  - BS7671 - Requirements for Electrical Installations / IET Wiring Regulations
  - BS 8206-2 Lighting for Buildings: Code of Practice for Daylighting
  - BS EN 12464-1 Light and lighting - Lighting of work places. Indoor work places
  - BS EN 12464-2, Light and lighting - Lighting of work places. Outdoor work places

- SLL Code for Lighting:
- BS EN 5266-1 – Code of practice for the emergency escape lighting of premises
- BS EN 1838 – Lighting applications - emergency lighting
- Industry Standard 1006:2012 – Emergency lighting design guide
- BS EN 5489-1 – Code of Practice for the Design of Road Lighting, Lighting of roads and public amenity areas
- BS EN 13201-2 – Code of Practice for the Design of Road Lighting
- BS EN 50173-1, 2, 3 – Information technology - Generic cabling systems
- BS 6701 – Telecommunications equipment and telecommunications cabling - Specification for installation, operation and maintenance
- BS EN 50346 – Information technology. Cabling installation. Testing of installed cabling
- ANSI TIA EIA 568-B – Commercial Building Telecommunications Cabling Standard
- BS EN 50174-1, 2 and 3 – Information Technology Cabling Installations.
- BS EN 50131 – Alarm systems - Intrusion and hold-up systems. System
- BS 50133 – Alarm systems. Access control systems for use in security applications.
- BS EN 60839-11-2 – Alarm and electronic security systems. Electronic access control systems - application guidelines
- National Code of Practice 104
- EN 62676-4 – Video surveillance systems for use in security applications.
- BS6259 Public Address
- BS 5839-1 – Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises
- BS 5839-9 – Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems
- BS 8519 – Code of Practice for Selection and installation of fire-resistant power and control cable systems for life safety and fire-fighting applications
- BS EN 50310 – Code of Practice for Application of equipotential bonding and earthing in buildings with information technology equipment
- BS7430 - Code of Practice for protective earthing of electrical installations
- BSEN 62305 – Code of Practice for protection of structures against lightning
- NJUG Volume 1 Guidelines On The Positioning and Colour Coding of Underground Utilities' Apparatus
- BS EN 81 – Lifts and service lifts. Safety rules for the construction and installation of electric lifts.



### 3.0 Quantitative Requirements

The following describes the approach to servicing being adopted for the stage 2 design.

Service	Solution	Reasoning
Below Ground pipework	By others	By others
Above Ground Drainage	PVC pipework to be utilised for soil and waste above ground drainage.	Utilising plastic pipework will provide cost saving.
Rainwater Harvesting	Capture into tank within the building basement level	
Mains cold water	New incoming main to feed potable water and potential fire hydrant	A new application for a water connection will need to be made approximately 3.5l/s for the potable and circa 1500l/min for the hydrant.
Domestic cold water	Storage tank and booster set for potable water	To maintain suitable system pressure and to hold a capacity in the building should the external mains fail.
	Storage tank and cat 5 for washdown and similar supplies	To comply with water regulations
Domestic hot water	Heat interface units connected to LTHW distribution.	Towards part L 2010
Natural Gas	Low pressure natural gas will be provided to plantroom equipment	A new supply for approximately 1300kW will be required. Engage with the gas shipper for availability.
Heating	Generation :  CHP, boilers and VRF systems  Distribution :  LTHW to AHU's, radiators and under floor heating	Towards part L 2013 + 10%  CHP works well with constant heating load of the two swimming pools

	Electric Door curtains	
Cooling	VRF– to FCU's in server room / comms room + fitness suite and activity studio. Eco-cooler type DX AHU for activity + fitness.	Utilise VRF & DX units to provide electrical demand for CHP.
Ventilation	Centralised air handling units, zoned to suit areas being served. In changing rooms provide egg crate grills. Variable Flow AHU to Pool Hall.	Centralised air handling units meet design requirements.
Energy Metering	Extensive energy metering to be provided along with an energy management system on the BMS	Good practice to allow MC to control energy costs.
'Renewables'	CHP, Solar thermal and Solar PV potential to be investigated further	To meet planning requirements and generate savings. Further renewable requirements to be on risk register until part L model produced.
Incoming electrical Supply	A new LV supply will be derived from a new 500kVA sub-station located internally to the building.  Site investigation required.	To accommodate the current anticipated maximum demand and any future expansion if required  Spare capacity available at local sub-stations. Site investigation required.
Incoming Telecoms	To be provided by ISP and Network specialist via diverse routes.	Provides for resilient, secure configuration of incoming network services.
Mains Distribution	The main LV switchboard to comprise of an 800A switchboard. The switchboard to comprise ACB / MCCB incomer with MCCBs for outgoing services.  Automatic power factor correction to be provided to the main switchboard.	To accommodate the current anticipated maximum demand and any future expansion if required
Submains Distribution	Sub-main cabling from main distribution panel (via sub distribution 242	Cost effective solution for low rise buildings with low number of sub-mains



	<p>panels if required) on containment in voids where possible.</p> <p>The sub-main distribution to take the form of XLPE/SWA/LSF multi core cables run from the main switchboard, to local distribution boards positioned in the plantrooms and electrical cupboards and stores. Where an area and facility requires supplies of differing levels of integrity separate distribution boards to be provided for each level of supply.</p> <p>The distribution boards are to be of the wall mounted type with MCCBs or MCB's providing protection to the outgoing circuits.</p> <p>The local distribution boards to be either type "A" or "B" single or three phase as required, generally having type 'B' and 'C' MCB's providing protection to the outgoing circuits.</p>	
UPS / Essential supplies	<p>UPS space provision only in hub/comms rooms.</p> <p>Essential supplies to life safety systems to be included with relevant system where needed.</p> <p>Swimming pool to be provided with central battery system for safe lighting.</p>	Decentralised approach to UPS meaning no single point of failure for all systems
Containment systems	<p>Primary containment is to be provided within ceiling voids where possible, via combination of cable ladders and medium/heavy duty cable trays for submain cables, cable baskets for Data, fire alarm, security and other ELV items, trunkings for lighting and power</p>	Robust re-wireable installation for power and cost effective easily maintainable for data/ELV cabling

	Secondary containment is to be provided via conduits & dado trunkings for various electrical installation.	
Small Power	To suit ICT & FF&E Requirements. Cleaners sockets throughout	To meet operational requirements of the building
Lighting	<p>Lighting is to be provided throughout all areas of the building to achieve the required lighting levels and uniformity ratios. The light levels are the average maintained illumination levels, taking into account maintenance factors, lamp lumen depreciation, colour and texture of finishes, furniture and equipment (including nets, curtains etc.) and glare control.</p> <p>The lighting design in a badminton hall must take into consideration the requirements for provision of:</p> <ul style="list-style-type: none"> <li>• A safe environment for players</li> <li>• Effective illumination of the shuttlecock and court markings to aid players and to assist match officials in the execution of their duties</li> <li>• Suitable and sufficient lighting for spectators.</li> </ul> <p>Light fittings not to be mounted above the pool to facilitate maintenance.</p> <p>Light fittings to be directed so as to avoid glare or reflection to bathers and staff. The use of uplighters is preferred as opposed to using direct lighting.</p> <p>Providing reliable and evenly spread artificial underwater lighting can be difficult to achieve. Underwater areas</p>	To provide general lighting to the general environment and working plane considering energy efficiency, maintenance, colour, appearance, rendition, and glare control.



	<p>left in shadow can be detrimental to the ability to see objects clearly in the pool.</p> <p>Underwater lighting therefore requires careful specialist design and would form part of the swimming pool specialist package.</p>	
Emergency Lighting	<p>Luminaires that are normally operational are utilised to provide the emergency lighting.</p> <p>Generally emergency lighting to be provided by integral self-contained emergency packs within normal luminaires. This system to provide 3-hour backup for all the emergency luminaires.</p> <p>Pool hall lighting to consist of self-contained / central battery system flood packs to IP65, positioned around the perimeter of the pool to provide 5lux minimum for 3hrs (general emergency lighting) and 5% of the maintained illuminance for 30s (for safe stopping of an event)</p>	To provide emergency lighting to escape routes and open areas. Locate emergency exit signs to define clear and unambiguous escape routes.
External Lighting	Lighting to any external walkways to be provided to allow egress and access to the space with emergency fittings installed as required by Building Control and Approved Inspector Services to the requirements of BSEN 5266-1 and BS EN 1838	To provide safe movement into and around the building during hours of darkness
Clocks	Auto updating battery clocks throughout	To be provided as part of FF&E package (not included in MEP package)
Induction Loops	Provided at main reception desk, swimming pools, studio and fitness suite Portable unit also to be provided	Areas where 1 to 1 interaction is commonplace and key locations for announcements and media requirement.

		Portable loop to allow flexibility in use.
Disabled Refuge Alarms	At each disabled refuge point	TO BS5839 and BS8300
Fire Alarms	<p>An addressable analogue AFD system to be provided in the building in conformity with BS 5839 Part 1. This to cover horizontal and vertical escape routes and any identified areas of enhanced fire risk.</p> <p>The system to include detector devices, break glass call points, and sounders, on all escape route and vulnerable spaces, smoke detection to be included within all voids/ ceiling voids with a greater height than 0.8 m.</p> <p>Call points to be sited at final exits and other locations such that no one has to travel more than 30m to a call point.</p>	As per Fire Consultant's advice.
Security Systems	Motion detection and door contacts to protect all entry points and accessible ground floor areas and circulation spaces	To ACPO, NACOSS and Sports England requirements
Accessible alarms	<p>Each designated accessible toilet to be provided with an independent alarm system. All accessible alarms to be remotely monitored at the reception area.</p> <p>Poolside alarms</p> <p>Each lifeguard position to be provided with an independent alarm system.</p> <p>All alarms to be remotely monitored at the reception area</p> <p>Drowning alarms for swimming pool with repeaters at Reception and Plantroom</p>	To provide alerting alarm for people with disability or when anybody is in need in the swimming pool



Access control	Electronic access control limited to secured areas requiring frequent usage and main entrances, IT hub/server rooms	Based on previous similar leisure projects
Intercom	Audio 2 way system only at Vehicle entrances to site, main entrance and plant room external access	Based on previous similar leisure projects
Public Address / Audio Equipment	<p>A separate non-emergency public address system shall be provided to building. This shall have its own dedicated announcement and control system.</p> <p>The system shall be capable of being zoned off so that different areas can be either isolated or the volume controlled locally.</p> <p>The system shall be linked into the fire alarm system so that the system does not operate during a fire alarm condition.</p>	To broadcast various announcements and TV/Radio/Audio signals throughout the building from a central source
CCTV	<p>Coverage to building perimeter, main entrances, reception, changing room exit to lobby and circulation spaces only.</p> <p>CCTV may also be used for the purpose of the drowning alarm in the swimming pool depending on the final solution</p>	To monitor entrance and exits building and common circulation to help deter intruders & criminal behaviour
TV Aerial	Multi receiver points on roof and utilise IPTV via ICT network. Leisure to provide Distribution active equipment	Flexibility in TV locations and removing need for independent distribution system
Vertical Transport	<p>2 No. in total</p> <p>Requirement of Evacuation lift to be confirmed</p>	<p>In line with design for access document</p> <p>In line with Fire strategy report</p>

Lightning Protection System	A fully enclosing lightning protection system to be provided to protect the new development utilising the building structure where possible e.g. Copper lightning tape fixed to steelwork. The complete installation to include bonding of all new roof projections as required to meet the requirements of BS EN 62305-1.	
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Work in progress issued to the team for coordination and information are;

MEP	P2007256 Deliverables					
Drawing Ref	Drawing Description	Type	Size	Scale	08/06/2016	16/06/2016
DLC-BDP-ZZ-00-DR-MEP-ZZ-0001	LEVEL 00 - COMBINED SERVICES PLANTROOM	PDF	A0	1:50	✓	
DLC-BDP-ZZ-00-DR-MEP-ZZ-0002	COMBINED SERVICES ROUTE - LEVEL 00	PDF	A1	1:50	✓	
DLC-BDP-ZZ-01-DR-MEP-ZZ-0001	LEVEL 01 - COMBINED SERVICES PLANTROOM	PDF	A0	1:50	✓	
DLC-BDP-ZZ-01-DR-MEP-ZZ-0002	COMBINED SERVICES ROUTE – LEVEL 01	PDF	A1	1:50	✓	
DLC-BDP-ZZ-02-DR-MEP-ZZ-0001	ROOFTOP AHU/COMPOUND – LEVEL ROOF	PDF	A0	1:50	✓	
DLC-BDP-ZZ-ZZ-DR-E-70_30-0001	ELECTRICAL DISTRIBUTION AND TRANSMISSION SYSTEMS	PDF	A0	NTS	✓	
WLC-BDP-ZZ-ZZ-SH-MEP-ZZ-0001	SCHEDULE OF MAJOR PLANT	PDF	A3	NA	✓	
SK. SLOU-01	FILTRATION PLANTROOM	PDF	A3	NTS	✓	
	Design & Services Requirements Issue A doc	WORD	A4	NA	✓	
DLC-BDP-ZZ-ZZ-DR-M-60-0001	SCHEMATIC - HEATING, COOLING AND REFRIGERATION SYSTEMS	PDF	A0	NTS		✓
DLC-BDP-ZZ-ZZ-DR-M-65-0001	SCHEMATIC - VENTILATION AND AIR CONDITIONING SYSTEMS	PDF	A0	NTS		✓



## 4.0 Part L

The part L assessment thus far has been to compare this centre with other centres and the measures necessary to achieve Part L compliance. The approach on all other centre has been consistently

BE LEAN measures to reduce the dependence on energy by optimising the orientation, shading and fabric performance of the building.

BE MEAN utilise high efficiency plant and fittings to minimise energy consumption

BE GREEN when all the above measures are taken then the amount of green energy from photovoltaics or similar can be optimised to achieve the required carbon reductions at minimum expenditure

The calculations assume the following none MEP parameters are within the cost plan;

- Generally U-values are 20% lower than Part L 2013 allowances.
- Window U-values are 1.1 Centre panes, 1.5 overall.
- East, West, South facing glazing has either G Value of 0.4 or achieves the same via external solar shading.
- Input required regarding curtain wall system.
- Air permeability is 3 m<sup>3</sup>/m<sup>2</sup>/hr@50Pa
- Full metering and sub-metering throughout with separate metering for lighting and power

# 5.0 Information Required

## Stage 2 Information required schedules

Information required		From Who



## **Appendix A – BDP MEP Planning Deliverables**

DOCUMENT REFERENCE							MEP DELIVERABLES				COMMENTS						
Project	Originator	Zone	Level	Container	Role	Uniclass	Ref.	Document Number (Combined)		SCALE	PAPER SIZE	RIBA	STAGE 2 Lite	RIBA	STAGE 3 (TBC)	RIBA	STAGE 4 (TBC)
Externals																	
DLC	BDP	ZZ	ZZ	DR	MEP ZZ		0001	DLC-BDP- ZZ-ZZ-DR-MEP-ZZ-0001		1:500	A0		●		●		NARRATIVE ONLY STAGE 2
DLC	BDP	ZZ	ZZ	DR	E	70_80	0001	DLC-BDP- ZZ-ZZ-DR-E-70_80-0001		1:500	A0				●		
DLC	BDP	ZZ	ZZ	DR	E	75_40	0001	DLC-BDP- ZZ-ZZ-DR-E-75_40-0001		1:500	A0				●		
Combined Services Layouts																	
DLC	BDP	ZZ	-01	DR	MEP ZZ		0001	DLC-BDP- ZZ-01-DR-MEP-ZZ-0001		1:50	A1		●		●		SPATIAL ARRANGEMENT STAGE2
DLC	BDP	ZZ	00	DR	MEP ZZ		0001	DLC-BDP- ZZ-00-DR-MEP-ZZ-0001		1:50	A1		●		●		SPATIAL ARRANGEMENT STAGE2
DLC	BDP	ZZ	01	DR	MEP ZZ		0001	DLC-BDP- ZZ-01-DR-MEP-ZZ-0001		1:50	A1		●		●		SPATIAL ARRANGEMENT STAGE2
DLC	BDP	ZZ	02	DR	MEP ZZ		0001	DLC-BDP- ZZ-02-DR-MEP-ZZ-0001		1:50	A1		●		●		SPATIAL ARRANGEMENT STAGE2
DLC	BDP	ZZ	00	DR	MEP ZZ		0002	DLC-BDP- ZZ-00-DR-MEP-ZZ-0002		1:100	A1		●		●		
DLC	BDP	ZZ	01	DR	MEP ZZ		0002	DLC-BDP- ZZ-01-DR-MEP-ZZ-0002		1:100	A1		●		●		
BWIC																	
DLC	BDP	ZZ	00	DR	MEP ZZ		0001	DLC-BDP- ZZ-00-DR-MEP-ZZ-0001		1:100	A0				●		
DLC	BDP	ZZ	01	DR	MEP ZZ		0002	DLC-BDP- ZZ-01-DR-MEP-ZZ-0002		1:100	A0				●		
DLC	BDP	ZZ	02	DR	MEP ZZ		0003	DLC-BDP- ZZ-02-DR-MEP-ZZ-0003		1:100	A0				●		
50_30 - Drainage collection and distribution systems																	
DLC	BDP	ZZ	00	DR	P	50_30	0001	DLC-BDP- ZZ-00-DR-P-50_30-0001		1:100	A0			●			ABOVE GROUND DRAINAGE (FOUL ONLY)
DLC	BDP	ZZ	01	DR	P	50_30	0001	DLC-BDP- ZZ-01-DR-P-50_30-0001		1:100	A0			●			ABOVE GROUND DRAINAGE (FOUL ONLY)
DLC	BDP	ZZ	ZZ	DR	P	50_30	0001	DLC-BDP- ZZ-ZZ-DR-P-50_30-0001		NTS	A0				●		ABOVE GROUND DRAINAGE (FOUL ONLY)
55_20 - Gas distribution and supply systems																	
DLC	BDP	ZZ	ZZ	DR	P	55-20	0001	DLC-BDP- ZZ-ZZ-DR-P-55-20-0001		445	40		+		+		
55_70 - Water distribution and supply systems																	
DLC	BDP	ZZ	00	DR	P	55_70	0001	DLC-BDP- ZZ-00-DR-P-55_70-0001		1:100	A0				●		
DLC	BDP	ZZ	01	DR	P	55_70	0001	DLC-BDP- ZZ-01-DR-P-55_70-0001		1:100	A0				●		
DLC	BDP	ZZ	ZZ	DR	P	55_70	0001	DLC-BDP- ZZ-ZZ-DR-P-55_70-0001		NTS	A0				●		
60 - Heating, cooling and refrigeration systems																	
DLC	BDP	ZZ	00	DR	M	60	0001	DLC-BDP- ZZ-00-DR-M-60-0001		1:100	A0			●			ZONAL LAYOUTS STAGE 2
DLC	BDP	ZZ	01	DR	M	60	0001	DLC-BDP- ZZ-01-DR-M-60-0001		1:100	A0			●			ZONAL LAYOUTS STAGE 2
DLC	BDP	ZZ	ZZ	DR	M	60	0001	DLC-BDP- ZZ-ZZ-DR-M-60-0001		NTS	A0		●		●		
65 - Ventilation and air conditioning systems																	
DLC	BDP	ZZ	00	DR	M	65	0001	DLC-BDP- ZZ-00-DR-M-65-0001		1:100	A0				●		ZONAL LAYOUTS STAGE 2
DLC	BDP	ZZ	01	DR	M	65	0001	DLC-BDP- ZZ-01-DR-M-65-0001		1:100	A0				●		ZONAL LAYOUTS STAGE 2
DLC	BDP	ZZ	ZZ	DR	M	65	0001	DLC-BDP- ZZ-ZZ-DR-M-65-0001		NTS	A0				●		
70_30 - Electricity distribution and transmission systems																	
DLC	BDP	ZZ	00	DR	E	70_30	0001	DLC-BDP- ZZ-00-DR-E-70_30-0001		1:100	A0				●		
DLC	BDP	ZZ	01	DR	E	70_30	0001	DLC-BDP- ZZ-01-DR-E-70_30-0001		1:100	A0				●		
DLC	BDP	ZZ	ZZ	DR	E	70_30	0001	DLC-BDP- ZZ-ZZ-DR-E-70_30-0001		NTS	A0		●		●		
70_30_80 - Small power systems																	
DLC	BDP	ZZ	00	DR	E	70_30_80	0001	DLC-BDP- ZZ-00-DR-E-70_30_80-0001		1:50	A0				●		
DLC	BDP	ZZ	00	DR	E	70_30_80	0002	DLC-BDP- ZZ-00-DR-E-70_30_80-0002		1:50	A0				●		
DLC	BDP	ZZ	01	DR	E	70_30_80	0001	DLC-BDP- ZZ-01-DR-E-70_30_80-0001		1:50	A0				●		
DLC	BDP	ZZ	01	DR	E	70_30_80	0002	DLC-BDP- ZZ-01-DR-E-70_30_80-0002		1:50	A0				●		
70_80 - Lighting systems																	
DLC	BDP	ZZ	00	DR	E	70_80	0001	DLC-BDP- ZZ-00-DR-E-70_80-0001		1:100	A0				●		ZONAL LAYOUTS STAGE 3
DLC	BDP	ZZ	01	DR	E	70_80	0001	DLC-BDP- ZZ-01-DR-E-70_80-0001		1:100	A0				●		ZONAL LAYOUTS STAGE 3
75_10 - Communications systems																	
DLC	BDP	ZZ	ZZ	DR	E	75_10	0001	DLC-BDP- ZZ-ZZ-DR-E-75_10-0001		NTS	A1				●		
DLC	BDP	ZZ	ZZ	DR	E	75_10_68_68	0001	DLC-BDP- ZZ-ZZ-DR-E-75_10_68_68-0001		NTS	A1				●		
DLC	BDP	ZZ	ZZ	DR	E	75_10_68_68	0001	DLC-BDP- ZZ-ZZ-DR-E-75_10_68_68-0001		NTS	A1				●		
DLC	BDP	ZZ	ZZ	DR	E	75_10_68_68	0001	DLC-BDP- ZZ-ZZ-DR-E-75_10_68_68-0001		NTS	A1				●		



DOCUMENT REFERENCE						MEP DELIVERABLES				COMMENTS					
Project	Originator	Zone	Level	Container	Role	Unitclass	Ref.	Document Number (Combined)		SCALE	PAPER SIZE	RIBA STAGE 2 Lite	RIBA STAGE 3 (TBC)	RIBA STAGE 4 (TBC)	COMMENTS
75_40 - Security systems															
DLC	BDP	ZZ	00	DR	E	75_40	0001	DLC-BDP-	ZZ-00-DR-E-75_40-0001	LEVEL 00 - SECURITY SYSTEMS		1:100	A0	•	ZONAL LAYOUTS STAGE 3
DLC	BDP	ZZ	01	DR	E	75_40	0001	DLC-BDP-	ZZ-01-DR-E-75_40-0001	LEVEL 01 - SECURITY SYSTEMS		1:100	A0	•	ZONAL LAYOUTS STAGE 3
DLC	BDP	ZZ	ZZ	DR	E	75_40_02	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_40_02-0001	SCHEMATIC - ACCESS CONTROL SYSTEMS		NTS	A1	•	
DLC	BDP	ZZ	ZZ	DR	E	75_40_53_86	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_40_53_86-0001	SCHEMATIC - SURVEILLANCE SYSTEMS (CCTV)		NTS	A1	•	
DLC	BDP	ZZ	ZZ	DR	E	75_40_75_40	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_40_75_40-0001	SCHEMATIC - INTRUDER DETECTION AND ALARM SYSTEMS		NTS	A1	•	
75_50 - Communication, safety and protection systems															
DLC	BDP	ZZ	ZZ	DR	E	75_50_11_05	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_50_11_05-0001	SCHEMATIC - ASSISTANCE CALL SYSTEMS (INC. POOL ALARM)		NTS	A1	•	
DLC	BDP	ZZ	ZZ	DR	E	75_50_11_27	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_50_11_27-0001	SCHEMATIC - EMERGENCY VOICE COMMUNICATION SYSTEMS		NTS	A1	•	
75_50_28_29 - Fire detection and alarm systems															
DLC	BDP	ZZ	00	DR	E	75_50_28_29	0001	DLC-BDP-	ZZ-00-DR-E-75_50_28_29-0001	LEVEL 00 - FIRE DETECTION AND ALARM SYSTEMS		1:100	A0	•	ZONAL LAYOUTS STAGE 3
DLC	BDP	ZZ	00	DR	E	75_50_28_29	0002	DLC-BDP-	ZZ-00-DR-E-75_50_28_29-0002	LEVEL 00 - FIRE DETECTION AND ALARM SYSTEMS		1:100	A0	•	
DLC	BDP	ZZ	01	DR	E	75_50_28_29	0001	DLC-BDP-	ZZ-01-DR-E-75_50_28_29-0001	LEVEL 01 - FIRE DETECTION AND ALARM SYSTEMS		1:100	A0	•	ZONAL LAYOUTS STAGE 3
DLC	BDP	ZZ	01	DR	E	75_50_28_29	0002	DLC-BDP-	ZZ-01-DR-E-75_50_28_29-0002	LEVEL 01 - FIRE DETECTION AND ALARM SYSTEMS		1:100	A0	•	
DLC	BDP	ZZ	ZZ	DR	E	75_50_28_29	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_50_28_29-0001	SCHEMATIC - FIRE DETECTION AND ALARM SYSTEMS		NTS	A1	•	
75_80 - Protection systems															
DLC	BDP	ZZ	ZZ	DR	E	75_80_45_25	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_80_45_25-0001	SCHEMATIC - EARTHING & BONDING SYSTEMS		NTS	A1	•	
DLC	BDP	ZZ	ZZ	DR	E	75_80_45_45	0001	DLC-BDP-	ZZ-ZZ-DR-E-75_80_45_45-0001	LIGHTNING PROTECTION SYSTEMS		1:100	A1	•	
Reports															
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0001	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0001	MEP DELIVERABLES SCHEDULE		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0002	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0002	KEY STAGE REPORT		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0003	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0003	ENERGY STRATEGY REPORT		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0004	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0004	DESIGNERS RISK ASSESSMENT		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0005	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0005	ACCESS AND MAINTENANCE REPORT		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0006	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0006	ACoustics REPORT		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0007	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0007	ROOM DATA SHEETS		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SP	MEP	ZZ	0008	DLC-BDP-	ZZ-ZZ-SP-MEP-ZZ-0008	OUTLINE MEP SPECIFICATION		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SP	MEP	ZZ	0009	DLC-BDP-	ZZ-ZZ-SP-MEP-ZZ-0009	OUTLINE BMS SPECIFICATION		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SP	MEP	ZZ	0010	DLC-BDP-	ZZ-ZZ-SP-MEP-ZZ-0010	ELECTRICAL WORKMANSHIP SPECIFICATION		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SP	MEP	ZZ	0011	DLC-BDP-	ZZ-ZZ-SP-MEP-ZZ-0011	MECHANICAL WORKMANSHIP SPECIFICATION		Doc.	A4	•	•
Planning reports															
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0013	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0013	FMED PLANT NOISE ASSESSMENT		Doc.	A4		
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0014	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0014	UTILITIES ASSESSMENT PLANNING STATEMENT		Doc.	A4		
DLC	BDP	ZZ	ZZ	RP	MEP	ZZ	0015	DLC-BDP-	ZZ-ZZ-RP-MEP-ZZ-0015	LIGHTING STRATEGY		Doc.	A4		
Schedules															
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0001	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0001	SCHEDULE OF MAJOR PLANT		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0002	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0002	AIR HANDLING UNIT SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0003	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0003	SILENCERS SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0004	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0004	FAN SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0005	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0005	FIRE DAMPER SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0006	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0006	GRILLE SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0007	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0007	VRV UNITS SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0008	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0008	CHW SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0009	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0009	OVERDOOR HEATER SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0010	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0010	RADIATOR SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0011	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0011	UNDERFLOOR HEATING SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0012	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0012	PLATE HEAT EXCHANGER SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0013	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0013	GAS CONDENSING BOILER SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0014	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0014	HEATING PUMPS SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0015	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0015	PRESSURISATION UNIT SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0016	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0016	DHW TANK SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0017	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0017	DHW CALORIFIERS SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0018	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0018	DHW GAS FIRED BOILER SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0019	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0019	DHW PUMP SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0020	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0020	ELECTRICAL EQUIPMENT SCHEDULE		Doc.	A4	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0021	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0021	LUMINAIRE SCHEDULE		Doc.	A3	•	•
DLC	BDP	ZZ	ZZ	SH	MEP	ZZ	0022	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0022	EXTERNAL LUMINAIRE SCHEDULE		Doc.	A3	•	•

DOCUMENT REFERENCE							MEP DELIVERABLES				PAPER SIZE	RIBA STAGE 2 Lite	RIBA STAGE 3 (TBC)	RIBA STAGE 4 (TBC)	COMMENTS
Project	Originator	Zone	Level	Container	Role	Unitclass	Ref.	Document Number (Combined)							
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0023	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0023	HOT WATER RETURN VALVE SCHEDULE					
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0024	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0024	GAS METER SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0025	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0025	GAS SAFETY PANEL SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0026	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0026	ABOVE GROUND DRAINAGE CONNECTIONS SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0027	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0027	WATER METERS SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0028	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0028	REDUCED PRESSURE ZONE VALVE SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0029	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0029	THERMOSTATIC MIXING VALVE SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0030	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0030	SUBMAIN CABLE SCHEDULE				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0031	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0031	DISTRIBUTION BOARD SCHEDULES				•	
DLC	BDP	ZZ	ZZ	SH	MEP/ZZ		0032	DLC-BDP-	ZZ-ZZ-SH-MEP-ZZ-0032	FIRE ALARM CAUSE & EFFECT				•	



## Appendix B – Basis of design

GT 3 Architectural Layouts –

- 15042- SK(020) – Ground and First Floors, As Proposed
- 15042- SK(021) – Site Plan, As Proposed
- Area Schedule

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DO NOT SCALE FROM THIS DRAWING.

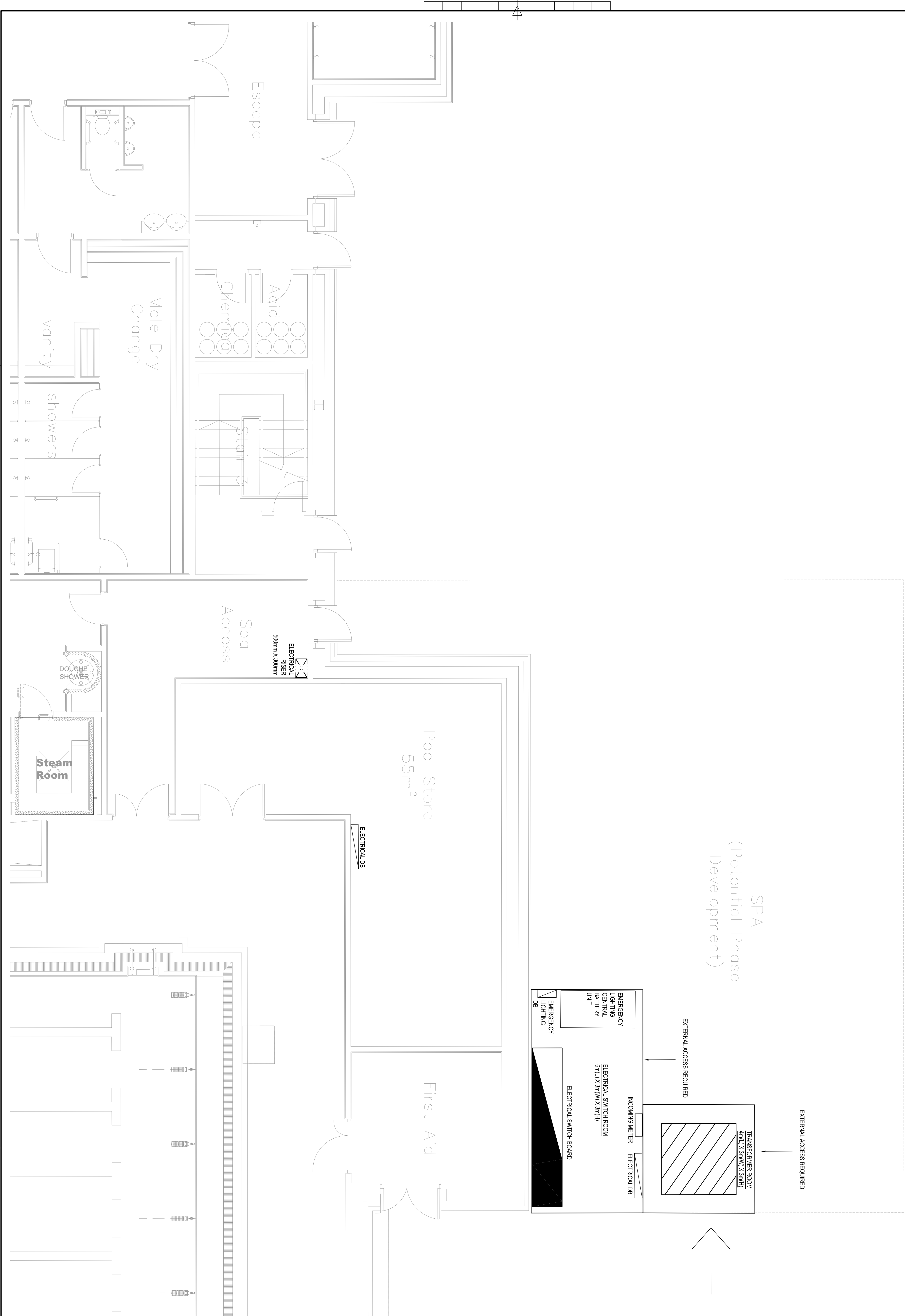
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NOTES

DRAWING TITLE		SCALE	DATE
WHITEFIELD LEISURE CENTRE		@ A1	
MEP SERVICES		1:50	
COMBINED SERVICE PLANT RM			
LEVEL - 00			08.06.16
PROJECT NUMBER	PROJECT NAME	PROJECT NO.	PROJECT DATE
P2007256	DLG-BDP-ZZ-00-RA-MEP-ZZ-0001	P1	

11 Duke Street  
P.O. Box 55, Piccadilly Basin  
Manchester, M60 3JA  
United Kingdom  
T +44 (0)161 626 2200  
F +44 (0)161 626 2235  
www.bdp.com

BDP.



DL - FOR COSING AA AM 08.06.16

REVISIONS (DATE/NO) DRAWN CHECKED DATE

1/00



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NOTES

LEGEND:

- VENTILATION
- WINDCATERER
- RIBBER
- CONTAINMENT
- ELECTRICAL DB

B.D.P. CONSULTING		AA	AM	08.06.16
PROJECT DESCRIPTION		DRAWN	CHECKED	SHEET
TITLE		DATE		
DATE		DATE		

11 Duke Street  
P.O. Box 65, Piccadilly Station  
Manchester, M60 3JA  
United Kingdom  
T +44 (0)161 625 2200  
F +44 (0)161 625 2235  
www.bdp.com

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WHITEFIELD LEISURE CENTRE		DATE	08.06.16
MEP SERVICES		SCALE	@ A1
COMBINED SERVICE ROUTE		DATE	1:50
LEVEL - 00		DATE	08.06.16
PROJECT NUMBER		PROJECT NAME	P1
P2007266		DLC-BDP-ZZ-00-DR-MEP-ZZ-0002	





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## NOTES

## NOTES

**LEGEND:**

VENTILATION

WINDCATERER

 RISER

CONTAINMENT

☐ A

— PREFERRED VENTILATION OPTION  
BASED ON LOW LEVEL SLOT  
DIFFUSERS. (MENERGA OF SIMILAR  
SECONDARY OPTION OF HIGH LEVEL  
FABRIC DUCTS.

OPTIONAL AHU DEPENDANT UPON  
VISABILITY OF WINDCATERER SOLUTION

WET PLANT, BOILERS, CHLORIFIERS, CHLORINATORS & ANGLARIES

REFER TO PLANT WELL DRAWING

WINDLOCATORS (3x185 SAQUARE —  
NATIONALLY 1200 x 1200 SHOWN AND  
PRESENT)

— ADDED TO STUDIO AUU

11 Duke Street  
P.O. Box 85, Piccadilly Basin  
Manchester M60 3JA  
United Kingdom  
T +44 (0)161 828 2200  
F +44 (0)161 828 2235  
[www.dhpc.com](http://www.dhpc.com)

**BDP**

~~WHITEFIELD LEISURE CENTRE~~

OWEN'S TEST	SCAF	@ A
MEP SERVICES COMBINED SERVICES ROUTE LEVEL - 01	1:50	
	DATE	08.06.16

P2007256	DLC-BDP-ZZ-01-DR-MEP-ZZ-0002	P1
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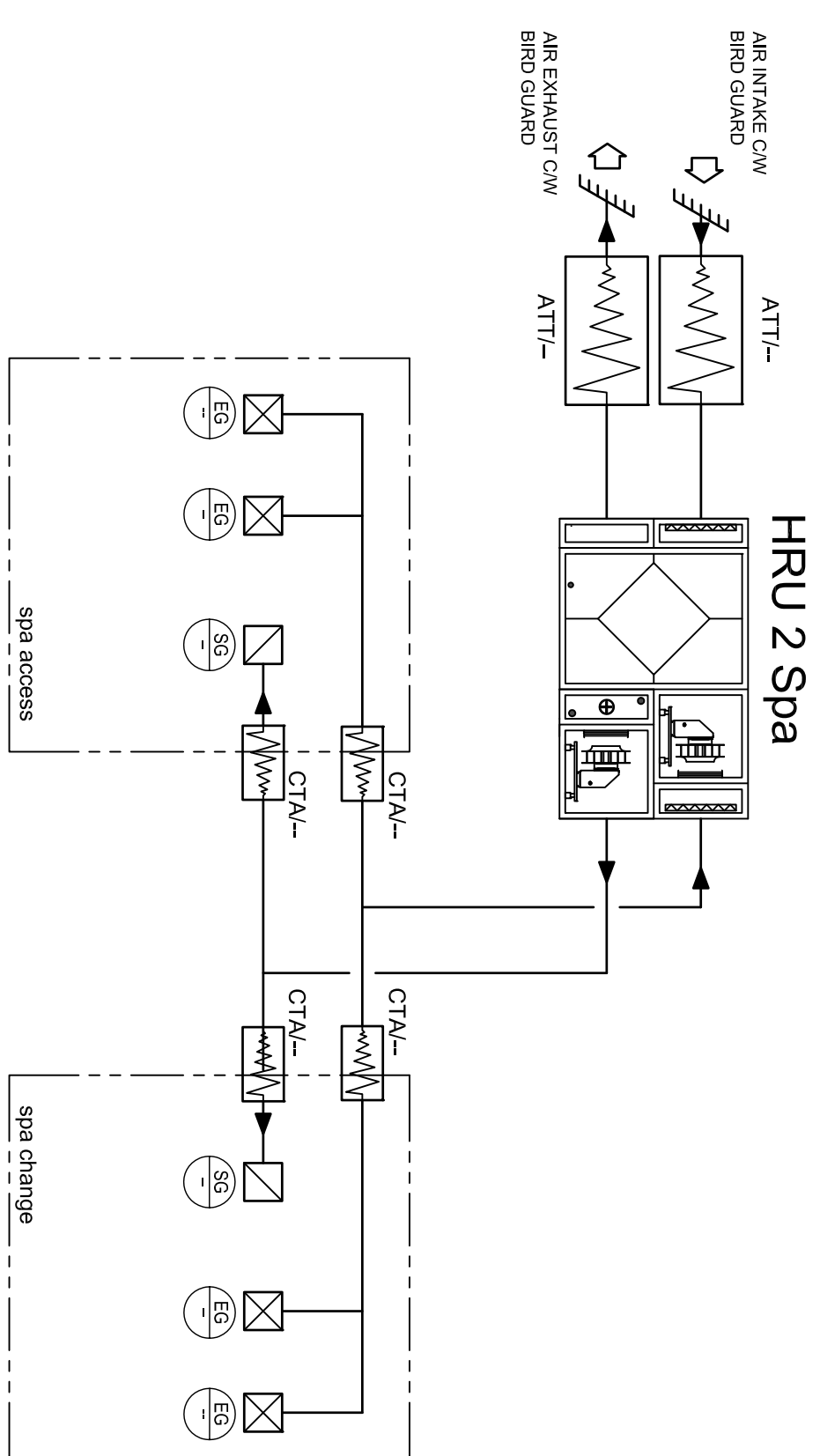
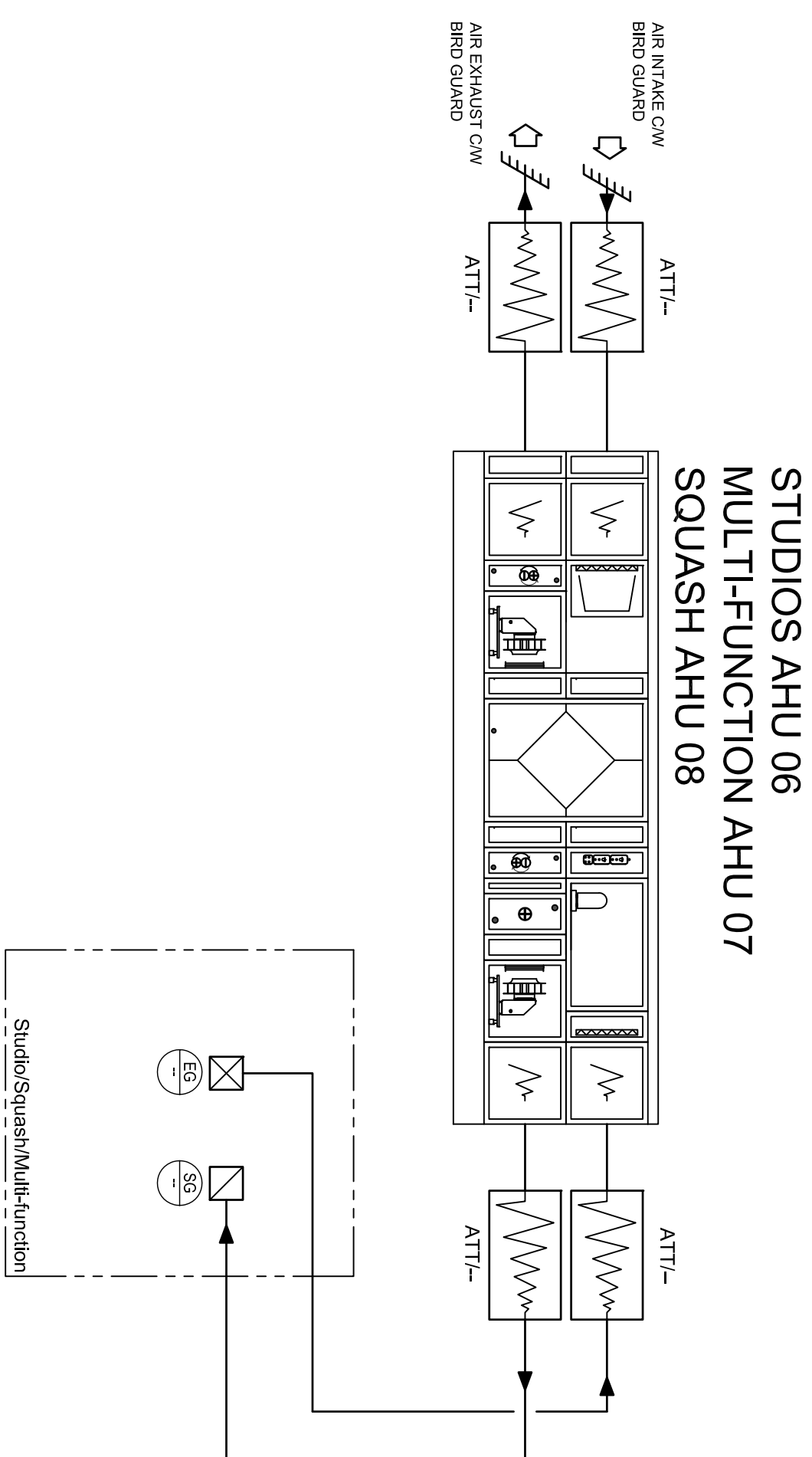
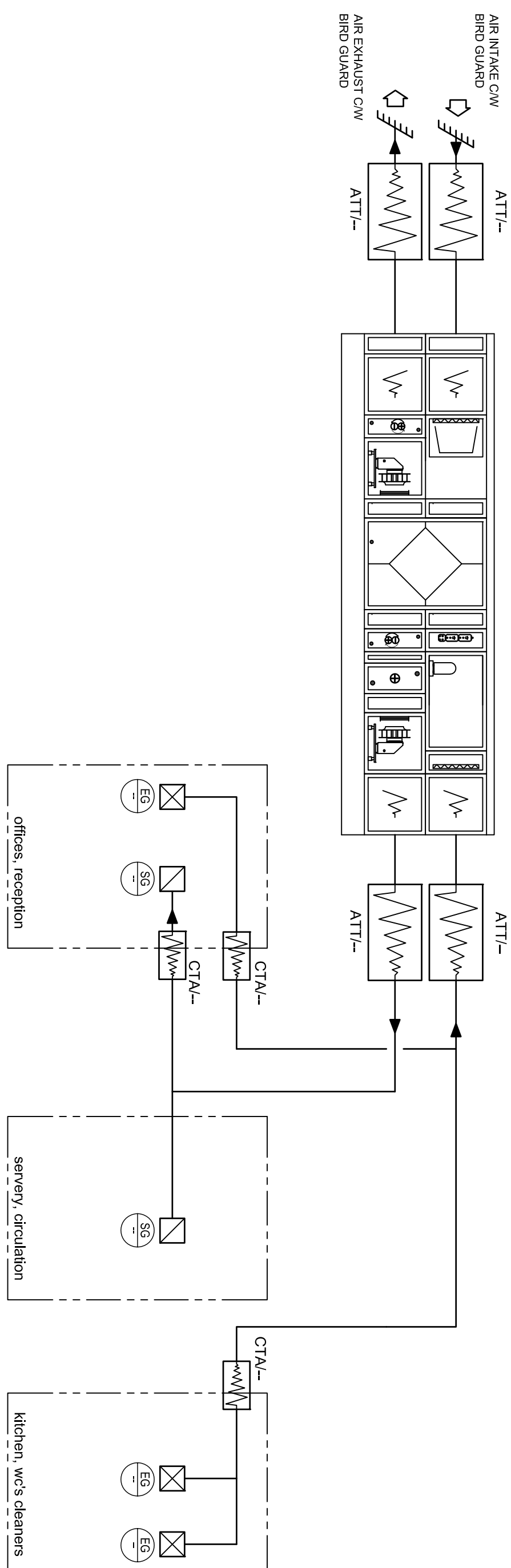
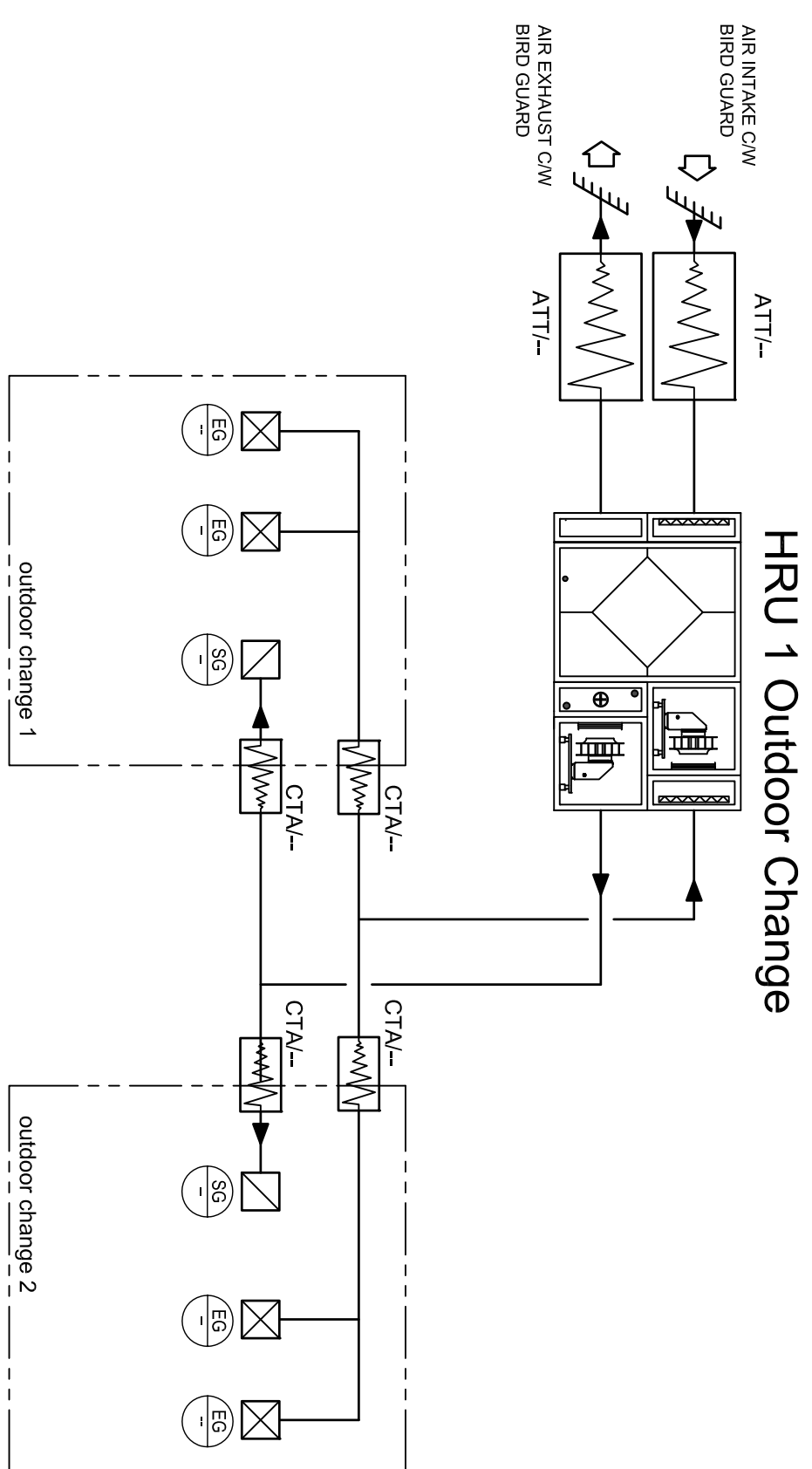
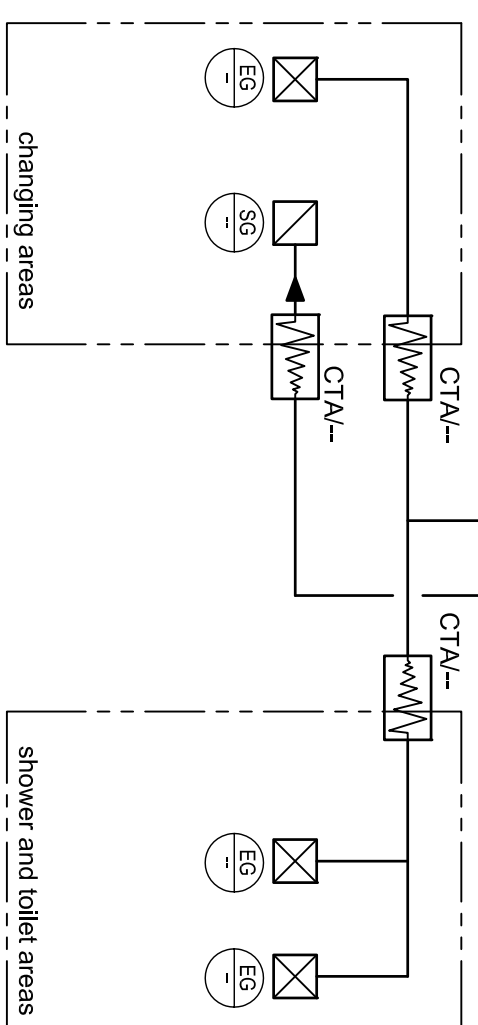
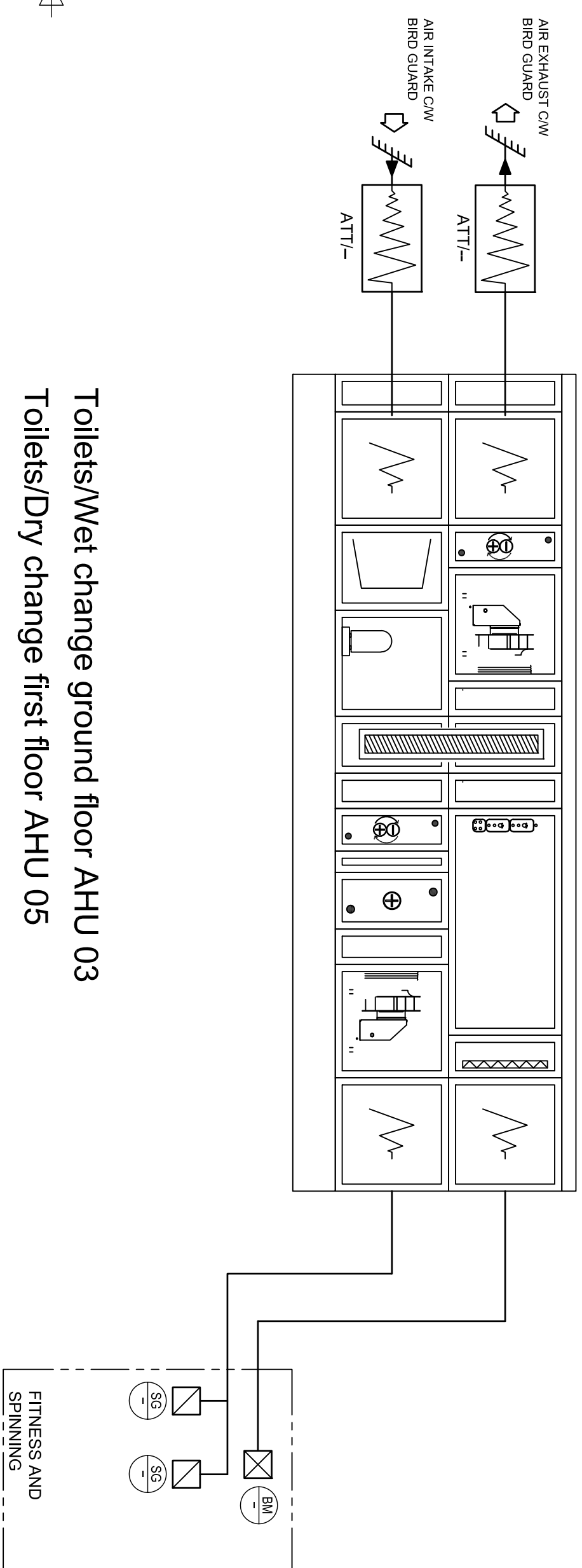
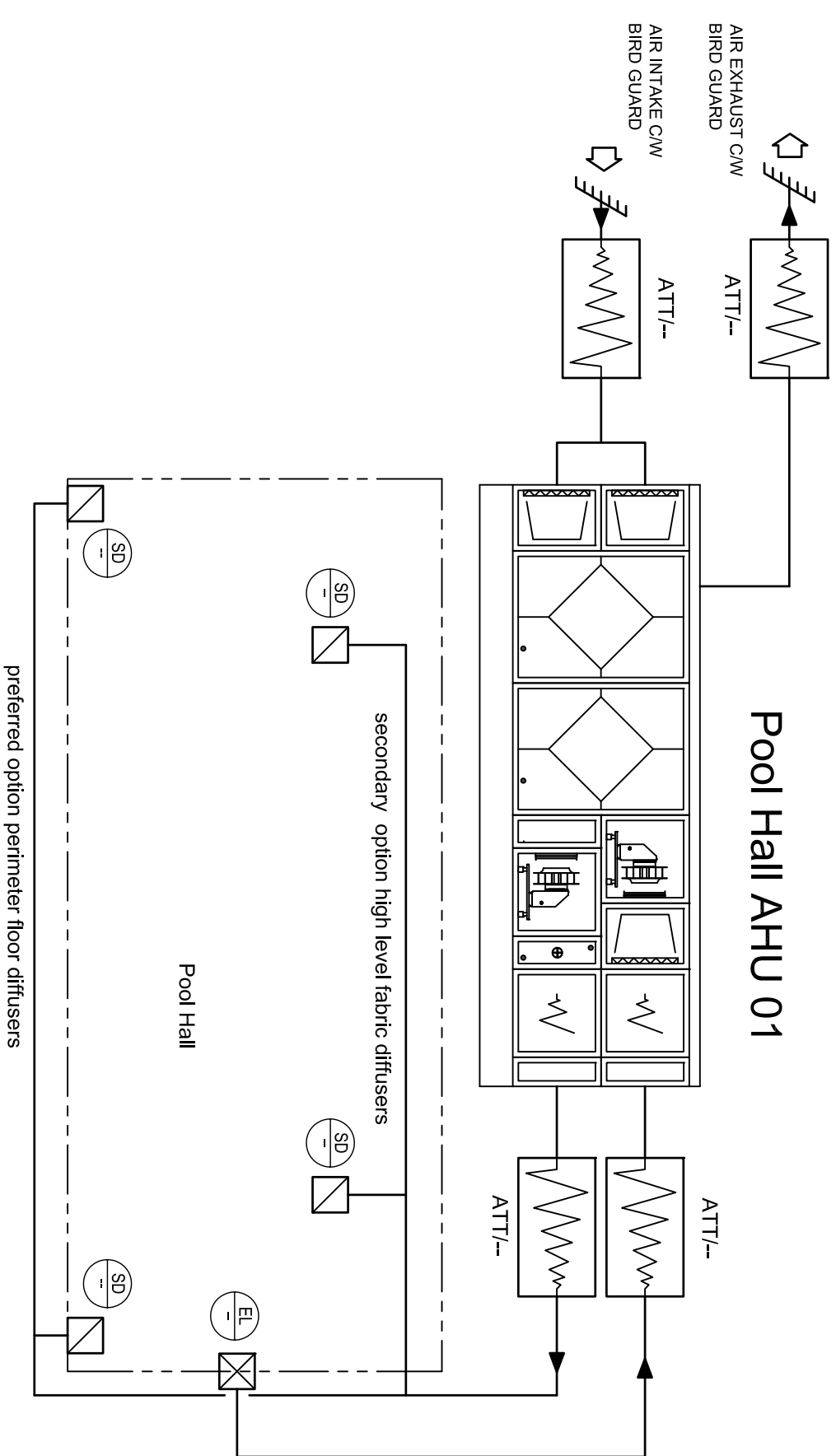






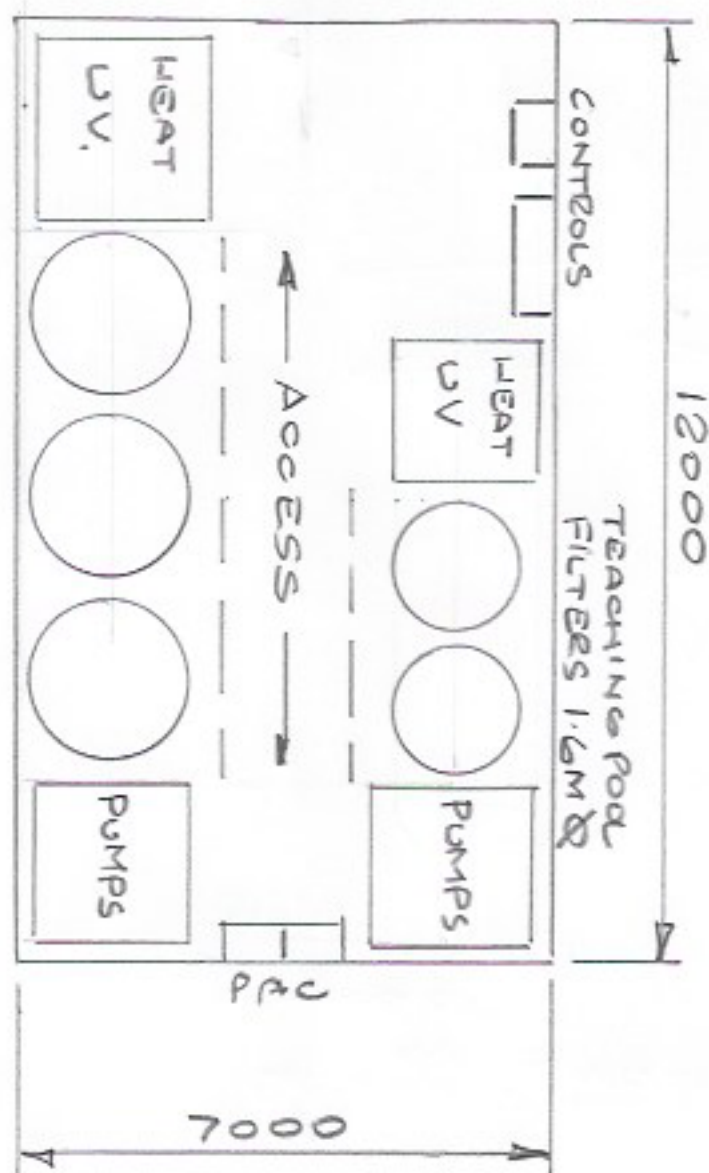






1. THE CONTRACTOR SHALL INSTALL SUFFICIENT VOLUME CONTROL DAMPERS TO PERMIT ALL SYSTEMS TO BE FULLY BALANCED AND COMMISSIONED IN ACCORDANCE WITH RELEVANT PUBLICATIONS BY BSI&A AND CIBSE.
2. ALL DUCTWORK TO BE INSULATED WHERE THE DUCT IS EXTERNAL. THEN THE INSULATION SHALL BE WEATHERPROOFED WITH A SYSTEM THAT IS NOT SUSCEPTIBLE TO EITHER VERMIN OR SEAGULLS/BIRDS.
3. EXTERNAL AIR HANDLING UNITS SHALL BE PROVIDED WITH ROOFS AND WITH ROP-PRO OR SIMILAR RATED ACCESS SYSTEM FOR ROOF MAINTENANCE.
4. WHERE POSSIBLE AIR INTAKES AND AIR DISCHARGES SHALL BE SEPARATED BY AT LEAST 10M. AIR INTAKES SHALL BE AT LEAST 20M FROM EXTERNAL POLLUTION SOURCES (CARs, FLUES, ETC).
5. DUCTWORK SHALL BE FIRE RATED WHERE IT PASSES THROUGH FIRE ESCAPE ROUTES.
6. POOL HALL VENTILATIONS TO BE TREATED INTERNALLY AND EXTERNALLY TO REDUCE THE RISK OF CORROSION FROM THE POOL ENVIRONMENT.
7. ALL AIR HANDLING PLANT SHALL CONFORM TO THE LATEST ENE DIRECTIVE AND MEET THE FUTURE 2018 REQUIREMENTS AS A MINIMUM.

P1	FIRST ISSUE	AM	SM	16.06.16
K9202941/063267703				
		DPY:NM	CHIC:GD	DATE
K27/PLM				



SLOUGH LEISURE CENTRE  
FILTRATION PLANT ROOM  
SLOU - 01



Whitefield Leisure Centre

Schedule of Major Plant

265

Job No: P2007256  
Doc No: WLC-BDP-ZZ-ZZ-SH-MEP-ZZ-0001  
Issue: Stage 2 lite  
Rev: P01  
Date: 08 June 2016



Issue Status

Revision	Description	Issued by	Date	Checked
P01	Stage 2 Issue	AM	08-06-2016	SM



## Schedule of Major M+E Plant Items

Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
Rainwater harvesting tank  15,000 litres [requires assessment from BREEAM calculator to determine final capacity]  May be a Sport England funding requirement	1.8m dia x 8m	1 No.	Monsoon or equivalent	External buried	One piece moulded tank with access manholes for inspection, inlet chamber with filter, weir and discharge chamber complete with suction connection and all level controls
Rainwater filter unit and tank	1.5m x 1.5m x 1.2m	1 No.	Monsoon or equivalent	External buried	One piece tank with access chamber enclosing a leaf filter unit
Rainwater booster set and control panel	TBC	1 No	Monsoon or equivalent	Basement plantroom	Sufficient to supply all toilet flush cisterns
Sump pumps		1 No.?		Basement plantroom	Depending on invert levels but expect at least the basement should have a sump pump. Possible that the buried rainwater and backwash tanks will need sump pumps externally
Mains cold feed into the building using protectaline or similar barrier pipe				Buried boundary to basement	Unknown ground condition will require barrier pipe unless there is some assessment that mains will remain potable
Main Cold Water Storage Tank.  4,000 litres	2.0m x 1.5m x 1.5m high	1 No.	Nicholson plastics	Basement Plantroom	GRP sectional divided tank with ball valve housings screened warning pipe and overflow, low level alarm. Tanks shall comply with Water Supply Regulations and Amendment 1999, BS EN 13280.  Tank mounted on frame over cold water booster set.
Main Cold water booster set.	Flow rate: TBC	1 set.	Grundfos/ Pressmain	Basement plantroom	Three inverter driven pumps - duty, assist, standby, skid mounted with control panel.  Change over on run and standby pumps, variable speed driven pumps to meet safety requirements of BS EN 61800-5-1, integral controls and suitable for BMS link. Pumps manufactured and tested in accordance with BS EN 809, BS EN 60335-2-41
Cat 5 booster set and break tank	1.1 l/s at 2.7 bar	1 set	Arrow boost-a-break	Basement plantroom	Serves all hose bib taps
Water conditioning unit	1.5l/s	2no.	Hydromag	Basement plantroom	To serve the Heating and hot water generation units with treated water to prevent scale formation
Hot Water storage vessel + plate heat exchanger	4000 litres/ 1350 dia 3050 high  900 x 450 x 1800 high PHE	1No storage vessel  1 No PHE	Ormandy – Rycroft/ CHWL	First floor Plantroom	Pre-Insulated stainless steel cylinder with plate heat exchanger capable of 1 hour recovery

Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
Gas fired, high efficiency condensing boilers	850 kW(TBC)/ 750 w x 2200 deep x 2100 high	2 No. each at 66% duty	Remeha / EvoMod modular boilers	First floor Plantroom	
Gas CHP	70 kWe / 109 KW (Thermal) 3300 x 1200 x 2400high	1 No.	EnerG/ Hoval Powerbloc	First floor Plantroom	Note alternative option for 2 No. SAV loadtracker units
Air Source Heat Pump – VRF Outdoor Unit	118 KW Cooling(TBC) 61 KW Heating(TBC) 4300 x 760 x 1710 high	1 No.	Mitsubishi/ Daikin	2 <sup>nd</sup> Floor Roof Plant well	Serving Fitness suite
Air Source Heat Recovery – VRF Outdoor Unit	69 KW Cooling(TBC) 75 KW Heating(TBC) 3100 x 760 x 1710 high	1 No.	Mitsubishi/ Daikin	2 <sup>nd</sup> Floor Roof Plant well	Serving studio 1 & 2, multi-function space and general office areas
Power Inverter Heat Pump – wall mount split system	4.5 KW Cooling(TBC) 0.5 KW Heating(TBC)	2 No.	Mitsubishi/ Daikin	2 <sup>nd</sup> Floor Roof Plant well	Serving comms room on duty and standby
LTHW - Packaged pressurisation unit and expansion vessel with control system.	TBC	1 No.	TBC	First floor Plantroom	c/w expansion vessels, integral control panel and twin pumps. Heating circuits.
CHP - Packaged pressurisation unit and expansion vessel with control system.	TBC	1 No.	TBC	First floor Plantroom	c/w expansion vessels, integral control panel and twin pumps. Heating circuits.
CHP – LTHW Buffer Vessels	2000 litres(TBC)	1 No.	TBC	First floor Plantroom	
CHP- heat rejection unit	110kW 1200 x 1200 x 1300 high	1 No.	TBC	2 <sup>nd</sup> Floor Roof Plant well	
Underfloor heating in the Leisure Centre	Size TBC	TBC	TBC	Ground Floor	Serves sports hall, general circulation, changing areas, pool surround
Primary HTG pumps to serve gas fired boilers	Size TBC	2 No. single head inverter driven	TBC	First floor plantroom	Single head pumps c/w variable speed drives



Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
Primary HTG pumps to serve CHP	Size TBC	1No.single head inverter driven	TBC	First floor plantroom	Single head pumps c/w variable speed drives
Secondary HTG pumps to serve CHP	Size TBC	2No.single head inverter driven	TBC	First floor plantroom	Single head pumps c/w variable speed drives to serve plate heat exchanger (domestic hot water system) plate heat exchanger (return LTHW heating circuit)
CT HTG pumps for AHU's	Size TBC	1 No. Twin Head, Inverter driven	TBC	First floor plantroom	Variable speed pump with remote variable speed drive. Pumps manufactured and tested in accordance with BS EN 809, BS EN 60335-2-41
CT HTG pumps for Pool	Size TBC	1 No. Twin Head, Inverter driven	TBC	First floor plantroom	Variable speed pump with remote variable speed drive. Pumps manufactured and tested in accordance with BS EN 809, BS EN 60335-2-41
VT HTG pumps for underfloor heated areas.	Size TBC	1 No. Twin Head, Inverter driven	TBC	First floor plantroom	Variable speed pumps with remote variable speed drive. Pumps manufactured and tested in accordance with BS EN 809, BS EN 60335-2-41
Fan Coil Units to serve Fitness studio	10 KW (Cooling) TBC	Approx 12No	TBC	Local to Room	Final quantity to be confirmed
Fan Coil Units to serve studios	4 KW (Cooling) TBC	Approx 6No	TBC	Local to Room	Final quantity to be confirmed
Fan Coil Units to serve multi-function suite	4 KW (Cooling) TBC	Approx 2No	TBC	Local to Room	Final quantity to be confirmed
Fan Coil Units to serve offices	3.2 KW (Cooling) TBC	Approx 6No	TBC	Local to Room	Final quantity to be confirmed
Wall Mounted DX Split to serve comms room	4.5 KW (Cooling) TBC	2No (duty/ standby)	TBC	Local to Room	Final quantity to be confirmed
AHU 02- Pool Hall	8.4 m3/s Supply + 8.4 m3/s Extract @ 300 pa (c/w heat recovery Plate Heat exchange, bag filters, heating coil + Inverter driven fans, mixing box	1 No.	Recotherm	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998 Units to be suitable for pool chlorine environment
AHU 09- Fitness suite	2.7 m3/s Supply + 2.1 m3/s Extract @ 350 pa: frost coil, heat recovery unit c/w heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), Inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998

Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
AHU 04 - Changing Village, Pool Store, Toilets, Dry change & Viewing Area/Corridor	7.4 m3/s Supply + 7.4 m3/s Extract @ 350 pa: frost coil, heat recovery unit c/w heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), Inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998
AHU 01- Café, general office, circulation ground floor	0.2 m3/s Supply + 0.2 m3/s Extract @ 350 pa c/w frost coil, heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998
AHU 10 - Studios	1.3 m3/s Supply + 1.3 m3/s Extract @ 350 pa c/w frost coil, heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998
AHU 07- Multi-function suite	0.25 m3/s Supply + 0.25 m3/s Extract @ 350 pa c/w frost coil, heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998
AHU 05- Squash courts	1.3 m3/s Supply + 1.3 m3/s Extract @ 350 pa c/w frost coil, heat recovery unit thermal wheel, bag filters, heating coil + integral dx cooling coil (heat pump system), inverter driven fans (Heating 70F 50R).	1 No.	Air source (Tempair)	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Channel base frame to be 300mm high. Re-circulation box required. Units shall be suitable for external mounting, c/w AV mounts external to unit. Air Handling Units shall be to BS EN 1886: 1998



Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
HRU 01- Outdoor change	0.8 m3/s Supply + 0.8 m3/s Extract @ 200 pa c/w frost coil, heat recovery unit PHE, bag filters, heating coil , inverter driven fans (Heating 70F 50R).	1 No.	Air source	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Unit suitable for installation in ceiling void. Air Handling Units shall be to BS EN 1886: 1998
HRU 02- Spa	1.58 m3/s Supply + 1.58 m3/s Extract @ 200 pa c/w frost coil, heat recovery unit PHE, bag filters, heating coil , inverter driven fans (Heating 70F 50R).	1 No.	Air source	2 <sup>nd</sup> Floor External Roof Plantroom	Motorised dampers. Filters to be F7. Unit suitable for installation in ceiling void. Air Handling Units shall be to BS EN 1886: 1998
Monodraught/ windcatcher	1.5 ach-1	6 No	Monodraught	Sports hall roof	Natural ventilation to sports hall, volumes, size and number of windcatchers yet to be assessed
Plate heat exchangers for CHP serving LTHW circuits	Size TBC	1 No.	HRS	First floor plantroom	
Overdoor Heaters	TBC	1 No.	Biddle	Main Ground Doors	Electric sourced unit.
Gas meter/governor kiosk	1100kW circa 1000 x 600 x 1200 high	1No	British Gas	Site boundary	Utility and shipper supply items
Transformer / HV Switchgear	TBC by appointed Sub-contractor.	1 No	UKPN preferred supplier / manufacturer.	Site boundary	Sub-station to be owned and operated by UK Power Network (UKPN).
Main LV switchboard with Transient Surge Protection and Automatic Power Factor Correction.	Form 3b, Type 2	1 No.	Schneider Electric.	Ground Floor Plantroom	M&E Contractor to nominate preferred manufacturer
Emergency lighting cubicle	5kVA	1 No	Eton Cooper	Ground Floor Plantroom	M&E Contractor to nominate preferred manufacturer
MCB Boards	Type B	As required	Schneider Electric.	Plantrooms, Switch Cupboards and Store Rooms	M&E Contractor to nominate preferred manufacturer
Mechanical Control Panel basement floor	TBC	As required	BMS contractor to name preferred supplier	Plant Rooms	M&E Contractor to nominate preferred manufacturer
Mechanical Control Panel first floor	TBC	As required	BMS contractor to name preferred supplier	Plant Rooms	M&E Contractor to nominate preferred manufacturer
Mechanical Control Panel roof	TBC	As required AHU and roof plant	BMS contractor to name preferred supplier	Plant Rooms	M&E Contractor to nominate preferred manufacturer

Plant Item/ Specification	Load / Duty / Capacity/Size	Quantity	Manufacturer Preliminary design based on	Location	Comments
Mechanical Control Panel roof	TBC	As required Condenser plant	BMS contractor to name preferred supplier	Plant Rooms	M&E Contractor to nominate preferred manufacturer
Comms Cabinet	TBC	01-02	Excel Networking	Dedicated Comms room	M&E Contractor to nominate preferred manufacturer

**ALL SPECIALIST POOL PROCESS PLANT TO BE DETAILED, SELECTED AND SIZED BY OTHERS but note requirement for large external attenuation tank for backwash circa 15m3-17m3.**

Excludes :-  
External irrigation for sports pitches  
Commercial Kitchen Extract Fan : assumed to be reheat facility only  
Sports Hall Air Handling Unit : Assumes wind catch solution is viable.



## Appendix 4 – BREEAM Pre Assessment Report

Title	Credit Ref	Available Credits	Targeted Credits	Compliance Requirements	RIBA Stage	Comments and Evidence Requirements
Man 01: Project brief and design						
Stakeholder consultation (project delivery)	Man 01-01	1	1	<div>1. Prior to completion of the Concept Design (RIBA Stage 2 or equivalent), the project delivery stakeholders (see Relevant definitions) have met to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery.</div> <div>2. In defining the roles and responsibilities for each key phase of the project, the following must be considered: a. End user requirements b. Aims of the design and design strategy c. Particular installation and construction requirements/limitations d. Occupiers budget and technical expertise in maintaining any proposed systems e. Maintainability and adaptability of the proposals f. Requirements for the production of project and end user documentation g. Requirements for commissioning, training and aftercare support.</div> <div>3. The project team demonstrate how the project delivery stakeholder contributions and the outcomes of the consultation process have influenced or changed the Initial Project Brief, including if appropriate, the Project Execution Plan, Communication Strategy, and the Concept Design.</div>	2	The principal contractor should be one of the project delivery stakeholders. However, as they are rarely appointed this early, this could be a suitably experienced person with substantial construction/contracting experience in similar projects (they could be appointed as a consultant for this stage or a construction project manager).
Stakeholder consultation (third party)	Man 01-02	1	1	4. Prior to completion of the Concept Design stage, all relevant third party stakeholders have been consulted by the design team and this covers the minimum consultation content (see compliance note CN3)	2	It is assumed that this credit will be targeted.
				<div>5. The project must demonstrate how the stakeholder contributions and outcomes of the consultation exercise have influenced or changed the Initial Project Brief and Concept Design.</div> <div>6. Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), consultation feedback has been given to, and received by, all relevant parties.</div>	4	
Sustainability Champion (design)	Man 01-03	1	0	8. A Sustainability Champion has been appointed to facilitate the setting and achievement of BREEAM performance target(s) for the project. The design stage Sustainability Champion is appointed to perform this role during the feasibility stage (Stage 1, Preparation and Brief stage, as defined by the RIBA Plan of Work 2013 or equivalent).	1	This credit could be targeted if required.
				9. The defined BREEAM performance target(s) has been formally agreed (see Relevant definitions) between the client and design/project team no later than the Concept Design stage (RIBA Stage 2 or equivalent).	2	
				10. To achieve this credit at the interim design stage assessment, the agreed BREEAM performance target(s) must be demonstrably achieved by the project design. This must be demonstrated via the BREEAM Assessor's design stage assessment report.		
Sustainability Champion (monitoring progress)	Man 01-04	1	0	11. The Sustainability Champion criteria 8, 9 and 10 have been achieved.		This credit could be targeted if required.
				<div>12. A Sustainability Champion is appointed to monitor progress against the agreed BREEAM performance target(s) throughout the design process and formally report progress to the client and design team.</div> <div>To do this the Sustainability Champion must attend key project/design team meetings during the Concept Design, Developed Design and Technical Design stages, as defined by the RIBA Plan of Work 2013, reporting during, and prior to, completion of each stage, as a minimum.</div>		



Man 02: Life Cycle Cost and Service Life Planning						
Elemental life cycle cost (LCC)	Man 02-01	2	2	1. An elemental life cycle cost (LCC) analysis has been carried out, at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) together with any design option appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:20081.	2	It is assumed that these credits will be targeted.
				2. The LCC analysis shows: a. An outline LCC plan for the project based on the building's basic structure and envelope, appraising a range of options and based on multiple cash flow scenarios e.g. 20, 30, 50+ years; b. The fabric and servicing strategy for the project outlining services component and fit-out options (if applicable) over a 15-year period, in the form of an 'elemental LCC Plan'.		
Component level LCC Plan	Man 02-02	1	1	3. A component level LCC plan has been developed by the end of Process Stage 4 (equivalent to Technical Design – RIBA Stage 4) in line with PD 156865:2008 and includes the following component types (where present): a. Envelope, e.g. cladding, windows, and/or roofing b. Services, e.g. heat source cooling source, and/or controls c. Finishes, e.g. walls, floors and/or ceilings d. External spaces, e.g. alternative hard landscaping, boundary protection 4. Demonstrate, using appropriate examples provided by the design team, how the component level LCC plan has been used to influence building and systems design/specification to minimise life cycle costs and maximise critical value.	4	It is assumed that this credit will be targeted.
				5. Report the capital cost for the building in pounds per square metre (£k/m2), via the BREEAM Assessment Scoring and Reporting tool, Assessment Issue Scoring tab, Management section.  The capital cost for the building includes the expenses related to the initial construction of the building: construction, including preparatory works, materials, equipment and labour; site management; construction financing; insurance and taxes during construction; inspection and testing. Costs relating to land procurement, clearance, design, statutory approvals and post occupancy aftercare should not be included.		
Capital cost reporting	Man 02-03	1	1			This credit can be easily achieved.
Man 03: Responsible Construction Practices						
Pre-requisite	Man 03-pre	-	-	1. All timber and timber based products used on the project is 'Legally harvested and traded timber' (see Relevant definitions). Note: For other materials there are no pre-requisite requirements at this stage.		This credit is mandatory.
Environmental management	Man 03-01	1	1	1. The principal contractor operates an environmental management system (EMS) covering their main operations. The EMS must be either: a. third party certified, to ISO 14001/EMAS or equivalent standard; or b. have a structure that is in compliance with BS 8555:2003 and has reached phase four of the implementation stage, 'implementation and operation of the environmental management system', and has completed phase audits one to four, as defined in BS 8555. 2. The principal contractor implements best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG61.		It is assumed that this credit will be targeted.
				3. A Sustainability Champion is appointed to monitor the project to ensure ongoing compliance with the relevant sustainability performance/process criteria, and therefore BREEAM target(s), during the Construction, Handover and Close Out stages (as defined by the RIBA Plan of Works 2013, stages 5 and 6).To do this the Sustainability Champion will ideally be site based or will visit the site regularly to carry out spot checks, with the relevant authority to do so and require action to be taken to address shortcomings in compliance. The Sustainability Champion will monitor site activities with sufficient frequency (see compliance note CN6) to ensure that risks of non-compliance are minimised. They will report on progress at relevant project team meetings including identifying potential areas of non-compliance and any action needed to mitigate. 4. The defined BREEAM performance target forms a requirement of the principal contractor's contract (see compliance note Man 01 Project brief and design – CN5 and in Man 01 Project brief and design – Relevant definitions). 5. To achieve this credit at the final post construction stage of assessment, the BREEAM-related performance target for the project must be demonstrably achieved		
Sustainability Champion (construction)	Man 03-02	1	0		5	It is assumed that this credit will not be targeted.
Considerate construction	Man 03-03	2	2	6. Where the principal contractor has used a 'compliant' organisational, local or national considerate construction scheme and their performance against the scheme has been confirmed by independent assessment and verification. The BREEAM credits can be awarded as follows: a. One credit where the contractor achieves 'compliance' with the criteria of a compliant scheme. b. Two credits where the contractor significantly exceeds 'compliance' with the criteria of the scheme. Refer to the Relevant definitions section for a list of compliant schemes and therefore how performance, as determined by a compliant scheme, translates in to BREEAM credits.		It is assumed that these credits will be targeted.

Monitoring of construction-site impacts	Man 03-04	2	2	7. Responsibility has been assigned to an individual(s) for monitoring, recording and reporting energy use, water consumption and transport data (where measured) resulting from all on-site construction processes (and dedicated off-site monitoring) throughout the build programme. To ensure the robust collection of information, this individual(s) must have the appropriate authority and responsibility to request and access the data required. Where appointed, the Sustainability Champion could perform this role.		It is assumed that these credits will be targeted.
				<b>First Credit - Utility consumption</b>  <b>Energy consumption</b> 8. Criterion 7 is achieved. 9. Monitor and record data on principal constructor's and subcontractors' energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. 10. Report the total carbon dioxide emissions (total kgCO <sub>2</sub> /project value) from the construction process via the BREEAM Assessment Scoring and Reporting tool.  Water consumption 11. Criterion 7 is achieved. 12. Monitor and record data on principal constructor's and subcontractors' potable water consumption (m <sup>3</sup> ) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. 13. Using the collated data report the total net water consumption (m <sup>3</sup> ), i.e. consumption minus any recycled water use, from the construction process via the BREEAM Assessment Scoring and Reporting tool.		
				<b>Second Credit - Transport of construction materials and waste</b>  14. Criterion 7 is achieved. 15. Monitor and record data on transport movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum this must cover: a. Transport of materials from the factory gate to the building site, including any transport, intermediate storage and distribution. See Relevant definitions. b. Scope of this monitoring must cover the following as a minimum: i. Materials used in major building elements (i.e. those defined in BREEAM issue Mat 01 Life cycle impacts), including insulation materials. ii. Ground works and landscaping materials. c. Transport of construction waste from the construction gate to waste disposal processing/recovery centre gate. Scope of this monitoring must cover the construction waste groups outlined in the project's waste management plan. 16. Using the collated data, report separately for materials and waste, the total fuel consumption (litres) and total carbon dioxide emissions (kgCO <sub>2</sub> eq), plus total distance travelled (km) via the BREEAM Assessment Scoring and Reporting tool.		
Exemplary level criteria	Man 03-Ex	1	0	17. With reference to the considerate construction criterion 7, in addition to meeting the criteria for two credits, the contractor achieves compliance with the criteria of the compliant scheme to an exemplary level of practice.		This credit could be targeted if required.
<b>Man 04: Commissioning and handover</b>						
Commissioning and testing schedule and responsibilities	Man 04-01	1	1	1. A schedule of commissioning and testing that identifies and includes a suitable timescale for commissioning and re-commissioning of all complex and non-complex building services and control systems and testing and inspecting building fabric.		It is assumed that this credit will be targeted.
				2. All commissioning activities are carried out in accordance with current Building Regulations, BSRIA1 and CIBSE2 guidelines and/or other appropriate standards, where applicable. Where a building management system (BMS) is specified, refer to compliance note CN5 on BMS commissioning procedures.		
				3. An appropriate project team member(s) is appointed to monitor and programme pre-commissioning, commissioning, testing and, where necessary, re-commissioning activities on behalf of the client.		
				4. The principal contractor accounts for the commissioning and testing programme, responsibilities and criteria within their budget and main programme of works, allowing for the required time to complete all commissioning and testing activities prior to handover.		
Commissioning building services	Man 04-02	1	1	5. For buildings with complex building services and systems, a specialist commissioning manager is appointed during the design stage (by either the client or the principal contractor) with responsibility for: a. Undertaking design reviews and giving advice on suitability for ease of commissioning. b. Providing commissioning management input to construction programming and during installation stages. c. Management of commissioning, performance testing and handover/post-handover stages. Where there are simple building services, this role can be carried out by an appropriate project team member (see criterion 3), provided they are not involved in the general installation works for the building services system(s)		It is assumed that this credit will be targeted.



Testing and inspecting building fabric	Man 04-03	1	1	6. The commissioning and testing schedule and responsibilities credit is achieved.		It is assumed that this credit will be targeted.
				7. The integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths is quality assured through completion of post construction testing and inspection. Dependent on building type or construction, this can be demonstrated through the completion of a thermographic survey as well as an air tightness test and inspection (see compliance notes CN6 and CN7. The survey and testing is undertaken by a Suitably Qualified Professional (see Relevant definitions) in accordance with the appropriate standard.		
				8. Any defects identified in the thermographic survey or the air tightness testing reports are rectified prior to building handover and close out. Any remedial work must meet the required performance characteristics for the building/element.		
Handover	Man 04-04	1	1	9. A Building User Guide (BUG) is developed prior to handover for distribution to the building occupiers and premises managers (see Relevant definitions).		It is assumed that this credit will be targeted.
				10. A training schedule is prepared for building occupiers/premises managers, timed appropriately around handover and proposed occupation plans, which includes the following content as a minimum: a. The building's design intent b. The available aftercare provision and aftercare team main contact(s), including any scheduled seasonal commissioning and post occupancy evaluation c. Introduction to, and demonstration of, installed systems and key features, particularly building management systems, controls and their interfaces d. Introduction to the Building User Guide and other relevant building documentation, e.g. design data, technical guides, maintenance strategy, operations and maintenance (O&M) manual, commissioning records, log book etc. e. Maintenance requirements, including any maintenance contracts and regimes in place.		
Man 05: Aftercare						
Aftercare support	Man 05-01	1	1	1. There is (or will be) operational infrastructure and resources in place to provide aftercare support to the building occupier(s), which includes the following as a minimum: a. A meeting programmed to occur between the aftercare team/individual and the building occupier/management (prior to initial occupation, or as soon as possible thereafter) to: i. Introduce the aftercare team or individual to the aftercare support available, including the Building User Guide (where existing) and training schedule/content. ii. Present key information about the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible. b. On-site facilities management training, to include a walkabout of the building and introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. c. Initial aftercare support provision for at least the first month of building occupation, e.g. on-site attendance on a weekly basis to support building users and management (this could be more or less frequent depending on the complexity of the building and building operations). d. Longer term aftercare support provision for occupants for at least the first 12 months from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users/management.		It is assumed that this credit will be targeted.
				2. There is (or will be) operational infrastructure and resources in place to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is occupied. This is done to facilitate analysis of discrepancies between actual and predicted performance, with a view to adjusting systems and/or user behaviours accordingly.		
Seasonal commissioning	Man 05-02	1	1	3. The following seasonal commissioning activities will be completed over a minimum 12-month period, once the building becomes substantially occupied: a. Complex systems - Specialist Commissioning Manager: i. Testing of all building services under full load conditions, i.e. heating equipment in mid-winter, cooling/ventilation equipment in mid-summer, and under part load conditions (spring/autumn). ii. Where applicable, testing should also be carried out during periods of extreme (high or low) occupancy. iii. Interviews with building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of the systems. iv. Re-commissioning of systems (following any work needed to serve revised loads), and incorporating any revisions in operating procedures into the operations and maintenance (O&M) manuals. b. Simple systems (naturally ventilated) - external consultant/aftercare team/facilities manager: i. Review thermal comfort, ventilation, and lighting, at three, six and nine month intervals after initial occupation, either by measurement or occupant feedback. ii. Take all reasonable steps to re-commission systems following the review to take account of deficiencies identified and incorporate any relevant revisions in operating procedures into the O&M manuals.		It is assumed that this credit will be targeted.

Post occupancy evaluation	Man 05-03	1	1	<p>4. The client or building occupier makes a commitment to carry out a post-occupancy evaluation (POE) exercise one year after initial building occupation. This is done to gain in-use performance feedback from building users to inform operational processes, including re-commissioning activities, and maintain or improve productivity, health, safety and comfort. The POE is carried out by an independent party (see Man 01 Project brief and design – Relevant definitions) and needs to cover:</p> <p>a. A review of the design intent and construction process (review of design, procurement, construction and handover processes).</p> <p>i. Internal environmental conditions (light, noise, temperature, air quality)</p> <p>ii. Control, operation and maintenance</p> <p>iii. Facilities and amenities</p> <p>iv. Access and layout</p> <p>v. Other relevant issues</p> <p>vi. Sustainability performance (energy/water consumption, performance of any sustainable features or technologies e.g. materials, renewable energy, rainwater harvesting etc.).</p> <p>b. A review of the design intent and construction process (review of design, procurement, construction and handover processes).</p> <p>c. Feedback from a wide range of building users including facilities management on the design and environmental conditions of the building covering:</p> <p>i. Internal environmental conditions (light, noise, temperature, air quality)</p> <p>ii. Control, operation and maintenance</p> <p>iii. Facilities and amenities</p> <p>iv. Access and layout</p> <p>v. Other relevant issues.</p> <p>d. Sustainability performance (energy/water consumption, performance of any sustainable features or technologies e.g. materials, renewable energy, rain- water harvesting etc.).</p>		It is assumed that this credit will be targeted.
				<p>5. The client or building occupier makes a commitment to carry out the appropriate dissemination of information on the building's post-occupancy performance. This is done to share good practice and lessons learned and inform changes in-user behaviour, building operational processes and procedures, and system controls. Refer to compliance notes CN4, CN5 and CN5 for a definition of appropriate dissemination. This also provides advice on appropriate dissemination where the building or building information is commercially or security sensitive.</p>		
Exemplary level criteria	Man 05-Ex	1	1	<p>The following outlines the exemplary level criteria to achieve one innovation credit for this BREEAM issue:</p> <p>6. There is (or will be) operational infrastructure and resources in place to co-ordinate the following activities at quarterly intervals for the first three years of building occupation:</p> <p>a. Collection of occupant satisfaction, energy consumption and water consumption data.</p> <p>b. Analysis of the data to check the building is performing as expected and make any necessary adjustments to systems controls or to inform building user behaviours.</p> <p>c. Setting targets for reducing water and energy consumption and monitor progress towards these.</p> <p>d. Feedback any 'lessons learned' to the design team and developer for use in future projects.</p> <p>e. Provision of the actual annual building energy, water consumption and occupant satisfaction data to BRE.</p>		It is assumed that this credit will be targeted.
<b>Hea 01: Visual Comfort</b>						
Glare Control	Hea 01-01	1	0	<p>1. The potential for disabling glare has been designed out of all relevant building areas using a glare control strategy, either through building form and layout and/or building design measures (see compliance note CN3).</p> <p>2. The glare control strategy avoids increasing lighting energy consumption, by ensuring that:</p> <p>a. The glare control system is designed to maximise daylight levels under all conditions while avoiding disabling glare in the workplace or other sensitive areas. The system should not inhibit daylight from entering the space under cloudy conditions, or when sunlight is not on the facade.</p> <p>AND</p> <p>b. The use or location of shading does not conflict with the operation of lighting control systems.</p>		At this early stage it is thought that glare control may not be provided to the reception area.
Daylighting (building type dependent)	Hea 01-02	2	0	<p>3. Daylighting criteria have been met using either of the following options:</p> <p>a. The relevant building areas meet good practice daylight factor(s) and other criterion as outlined in Table - 10 and Table - 11.</p> <p>OR</p> <p>b. The relevant building areas meet good practice average and minimum point daylight illuminance criteria as outlined in Table - 12.</p>		



View Out	Hea 01-03	1	0	4. 95% of the floor area in relevant building areas is within 7m of a wall which has a window or permanent opening that provides an adequate view out.		Internal spaces will not comply.
				5. The window/opening must be $\geq 20\%$ of the surrounding wall area (refer to Relevant definitions in the Additional information section). Where the room depth is greater than 7m, compliance is only possible where the percentage of window/opening is the same as, or greater than, the values in table 1.0 of BS 8206.		
				6. In addition, the building type criteria in Table - 13 are applicable to view out criteria.		
Internal and external lighting levels, zoning and control	Hea 01-03	1	1	<b>Internal Lighting</b>  7. All fluorescent and compact fluorescent lamps are fitted with high frequency ballasts.  8. Internal lighting in all relevant areas of the building is designed to provide an illuminance (lux) level appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. This can be demonstrated through a lighting design strategy that provides illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard.		It is assumed that this credit will be targeted.
				9. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 72 sections 3.3, 4.6, 4.7, 4.8 and 4.9. This gives recommendations highlighting: a. Limits to the luminance of the luminaires to avoid screen reflections. (Manufacturers' data for the luminaires should be sought to confirm this.) b. For uplighting, the recommendations refer to the luminance of the lit ceiling rather than the luminaire; a design team calculation is usually required to demonstrate this. c. Recommendations for direct lighting, ceiling illuminance, and average wall illuminance.		
				<b>External Lighting</b>  10. All external lighting located within the construction zone is designed to provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. To demonstrate this, external lighting provided is specified in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas <sup>3</sup> and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places.		
				<b>Zoning and occupant control</b>  11. Internal lighting is zoned to allow for occupant control (see Relevant definitions) in accordance with the criteria below for relevant areas present within the building: a. In office areas, zones of no more than four workplaces b. Workstations adjacent to windows/atria and other building areas separately zoned and controlled c. Seminar and lecture rooms: zoned for presentation and audience areas d. Library spaces: separate zoning of stacks, reading and counter areas e. Teaching space or demonstration area f. Whiteboard or display screen g. Auditoria: zoning of seating areas, circulation space and lectern area h. Dining, restaurant, café areas: separate zoning of servery and seating/dining areas i. Retail: separate zoning of display and counter areas j. Bar areas: separate zoning of bar and seating areas k. Wards or bedded areas: zoned lighting control for individual bed spaces and control for staff over groups of bed spaces l. Treatment areas, dayrooms, waiting areas: zoning of seating and activity areas and circulation space with controls accessible to staff.		
Exemplary level criteria	Hea 01-Ex	1	0	The following outlines the exemplary level criteria to achieve an innovation credit for daylighting:  14 .Daylighting criteria have been met using either of the following options: a. Relevant building areas meet exemplary daylight factor(s) and the relevant criteria in Table - 15.  OR  b. Relevant building areas meet exemplary average and minimum point daylight illuminance criteria in Table - 16.		This credit can only be targeted where the daylighting credit has been awarded.

Hea 02: Indoor Air Quality						
Minimising Sources of Air Pollution	Hea 02-01	1	1	An indoor air quality plan has been produced, with the objective of facilitating a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during occupation of the building. The indoor air quality plan must consider the following: a. Removal of contaminant sources b. Dilution and control of contaminant sources c. Procedures for pre-occupancy flush out d. Third party testing and analysis e. Maintaining indoor air quality in-use.		It is assumed that this credit will be targeted.
	Hea 02-02	1	0	The building has been designed to minimise the concentration and recirculation of pollutants in the building as follows:  2. Provide fresh air in to the building in accordance with the criteria of the relevant standard for ventilation.  3. Design ventilation pathways to minimise the build-up of air pollutants in the building, as follows: a. In air conditioned and mixed mode buildings/spaces: i. The building's air intakes and exhausts are over 10m apart and intakes are over 20m from sources of external pollution. OR ii. The location of the building's air intakes and exhausts, in relation to each other and external sources of pollution, is designed in accordance with BS EN 13779:20071 Annex A2. b. In naturally ventilated buildings/spaces: openable windows/ventilators are over 10m from sources of external pollution.  4. Where present, HVAC systems must incorporate suitable filtration to minimise external air pollution, as defined in BS EN 13779:2007 Annex A3.  5. Areas of the building subject to large and unpredictable or variable occupancy patterns have carbon dioxide (CO2) or air quality sensors specified and: a. In mechanically ventilated buildings/spaces: sensor(s) are linked to the mechanical ventilation system and provide demand-controlled ventilation to the space. b. In naturally ventilated buildings/spaces: sensors either have the ability to alert the building owner or manager when CO2 levels exceed the recommended set point, or are linked to controls with the ability to adjust the quantity of fresh air, i.e. automatic opening windows/roof vents.		It is assumed that the building will not meet these requirements.
	Hea 02-03	1	1	6. All decorative paints and varnishes specified meet the criteria in Table - 18  7. At least five of the seven remaining product categories listed in Table - 18 meet the testing requirements and emission levels criteria for volatile organic compound (VOC) emissions (listed in the table).		It is assumed that this credit will be targeted.
	Hea 02-04	1	1	8. The formaldehyde concentration level is measured post construction (but pre-occupancy) and is found to be less than or equal to 100µg/averaged over 30 minutes (WHO guidelines for indoor air quality: Selected pollutants, 20102). 9. The total volatile organic compound (TVOC) concentration level is measured post construction (but pre-occupancy) and found to be less than 300µg/over 8 hours, in line with the building regulation requirements. 10. Where VOC and formaldehyde levels are found to exceed the limits defined in criteria 10 and 11, the project team confirms the measures that have, or will be taken, in accordance with the IAQ plan, to reduce the levels to within these limits. 11. The testing and measurement of the above pollutants are in accordance with the following standards where relevant: a. BS ISO 16000-4: 2011 Diffusive sampling of formaldehyde in air b. BS ISO 16000-6: 2011 VOCs in air by active sampling c. BS EN ISO 16017-2: 2003 VOCs - Indoor, ambient and workplace air by passive sampling d. BS ISO 16000-3: 2011 formaldehyde and other carbonyls in air by pumped sampling. 12. The measured concentration levels of formaldehyde (µg/m3) and TVOC (µg/m3) are reported, via the BREEAM Assessment Scoring and Reporting Tool.		It is assumed that this credit will be targeted.
	Hea 02-05	1	0	13. The building ventilation strategy is designed to be flexible and adaptable to potential building occupant needs and climatic scenarios. This can be demonstrated as follows:  a. Occupied spaces of the building are designed to be capable of providing fresh air entirely via a natural ventilation strategy. The following are methods deemed to satisfy this criterion dependent upon the complexity of the proposed system: i. Room depths are designed in accordance with CIBSE AM10 (section 2.4) to ensure effectiveness of any natural ventilation system. The openable window area in each occupied space is equivalent to 5% of the gross internal floor area of that room/floor plate. OR ii. The design demonstrates that the natural ventilation strategy provides adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates. This is demonstrated using ventilation design tool types recommended by CIBSE AM107 (or for education buildings by using the ClassVent tool).  For a strategy which does not rely on openable windows, or which has occupied spaces with a plan depth greater than 15m, the design must demonstrate (in accordance with criterion 13.a.i. above) that the ventilation strategy can provide adequate cross flow of air to maintain the required thermal comfort conditions and ventilation rates.  The natural ventilation strategy is capable of providing at least two levels of user-control on the supply of fresh air to the occupied space (see compliance note CN6 for further details).		It is assumed that the building is not naturally ventilated.



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Exemplary level criteria	Hea 02-Ex	1	0	15. Criterion 6 has been achieved.		This credit could be targeted, if required.
				16. All seven remaining product categories listed in Table - 18 meet the testing requirements and emission levels criteria for Volatile Organic Compound (VOC) emissions (listed in the table).		
				17. For products b) – f) listed in Table - 18, the formaldehyde emission levels have been measured and found to be less than or equal to 0.06mg/m3 air in accordance with the approved testing standards in Table - 18.		
		1	0	18. Criterion 6 has been achieved.		This credit could be targeted, if required.
				19. All seven remaining products categories listed in Table - 18 meet the testing requirements and emission levels criteria for Volatile Organic Compound (VOC) emissions (listed in the table).		
				20. For products B to F listed in Table - 18, the formaldehyde emission levels have been measured and found to be less than or equal to 0.01mg/m3 air, in accordance with the approved testing standards in Table - 18.		
Hea 04: Thermal Comfort						
Thermal Modelling	Hea 04-01	1	1	1. Thermal modelling has been carried out using software in accordance with CIBSE AM11 Building Energy and Environmental Modelling.		It is assumed that this credit will be targeted.
				2. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate (such methodologies must still be in accordance with CIBSE AM11).		
				3. The modelling demonstrates that:  a. For air conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design2, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). b. For naturally ventilated/free running buildings: i. Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard (where this sets a higher or more appropriate requirement/level for the building type). ii. The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52: The limits of thermal comfort: avoiding overheating in European buildings.		
				4. For air conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percentage of dissatisfied) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.		
Adaptability - for a projected climate change scenario	Hea 04-02	1	0	5. Criteria 1 to 4 are achieved.		It is assumed that these criteria will not be met.
				6. The thermal modelling demonstrates that the relevant requirements set out in criteria 3 are achieved for a projected climate change environment (see Relevant definitions).		
				7. Where thermal comfort criteria are not met for the projected climate change environment, the project team demonstrates how the building has been adapted, or designed to be easily adapted in future using passive design solutions in order to subsequently meet the requirements under criterion 6.		
				8. For air conditioned buildings, the PMV and PPD indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.		

Thermal zoning and controls	Hea 04-03	1	1	9. Criteria 1 to 4 are achieved		It is assumed that this credit will be targeted.
				10. The thermal modelling analysis (undertaken for compliance with criteria 1 to 4) has informed the temperature control strategy for the building and its users.		
				11. The strategy for proposed heating/cooling system(s) demonstrates that it has addressed the following:		
				a. Zones within the building and how the building services could efficiently and appropriately heat or cool these areas. For example consider the different requirements for the central core of a building compared with the external perimeter adjacent to the windows. b. The degree of occupant control required for these zones, based on discussions with the end user (or alternatively building type or use specific design guidance, case studies, feedback) considers:  i. User knowledge of building services ii. Occupancy type, patterns and room functions (and therefore appropriate level of control required) iii. How the user is likely to operate or interact with the system(s), e.g. are they likely to open windows, access thermostatic radiator valves (TRV) on radiators, change air-conditioning settings etc., iv. The user expectations ( this may differ in the summer and winter) and degree of individual control (i.e. obtaining the balance between occupant preferences, for example some occupants like fresh air and others dislike drafts). c. How the proposed systems will interact with each other (where there is more than one system) and how this may affect the thermal comfort of the building occupants. d. The need or otherwise for an accessible building user actuated manual override for any automatic systems.		
Hea 05: Acoustic Performance						
Acoustic Performance Standards	Hea 05-01	3	1	1. The building meets the appropriate acoustic performance standards and testing requirements defined in the checklists and tables section which defines criteria for the acoustic principles of: a. Sound insulation b. Indoor ambient noise level c. Reverberation times.		At this early stage it is assumed that at least 1 of the 3 available credits will be targeted.
Hea 06: Safety and Security						
Safe Access	Hea 06-01	1	0	1. Dedicated cycle paths provide direct access from the site entrance(s) to any cycle storage provided, without the need to deviate from the cycle path and, if relevant, connect to off-site cycle paths (or other appropriate safe route) where these run adjacent to the development's site boundary.		It is currently thought that this credit may not be achieved due to limited external space and the possibility that delivery vehicles will access the site through general parking areas / cross pedestrian and cycle paths. This will require confirmation from the design team.
				2. Footpaths on-site provide direct access from the site entrance(s) to the building entrance(s) and connect to public footpaths off-site (where existing), providing practical and convenient access to local transport nodes and other off-site amenities (where existing).		
				3. Where provided, drop-off areas are designed off/adjoining to the access road and provide direct access to pedestrian footpaths, therefore avoiding the need for the pedestrian to cross vehicle access routes.		
				4. Dedicated pedestrian crossings are provided where pedestrian routes cross vehicle access routes, and appropriate traffic calming measures are in place to slow traffic down at these crossing points.		
				5. For large developments with a high number of public users or visitors, pedestrian footpaths must be signposted to other local amenities and public transport nodes off-site (where existing).		
				6. The lighting for access roads, pedestrian routes and cycle lanes is compliant with the external lighting criteria defined in Hea 01 Visual comfort, i.e. in accordance with BS 5489-1:20131 Lighting of roads and public amenity areas.		
				Where vehicle delivery access and drop-off areas form part of the assessed development, the following apply:		
				7. Delivery areas are not directly accessed through general parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas accessible to building users and general public.		
				8. There is a dedicated parking/waiting area for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking.		
				9. Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.		
				10. There is a dedicated space for the storage of refuse skips and pallets away from the delivery vehicle manoeuvring area and staff/visitor car parking (if appropriate given the building type/function).		



Security of Site and Building	Hea 06-02	1	1	11. A suitably qualified security specialist (SQSS) conducts an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent).	2	It is assumed that this credit will be targeted.
				12. A suitably qualified security specialist (SQSS) develops a set of recommendations or solutions during or prior to Concept Design (RIBA Stage 2 or equivalent). These recommendations or solutions aim to ensure that the design of buildings, public and private car parks and public or amenity space are planned, designed and specified to address the issues identified in the preceding SNA.		
				13. The recommendations or solutions proposed by the suitably qualified security specialist (SQSS) are implemented (see CN9). Any deviation from those recommendations or solutions will need to be justified, documented and agreed in advance with a suitably qualified security specialist.		
Ene 01: Reduction of CO2 emissions - Energy						
	Ene 01-01	12	5	1. Calculate an Energy Performance Ratio for New Constructions (EPRNC). Compare the EPRNC achieved with the benchmarks in Table - 25 and award the corresponding number of BREEAM credits.		It is thought that at least 5 credits will be awarded.
Exemplary level criteria	Ene 01-Ex	5	0	2. The building achieves an EPRNC≥ 0.9 and zero net regulated CO2 emissions (see Relevant definitions).		
				3. An equivalent percentage of the buildings modelled 'regulated' operational energy consumption, as stipulated in Table - 26, is generated by carbon neutral on-site or near-site sources and used to meet energy demand from 'unregulated' building systems or processes.		
				4. The building is 'carbon negative' in terms of its total modelled operational energy consumption, including regulated and unregulated energy (see Relevant definitions in the Additional information section of this issue).		
Ene 02: Energy Monitoring						
Sub-metering of major energy consuming systems	Ene 02-01	1	1	1. Energy metering systems are installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems (see Methodology ).		This credit is mandatory for BREEAM 'Very Good'
				2. The energy consuming systems in buildings with a total useful floor area greater than 1,000m2. are metered using an appropriate energy monitoring and management system.		
				3. The systems in smaller buildings are metered either with an energy monitoring and management system or with separate accessible energy sub-meters with pulsed or other open protocol communication outputs, to enable future connection to an energy monitoring and management system (see Relevant definitions ).		
				4. The end energy consuming uses are identifiable to the building users, for example through labelling or data outputs		
Sub-metering of high energy load and tenancy areas	Ene 02-02	1	1	5. An accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed or other open protocol communication outputs to enable future connection to an energy monitoring and management system are provided, covering a significant majority of the energy supply to tenanted areas or, in the case of single occupancy buildings, relevant function areas or departments within the building/unit.		It is assumed that this credit will be targeted.

Ene 03: External Lighting						
	Ene 03-01	1	1	1. The building has been designed to operate without the need for external lighting (which includes on the building, signs and at entrances).  OR alternatively, where the building does have external lighting, one credit can be awarded as follows:  2. The average initial luminous efficacy of the external light fittings within the construction zone is not less than 60 luminaire lumens per circuit Watt.  3. All external light fittings are automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic		It is assumed that this credit will be targeted.
Ene 04: Low carbon design						
Passive design analysis	Ene 04-01	1	1	1. The first credit within issue Hea 04 Thermal comfort has been achieved to demonstrate the building design can deliver appropriate thermal comfort levels in occupied spaces.  2. The project team carries out an analysis of the proposed building design/development to influence decisions made during Concept Design stage (RIBA Stage 2 or equivalent) and identify opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services (see compliance note CN4).  3. The building uses passive design measures to reduce the total heating, cooling, mechanical ventilation and lighting loads and energy consumption in line with the findings of the passive design analysis and the analysis demonstrates a meaningful reduction in the total energy demand as a result (see compliance note CN16).	2	It is assumed that this credit will be targeted.
Free Cooling	Ene 04-02	1	0	4. The passive design analysis credit is achieved.  5. The passive design analysis carried out under criterion 2 includes an analysis of free cooling and identifies opportunities for the implementation of free cooling solutions.  6. The building uses ANY of the free cooling strategies listed in compliance note CN5 to reduce the cooling energy demand, i.e. it does not use active cooling.		It is assumed that there will be no free cooling strategy in place.
Low and zero carbon feasibility study	Ene 04-03	1	1	7. A feasibility study has been carried out by the completion of the Concept Design stage (RIBA Stage 2 or equivalent) by an energy specialist (see Relevant definitions) to establish the most appropriate recognised local (on-site or near-site) low or zero carbon (LZC) energy source(s) for the building/development (see compliance note CN7).  8. A local LZC technology/technologies has/have been specified for the building/development in line with the recommendations of this feasibility study and this method of supply results in a meaningful reduction in regulated carbon dioxide (CO <sub>2</sub> ) emissions (see compliance note CN16).	2	It is assumed that this credit will be targeted.
Ene 06: Energy Efficient Transportation Systems						
Energy Consumption	Ene 06-01	1	1	1. Where lifts, escalators and/or moving walks (transportation types) are specified: a. An analysis of the transportation demand and usage patterns for the building has been carried out to determine the optimum number and size of lifts, escalators and/or moving walks. b. The energy consumption has been calculated in accordance with BS EN ISO 25745 Energy performance of lifts, escalators and moving walks, Part 2 : Energy calculation and classification for lifts (elevators) and/or Part 3 - Energy calculation and classification for escalators and moving walks, for one of the following:  i. At least two types of system (for each transportation type required); OR ii. An arrangement of systems (e.g. for lifts, hydraulic, traction, machine room-less lift (MRL)); OR iii. A system strategy which is 'fit for purpose'.  c. The use of regenerative drives should be considered, subject to the requirements in CN6. d. The transportation system with the lowest energy consumption is specified.		It is assumed that this credit will be targeted.
Energy efficient features	Ene 06-02	2	2	2. Criterion 1 is achieved.  LIFTS  3. For each lift, the following three energy efficient features are specified: a. The lifts operate in a standby condition during off-peak periods. For example the power side of the lift controller and other operating equipment such as lift car lighting, user displays and ventilation fans switch off when the lift has been idle for a prescribed length of time. b. The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp lumens/circuit Watt. c. The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.  4. Where the use of regenerative drives is demonstrated to save energy, they are specified.		It is assumed that this credit will be targeted.



Ene 08: Energy Efficient Equipment						
	Ene 08-01	2	2	1. Identify the building's unregulated energy consuming loads and estimate their contribution to the total annual unregulated energy consumption of the building, assuming a typical/standard specification.		It is assumed that these credits will be targeted.
				2. Identify the systems and/or processes that use a significant proportion of the total annual unregulated energy demand of the development and its operation.		
				3. Demonstrate a meaningful reduction in the total annual unregulated energy demand of the building. See Table - 28.		
Tra 01: Public Transport Accessibility						
	Tra 01-01	5	2	1. The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded in accordance with the table of building types, AI benchmarks and BREEAM credits in Table - 29 (see checklists and tables).		It is thought that the site will have a low accessibility index.
				2. The Accessibility Index is determined by entering the following information in to the BREEAM Tra 01 calculator: a. The distance (m) from the main building entrance to each compliant public transport node b. The public transport type(s) serving the compliant node e.g. bus or rail c. The average number of services stopping per hour at each compliant node during the operating hours of the building for a typical day (see compliance notes and Table - 30 in the Additional Information section).		
Tra 02: Proximity to Amenities						
	Tra 02-01	1	1	1. Where the building is located at least 500m safe walking distance from at least 2 of the following amenities: appropriate food outlet, access to cash, access to an outdoor space, access to a recreation facility for leisure or sports, publically available postal facility, community facility, over the counter services associated with a pharmacy, public sector GP surgery or general medical centre, child care facility or school		It is assumed that this credit will be targeted.
Tra 03: Cyclist Facilities						
Cycle storage	Tra 03-01	1	1	1. Compliant cycle storage spaces that meet the minimum levels set out in Table - 32 are installed. At least 1 space per 10 staff and 1 space per 10 visitors) is required. This number can be reduced by 50% where at least half of the Tra 01 credits are achieved. Numbers are also based on a sliding scale of compliance.		It is assumed that this credit will be targeted.
Cyclist facilities	Tra 03-02	1	1	2. Criterion 1 has been achieved.		It is assumed that this credit will be targeted.
				3. At least two of the following types of compliant cyclist facilities have been provided for all staff and pupils (where appropriate) (see relevant definitions for the scope of each compliant cyclist facility): a. Showers b. Changing facilities c. Lockers d. Drying spaces .		
Tra 04: Maximum Car Parking Capacity						
	Tra 04-01	2	0	1. The building's car parking capacity is compared to the maximum car parking capacity benchmarks in Table - 33 and the relevant number of BREEAM credits awarded:		It has been suggested that ample parking will be provided. The credit is therefore likely to be withheld.

### Tra 05: Travel Plan

	Tra 05-01	1	1	1. A travel plan has been developed as part of the feasibility and design stages.	0 to 4	It is assumed that this credit will be targeted.
				2. A site specific travel assessment/statement has been undertaken to ensure the travel plan is structured to meet the needs of the particular site and covers the following (as a minimum): a. Where relevant, existing travel patterns and opinions of existing building or site users towards cycling and walking so that constraints and opportunities can be identified. b. Travel patterns and transport impact of future building users. c. Current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children) d. Disabled access (accounting for varying levels of disability and visual impairment) e. Public transport links serving the site f. Current facilities for cyclists.		
				3. The travel plan includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the buildings operation and use.		
				4. If the occupier is known, they must be involved in the development of the travel plan and they must confirm that the travel plan will be implemented post construction and be supported by the buildings management in operation.		

### Wat 01: Water Consumption

	Wat 01-01	5	2	1. An assessment of the efficiency of the building's domestic water-consuming components is undertaken using the BREEAM Wat 01 calculator.		Although only 1 credit is required for 'Very Good', it is thought that at least 2 credits will be targeted.
				2. The water consumption (L/person/day) for the assessed building is compared against a baseline performance and BREEAM credits awarded based upon Table - 35.		
				3. The efficiency of the following 'domestic scale' water-consuming components must be included in the assessment (where specified): a. WCs b. Urinals c. Taps (wash hand basins and where specified kitchen taps and waste disposal unit) d. Showers e. Baths f. Dishwashers (domestic and commercial sized) g. Washing machines (domestic and commercial or industrial sized).		
				The BREEAM Wat 01 calculator defines the building types and activity areas for which the above components must be assessed.		
				4. Where a greywater and/or rainwater system is specified, its yield (L/person/day) is used to off-set non potable water demand from components that would otherwise be supplied using potable water.		
Exemplary level criteria	Wat 01-Ex	1	0	5. Any greywater systems must be specified and installed in compliance with BS 8525-1:2010 Greywater Systems - Part 1 Code of Practice1. Any rainwater systems must be specified and installed in compliance with BS 8515:2009+A1:2013 Rainwater Harvesting Systems - Code of practice		
				The exemplary level credit is awarded where there is a minimum 65% improvement.		

### Wat 02: Water Monitoring

	Wat 02-01	1	1	1. The specification of a water meter on the mains water supply to each building; this includes instances where water is supplied via a borehole or other private source.		The specification of a water meter on the mains is mandatory for BREEAM 'Very Good'.
				2. Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with easily accessible sub-meters or have water monitoring equipment integral to the plant or area (see Compliance notes).		
				3. Each meter (main and sub) has a pulsed or other open protocol communication output to enable connection to an appropriate utility monitoring and management system, e.g. a building management system (BMS), for the monitoring of water consumption (see Relevant definitions).		It is assumed that this credit will be targeted.
				4. If the site on which the building is located has an existing BMS, managed by the same occupier/owner (as the new building), the pulsed/digital water meter(s) for the new building must be connected to the existing BMS.		



Wat 03: Water Leak Detection and Prevention						
Leak detection system	Wat 03-01	1	1	1. A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter is installed. The leak detection system must be: a. A permanent automated water leak detection system that alerts the building occupants to the leak OR an in-built automated diagnostic procedure for detecting leaks is installed. b. Activated when the flow of water passing through the water meter/data logger is at a flow rate above a pre-set maximum for a pre-set period of time. c. Able to identify different flow and therefore leakage rates, e.g. continuous, high and/or low level, over set time periods. d. Programmable to suit the owner/occupiers' water consumption criteria. e. Where applicable, designed to avoid false alarms caused by normal operation of large water-consuming plant such as chillers.		It is assumed that this credit will be targeted.
Flow control devices	Wat 03-02	1	1	2. Flow control devices that regulate the supply of water to each WC area/facility according to demand are installed (and therefore minimise water leaks and wastage from sanitary fittings).		It is assumed that this credit will be targeted.
Wat 04: Water Efficient Equipment						
	Wat 04-01	1	1	1. The design team has identified all unregulated water demands that could be realistically mitigated or reduced.		It is assumed that this credit will be targeted.
				2. System(s) or processes have been identified to reduce the unregulated water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the building.		
Mat 01: Life Cycle Impacts						
	Mat 01-01	6	3	1. BREEAM awards credits on the basis of the building's quantified environmental life cycle impact through assessment of the main building elements, as set out in Table - 38		It is thought that at least 3 of the 6 available credits will be awarded.
				2. Credits are awarded on the basis of the total number of points achieved, as set out in Table - 39, and calculated using the BREEAM Mat 01 calculator. This point's score is based on the Green Guide rating(s) achieved for the specifications that make up the main building elements (as in Table - 38).		
				3. Life cycle greenhouse gas emissions (kgCO 2 eq.) for each element are also required to be reported based on a 60-year building life. Where specific data is not available for a product or element, generic data should be used. Generic data can be obtained from the online Green Guide for each element and must be entered in to the BREEAM Mat 01 calculator.		
Exemplary Performance Criteria	Mat 01-Ex	3	0	4. Where assessing four or more applicable building elements, the building achieves at least two points in addition to the total points required to achieve maximum credits under the standard BREEAM criteria (as outlined in the table above) OR 5. Where assessing fewer than four applicable building elements, the building achieves at least one point in addition to the total points required to achieve maximum credits under the standard BREEAM criteria. 6. Where the design team has used an IMPACT compliant software tool (or equivalent) to measure the environmental impact of the building. 7. Where the design team can demonstrate how the use of an IMPACT compliant software (or equivalent) has benefited the building in terms of measuring and reducing its environmental impact. See CN16 8. Where the design team submit the building information model (BIM) from the IMPACT compliant software tool (or equivalent) for the assessed building to BRE Global (via the project's appointed BREEAM Assessor). See compliance note CN17.		
Mat 02: Hard Landscaping and Boundary Protection						
	Mat 02-01	1	0	1. Where at least 80% of all external hard landscaping and 80% of all boundary protection (by area) in the construction zone achieves an A or A+ rating, as defined in the Green Guide to Specification. Green Guide ratings for the specification(s) of each element can be found at <a href="http://www.thegreenguide.org.uk">www.thegreenguide.org.uk</a>		This credit usually requires recycled sub-bases for hard landscaping. It could be targeted, if required.

Mat 03: Responsible Sourcing of Materials						
Exemplary Performance Criteria	Mat 03-Pre	0	0	1. All timber and timber based products used on the project is ' Legally harvested and traded timber ' (see Relevant definitions).		It is a mandatory requirement for all BREEAM levels that all timber and timber based products are 'legally harvested and traded timber'.  It is thought that at least 2 of the 3 responsible sourcing credits will be awarded, and that a compliant sustainable procurement plan will be implemented.
	Mat 03-01	1	1	2. The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan (see the Relevant definitions in the Additional information section).		
	Mat 03-02	3	2	3. The available RSM credits (refer to Table - 1) can be awarded where the applicable building materials (refer to Table - 2) are responsibly sourced in accordance with the BREEAM methodology, as defined in steps 1 to 2 in the Methodology section below.		
	Mat 03-Ex	1	0	4. Where at least 70% of the available RSM points are achieved.		
Mat 04: Insulation						
	Mat 04-01	1	1	1. Any new insulation specified for use within the following building elements must be assessed: a. External walls b. Ground floor c. Roof d. Building services.		It is assumed that this credit will be targeted.
				The Insulation Index for the building fabric and services insulation is the same as or greater than 2.5. See the Methodology section for a description of calculating the Insulation Index.		
Mat 05: Designing for durability and resilience						
	Mat 05-01	1	1	1. The building incorporates suitable durability and protection measures or designed features/solutions to prevent damage to vulnerable parts of the internal and external building and landscaping elements. This must include, but is not necessarily limited to:  a. Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc.). b. Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. c. Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring occurs within 1m of the external building façade for all car parking areas and within 2m for all delivery areas.		It is assumed that this credit will be targeted.
				2. The relevant building elements incorporate appropriate design and specification measures to limit material degradation due to environmental factors. (See Methodology for the process to assess this criterion).		
Mat 06: Material efficiency						
	Mat 06-01	1	1	1. Opportunities have been identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life	1 to 5	It is assumed that this credit will be targeted.
				2. The above is carried out by the design/construction team in consultation with the relevant parties (see CN3) at each of the following RIBA stages:  a. Preparation and Brief b. Concept Design c. Developed Design d. Technical Design e. Construction.		



Wst 01: Construction Waste Management					
Construction resource efficiency	Wst 01-01	3	2	1. Where a Resource Management Plan (RMP) has been developed covering the non-hazardous waste related to on-site construction and dedicated off-site manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction (see CN3).	It is assumed that at least 2 credits will be targeted.
				2. Where construction waste related to on-site construction and dedicated off-site manufacture/fabrication (excluding demolition and excavation waste) meets or is lower than the following:  Amount of waste generated per 100m2  One credit for ≤13.3m3 or ≤11.1 tonnes Two credits for ≤7.5m3 or ≤6.5 tonnes Three credits for ≤3.4m3 or ≤3.2 tonnes Exemplary level for ≤1.6m3 or ≤1.9 tonnes	
				3. Where existing buildings on the site will be demolished a pre-demolition audit of any existing buildings, structures or hard surfaces is completed to determine if, in the case of demolition, refurbishment/reuse is feasible and, if not, to maximise the recovery of material from demolition for subsequent high grade/value applications. The audit must be referenced in the RMP and cover:  a. Identification of the key refurbishment/demolition materials. b. Potential applications and any related issues for the reuse and recycling of the key refurbishment and demolition materials in accordance with the waste hierarchy.	
Diversion of resources from landfill	Wst 01-02	1	1	4.The following percentages of non-hazardous construction (on-site and off-site manufacture/fabrication in a dedicated facility), demolition and excavation waste (where applicable) generated by the project have been diverted from landfill:  One credit - 70% of non-demolition and 80% of demolition waste by volume (80% of non-demolition and 90% of demolition waste by tonnage) Exemplary level - 85% of non-demolition , 85% of demolition waste and 95% of excavation by volume (90% of non-demolition and 95% of demolition and excavation waste by tonnage)	It is assumed that this credit will be awarded.
				5. Waste materials will be sorted into separate key waste groups as per Table - 50 (according to the waste streams generated by the scope of the works) either on-site or through a licensed contractor for recovery	
Exemplary Performance Criteria	Wst 01-Ex	1	0	6. Non-hazardous construction waste generated by the building's design and on-site construction and off-site manufacture or fabrication (excluding demolition and excavation waste) is no greater than the exemplary level resource efficiency benchmark (outlined in Table - 48 ).	
				7. The percentage of non-hazardous construction (on-site and dedicated off-site manufacture/fabrication), demolition and excavation waste (if relevant) diverted from landfill meets or exceeds the exemplary level percentage benchmark (outlined in Table - 49).	
				8. All key waste groups are identified for diversion from landfill in the RMP.	
Wst 02: Recycled Aggregates					
	Wst 02-01	1	0	1. The percentage of high grade aggregate that is recycled or secondary aggregate, specified in each application (present) must meet the following minimum % levels (by weight or volume) to contribute to the total amount of recycled or secondary aggregate, as specified in.  2. The total amount of recycled or secondary aggregate specified, and meeting criterion 1, is greater than 25% (by weight or volume) of the total high grade aggregate specified for the development. Where the minimum level in criterion 1 is not met for an application, all the aggregate in that application must be considered as primary aggregate when calculating the total high grade aggregate specified.  3. The recycled or secondary aggregates are EITHER:  a. Construction, demolition and excavation waste obtained on-site or off-site OR b. Secondary aggregates obtained from a non-construction post-consumer industrial by product source (see Relevant definitions section).	The requirements of this credits are fairly onerous. This credit could be targeted, if required.
Exemplary Performance Criteria	Wst 02-Ex	1	0	The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue.  4. The percentage of high grade aggregate that is recycled or secondary aggregate, specified in each application (present) must meet the exemplary minimum levels (by weight or volume), as defined in the table above. Where this minimum level is not met, all the aggregate in that application must be considered as primary aggregate when calculating the total high grade aggregate specified.  5. Where the total amount of recycled or secondary aggregate specified is greater than 35% (by weight or volume) of the total high grade aggregate specified for the project. Where the minimum level in criterion 1 is not met for an application, all the aggregate in that application must be considered as primary aggregate when calculating the total high grade aggregate specified.  6. The contributing secondary aggregate must not be transported more than 30 km by road transport.	

### Wst 03: Operational Waste

Wst 03-01	1	1	<p>1. Dedicated space(s) is provided for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities. This space must be:</p> <p>a. Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams</p> <p>b. Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors</p> <p>c. Of a capacity appropriate to the building type, size, number of units (if relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates.</p>		It is assumed that this credit will be targeted.
			<p>2. Where the consistent generation in volume of the appropriate operational waste streams is likely to exist, e.g. large amounts of packaging or compostable waste generated by the building's use and operation, the following facilities are provided:</p> <p>a. Static waste compactor(s) or baler(s); situated in a service area or dedicated waste management space.</p> <p>b. Vessel(s) for composting suitable organic waste resulting from the building's daily operation and use; OR adequate space(s) for storing segregated food waste and compostable organic material prior to collection and delivery to an alternative composting facility.</p> <p>c. Where organic waste is to be stored/composted on-site, a water outlet is provided adjacent to or within the facility for cleaning and hygiene purposes.</p>		

### Wst 05: Adaptation to climate change

Wst 05-01	1	1	<p>1. Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach:</p> <p>a. Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extreme weather conditions arising from climate change and, where feasible, mitigate against these impacts. The assessment should cover the following stages:</p> <p>i. Hazard identification</p> <p>ii. Hazard assessment</p> <p>iii. Risk estimation</p> <p>iv. Risk evaluation</p> <p>v. Risk management.</p>	2	It is assumed that this credit will be targeted.
			<p>A holistic approach to the design and construction of the current building's life cycle, to mitigate against the impacts of climate change, is represented by the achievement of these criteria.</p> <p>The following outlines the exemplary level criteria to achieve an innovation credit for this BREEAM issue:</p> <p>2.Achievement of the Structural and fabric resilience criterion in this issue and the following criteria points or credits:</p> <p>Hea 04 Thermal comfort (Link to Wst 05 issue:- to preventing increasing risks of overheating) Criterion 6 in the second credit of the Hea 04 issue has been achieved.</p> <p>Ene 01 Reduction of energy use and carbon emissions (Link to Wst 05 issue: to maximise energy efficiency contributing to low carbon emissions resulting from increasing energy demands) At least eight credits in this issue have been achieved.</p>		

### Wst 06: Functional adaptability

Wst 06-01	1	1	<p>1. A building-specific functional adaptation strategy study has been undertaken by the client and design team by Concept Design (RIBA Stage 2 or equivalent), which includes recommendations for measures to be incorporated to facilitate future adaptation.</p>	2	This credit requires a functional adaptation strategy to be undertaken by RIBA Stage 2.
			<p>2. Functional adaptation measures have been implemented (RIBA Stage 4 or equivalent) in accordance with the functional adaptation strategy recommendations, where practical and cost effective. Omissions have been justified in writing to the assessor.</p>	4	



**LE 01: Site Selection**

Previously Developed Land	LE 01-01	1	0	1. At least 75% of the proposed development's footprint is on an area of land which has previously been occupied by industrial, commercial or domestic buildings or fixed surface infrastructure.		The proposed site is greenfield. As such it is unlikely that this credit will be awarded.
Contaminated Land	LE 01-02	1	0	2. A contaminated land specialist's site investigation, risk assessment and appraisal has deemed land within the site to be affected by contamination. The site investigation, risk assessment and appraisal have identified: a. The degree of contamination b. The contaminant sources/types c. The options for remediating sources of contamination which present an unacceptable risk. 3. The client or principal contractor confirms that remediation of the site will be carried out in accordance with the remediation strategy and its implementation plan as recommended by the contaminated land specialist.		It is unlikely that the site will be considered to be significantly contaminated.

**LE 02: Ecological Value of Site and Protection of Ecological Features**

Ecological value of site	LE 02-01	1	0	1. Land within the construction zone is defined as 'land of low ecological value' using either: a. The BREEAM checklist for defining land of low ecological value (see Checklists and tables below); OR b. A Suitably Qualified Ecologist (SQE) who has identified the land as being of 'low ecological value' within an ecological assessment report, based on a site survey.		A number of ecological features are to be removed. These credits will therefore be withheld.
Protection of ecological features	LE 02-02	1	0	2. All existing features of ecological value within and surrounding the construction zone and site boundary area are adequately protected from damage during clearance, site preparation and construction activities in line with BS42020: 2013. 3. In all cases, the principal contractor is required to construct ecological protection recommended by the SQE, prior to any preliminary site construction or preparation works (e.g. clearing of the site or erection of temporary site facilities).		

**LE 03: Mitigating Ecological Impact**

	LE 03-01	2	1	Two credits where:  1.The change in ecological value of the site is equal to or greater than zero plant species, i.e. no negative change, using the methods outlined in either (a) or (b) below:  a. Determine the following information and input this data in to the BREEAM LE 03/LE 04 calculator:  i. The broad habitat type(s) that define the landscape of the assessed site in its existing pre-developed state and proposed state (see Table - 53). ii. Area (m2) of the existing and proposed broad habitat types.  OR b. Where a Suitably Qualified Ecologist (SQE) has been appointed and, based on their site survey, they confirm the following and either the assessor or ecologist inputs this data in to the BREEAM LE 03/LE 04 calculator:  i. The broad habitat types that define the landscape of the assessed site in its existing pre-developed state and proposed state. ii. Area (m2) of the existing and proposed broad habitat plot types. iii. Average total taxon (plant species) richness within each habitat type.		1 credit is mandatory for BREEAM 'Excellent'. It is likely that a green roof could be required.
				One credit where:  2. Where the change in ecological value of the site is less than zero but equal to or greater than minus nine plant species i.e. a minimal change, use the methods outlined in either 1(a) or (b) above.		

LE 04: Enhancing Site Ecology						
Ecologist's report and recommendations	LE 04-01	1	1	1. A suitably qualified ecologist (SQE) has been appointed by the client or their project representative by the end of the Preparation and Brief stage (RIBA Stage 1 or equivalent) to advise on enhancing the ecology of the site at an early stage.	1	It is assumed that the ecologist's recommendations will be implemented and that, therefore, the first credit will be awarded.
				2. The SQE has provided an Ecology Report with appropriate recommendations for the enhancement of the site's ecology at Concept Design stage (RIBA Stage 2 or equivalent). The report is based on a site visit/survey by the SQE (see also CN4).	2	
				3. The early stage advice and recommendations of the Ecology Report for the enhancement of site ecology have been, or will be, implemented in the final design and build.		
	LE 04-02	1	0	4. The criteria of the first credit are met.		
5. The recommendations of the Ecology Report for the enhancement of site ecology have been implemented in the final design and build, and the SQE confirms that this will result in an increase in ecological value of the site, with an increase of six plant species or greater (refer also to Compliance note CN8 for alternative means of compliance).						
6. The increase in plant species has been calculated using the BREEAM LE 03/LE 04 calculator, using actual plant species numbers.						
LE 05:Long Term Impact on Biodiversity						
	LE 05-01	2	2	1. Where a Suitably Qualified Ecologist (SQE) is appointed prior to commencement of activities on-site and they confirm that all relevant UK and EU legislation relating to the protection and enhancement of ecology has been complied with during the design and construction process.		It is assumed that both credits will be targeted.
				2. Where a landscape and habitat management plan, appropriate to the site, is produced covering at least the first five years after project completion in accordance with BS 42020:2013 Section 11.1. This is to be handed over to the building owner/occupants for use by the grounds maintenance staff.		
				3. Where additional measures to improve the assessed site's long term biodiversity are adopted, according to Table - 55.		
Pol 01: Impact of Refrigerants						
Impact of refrigerant	Pol 01-01	2	0	Three credits - No refrigerant use 1. Where the building does not require the use of refrigerants within its installed plant/systems. OR alternatively, where the building does require the use of refrigerants, the three credits can be awarded as follows:  Pre-requisite 2. All systems (with electric compressors) must comply with the requirements of BS EN 378:2008 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice		At this early stage it is assumed that the refrigerants will not comply, however this requires confirmation from the design team and credits may still be available.
				Two credits - Impact of refrigerant 3. Where the systems using refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELCO2e) of ≤ 100 kgCO2e/kW cooling/heating capacity. To calculate the DELCO2e please refer to the Relevant definitions in the Additional information section and the Methodology section.  OR 4. Where air-conditioning or refrigeration systems are installed the refrigerants used have a Global Warming Potential (GWP) ≤10.  OR  One credit - Impact of refrigerant 5. Where the systems using refrigerants have Direct Effect Life Cycle CO2equivalent emissions (DELCO2e) of ≤ 1000 kgCO 2e/kW cooling/heating capacity.		
Leak detection	Pol 01-02	1	1	6. Where systems using refrigerants have a permanent automated refrigerant leak detection system installed; OR where an in-built automated diagnostic procedure for detecting leakage is installed. In all instances a robust and tested refrigerant leak detection system must be installed and must be capable of continuously monitoring for leaks.		It is assumed that a BREEAM compliant refrigerant leak detection system will be provided to secure 1 credit.
				7. The system must be capable of automatically isolating and containing the remaining refrigerant(s) change in response to a leak detection incident.		Evidence still required: - Specification - Manufacturer's literature
Pol 02: NOx Emissions						
	Pol 02-01	3	2	1. Where the plant installed to meet the building's delivered heating and cooling demand has, under normal operating conditions, a dry NOx emission level (measured at 0% excess O2) as follows: <100mg/kWh (space heating and hot water) - 1 credit <70mg/kWh (space heating and hot water) - 2 credits <40mg/kWh (space heating and hot water) - 3 credits		It is assumed that at least 2 of the 3 available credits will be targeted.



### Pol 03: Surface Water Run-off

Flood resilience	Pol 03-01	2	2	Two credits - Low flood risk  1. Where a site-specific flood risk assessment (FRA) confirms the development is situated in a flood zone that is defined as having a low annual probability of flooding (in accordance with current best practice national planning guidance). The FRA must take all current and future sources of flooding into consideration (see CN5).		The EA flood risk map suggests that the site is in a low flood risk area. A site specific FRA will be required to confirm that there is no risk of flooding from all sources.
				One credit - Medium/high flood risk  2. Where a site-specific FRA confirms the development is situated in a flood zone that is defined as having a medium or high annual probability of flooding and is not in a functional floodplain (in accordance with current best practice national planning guidance). The FRA must take all current and future sources of flooding into consideration (see CN5).		
				3. To increase the resilience and resistance of the development to flooding, one of the following must be achieved:  a. The ground level of the building and access to both the building and the site, are designed (or zoned) so they are at least 600mm above the design flood level of the flood zone in which the assessed development is located (see CN8);  OR  c. The final design of the building and the wider site reflects the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2011		
Surface Water Run-off	Pol 03-02	1	0	Pre-requisite 4. An Appropriate Consultant is appointed to carry out, demonstrate and/or confirm the development's compliance with the following criteria:		As the pre-development site is largely greenfield, it is thought that this credit will not be targeted.
				One credit		
				5. Where drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events.		
				6. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.		
	Pol 03-03	1	0	7. Calculations include an allowance for climate change; this should be made in accordance with current best practice planning guidance (see definitions).		As the pre-development site is largely greenfield, it is thought that this credit will not be targeted.
				One credit		
				8. Where flooding of property will not occur in the event of local drainage system failure (caused either by extreme rainfall or a lack of maintenance); AND		
				EITHER		
				9. Drainage design measures are specified to ensure that the post development run-off volume, over the development lifetime, is no greater than it would have been prior to the assessed site's development for the 100-year 6-hour event, including an allowance for climate change (see criterion 14).		
				10. Any additional predicted volume of run-off for this event is prevented from leaving the site by using infiltration or other Sustainable Drainage System (SuDS) techniques.		
				OR (only where criteria 9 and 10 for this credit cannot be achieved):		
				11. Justification from the Appropriate Consultant indicating why the above criteria cannot be achieved, i.e. where infiltration or other SuDS techniques are not technically viable options.		
				12. Drainage design measures are specified to ensure that the post development peak rate of run-off is reduced to the limiting discharge. The limiting discharge is defined as the highest flow rate from the following options: a. The pre-development 1-year peak flow rate; OR b. The mean annual flow rate Qbar; OR c. 2L/s/ha.		
				13. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS are in place.		
				14. For either option, above calculations must include an allowance for climate change; this should be made in accordance with current best practice planning guidance.		

Minimising Water Course Pollution	Pol 03-04	1	0	15. There is no discharge from the developed site for rainfall up to 5mm (confirmed by the Appropriate Consultant).		It is thought that criteria 15 will be difficult to achieve.
				16. In areas with a low risk source of watercourse pollution, an appropriate level of pollution prevention treatment is provided, using appropriate SuDS techniques.		
				17. Where there is a high risk of contamination or spillage of substances such as petrol and oil (see Compliance notes for a list of areas), separators (or an equivalent system) are installed in surface water drainage systems.		
				18. Where the building has chemical/liquid gas storage areas, a means of containment is fitted to the site drainage system (i.e. shut-off valves) to prevent the escape of chemicals to natural watercourses (in the event of a spillage or bunding failure).		
				19. All water pollution prevention systems have been designed and installed in accordance with the recommendations of documents such as Pollution Prevention Guideline 3 (PPG 3) and/or where applicable the SUDS manual. For areas where vehicle washing will be taking place, pollution prevention systems must be in accordance with Pollution Prevention Guidelines 13		
				20. A comprehensive and up-to date drainage plan of the site will be made available for the building/site occupiers.		
				21. Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS must be in place.		
				22. Where present, all external storage and delivery areas designed and detailed in accordance with the current best practice planning guidance (see Other information for further information).		
Pol 04: Reduction of Night Time Light Pollution						
Pol 04-01	1	1	1. Where external lighting pollution has been eliminated through effective design that removes the need for external lighting without adversely affecting the safety and security of the site and its users.		It is assumed that both credits will be targeted.	
			OR alternatively, where the building does have external lighting, one credit can be awarded as follows:			
			2. The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011. Buildings located in Scotland must comply with the light pollution criteria in the guidance note 'Controlling Light Pollution and Reducing Lighting Energy Consumption'. This can be demonstrated via completion of the checklists in Annexes B and C of the guidance note by a relevant member of the design team.			
			3. All external lighting (except for safety and security lighting) can be automatically switched off between 23:00 and 07:00.			
			4. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes.			
			5. Illuminated advertisements, where specified, must be designed in compliance with ILE Technical Report 5 – The Brightness of Illuminated Advertisements			
Pol 05: Reduction of noise pollution						
Pol 05-01	1	1	1. Where there are, or will be, no noise-sensitive areas or buildings within 800m radius of the assessed development.		It is assumed that both credits will be targeted.	
			OR			
			2. Alternatively, where the building does have noise-sensitive areas or buildings within 800m radius of the development, one credit can be awarded as follows:  a. Where a noise impact assessment in compliance with BS 7445 has been carried out and the following noise levels measured/determined:  i. Existing background noise levels at the nearest or most exposed noise-sensitive development to the proposed development or at a location where background conditions can be argued to be similar. ii. The rating noise level resulting from the new noise source (see CN4).			
			3. The noise impact assessment must be carried out by a suitably qualified acoustic consultant holding a recognised acoustic qualification and membership of an appropriate professional body (see Relevant definitions in the Additional information section).			
			4. The noise level from the proposed site/building, as measured in the locality of the nearest or most exposed noise-sensitive development, is a difference no greater than +5dB during the day (07:00 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level.			
			5. Where the noise source(s) from the proposed site/building is greater than the levels described in criterion 4, measures have been installed to attenuate the noise at its source to a level where it will comply with criterion 4.			



## Appendix 5 – Drainage and Flood Risk Report



**British  
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

**GeoReports**

**Spencer Smith  
DHA Planning  
Eclipse House  
Eclipse Park  
Maidstone  
Kent  
ME14 3EN**

## **Infiltration SuDS GeoReport:**

This report provides information on the suitability of the subsurface for the installation of infiltration sustainable drainage systems (SuDS). It provides information on the properties of the subsurface with respect to significant constraints, drainage, ground stability and groundwater quality protection.

**Report Id: GR\_213623/1**

**Client reference: PO-4706**



## Search location



Point centred at:  
631098,144207

Search location indicated in  
red

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Scale: 1:5 000 (1cm = 50 m)



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OS Street View: Scale: 1:5 000 (1cm = 50 m)

## **Assessment for an infiltration sustainable drainage system**

### **Introduction**

Sustainable drainage systems (SuDS) are drainage solutions that manage the volume and quality of surface water close to where it falls as rain. They aim to reduce flow rates to rivers, increase local water storage capacity and reduce the transport of pollutants to the water environment. There are four main types of SuDS, which are often designed to be used in sequence. They comprise:

- **source control:** systems that control the rate of runoff
- **pre-treatment:** systems that remove sediments and pollutants
- **retention:** systems that delay the discharge of water by providing surface storage
- **infiltration:** systems that mimic natural recharge to the ground.

This report focuses on infiltration SuDS. It provides subsurface information on the properties of the ground with respect to drainage, ground stability and groundwater quality protection. It is intended principally for those involved in the preliminary assessment of the suitability of the ground for infiltration SuDS, and those involved in assessing proposals from others for sustainable drainage, but it may also be useful to help house-holders judge whether or not further professional advice should be sought. If in doubt, users should consult a suitably-qualified professional about the results in this report before making any decisions based upon it.

This GeoReport is structured in two parts:

- **Part 1. Summary data.**

Comprises three maps that summarise the data contained within Part 2.

- **Part 2. Detailed data.**

Comprises a further 24 maps in four thematic sections:

- **Very significant constraints.** Maps highlight areas where infiltration may result in adverse impacts due to factors including: ground instability (soluble rocks, non-coal shallow mining and landslide hazards); persistent shallow groundwater, or the presence of made ground, which may represent a ground stability or contamination hazard.
- **Drainage potential.** Maps indicate the drainage potential of the ground, by considering subsurface permeability, depth to groundwater and the presence of floodplain deposits.
- **Ground stability.** Maps indicate the presence of hazards that have the potential to cause ground instability resulting in damage to some buildings and structures, if water is infiltrated to the ground.
- **Groundwater protection.** Maps provide key indicators to help determine whether the groundwater may be susceptible to deterioration in quality as a result of infiltration.

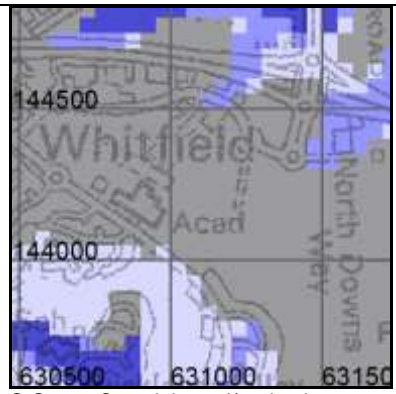









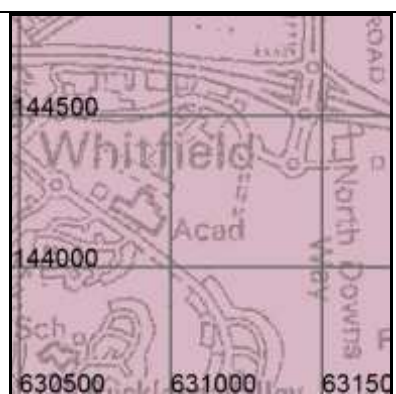






This report considers the suitability of the subsurface for the installation of infiltration SuDS, such as soakaways, infiltration basins or permeable pavements. It provides subsurface data to indicate whether, and which type of infiltration system may be appropriate. It does not state that infiltration SuDS are, or are not, appropriate as this is highly dependent on the design of the individual system. This report therefore describes the subsurface conditions at the site, allowing the reader to determine the suitability of the site for infiltration SuDS.

The map and text data in this report is similar to that provided in the '*Infiltration SuDS Map: Detailed*' national map product. For further information about the data, consult the '*User Guide for the Infiltration SuDS Map: Detailed*', available from <http://nora.nerc.ac.uk/16618/>.

## PART 1: SUMMARY DATA

This section provides a summary of the data on the following pages.

In terms of the drainage potential, is the ground suitable for infiltration SuDS?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Highly compatible for infiltration SuDS. The subsurface is likely to be suitable for free-draining infiltration SuDS.</p>
	<p> Probably compatible for infiltration SuDS. The subsurface is probably suitable although the design may be influenced by the ground conditions.</p>
	<p> Opportunities for bespoke infiltration SuDS. The subsurface is potentially suitable although the design will be influenced by the ground conditions.</p>
	<p> Very significant constraints are indicated. There is a very significant potential for one or more hazards associated with infiltration.</p>
Is ground instability likely to be a problem?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Increased infiltration is very unlikely to result in ground instability.</p>
	<p> Ground instability problems may be present or anticipated, but increased infiltration is unlikely to result in ground instability</p>
	<p> Ground instability problems are probably present. Increased infiltration may result in ground instability.</p>
	<p> There is a very significant potential for one or more geohazards associated with infiltration.</p>
Is the groundwater susceptible to deterioration in quality?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> The groundwater is not expected to be especially vulnerable to contamination.</p>
	<p> The groundwater may be vulnerable to contamination.</p>
	<p> The groundwater is likely to be vulnerable to contaminants.</p>
	<p> Made ground is present at the surface. Infiltration may increase the possibility of remobilising pollutants.</p>



## PART 2: DETAILED DATA







This section provides further information about the properties of the ground and will help assess the suitability of the ground for infiltration SuDS.


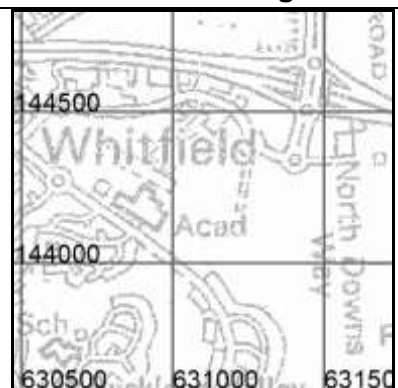

### Section 1. Very significant constraints

Where maps are overlain by grey polygons, geological or hydrogeological hazards may exist that could be made worse by infiltration. The following hazards are considered:

- soluble rocks
- landslides
- shallow mining
- shallow groundwater
- made ground

For more information read 'Explanation of terms' at the end of this report.

Soluble rock hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Very significant soluble rock hazard.</p> <p>Soluble rocks are present with a very significant possibility of localised subsidence that could be initiated or made worse by infiltration. The site investigation should consider whether the potential for or the consequences of subsidence as a result of infiltration are significant.</p>
	<p> Very significant soluble rock hazards are not present; however this hazard may still need to be considered. See Part 3.</p>
Landslide hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Very significant landslide hazard.</p> <p>Slope instability problems are almost certainly present and may be active. An increase in moisture content as a result of infiltration may cause the slope to fail. The site investigation should consider whether the potential for or the consequences of landslide as a result of infiltration are significant.</p>
	<p> Very significant landslide hazards are not present; however this hazard may still need to be considered. See Part 3.</p>

Shallow mining hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Very significant mining hazard.</p> <p>Shallow mining is likely to be present with a very significant possibility of localised subsidence that could be initiated or made worse by increased infiltration. Also, infiltration may increase the possibility of remobilising pollutants. The site investigation should consider whether the potential for or consequences of subsidence and/or remobilisation of pollutants as a result of infiltration are significant.</p> <p><input type="checkbox"/> Very significant mining hazards are not present; however this hazard may still need to be considered. See Part 3.</p>
Persistent shallow groundwater	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Very high likelihood of persistent or seasonally shallow groundwater.</p> <p>Persistent or seasonally shallow groundwater is likely to be present. Infiltration may increase the likelihood of soakaway inundation, or groundwater emergence at the surface. The site investigation should consider whether the potential for or the consequences of groundwater level rise as a result of infiltration are significant.</p> <p><input type="checkbox"/> See Part 2 for the likely depth to water table.</p>
Made ground	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Made ground present.</p> <p>Made ground is present at the surface. Infiltration may affect ground stability or increase the possibility of remobilising pollutants. The site investigation should consider whether the potential for or consequences of ground instability and/or pollutant leaching as a result of infiltration are significant.</p> <p><input type="checkbox"/> None recorded</p>



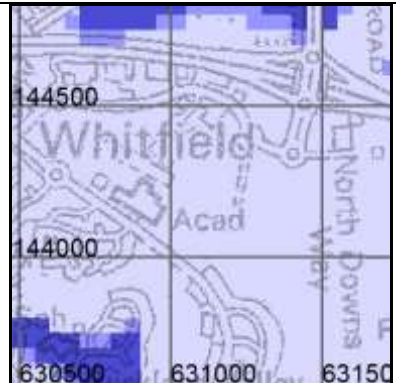



## Section 2. Drainage potential

The following pages contain maps that will help you assess the drainage potential of the ground by considering the:

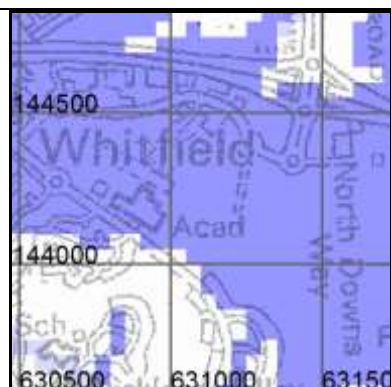
- depth to water table
- permeability of the superficial deposits
- thickness of the superficial deposits
- permeability of the bedrock
- presence of floodplains

Superficial deposits are not present everywhere and therefore some areas of the *superficial deposit permeability* map may not be coloured. Where this is the case, the *bedrock permeability* map shows the likely permeability of the ground. Superficial deposits in some places are very thin and hence in these places you may wish to consider both the permeability of the superficial deposits and the permeability of the bedrock. The *superficial thickness* map will tell you whether the superficial deposits are thin (< 3 m thick) or thick (>3 m). Where they are over 3 m thick, the permeability of the bedrock may not be relevant.

For more information read 'Explanation of terms' at the end of this report.

Depth to groundwater table	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Groundwater is likely to be <b>more than 5 m</b> below the ground surface throughout the year.</p>
	<p> Groundwater is likely to be between <b>3 and 5 m</b> below the ground surface for at least part of the year.</p>
	<p> Groundwater is likely to be <b>less than 3 m</b> below the ground surface for at least part of the year.</p>

### Superficial deposit permeability



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Superficial deposits are likely to be **free-draining**.



The superficial deposit permeability is **spatially variable**, but likely to permit moderate infiltration.

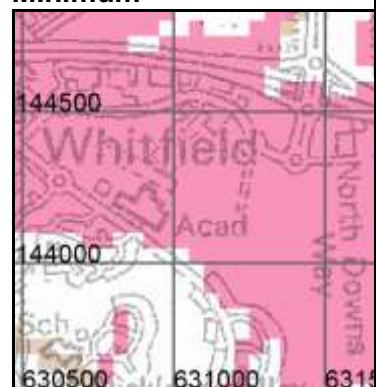


Superficial deposits are likely to be **poorly draining**.

These maps show the permeability range that is summarised above.

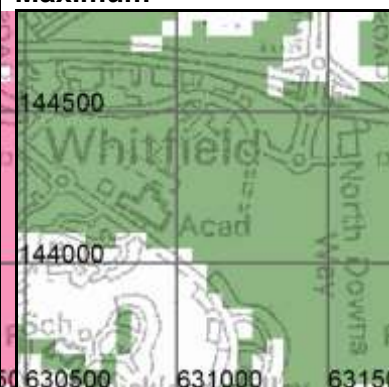
-  Very Low
-  Low
-  Moderate
-  High
-  Very High

#### Minimum



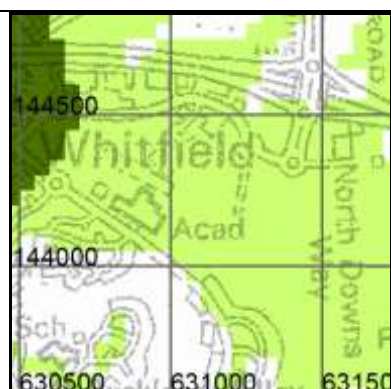
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#### Maximum



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### Superficial deposit thickness



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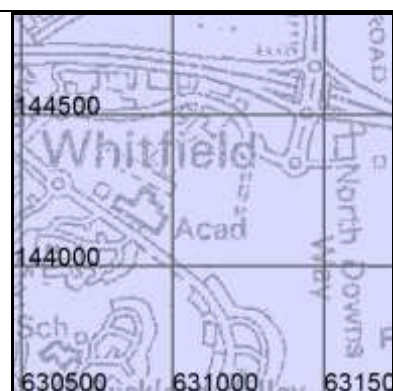
The thickness of superficial deposits is **< 3 m** and hence the permeability of the ground may be dependent on both the superficial deposits (where present) and underlying bedrock (see below).



The thickness of superficial deposits is **> 3 m** and hence the permeability of the superficial deposits is likely to determine the permeability of the ground.



### Bedrock permeability



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Bedrock deposits are likely to be **free-draining**.



The bedrock permeability is **spatially variable**, but likely to permit moderate infiltration.



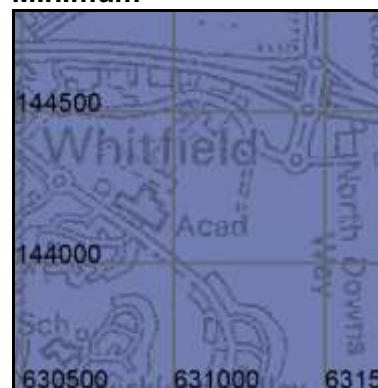
Bedrock deposits are likely to be **poorly draining**.

These maps show the permeability range that is summarised above.

#### Key

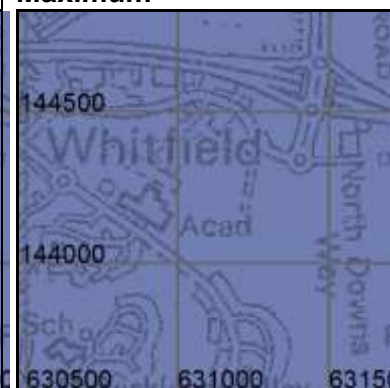
-  Very Low
-  Low
-  Moderate
-  High
-  Very High

#### Minimum



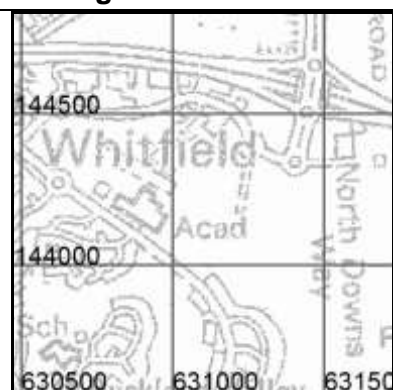
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#### Maximum



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### Geological indicators of flooding



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



Superficial floodplain deposits or low-lying coastal areas have been identified. Groundwater levels may rise in response to high river or tide levels, potentially causing inundation of subsurface infiltration SuDS.

## Section 3. Ground stability

The following pages contain maps that will help you assess whether infiltration may impact the stability of the ground. They consider hazards associated with:

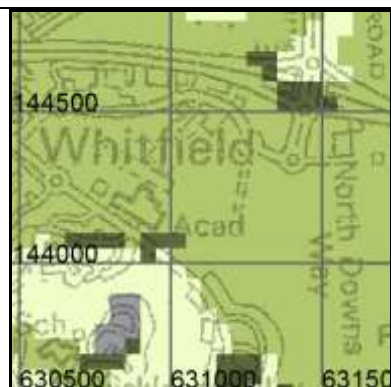
- soluble rocks
- landslides
- shallow mining
- running sands
- swelling clays
- compressible ground, and
- collapsible ground

In the following maps, geohazards that are identified in green are unlikely to prevent infiltration SuDS from being installed, but they should be considered during design. For more information read 'Explanation of terms' at the end of this report.





Soluble rocks	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	 Increased infiltration is unlikely to result in subsidence.
	 Increased infiltration is unlikely to cause localised subsidence, but potential impacts should be considered.
	 Increased infiltration may result in localised subsidence. The potential for or the consequences of subsidence associated with soluble rocks should be considered.
	 Very significant possibility of localised subsidence that could be initiated or made worse by infiltration.



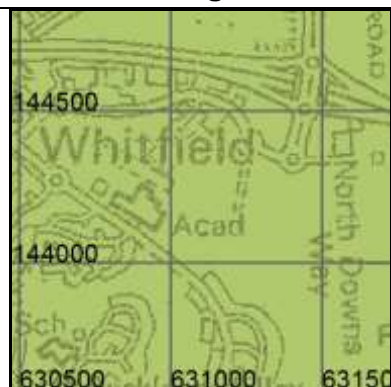
## Landslides







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-  Increased infiltration is unlikely to lead to slope instability.
-  Slope instability problems may be present or anticipated, but increased infiltration is unlikely to cause instability
-  Slope instability problems are probably present or have occurred in the past, and increased infiltration may result in slope instability.
-  Slope instability problems are almost certainly present and may be active. An increase in moisture content as a result of infiltration may cause the slope to fail.

## Shallow mining






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-  Increased infiltration is unlikely to lead to subsidence.
-  Shallow mining is possibly present. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.
-  Shallow mining could be present with a significant possibility that localised subsidence could be initiated or made worse by increased infiltration.
-  Shallow mining is likely to be present, with a very significant possibility that localised subsidence may be initiated or made worse by increased infiltration.

## Running sand



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-  Increased infiltration is unlikely to cause ground collapse associated with running sands.
-  Running sand is possibly present. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.
-  Significant possibility for running sand problems. Increased infiltration may result in a geohazard.

Swelling clays	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p>Increased infiltration is unlikely to cause shrink-swell ground movement.</p>
	<p>Ground is susceptible to shrink-swell ground movement. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.</p>
	<p>Ground is susceptible to shrink-swell ground movement. Increased infiltration may result in a geohazard.</p>
Compressible ground	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p>Increased infiltration is unlikely to lead to ground compression.</p>
	<p>Compressibility and uneven settlement hazards are probably present. Increased infiltration may result in a geohazard.</p>
Collapsible ground	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p>Increased infiltration is unlikely to result in subsidence.</p>
	<p>Deposits with potential to collapse when loaded and saturated are possibly present in places. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.</p>
	<p>Deposits with potential to collapse when loaded and saturated are probably present in places. Increased infiltration may result in a geohazard.</p>

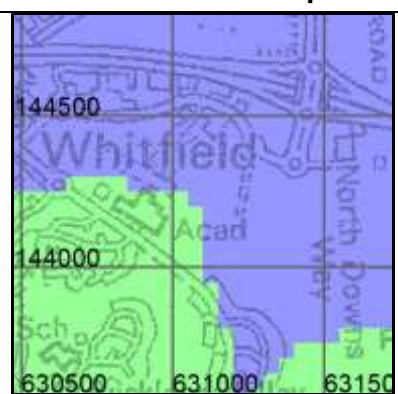
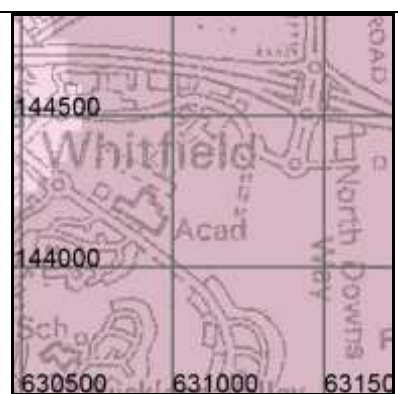


## Section 4. Groundwater quality protection

The following pages contain maps showing some of the information required to ensure the protection of groundwater quality. Data presented includes:

- groundwater source protection zones (Environment Agency data)
- predominant flow mechanism
- made ground

For more information read 'Explanation of terms' at the end of this report.

Groundwater source protection zones	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p> <p>Derived in part from Source Protection Zone data provided under licence from the Environment Agency © Environment Agency 2016.</p>	<div> <div></div> Groundwater is not within a source protection zone. </div>
	<div> <div></div> Source protection zone IV </div>
	<div> <div></div> Source protection zone III </div>
	<div> <div></div> Source protection zone II </div>
	<div> <div></div> Source protection zone I. </div>
Predominant flow mechanism	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<div> <div></div> Water is likely to percolate through the unsaturated zone to the groundwater through either the pore space in granular media or through porespace and fractures; these processes have some potential for contaminant removal and breakdown. </div>
	<div> <div></div> Water is likely to percolate through the unsaturated zone to the groundwater through fractures, a process which has little potential for contaminant removal and breakdown. </div>

## Made ground



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Made ground is present at the surface. Infiltration may increase the possibility of remobilising pollutants.



## Section 5. Geological Maps

The following maps show the artificial, superficial and bedrock geology within the area of interest.

### Artificial deposits



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### Superficial deposits



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### Bedrock



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Note: Faults and Coals, ironstone & mineral veins are shown for illustration and to aid interpretation of the map. Not all such features are shown and their absence on the map face does not necessarily mean that none are present

Key to Artificial deposits:




**No deposits recorded by BGS in the search area**

Key to Superficial deposits:

Map colour	Computer Code	Rock name	Rock type
	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
	HEAD-XZV	HEAD	SILT AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
	CWF-XCZSV	CLAY-WITH-FLINTS FORMATION	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]



Key to Bedrock geology:

Map colour	Computer Code	Rock name	Rock type
	MACK-CHLK	MARGATE CHALK MEMBER	CHALK
	SECK-CHLK	SEAFORD CHALK FORMATION	CHALK
	LECH-CHLK	LEWES NODULAR CHALK FORMATION	CHALK



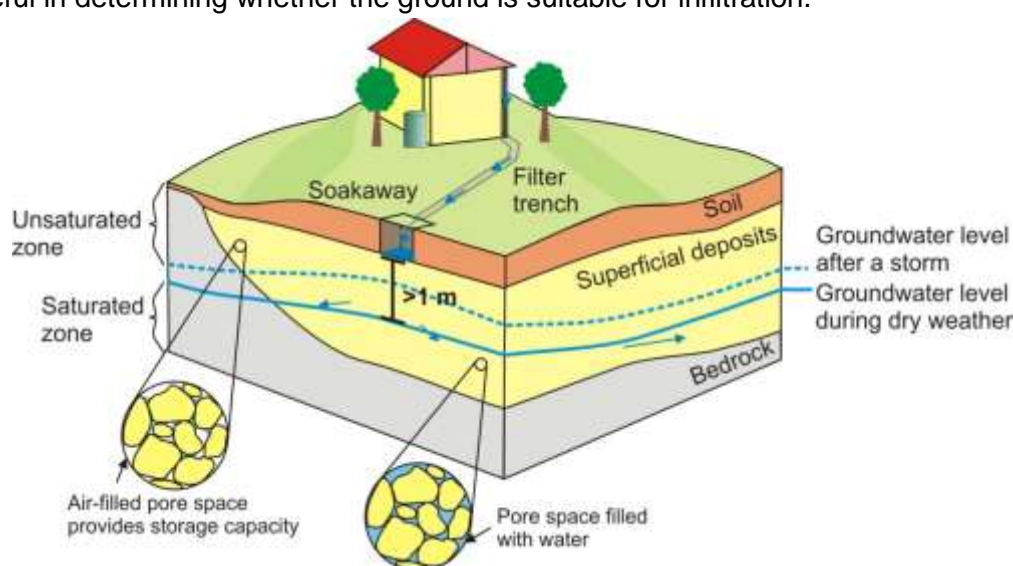
### Limitations of this report:

- This report is concerned with the potential for infiltration-to-the-ground to be used as a SuDS technique at the site described. It only considers the subsurface beneath the search area and does NOT consider potential surface or subsurface impacts outside of that area.
- This report is NOT an alternative for an on-site investigation or soakaway test, which might reach a different conclusion.
- This report must NOT be used to justify disposal of foul waste or grey water.
- This report is based on and limited to an interpretation of the records held by the British Geological Survey (BGS) at the time the search is performed. The datasets used (with the exception of that showing depth to water table) are based on 1:50 000 digital geological maps and not site-specific data.
- Other more specific and detailed ground instability information for the site may be held by BGS, and an assessment of this could result in a modified assessment.
- To interpret the maps correctly, the report must be viewed and printed in colour.
- The search does NOT consider the suitability of sites with regard to:
  - previous land use,
  - potential for, or presence of contaminated land
  - presence of perched water tables
  - shallow mining hazards relating to coal mining. Searches of coal mining should be carried out via The Coal Authority Mine Reports Service: [www.coalminingreports.co.uk](http://www.coalminingreports.co.uk).
  - made ground, where not recorded
  - proximity to landfill sites (searches for landfill sites or contaminated land should be carried out through consultation with local authorities/Environment Agency)
  - zones around private water supply boreholes that are susceptible to groundwater contamination.
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## Explanation of terms

### Depth to groundwater

In the shallow subsurface, the ground is commonly unsaturated with respect to water. Air fills the spaces within the soil and the underlying superficial deposits and bedrock. At some depth below the ground surface, there is a level below which these spaces are full of water. This level is known as the groundwater level, and the water below it is termed the groundwater. When water is infiltrated, the groundwater level may rise temporarily. To ensure that there is space in the unsaturated zone to accommodate this, there should be a minimum thickness of 1 m between the base of the infiltration system and the water table. An estimate of the *depth to groundwater* is therefore useful in determining whether the ground is suitable for infiltration.



### Groundwater flooding

Groundwater flooding occurs when a rise in groundwater level results in very shallow groundwater or the emergence of groundwater at the surface. If infiltration systems are installed in areas that are susceptible to groundwater flooding, it is possible that the system could become inundated. The susceptibility map seeks to identify areas where the geological conditions and water tables indicate that groundwater level rise could occur under certain circumstances. A high susceptibility to groundwater flooding classification does not mean that groundwater flooding has ever occurred in the past, or will do so in the future as the susceptibility maps do not contain information on how often flooding may occur. The susceptibility maps are designed for planning; identifying areas where groundwater flooding might be an issue that needs to be taken into account.



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### **Geological indicators of flooding**

In floodplain deposits, groundwater level can be influenced by the water level in the adjacent river. Groundwater level may increase during periods of fluvial flood and therefore this should be taken into account when designing infiltration systems on such deposits. The *geological indicators of flooding* dataset shows where there is geological evidence (floodplain deposits) that flooding has occurred in the past.

For further information on flood-risk, the likely frequency of its recurrence in relation to any proposed development of the site, and the status of any flood prevention measures in place, you are advised to contact the local office of the Environment Agency (England and Wales) at [www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/) or the Scottish Environment Protection Agency (Scotland) at [www.sepa.org.uk](http://www.sepa.org.uk).

### **Artificial ground**

Artificial ground comprises deposits and excavations that have been created or modified by human activity. It includes ground that is worked (quarries and road cuttings), infilled (back-filled quarries), landscaped (surface re-shaping), disturbed (near surface mineral workings) or classified as made ground (embankments and spoil heaps). The composition and properties of artificial ground are often unknown. In particular, the permeability and chemical composition of the artificial ground should be determined to ensure that the ground will drain and that any contaminants present will not be remobilised.

### **Superficial permeability**

Superficial deposits are those geological deposits that were formed during the most recent period of geological time (as old as 2.6 million years before present). They generally comprise relatively thin deposits of gravel, sand, silt and clay and are present beneath the pedological soil in patches or larger spreads over much of Britain. The ease with which water can percolate through these deposits is controlled by their permeability and varies widely depending on their composition. Those deposits comprising clays and silts are less permeable and thus infiltration is likely to be slow, such that water may pool on the surface. In comparison, deposits comprising sands and gravels are more permeable allowing water to percolate freely.

### **Bedrock permeability**

Bedrock forms the main mass of rock forming the Earth. It is present everywhere, commonly beneath superficial deposits. Where the superficial deposits are thin or absent, the ease with which water will percolate into the ground depends on the permeability of the bedrock.

### **Natural ground instability**

Natural ground instability refers to the propensity for upward, lateral or downward movement of the ground that can be caused by a number of natural geological hazards (e.g. ground dissolution/compressible ground). Some movements associated with particular hazards may be gradual and of millimetre or centimetre scale, whilst others may be sudden and of metre or tens of metres scale. Significant natural ground instability has the potential to cause damage to buildings and structures, especially when the drainage characteristics of a site are altered. It should be noted, however, that many buildings, particularly more modern ones, are built to such a standard that they can remain unaffected in areas of significant ground movement.

### **Shrink-swell**

A shrinking and swelling clay changes volume significantly according to how much water it contains. All clay deposits change volume as their water content varies, typically swelling in winter and shrinking in summer, but some do so to a greater extent than others. Contributory circumstances could include drought, leaking service pipes, tree roots drying-out the ground or changes to local drainage patterns, such as the creation of soakaways. Shrinkage may remove support from the foundations of buildings and structures, whereas clay expansion may lead to uplift (heave) or lateral stress on part or all of a structure; any such movements may cause cracking and distortion.

### **Landslides (slope stability)**

A landslide is a relatively rapid outward and downward movement of a mass of ground on a slope, due to the force of gravity. A slope is under stress from gravity but will not move if its strength is greater than this stress. If the balance is altered so that the stress exceeds the strength, then movement will occur. The stability of a slope can be reduced by removing ground at the base of the slope, by placing material on the slope, especially at the top, or by increasing the water content of the materials forming the slope. Increase in subsurface water content beneath a soakaway could increase susceptibility to landslide hazards. The assessment of landslide hazard refers to the stability of the present land surface. It does not encompass a consideration of the stability of excavations.

### **Soluble rocks (dissolution)**

Some rocks are soluble in water and can be progressively removed by the flow of water through the ground. This process tends to create cavities, potentially leading to the collapse of overlying materials and possibly subsidence at the surface. The release of water into the subsurface from infiltration systems may increase the dissolution of rock or destabilise material above or within a cavity. Dissolution cavities may create a pathway for rapid transport of contaminated water to an aquifer or water course.



### **Compressible ground**

Many ground materials contain water-filled pores (the spaces between solid particles). Ground is compressible if a building (or other load) can cause the water in the pore space to be squeezed out, causing the ground to decrease in thickness. If ground is extremely compressible the building may sink. If the ground is not uniformly compressible, different parts of the building may sink by different amounts, possibly causing tilting, cracking or distortion. The compressibility of the ground may alter as a result of changes in subsurface water content caused by the release of water from soakaways.

### **Collapsible deposits**

Collapsible ground comprises certain fine-grained materials with large pore spaces (the spaces between solid particles). It can collapse when it becomes saturated by water and/or a building (or other structure) places too great a load on it. If the material below a building collapses it may cause the building to sink. If the collapsible ground is variable in thickness or distribution, different parts of the building may sink by different amounts, possibly causing tilting, cracking or distortion. The subsurface underlying a soakaway will experience an increase in water content that may affect the stability of the ground. This hazard is most likely to be encountered only in parts of southern England.

### **Running sand**

Running sand conditions occur when loosely-packed sand, saturated with water, flows into an excavation, borehole or other type of void. The pressure of the water filling the spaces between the sand grains reduces the contact between the grains and they are carried along by the flow. This can lead to subsidence of the surrounding ground. Running sand is potentially hazardous during the drainage system installation. During installation, excavation of the ground may create a space into which sand can flow, potentially causing subsidence of surrounding ground.

### **Shallow mining hazards (non coal)**

Current or past underground mining for coal or for other commodities can give rise to cavities at shallow or intermediate depths, which may cause fracturing, general settlement, or the formation of crown-holes in the ground above. Spoil from mineral workings may also present a pollution hazard. The release of water into the subsurface from soakaways may destabilise material above or within a cavity. Cavities arising as a consequence of mining may also create a pathway for rapid transport of contaminated water to an aquifer or watercourse. The mining hazards map is derived from the geological map and considers the potential for subsidence associated with mining on the basis of geology type. Therefore if mining is known to occur within a certain rock, the map will highlight the potential for a hazard within the area covered by that geology.



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For more information regarding underground and opencast **coal mining**, the location of mine entries (shafts and adits) and matters relating to subsidence or other ground movement induced by **coal mining** please contact the Coal Authority, Mining Reports, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG; telephone 0845 762 6848 or at [www.coal.gov.uk](http://www.coal.gov.uk). For more information regarding other types of mining (i.e. non-coal), please contact the British Geological Survey.

#### **Groundwater source protection zones**

In England and Wales, the Environment Agency has defined areas around wells, boreholes and springs that are used for the abstraction of public drinking water as source protection zones. In conjunction with Groundwater Protection Policy the zones are used to restrict activities that may impact groundwater quality, thereby preventing pollution of underlying aquifers, such that drinking water quality is upheld. The Environment Agency can provide advice on the location and implications of source protection zones in your area ([www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/))



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## **Contact Details**

### ***Keyworth Office***

British Geological Survey  
Environmental Science Centre  
Nicker Hill  
Keyworth  
Nottingham  
NG12 5GG  
Tel: 0115 9363143  
Fax: 0115 9363276  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)

### ***Wallingford Office***

British Geological Survey  
Maclean Building  
Wallingford  
Oxford  
OX10 8BB  
Tel: 01491 838800  
Fax: 01491 692345  
Email: [hydroenq@bgs.ac.uk](mailto:hydroenq@bgs.ac.uk)

### ***Edinburgh Office***

British Geological Survey  
Lyell Centre  
Research Avenue South  
Edinburgh  
EH14 4AP  
Tel: 0131 6671000  
Email: [enquiry@bgs.ac.uk](mailto:enquiry@bgs.ac.uk)



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- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
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- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
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- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
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- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.
- Note that for some sites, the latest available records may be quite historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

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- ♦ Land & Building Surveyors
- ♦ Geo-Environmental Engineers
- ♦ Project Managers
- ♦ CDM Consultants
- ♦ Contract Administrators

Our Ref: 13850X/HW/CPS

23 June 2016

The Sports Consultancy  
One de Walden Court  
85 New Cavendish Street  
London  
W1W 6XD

**By email only**

Dealt with by: Colin Shackelford

Direct Dial No: 01622 621978

For the attention of Mr Tom Pinnington

Dear Tom

## **Land off Honeywood Parkway, Dover**

This report has been prepared to present an initial assessment of surface water drainage options for the proposed Dover Leisure Centre at Land off Honeywood Parkway in Dover. In order to complete this assessment, Environment Agency (EA) and British Geological Survey (BGS) maps were consulted along with a BGS Infiltration SuDs GeoReport, which is specific to the site and is appended to this report.

### **Site Location and Setting**

The site is located approximately 1.1km to the south east of Whitfield, 2.7km to the north-north west of Dover and is centred on National Grid Reference 631100, 144230.

Currently the site comprises open farm land, occupying an area of around 12.5 hectares, bound to the north by Honeywood Parkway. The northern part of the site is bound to the west by commercial developments off Kedleston Road and to the east by a spur road from Honeywood Parkway. The southern part of the site is bound to the west by Dover Christ Church Academy and to the south by Melbourne Avenue. The eastern extent of this part of the site is undefined. The northern boundary is defined in part by a hedgerow.

The site lies in a fairly open area with some further commercial development to the north west and a little to the north east and with residential areas to the south and south east. Land to the north of the A2 is largely undeveloped, with the exception of Whitfield to the north west and smaller villages to the north and north east.

Evans & Langford LLP (E&L) have previously carried out a topographical survey of the north western part of the site. This shows the most northern part of the site to lie at 119.3m, with land sloping up to the south west to 126.3m over a horizontal distance of 260m. Ordnance Survey mapping of the site as a whole shows the site to slope up from the northern corner, which lies a little below the 120m OD contour, up to 125m OD at about the mid-point of the site, then down to the south western boundary which lies close to the 120m OD contour.

Southern Water asset plans show that there are no surface water sewers close to the site. There is a foul sewer with a number of spurs beneath Honeywood Parkway to the north. There is a foul pumping main from Honeywood Park Industrial Park pumping station just to the north of the site. The 225mm vitrified clay rising

Continued /



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Partners: S G Robertson / C P Shackelford  
Associates: T R Chainey / D P McLeish

Evans & Langford LLP, 91 King Street, Maidstone, Kent ME14 1BG  
+44 (0) 1622 690120 / mail@evanslangford.co.uk

main runs just within the site, following the north western boundary. Manhole information close to the south western corner of the site shows the pipe to be 1.47m below ground level. It should be noted that as part of the topographic survey works undertaken previously, E&L commissioned a buried utilities survey specialist to attempt to trace the rising main. All efforts proved fruitless; it is non-metallic and too small to be picked up by ground penetrating radar.

## **Geology**

Reference to the BGS records for the area indicates that the site is underlain by the Margate Chalk Member. At the most southerly extent of the site, close to Melbourne Avenue the overlying Seaford Chalk Formation is present. Superficial deposits of the Clay-with-Flints Formation are mapped across the entire site, with the exception of a very small area along the centre of the southern boundary. Made/artificial ground, other than that present as a result of disturbance caused by ploughing is not likely to be present on the site.

The Margate Chalk Member comprises marl-free smooth white chalk with little flint. The Seaford Chalk Formation consists of firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. Hardgrounds and thin marls are known from the lowest beds. Some flint nodules are large to very large. The Clay-with-Flints Formation is a residual deposit formed from the dissolution, decalcification and cryoturbation of bedrock strata of the Chalk Group and Palaeogene formations. It is unbedded and heterogenous. The dominant lithology is orange-brown and red-brown sandy clay with abundant nodules and rounded pebbles of flint. Angular flints are derived from the Chalk, and rounded flints, sand and clay from Palaeogene formations. The deposit locally includes bodies of yellow fine to medium grained sand, reddish brown clayey silt, and sandy clay with beds of well-rounded flint pebbles, derived from Palaeogene formations.

The Chalk generally has an undulating upper surface, which is often characterised by the presence of solution features. These generally consist of fissures in the top of the chalk but may also take the form of pipes and cavities in otherwise intact chalk, at or about the groundwater table level. The voids are often filled with loose material that has collapsed into them or alternatively, in the case of fissures in the top of the chalk, any more competent materials may arch over the void. In this instance collapse into the void can be brought about by an increase in applied load or weakening of the overlying soil, possibly by water leaking from defective drainage. These features are particularly common at the margins of any overlying deposits.

## **Hydrogeology**

The EA classifies the superficial deposits on the site as unproductive strata in terms of groundwater storage. Both the Margate Chalk Member and Seaford Chalk Formation are classified as principal aquifers. These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifers.

EA records and the GeoReport show the majority of the site to lie in a Zone III, total catchment groundwater source protection zone (SPZ). The eastern part of the site lies in a Zone II, outer SPZ,. A Zone III SPZ represents the area around a source within which all groundwater recharge is presumed to be discharged at the source. A Zone II SPZ is defined by a 400-day travel time from a point below the water table. This zone has a minimum radius of 250 or 500 meters around the source, depending on the size of the abstraction. EA maps do not show any licensed groundwater abstractions within 1km of the site.

The GeoReport indicates that:

- Water is likely to percolate through the unsaturated zone to the groundwater through fractures; a process which has little potential for contaminant removal and breakdown.
- Groundwater is likely to be more than 5m below the surface throughout the year.
- The superficial deposits across the site are likely to be less than 3m thick and of spatially variable permeability. These soils have a range of very low to high permeability, but are likely to permit moderate infiltration. Bedrock deposits are likely to be free draining with very high permeability.

Groundwater flow direction beneath the site is considered likely to be towards the south/south west, based on the location of the nearest surface water feature, the topography and the location of the groundwater source protection zones.

Continued/



The Ground Stability maps in the GeoReport highlight that:

- There is considered to be a very significant soluble rock hazard across the site (i.e. the solution features referred to previously) which leads to the very significant possibility of localised subsidence, that could be initiated or made worse by infiltration.
- Slope instability problems (landslides) may be present or anticipated, but increased infiltration is unlikely to cause instability.
- Shallow mining is possibly present. Increased infiltration is unlikely to cause a geohazard but potential impacts should be considered.
- The clay soils are susceptible to shrink-swell ground movement. Increased infiltration is unlikely to cause a geohazard but potential impacts should be considered.
- Ground stability hazards associated with running sand, compressible or collapsible ground are unlikely to present a problem on this site with respect to increased infiltration to the ground.

### **Hydrology**

The nearest surface water feature evident on maps of the area is the River Dour which lies approximately 1.50km to the south, and flows to the south east. The ground level around the river to the south/south east of the site is approximately 100m vertical lower than the site itself.

EA mapping shows that the site and all areas within a 1km radius lie outside of any areas considered at risk of flooding from rivers and the sea. Additionally, the site is not considered at risk of flooding from surface water or reservoirs. There are no geological indicators of flooding highlighted in the GeoReport on or close to the site.

EA maps do not show any licensed surface water abstractions within 1km of the site.

### **Nearby Records and Previous Investigations**

There are no BGS borehole record scans for the site itself. There are a number of boreholes shown just to the west of the southern part of the site, but no records other than the depth and location are available on their website. The exception to this is for a borehole that dates from September 1970, located to the west of the central part of the site. This borehole was drilled to 1.80m, successively through topsoil, silty clay with occasional flint chips, and flints in a silty clay matrix, identified as Head Brickearth, and Head respectively. This borehole reminded dry.

In 2007 E&L excavated six trial pits across the northern part of the site. These found Fill/topsoil to 0.30m over Clay-with-flints which was typically stiff brown silty CLAY with occasional flints. CHALK was found in five positions in pockets, for example the end or corner of a pit found chalk at a certain depth but this was not present elsewhere in the pit. The depth of chalk was variable and was seen from a minimum of 1.20m, but elsewhere the chalk was not present at the full depth of the pits, which were excavated to between 3.50 and 4.00m. A soakage test was carried out in one of the pits which found chalk in one corner; this gave an infiltration rate of  $1.6 \times 10^{-5}$  m/s. This investigation also included thirty-five dynamic probes which were taken to a maximum depth of 10m; locally, these showed low blow counts at depth, indicating the likely presence of solution features. The desk study associated with this work also identified the known presence of solution features within the vicinity of the site.

In 2009 E&L drilled a number of cable percussion boreholes on the parcel of land immediately east of the northern part of the site and for the spur road which abuts the site to the east. These found topsoil to a maximum depth of 0.40m, over superficial deposits comprising CLAY layers, with a little organic mottling at the top of the formation. Clay generally contained flints, and was locally clayey or silty. The lower clay horizons included a little chalk silt and/or gravel. Below the clay, Upper Chalk was encountered as white CHALK silt with some intact chalk gravel (it should be noted that the action of the drilling tools reduces the chalk, at least in part, to a chalk silt slurry, thus recovered samples do not necessarily represent the nature/structure of the chalk in situ). The top level of the chalk varied significantly across the site from between 1.65m and 9.80m deep (123.26m and 112.35m OD); this is considered likely to indicate significant solution feature activity on the site. Two of the thirteen holes drilled found infilled solution features at depth within otherwise intact chalk. These were found at 16.10m to 17.80m and at 9.20m to 10.20m below ground level. The location of the solution features does not represent a specific area or any particular predictable pattern across the site. All boreholes remained dry whilst open.

Continued/

Falling head soakage tests were carried out in six boreholes across the site, with the exposed section of the borehole being at around 8.00-10.00m. These tests found variable soakage rates, but indicated that deep bored soakaways would be a feasible option for disposing of surface water on the site. For a head of 6.80/7.00m, i.e. water around 2.00m below ground level, infiltration rates in chalk of between 36-206 l/m<sup>2</sup>/min were calculated. For a head of 4.80/5.00m, i.e. water level at 4.00m below ground level, the range was 10-44 l/m<sup>2</sup>/min.

The planning database of Dover District Council was also searched for nearby ground investigation information. None was found, except for the full report prepared by E&L following the above mentioned ground investigation.

### **Recommendations for Surface Water Drainage**

In view of the above information above it can be concluded that it is very likely that solution features will be present on the site. The infill to these features may be susceptible to washout of fine material or collapse settlement, which can result in the formation of a void that will eventually migrate to the surface and cause significant subsidence issues, potentially damaging buildings and critical services, and causing a safety hazard to site staff and users. If damage is caused to water mains or sewers, these would add more water to the shallow soils, exacerbating the problems. Surface water must therefore be kept away from solution features. Foul drainage and water mains must also be designed to be robust and not prone to leakage; in particular, they must be able to resist seasonal movements that will occur at shallow depth in the clay soils present. The design of landscaping for the proposed scheme should keep any tree planting well away from water-bearing (and any other critical) services, since seasonal volume change will be increased within the zone of influence of trees.

In addition, the thickness of the superficial deposits and thus the depth to the surface of the chalk is likely to vary considerably across the site. These deposits will exhibit variable, and likely low soakage rates, given their predominantly clayey nature, but more significantly it will not be possible to determine whether the superficial deposits seen at a given location are above (or indeed within) a solution feature within the chalk.

It is therefore recommended that all surface water be discharged into intact chalk at depth by a series of deep bored soakaways, located at intervals across the site. These must be sealed through any superficial deposits and solution feature infill (including any found at depth, as in the E&L investigation on the adjacent site). Soakaways should be sited as far as is practically possible and certainly no closer than 10m from buildings.

Clean roof water may discharge straight to soakaway chambers, provided this is via sealed down pipes, with no possible access for pollutants. Surface water from car parks, paving and the like should pass through trapped gullies and a well maintained oil interceptor. As noted above, the pipework must be robust and designed to accommodate a degree of ground movement; the National House Building Council Standards, Chapter 4.2, "Building near Trees" has some guidance on this.

The EA may require a permit to discharge surface water over a principal aquifer and are likely to require that discharge of water occurs a certain distance, normally 10m, above the groundwater table.

Swales and unlined ponds (i.e. 'suds' features) are not considered to be suitable options for this site as although there is likely to be adequate space, the shallow soils should not be inundated with water. Permeable paving, which mimics the current situation (i.e. rain falling on land and entering the ground at that location) may be acceptable for small, untrafficked areas. The principle is that there should be no concentrated discharge into the ground, except at the deep-bored soakaway locations.

Due to the nature of the proposals for the site, rainwater harvesting may be an option, which would reduce the volume of water discharged to the soakaways, and also the demands of the development for potable water supply.

It is considered that the range of soil infiltration rates noted above, for the adjacent site, could be used for preliminary design purposes. The next stage would be to drill a series of cable percussion boreholes across the site, to determine site-specific infiltration rates, and to assess further the spatial/vertical frequency of solution features. If the boreholes were to be drilled at likely soakaway locations, liner pipes could be installed, capped and buried, and their location accurately recorded, for later use in the development itself.

Continued/



We hope that our report is clear. Please do not hesitate to contact us if you have any queries.

Yours sincerely  
For and on behalf of Evans & Langford LLP



Enc.

BGS Infiltration SuDS GeoReport



**British  
Geological Survey**

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**GeoReports**

**Spencer Smith  
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## **Infiltration SuDS GeoReport:**

This report provides information on the suitability of the subsurface for the installation of infiltration sustainable drainage systems (SuDS). It provides information on the properties of the subsurface with respect to significant constraints, drainage, ground stability and groundwater quality protection.

**Report Id: GR\_213623/1**

**Client reference: PO-4706**



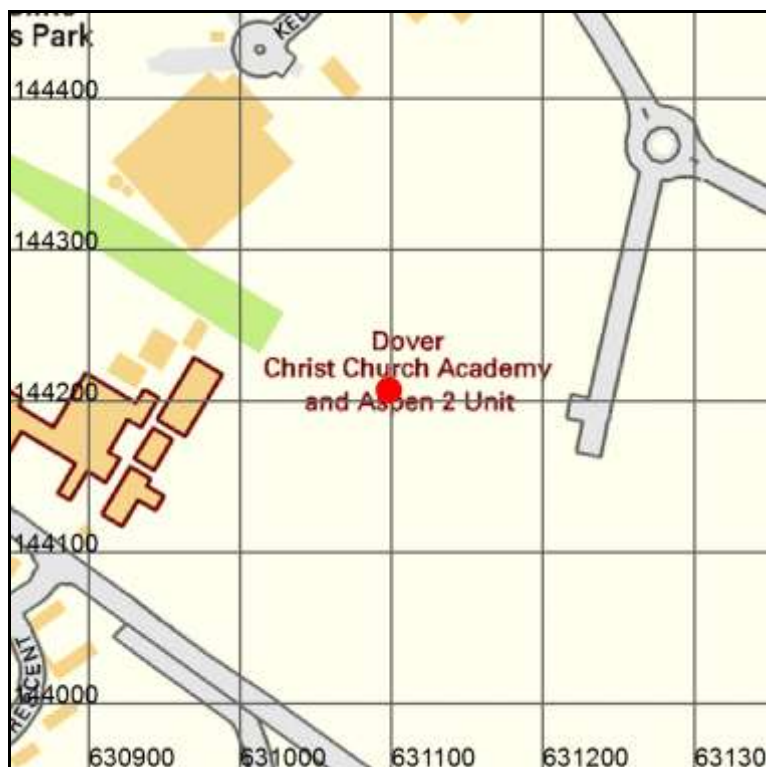
## Search location



Point centred at:  
631098,144207

Search location indicated in  
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## **Assessment for an infiltration sustainable drainage system**

### **Introduction**

Sustainable drainage systems (SuDS) are drainage solutions that manage the volume and quality of surface water close to where it falls as rain. They aim to reduce flow rates to rivers, increase local water storage capacity and reduce the transport of pollutants to the water environment. There are four main types of SuDS, which are often designed to be used in sequence. They comprise:

- **source control:** systems that control the rate of runoff
- **pre-treatment:** systems that remove sediments and pollutants
- **retention:** systems that delay the discharge of water by providing surface storage
- **infiltration:** systems that mimic natural recharge to the ground.

This report focuses on infiltration SuDS. It provides subsurface information on the properties of the ground with respect to drainage, ground stability and groundwater quality protection. It is intended principally for those involved in the preliminary assessment of the suitability of the ground for infiltration SuDS, and those involved in assessing proposals from others for sustainable drainage, but it may also be useful to help house-holders judge whether or not further professional advice should be sought. If in doubt, users should consult a suitably-qualified professional about the results in this report before making any decisions based upon it.

This GeoReport is structured in two parts:

- **Part 1. Summary data.**

Comprises three maps that summarise the data contained within Part 2.

- **Part 2. Detailed data.**

Comprises a further 24 maps in four thematic sections:

- **Very significant constraints.** Maps highlight areas where infiltration may result in adverse impacts due to factors including: ground instability (soluble rocks, non-coal shallow mining and landslide hazards); persistent shallow groundwater, or the presence of made ground, which may represent a ground stability or contamination hazard.
- **Drainage potential.** Maps indicate the drainage potential of the ground, by considering subsurface permeability, depth to groundwater and the presence of floodplain deposits.
- **Ground stability.** Maps indicate the presence of hazards that have the potential to cause ground instability resulting in damage to some buildings and structures, if water is infiltrated to the ground.
- **Groundwater protection.** Maps provide key indicators to help determine whether the groundwater may be susceptible to deterioration in quality as a result of infiltration.



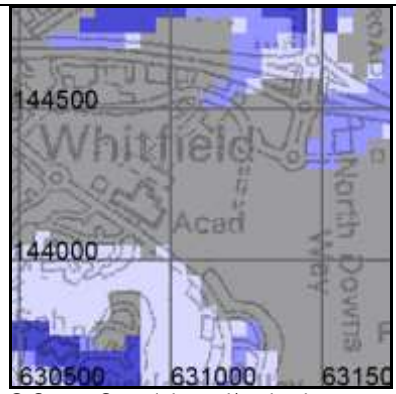









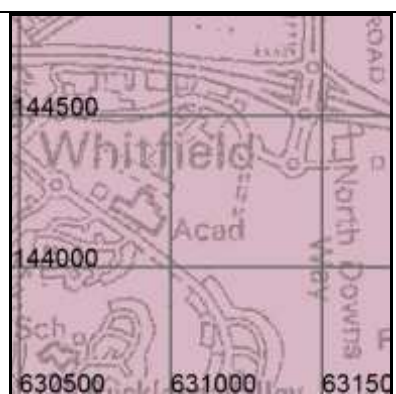




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This report considers the suitability of the subsurface for the installation of infiltration SuDS, such as soakaways, infiltration basins or permeable pavements. It provides subsurface data to indicate whether, and which type of infiltration system may be appropriate. It does not state that infiltration SuDS are, or are not, appropriate as this is highly dependent on the design of the individual system. This report therefore describes the subsurface conditions at the site, allowing the reader to determine the suitability of the site for infiltration SuDS.

The map and text data in this report is similar to that provided in the '*Infiltration SuDS Map: Detailed*' national map product. For further information about the data, consult the '*User Guide for the Infiltration SuDS Map: Detailed*', available from <http://nora.nerc.ac.uk/16618/>.

## PART 1: SUMMARY DATA

This section provides a summary of the data on the following pages.

In terms of the drainage potential, is the ground suitable for infiltration SuDS?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Highly compatible for infiltration SuDS. The subsurface is likely to be suitable for free-draining infiltration SuDS.</p>
	<p> Probably compatible for infiltration SuDS. The subsurface is probably suitable although the design may be influenced by the ground conditions.</p>
	<p> Opportunities for bespoke infiltration SuDS. The subsurface is potentially suitable although the design will be influenced by the ground conditions.</p>
	<p> Very significant constraints are indicated. There is a very significant potential for one or more hazards associated with infiltration.</p>
Is ground instability likely to be a problem?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Increased infiltration is very unlikely to result in ground instability.</p>
	<p> Ground instability problems may be present or anticipated, but increased infiltration is unlikely to result in ground instability</p>
	<p> Ground instability problems are probably present. Increased infiltration may result in ground instability.</p>
	<p> There is a very significant potential for one or more geohazards associated with infiltration.</p>
Is the groundwater susceptible to deterioration in quality?	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> The groundwater is not expected to be especially vulnerable to contamination.</p>
	<p> The groundwater may be vulnerable to contamination.</p>
	<p> The groundwater is likely to be vulnerable to contaminants.</p>
	<p> Made ground is present at the surface. Infiltration may increase the possibility of remobilising pollutants.</p>



## PART 2: DETAILED DATA







This section provides further information about the properties of the ground and will help assess the suitability of the ground for infiltration SuDS.




### Section 1. Very significant constraints

Where maps are overlain by grey polygons, geological or hydrogeological hazards may exist that could be made worse by infiltration. The following hazards are considered:

- soluble rocks
- landslides
- shallow mining
- shallow groundwater
- made ground

For more information read 'Explanation of terms' at the end of this report.

Soluble rock hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Very significant soluble rock hazard.</p> <p>Soluble rocks are present with a very significant possibility of localised subsidence that could be initiated or made worse by infiltration. The site investigation should consider whether the potential for or the consequences of subsidence as a result of infiltration are significant.</p>
	<p> Very significant soluble rock hazards are not present; however this hazard may still need to be considered. See Part 3.</p>
Landslide hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Very significant landslide hazard.</p> <p>Slope instability problems are almost certainly present and may be active. An increase in moisture content as a result of infiltration may cause the slope to fail. The site investigation should consider whether the potential for or the consequences of landslide as a result of infiltration are significant.</p>
	<p> Very significant landslide hazards are not present; however this hazard may still need to be considered. See Part 3.</p>

Shallow mining hazard	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Very significant mining hazard.</p> <p>Shallow mining is likely to be present with a very significant possibility of localised subsidence that could be initiated or made worse by increased infiltration. Also, infiltration may increase the possibility of remobilising pollutants. The site investigation should consider whether the potential for or consequences of subsidence and/or remobilisation of pollutants as a result of infiltration are significant.</p> <p><input type="checkbox"/> Very significant mining hazards are not present; however this hazard may still need to be considered. See Part 3.</p>
Persistent shallow groundwater	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Very high likelihood of persistent or seasonally shallow groundwater.</p> <p>Persistent or seasonally shallow groundwater is likely to be present. Infiltration may increase the likelihood of soakaway inundation, or groundwater emergence at the surface. The site investigation should consider whether the potential for or the consequences of groundwater level rise as a result of infiltration are significant.</p> <p><input type="checkbox"/> See Part 2 for the likely depth to water table.</p>
Made ground	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p><input checked="" type="checkbox"/> Made ground present.</p> <p>Made ground is present at the surface. Infiltration may affect ground stability or increase the possibility of remobilising pollutants. The site investigation should consider whether the potential for or consequences of ground instability and/or pollutant leaching as a result of infiltration are significant.</p> <p><input type="checkbox"/> None recorded</p>



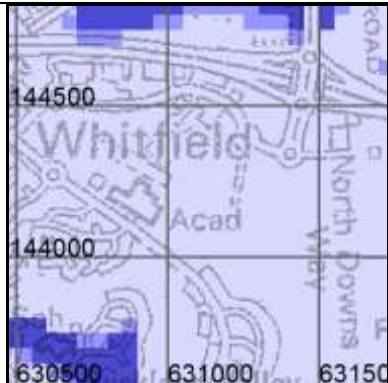



## Section 2. Drainage potential

The following pages contain maps that will help you assess the drainage potential of the ground by considering the:

- depth to water table
- permeability of the superficial deposits
- thickness of the superficial deposits
- permeability of the bedrock
- presence of floodplains

Superficial deposits are not present everywhere and therefore some areas of the *superficial deposit permeability* map may not be coloured. Where this is the case, the *bedrock permeability* map shows the likely permeability of the ground. Superficial deposits in some places are very thin and hence in these places you may wish to consider both the permeability of the superficial deposits and the permeability of the bedrock. The *superficial thickness* map will tell you whether the superficial deposits are thin (< 3 m thick) or thick (>3 m). Where they are over 3 m thick, the permeability of the bedrock may not be relevant.

For more information read 'Explanation of terms' at the end of this report.

Depth to groundwater table	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<p> Groundwater is likely to be <b>more than 5 m</b> below the ground surface throughout the year.</p>
	<p> Groundwater is likely to be between <b>3 and 5 m</b> below the ground surface for at least part of the year.</p>
	<p> Groundwater is likely to be <b>less than 3 m</b> below the ground surface for at least part of the year.</p>

### Superficial deposit permeability



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Superficial deposits are likely to be **free-draining**.



The superficial deposit permeability is **spatially variable**, but likely to permit moderate infiltration.



Superficial deposits are likely to be **poorly draining**.

These maps show the permeability range that is summarised above.

-  Very Low
-  Low
-  Moderate
-  High
-  Very High

#### Minimum



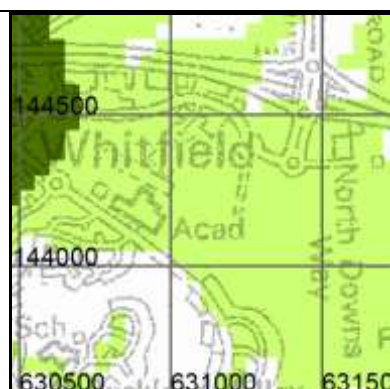
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#### Maximum



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### Superficial deposit thickness



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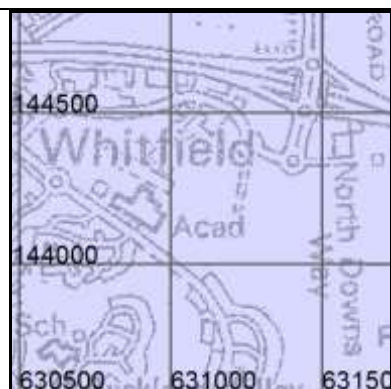
The thickness of superficial deposits is **< 3 m** and hence the permeability of the ground may be dependent on both the superficial deposits (where present) and underlying bedrock (see below).



The thickness of superficial deposits is **> 3 m** and hence the permeability of the superficial deposits is likely to determine the permeability of the ground.



### Bedrock permeability



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Bedrock deposits are likely to be **free-draining**.



The bedrock permeability is **spatially variable**, but likely to permit moderate infiltration.



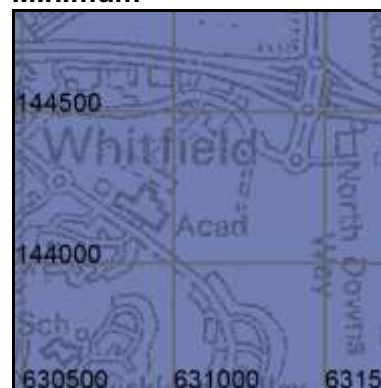
Bedrock deposits are likely to be **poorly draining**.

These maps show the permeability range that is summarised above.

#### Key

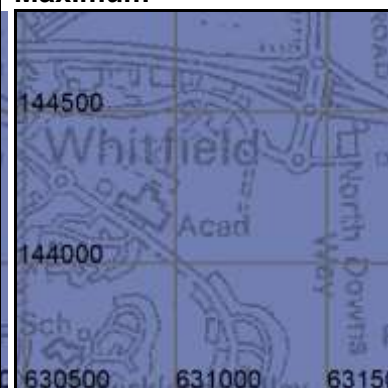
-  Very Low
-  Low
-  Moderate
-  High
-  Very High

#### Minimum



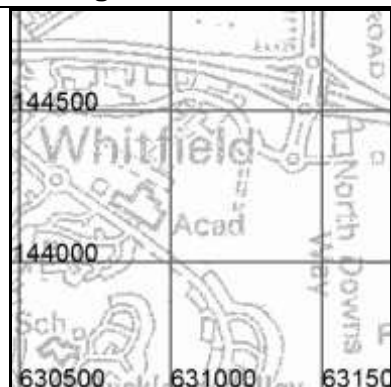
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#### Maximum



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### Geological indicators of flooding



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



Superficial floodplain deposits or low-lying coastal areas have been identified. Groundwater levels may rise in response to high river or tide levels, potentially causing inundation of subsurface infiltration SuDS.

### Section 3. Ground stability

The following pages contain maps that will help you assess whether infiltration may impact the stability of the ground. They consider hazards associated with:

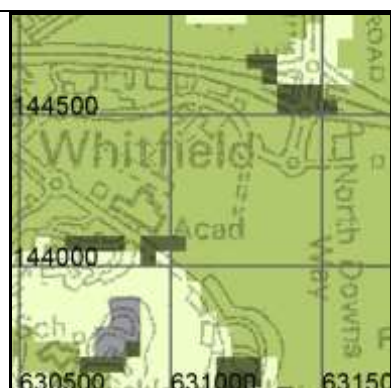
- soluble rocks
- landslides
- shallow mining
- running sands
- swelling clays
- compressible ground, and
- collapsible ground

In the following maps, geohazards that are identified in green are unlikely to prevent infiltration SuDS from being installed, but they should be considered during design. For more information read 'Explanation of terms' at the end of this report.





Soluble rocks	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	 Increased infiltration is unlikely to result in subsidence.
	 Increased infiltration is unlikely to cause localised subsidence, but potential impacts should be considered.
	 Increased infiltration may result in localised subsidence. The potential for or the consequences of subsidence associated with soluble rocks should be considered.
	 Very significant possibility of localised subsidence that could be initiated or made worse by infiltration.



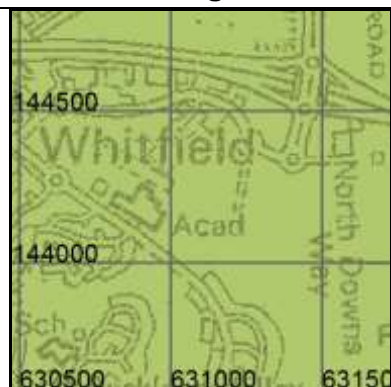
## Landslides







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-  Increased infiltration is unlikely to lead to slope instability.
-  Slope instability problems may be present or anticipated, but increased infiltration is unlikely to cause instability
-  Slope instability problems are probably present or have occurred in the past, and increased infiltration may result in slope instability.
-  Slope instability problems are almost certainly present and may be active. An increase in moisture content as a result of infiltration may cause the slope to fail.

## Shallow mining






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-  Increased infiltration is unlikely to lead to subsidence.
-  Shallow mining is possibly present. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.
-  Shallow mining could be present with a significant possibility that localised subsidence could be initiated or made worse by increased infiltration.
-  Shallow mining is likely to be present, with a very significant possibility that localised subsidence may be initiated or made worse by increased infiltration.

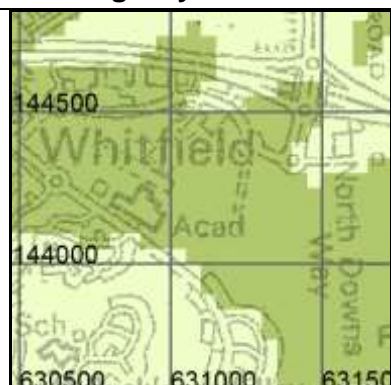
## Running sand



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-  Increased infiltration is unlikely to cause ground collapse associated with running sands.
-  Running sand is possibly present. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.
-  Significant possibility for running sand problems. Increased infiltration may result in a geohazard.

### Swelling clays



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Increased infiltration is unlikely to cause shrink-swell ground movement.

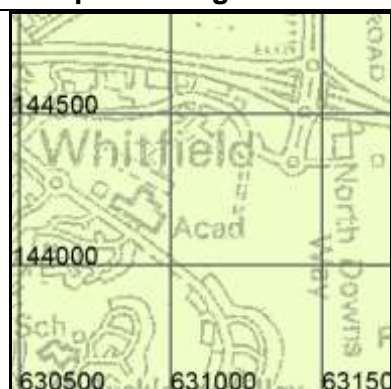


Ground is susceptible to shrink-swell ground movement. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.



Ground is susceptible to shrink-swell ground movement. Increased infiltration may result in a geohazard.

### Compressible ground



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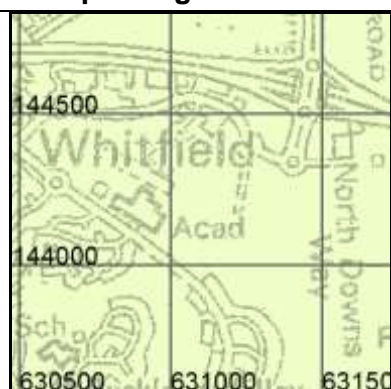


Increased infiltration is unlikely to lead to ground compression.



Compressibility and uneven settlement hazards are probably present. Increased infiltration may result in a geohazard.

### Collapsible ground



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Increased infiltration is unlikely to result in subsidence.



Deposits with potential to collapse when loaded and saturated are possibly present in places. Increased infiltration is unlikely to cause a geohazard, but potential impacts should be considered.



Deposits with potential to collapse when loaded and saturated are probably present in places. Increased infiltration may result in a geohazard.





## Section 4. Groundwater quality protection

The following pages contain maps showing some of the information required to ensure the protection of groundwater quality. Data presented includes:

- groundwater source protection zones (Environment Agency data)
- predominant flow mechanism
- made ground

For more information read 'Explanation of terms' at the end of this report.

Groundwater source protection zones	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p> <p>Derived in part from Source Protection Zone data provided under licence from the Environment Agency © Environment Agency 2016.</p>	<div> <div></div> Groundwater is not within a source protection zone. </div>
	<div> <div></div> Source protection zone IV </div>
	<div> <div></div> Source protection zone III </div>
	<div> <div></div> Source protection zone II </div>
	<div> <div></div> Source protection zone I. </div>
Predominant flow mechanism	
 <p>© Crown Copyright and/or database right 2016. All rights reserved. Licence number 100021290 EUL</p>	<div> <div></div> Water is likely to percolate through the unsaturated zone to the groundwater through either the pore space in granular media or through porespace and fractures; these processes have some potential for contaminant removal and breakdown. </div>
	<div> <div></div> Water is likely to percolate through the unsaturated zone to the groundwater through fractures, a process which has little potential for contaminant removal and breakdown. </div>



## Made ground



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Made ground is present at the surface. Infiltration may increase the possibility of remobilising pollutants.



## Section 5. Geological Maps

The following maps show the artificial, superficial and bedrock geology within the area of interest.

### Artificial deposits



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### Superficial deposits



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### Bedrock



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Note: Faults and Coals, ironstone & mineral veins are shown for illustration and to aid interpretation of the map. Not all such features are shown and their absence on the map face does not necessarily mean that none are present

Key to Artificial deposits:




**No deposits recorded by BGS in the search area**

Key to Superficial deposits:

Map colour	Computer Code	Rock name	Rock type
	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
	HEAD-XZV	HEAD	SILT AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
	CWF-XCZSV	CLAY-WITH-FLINTS FORMATION	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]



Key to Bedrock geology:

Map colour	Computer Code	Rock name	Rock type
	MACK-CHLK	MARGATE CHALK MEMBER	CHALK
	SECK-CHLK	SEAFORD CHALK FORMATION	CHALK
	LECH-CHLK	LEWES NODULAR CHALK FORMATION	CHALK



---

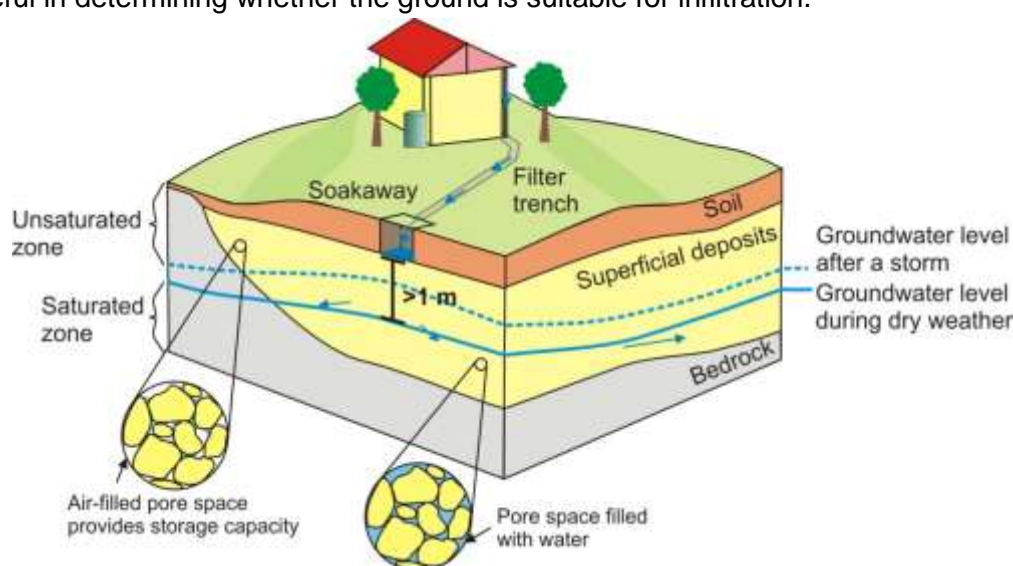
### Limitations of this report:

- This report is concerned with the potential for infiltration-to-the-ground to be used as a SuDS technique at the site described. It only considers the subsurface beneath the search area and does NOT consider potential surface or subsurface impacts outside of that area.
- This report is NOT an alternative for an on-site investigation or soakaway test, which might reach a different conclusion.
- This report must NOT be used to justify disposal of foul waste or grey water.
- This report is based on and limited to an interpretation of the records held by the British Geological Survey (BGS) at the time the search is performed. The datasets used (with the exception of that showing depth to water table) are based on 1:50 000 digital geological maps and not site-specific data.
- Other more specific and detailed ground instability information for the site may be held by BGS, and an assessment of this could result in a modified assessment.
- To interpret the maps correctly, the report must be viewed and printed in colour.
- The search does NOT consider the suitability of sites with regard to:
  - previous land use,
  - potential for, or presence of contaminated land
  - presence of perched water tables
  - shallow mining hazards relating to coal mining. Searches of coal mining should be carried out via The Coal Authority Mine Reports Service: [www.coalminingreports.co.uk](http://www.coalminingreports.co.uk).
  - made ground, where not recorded
  - proximity to landfill sites (searches for landfill sites or contaminated land should be carried out through consultation with local authorities/Environment Agency)
  - zones around private water supply boreholes that are susceptible to groundwater contamination.
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## Explanation of terms

### Depth to groundwater

In the shallow subsurface, the ground is commonly unsaturated with respect to water. Air fills the spaces within the soil and the underlying superficial deposits and bedrock. At some depth below the ground surface, there is a level below which these spaces are full of water. This level is known as the groundwater level, and the water below it is termed the groundwater. When water is infiltrated, the groundwater level may rise temporarily. To ensure that there is space in the unsaturated zone to accommodate this, there should be a minimum thickness of 1 m between the base of the infiltration system and the water table. An estimate of the *depth to groundwater* is therefore useful in determining whether the ground is suitable for infiltration.



### Groundwater flooding

Groundwater flooding occurs when a rise in groundwater level results in very shallow groundwater or the emergence of groundwater at the surface. If infiltration systems are installed in areas that are susceptible to groundwater flooding, it is possible that the system could become inundated. The susceptibility map seeks to identify areas where the geological conditions and water tables indicate that groundwater level rise could occur under certain circumstances. A high susceptibility to groundwater flooding classification does not mean that groundwater flooding has ever occurred in the past, or will do so in the future as the susceptibility maps do not contain information on how often flooding may occur. The susceptibility maps are designed for planning; identifying areas where groundwater flooding might be an issue that needs to be taken into account.



### **Geological indicators of flooding**

In floodplain deposits, groundwater level can be influenced by the water level in the adjacent river. Groundwater level may increase during periods of fluvial flood and therefore this should be taken into account when designing infiltration systems on such deposits. The *geological indicators of flooding* dataset shows where there is geological evidence (floodplain deposits) that flooding has occurred in the past.

For further information on flood-risk, the likely frequency of its recurrence in relation to any proposed development of the site, and the status of any flood prevention measures in place, you are advised to contact the local office of the Environment Agency (England and Wales) at [www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/) or the Scottish Environment Protection Agency (Scotland) at [www.sepa.org.uk](http://www.sepa.org.uk).

### **Artificial ground**

Artificial ground comprises deposits and excavations that have been created or modified by human activity. It includes ground that is worked (quarries and road cuttings), infilled (back-filled quarries), landscaped (surface re-shaping), disturbed (near surface mineral workings) or classified as made ground (embankments and spoil heaps). The composition and properties of artificial ground are often unknown. In particular, the permeability and chemical composition of the artificial ground should be determined to ensure that the ground will drain and that any contaminants present will not be remobilised.

### **Superficial permeability**

Superficial deposits are those geological deposits that were formed during the most recent period of geological time (as old as 2.6 million years before present). They generally comprise relatively thin deposits of gravel, sand, silt and clay and are present beneath the pedological soil in patches or larger spreads over much of Britain. The ease with which water can percolate through these deposits is controlled by their permeability and varies widely depending on their composition. Those deposits comprising clays and silts are less permeable and thus infiltration is likely to be slow, such that water may pool on the surface. In comparison, deposits comprising sands and gravels are more permeable allowing water to percolate freely.

### **Bedrock permeability**

Bedrock forms the main mass of rock forming the Earth. It is present everywhere, commonly beneath superficial deposits. Where the superficial deposits are thin or absent, the ease with which water will percolate into the ground depends on the permeability of the bedrock.

---

### **Natural ground instability**

Natural ground instability refers to the propensity for upward, lateral or downward movement of the ground that can be caused by a number of natural geological hazards (e.g. ground dissolution/compressible ground). Some movements associated with particular hazards may be gradual and of millimetre or centimetre scale, whilst others may be sudden and of metre or tens of metres scale. Significant natural ground instability has the potential to cause damage to buildings and structures, especially when the drainage characteristics of a site are altered. It should be noted, however, that many buildings, particularly more modern ones, are built to such a standard that they can remain unaffected in areas of significant ground movement.

### **Shrink-swell**

A shrinking and swelling clay changes volume significantly according to how much water it contains. All clay deposits change volume as their water content varies, typically swelling in winter and shrinking in summer, but some do so to a greater extent than others. Contributory circumstances could include drought, leaking service pipes, tree roots drying-out the ground or changes to local drainage patterns, such as the creation of soakaways. Shrinkage may remove support from the foundations of buildings and structures, whereas clay expansion may lead to uplift (heave) or lateral stress on part or all of a structure; any such movements may cause cracking and distortion.

### **Landslides (slope stability)**

A landslide is a relatively rapid outward and downward movement of a mass of ground on a slope, due to the force of gravity. A slope is under stress from gravity but will not move if its strength is greater than this stress. If the balance is altered so that the stress exceeds the strength, then movement will occur. The stability of a slope can be reduced by removing ground at the base of the slope, by placing material on the slope, especially at the top, or by increasing the water content of the materials forming the slope. Increase in subsurface water content beneath a soakaway could increase susceptibility to landslide hazards. The assessment of landslide hazard refers to the stability of the present land surface. It does not encompass a consideration of the stability of excavations.

### **Soluble rocks (dissolution)**

Some rocks are soluble in water and can be progressively removed by the flow of water through the ground. This process tends to create cavities, potentially leading to the collapse of overlying materials and possibly subsidence at the surface. The release of water into the subsurface from infiltration systems may increase the dissolution of rock or destabilise material above or within a cavity. Dissolution cavities may create a pathway for rapid transport of contaminated water to an aquifer or water course.



### **Compressible ground**

Many ground materials contain water-filled pores (the spaces between solid particles). Ground is compressible if a building (or other load) can cause the water in the pore space to be squeezed out, causing the ground to decrease in thickness. If ground is extremely compressible the building may sink. If the ground is not uniformly compressible, different parts of the building may sink by different amounts, possibly causing tilting, cracking or distortion. The compressibility of the ground may alter as a result of changes in subsurface water content caused by the release of water from soakaways.

### **Collapsible deposits**

Collapsible ground comprises certain fine-grained materials with large pore spaces (the spaces between solid particles). It can collapse when it becomes saturated by water and/or a building (or other structure) places too great a load on it. If the material below a building collapses it may cause the building to sink. If the collapsible ground is variable in thickness or distribution, different parts of the building may sink by different amounts, possibly causing tilting, cracking or distortion. The subsurface underlying a soakaway will experience an increase in water content that may affect the stability of the ground. This hazard is most likely to be encountered only in parts of southern England.

### **Running sand**

Running sand conditions occur when loosely-packed sand, saturated with water, flows into an excavation, borehole or other type of void. The pressure of the water filling the spaces between the sand grains reduces the contact between the grains and they are carried along by the flow. This can lead to subsidence of the surrounding ground. Running sand is potentially hazardous during the drainage system installation. During installation, excavation of the ground may create a space into which sand can flow, potentially causing subsidence of surrounding ground.

### **Shallow mining hazards (non coal)**

Current or past underground mining for coal or for other commodities can give rise to cavities at shallow or intermediate depths, which may cause fracturing, general settlement, or the formation of crown-holes in the ground above. Spoil from mineral workings may also present a pollution hazard. The release of water into the subsurface from soakaways may destabilise material above or within a cavity. Cavities arising as a consequence of mining may also create a pathway for rapid transport of contaminated water to an aquifer or watercourse. The mining hazards map is derived from the geological map and considers the potential for subsidence associated with mining on the basis of geology type. Therefore if mining is known to occur within a certain rock, the map will highlight the potential for a hazard within the area covered by that geology.

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For more information regarding underground and opencast **coal mining**, the location of mine entries (shafts and adits) and matters relating to subsidence or other ground movement induced by **coal mining** please contact the Coal Authority, Mining Reports, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG; telephone 0845 762 6848 or at [www.coal.gov.uk](http://www.coal.gov.uk). For more information regarding other types of mining (i.e. non-coal), please contact the British Geological Survey.

### **Groundwater source protection zones**

In England and Wales, the Environment Agency has defined areas around wells, boreholes and springs that are used for the abstraction of public drinking water as source protection zones. In conjunction with Groundwater Protection Policy the zones are used to restrict activities that may impact groundwater quality, thereby preventing pollution of underlying aquifers, such that drinking water quality is upheld. The Environment Agency can provide advice on the location and implications of source protection zones in your area ([www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/))



---

## **Contact Details**

### ***Keyworth Office***

British Geological Survey  
Environmental Science Centre  
Nicker Hill  
Keyworth  
Nottingham  
NG12 5GG  
Tel: 0115 9363143  
Fax: 0115 9363276  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)

### ***Wallingford Office***

British Geological Survey  
Maclean Building  
Wallingford  
Oxford  
OX10 8BB  
Tel: 01491 838800  
Fax: 01491 692345  
Email: [hydroenq@bgs.ac.uk](mailto:hydroenq@bgs.ac.uk)

### ***Edinburgh Office***

British Geological Survey  
Lyell Centre  
Research Avenue South  
Edinburgh  
EH14 4AP  
Tel: 0131 6671000  
Email: [enquiry@bgs.ac.uk](mailto:enquiry@bgs.ac.uk)



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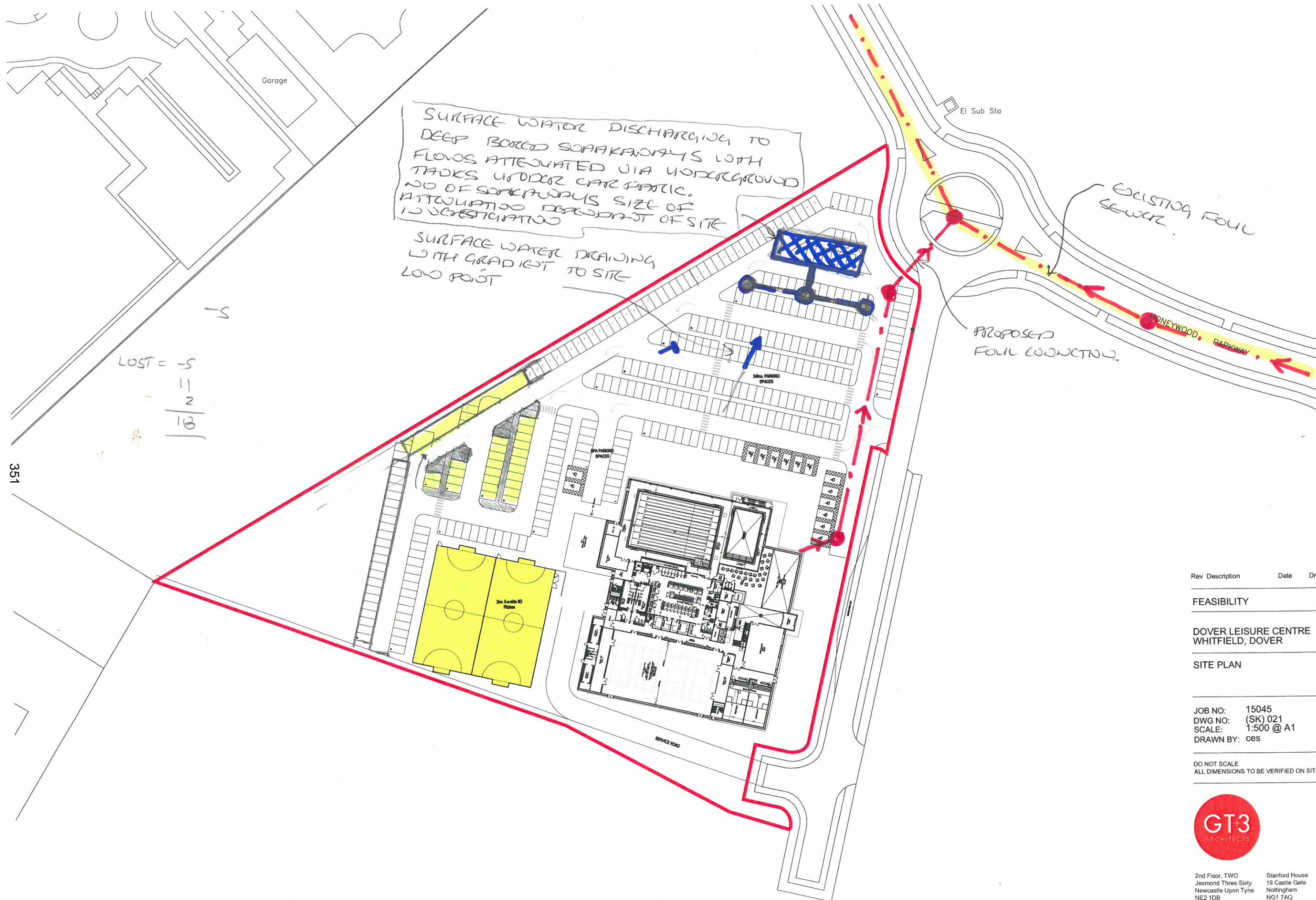
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**Report issued by  
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Rev	Description	Date	Drawn
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FEASIBILITY			
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DOVER LEISURE CENTRE  
WHITFIELD, DOVER

SITE PLAN

JOB NO: 15045  
DWG NO: (SK) 021  
SCALE: 1:500 @ A1  
DRAWN BY: ces

DO NOT SCALE  
ALL DIMENSIONS TO BE VERIFIED ON SITE



2nd Floor, TWO  
Jesmond Three Sixty  
Newcastle Upon Tyne  
NE2 1DB

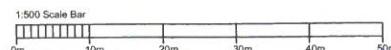
Stanford House  
19 Castle Gate  
Nottingham  
NG1 7AQ

t 0191 2817700

t 0115 9470800

info@gt3architects.com

www.gt3architects.com



## Appendix 6 – Sequential Test Report and Initial Highways Advice from KCC





## **Dover Leisure Centre**

# **Sequential Test Assessment**

**Dover District Council**

# **FINAL DRAFT**

**June 2016**

**MB/11443**

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DRAFT

# 1 Introduction

## 1.1 Purpose of this Report

- 1.1.1 DHA Planning has been instructed by The Sports Consultancy on behalf of Dover District Council to prepare an independent Sequential Test assessment in relation to the development of a new Dover Leisure Centre, that is proposed to involve the relocation of the centre from its existing edge of town centre site to an out of centre location at White Cliffs Business Park, Whitfield. The development is to include an 8 lane swimming pool, learner pool, 4 court sports hall, 120 station health and fitness studio, 3 multi-activity studios, spin studio, 2 squash courts, changing rooms, toilets, equipment storage, reception, offices/back of house, cafe and sufficient parking spaces and service areas. The proposals also include outdoor changing rooms and two 5-a-side 3G football pitches.
- 1.1.2 In accordance with the requirements set out in the National Planning Policy Framework (NPPF), this Sequential Test considers the availability, suitability and viability of potential alternative sites in existing centres and edge of centre locations.
- 1.1.3 The Sports Consultancy, in partnership with GT Architects, Faithful+Gould and Hadron Consulting, were appointed by Dover District Council in July 2015 to complete an initial feasibility and options appraisal study for the improvement and replacement of the existing Dover Leisure Centre. The Feasibility and Options Appraisal Study for Dover Leisure Centre' was published in 2015.
- 1.1.4 This original feasibility work has provided an extremely useful starting point and evidence base for this report, although DHA Planning have subsequently undertaken a further independent review of the identified need for sports facilities within Dover, to establish what the correct baseline should be in terms of the Sequential Test. Potential alternative sites have also been sought and assessed independently, having regard to and critically assessing the content of the work already carried out.
- 1.1.5 As such, DHA have produced this standalone document, which considers the leisure centre development with specific regard to the Sequential Test and strict planning methodology this applies.



## 2 Identifying the Need

### 2.1 District-Wide Context

- 2.1.1 As the Government's 'Sporting Future: A New Strategy for an Active Nation' (December 2015) sets out, sport is a key part of local communities and Councils have an important leadership role to play, bringing schools, voluntary sport clubs, National Governing Bodies of sport (NGBs), health and the private sector together to forge partnerships, unblock barriers to participation and improve the local sport delivery system. So local authorities have, and will continue to have, an absolutely crucial role to play in delivering sport and physical activity opportunities.
- 2.1.2 Dover District Council already recognises that there is a need within Dover for the provision of leisure facilities including opportunities for sport, play and relaxation to improve. In this case Dover District Council aim to take this opportunity to significantly improve the provision of indoor sports facilities in Dover. The aspiration is to provide a broader base of facilities than are currently available and the Council have recently consulted on their draft Indoor Sports Facility Strategy (February 2016), which considers existing and future supply and usage to provide recommendations for future delivery.
- 2.1.3 As part of the original feasibility work, a detailed needs analysis was conducted to identify the current and future (up to 2026) provision required to meet the indoor sport facility needs of Dover Residents. The Facility Planning Model (FPM) reports from Sports England (2015), the Latent Demand Report for Health and Fitness Membership and various stakeholder consultations were used to assess the needs in the area and the feasibility dovetails with the Indoor Sports Facility Strategy work and needs identified therein.
- 2.1.4 In summary in the feasibility and draft strategy it was identified that the district in particular has a low level of swimming pool provision of 8.88m<sup>2</sup> water space per 1,000 population in Dover. In terms of the other forms of provision, it was identified that overall the district has a relatively low level of sports hall provision (3+ court) but with improved projected supply, that indoor bowls provision is sufficient to meet need, and that there is no additional requirement for squash courts or indoor tennis courts. It has been noted that there is latent demand for gymnastics, health and fitness suites and dance and aerobic studios. From the outcomes of the detailed needs analysis, the following recommendations for a new Dover Leisure Centre were provided in the feasibility:
- Main Pool - 6 or 8 lane 25m pool (6 to replace the existing provision and 8 to increase provision);
  - Learner Pool – learner pool with moveable floor;
  - Sports Hall – 4-8 courts to be considered – although the 2026 projections noted in the draft strategy assume 4 court provision and show improved supply;
  - Health and fitness – 120 stations could be supported;
  - Multi activity studio – 2-3 studios;

- Spin studio – spin studio provided in larger facility options;
- Squash courts – maximum of 3 courts; and
- Parking spaces – requirements based on scale of facility option and KCC parking standards.

## 2.2 Options

- 2.2.1 The first option is the 'do nothing' option and instead maintain the existing facility at its present level. This is not a feasible option. The facilities at Dover Leisure Centre were built in the 1970s and have now come to the end of their operational life span, as is recognised within the adopted Core Strategy (paragraph 2.55) and the more recent detailed feasibility report.
- 2.2.2 The second option involves the refurbishment of the existing Dover Leisure Centre facilities. The refurbishment would involve retaining some or all of the existing buildings and undertaking significant works to reconfigure the building to provide an appropriate range of facilities required. This is also not a feasible option. The feasibility confirms that refurbishment and reconstruction will only extend the life of the building for another 20 years and in terms of cost is deemed to be only marginally less expensive compared to the new build options. Furthermore, the centre would be closed for a period of between 12-18 months to allow for the refurbishment works to be carried out and subsequently would not allow for a continuity in service. Continuity of service provision is key and a fundamental requirement. The existing leisure centre is the primary indoor sports facility in the principal urban settlement in the District, the importance of which is recognised within the Core Strategy and draft Indoor Sports Facility Strategy. Its loss for any lengthy period of time would therefore have significant impacts which the Council, as service provider, have confirmed would not be something that could be entertained.
- 2.2.3 In addition to the refurbishment of the existing centre, five new build options were considered in the 2015 feasibility study, in response to the identified current and future needs of the catchment population. The new build options provide a long-term solution and the opportunity to provide a high quality efficient leisure centre, which contributes to meeting the needs of the District. A new build option would also allow for the continuity of service of the existing Dover Leisure Centre if an alternative suitable site is chosen for the new leisure facilities. A summary of the refurbishment option and the five new build options presented in the feasibility is provided overleaf.



Refurbishment	New Build Option 1	New Build Option 2	New Build Option 3	New Build Option 4	New Build Option 5
6 lane x 25m pool	6 lane x 25m pool	6 lane x 25m pool	6 lane x 25m pool	8 lane x 25m pool	8 lane x 25m pool
Learner pool	15m x 8.5m learner pool (moveable floor)	15m x 8.5m learner pool (moveable floor)	15m x 8.5m learner pool (moveable floor)	15m x 8.5m learner pool (moveable floor)	15m x 8.5m learner pool (moveable floor)
8 court sports hall	No sports hall	4 court sports hall	8 court sports hall	4 court sports hall	8 court sports hall
65 health & fitness stations	120 health & fitness studios	120 health & fitness studios	120 health & fitness studios	120 health & fitness studios	120 health & fitness studios
1 multi activity studio	2 multi activity studios	2 multi activity studios	3 multi activity studios	3 multi activity studios	3 multi activity studios
No spin studio	No spin studio	No spin studio	1 spin studio	1 spin studio	1 spin studio
3 squash courts	0 squash courts	0 squash courts	3 squash courts	3 squash courts	3 squash courts
90 parking spaces	160 parking spaces	200 parking spaces	250 parking spaces	250 parking spaces	250 parking spaces

**Table 2.1** Feasibility Options Summary

- 2.2.4 As the 2015 feasibility study concludes, the new build option is the preferred route for Dover Leisure Centre. Whilst it will have higher cost implications, a new build is deemed to be more viable and will result in the provision of higher quality leisure facilities. A new centre could be built on an alternative site, allowing the existing centre to remain operational for the duration of the build period and allowing for the continuity in the service provision.
- 2.2.5 In line with the detailed needs analysis, new build option 4 has been chosen by the Council as the baseline position from which to develop a proposed facility mix and is considered to be the most suitable option in terms of meeting the identified needs for the wider district. In particular, it accommodates the larger 8 lane pool which is identified as the main deficiency within the district. The provision of a 4 court sports hall was also considered sufficient despite the existing centre comprising 8 courts, as the draft Indoor Sports Facility Strategy has already accounted for this.
- 2.2.6 In developing a proposed facility mix, the Council have taken Option 4 as the starting point and undertaken a more comprehensive costing and viability exercise whilst also visiting comparable facilities to note successful and not so successful designs and facilities. This has informed development of the facility mix and design that is being taken forward to planning application stage and includes the following changes from the feasibility Option 4 mix:
- Provision of 2 squash courts instead of 3;
  - Increased parking provision to c. 340 spaces;

- Outdoor changing with 2 external 3G 5-a-side football pitches;
- Provision of children's soft play and/or 'clip and climb' facility to broaden facility offer and enhance viability

- 2.2.7 Whilst the 4 court sports hall provision has been considered sufficient in light of the draft Indoor Sports Facility Strategy and projected supply, further review of evidence of need and visiting other facilities with a similar offer has identified the importance of additional 5-a-side 3G pitch provision, intrinsically linked to the wider facility. This is different to an associated multi-use 3G pitch as was originally mooted in the feasibility study and has emerged as a fundamental component of the facility mix, relieving pressure and demand placed upon the sports hall for other uses.
- 2.2.8 In view of the extensive feasibility undertaken by the Council and their specialist consultant team, and having reviewed this work, this and the subsequent refinement of Option 4 is considered to represent a robust and reasonable basis upon which to base this Sequential Test Assessment.
- 2.2.9 Whilst the above mix is being taken forward, it should be noted that the Indoor Sports Facility Strategy remains in draft form and consultation responses received during the recent consultation exercise are being reviewed. Any change to the strategy as a result of this should trigger a review of the proposed mix and in turn this report.



## 3 Planning Policy Background

### 3.1 The NPPF and the Need for a Sequential Assessment

- 3.1.1 Paragraph 24 of the NPPF requires planning applications for main town centre uses that are not in an existing centre and are not in accordance with an up to date development plan to be supported by a sequential assessment which assesses alternative sites according to the prescribed hierarchy of location i.e. defined town centres, followed by edge of centre locations. PPS4, which previously dealt with town centre issues, has now been superseded by the NPPF and the corresponding Practice Guidance note has also been superseded by the Planning Practice Guidance which details the methodology that should apply.
- 3.1.2 The assessment should not only identify alternative sites but assess their availability, suitability and viability as an alternative option to the application proposal. The objective for such an assessment is to establish whether there are any other alternative sites that are in sequentially preferable locations that could reasonably and suitably accommodate and deliver the proposed development.
- 3.1.3 In this instance, the proposed redevelopment of the existing Dover Leisure Centre at White Cliffs Business Park falls outside of any defined town centre, and the proposed leisure centre is classed as a 'main town centre use' under the terms of the NPPF. The NPPF Glossary at Appendix 2 defines 'main town centre uses' and includes *"leisure, entertainment facilities the more intensive sport and recreation uses (including cinemas, restaurants, drive-through restaurants, bars and pubs, night-clubs, casinos, health and fitness centres indoor bowling centres, and bingo halls)"*. A leisure centre fits within this description and thus a sequential test is required in accordance with Paragraph 24.
- 3.1.4 The requirements for a sequential assessment are set out within the Planning Practice Guide, which sets out what is deemed to be a "town centre" and what is deemed to be "edge of town centre". A town centre is defined as the primary shopping area and areas of predominantly leisure, business and other main town centre uses within or adjacent to the primary shopping area. Edge of centre locations are defined as the area within 300 metres of the town centre boundary for non-retail town centre uses such as leisure.

### 3.2 The Development Plan

- 3.2.1 The adopted Proposals Map, which reflects the policies of the development plan and any allocations or designations contained therein, defines the extent of Dover Town Centre.

#### **Core Strategy (2010)**

- 3.2.2 The adopted Dover Core Strategy sets out a spatial strategy for growth and identifies Dover as the major focus for development in the district. One of the district objectives is to ensure that the Strategy's infrastructure needs are identified and that required infrastructure is provided at the right time.

- 3.2.3 **Core Policy 6** states that in determining infrastructure requirements applicants and infrastructure providers should first consider if existing infrastructure can be used more efficiently, or whether demand can be reduced through promoting behavioural change, before proposing increased capacity through extending or providing new infrastructure.
- 3.2.4 The Core Strategy notes that the Dover Leisure Centre is becoming outdated (Para 2.55).

***Land Allocations Local Plan (2015)***

- 3.2.5 The Land Allocations Plan was adopted in January 2015 and identifies and allocates specific sites that are suitable for development in order to meet the Core Strategy's requirements and in doing so make a major contribution to delivering the Strategy.
- 3.2.6 The plan identifies Dover Leisure Centre as an 'Area of Change' and states that the focus for the area is to 'create and restore'. It notes that *"given that the existing building is near the end of its useful life, an opportunity exists to create a landmark building. Leisure facilities could be located at a different site, so long as it equally accessible to residents"* (Para 3.144).
- 3.2.7 The broad objectives set out by the plan are to investigate whether it will be possible to meet the need for modern, inclusive sport and recreation facilities by building new facilities on the existing site, or whether the Leisure Centre should be relocated and the site re-developed; and to ensure that any new development on the site fulfils the potential of this prominent location.

***Local Plan Saved Policies (2002)***

- 3.2.8 **Policy OS6** (Indoor sports and recreational facilities) states that proposals for indoor and recreational facilities will be permitted provided that any major new facility is located in Dover or Deal, at a site within the town centre, or if no such site is available, located on the edge-of-centre with good pedestrian and cycle links to the centre, or if no such site is available, is located elsewhere in the urban area on a site which is or can be made accessible by a range of transport modes, including public transport.



## 4 Sequential Assessment Methodology

### 4.1 Identified Search Area

- 4.1.1 The existing Dover Leisure Centre is situated within the urban built confines of Dover but outside of the Town Centre area as defined in the development plan. In terms of sequential assessment, the nearest centre is therefore Dover Town Centre within the local authority area of Dover District Council. Given the proposals relate to the replacement of Dover Leisure Centre, it is not necessary to consider any other town centres in the District and there are no other types of centre within the urban area defined in the development plan.
- 4.1.2 The NPPF and the National Planning Practice Guidance require a sequential assessment to first look at all potential sites in centres, before assessing edge of centre options. We have therefore assessed sites within the defined boundaries of Dover Town Centre and thereafter any sites that may fall to be considered as being located of the edge of this centre according to the National Planning Practice Guidance, i.e. within 300m of the defined town centre.
- 4.1.3 To ensure the sequential test is as robust as possible, the standard methodology has been adapted to reflect the particular circumstances of this development. As such, the assessment forms two distinct parts; firstly, the requirements of the NPPF are met in considering potential town centre and edge of centre sites. This is all that a sequential test is required to include. Separate to this, the assessment has been expanded to consider other potential sites in the urban area that do not fall within the town centre or an edge of centre location to inform the wider assessment of alternatives when undertaking the planning balance. This later part of the assessment does not comprise part of the formal Sequential Test Assessment.
- 4.1.4 Following pre application discussions with Dover District Council it has been agreed that the wider Dover urban area should be considered in line with the Land Allocations Local Plan (2015), which notes that the new leisure facilities could be located at a different non-centre or edge of centre site, so long as it equally accessible to residents. This expanded assessment methodology will therefore assist in informing the wider planning consideration and balance, albeit not necessarily including sites that are sequentially preferable in NPPF terms.

### 4.2 Parameters

#### ***Scale and Format***

- 4.2.1 For the purpose of the Sequential Test, the proposed facility mix has been reviewed to consider what can reasonably be considered as the minimum required level and mix of provision. The Council have undertaken an in-depth feasibility study which has identified Option 4 as best meeting evidenced need having regard to the existing leisure centre provision to be replaced and this has since been refined further with the benefit of more detailed analysis. Having reviewed this feasibility and the current draft proposed facility mix, the findings are considered robust and unless a site is capable of delivering facilities that meet evidenced needs, there cannot be considered any reasonable prospect that the Council would commit the significant financial resources involved in delivering a new leisure

centre, notwithstanding its civic responsibilities more generally in meeting the needs of its residents.

- 4.2.2 Whilst the 2015 feasibility study option states that there is a need for approximately 250 parking spaces and subsequent work has identified a need for more, for the purposes of this sequential test, parking will be considered in accordance with the adopted parking standards for this types of development on a site specific basis, where other considerations indicate that further assessment is warranted. It is, for example, recognised that imposing a 250+ parking space requirement on a town centre site would be unreasonable in the context of this assessment, particularly when considering the current level of provision at the existing leisure centre site.
- 4.2.3 The 2015 feasibility study included a design feasibility that established minimum building footprints and site areas to accommodate each of the options considered, with either surface parking or decked parking. The Option 4 facilities mix requires a site area of 12,560m<sup>2</sup> if surface parking for 250 cars is assumed. The current draft proposals, through developing designs for the earmarked site, have identified a site area requirement in the region of 2 hectares (again assuming surface parking, but for 340 spaces). Notwithstanding this exercise and has already been identified, the provision of 250+ parking spaces is not considered a realistic requirement in the context of a town centre or edge of centre site. For the purposes of identifying a minimum site area to aid site assessment, the existing leisure centre site provides a useful benchmark. Although strictly edge of centre, the site directly adjoins the town centre and the many public car parks that are found there. Furthermore, the feasibility study shows that the Option 4 footprint can be accommodated on site (albeit being tight). The existing site measures 0.84 hectares and therefore to incorporate a reasonable degree of flexibility, it is considered that a minimum site area of 0.8 hectares provides a reasonable threshold for site assessment purposes.
- 4.2.4 This site area does not include an allowance for, or ability to accommodate, the outdoor 5-a-side pitches now proposed as an important part of the mix. This is considered in more detail below at 4.2.8 but in order to demonstrate a reasonable level of flexibility in the approach, is considered robust. Notwithstanding that, where a site is of a size where this provision is clearly precluded, this is taken into consideration when considering suitability in the wider sense. This approach ensures more sites are given due consideration than would otherwise be the case, again ensuring robustness.
- 4.2.5 It should be noted that the actual requirement for parking and landscaping space will vary according to the circumstances of each site, and so in some cases a smaller site may not provide sufficient space. It is also necessary to consider parking provision on a site by site basis given the variations in adopted parking standards by location. If adequate surface level parking is available close by, a smaller site with a reduced number of parking spaces could be considered viable where a site is readily accessible by public transport. A 0.8ha minimum site area is considered robust to include this flexibility, as the existing leisure centre site aptly demonstrates, albeit any site close to this area and meeting the three tests of availability, suitability and viability is likely to require more detailed suitability assessment to properly ascertain if the minimum level of development could be appropriately accommodated..



### **Scope for Disaggregation**

- 4.2.6 The Practice Guidance requires developers to consider disaggregating specific parts of the leisure development onto separate sites, although it recognises that authorities should not seek arbitrary sub-division of proposals. In the case of the leisure facilities, it is a multiple use, which could be physically and theoretically be split into constituent parts and so the realistic and practical scope for this requires further consideration.
- 4.2.7 Disaggregation of the core facilities is deemed unreasonable as it would not be practical or viable and sit counter to the leisure centre model and need to replace the existing facility which follows the traditional leisure centre format. The key intention of the proposed new leisure facilities is as a baseline to provide like for like facilities to those existing, but to also provide further facilities to meet the identified needs of the district.
- 4.2.8 Where disaggregation can reasonably be considered is in respect of the proposed external facilities, namely the synthetic 3G pitches. It is not uncommon that multi-use 3G facilities are provided as standalone development, or linked to schools or sports club. In this case however, the provision currently proposed is more bespoke and limited to 5-a-side use for only 2 pitches (compared to a standard/full sized 3G pitch which would usually allow subdivision to form 4 smaller 5-a-side pitches. As such, this form of provision is less likely to be viable and therefore deliverable as a standalone facility. For this reason and given that it forms an integral component of the current draft mix in the context of identified supply and need, The ability for a site to deliver this facility alongside the leisure centre is considered material. Notwithstanding this and for the reasons outlined in 4.2.4, for the purposes of undertaking an initial site sieving exercise based on size, it is considered more appropriate to exclude this from the minimum site area as any sequentially preferable site that meets all other requirements with the exception of that would reasonably require careful consideration.
- 4.2.9 Furthermore, in the context of a town centre sequential test assessment, the provision of an external 3G pitch in town centre locations is considered out of character and unreasonably land-hungry (albeit less so for the model envisaged). Accordingly, for the purposes of this assessment, a 3G pitch has not been included in determining the minimum site area and similarly, was not included in the 2015 design feasibility that considered minimum site areas.

### **Other Considerations**

- 4.2.10 In addition, the leisure centre is considered to require the following:
- Easy access to the road network and public transport links – a leisure centre must be accessible to users by a range of means. This is particularly relevant given the references to accessibility in the development plan. Advice has been sought from DHA Transport where required in respect of accessibility, parking and other related highway matters.
  - Prominence – given the civic nature of the use and the status of the facility as the key sports facility in Dover, it is considered necessary for the building to have a reasonable degree of prominence or favourable location strategically, which in itself can also assist with wayfinding and legibility for users.

- 4.2.11 These factors have been taken into consideration in assessing potential sites. The sequential assessment of the site is set out on the following pages and broken down into town centre and edge of centre sites, followed by further assessment of non-centre urban sites as part of this report's wider remit.

### **4.3 Site Identification**

- 4.3.1 Having established the parameters for the site requirements, and the degree of flexibility in provision and scale, it is necessary to identify individual sites in the town centre and edge of centre for detailed assessment.
- 4.3.2 In this regard, site identification has been undertaken in a methodical, multi-method manner in order to comprehensively search the relevant areas for sites that should be considered and ensuring that no potential sites go unassessed. This work was primarily undertaken in April and May 2016.
- 4.3.3 Firstly, a review of the sites identified within the 'Feasibility and Options Appraisal Study for Dover Leisure Centre', December 2015 was undertaken. The Sports Consultancy, in partnership with GT Architects, Faithful+Gould and Hadron Consulting, was appointed by Dover District Council in July 2015 to complete a feasibility and options appraisal study for the improvement and replacement of the existing Dover Leisure Centre. The process involved a detailed evaluation of some potential alternative sites in broad alignment with the requirements of a sequential test (albeit not all were town centre or edge of centre). Whilst the original feasibility work was extensive, the study provided the foundations for a further comprehensive independent site search to be conducted.
- 4.3.4 Secondly, a desk-based search using the local authority online planning database was undertaken to identify all sites allocated for development within the Development Plan, and/or with planning permission for a *leisure use/ leisure centre* or similar development. Where this was lacking, the planning department was contacted by telephone to identify any relevant past permissions, which was necessary given the absence of a map-based search facility on the Council's online database. The Council's Strategic Housing Land Availability Assessment (SHLAA) was also examined. Whilst this considers sites in relation to residential development opportunities, it offers a useful indication of the potential availability of sites.
- 4.3.5 Thirdly, the Proposals Map was examined to identify any sites with site-specific policy designations that may offer potential for leisure developments, even if not explicitly identified as a potential use in the policy.
- 4.3.6 Fourthly, local listings form land and other agents were reviewed to identify the sites currently being marketed, either specifically for leisure use or generally and unspecified development potential. Agents would be contacted directly where required to obtain more detailed information on sites.
- 4.3.7 Fifthly, the Dover urban area was visited and explored on foot and by car to identify any sites either being actively marketed on the ground which may have been missed during local listings search, or which in the opinion of DHA Planning, may have the potential for redevelopment either by virtue of being presently vacant or being physically well suited to a development of the nature proposed.



- 4.3.8 The area of search was defined using the Proposals Map, which plots the town centre boundary for the centre. This boundary was also plotted on Google Earth base aerial photograph in order to accurately define the 'edge of centre' zone for the identified centre. Here, the distance from the centre could be measured and calculated using the integrated Google Earth measuring tool to establish the geographical extent of 'edge of centre', being 300 metres in accordance with the National Planning Practice Guidance definition of 'edge of centre'.



Figure 4.1: Dover Town Centre (edged red) – Image courtesy of Google Earth

#### 4.4 Site Assessment

- 4.4.1 Each site identified in accordance with the methodology set out at 4.3 was subsequently assessed individually in accordance with the National Planning Practice Guidance.
- 4.4.2 In this regard, each site was assessed on the basis of its suitability, availability and viability.

### **Suitability**

- 4.4.3 Each site identified via the means outlined above has been visited in order to consider its potential to accommodate the proposed development, having regard to the identified site requirements in terms of scale, accessibility and locational context (e.g. neighbouring uses may make a site that was otherwise suitable unsuitable). Based on this, a judgement has been made on whether the site is suitable for the proposed leisure use, and if so, whether it is suitable for a leisure centre of the type and scale proposed.
- 4.4.4 In determining suitability, it is also necessary to consider the prospects of securing the necessary consents for the proposed development. This process is informed via planning history research of each site to determine what has previously been granted or refused and why, and a review of any relevant planning policy or designations which would be material to any planning application. This is therefore a professional planning judgement. Further specialist advice on highway related matters where appropriate.
- 4.4.5 In making a qualitative judgement on suitability, and as set out within the National Practice Guidance, it is also necessary to consider the nature of the scheme, the attractiveness of linkages, and the way in which the scheme will operate as an integral part of the centre. As there are subjective judgments involved in some aspects of suitability, it is necessary in the interest of robustness, to log all such comments in the assessment matrix.

### **Availability**

- 4.4.6 Where a site is being actively marketed, its availability is clear. Where this is not the case and enquiries made do not yield a definitive answer, an educated judgement is made based upon the facts. For example, if a site has been subject to recent planning applications for a certain use but no operator has been named or development commenced, there is a likelihood that the site owners would be open to redevelopment. Conversely, where there is no such indication available and a site is clearly in multiple ownerships, it can be deduced that site assembly and therefore availability are likely to prove problematic. Where a site is identified as both suitable and viable, further more concrete enquiries to determine availability are made, given that this then becomes the decisive factor in the assessment.
- 4.4.7 It is also important to consider the nature of any availability and whether a site is available on a freehold or leasehold basis, and also if deemed unavailable, whether there is any prospect of the site becoming available in the near future.

### **Viability**

- 4.4.8 Viability of a site, as the National Planning Practice Guidance confirms, rests with market factors (including potential alternative uses, adjacent uses, level of demand etc) cost factors (including any exceptional site or planning costs), and delivery factors (phasing considerations, site ownership issues, s106 requirements etc). These by their nature require detailed financial and market assessment on a site basis and are therefore only considered where a site is deemed both suitable and available, and where this level of assessment thus becomes necessary.
- 4.4.9 The following sections considers those sites identified following the methodology described above, grouped into town centre sites (the most sequentially preferable), edge of centre



sites (next most preferable sequentially) and other urban sites. It is important to note that the other urban sites considered do not strictly form part of the sequential test assessment, but instead a wider assessment that reflects the policy context which applies in this case.

DRAFT

## 5 Site Assessment – Town Centre

### 5.1 St James

- 5.1.1 This is an identified development site in the Local Plan under Saved Policy AS9. The saved policy allocates the site for a mixed use scheme including B1 employment, retail, residential, leisure and tourism uses. This allocation is reinforced and reiterated within the adopted Land Allocations Local Plan (2015 – page 46). The extent of the allocated site as shown at Figure 5.1, includes the existing leisure centre site.
- 5.1.2 The large majority of the site (i.e. excluding the existing leisure centre site) has secured planning permission for a mixed retail and leisure-led development and is currently under construction. As part of this approved and implemented scheme, there is no inclusion or provision of a leisure centre, with the majority of alternative space on site taken or under offer (source: [www.stjamesdover.co.uk](http://www.stjamesdover.co.uk)).
- 5.1.3 Therefore although the wider allocated site is suitable in size and location, it is not available and requires no further assessment or consideration. The existing leisure centre site is considered separately below as an edge of centre site.

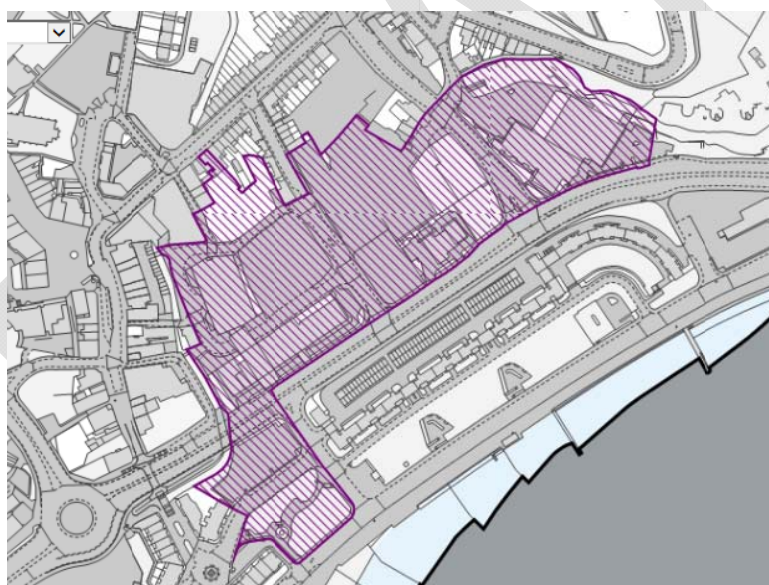


Figure 5.1: Proposals Map Extract – Policy AS9, St James Allocation





**Figure 5.2:** St James development Location Plan – courtesy of [www.stjamesdover.co.uk](http://www.stjamesdover.co.uk)



**Figure 5.3:** St James development Layout Plan – courtesy of [www.stjamesdover.co.uk](http://www.stjamesdover.co.uk)

## 5.2 Dover Waterfront (South of A20)

- 5.2.1 This site is an identified development site in the adopted Core Strategy under Policy CP8 “for a mixed use scheme including retail (A1 uses up to 20,000 square metres floorspace), restaurants, cafés and drinking establishments (A3 and A4 uses up to 7,000 square metres), assembly and leisure (D2 uses up to 15,000 square metres), residential (C3 use of at least 300 homes), offices (B1) and hotel (C1) uses”. Given this allocation, a mixed use development at the site could in principle accommodate leisure uses in the form of a leisure centre. For the purposes of this

site assessment, the Waterfront allocation south of the A20 has been assessed separately from the land north of the A20 at Bench Street (see below).

- 5.2.2 The site is by its nature constrained physically by the central marina, which does not provide any clearly developable and contiguous parcels of land. Large spaces which do exist, such as the car park to the north west of the marina is still of insufficient size (c.0.5 hectares) and awkward in its linear configuration. Any development of this part, it is assumed, would be dependent upon relocation of the Marina, planned as part of the Western Docks Revival, making delivery within a reasonable timescale almost certainly not possible. Whilst the policy refers to some potential infilling of the doc to help facilitate development, this would represent an additional, and likely not insignificant, extraordinary cost of development.
- 5.2.3 Other available parts of the site comprise small parcels and are not suitable (such as those advertised on site off Cambridge Crescent) for the development sought, instead comprising largely refurbishment opportunities. It is also noted that Policy CP8 seeks a coordinated masterplan approach and comprehensive site-wide proposals.
- 5.2.4 The Port of Dover have been contacted (twice) to enquire about availability and their wider development plans but a response still awaited. In any event, it has been shown that no suitable opportunity exists on site., notwithstanding the allocation.



Figure 5.4: Proposals Map Extract – Policy CP8, Dover Waterfront Allocation

## 5.1 Dover Waterfront (North of A20 – Land at Bench Street)

- 5.1.1 This land, as referred to at 5.2 above, forms part of the identified development site in Core Strategy Policy CP8 (part of Waterfront allocation). As such, a mixed-use development would in principle be able to suitably accommodate leisure uses and remain in accordance with Policy.



- 5.1.2 The site lies immediately north of the A20 and includes vacant/derelict buildings on a prominent frontage and approach into the town. The remainder of site is predominantly occupied and in active A1/A3/A4/A5 uses. As such, the currently available land is insufficient in size. It is assumed that the land is in multiple ownerships, but lack of suitability (size) doesn't warrant further investigation.
- 5.1.3 The site is currently constrained by the existing underpass leading to the Waterfront to the south, which it is assumed would be replaced by an overground link as part of any comprehensive redevelopment, as sought by the allocation policy. This could help remove what might otherwise be a physical constraint to development, but the policy does refer to The policy also states that "It may also be appropriate to include a foreground building on the northern side of the A20", with reference to the important views towards a landmark building to the south, which the policy seeks. It is considered unlikely that a building of the scale and mass required to accommodate the leisure centre would satisfy this policy objective.
- 5.1.4 Given the above, whilst the overall land allocated as part of Policy CP8 north of the A20 appears to be sufficient in size, the immediately available land is not and it is considered unlikely that a development of the nature sought and required would satisfy the design criteria of the allocation policy. Further information regarding land ownership and anticipated timescales for masterplan development would assist in further assessing the site, but based on the information available the site would not appear immediately available or suitable.



Figure 5.5: Proposals Map Extract – Policy CP8, Dover Waterfront Allocation

## 5.2 Maison Dieu

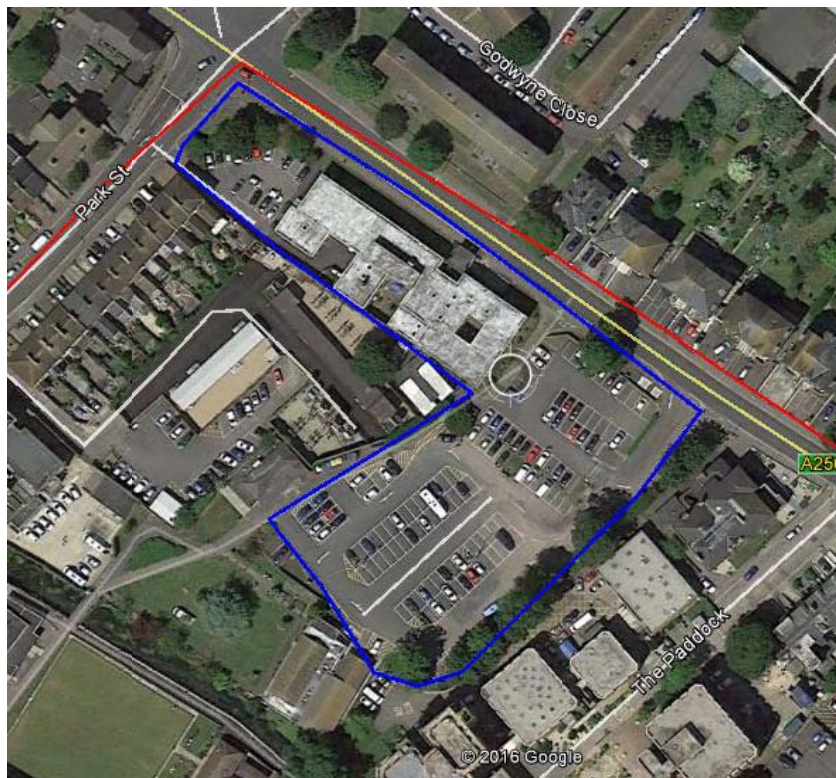
- 5.2.1 This site forms part of the Dover Mid Town allocation set out in Core Strategy Policy CP9. This policy allocates the site for mixed use development of C2 uses (residential institutions), C3 uses (residential of at least 100 homes), A1 shop uses, A3 restaurants and cafés uses and A4 Drinking establishments uses (of up to 15,000 square metres), D1 (non-residential institutions), the redevelopment of South Kent College (around 5,000 square metres), and parking to serve the development and the town centre. Whilst D2 leisure uses are not listed, it is considered reasonable to assume that as a defined main town centre use, and in the context of the existing character of public and civic uses, there would be no in-principle objection, albeit the exclusion of this use is notable by contrast to other town centre allocations where this use is specified.

- 5.2.2 The policy preamble confirms that the site is defined in a broad way to enable a comprehensive view of its future to be taken and that this does not imply that all buildings within it are proposed for redevelopment. In reviewing the land within the allocation, the only parcels deemed to have a reasonable possibility of being available and suitable in size is the surface car park outlined in blue at Figure 5.7 below. In considering this, it was considered prudent to also consider the adjoining health centre for completeness.
- 5.2.3 As the aerial photograph shows, the site is primarily existing car park, partly designated for Health Centre use. The Council's Parking Strategy (Draft 2007) shows relatively low occupancy and low quality scoring and so scope for redevelopment (consistent with Local Plan) in principle is considered likely to exist. It is though noted that Dover is shown to be poorly served relative to retail floorspace compared to competing centres and the strategy assumes reprovision as part of any redevelopment..
- 5.2.4 The car park falls slightly under 0.8Ha in size. It was considered as part of the original feasibility, which shows the site to be very constrained to accommodate Option 4. It would also not allow for 3G 5-a-side provision as per the current proposals.
- 5.2.5 The NHS have been contacted regarding availability in any event (to see if the Health Centre site is likely to be available in the near future or not and to understand availability of their parking area). The NHS in response have confirmed that the site is not available. Notwithstanding this if any redevelopment ever were to come forward in the foreseeable future, it would need to include reprovision of the clinical facility. The site is self-evidently not big enough to deliver this, reprovide parking and the leisure centre and as such no further assessment is necessary.



**Figure 5.6:** Proposals Map Extract – Policy CP9, Dover Mid Town Allocation





**Figure 5.7:** Maison Dieu Car Park & Health Centre (edged blue) – Image courtesy of Google Earth

## 6 Site Assessment – Edge of Centre

### 6.1 Dover Leisure Centre

- 6.1.1 The 2015 feasibility considers refurbishment and concludes this is neither cost-effective nor will it yield the quality of provision sought. In any event, it is likely to be highly disruptive to ongoing provision, even if it were possible to maintain some degree of public access during that period, which is deemed doubtful.
- 6.1.2 Redevelopment is not a suitable option as it would require a lengthy break in service provision of approximately 18 months. Discussions with the Council have confirmed that such a scenario will not be entertained in the interests of local leisure facility provision, and given the site's role as the principal indoor leisure facility at the District's largest and principal settlement, that is considered a reasonable position and one supported in planning terms through the need to deliver sustainable development. This is therefore considered a reasonable and highly relevant consideration in respect of suitability.
- 6.1.3 Although the Option 4 footprint can just be accommodated on site (as the 2015 feasibility shows), the site is not suitable due to the need for ongoing service provision. It would also not allow provision of 3G 5-a-side pitches as per the current proposals.



**Figure 6.1:** Proposals Map Extract – Policy AS9, part of St James Allocation



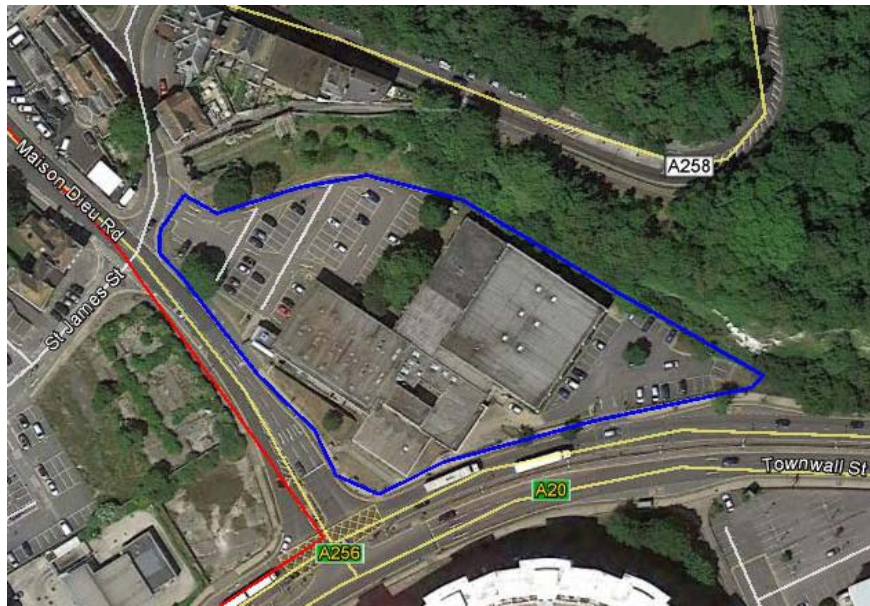
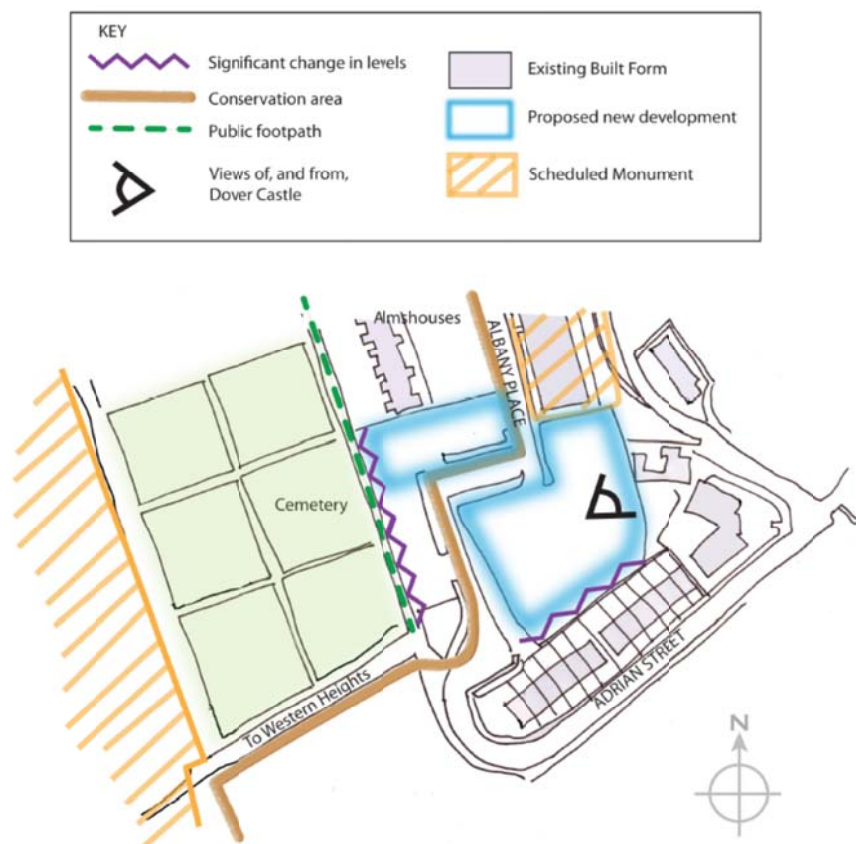


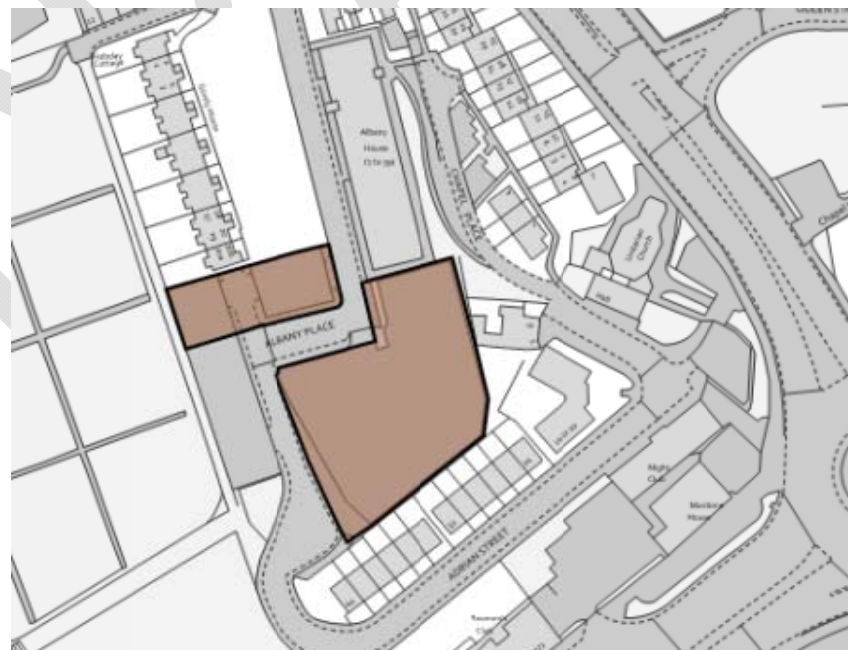
Figure 6.2: Dover Leisure Centre (edged blue) – image courtesy of Google Earth

## 6.2 Albany Car Park

- 6.2.1 This is an identified development site in the Local Plan (Land Allocations Local Plan Policy LA4) and so can reasonably be considered available for development (albeit identified for c. 15 dwellings).
- 6.2.2 At 0.4ha, the site is too small and therefore not suitable.
- 6.2.3 The site is also constrained by heritage designations and topography relative to adjacent development.



**Figure 6.3:** Albany Car Park Allocation – extract from Land Allocations Local Plan (2015), Policy LA4



**Figure 6.4:** Proposals Map Extract – Policy LA4, Albany Car Park Housing Allocation



### 6.3 Former Charlton Sorting Office

- 6.3.1 This is an identified development site in the Local Plan (Land Allocations Local Plan Policy LA3) and so can reasonably be considered available for development (albeit identified for c. 15 dwellings).
- 6.3.2 A previous planning application for residential development was withdrawn and the site is now being actively marketed and so is confirmed as available.
- 6.3.3 At 0.68ha the site is too small to accommodate the development, a position exacerbated by its linear configuration given that the leisure centre requires a more square form. Given this, the site is not suitable and further direct enquires regarding availability are not necessary.



**Figure 6.5** Proposals Map Extract – Policy LA3, Former Charlton Sorting Office Housing Allocation

## 7 Site Assessment - Other Urban Sites

*The following sites are neither town centre nor edge of centre and do not therefore form part of the sequential test assessment as required by policy (i.e. in policy terms are no more sequentially preferable than the identified White Cliffs Business Park site), but are included for completeness. For ease of comparison, the proposed White Cliffs Business Park site is also included and assessed.*

### 7.1 Buckland Mill

- 7.1.1 The site is identified in the Local Plan for residential development (Land Allocations Local Plan Policy LA9 – 265 dwellings).
- 7.1.2 Although leisure development does not form part of this development sought by the policy, it is a clear larger scale development opportunity.
- 7.1.3 The site owners (HCA) have been contacted and have very firmly confirmed that the site would not be available for leisure centre development. It is not therefore available and likely not to be suitable in light of its prescriptive residential allocation.

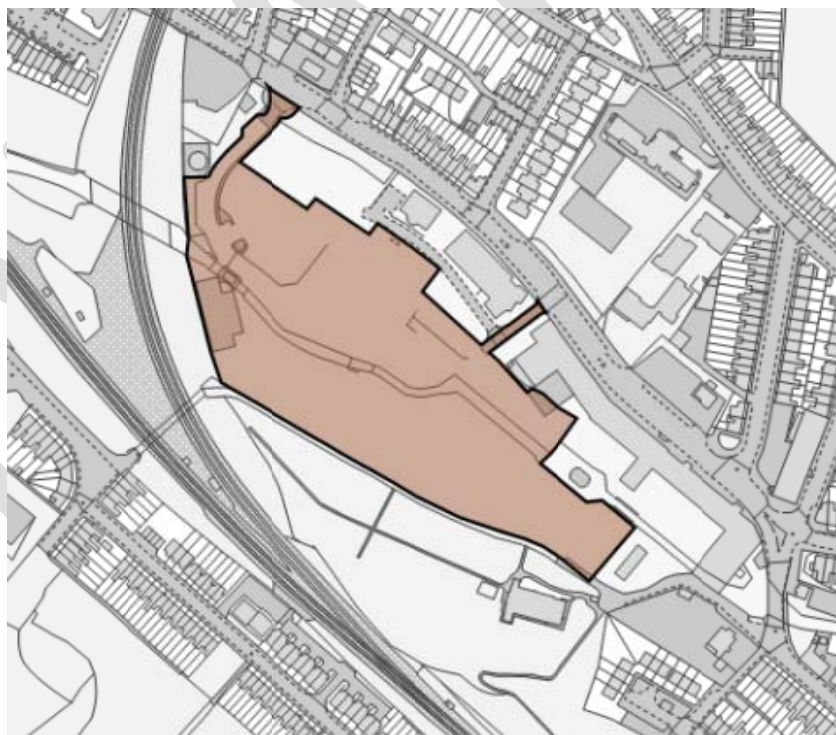


Figure 7.1: Proposals Map Extract – Policy LA9, Buckland Mill Housing Allocation

### 7.2 Westmount

- 7.2.1 The site is of sufficient size and well located in relation to the train station.



- 7.2.2 The site has recently been cleared and buildings demolished with groundworks ongoing. Land Allocations Local Plan Policy LA10 identifies the site as a residential allocation for approximately 100 dwellings.
- 7.2.3 Residential planning permission was secured for the site in September 2009.
- 7.2.4 The Churchgate (developer) website confirms that the site is now being developed and is not therefore available and does not warrant any further assessment.

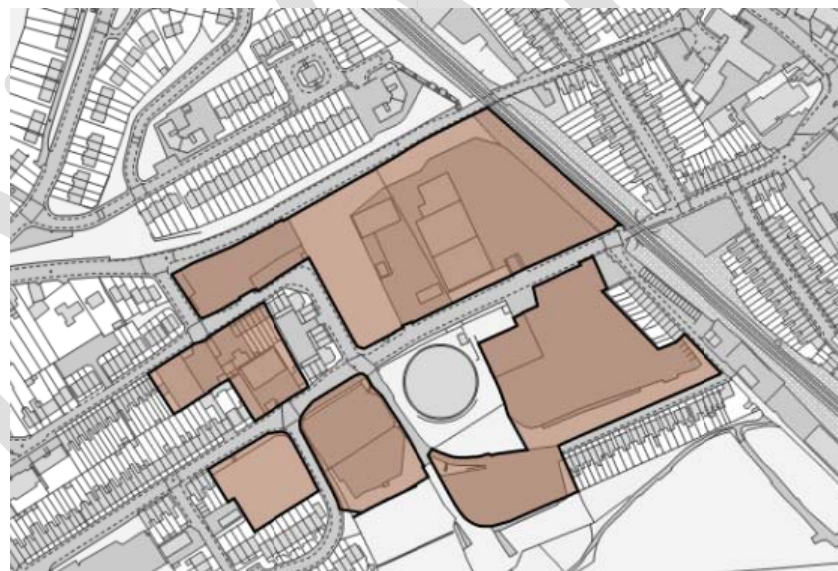


**Figure 7.2:** Proposals Map Extract – Policy LA10, Westmount Housing Allocation

### **7.3 Land East End of Coombe Valley Road**

- 7.3.1 Land here is in varying industrial use and so not readily 'available'. It is though identified as part of the wider Coombe Valley development area in the Local Plan under the terms of Land Allocations Local Plan Policy LA8 for an estimated 450 residential dwellings.
- 7.3.2 Of the land shown in Figure 7.3 below, the most obviously developable site lies adjacent to the gas holder and there are therefore likely to be Health & Safety Executive (HSE) issues to overcome and/or additional costs to development as a result.
- 7.3.3 The plot to the immediate east of the gasholder measures approximately 0.7ha and is therefore slightly too small to accommodate the minimum required form and amount of development.
- 7.3.4 Coombe Valley Road represents a secondary urban location, separate from main transport nodes and the main road network, limiting prominence and legibility for potential users. In any event, it was considered relevant for the Coombe Valley potential development sites to be considered in more detail in respect of highway considerations to explore this issue further.

- 7.3.5 From the A256 London Road, vehicles would turn onto Coombe Valley Road via a signalised junction to access the site. From here vehicles would go under a narrow signalled railway bridge. Both of these restrictions on the network may need to be modelled to identify if they have capacity for any increase in flows as a result of a leisure centre development.
- 7.3.6 Coombe Valley Road is provided with footways so safe pedestrian access is possible, however, those on foot would need to cross the road after walking under the railway bridge.
- 7.3.7 Two bus stops are provided on Coombe Valley Road but these are only served by two routes, both operating between Aycliffe and Whitfield (60 and 60A). A wider range of services are provided on the A256 (60, 60A, 61, 61A, 62, 87, 88, 88A, 89, 89A, 91, 93, 96, 541, 991) some 350m away.
- 7.3.8 It is anticipated that the site would require a reasonable level of parking to reflect its slightly out of centre location. However, good bus access from London Road may allow for some flexibility.
- 7.3.9 The sites generally benefit from existing access onto Coombe Valley Road, which is likely to be suitable for the proposed use with slight modifications. Rear access from Prospect Place would not be suitable.
- 7.3.10 This assessment is considered to be consistent with the view that Coombe Valley comprises a 'secondary' location which would not readily meet the requirements of the development as set out in this report.



**Figure 7.3:** Proposals Map Extract – Policy LA8, Coombe Valley Road Housing Allocation (east end)

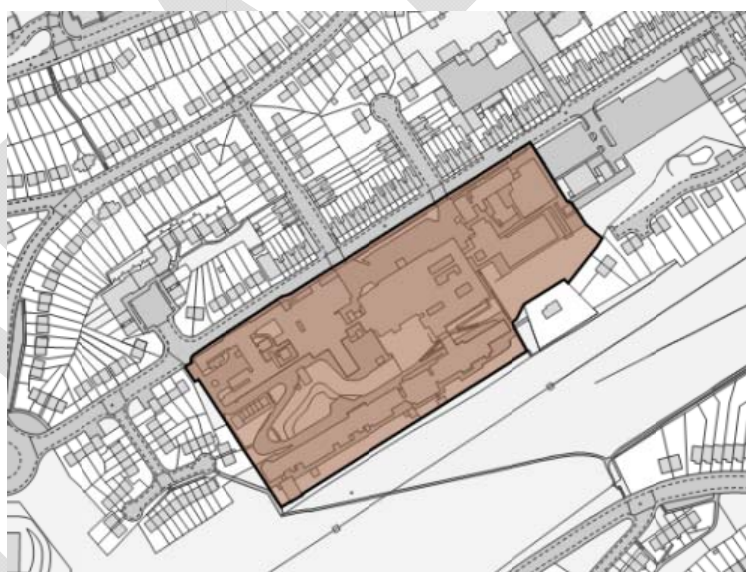
## 7.4 Former Buckland Hospital Site

- 7.4.1 This site, also located on Coombe Valley Road further to the west, is vacant and was recently to be taken to auction. It is understood however from speaking with the site owners KCC, that the site was withdrawn from the recent auction to allow further discussions to take place between them and the NHS to fully explore any potential healthcare related



developments. It is understood that in the event those discussions are not concluded positively, it would be put back for auction. Given this, there is some uncertainty over availability at the present time.

- 7.4.2 The vacant part of the site is large enough to accommodate the minimum amount and form of development required.
- 7.4.3 None of the existing buildings are understood to be listed, but do provide some non-designated heritage value to consider in the terms set out within the NPPF.
- 7.4.4 The existing Land Allocation Local Plan refers to residential development here (450 units across Coombe Valley area) with no provision for leisure referenced.
- 7.4.5 The site is remote from strategic routes, with the same highways assessment applying as set out at 7.3 above, but without the added benefit of proximity to London Road and the additional bus services found there.
- 7.4.6 Some potential 'civic/community' synergy could be delivered with the adjacent new hospital in terms of character and use, but this would be to the detriment of housing delivery in view of the current allocation and at secondary location away from main roads and routes. It is not therefore considered suitable, whilst availability remains uncertain.

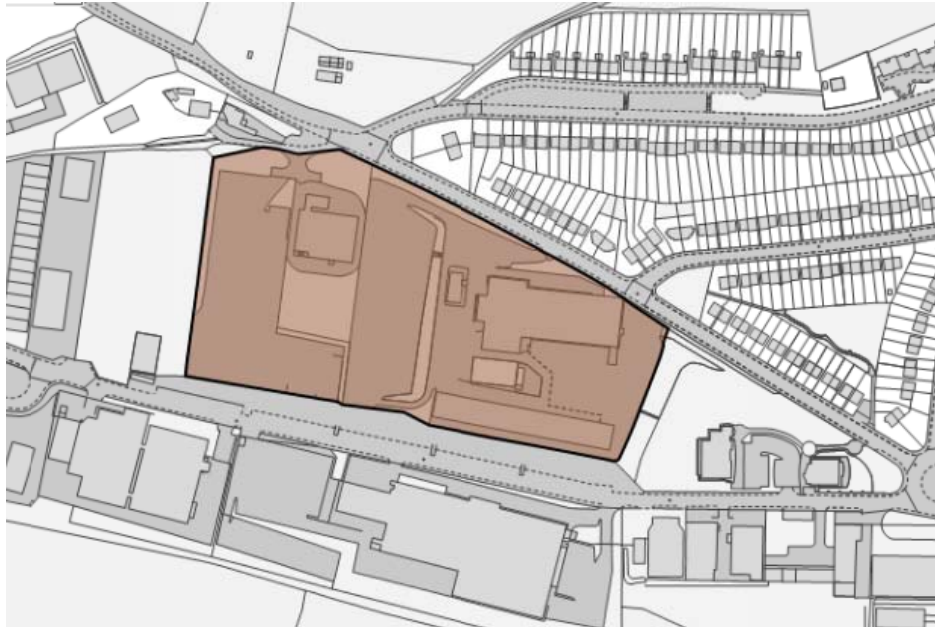


**Figure 7.4:** Proposals Map Extract – Policy LA8, Coombe Valley Road Housing Allocation (Former Buckland Hospital)

## **7.5 Land at Western End of Coombe Valley Road**

- 7.5.1 This land also forms part of the wider Coombe Valley allocation (Policy LA8) and is sited even further from the town centre and main urban area than the Buckland Hospital site considered above. This is considered to be very much a secondary location with no prominence and added potential implications in respect of landscape impact on the AONB, a highly material planning consideration to any development where that applies.
- 7.5.2 The land is a former industrial development and use meaning there are possible implications for construction/decontamination costs.

- 7.5.3 In highway terms, the site is even more remote from strategic routes than noted above at 7.4. For the same but even more applicable reasons as outlined at 7.4, the site is not considered suitable and accordingly enquiries regarding availability are not considered necessary.



**Figure 7.5:** Proposals Map Extract – Policy LA8, Coombe Valley Road Housing Allocation (west end)

## **7.6 TA Centre, London Road**

- 7.6.1 This site is an identified development site in the Land Allocations Local Plan under Policy LA7 for approximately 10 dwellings.
- 7.6.2 At 0.33 hectares the site is too small and not therefore suitable, with no further assessment required.

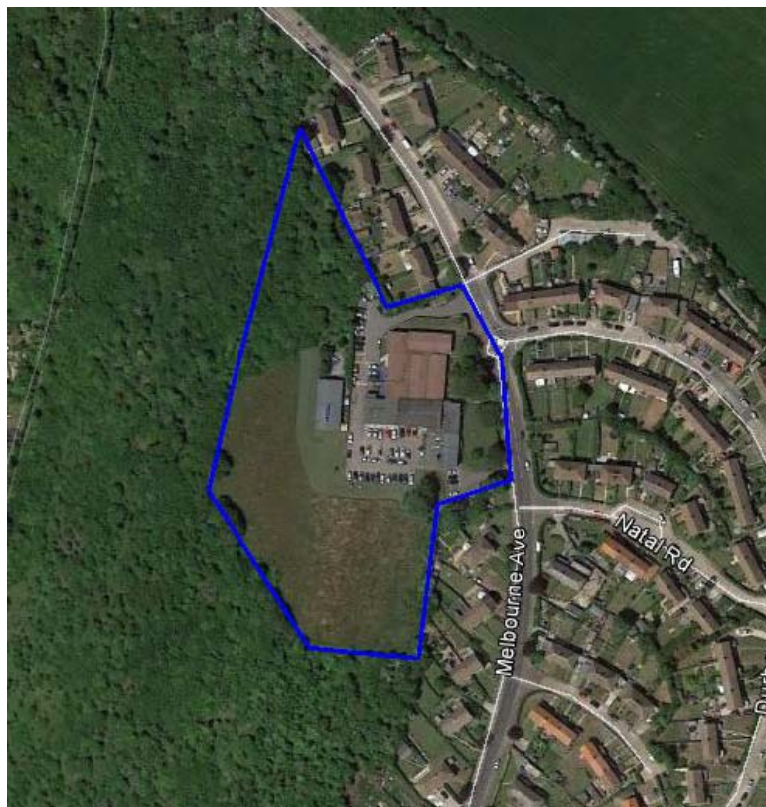




**Figure 7.6:** Proposals Map Extract – Policy LA7, TA Centre, London Road Housing Allocation

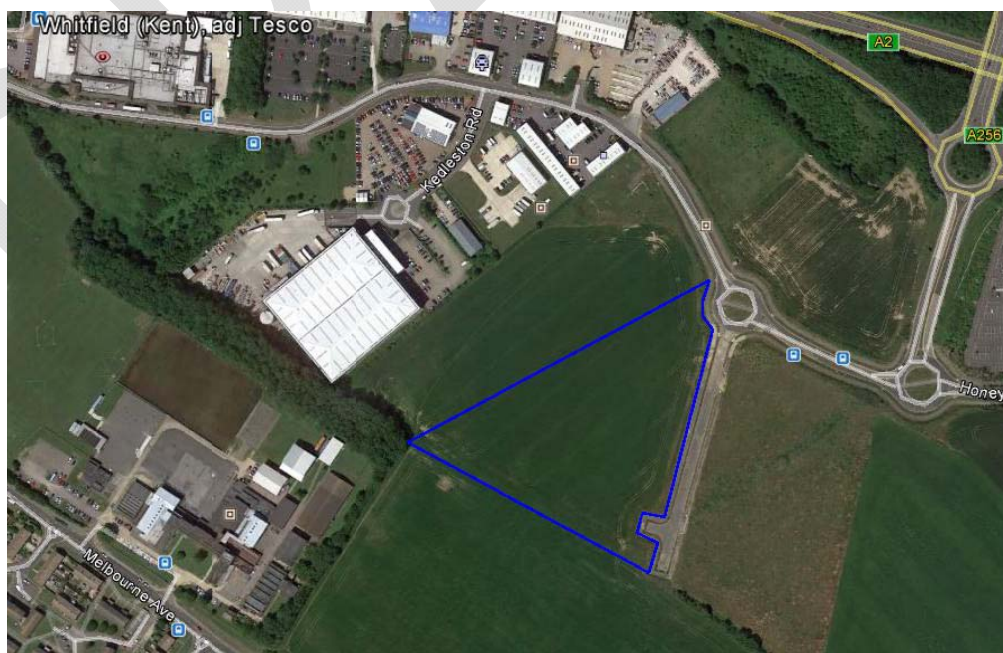
## **7.7 Former Melbourne Community Primary School**

- 7.7.1 This site is known to have previously been available (it was promoted by DHA through the Council's SHLAA) but not taken forward for allocation and is now occupied by KCC (Thistley Hill). It is therefore not available and has previously been deemed unsuitable for inclusion in the SHLAA. The site is part allocated for residential development, but that allocation site is not big enough (and in any event for residential development and not leisure use).
- 7.7.2 The site occupies a secondary location and access onto the highway network and in view of this and the above is neither suitable nor available.



**Figure 7.7:** Former Melbourne Community Primary School (edged blue) – Image courtesy of Google Earth

## 7.8 White Cliffs Business Park, Whitfield – ‘Triangle Site’

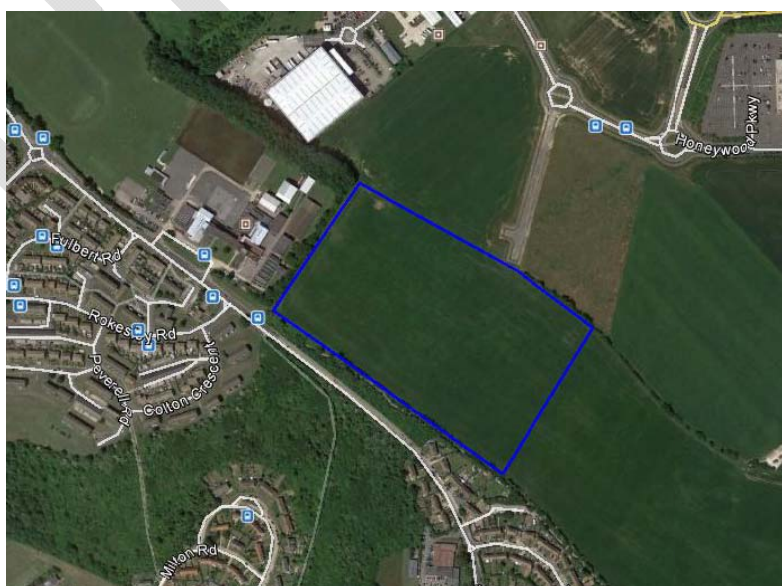


**Figure 7.8:** Land at White Cliffs Business Park, Whitfield (edged blue) – Image courtesy of Google Earth



- 7.8.1 This site falls within the urban area as defined on the Proposals Map, being part of the White Cliffs Business Park employment allocation at Whitfield. In that respect, the principle of development at this site is broadly accepted by policy, although the allocation for an alternative use would need addressing in any planning application.
- 7.8.2 Design feasibility work has shown the site to be large enough to accommodate the proposed development and it exceeds the minimum 0.8 hectare sieving threshold. Further work would be required on the feasibility of development specifics (and the viability implications of these) such as drainage and services, although assessments instructed by the Council to date have indicated that the site is developable.
- 7.8.3 In highway terms, the site is afforded good vehicle access to the A2 and A256, however, it is not necessarily located in a highly sustainable location.
- 7.8.4 The site is served by a number of bus services (12, 60, 60A, 61, 61A and 89) providing links to Canterbury, Deal and Whitfield generally at a minimum of one bus per hour. It is also understood that a Bus Rapid Transport system is proposed within the area, which will improve accessibility.
- 7.8.5 Pedestrian access would be limited to those living in the small residential area close to the site, however, new good quality lit footways are provided.
- 7.8.6 It is anticipated that the site would require high levels of parking to reflect its out of centre location.
- 7.8.7 The site would require a new access on to Honeywood Parkway, which would need to be designed to the current standards and be subject to a Road Safety Audit.
- 7.8.8 The Council have held constructive discussions with the site owner and it can therefore be regarded as available.

## 7.9 Land Adjacent to Dover Christchurch Academy



**Figure 7.9:** Land adjacent to Dover Christchurch Academy (edged blue) – Image courtesy of Google Earth

- 7.9.1 This site sits entirely outside the settlement boundary and is therefore greenfield, unallocated land. There is no direct policy support for such development and as such exceptional justification would be required as part of the wider planning case presented.
- 7.9.2 In pure physical terms, the site is of sufficient size to accommodate the development, although considerable work would be required on the feasibility of development specifics (and the viability implications of these) such as drainage and services.
- 7.9.3 In accessibility and highway terms, broadly speaking the same applies to this site as set out above for the adjacent White Cliffs Business Park site, although it is noted that pedestrian accessibility from the urban area to the south may be achievable, whilst the site is lightly more remote and detached from the existing road network and public transport network.
- 7.9.4 The site is not known to be unavailable and it is understood that some enquiries were made by the Council with the landowner that would support this position, albeit those discussions were not conclusive.



## 8 Summary & Conclusions

### 8.1 Summary

- 8.1.1 Dover District Council are pursuing plans for a replacement to Dover Leisure centre, which comprises a 'Main Town Centre Use' as defined within the NPPF. Accordingly, and as directed by policy, a Sequential Test Assessment is required in the event that an out of centre site is proposed. This assessment fulfils that requirement and follows the available and applicable guidance, given that the Council have identified an out of centre site at White Cliffs Business Park, Whitfield as the preferred site.
- 8.1.2 This report offers an independent assessment of potential alternative sites having regard to suitability and availability for the proposed development, the minimum requirements of which have been informed by thorough and well-reasoned feasibility work carried out in 2015.
- 8.1.3 The assessment has drawn upon a range of evidence and methods to identify and assess potential sites. It is intended to inform the Council's ongoing review and decision-making process in the delivery of a new leisure centre and should be subject to ongoing review as and when any new evidence becomes available (such as the results of the recent Brownfield Call for Sites) or new sites identified or suggested. This ongoing review should continue up to the point of planning application submission, if pursued, to ensure a robust document is presented as part of any application that both informs the proposals and informs the local planning authority's determination of the application.

### 8.2 Conclusions

#### **Sequential Test**

- 8.2.1 No site located within the town centre has been identified to date that can reasonably be considered available, suitable and viable for the proposed leisure centre development, even when allowing for some disaggregation of facility in the form of the proposed 3G 5-a-side football pitches.
- 8.2.2 No site located in an edge of centre location, as defined by policy (within 300m of the defined town centre), has been identified to date that can reasonably be considered available, suitable and viable for the proposed leisure centre development, even when allowing for some disaggregation of facility in the form of the proposed 3G 5-a-side football pitches.
- 8.2.3 Accordingly, it is considered that the proposals at Whitfield satisfy the sequential test as set out within and required by the NPPF.

#### **Wider Assessment**

- 8.2.4 Separate from the sequential test, other potential sites in the wider urban area have been considered in the interests of informing the overall planning balance and consideration,

particularly in light of the Land Allocations Local Plan stating that *"given that the existing building is near the end of its useful life, an opportunity exists to create a landmark building. Leisure facilities could be located at a different site, so long as it equally accessible to residents"* (Para 3.144).

- 8.2.5 Other sites suitable in size have been identified at Buckland Mill and Coombe Valley Road, however these are all allocated for housing. In contrast, the currently favoured site by the Council as facility provider is allocated for employment, which although not strictly consistent with a leisure use, does still offer employment. Buckland Mill is confirmed by the site owners as unavailable.
- 8.2.6 In locational terms, the potentially available and suitable sites (Coombe Valley Road and Whitfield) are not currently highly accessible by public transport, although the Local Plan does make direct future provision for improved bus services at Whitfield and it provides a more strategically advantageous and prominent location.
- 8.2.7 Therefore, in the wider planning sense, owing to the nature of its allocation (relative to Coombe Valle Road) and the greater scope for public transport access, land at White Cliffs Business Park is considered broadly preferable to other identified alternatives in the urban area. It will be for any subsequent planning application to provide the sufficiently detailed planning case for the development, including a thorough assessment of accessibility relative to alternatives and the existing site.



## Appendix 7 – Capital Costs

*This appendix has been redacted*

## Appendix 8 – Detailed Revenue Projections



Including Lifecycle Costs

Income	
Dry side	
Health & Fitness	
Wetside	
Other Member ships	
Rentals	
Secondary	
Outdoor	
Total Income	
Expenditure	
Staffing costs:	
Permanent staff costs	
Casual staff costs	
Employer NIC Contribution	
Staff training	
Uniform s	
Sub Total	
Premises costs:	
Utilities - electricity	
Utilities - gas	
Utilities - water	
Repairs & maintenance	
Planned maintenance	
Grounds maintenance	
Cleaning and refuse	
Pool chemicals	
Rent/Lease	
Equipment refresh	
H&F equipment leasing	
3G pitch sinking fund	
NNDR	
Lifecycle costs	
Capital costs	
Sub Total	
Management costs:	
Launch marketing and promotion	
Marketing, advertising and promotion	
Insurances	
Print, post and stationery	
Telephone	
Audit and legal	
Licences and subscriptions	
Other administration costs	
Irrecoverable VAT	
Sub Total	
Cost of sales:	
Food and beverage cost of sales	
Retail cost of sales	
Sub Total	
Other costs:	
Central costs	
Profit	
Performance Bond	
Contingency	
Sub Total	
Total Expenditure	
Profit/Loss (Management Fee)	

Excluding Lifecycle Costs

Income											
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10-year average
Dry side											
Health & Fitness											
Wetside											
Other Memberships											
Rentals											
Secondary											
Outdoor											
Total Income											
Expenditure											
Staffing costs:											
Permanent staff costs											
Casual staff costs											
Employer NIC Contribution											
Staff training											
Uniforms											
Sub Total											
Premises costs:											
Utilities - electricity											
Utilities - gas											
Utilities - water											
Repairs & maintenance											
Planned maintenance											
Grounds maintenance											
Cleaning and refuse											
Pool chemicals											
Rent/Lease											
Equipment refresh											
H&F equipment leasing											
3G pitch sinking fund											
NNDR											
Lifecycle costs											
Capital costs											
Sub Total											
Management costs:											
Launch marketing and promotion											
Marketing, advertising and promotion											
Insurances											
Print, post and stationery											
Telephone											
Audit and legal											
Licences and subscriptions											
Other administration costs											
Irrecoverable VAT											
Sub Total											
Cost of sales:											
Food and beverage cost of sales											
Retail cost of sales											
Sub Total											
Other costs:											
Central costs											
Profit											
Performance Bond											
Contingency											
Sub Total											
Total Expenditure											
Profit/Loss (Management Fee)											



## Appendix 9 – Sensitivity Analysis

Including Lifecycle Costs

	BASE	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
		Higher income & base costs	Higher income & higher costs	Higher income & lower costs	Base income & lower costs	Base income & higer costs	Lower income & higher costs	Lower income & Lower costs

Income

Dry side								
Health & Fitness								
Wetside								
Other Memberships								
Rentals								
Secondary								
Outdoor								
Total Income								

Expenditure

Staffing costs:	0%	8%	-8%	-8%	8%	8%	-8%
Premises costs:							
Management costs:							
Cost of sales:							
Other costs:							
Total Expenditure							
Net Surplus/Deficit							

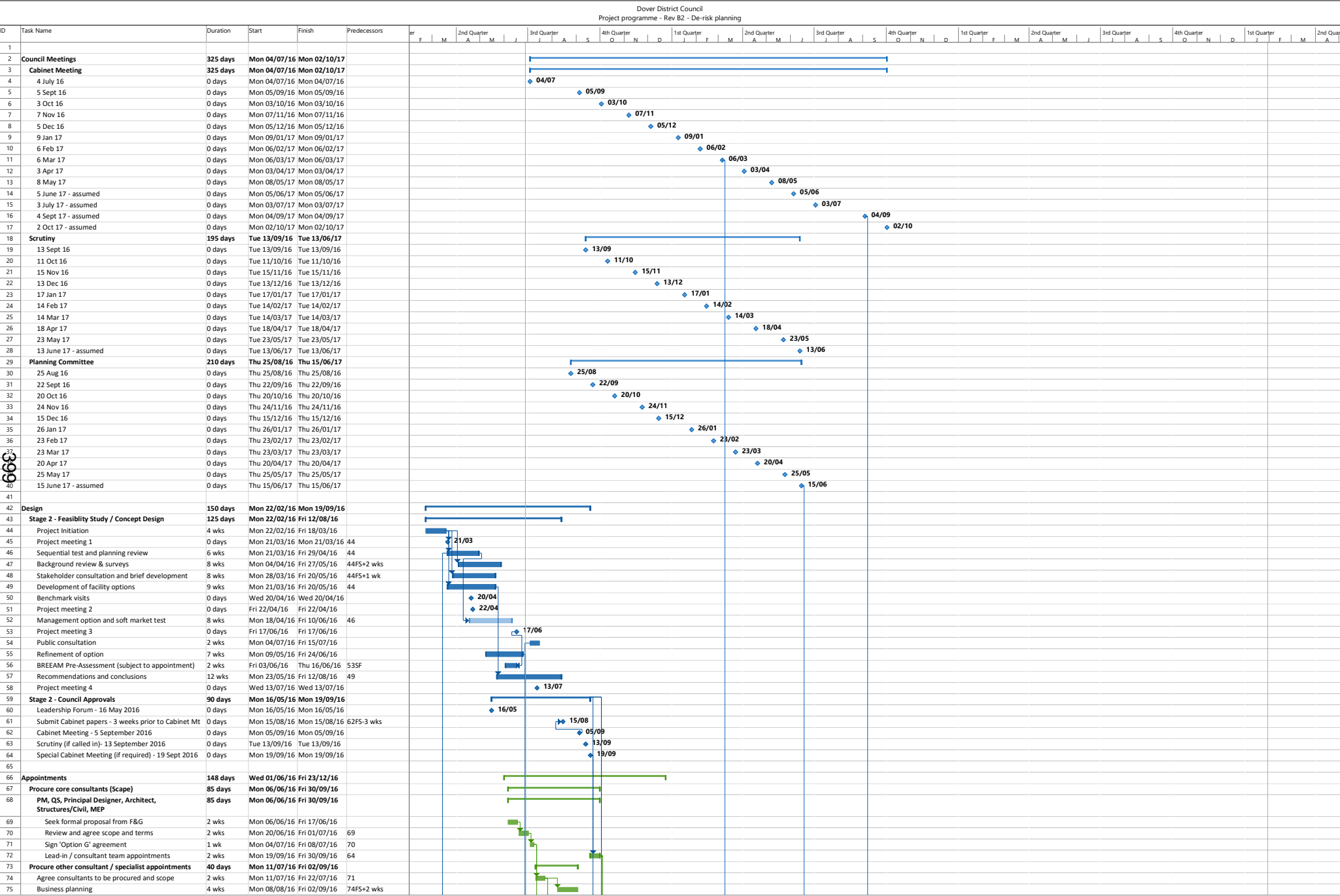


### Excluding Lifecycle Costs

		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
BASE		Higher income & base costs	Higher income & higher costs	Higher income & lower costs	Base income & lower costs	Base income & higer costs	Lower income & higher costs	Lower income & Lower costs
Income								
Dry side								
Health & Fitness								
Wetside								
Other Memberships								
Rentals								
Secondary								
Outdoor								
Total Income								
Expenditure								
Staffing costs:								
Premises costs:								
Management costs:								
Cost of sales:								
Other costs:								
Total Expenditure								
Net Surplus/Deficit								

## Appendix 10 – Detailed Programme





[illegible]





# Appendix 11 – Risk Register



## Dover Leisure Centre - Project Risks

### Dover District Council

Revision: B

			Assessment of Risk						
Risk ID Code	Risk Area	Risk Description	Impact (1 - 5)	Likelihood (1 - 5)	Score	Action Taken (Provide details of what you have done to date to manage the risk)	Further Action to be Taken (Describe what further actions you will take to reduce the impact/ likelihood should the risk become an issue)	Risk Owner	Further survey work to be undertaken to establish and/or mitigate risk
B01	Brief	Changes to facility mix / brief.	4	4	16	Core facility mix agreed as part of Stage 2 Feasibility Study. This has also been discussed with Leadership Forum.	Review of the facility mix is being carried out as part of the Stage 2 Feasibility to achieve sign off of the facility mix as part of the September Cabinet approval. Any changes to the facility mix / brief to be subject to an assessment of the cost, programme and business plan implications before changes are made.	DDC	
C01	Cost	Land purchase is more than anticipated and/or makes the project unaffordable.	5	4	20	Council have commenced negotiations with the land owner.	Council to continue negotiations with the land owner. Formal public consultation not to take place until negotiations have been concluded to maintain negotiating position.	DDC	
C02	Cost	Project costs exceed budget/available funding (affordability).	4	4	16	Experienced consultant team have been appointed to develop Stage 2 design and cost plan. Current funding gap is c.£2.3m, which it is assumed will be funded from the Council's capital reserves.	Cost consultant appointed to prepare cost plan based on similar projects. Allowances to be made for all of the costs to deliver the project, including construction, professional team, off-site works, fit out, etc., etc. Contingency to be included commensurate with the stage of the project. Costs to be closely monitored as the project progresses.	DDC	
C03	Costs	Increase in tender prices.	4	4	16	Allowance included for tender inflation based on BCIS Indices. Early involvement of the contractor through the two stage approach will provide good market intelligence.	To be reviewed on a regular basis and allowance adjusted.	DDC	
C04	Costs	Increase in cost estimate due to scope creep or inclusion of good ideas/nice to haves.	4	4	16	Experienced consultant team have been appointed to develop an efficient Stage 2 design.	Design to be closely monitored and the implications of any changes to be fully outlined to the Council for approval before proceeding with changes. Formal Change Control process to be introduced from the start of Stage 3.	DDC	
D01	Design	Changes in design due to new consultant team or delay due to the new team getting up to speed.	4	4	16	Consultant procurement options have been considered.	Appointment of current consultant team being looked into.	DDC	
D02	Design	Design doesn't meet Council expectations.	4	4	16	Case study visits have been carried out with key officers and members. Flitwick Leisure Centre has been agreed as the benchmark for this project.	Formal project governance and approval process to be put in place. Technical Steering Group to be put in place to review the developing design and provide direction to the design team. Formal stage reports to be provided at key design stages for sign off.	DDC	
D03	Design	Operator requires changes to the design incurring additional cost or impacting on programme.	4	4	16	Programme seeks to bring on board the operator at the earliest opportunity so they can input on design.	No further action at this stage.	DDC	
D04	Design	Building location changed.	5	3	15	A number of options have been considered and a preferred location selected for completion of the Stage 2 Feasibility Study.	No further action at this stage, but risk rating remains high until Stage 2 design has been signed off.	DDC	
D05	Design	Poor quality finishes specified, which impacts on maintenance costs and business plan.	4	4	16	Case study visits have set the benchmark to be followed.	Specifications to be reviewed as the design is developed. Life cycle cost analysis to be carried out to aid choice of materials.	DDC	
D06	Design	Sport England standards not met.	4	3	12	Design Team appointed for Stage 2 have worked with Sport England on other projects and have a good understanding of Sport England standard.	Design Team with Sport England experience to be appointed for Stage 3 onwards. Any deviations from Sport England standards to be raised by the Design Team and discussed with Sport England.	DDC	
E01	Ecology	Ecologically impacts on building design or impacts on the delivery programme.	4	4	16	No information currently available, hence the high risk rating.	Preliminary Ecological Survey being carried out. Additional surveys and mitigation measures to be confirmed once received.	DDC	Preliminary Ecological Survey + reptile and bat surveys
F01	Finance/Funding	Sport England funding not obtained.	5	4	20	Initial meeting held with Sport England to discuss the project. Timeline for applications and approvals included in project programme. Sport England funding could be £1m-£1.5m, whereas the working assumption is £1m which is at the lower end. However, no current commitment, hence the high risk rating.	Dialogue to continue to Sport England once Cabinet approval has been received. Procurement strategy, consultant and contractor appointments to be discussed with Sport England to ensure their buy in.	DDC	
F02	Finance/Funding	Business Plan projections aren't met and can't support prudential borrowing.	5	3	15	The Sports Consultancy has been appointed to prepare the Business Plan. This is based on a prudent business plan. Facility mix has been soft market tested with key operators, with good feedback received.	Operator to be tendered in parallel with the construction contract so that the full financial position is known at the time contracts are placed.	DDC	
F03	Finance/Funding	Increase in Prudential Borrowing rates.	5	3	15	Current assumption is 40 year loan @ 3.75% on an annuity basis.	To be closely monitored.	DDC	

F04	Finance/Funding	Change in financial stability of the Council.	5	3	15	No current action proposed.	To be closely monitored.	DDC	
G01	Governance	Change in Council administration impacting on project.	5	3	15	Current cross-party support.	To be closely monitored.	DDC	
G02	Governance	Change in key Council Officers.	4	3	12	No current action proposed.	To be closely monitored and mitigation strategy put in place if this occurs.	DDC	
OP01	Operation	Gap in continuity of leisure provision, e.g. existing centre has to close early and prior to completion of the new centre.	3	4	12	Risk of significant failure of plant, fabric or other systems at the existing centre that is uneconomic to repair.	To be closely monitored and communicated early if this risk materialises.	DDC	
OP02	Operation	Maintenance obligations not met on current centre.	4	4	16	Contractual obligations of the current operator to be closely monitored.		DDC	
OP03	Operation	Operators not interested in project.	4	2	8	Initial soft market testing has shown there to be strong operator interest in the project.	Clear procurement process to be set out. Robust tender documents to be prepared. Robust and open tender process to be run. Consider appointment of experienced consultant to run the procurement process.	DDC	
OP04	Operation	Inclusion of older Tides centre in the operator contract impacts on market interest or compromises financial offers.	4	2	8	Initial soft market testing has shown there to be strong operator interest in the project even if Tides is included.		DDC	
OP05	Operation	Existing operator doesn't perform and standard at existing centre compromised if they don't win the new contract.	4	4	16	Contractual obligations of the current operator to be closely monitored.	This would need to be closely monitored in this eventuality.	DDC	
P01	Planning	Insufficient parking impacts on business plan.	4	4	16	Car parking numbers being looked at as part of Stage 2 design.	Car park numbers to be assessed as part of Transport Assessment.	DDC	Transport Assessment
P02	Planning	Future of the existing leisure centre site is linked to the planning application for the new centre.	4	2	8	It is not currently anticipated that the future of the existing centre will be linked to the new centre planning application.	Continue dialogue with planning team.	DDC	
P03	Planning	Planning application is rejected or consent is delayed.	4	3	12	Proposals are a departure from the Employment Use planning designation. Planning consultant has been appointed to carry out Sequential Test and provide early planning advise. Discussions have taken place with the planning team to ensure this meets their requirements and to agree documents to be submitted with the planning application.	Design to be developed to Stage 3 to ensure robust planning application is submitted. Pre-app submission and meeting to take place.	DDC	
P04	Planning	Judicial Review of the planning decision.	4	2	8	This is consider to be a low risk, but is identified as a risk to monitor.	No further action proposed at this stage.	DDC	
P05	Planning	Public opposition to the new centre.	4	3	12	Good response received to initial public communications about the new centre.	Formal public consultation/communication of the Stage 2 proposals to be carried out.	DDC	
P06	Planning	Significant Town Centre impact.	4	3	12	This is not thought to be an issue, but a formal assessment has not been completed, hence the slightly higher risk rating.	Town Centre Impact Assessment to be carried out.	DDC	Town Centre Impact Assessment
P07	Planning	Onerous planning condition requiring changes to the design or incurring additional cost.	3	4	12	Unknown at this stage, hence the higher risk rating.	Surveys / report to be commissioned to support the planning application, which will inform the likely planning requirements. Discussions to take place with relevant departments included EHO, Ecology, Archaeology, Highways, etc. to agree the surveys/reports required and discuss the report outcome and recommendations to pre-empt the likely planning conditions.	DDC	
P08	Planning	Full EIA required.	4	4	16	Initial view is that this won't be required, but this won't be confirmed until initial surveys are complete and EIA Screening Opinion is submitted, hence the high risk rating.	Undertake initial surveys/reports and submit EIA Screening Opinion at the earliest opportunity. Make allowance in programme for EIA Screening Opinion process.	DDC	
P09	Planning	Planning decision called in by the Secretary of State.	4	2	8	Unlikely to be called in, but identified as a risk to monitor.	No further action proposed at this stage.	DDC	
P10	Planning	Flood risk	3	3	9	Site is in 'Flood Zone 1' with minimal risk of flooding, hence the low risk.	A Flood Risk Assessment and Drainage Management Plan to be carried out as part of the Stage 3 design.	DDC	Flood Risk Assessment
P11	Planning	S106 Agreement/Developer Contribution required for offsite highway improvements or contribution to Bus Rapid Transit	4	5	20	It is likely that a contribution will be sought to the BRT.	Initial discussions to be held with bus operator. Transport Engineer to be appointed to carry out Transport Assessment.	DDC	Transport Assessment
P12	Planning	Sequential test identifies an alternative site as being more suitable in planning terms.	5	2	10	A number of sites were reviewed as part of the Sports Consultancy Feasibility Study, from which the preferred site was selected.	DHA have been appointed to carry out a formal sequential test. The initial view is that this will support the preferred site.	DDC	Sequential test
PR01	Procurement	Challenge by unsuccessful contractor	3	3	9	Likelihood of challenge is reduced through the proposed use of the SC Framework rather than a full OJEU.	Robust and open tender process to be run in full compliance with SC Framework and OJEU rules.	DDC	
PR02	Procurement	Lack of interest in the project by contractors.	4	3	12	Two stage procurement route proposed to make the project more appealing to the market. This also reflects the limited number of suitable contractors in the local market, and the current buoyant tender market. Positive response received from three experienced contractors to the soft market testing of the SC Framework.	Continue to engage with the interested SC Framework contractor and provide regular updates on progress and dates for tender to ensure they have a bid team ready.	DDC	



PROG01	Programme	Poor performance by the Consultant Team. Change in key personnel.	4	3	12	Experienced consultant team have been appointed to carry out Stage 2 Feasibility Study.	Experienced consultant team to be procured for Stage 3 onwards and appointment to seek to prevent change to key personnel where possible.	DDC	
PROG02	Programme	Decisions not provided in a timely manner causing delay to the programme.	5	3	15	Programme sets out key project stages and when Cabinet approval is required.	Communications strategy to be prepared.	DDC	
PROG03	Programme	Cabinet approval not received or delayed.	4	4	16	Programme includes allowance for preparation and obtaining Cabinet approval.	To be monitored.	DDC	
PROG04	Programme	Consultant team doesn't meet programme.	4	4	16	Programme is very tight and includes no contingency, hence the high risk rating.	Expectations to be managed on the opening date of the new centre to allow contingency for delay.	DDC	
PROG05	Programme	Construction programme is insufficient.	4	5	20	Programme is based on similar projects, but it is very tight and includes no contingency, hence the high risk rating. Initial feedback via the SC Framework soft market testing was mixed with some contractors expressing a nervousness at the length of the construction programme allowance.	Programme to be tested through Stage One tender for contractor. Early involvement of the contractor will identify any programme concern at an early stage.	DDC	
PROG06	Programme	Delay during construction due to weather or unforeseen events.	4	4	16	Programme is based on similar projects, but it is very tight and includes no contingency, hence the high risk rating.	Transfer programme risk to contractor where possible. Weather is likely to be an exception to this.	DDC	
PROG07	Programme	Lack of availability of materials or resource during construction.	4	3	12	Transfer risk to contractor.		DDC	
S1	Site	Poor ground conditions.	5	4	20	Initial desktop study suggests that ground conditions may be suitable for shallow pads and ground bearing slabs. However, a high risk rating has been noted pending the on site investigations.	Cost allowance to be included for a piled solution until further ground information is available. Ground conditions to be verified as part of Ground Investigation.	DDC	Ground Investigation
S2	Site	High ground water.	4	2	8	Desktop review suggests that groundwater is likely to be more than 5m below the surface, which shouldn't therefore affect the project.	Groundwater levels to be verified as part of Ground Investigation	DDC	Ground Investigation
S3	Site	Surface water strategy to use deep bored soakaways not possible and connection required to sewer network.	4	4	16	Desktop review carried out of the surface water (SW) drainage, which suggests deep bored soakaways supplemented by underground attenuation tanks is appropriate for the site (SUDS features, e.g. swales and ponds) are not consider suitable for this site). Rainwater harvesting is also an option to reduce the quantity of water to be discharged.	On site soakaway testing to be carried out as part of Ground Investigation. Application to be made to Environment Agency if final proposal incorporates discharge to ground.	DDC	Ground Investigation
S4	Site	Unground obstructions found during construction.	4	3	12	No information currently available, however there has been no previous buildings on site, hence the relatively low risk rating.	Given the previous site use, no further investigations are proposed. Considering transferring the residual risk to the contractor.	DDC	
S5	Site	Unground services found during construction, which requires protection or diversion.	5	2	10	Nothing has been identified on the topographical survey and utilities search, hence the low risk ratings.	No further action proposed at this stage. Consider transferring the residual risk to the contractor.	DDC	
S6	Site	Archaeological remains found during construction.	4	3	12	No information currently available.	Desktop assessment to be carried out as part of Stage 3. Ground Penetrating Radar Survey to be carried out if desktop assessment identifies potential for archaeology. Trial trenches only to be undertaken if the desktop assessment and RADAR survey identifies anything. Approach to be discussed with the County Archaeologist once the desktop assessment has been completed.	DDC	Archaeological Desktop Assessment
S7	Site	Unexploded Ordinance (bomb) found during construction.	5	3	15	No information currently available.	UXO desktop assessment to be carried out. Radar survey to be carried out if this identifies a risk.	DDC	UXO Desktop Assessment
S8	Site	Topography impacts on design efficiency.	3	3	9	Topographical survey has been completed. The preferred site is relatively flat, which in turn allows for a relatively simply and efficient design, hence the low risk rating.	Stage 3 design to be tested and refined based on the topographical survey completed.	DDC	
S9	Site	Visual impact.	4	4	16	The site is currently a farmed field and the proposals will therefore have a significant visual impact. Photos have been taken from key views to demonstrate the impact in the summer and winter months for use in the LVIA.	A Landscape Visual Impact Assessment (LVIA) to be carried out during Stage 3.	DDC	LVIA
S10	Site	Road access need to be improved.	3	2	6	There is an existing road and entry point to the site, which is unlikely to require modification. However, the current Stage 2 proposals require S278 works to provide a coach drop off on the highway, hence the higher risk rating.	Stage 3 design to look at accommodating a coach drop off within the site boundary and eliminate the requirement for highway modifications and/or a S278 Agreement. Transport Engineer also to be appointed to assess this as part of the Transport Assessment.	DDC	
S11	Site	Ground contamination or material not suitable for reuse on site.	4	2	8	No information currently available, but previous agricultural use of the site suggest this won't be an issue, hence the low risk rating.	Ground investigation to be carried out.	DDC	Ground Investigation
SO01	Site Ownership	Delay / unable to purchase the site.	5	5	25	Council have commenced negotiations with the land owner.	Council to continue negotiations with the land owner. Consider progressing discussions with adjoining land owner in parallel to maintain some leverage and have a fall back option.	DDC	
SO02	Site Ownership	Site boundary unconfirmed and/or the land comes with restrictive covenants or easements.	4	4	16	Council have commenced negotiations with the land owner.	Council to request details from the landowner. Land registry search also to be carried out to obtain Land Registry details.	DDC	
STAT01	Statutory	Changes required to obtain Building Control sign off.	3	2	6	Assuming the appointment of a competent design team and the early input of the contractor through a two-stage procurement route, then this risk is considered to be low	Experience design team to be appointed. Contractor to be brought on board early through a two-stage procurement route. Building Control to be appointed to carry out a plan review and inspections during construction.	DDC	

SUST01	Sustainability	BREEAM Very Good not achieved.	4	4	16	Council planning policy is BREEAM Very Good. This is more difficult to achieve on a green field site and a leisure centre/pool building. BREEAM Pre-Assessment has been carried out which suggests a score of 61.75% could be achieved which provides a buffer to the 55% required for Very Good. Allowance made in Cost Plan for BREEAM requirements, including an ecological roof.	BREEAM advisor to be appointed in Stage 3 to progress the BREEAM requirements.	DDC	
SUST02	Sustainability	New centre costs more to run.	4	3	12	Premise is that the building is to be efficient and reduce running costs.	EPC Rating to be achieved to be confirmed in conjunction with the design team. Cost plan to include for energy efficient systems, thermally efficient building fabric and good quality finishes. Avoid untried technology. Maximise use of natural light.	DDC	
U01	Utilities	Insufficient water supply capacity to serve the proposed development. Increased cost and programme delay. Payment required for offsite works.	5	5	25	Water supply is thought to be the biggest issues and the Council have commenced discussions with Affinity Water. Utilities are notoriously difficult to deal with, particularly if new supplies are required and discussions need to commence early.	Existing services and capacity requirements being looked at by the consultant team as part of the Stage 2 Feasibility Study along with the likely works required to serve the site. Council to commence discussions with Utility companies once this information is available.	DDC	
U02	Utilities	Insufficient foul water drainage capacity.	4	4	16	Desktop reviews suggests the foul water can be connected to a manhole to the adjacent Honeywood Parkway road. Foul water capacity check has been instructed to identify any upgrades required to the existing infrastructure including sewers and pumping stations.	Discussions to commence with Southern Water to agree method of discharge and flow rate once capacity check complete. Design and costs to assume on site attenuation as a worst case until further information is available. Note also that a trade effluent licence is likely to be required for the backwash discharge.	DDC	Foul water capacity check
U03	Utilities	Insufficient electrical supply and/or nothing local to the site.	5	4	20	Desktop review suggests a new 500kVA sub-station will be required. Unclear where supply will be taken from, hence the high risk rating.	Further investigation required. Including discussions with UKPN.	DDC	Further enquiries with UKPN



# Appendix 12 – Procurement Options Paper



# Dover Leisure Centre Procurement Review

28 June 2016

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# Introduction Overview

## Project Background

A new Leisure Centre is being developed by Dover District Council to replace the existing Dover Leisure Centre. Further information about this can be found in the Stage 2 Feasibility Study.

## Procurement Review

This report discusses the options for the procurement of the Operator and the Main Contractor, and summarises the proposed way forward.

A Procurement Workshop was held on 28 April 2016 with Council officers and members of the Consultant Team, and this report reflects the discussions at the workshop.

Soft market testing has also been carried out with key operators and contractors on the proposed contractor framework, which supports the proposed way forward.

## Procurement Requirements

A structured and systematic approach is required in order to select the most suitable option for the project. The client's project objectives, especially in terms of cost, time, quality, risk and control must be clearly defined and the above options are reviewed against these to determine the most appropriate form of procurement for this project.

The broad purpose of contract procurement is to appoint an appropriately skilled contractor and/or operator, with the right team, agreed costs, programme and appropriate transfer of risk. This simple objective has become more difficult to achieve as project programmes are condensed, and both clients and contractors/operators seek to protect their position with regard to apportionment of risk.

## Market Context

The construction market contracted during the recession and is struggling to cope with the increase in construction projects coming to the market. Contractors are therefore being more selective about the projects they bid for and will often only tender for those projects where their bid costs are kept to a minimum. The location of the project also reduces the number of contractors with the capability and experience to do this type of project.

## Council Priorities

When considering the procurement route, the following key considerations should be looked at, as they will directly influence the procurement route adopted.

The following priorities were established during the Procurement Workshop, and the proposed way forward reflects these priorities.

- Programme – Whilst the Council would like the centre to be open as soon as possible, programme is not the key driver.
- Cost certainty – A fixed price needs to be obtained for both the operator and construction contract before works start on site.
- Risk transfer - Risk should be transferred to the contractor and operator where appropriate.
- High quality – This is a high priority, however this must be balanced against obtaining cost certainty and risk transfer where appropriate. It will therefore be important to ensure the design is developed to a reasonably high level of detail to protect the design intent.
- Compliant with Public Contract Regulations – e.g. OJEU compliant.



# Introduction Overview

## Procurement Options

This report sets out the options available for the procurement of the operator and contractor for the Dover Leisure Centre. The options considered are:

### Operator

- Design & Build contract and separate leisure management contract.
- Design, Build, Operate and Maintain (DBOM).
- Design, Build, Finance, Operate and Maintain (DBFO).
- Asset transfer/long lease.

### Contractor

Procurement Routes:

- Traditional.
- Management Contracting & Construction Management.
- Partnering.
- Design and Build.

Procurement Options:

- Single stage.
- Two stage.

Commercial approaches:

- Fixed price (lump sum).
- Guaranteed maximum price.
- Target cost.

OJEU Compliant Procurement:

- A framework.
- Use the OJEU procedure.



# Introduction Terminology

The level of design development is referred to using the definitions provided by the Royal Institute of British Architects, the “RIBA”, and for ease of reference the main design stages are noted in the following table. We have also referenced the latest definitions from the RIBA Plan of Work 2013, with those in the previous version, the RIBA Outline Plan of Work 2007, which is still referred to in the construction industry.

RIBA Stages RIBA Plan of Work 2013	RIBA Stages RIBA Outline Plan of Work 2007	Summary (based on information to be provided by the architect)
Stage 0 - Strategic Definition	No stage in 2007 Plan of Work	Review feasibility
Stage 1 - Preparation and Brief	Stage A (Appraisal) and B (Strategic Brief)	Preparation and development of the Client Brief and initial design solutions
Stage 2 - Concept Design	Stage C - Outline Proposals	Site master plan, floor plans, elevations, typical sections, indicative material schedule
Stage 3 - Developed Design	Stage D+ - Detailed Proposals	Development of floor plans, elevations, sections, room data sheets, building materials. Fully coordinated with other consultants.
Stage 4 - Technical Design	Stage E - Final Proposals	Detailed design and specification.
	Stage F - Production Information	Construction details
	Stage G and H - Tender	Preparation of tender documents and tender period.
Stage 5 – Construction	Stage J (Mobilisation) and K (Construction Period)	Tasks to be performed under the construction contract.
Stage 6 - Handover and Close Out	Stage L - Defect Liability Period	Duties under the Defect Liability Period
Stage 7 - In Use	No stage in 2007 Plan of Work	Post occupancy review



# Operator Procurement Discussion

## Operator Procurement

The following topics were reviewed as part of the Procurement Workshop:

- Procurement options/routes, including:
  - Separate construction contract and leisure management contract
  - Design, Build, Operate and Maintain (DBOM)
  - Design, Build, Finance, Operate and Maintain (DBFO)
  - Asset transfer/long lease.
- Summary of current operator market
- Why test the market?
- Timescales for procurement and when best to appoint the operator
- Operator input to design and final specification
- Funding from operators
- Key contract terms and considerations:
  - Length of contract (co-termination)
  - How to maximise interest from contractors
  - Maintenance responsibilities
  - Management fee arrangements.
- Soft market testing

## Operator Procurement Recommendation

We have not included a full operator procurement review in this report due to the commercial sensitivities, and further discussion required to conclude this.

It was however agreed that the leisure management contract and construction contract should be procured separately, and the remainder of the report focuses on this.

It was also agreed that the procurement of the leisure management contract should be progressed in parallel with the construction contract so that the commercial position for the operator is known before entering into the construction contract.



# Contractor Procurement Routes

## Traditional

With traditional contracting, design is clearly and definitely separated from construction. There are three key teams in the procurement process: the employer, the design team and the contractor.

Having developed a Design Brief from the employer, the architect produces detailed drawings and specifications, with advice taken from other specialist consultants. Bills of quantities are usually drawn up by the quantity surveyor and an estimated cost produced once the design is complete.

Contractors are invited to price the works, quantifying every specific work item from the bills or a specification. Tenders are submitted and a preferred contractor (usually the cheapest) is selected. The contractor agrees to produce exactly what has been specified in the documents and therefore has no design liability.

Traditional contracting is a slow method of procurement as the detailed design and specification needs to be completed prior to tendering the works and a long tender period is required to accurately price the works.

Once on site, the employer with the project manager must manage the contract efficiently to avoid problems associated with issuing instructions and information. It is to the contractor's advantage if information is insufficient or issued late, as this will establish grounds for extensions of time and claims for loss and expense.

Traditional contracting can provide a good level of cost certainty based on a defined product however, as the employer remains responsible for the design, any design defects have to be corrected at the employer's expense.

Cost certainty can however only really be attained once the works have been tendered, which takes place once the design is substantially complete. Should the submitted tenders be significantly higher than the cost estimate prepared by the quantity surveyor, thus requiring a significant redesign to reduce costs, then there will be a substantial amount of abortive design and cost. This will also delay the project by many months.

Traditional contracting should deliver a quality building as the standards can be precisely described in the specification however, the designers may not be aware of similar more cost effective products which could help keep costs down without compromising quality and improve buildability.

Under a traditional contract, the client can change an element of the design during construction. However, as the employer will have to bear all direct and associated costs such flexibility comes at a high price.

The Employer is liable for any defects due to poor design and specification whilst the contractor is liable for defective construction.

A traditional procurement route is not recommended for this project as the residual risks cannot be transferred to the contractor, and time and cost certainty would be difficult to achieve.



# Contractor Procurement Routes

## Management Contracting

In management contracting, the employer engages a management contractor at an early stage of the project to act as a professional consultant, advising on the design and managing the construction works. The management contractor is not employed to undertake any of the construction works, they are all sub-contracted. The client pays the contractor a fee for the management service.

Management contracting is claimed to reduce the conflict between the design team and contractors, which can occur on construction projects.

Under this form of contracting, the management contractor bears very little risk. The management contractor has no design responsibility and is usually not responsible for the work carried out by the sub-contractors.

Management contracting can deliver projects quickly as works can commence on site before the design is completed.

However, there is very little cost certainty in management contracting as it is impossible to be confident of the final project cost until all of the sub-contracts are entered into.

It should be possible to achieve the required quality standards, however, the designers will be under great pressure to keep pace with construction and design decisions may therefore suffer.

Construction management offers a great deal of flexibility for altering the construction works. However, all alterations to the works during construction are more expensive than if the design is right first time.

Liability for design defects usually remains with the employer and the sub-contractors are liable for construction defects.

Management contracting should only be considered if the employer is in a position to fully appreciate, control and mitigate the risks inherent in construction. This is very much the preserve of experienced developers, and the problems that blighted the Scottish Parliament demonstrate some of the downsides of this procurement route.

Management contracting is not therefore recommended for this project due to the lack of cost certainty and the limited opportunity to transfer risk.

## Construction Management

Construction management is very similar to management contracting however with construction management the employer has a direct contract with each of the works sub-contractors. A consultant construction manager is employed by the employer to oversee the project and co-ordinate each of the contracts. Construction management provides flexibility in that additional works/changes to the brief can be introduced at an advanced stage however, the cost and programme implications of any changes will be born by the employer.

Construction management is not therefore recommended for this project.



# Contractor Procurement Routes

## Partnering

Originally promoted in the Egan Report ('Rethinking Construction') in 1998, partnering was seen as a method of integrating the different facets of the project process to deliver best value to the client and user.

It aims to deliver this by ensuring that the full project team, including the contractor, act co-operatively and make decisions in a blame-free environment of trust. This seeks to raise the collective performance and aids more effective working, with a focus firmly on agreed common goals. It does this through setting parameters whereby all contracting parties work towards shared goals and objectives, and often share any penalties and/or rewards as a result.

The efficacy of partnering is most prominent when embracing the combined talents of the full project team (including client, design team and contractor) as early as possible. For partnering to work best, the team must therefore be in place from concept to completion and be wholly focused on the needs of the client and users.

There are clear benefits to a partnering approach where relationships have been built up over a period of time, and a mutual trust has developed, and many partnership arrangements have grown out of formal contractual arrangements.

Good examples would be a supermarket chain or housing association rolling out a fairly simple building type, whereby the contractor is incentivised to do a good job otherwise they would lose significant volumes of future work available from that organisation.

The other downside to partnering is that they rarely achieve best/lowest price or is a fixed price obtained any earlier than it would under other procurement routes. Partnering lends itself to a 'cost plus' arrangement (e.g. the actual cost of the work, plus the contractors pre-agreed overheads and profit) and is not best suited to a lump sum or fixed price contract. There is also limited opportunity to transfer risk to the contractor, and risk is often shared between the parties.

Partnering is not therefore recommended for this project.

## Design and Build

In design and build, the employer provides the contractor with a set of performance requirements defining what is to be provided. The contractor responds with a proposal, including prices for construction and design works. The employer and contractor negotiate to ensure the contractor's proposals accurately reflect the employer's requirements and agree a mutually acceptable specification.

Under this form of contract, the contractor is solely responsible for design, fabrication and co-ordination of the works as described in the contractor's proposals, including the appointment of specialist consultants and sub-contractors.

The employer will usually utilise a consultant to prepare the employers requirements and to monitor the progress and quality of the works.

Under design and build, the contractor is responsible for all aspects of the work. This single point responsibility can be highly attractive and advantageous to employers.

Design and build has a time advantage as design work does not have to be completed before construction can begin. The development is therefore complete much sooner than under more traditional forms of contract.

Design and build offers high cost certainty as the contractor is obliged to do whatever is necessary to comply with the contractual requirements. All risk of the cost exceeding the price lies with the contractor and as a result design and build contracts offer the highest level of cost certainty. Tendered costs may be slightly higher than with other procurement routes in order to cover the contractor's liability or risk.

Cost certainty can be attained at an early stage in the design and abortive costs are therefore less should the contractor tenders be more than the cost estimate prepared by the cost consultant and a redesign required.

It is especially important to provide the design and build contractor with accurate information on site conditions and ecology at tender stage to avoid additional costs or delay.



# Contractor Procurement Routes

Quality control problems are often given as a reason for not selecting design and build. However, provided the employer's requirements document is sufficiently detailed and quality is closely monitored on site, it is possible to achieve a good quality building.

With design and build contracts, it is difficult to vary the works significantly once the contractor is appointed. Variations can be awkward to deal with and are best avoided. This can best be done by ensuring that an accurate and comprehensive employer's requirements document is prepared and agreed with all parties before the contract is let.

## Develop and Construct

If the employer wants to be closely involved in the development of the concept design it is advisable to adopt an employer led design approach. The employer's design team works up the design in some detail, typically to RIBA Stage 3, to ensure that the brief can be met and that a unique design is achieved. The design team may subsequently be appointed by, or novated to, the successful design and build contractor. This procurement route is often referred to as 'Develop and Construct', as opposed to design and build, as the contractor is only required to carry out limited elements of the detailed design.

Develop and Construct allows changes in the brief to be integrated into the design for an extended period prior to tendering, which will be important where there are several key stakeholders and funders. Although changes post tender should ideally still be avoided. Essential changes may be accommodated without penalty if a disciplined change order procedure is adopted.

Develop and Construct has many of the advantages of design and build with regard to speed of design development, with the residual risks associated with shortcomings in the design and temporary works being transferred to the contractor. However, the design and quality of workmanship can be closely prescribed in order to achieve a fixed price tender from the successful contractor for a defined product.

A Develop and Construct procurement route is therefore recommended for this project, with the design being progressed to a more advanced stage, e.g. RIBA Stage 4 (previous RIBA Stage E).



# Contractor Tender Options

## Single-stage tender

Single-stage tendering requires full and complete tender information to work most effectively, and assumes requirements will not change substantially. Thereafter, it relies upon the tendering process to drive competition and, hopefully, an economical price.

In a buoyant construction market, many contractors decline single-stage tenders – partly because it typically provides less visibility of risks or unknowns, and partly because it is more expensive to undertake than two-stage tendering.

Over the past couple of years, many of the larger contractors have been unwilling to tender on a single stage basis. However, we are starting to see a slight shift in this as they look to secure their forward orders, and a single stage approach could be appropriate.

To successfully pursue this route, clear and comprehensive tender information, an effective market warm-up and mid-tender consultations are pre-requisites. Soft market testing with key contractors is also recommended.

## Two-stage tender

Two-stage tendering provides an opportunity to capture contractors' ideas in buildability, programming and design, and is particularly relevant for complex projects.

There is competition in the first stage of procurement, where staff, overheads and profit, preliminaries and even some early packages are fixed.

Once the design has been progressed in detail and major packages of work procured, the second-stage fixed price, guaranteed maximum price (GMP) or target price can be agreed.

It is often perceived as being a more expensive option than single-stage (albeit difficult to quantify), but the premium can be often recovered through a more cost-effective design and enhanced programme following the contractor's input. This option is not without its challenges, however.

Although overhead, profits and prelims are fixed, and the work packages procured on an open-book basis, the contractor will include contingencies for design development and project risks, often amounting to 10% or more of the contract sum. As these provisions are negotiated during the second stage, they are not typically subject to market competition and can involve extensive negotiations, which can increase both cost and programme.

To make best use of a two stage tender, the contractor should be brought on board as early as possible so they can input into the design development and risk mitigation, and maximise the benefit of early contractor involvement on buildability issues.

Given the current market conditions in the construction industry, the complexity of the project, the project location, and the Council's priority for a high quality product, we recommend that a two stage tender basis is used. This will generate an appropriate level of contractor interest, whilst also gaining from the benefit of early contractor involvement on buildability issues.

## Form of Contract

The form of contract is one of the final outputs of the procurement planning process, and can only be considered in the context of all previous stages. For example, some frameworks stipulate specific contracts are used.

We do however anticipate using either a JCT or NEC form of contract. This would be amended by the Council and their legal advisors, with input from the consultant team on project specific matters.

The scope of service to be provided under a Pre-Construction Services Agreement (PCSA) will also be important if a two stage approach is adopted.



# Contractor Procurement Route Summary

Route	Pros	Cons	OJEU	Framework
Traditional	<ul style="list-style-type: none"> <li>Complete control over design and product selection.</li> <li>Reduction in post contract changes.</li> </ul>	<ul style="list-style-type: none"> <li>Longest lead time before starting on site, therefore longer overall programme.</li> <li>Design risk sits with client.</li> <li>No price certainty until much later in project.</li> <li>No sub-contractor input.</li> <li>No incentive for contractors to solve problems.</li> <li>Rarely used for this type of project.</li> </ul>	<ul style="list-style-type: none"> <li>Yes.</li> <li>OJEU 'Restricted' route.</li> </ul>	<ul style="list-style-type: none"> <li>No. This approach is rarely used under framework agreements.</li> </ul>
Management Contracting / Construction Management	<ul style="list-style-type: none"> <li>Client retains full control of the project.</li> <li>Design and construction overlapped, reducing overall programme.</li> <li>Flexibility to make changes.</li> <li>Open book approach.</li> </ul>	<ul style="list-style-type: none"> <li>Client unable to transfer design and project risks.</li> <li>Increased contract management.</li> <li>No price certainty until very late in the construction phase.</li> <li>Very resource intensive for Client team.</li> <li>More suited to large complex projects.</li> </ul>	<ul style="list-style-type: none"> <li>Unlikely an individual package will be over OJEU threshold.</li> </ul>	<ul style="list-style-type: none"> <li>No.</li> </ul>
Partnering	<ul style="list-style-type: none"> <li>Least adversarial.</li> <li>Open book approach.</li> <li>Early contractor input on buildability issues.</li> <li>Should achieve a high quality product.</li> </ul>	<ul style="list-style-type: none"> <li>More costly.</li> <li>Client unable to transfer design and project risks.</li> <li>No price certainty until end of construction phase.</li> <li>Not suited to one off projects where there is little opportunity to benefit from long term relationship.</li> </ul>	<ul style="list-style-type: none"> <li>Yes, but not ideal.</li> </ul>	<ul style="list-style-type: none"> <li>No. Although some frameworks do introduce an element of partnering.</li> </ul>
Single stage Design & Build	<ul style="list-style-type: none"> <li>More likely to achieve lowest price.</li> <li>Early cost certainty.</li> <li>Contractor takes on design liability.</li> <li>Risk transfer to the contractor.</li> <li>Design and construction can be overlapped reducing the overall programme.</li> <li>Client can choose extent of design carried out prior to commencing on site.</li> </ul>	<ul style="list-style-type: none"> <li>Loss of control over product selection (this depends on the level of design carried out prior to tender and how detailed the Employer's Requirements are).</li> <li>Post contract changes often more expensive.</li> <li>Quality can suffer (this depends on the completeness of the design and Employer's Requirements and how well the construction phase is monitored).</li> <li>Contractors are less willing to participate in a single stage tender in a buoyant market, particularly the bigger contractors that would be more appropriate for this project.</li> </ul>	<ul style="list-style-type: none"> <li>Yes.</li> <li>OJEU 'Restricted' route.</li> <li>Note that some legal advisors are advising that the OJEU process can't be started until planning has been granted and the final tender documents are available.</li> </ul>	<ul style="list-style-type: none"> <li>Not usually. A single stage procurement route is not suited to a framework agreement.</li> </ul>
Two stage Design & Build	<ul style="list-style-type: none"> <li>Can achieve a reduced programme over single stage as design and tender stages can be overlapped to a greater extent.</li> <li>Early contractor involvement where buildability is important.</li> <li>More likely to receive a quality product as the contractor margins aren't as tight.</li> <li>Contractors more willing to tender this route in a buoyant construction market.</li> </ul>	<ul style="list-style-type: none"> <li>More expensive than single stage due to reduced competition. In our experience it is 7.5%-10% more expensive.</li> <li>Conclusion of second stage tender can be protracted.</li> <li>Loss of control over product selection (this depends on the level of design carried out prior to tender and how detailed the Employer's Requirements are).</li> <li>Post contract changes often more expensive.</li> </ul>	<ul style="list-style-type: none"> <li>Yes.</li> <li>OJEU 'Restricted' route is normally used, although some legal advisors will advise that a two stage approach isn't strictly OJEU compliant.</li> </ul>	<ul style="list-style-type: none"> <li>Yes. A two stage procurement route is ideally suited to a two stage procurement route.</li> </ul>



# Contractor Commercial Basis

Below set out are three commercial approaches to pricing, each of which has advantages and disadvantages:

Basis	Advantages	Disadvantages
Fixed Price	<ul style="list-style-type: none"> <li>High level of cost certainty.</li> <li>Clear basis for risk transfer.</li> <li>Most effective where design and client requirements are fully detailed.</li> </ul>	<ul style="list-style-type: none"> <li>Fixed price doesn't mean final price – changes and/or risk can add to costs.</li> <li>No mechanism for sharing savings.</li> <li>Requires full and complete information for competitive pricing.</li> <li>Change can be more expensive.</li> </ul>
Guaranteed Maximum Price (savings shared in agreed %'s)	<ul style="list-style-type: none"> <li>Good level of cost certainty.</li> <li>Contractor can be incentivised to find savings.</li> <li>Opportunity for client to share savings.</li> </ul>	<ul style="list-style-type: none"> <li>Contractor is only motivated to find savings if GMP has some premium in it.</li> <li>GMP doesn't always mean maximum price – changes and/or risks can add to costs.</li> <li>Contractor may be resistant to changes which could impact price or programme.</li> </ul>
Target Cost / Shared Risk and Reward (savings and overspend shared in agreed %'s)	<ul style="list-style-type: none"> <li>Equitable risk sharing incentivises contractor, so more willing to find cost-effective solutions.</li> <li>Opportunity for client to share savings.</li> <li>Least expensive route for change.</li> </ul>	<ul style="list-style-type: none"> <li>Lower level of cost certainty.</li> <li>Risk of shared cost over-runs.</li> <li>More client involvement required to drive value.</li> <li>Clarity needed on risk transfer.</li> </ul>

Given the continuing rise in construction activity and the extensive evidence of price inflation, these conditions limit the ability of clients to obtain fixed-price tenders on a single stage basis with contractors seeking to reduce risks and are therefore being selective with regard to which projects they bid. However, this is more viable via two stage tender process.

For this project, we would recommend that a fixed price approach is adopted. This will provide the Council with a higher degree of cost certainty.



## Contractor Frameworks

### Contractor Frameworks.

There are a number of national and regional contractor frameworks which are shown in the adjacent graphic.

Although, in theory, it is possible for the Council to access any of these frameworks, it is common practice for them to be chosen on location as the framework for that region will be most relevant with regard to the selection criteria and KPI's.

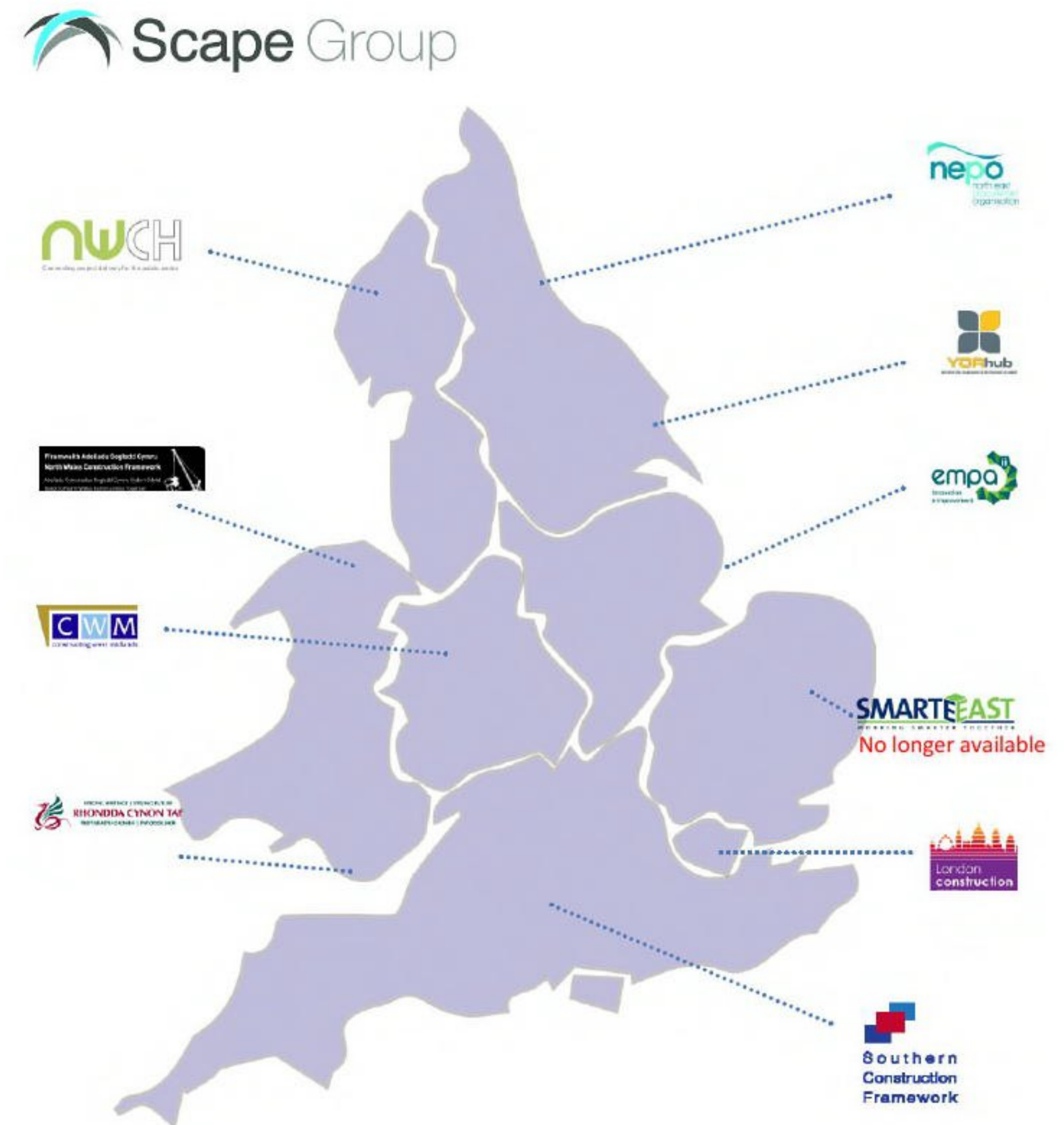
The most relevant regional framework for the Council is therefore the **Southern Construction Framework**, and specifically the South East region.

The other framework the Council could make use of is the **Scape Framework**, which is a national framework.

The main benefits of using a framework are:

- Avoids the need to OJEU the project, as the framework has been put in place using the OJEU procedures. This is becoming ever more desirable in a climate where contractors are more likely to challenge the decision where they have not been selected. This also reduces the overall programme and management costs.
- A contractor can be appointed much quicker. This is particularly relevant where buildability will be key due to the iconic nature of the scheme and the constrained city centre location.
- A framework can be selected that includes contractors with a track record of delivering similar projects.
- Frameworks include KPI's that the contractors are assessed against, which incentivises them to perform well. This is particularly important where a one off project is being delivered. KPI's also incentivise the contractor to use local labour and suppliers.

Whilst Frameworks can be used for single stage procurement routes, they are best suited to a two stage design and build procurement route.





# Contractor Framework Overview

We have summarised the most appropriate OJEU compliant frameworks for this project below. These are best suited to a two stage procurement route. Further information on each framework can be found in the Appendices.

Framework	Areas Covered	Companies on Framework	Comment
Southern Construction Framework (SCF)  Lot 2 - South East	South East England	BAM Kier Morgan Sindall GallifordTry Mace Wates Willmott Dixon Midas	<p>Framework is relatively new, going live on 29 April 2015. This replaces the previous arrangements covering the South East and London area (SEaL) and Construction Framework South West (CFSW).</p> <p>This Framework is set up in a similar way to the Scape Framework, albeit there is more than one contractor on the Framework.</p> <p>A mini-competition is used to select preferred contractor, and it can take a little as three weeks to select the contractor.</p> <p>Choice of JCT and NEC contracts.</p>
Scape	Set up initially to be an East Midlands framework, although it is used nationally.	Minor Works Framework (Up to £2m) - Kier Major Works Framework (+£2m) - Willmott Dixon.	<p>Only one contractor on this framework for each project value range, and therefore no competition.</p> <p>Procured in a very competitive construction market and the contractor overhead, profit and prelim rate is low in comparison to rates currently being seen in the open market.</p> <p>Current Major Works Framework is due to expire 8 May 2017.</p> <p>Willmott Dixon have a good track record of delivering leisure facilities.</p> <p>Based on the NEC contract.</p>



# Contractor Scape Framework

Scape is a contracting authority in its own right, comprised of six local authority shareholders, with the agreed aim to procure services and works packages in an efficient and timely manner. The current framework is national with an annual spend of around £350m across all industry sectors.

The Scape framework has been used to deliver public sector projects for around 10 years. The currently framework has a four-year cycle, which ends in May 2017.

Kier is appointed as the sole principal contractor under this framework for projects up to £2m, and Willmott Dixon for projects above £2m. This was intentional, as Scape wanted to avoid replication of works and services to draw efficiencies in tendering costs and programme.

Scape is effectively an 'open book' two stage procurement route, with a 'target cost' being agreed at the first stage along with the contractor's overheads and profits, plus the design costs (and other associated costs) to develop the design prior to entering into the building contract.

The claimed benefits of using the Scape Framework are:

- **Process.** The framework has an easy and flexible process map, which can be adapted to suit all procurement routes.
- **Cost.** The majority of costs are open book, market tested.
- **Quality.** The framework has improvement & employment skills targets in place, which are monitored by Scape on a "Three strikes and you're out!" basis.
- **Accountability.** A single point of contact / project manager is provided to ensure effective communication and management of responsibilities.
- **Fixed price, guaranteed maximum price (GMP) or target price** can be agreed.
- **Buildability.** Experienced construction staff and planning manager assist with buildability, phasing, risk management, planning, programmes, highways etc.
- **Managing Cost.** The senior estimator and quantity surveyor along with their supply chain manager will assist the project team with live up to date advice to ensure accuracy at all stages.

- **Design Quality.** The contractor's senior design coordinator Introduces suppliers and subcontractors into the design process as required.

Willmott Dixon's profits and overheads are currently fixed at 3.5% under the Scape framework agreement, plus an additional payment to Scape, which is typically 0.5% (using a sliding scale fee by floor area) which Willmott Dixon pay to Scape. By way of comparison, the overheads and profit for a leisure centre in the current market can be anything between 1.5% - 7%.

One of the aims of the framework is to achieve efficiencies through shared learning and repetitive design, procurement and construction solutions, which will help build collaboration in the team.

The framework provider has contract documentation that is pre-agreed with the contractor. This should result in lower legal fees for the client team so that the programme and each project can proceed in the knowledge that legal agreements will not cause delay.

In our view, there are some drawbacks with the Scape framework:

- In our experience it can cost more to procure works through the Scape framework due to the lack of competition and the contractor's reluctance to take on risk without incurring a premium.
- There are no real programme benefits of using the Scape framework as it often takes longer to conclude the second stage.
- The contractor is less likely to agree a tight programme as one of their KPIs is delivery against programme. Whereas contractors are more likely to agree to a more ambitious programme where they are tendered in competition.
- Sport England aren't particularly keen on the Scape Framework due to the lack of competition.

For the above reasons, we do not recommend that the Scape Framework is used.



# Contractor

## Southern Construction Framework

The Southern Construction (SC) Framework can be used by local authorities, public sector bodies and charities across Greater London, the South East and South West of England. It covers individual projects or programmes. The framework went live 29 April 2015.

The Framework follows the principles and practice of the previous Construction Framework South West and South East and London Area frameworks, as well as the Government Construction Strategy (2011), the industrial Strategy for Construction (Construction 2025), and is based on a Two Stage Open Book approach.

The claimed benefits of using the SC Framework are:

- Fast access to market – considerably quicker than full tendering
- Proven – the first construction framework, now established for ten years
- Certainty – high levels of time and cost predictability
- Competitive process – delivers value
- Locally focused / adaptable to local requirements
- Shared best practice across suppliers
- Contractor led continuous improvement
- OJEU compliant

Contractors are appointed via a 2 part mini competition process. This is based on quality and fee bids for a pre-construction agreement appointment.

Contractors have priced Overhead and Profit (OHP), pre-construction fee, design fees, and construction staff costs on a not to exceed percentage basis for a range of project types and sizes as part of the framework.

Mini Competition Part 1 establishes the type, value, and form of contract. This section forms the specification for the Services to be provided by the contractor during the pre-construction phase. The contractor self scores a number of questions with supporting evidence of their availability, suitability and ability to add value to the project. Typically three contractors are invited to complete Mini Competition Part 2.

The second part Mini Competition 2 tests the contractors' financial response, and provides an opportunity to demonstrate to the Client that they provide the 'best fit' to deliver the project.

The contractor will be paid a fee for pre-construction stage duties which is governed by a Pre-construction-stage agreement. The contractor will then work collaboratively in an open book environment with the Client team to develop the design and provide an acceptable tender for the works before being awarded a Construction Agreement for delivery of the project.

The SC Framework is similar to the Scape Framework in many ways, with broadly similar rates. However, the main difference is that there is more than one contractor on the framework, and there is therefore an element of competition to the first stage where the contractor is selected. For this reason, we recommend that this framework be used.

It should however be noted that same challenges existing when trying to conclude the second stage when the contractor is no longer in competition, and this will require careful management by the appointed cost consultant to ensure best value is obtained.



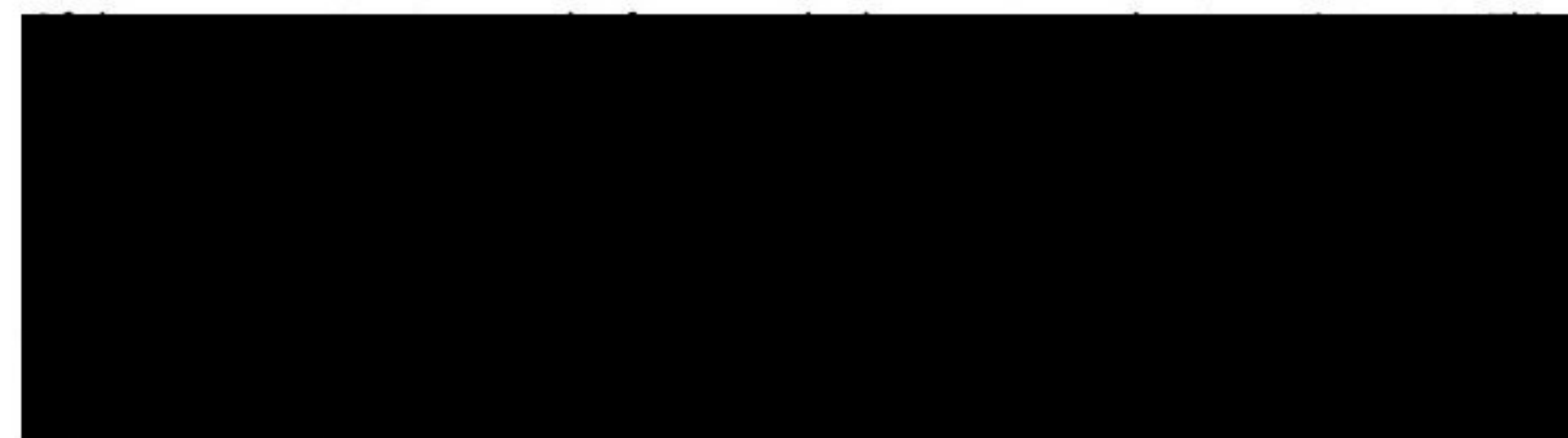
# Contractor Southern Construction Framework

## Soft Market Testing

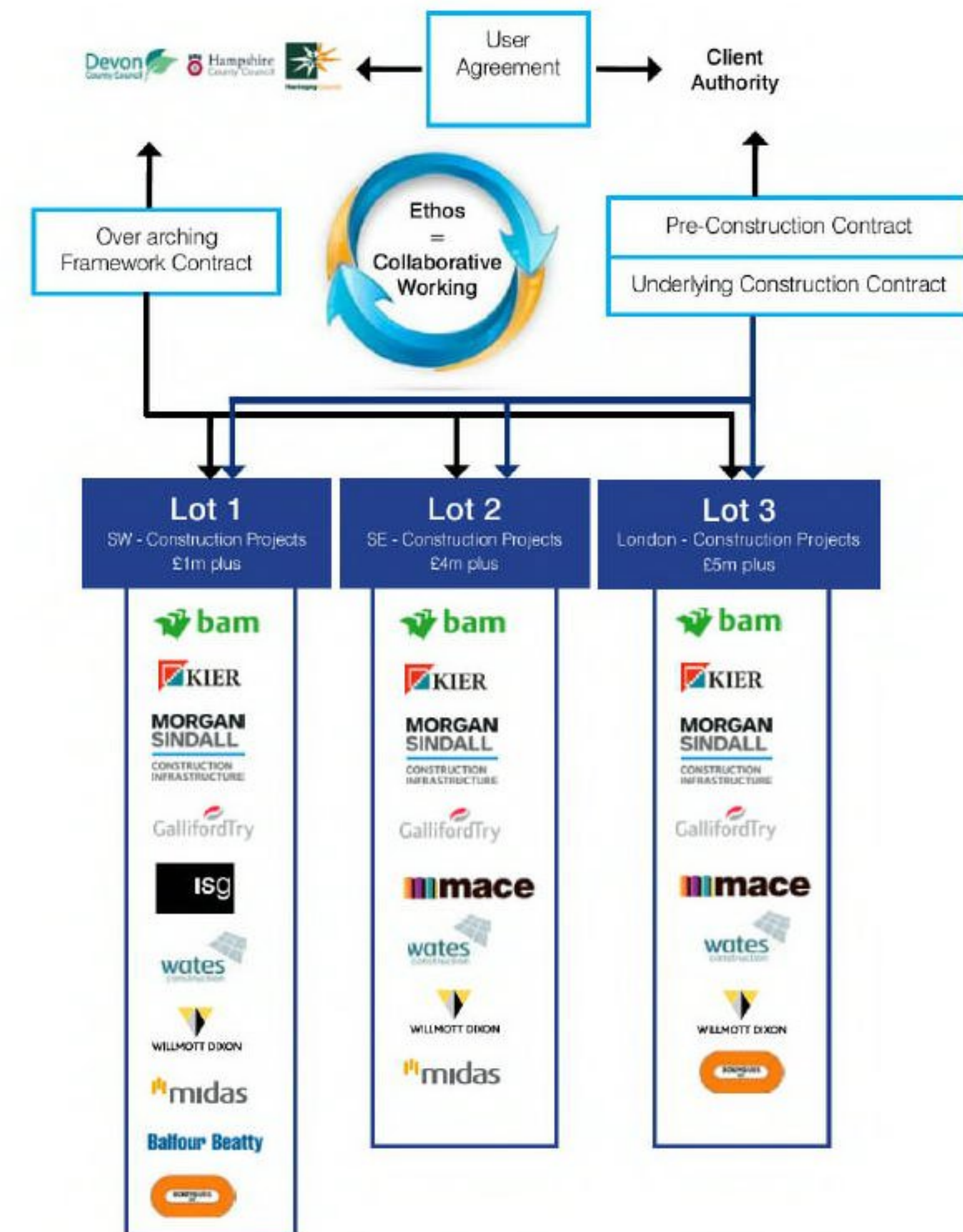
One of the outcomes from the Procurement Workshop was to approach the contractors on the SC Framework to establish the level of interest in the project.

A background document was issued to the contractors via the framework manager to provide an overview of the project. This included the following project information:

- Overview of work completed to date
- Proposed facility mix
- Estimated capital costs
- Initial floor plans designs and area schedule
- Procurement route
- Indicative programme



This therefore supports the recommendation to use the Southern Construction Framework.





# Contractor OJEU

The current OJEU threshold for construction works is £4,104,3942 (as of 1 January 2016).

There are four possible OJEU routes that can be used to tender projects: Open; Restricted; Competitive Dialogue; Competitive Negotiation procedures; and Innovation Partnership.

For a project of this nature the most suitable route used to be the Restricted procedure, and the tender process was run in parallel with the design development, so that no time is lost on the overall programme. However, The Public Contracts Regulations 2015 have left ambiguity on this matter, inferring that all procurement documents must be accessible when the OJEU notice is posted.

By taking a cautious interpretation of the regulations in respect of the procurement documents, these would need to be available to contractors in their entirety at the Pre Qualification Questionnaire stage. This would have a significant impact on the delivery date for the project. This would also diminish the benefits of using a more orthodox two stage approach when the contractor would be appointed under a Pre-Construction Services Agreement prior to the design and project requirements having being fully defined.

The Competitive Negotiation procedures are therefore being seen as an alternative, which enables the OJEU process to commence in parallel with the design development. It is however important that the approach to be adopted and shortlisting / down-section of contractors is clearly set out, along with any negotiation points.

The Open procedure invites an unlimited number of interested parties to tender against defined parameters. This is not normally recommended for construction projects as the number of tenders received can inhibit a timely appointment of the contractor. In addition to this, there will also be certain contractors who will not bid under this procedure as the likelihood of appointment is diminished due to the number of bidders.

The Competitive Dialogue procedure is a much more involved process and is best suited to complex development projects where the bidders will be required to develop a design as part of their proposals, and the design is refined, along with the financial proposals, through dialogue with the client.

If the OJEU procedure is adopted, a Project Information Memorandum (PIM) which provides the project background, and a Pre-Qualification Questionnaire (PQQ) would be issued upon request. The contractors would be required to provide information in response to the PQQ including the following:

- Company information – size, location.
- Financial information – audited accounts, ability to provide a performance bond, Dunn and Bradstreet credit rating.
- Insurance details – including Professional Indemnity.
- Project team – experience of the team, track record, proposed sub-contractors.
- Experience – track record, working with public bodies, experience of procurement route.
- Health and Safety – health and safety policy, track record, ability to act as the Principal Contractor.
- Regulatory issues – Regulation 14 of the Public Works Contract Act 1991.

If an OJEU procedure is used we would recommend that a maximum of five contractors be shortlisted to tender from the expressions of interest received in response to the OJEU notice (this is also the minimum allowed). In our experience, contractors are not prepared to commit significant resource and cost to prepare a tender if more than five contractors have been asked to tender for the works. This approach is in line with OJEU procurement rules.



# Contractor OJEU

The tender procedure would be in accordance with the Council's procurement regulations and will follow the Code of Procedure for Selective Tendering for Design and Build published by the NJCC.

Shortlisted tenderers would be invited to mid-tender meetings at which they can seek clarification of the client's requirements and discuss the priorities and critical objectives. Responses to contractor's questions would be circulated to each of the contractors tendering. This would also give the Council an opportunity to meet the individuals who will be responsible for delivering the construction of the project.

A contractor would be appointed on the basis of them scoring the highest overall tender score based on both quality and cost criteria, and the other tenderers would be notified accordingly.

The whole process can take four months to finally appoint a contractor. This approach is not therefore suited to a two-stage procurement route, as the benefits of involving a contractor early are not realised, although it could technically still be used.

Using the OJEU procedure also carries a higher risk of challenge from unsuccessful contractors compared to frameworks. This is in part due to the costs associated with responding to an OJEU tender. Additionally, a contractor is less likely to jeopardise their standing in a framework.

For these reasons we would not recommend that the OJEU procedure is used to procure the contractor for this project.



# Recommendations

To summarise we consider the following to be the most appropriate procurement approach for the Dover leisure Centre:

Approach	Reasons
Contractor and operators to be procured separately. This will discount a DBOM, DBFO and Asset Transfer approach.	<ul style="list-style-type: none"> <li>To maximise competition and meet the project programme.</li> </ul>
A two stage develop and construct procurement route to be adopted.	<ul style="list-style-type: none"> <li>Programme – to achieve completion by the end of 2018.</li> <li>Early contractor involvement.</li> <li>More attractive in the current tender market.</li> <li>Collaboration with contractor to obtain high quality product.</li> <li>Risk transfer where appropriate.</li> </ul>
Design developed to Stage 4 (previously Stage E) in conjunction with the contractor and for the completion of the second stage tender.	<ul style="list-style-type: none"> <li>Ensure a high quality product is obtained.</li> <li>To enable a fixed price to be obtained for the works on completion of the second stage tender.</li> </ul>
A fixed lump sum price is obtained for the works.	<ul style="list-style-type: none"> <li>Obtain cost certainty before starting on site.</li> <li>Risk transfer where appropriate.</li> </ul>
Key designers, e.g. architect and civil/structural engineer would be appointed by/novated to the contractor to complete the design.	<ul style="list-style-type: none"> <li>Continuity of design.</li> <li>Programme – to avoid downtime whilst a new team get up to speed.</li> <li>Obtain a high quality product.</li> <li>Transfer design risk to the contractor.</li> </ul>
The contractor is procured through the Southern Construction Framework.	<ul style="list-style-type: none"> <li>OJEU compliant.</li> <li>Avoids full OJEU process and associated programme impact.</li> <li>Mini-competition to select contractor.</li> <li>National contractors with relevant experience on the framework.</li> <li>Bring on board a contractor at an early stage to work with the Council and the Design Team, and advise on, programme, buildability, cost, etc.</li> </ul>



# Appendix A

## Contractor Framework Information

# Appendix B

## Consultant Framework Information





Other than as stated below, this document is confidential and prepared solely for your information. Therefore you should not, without our prior written consent, refer to or use our name or this document for any other purpose, disclose them or refer to them in any prospectus or other document, or make them available or communicate them to any other party. In any event, no other party is entitled to rely on our document for any purpose whatsoever and we accept no liability to any other party who is shown or gains access to this document.

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Contact:

Tom Pinnington  
The Sports Consultancy  
1, 85 De Walden Court  
London  
W1W 6XD

[tom@thesportsconsultancy.com](mailto:tom@thesportsconsultancy.com)





**Dover Leisure Centre Cabinet Report 20<sup>th</sup> September 2016**

Annex 2  
Equality Impact Assessment

## CUSTOMER ACCESS REVIEW

<b>Department</b> Environment and Corporate Assets	<b>Division</b>	<b>Officers involved in the assessment</b> Principal Infrastructure and Delivery Officer
<b>Name of the policy or service provision to be assessed:</b> Provision indoor leisure facilities in Dover	<b>Date of assessment:</b> 11 August 2016	<b>Is this a new, revised or existing policy or service provision?</b> Revision of service provision
<b>1. Describe the item you are assessing and the outcomes you want from it?</b> The proposed project is to replace the existing Dover Leisure Centre with a new facility at a different location. The intended outcomes include increasing levels of physical activity amongst residents of the district by improving the provision of indoor leisure facilities in the Dover urban area.		
<b>2. Who is intended to benefit – who is it aimed at?</b> The project is aimed at everyone who currently uses the leisure centre and anyone who potentially would use it, if the standards and range of activities were improved. Current and potential users include those who participate regularly in formal sport, e.g. as part of a club, and those who use sport and leisure facilities ad hoc on a pay-and-play basis.		
<b>3. Do the anticipated outcomes meet or hinder any other things that the authority is doing?</b> The project was developed in parallel with the Indoor Sports Facility Strategy, which was adopted in July 2016, and if delivered it will achieve several key actions identified within the strategy.		
<b>4. Who defined the policy, function or service provision and who are the main stakeholders?</b> The district's Indoor Sports Facility Strategy was developed with reference to numerous national and local policies and strategies, as described in Chapter 3 of that document. Initially a draft was developed in consultation with key stakeholders such as Sport England, national governing bodies of sport, sporting networks, facility providers and local sports clubs. A draft document was then then subject to full public consultation, which was publicised by various means including direct contact with the key stakeholders already mentioned and as well as the town and parish councils. All comments received were reported to Cabinet and responses provided. The strategy was revised in response to those comments as appropriate, and adopted by the Council.		
<b>5. Who implements it and who is responsible for its delivery?</b> The Director of Environment and Corporate Assets is responsible for delivering the new leisure centre, in collaboration with various departments, including Finance.		
<b>6. What do you already know about people you expect to benefit or people who already benefit? What consultation have you done and how are you going to monitor feedback?</b>		



The project proposal was informed by a range of evidence that supports the case for improved sports facilities in the District, which are reported in detail in the adopted Indoor Sports Facility Strategy. For example the national Active People Survey indicates that the number of people in this district participating in at least one 30 minute session of moderate intensity sport per week is lower than the national average, and non-participation in sport by those aged 14+ compares poorly to the regional and national averages. According to Public Health England (2014) there are c24,000 physically inactive adults in the District. This is defined as adults (16+) doing less than 30 minutes moderate intensity physical activity per week, which at a rate of 26.3% is higher than the South East rate of 25.4. Public Health England figures also indicate that 20.2% of children in year 6 are classed as obese, which is higher than the regional and national rates of 16.0% and 18.9% respectively.

A feasibility study of the proposals for a new leisure centre indicated that it would attract many more visits than the existing centre, and would therefore make a significant contribution to achieving the corporate priority of working towards healthier people and communities.

Sport England has developed a segmentation model of 19 groups, each with a distinct sporting behaviour and attitude. The model was applied to the population of Dover District, which helped to gain an understanding of motivation and perceived barriers to participation relevant to the dominant groups in the district. The needs of smaller segments should not be ignored, but segmentation helps facility providers to make tailored interventions and better understand participation in the context of life stage. For example, one of the largest population groups is retired singles or widowers, predominately female, living in sheltered accommodation (8,200 individuals).

The implications for indoor sports facility arising from this analysis is that the dominant profiles would benefit most from provision of facilities to support keep fit/gym, swimming and football. These findings were taken into account when developing the strategic priorities set out in Chapter 6 of the Indoor Sports Facility Strategy and the delivery proposed new sports centre would meet several of those objectives.

Other sources of information include an audit of the current supply of current indoor sports facilities and an investigation into the level of demand. These data were analysed using Sport England's Facilities Planning Model, use current and future population estimates to identify suitable levels of facility provision to meet local needs both now and in the future. The results obtained were benchmarked against similar authorities using the 'Nearest Neighbour' model, which was developed by the Chartered Institute of Public Finance and Accountancy. Furthermore, Sport England defined catchment areas were taken into account when developing strategic priorities for the adopted Indoor Sports Facility Strategy.

As described in Section 4 above, the Indoor Sports Facility Strategy was informed by consultation with key stakeholders and then subject to public consultation. The proposals for a new leisure centre in Whitfield were developed in parallel with the Indoor Sports Facility Strategy, and an open public consultation was undertaken on these proposals between 4<sup>th</sup> and 24<sup>th</sup> July 2016. The format of the consultation was a series of engagement events combined with an on-line questionnaire. Paper copies of the questionnaire were also available at the events. The consultation was widely promoted by means of advertisements in local papers, the Council's website, social media and posters provided to leisure centres, libraries and council offices. Email alerts were distributed through the Council's Keep me Posted initiative and Your Leisure's customer database. In addition, information boards were displayed at Dover and Tides leisure centres throughout the consultation period.

The consultation events were organised at various locations and times of day to maximise contact with a range of user groups. Representatives from 152 key stakeholders were invited to attend a workshop on 7 July, including all consultees listed in Appendix 1 of

Indoor Sports Facility Strategy plus all primary schools in the district, nineteen representatives from protected characteristic groups and three town societies. Public drop-in sessions were held at Dover Leisure Centre on 14, 16 and 19 July, at Whitfield Farmer's Market on 21 July and the Dover Community Regatta on 23 July. Members of the project team were present at all the consultation events to engage with consultees, answering any queries and encouraging members of the public to feedback their views by completing the questionnaire.

Six hundred and seventy three written responses to the questionnaire were received. The consultation responses have been reviewed, a summary of the results is available from

<http://www.dover.gov.uk/Leisure-Culture-Tourism/Leisure-Facilities/New-Leisure-Centre/New-Leisure-Centre-responses.pdf>

Key issues raised by a significant proportion of consultees are discussed within the body of the Cabinet report. Where appropriate further action has been undertaken or is suggested, for example advice has been obtained from the Amateur Swimming Association regarding swimming pool specification and officers are liaising with key sports club and schools to help increase community use of school facilities.

In addition, comments received that are of importance to groups with protected characteristics are discussed in Section 7 below. This includes relevant issues raised verbally during the drop in sessions, particularly with respect to access by people with disabilities.



**7. Taking each strand of equality, is there any differential impact for anyone. Does this adversely affect them? Don't forget, you're not looking for direct discrimination you're looking to see how you can help people access your service. Taking into account your answer to question 7, think about the following protected groups;**

- a. **Race** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified.
- b. **Disability** Many of the responses received were supportive of the project, for example 'Access, especially disabled access, to the existing site is poor and the main reason my wife and I don't use it. We would almost certainly use the new site.' (A 'Changing Places' facility is proposed within the changing village) 'Be fantastic for schools in area .especially Whitfieldaspen . We run an after school Disability swim Club , doing it voluntary for 8 years for school hope to carry it on'. 'better access for the disabled I am a support worker for a disabled lad who I bring to use your gym and it's hard for him getting into the leisure centre and gym because the gym is upstairs and he is in a wheelchair' (The gym is on the second floor in the proposed designs, but a lift is specified)

Verbal responses from attendees at the key stakeholder workshop highlighted the importance of the proposed 'Changing Places' facility and wheelchair lift into the main pool in meeting the needs of people with disabilities, but questioned the way in which access to the learner pool would be facilitated.

However, others raised concerns, for example 'It is taking people away from the town centre. I live on the other side of Dover, I am severely disabled, and I don't drive. Dover leisure centre should actually be in Dover. The only exercise I can do is swimming. Now it looks like that too will be taken away.'

- c. **Gender** Some respondents were unhappy with the proposed layout of the wet-side changing, for example 'Do not like the wet side changing village. Would prefer to see 'traditional' male and female changing as per the dry side.' 'Mixed changing rooms for swimming. People hate it. Back to male and female changing please. In Canterbury at Kingsmead it's one of the key things people want changed. Really inhibiting. Not necessary. Have family changing but all else shovel be single sex'.

However, others are in favour of the proposed mixed gender changing village. For example 'I have a son with special needs who is too old to go into the ladies changing room, but cannot manage on his own in the men's. The current family changing is woefully inadequate and I only go down with a special needs group now. If I want to take him swimming at any other time I go to Ashford as they have changing rooms like you are proposing and don't have the queues found at Tides.'

- d. **Age** Some comments raised concerns about the impact of the proposals on certain age groups, for example 'I formerly played badminton and now table tennis. It is very important that these 2 sports are adequately catered for

and available simultaneously because they can both be played by older people. Retired people are more likely to use the leisure centre during the day and their exercise needs are as important as those of other age groups. It is not clear from the plans how much space and available time will be allotted to badminton and table tennis.’ Also ‘We hope senior citizens will be considered a bit in the various programmes.’

A respondent who gave their age as 65+ said ‘I cannot get to Whitfield on foot totally inaccessible for the elderly’. However others in this age group support the proposed site, for example ‘I think the proposed site is perfect and I will look forward to using the pool and café.’ As shown by the results of the survey, although the level of support is very high amongst those aged 65+, it is slightly lower than the overall level of support across all age groups (80% compared to 89% overall).

Twenty-five responses were received from people giving their age as 0-14 years, of which 23 supported the proposals. One of the people who did not support the proposals stated that they would find it more difficult to access, but 10 of the respondents said they would visit more frequently.

- e. **Religion** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified
- f. **Sexual orientation.** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified
- g. **Gender re-assignment** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified
- h. **Pregnancy and Maternity** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified
- i. **Marriage and Civil Partnership** No information relevant to this protected character group was obtained through the consultation, therefore no adverse impact identified



**8. If there is nothing you can do about any adverse impact highlighted in question 7, can the reasons be justified?**

Should the project proposals be approved, further engagement will be undertaken regarding detailed designs prior to any planning application. The planning consultation will be publicised to groups and individuals who have expressed an interest in the leisure centre project. These actions will help to ensure that, where appropriate, the final design addresses detailed comments already received that are relevant to groups with protected characteristics, for example regarding access to the pool by people with disabilities.

It is unlikely that the designs will move away from the 'changing village' model, even though some respondents are unhappy with this approach because others find it beneficial and all the recently constructed leisure centres visited during the preparation of this proposal use the 'changing village model'. So long as sufficient cubicles are provided privacy can be protected.

A number of consultees were concerned that an out of town centre leisure centre would be less accessible. This may be particularly important to users aged 65+ although the evidence is not clear cut, and there is no evidence to show a differential effect on other user groups with protected characteristics.

Issues of access from the town centre will be addressed through the travel plan that will be prepared to accompany any planning application; this will be reported to Cabinet prior to submission of the planning application. If Cabinet provide authority for a planning application to be submitted, the travel plan will then be subject to consultation as part of the planning process, as described in the Council's adopted Statement of Community Involvement. The National Planning Policy Framework sets out the requirement of a travel plan, including the need to consider the 'existing intensity of transport use and the availability of public transport'. National Planning Policy Guidance states that the purposes of a travel plan include creating accessible connected and inclusive communities and improving health outcomes and quality of life, therefore the needs of all groups with protected characteristics will be considered. The project budget includes provision for possible development contributions towards enhancing public transport links to the new leisure centre, should that be deemed necessary at the time any application is decided.

**9. If you've had to make changes because of adverse impact found in Q7, have you made sure these don't have a further adverse effect on any other group?**

This has not occurred so far, but it will be important to consider this point when engagement on the detail of the leisure centre design is undertaken.

**10. What lessons have been learnt from completing the assessment?**

The drop in consultation events were very helpful in encouraging people to participate in the questionnaire.

**11. Who will be the owner of the action plan?**

The Director of Environment and Corporate Assets

### **Action Plan to Remedy Areas of Concern**

You need to complete this plan with actions that will correct the shortfalls in the review.

<b>Description of Concern</b>	<b>Action Required</b>	<b>Date Due</b>	<b>Responsible Officer (Job Title Only)</b>
Will the learner pool be accessible to those with disabilities?	Engagement with relevant user groups regarding detailed design proposals	Prior to planning application	The Director of Environment and Corporate Assets
Will the changing village have an adverse impact on some protected groups?	Engagement with relevant user groups regarding detailed design proposals	Prior to planning application	The Director of Environment and Corporate Assets
Will the proposed location have an adverse impact on participation by older people (or any other group with protected characteristics)?	Preparation of a travel plan, which will be subject to consultation through the planning process	Prior to planning application	The Director of Environment and Corporate Assets



# Public Document Pack

Minutes of the meeting of the **DOVER LEISURE CENTRE ADVISORY GROUP** held at the Council Offices, Whitfield on Thursday, 30 June 2016 at 6.02 pm.

Present:

Chairman: Councillor T J Bartlett

Councillors: N J Collor  
M D Conolly  
M R Eddy  
Mr P Ward

Also present: Councillor S F Bannister  
Councillor P M Brivio  
Councillor S J Jones  
Councillor M J Ovenden  
Councillor A S Pollitt  
Councillor G Rapley  
Councillor A F Richardson

Officers: Director of Environment and Corporate Assets  
Principal Infrastructure and Delivery Officer  
Principal Leisure Officer  
Democratic Support Officer

## 11 APOLOGIES

It was noted that Councillors P M Beresford and P Walker had sent apologies for absence.

## 12 APPOINTMENT OF SUBSTITUTE MEMBERS

It was noted that, in accordance with Council Procedure Rule 4, Councillor M R Eddy had been appointed as substitute member for Councillor P Walker.

## 13 DECLARATIONS OF INTEREST

It was noted that there were no declarations of interest.

## 14 NOTES

The notes of the meeting of the Group held on 19 May 2016 were approved as a correct record and signed by the Chairman.

## 15 CHAIRMAN'S ANNOUNCEMENT

The Chairman advised Members that Agenda Item 5 (Funding Options) had been withdrawn from the agenda. This was a sensitive issue at a time when the Council was involved in discussions surrounding land acquisition for the new leisure centre. It was therefore considered inappropriate to discuss the matter at this time, but it was hoped that it would be considered at the next meeting.

## 16 FACILITY MIX

The Principal Leisure Officer (PLO) advised that, as requested at the last meeting, Officers had visited a 'Clip and Climb' facility at Chelsea. There were only 15 such facilities in the country; of these only one was located in a leisure centre. Officers were excited by the quality and potential of the facility which catered for children from age 4 through to adults. The operators in Chelsea had advised that peak periods for use were weekends, holidays and after school. Business was so buoyant that they had met their business plan targets for the fifth year of operation by the third year. They were also looking to fill off-peak periods with corporate events and fitness class programmes. Officers fully supported the consultants' recommendation that 'Clip and Climb' be added to the facility mix for the new leisure centre.

In response to questions, the PLO advised that she believed the facility was suitable for people with disabilities, although this would need to be verified. Comparisons had been made with Exeter which had a 150- square metre facility, similar in size to the one proposed for Dover. The consultants estimated that net revenue of £80,000 per annum could be achieved at the Dover facility. The Principal Infrastructure and Delivery Officer (PIDO) pointed out that Dover's would also have the advantage of being the only one in Kent. A facility of this size had a user capacity of 35 people and required 7 members of staff. It was confirmed that the equipment could easily be dismantled to free up space for other activities.

In respect of the spa facility, the PIDO advised that the consultants had done some further research but were not experts in this field. Their initial view was that a spa would add to the capital costs and affordability gap. Furthermore, it was not meeting a sporting need and could potentially add risk to the overall affordability of the project.

The Director of Environment and Corporate Assets (DECA) recognised that the provision of a spa would not meet a sporting need, but it would be an attractive offer for local people. Whilst a spa could make a valuable contribution to profit margins, it was accepted that it was a risky proposition. The PIDO advised that there had been a lot of interest from potential operators but, of these, fewer than half had expressed an interest if a spa were included. Those who were interested had requested more detailed information.

Councillor M D Conolly reiterated that he had been impressed with the Ramsgate spa which had proved a resounding success. His view was that the idea should not be discounted until the costs of the project were known. Even then, it might be a gamble worth taking. Councillor N J Collor agreed.

The PLO advised that the operators who had expressed an interest in the spa had indicated that they would want it included at the build stage rather than added on afterwards. The PIDO added that there would be cost and layout implications at the initial stages of the project. Further research would be needed, probably by specialist consultants who would have to be tendered for, and this would inevitably delay the project programme. The DECA added that refinements would be made to the design following consultation, which could see strong support for a spa. Moreover, it might not be necessary to engage another set of consultants as it was possible the architects could advise on layout. Councillor Conolly commented that the matter could be considered at the next meeting when a clearer picture on costs and progress should be available.

It was agreed that the update be noted.



CONSULTATION

The PLO advised that the consultation was due to be launched the following week. The methods of consultation included a questionnaire and a Question and Answer (Q&A) sheet which would be placed on the Council's website. Postings would also be made on Facebook, Twitter and other social media. A press release would be issued and adverts placed in all the local newspapers. Mailings would be made to customers who had signed up to Keep Me Posted and those on Your Leisure's database. Finally, special stakeholder consultation events were taking place on 7 July to which clubs, operators, schools, sporting networks, etc had been invited. In addition, Officers would be present at the three drop-in workshops at Dover Leisure Centre on 14, 16 and 19 July, at another at Whitfield village hall on 14 July and an all-day event at Dover Regatta on 23 July.

Referring to the Q&A sheet, Councillor M R Eddy emphasised the importance of there being good public transport linkages from the town centre to the new leisure centre. This information should be included in the sheet. The PIDO advised that a meeting was to be held with Kent County Council Highways the following week to discuss this issue. The sheet would then be updated once further information was available. The DECA added that public transport arrangements would be covered in the planning process.

Councillor Collor suggested that the Q&A sheet should include a reference to coaches. He also suggested that the first question should be changed to reflect the fact that there was no room rather than limited room to expand. The PIDO responded that the sheet would be updated during the consultation period to reflect issues raised by consultees.

In response to concerns raised by Members, Officers undertook to place an advert in newspapers on 7 July to ensure that sufficient notice was given for events commencing on 14 July. At Councillor Conolly's suggestion, Officers undertook to discuss with the Funding and Communication Manager the idea of direct approaches being made to television and radio stations.

It was agreed that the update be noted.

SOFT MARKET TESTING

The Group was advised that sort market testing for the construction of the new centre had been carried out with six contractors through the Southern Construction Framework. Three had expressed an interest, all of which were very active in the south-east and Dover and had previous experience of building leisure centres. None had indicated that the projected construction costs were unrealistic, but two out of three of those interested had expressed concern about the length of the construction programme. Whilst Officers recognised that it was ambitious, there was currently no reason to change it. The DECA advised that it had been useful to test the capacity in the market, and testing had clarified that there were a limited number of companies operating in the south-east with experience in this field. Officers would report in due course on the procurement options.

Soft market testing of potential operators had also been undertaken. Eight out of nine operators contacted had expressed an interest in tendering for the contract. Most had expressed an interest in combining the management of Tides with the new leisure centre. The majority had indicated an interest in providing finance to either centre if required. Respondents had suggested that they would be

interested in a contract of a minimum length of 10 years and up to 15 years' duration.

As reported earlier, fewer than half the respondents were interested in operating the spa or sought further information regarding viability. Some operators had suggested that the proposed parking capacity of 250 spaces would need to be increased, potentially up to 400. The majority of operators had also indicated that they were happy with the proposed facility mix. Two had suggested that the size of the sports hall should be increased to five or six courts. One operator had suggested that the 3G pitch should be full sized and another that there should be two additional five-a-side pitches. Two operators had suggested having moveable walls between the squash courts and two others had queried whether squash courts were necessary. Another had proposed a cycle studio.

Other comments had included that the fitness studio capacity should be increased to 140 stations, and one suggested that the 'Clip and Climb' facility should be removed. It was clarified that parking provision would be revised as it was now recognised, following feedback received, that 250 spaces would be insufficient. There were no plans to have moveable walls between the squash courts, visits to other facilities having indicated that acoustics could be an issue.

It was agreed that the update be noted.

#### 19 LAND ACQUISITION

The DECA advised that the rationale behind the purchase of land for the new centre at this stage was to provide certainty that the various options for its location could be delivered. At the present time, there was the intention to build a new centre, but the Council did not own or have an interest in the plots of land where it could potentially be located. The objective was to seek to acquire an interest but not necessarily to purchase land now.

It was agreed that the update be noted.

#### 20 NEXT STEPS

The PIDO advised that a report on the Indoor Sports Facility Strategy would go to Cabinet on 4 July. This would report on the 92 representations received during the public consultation period, along with Officer responses. The report would also recommend changes to the draft strategy for Members to consider and approve. A report on the feasibility study for Dover Leisure Centre would go to Cabinet on 5 September, with a special Cabinet meeting later that month to consider the Scrutiny Committee's recommendations.

It was agreed that the update be noted.

#### 21 DATES OF FUTURE MEETINGS

The Group was advised that the next meeting would be held on 26 July at 5.00pm. Beyond that, it was anticipated that another meeting would be held on 29 September at 5.00pm.



The PIDO agreed that, although it would be too early to report back fully on the outcome of the July consultation, this being due to end on 24 July, Officers would be able to give an informal overview of the responses received at the July meeting.

The DECA confirmed that there would be a second round of consultation as the scheme was defined. Cabinet would receive a further report, as would the Scrutiny Committee. In response to Councillor Conolly, it was clarified that the Scrutiny (Policy and Performance) Committee was the lead committee on this matter.

It was agreed to note that further meetings would be held on 26 July and 29 September 2016.

The meeting ended at 6.56 pm.

# Public Document Pack

Minutes of the meeting of the **DOVER LEISURE CENTRE PROJECT ADVISORY GROUP** held at the Council Offices, Whitfield on Tuesday, 26 July 2016 at 5.04 pm.

Present:

Chairman: Councillor T J Bartlett

Councillors: P M Beresford  
M D Conolly  
Mr P Ward  
P Walker

Officers: Head of Finance  
Principal Infrastructure and Delivery Officer  
Principal Community and Leisure Officer  
Democratic Support Officer

## 22 APOLOGIES

It was noted that there were no apologies for absence.

## 23 APPOINTMENT OF SUBSTITUTE MEMBERS

It was noted that there were no substitute members.

## 24 DECLARATIONS OF INTEREST

It was noted that there were no declarations of interest.

## 25 MINUTES

The notes of the meeting of the Group held on 30 June 2016 were approved as a correct record and signed by the Chairman.

## 26 FACILITY MIX

The Principal Leisure Officer (PLO) referred Members to the briefing paper which summarised the likely impact that the provision of a spa facility would have on the cost, design and location of the leisure centre at Whitfield. If Members wished to take the idea further and obtain specialist advice, this was likely to cost in the region of £10,000. The Head of Finance confirmed that the cost of adding a spa would be in the region of £1.5 million which would require additional borrowing. However, it was estimated that a spa would generate £80,000 in annual revenue which would be sufficient to service borrowing of £1.5 million.

Councillor M D Conolly argued that, within the context of the entire project, the cost of the spa was relatively insignificant. He pointed out that four of the nine potential operators consulted had indicated an interest in operating a spa. A further three were potentially interested but required further information. Only two of the nine had indicated no interest, and one of these already operated a spa in Ramsgate. It was likely, therefore, that this operator viewed the spa unfavourably as it would be a competitor. In response to Councillor N J Collor, the Group was advised that, of the 558 responses received, only 17 had raised the issue of a spa facility or sauna/steam room improvements. However, it was acknowledged that the questionnaire had made no reference to the possible inclusion of a spa facility.



The Principal Infrastructure and Delivery Officer (PIDO) reminded Members that the majority of operators wanted the spa included in the first phase of construction. Potential operators had shown a very positive interest in Kent where most of them were not currently operating. It was therefore possible that they were being positive about the spa at this stage because they were seeking the business.

The Head of Finance added that the affordability of the project rested on how much providers were prepared to invest and what the Council could afford to put into it. The successful operator would pay the Council for running the facility; this would be predicated on how much revenue the operator estimated the centre was likely to generate. This payment would dictate how much the Council could borrow since it would be used to pay back the loan and interest.

Councillor P Walker commented that the operators appeared to be dictating what was going to be provided. He reminded Officers that the new centre was designed to cater for leisure as well as sporting activities. Whilst he recognised that there had to be a balance, it was essential that the Group considered different ideas and how a high standard of facility might be achieved for the benefit of the public. He was convinced that a spa would add depth and quality to the centre for what was a relatively modest amount when measured against the overall cost of the project. Councillor P M Beresford agreed that it was important that the new centre catered for leisure activities. Mr Peter Ward added that there was little competition elsewhere in the district in terms of spa facilities. The provision of a spa facility would build on the improvements that were needed to upgrade the existing leisure centre.

The PIDO advised that the provision of a spa constituted a 'nice to have' facility. On the other hand, the provision of sports facilities was based on evidence obtained from Sport England and governing bodies.

It was agreed that it be recommended to the Portfolio Holder for Property Management and Public Protection/Cabinet that a further report be commissioned from a specialist consultant to explore the addition of a spa facility.

## 27 PUBLIC CONSULTATION

The PIDO advised that there had been a large response to the consultation – 667 responses in total, mostly completed using the on-line survey facility. In summary, 88.4% of respondents supported a new leisure centre, with 69.4% favouring Whitfield as its location. 19% were opposed to Whitfield. The provision of a swimming-pool was the highest priority for 83% of respondents, followed by the health and fitness gym (41.9%), learner pool (28.1%) and sports hall (22.9%). Respondents had stated that 62% of them travelled to the current site by car, 20.8% on foot and 7.5% by bus. Following its relocation to Whitfield, indications were that 65.4% would travel by car, 13.3% by public transport and 11.2% on foot. Finally, 52.6% indicated that they would use the new centre more frequently.

Concerns had been raised about accessibility from the town centre, particularly by the elderly, and the difficulties of using public transport for wheelchair users. Councillor Collor advised that by the time the new leisure centre opened, buses would legally be required to transport wheelchairs. In any case, most buses currently operating were low-floor and could take wheelchairs. Councillor Walker reminded Members that plans were underway for a new rapid transport system linking the town centre to Whitfield. Mr Ward suggested that a walk-way should be

provided from the bus-stop outside Christ Church Academy to the centre. He also commented that comprehensive information should be included on the centre's website on how to get there by public transport. Officers advised that a comprehensive transport plan would need to be submitted with the planning application, and there was a meeting scheduled the following week with Kent County Council (KCC) for consultants and planners to start work on this.

Many consultees, including Vista Twisters, had raised concerns about the proposed reduction in the size of the sports hall. However, concerns appeared to be assuaged when the rationale behind it, particularly the increased use of schools' sports halls, was explained. Officers had worked very closely with all secondary schools (but one) in the district that were identified in the Council's Indoor Sports Facility Strategy (ISFS) as having the potential to provide public access to their sports halls. Officers were confident that the new sports hall provision would work; Christ Church Academy's sports hall was already open and being used by external groups and clubs.

Sir Roger Manwood's and Dover College were willing to work with the Council but there were particular complications for them which would need to be overcome. Dover Boys' Grammar School had received planning permission for a sports hall which, if public funding were secured, would have to be opened up to the local community as a condition of that funding. The PLO added that informal discussions at a recent meeting of the Kent Association of Leisure Officers had prompted debate around the capital and maintenance costs of facilities. Sports hall provision had been discussed, with debate around the possible future reduction of such provision and recognition of the benefits of working with schools to meet local needs. Schools identified in the ISFS were spread throughout the district and were therefore generally also more accessible to community users. In response to a suggestion by the PIDO, Members confirmed that they did not believe further investigation into the provision of a six-court sports hall was necessary, and a four-court hall should be progressed.

The PLO advised that most consultees at events had accepted why a 50-metre swimming-pool could not be provided when the reasons were explained to them. The Dover Gymnastics Club needed a large space which the new centre could not accommodate. However, the Council would work with the club to help find a suitable facility. Dover Squash and Racquetball Club had indicated its preference for three courts. In response, Officers had arranged to meet the bursar of the Duke of York's Royal Military School to discuss access to the school's squash facilities.

Overall, the consultation had elicited generally positive feedback. Nevertheless, Whitfield Parish Council was of the view that there should be more facilities, such as a 50-metre pool, and the Dover Society was in favour of a town centre site. There was general recognition that a new facility was needed, but some disquiet that it would be relocated to Whitfield.

It was agreed that the verbal report be noted.

## 28 DETAILED FEASIBILITY REPORT

Officers advised that the report required further refinement before going to Cabinet, not least to reflect the outcome of public consultation. It was acknowledged that a further report on the spa would delay overall progress, potentially by a couple of months. Councillor Conolly stressed that it was important to achieve the right leisure facility for the district, even if this meant a slight delay. In response to



questions, Members were advised that the issue of car parking would be considered at the next stage of the project, taking into account the feedback received during the consultation. There was a lack of trade parking at the business park, and it would be important to exclude non-users from the leisure centre's car park. It was emphasised that 250 was not a cap but rather the minimum number of spaces proposed. Finally, it was clarified that refinement of design plans would be progressed at the next stage of works. This would include the café and reception areas as it was recognised that further work was needed to improve these.

It was agreed that the update be noted.

29 LAND ACQUISITION

The Chairman advised Members that Cabinet had authorised the Director of Environment and Corporate Assets to commence negotiations on a parcel of land at Whitfield. Councillor Conolly added that negotiations had reached a stage where Heads of Terms had been reached and discussions had started on the future use of the existing leisure centre site.

It was agreed that the update be noted.

30 NEXT STEPS

The Group was advised that a report would go to Cabinet on 5 September and to the Scrutiny (Policy and Performance) Committee on a date to be confirmed. There would be a special Cabinet meeting on 20 September to consider any recommendations arising from Scrutiny.

It was agreed that the update be noted.

31 DATES OF FUTURE MEETINGS

The Group was advised that the next meeting would be held on 29 September at 5.00pm. It was provisionally proposed that another would be held on 3 November at 5.00pm.

It was agreed to note that further meetings would be held on 29 September and, provisionally, 3 November 2016.

32 EXCLUSION OF THE PRESS AND PUBLIC

That, under Section 100(A)(4) of the Local Government Act 1972, the public be excluded from the meeting for the remainder of the business on the grounds that the item to be considered involves the likely discussion of exempt information as defined in paragraph 3 of Part 1 of Schedule 12A of the Act.

33 FINANCIAL UPDATE

The Group received a presentation from the Head of Finance. Members were advised that the project would be financed through a mix of borrowing, grant funding, capital receipts and use of reserves. The current approved Medium-Term Financial Plan 2016/17-2019/20 included an allowance of up to £7 million to fund the project from earmarked reserves. Initial soft market testing with leisure providers had indicated that the new centre was expected to generate an improvement in the Council's revenue position which would be sufficient to service

additional borrowing to fund the project. In addition, it was anticipated that Sport England would contribute a grant of between £1 million and £1.5 million to the project.

The split of funding for the project would be determined as the project progressed, including consideration as to whether to utilise the maximum approved level of reserves and undertake a lower level of borrowing, or whether to undertake the maximum level of affordable borrowing and reduce the level of reserves used. Councillor Walker welcomed the briefing which gave him a degree of reassurance in respect of the financial position.

It was agreed that the update be noted.

The meeting ended at 6.28 pm.





# Client Guidance

## Framework Expiry Update



Asset Management  
Surveying & Design Services

**The Scape National Asset Management, Surveying and Design Services (AMSandDS) Framework was tendered between the Spring and Summer of 2012. A Framework Agreement was engrossed on 1<sup>st</sup> October 2012 following a decision to award to Faithful + Gould. The contract duration for the framework was four years, with £100m fee value.**

The framework is due to expire on 30 September 2016 and this note has been prepared with regard to the impending expiry of this framework and the legal implications associated with this.

Until the AMSandDS Framework expires, it is 'business as usual.' Clients are free to enter into call off agreements by executing a Delivery Agreement in the form set out in the Framework Agreement for single or multiple commissions. After 30 September 2016 no new Delivery Agreements can be entered into for the AMSandDS Framework. Faithful + Gould can continue to provide services under a Delivery Agreement already executed. These can run to their contractual completion which may be up to a maximum of four years after execution or four years after the framework completion date, whichever is earlier. Clients are also able to enter into NEC3 Professional Services Contract, Term Commission (Option G) contracts under the AMSandDS Framework. Please see Annex A for further guidance on Option G.

At the current time, Scape have two national frameworks that provide clients with access to consultancy services – the AMSandDS and the Project Management and Quantity Surveying (PM&QS) Framework. Scape has concluded the procurement of the new Built Environment Consultancy Services (BECS) Framework through publication of a Contract Notice in the OJEU on 19 December 2015. The scope of services under the BECS Framework will consolidate those currently offered under the AMSandDS frameworks and PM&QS, with the addition of wide mix of supplementary services such as Business Management and Consultancy Services. This framework will be available for use by clients from August 2016. Please see link below for further details on the BECS Framework:

<http://www.scapegroup.co.uk/services/procure/frameworks/built-environment-consultancy-services>

For further information on Scape's consultancy services frameworks please contact Krish Raichura National Framework Manager - [krishr@scapeprocure.co.uk](mailto:krishr@scapeprocure.co.uk).





### Annex A

#### **NEC Professional Services Contract – Term Services Contract (Option G)**

NEC Professional Services Contract offers a Term Service Contract - Option G through use of a Task Schedule to cater for longer term requirement of services.

Where services under Option G exceed the expiry of the AMSandDS framework, Clients are advised to ensure the following:

Scope	A clear description of the activity is captured. Any description must be specific to the ongoing tasks and any generic description must be avoided.
Value	A fee estimate charged by the consultant, potentially subject to some expectation that variation can arise and where applicable an estimate of any construction works.
Location	The location of where the activities are to be undertaken, where appropriate
Variations	Variations should not be material changes, which go beyond the original scope.
Duration	<p>Any tasks orders must not go beyond the maximum four years allowed following the expiry of the framework. For the avoidance of doubt services must be completed within this four year period. For example a task order which starts on 30<sup>th</sup> September 2016 must not go beyond 30<sup>th</sup> September 2020.</p> <p>This is set out under clause 5.1 of the AMSandDS Framework.</p> <p>For the avoidance of doubt no new Option G Delivery Agreement can be executed after 30 September 2016.</p>



<b>DATE</b>	<b>KEY PROJECT MILESTONE</b>
September 2016	Council approval for project proposals to proceed Appoint project core consultant team
December 2016	Report to Cabinet re Spa Feasibility Option Report to Cabinet to select preferred Building Contractor
March 2017	Report to Cabinet re Planning Application Submission Submit detailed Planning Application
September 2017	Report to cabinet to enter Construction Contract and appoint Leisure Operator
October 2017	Construction starts
Early 2019	New Leisure Centre opens

The dates listed above should be regarded as target dates and they may alter as the project progresses. Members will be kept apprised throughout project development and at the times of reporting as set out above.



**DOVER DISTRICT COUNCIL**

CommitteeName – MeetingDate

**EXCLUSION OF THE PRESS AND PUBLIC**

**Recommendation**

That under Section 100(A)(4) of the Local Government Act 1972, the public be excluded from the remainder of the meeting for the remainder of the business on the grounds that the item(s) to be considered involve the likely disclosure of exempt information as defined in the paragraph of Part 1 Schedule 12A of the 1972 Act set out below:

<u>Item</u>	<u>Report Title</u>	<u>Paragraphs Exempt</u>	<u>Reason Exempt</u>
17	Dover Leisure Centre	3	Information relating to the financial or business affairs of any particular person (including the authority holding that information)

Document is Restricted



By virtue of paragraph(s) 3 of Part 1 of Schedule 12A  
of the Local Government Act 1972.

Document is Restricted