1.2 Connectivity

Greenford to Gurnell Greenway

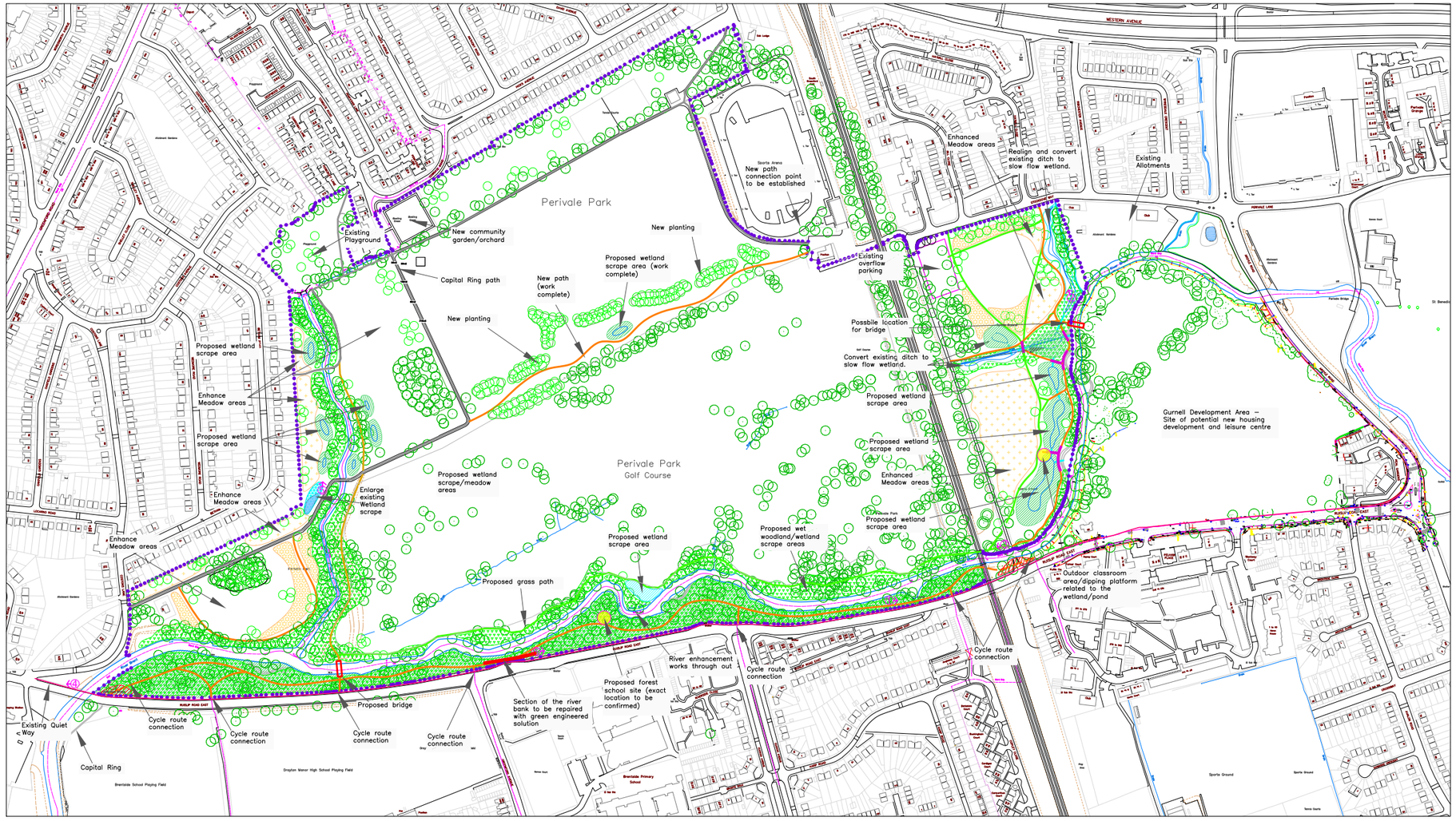
LB Ealing, Thames 21 and the Environment Agency have worked alongside local volunteers on this floodplain restoration project to create a rich, biodiverse landscape of meadows, wetlands, woodland and orchards alongside the river Brent. The planting of native species, prevention of riverbank erosion and construction of new wetlands aims to remediate the land, manage flooding and improve water quality.

The greenway links Gurnell Leisure Centre to Greenford town centre for pedestrians and cyclists, and aims to reconnect the community to the Brent and the natural environment.

Works began on site in 2018 and are nearing completion.

Further detail on the ecological enhancements and flood management has been reviewed as part of this Feasibility Study.

New Wetlands as part of the Greenford to Gurnell Greenway.



Key

- Proposed trees
- Selective clearence of understorey and replant with whips
- Topsoil strip for meadow
- Soil build up for meadow
- Existing Ditch converted to slow flow wetland
- Topsoil strip for wet meadow/swale
- Capital Ring and other existing paths
- Proposed hoggin type path over existing desire line
- Proposed grass path
- Existing Quiet Way
- Proposed terraced points for improved access to the river bed
- Proposed board walk section of path

Note: Elements of this plan are indicative and will be subject to change as the proposals develop

1.2 Connectivity

Baseline Connectivity - Opportunities & Constraints

Sustainable Movement

The baseline connectivity offers both opportunity and constraint to sustainable journeys to and from the site.

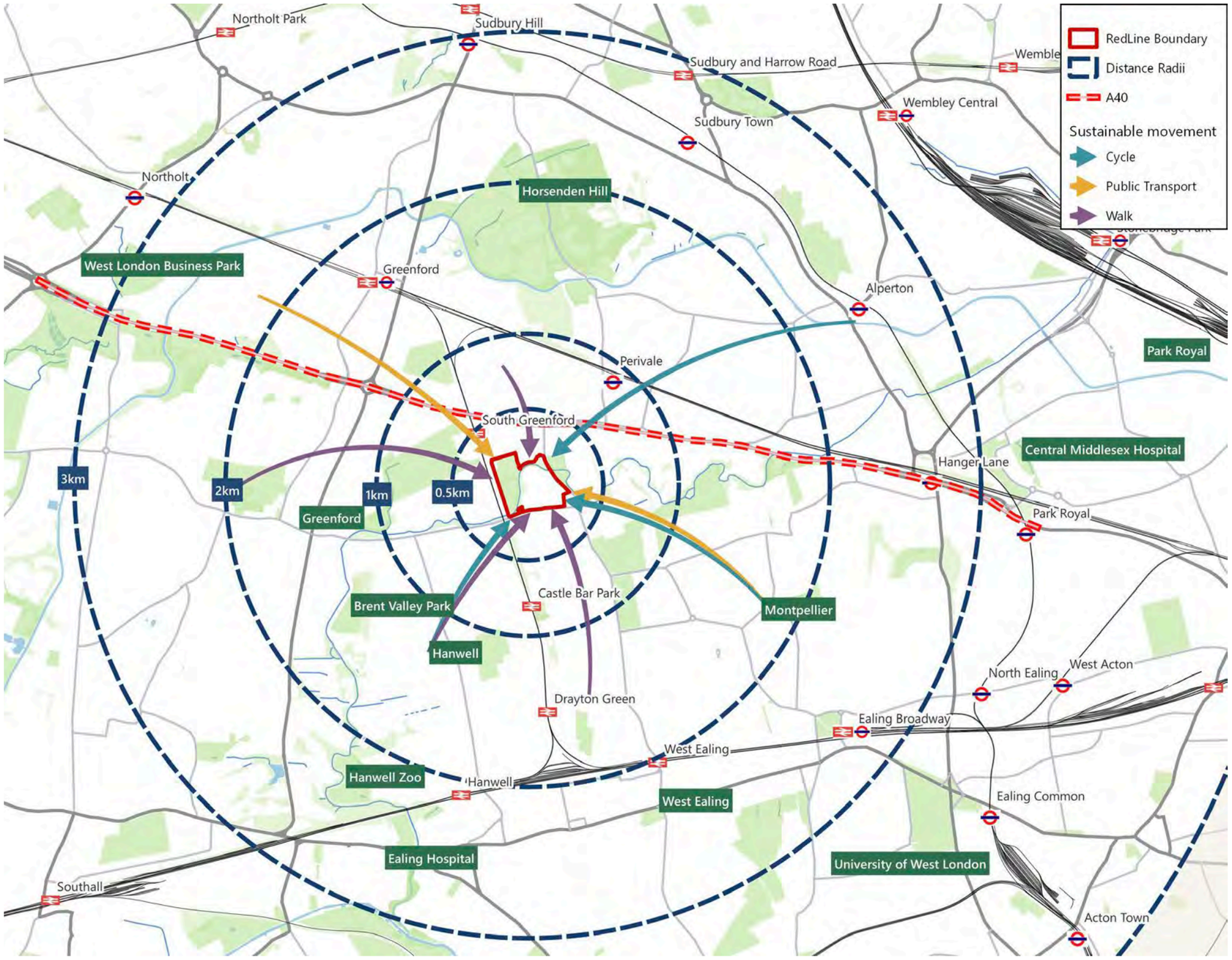
Opportunities

- Residential areas of Montpelier, North Hanwell and Greenford are within 3km of the site - a distance easily cycled.
- Existing railway links at Greenford, Perivale and Ealing Broadway are also within 3km of the site.
- 31% of private vehicle based trips in Ealing are less than 3km - an opportunity to encourage modal shift.

Constraints

- The railway line along the western boundary hinders east-west links, funnelling pedestrians and cyclists to existing bridges to the north and south.
- The A40 is a significant physical and psychological barrier to sustainable movement from the north of the borough, with limited crossing points and unattractive routes.
- The north of the site currently feels less connected and more remote with a lack of a clear hierarchy of routes leading to key streets and transport hubs.

These opportunities and constraints help identify possible future interventions that could be introduced in the vicinity of a future leisure centre to either capitalise on the opportunities or overcome constraints that support a sustainable development and reduced reliance on private car trips and parking.



1.3 Accessibility Principles

1.3 Accessibility Principles

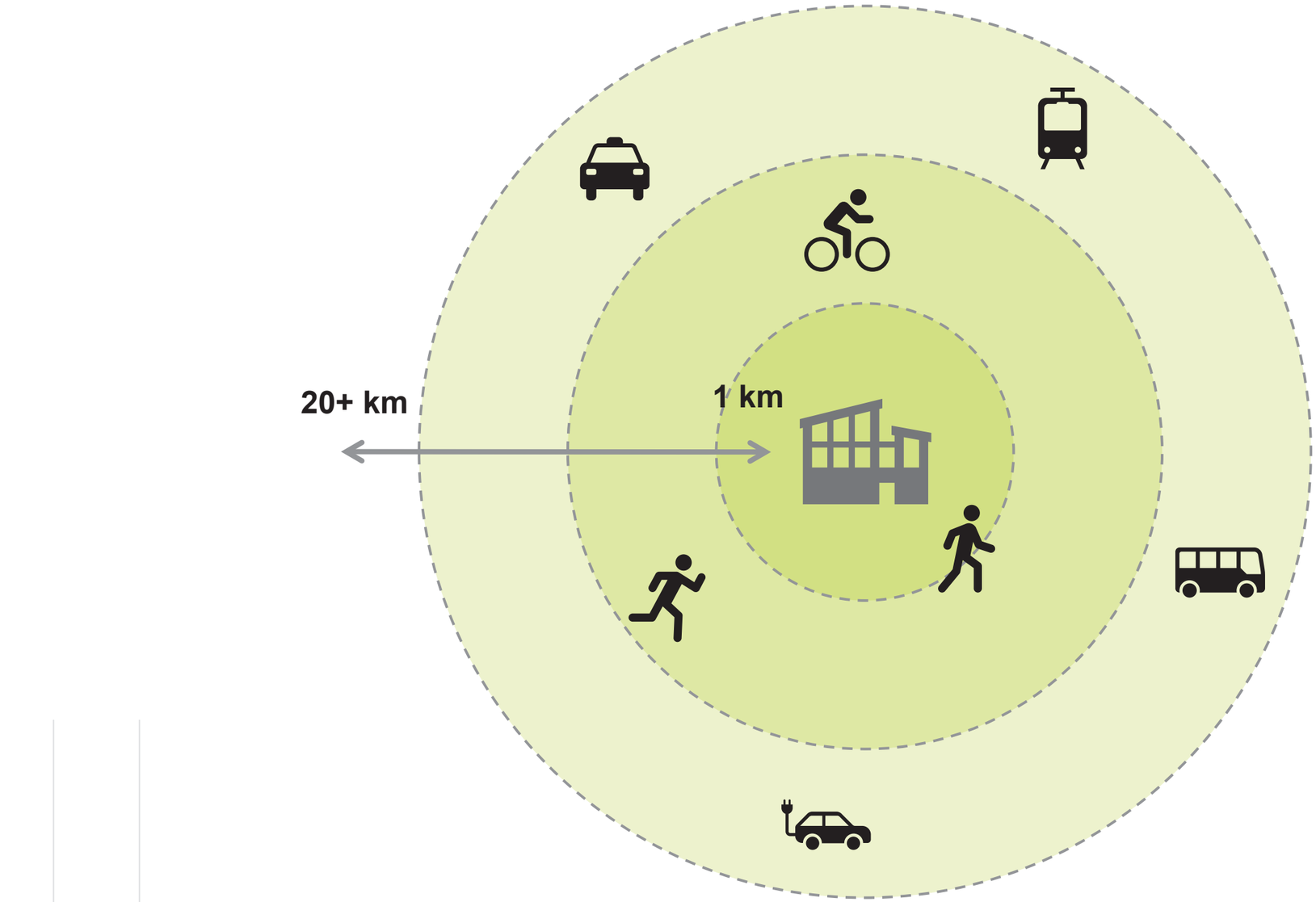
Baseline Connectivity - Opportunities & Constraints

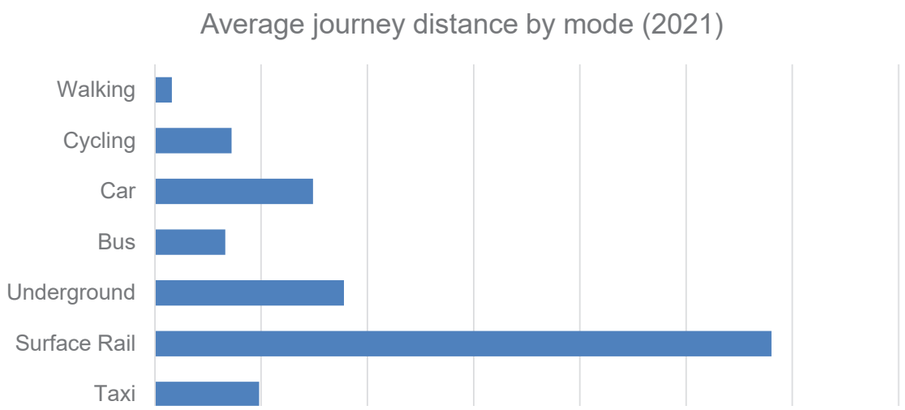
Depending on the journey purpose and distance, different modes of transport will be most suitable. It is therefore important to plan for all modes when considering the emerging masterplan.

Not every journey will be able to be carried out on foot or by bicycle, nor should every journey be made by private car. Planning for both, however, ensures that future users have a true choice and sustainable outcomes can be achieved.

Modes that may play a role in serving the proposed development can include:

- Walking and jogging
- Cycling, including e-bikes and cargo bikes
- E-scooters (subject to legislation)
- Car share and car clubs
- Taxis
- Buses
- Private cars, including electric vehicles
- Metro and heavy rail services





1.3 Accessibility Principles

Potential Range of Interventions

Improved walking and cycling connections to South Greenford and Perivale Underground

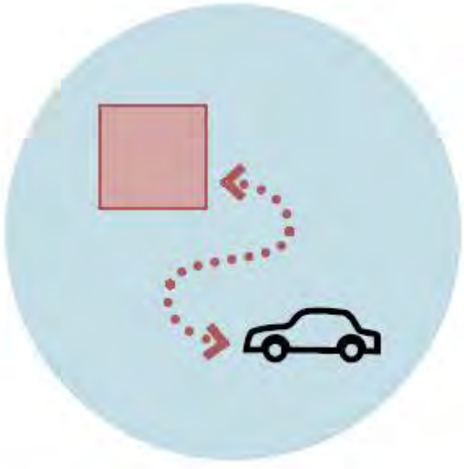
Covered Cycle Parking for Leisure Centre to meet demand

Improved walking and cycling access to A40 - step free

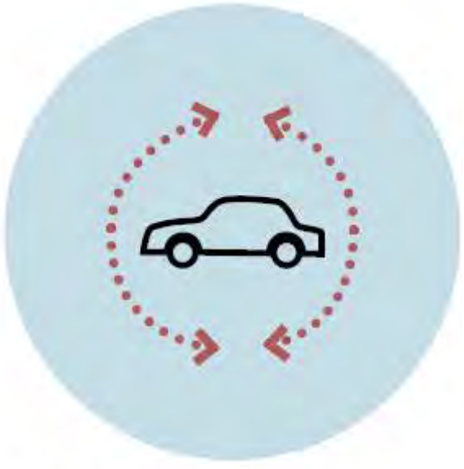
Segregated cycle/pedestrian provision along Ruislip Rd using River Brent path

Multi-modal transport improvements to Argyle Road Junction

Real time bus information at stops nearest the Leisure Centre



Off-site parking for peak times



Overlap parking with other uses

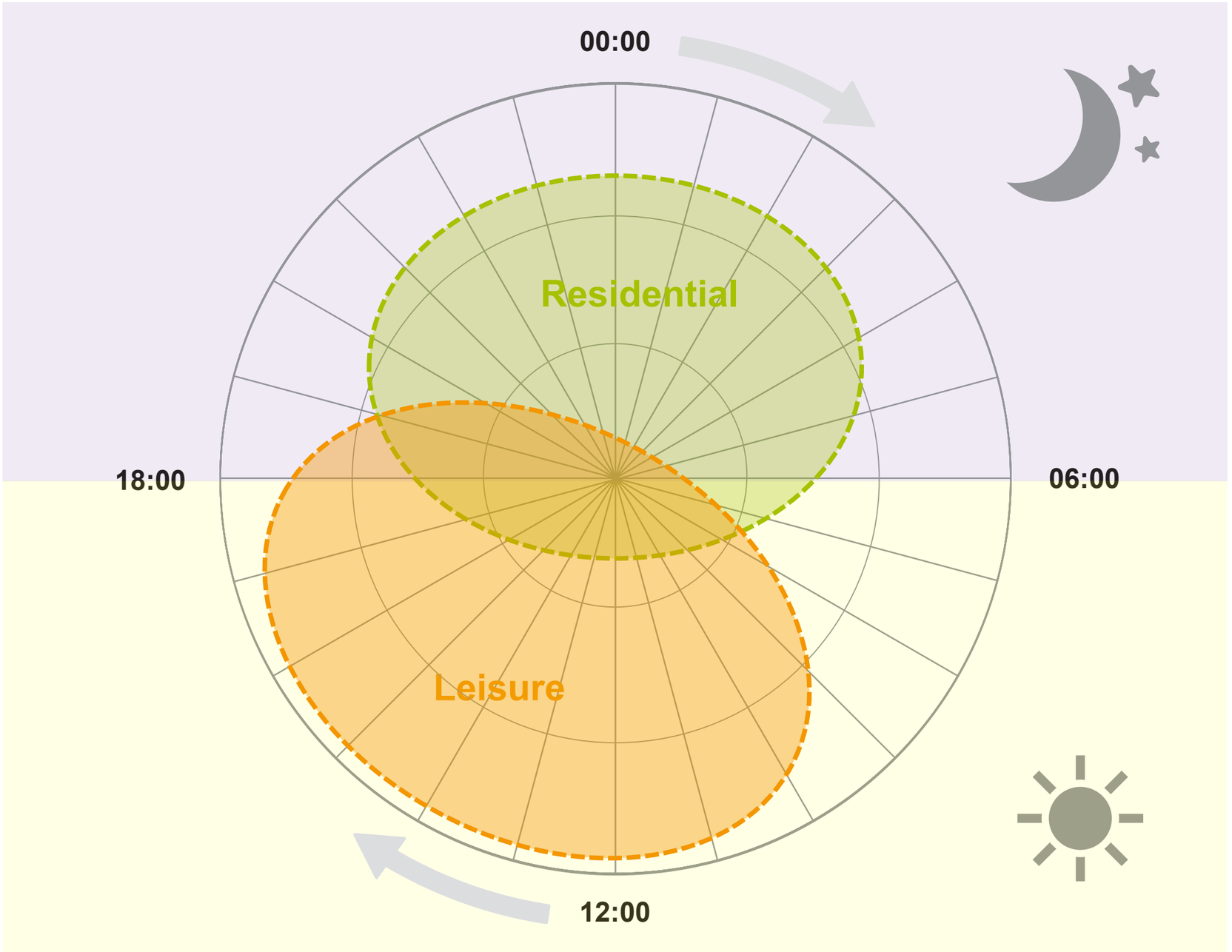
1.3 Accessibility Principles

Potential Range of Interventions

In residential settings most people use their car during the day, therefore car parking demand also falls during the day. In leisure settings, the opposite is true with parking demand matching opening hours, typically through the day.

By providing a single car park to cater for residential and leisure users, the overall number of spaces can be reduced. When leisure centre users arrive and try to park many residents will have driven to work, freeing up spaces.

Ultimately car parking demand can be managed up or down depending on the scheme design, layout and travel planning mitigations. Avoiding assigning car parking spaces to individuals and instead having a shared provision ensures, however, the most efficient use of space.



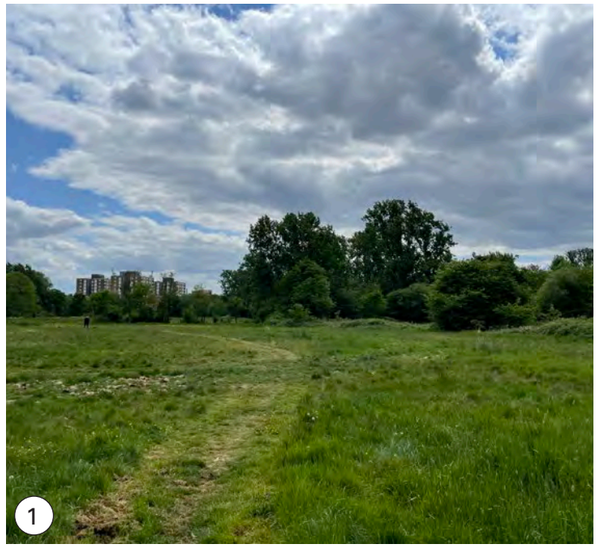
1.4 Ecology

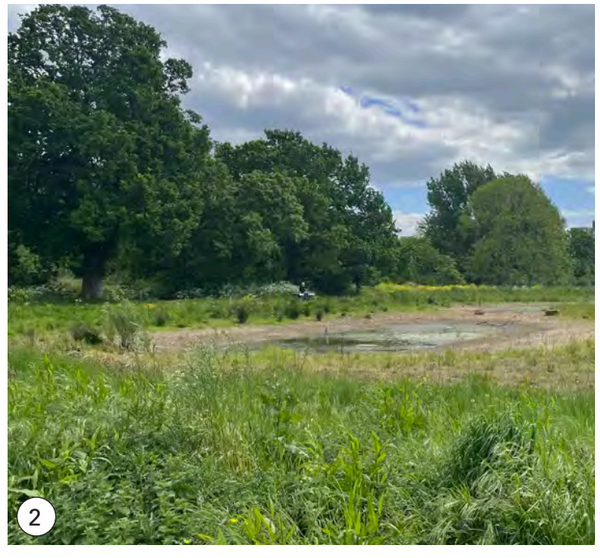
1.4 Ecology

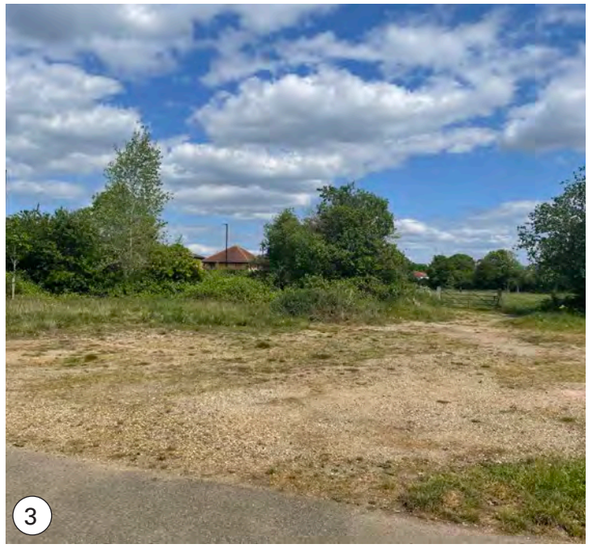
Habitat And Ecology

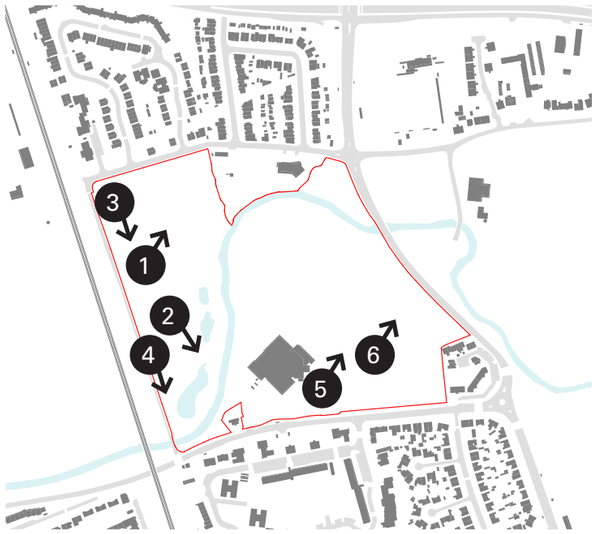
Ecological Appraisal
An ecological appraisal has been undertaken by Future Nature Consulting to inform the feasibility study. The scope of this includes:

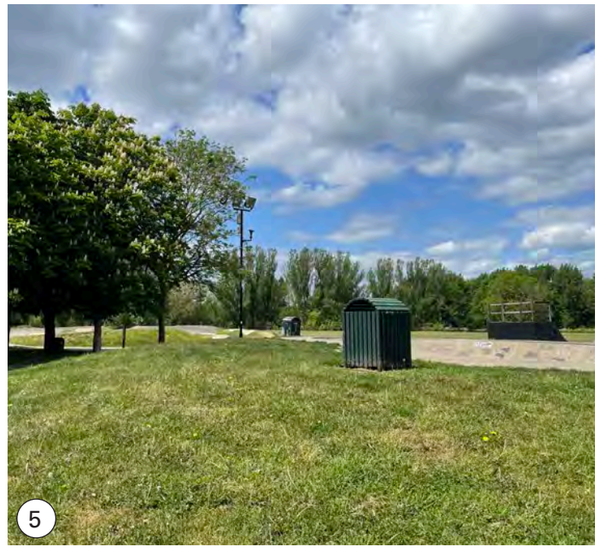
- Review existing information about the ecological value of the site.
- Evaluate the ecological value of different parts of the site, including undertaking an initial baseline calculation using the DEFRA Biodiversity Metric2.
- Identify options for mitigating any adverse impacts, including any compensatory habitat enhancement or creation that would be required to achieve a biodiversity net gain.

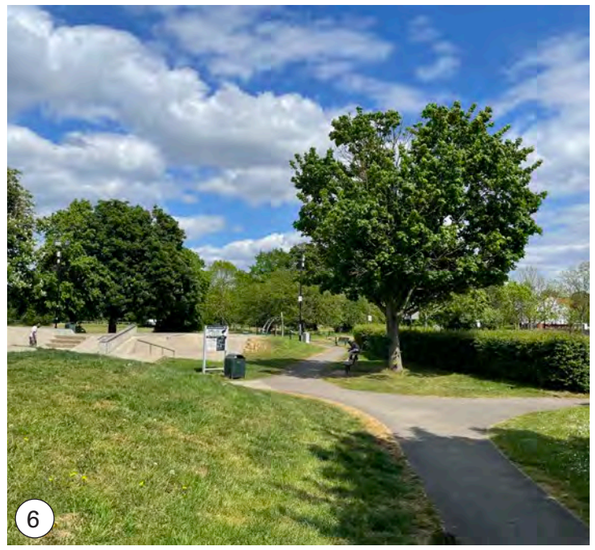












1.4 Ecology
Habitat And Ecology

Habitat Map

KEY :

- Tree
- Invasive Species
- Species-Poor Intact Hedge
- Defunct Species-Poor Hedgerow
- Fence
- Wall
- Broad-leaved semi-natural Woodland
- Continuous Scrub
- Semi Improved Neutral Grass (SI)
- Semi Improved Grassland (SI)
- Tall Ruderal Vegetation
- Standing Water
- Running Water
- Amenity Grassland (A)
- Ephemeral / Short Perennial
- Building
- Hardstanding
- Bare Ground
- Not Surveyed

1.4 Ecology
Habitat and Ecology

Ecological Zones

There are a number of ecological considerations to make when assessing the site for future re-development of a leisure centre and any enabling development.

SINC's (or Wildlife Sites) are sites of substantive nature conservation value. Their designation is a non-statutory one and their primary role is to help ensure biodiversity is given due consideration in the land use planning system. They do not preclude development and where development proposals may affect national or local Biodiversity Action Plan habitats or species the same principles apply as to that of SINCs.

KEY :

- Site of Importance for Nature Conservation
- Bodies of Water
- 10m Ecological Buffer along the River Brent. (Previous Planning Condition set by the Environment Agency)
- Existing Tree

1.4 Ecology

Habitat and Ecology

Trees
There are a variety of trees across the site, particularly with mature trees lining the banks of the River Brent which passes through the centre of the site.

The setting of existing trees is important to consider in the location of any development proposals, with mature high category trees an opportunity to frame public open space and amenity.

KEY :

- Category A Tree
- Category B Tree
- Category C Tree
- Category U Tree
- Root Protection Area
- Estimated tree locations estimated from aerial photos

There are no Tree Preservation Orders on Site.

1.5 Flooding

1.5 Flooding

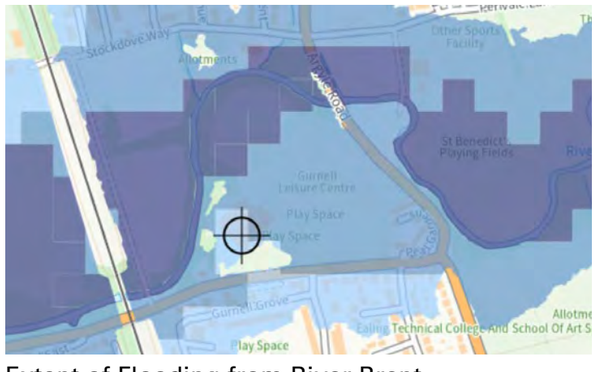
Site Levels and Flood Risk

The site is in Flood Zone 2, 3A and 3B. The existing leisure building is in Flood Zone 2 and the car park in Flood Zone 3A. The River Brent and functional flood plain to the north falls within Flood Zone 3B.

KEY :

- 15m
- 16m
- 17m
- 18m
- 19m

Extent of Flooding from Surface Water
(Environment Agency)



Extent of Flooding from River Brent
(Environment Agency)

Site Levels

1.6 Summary

1.6 Summary

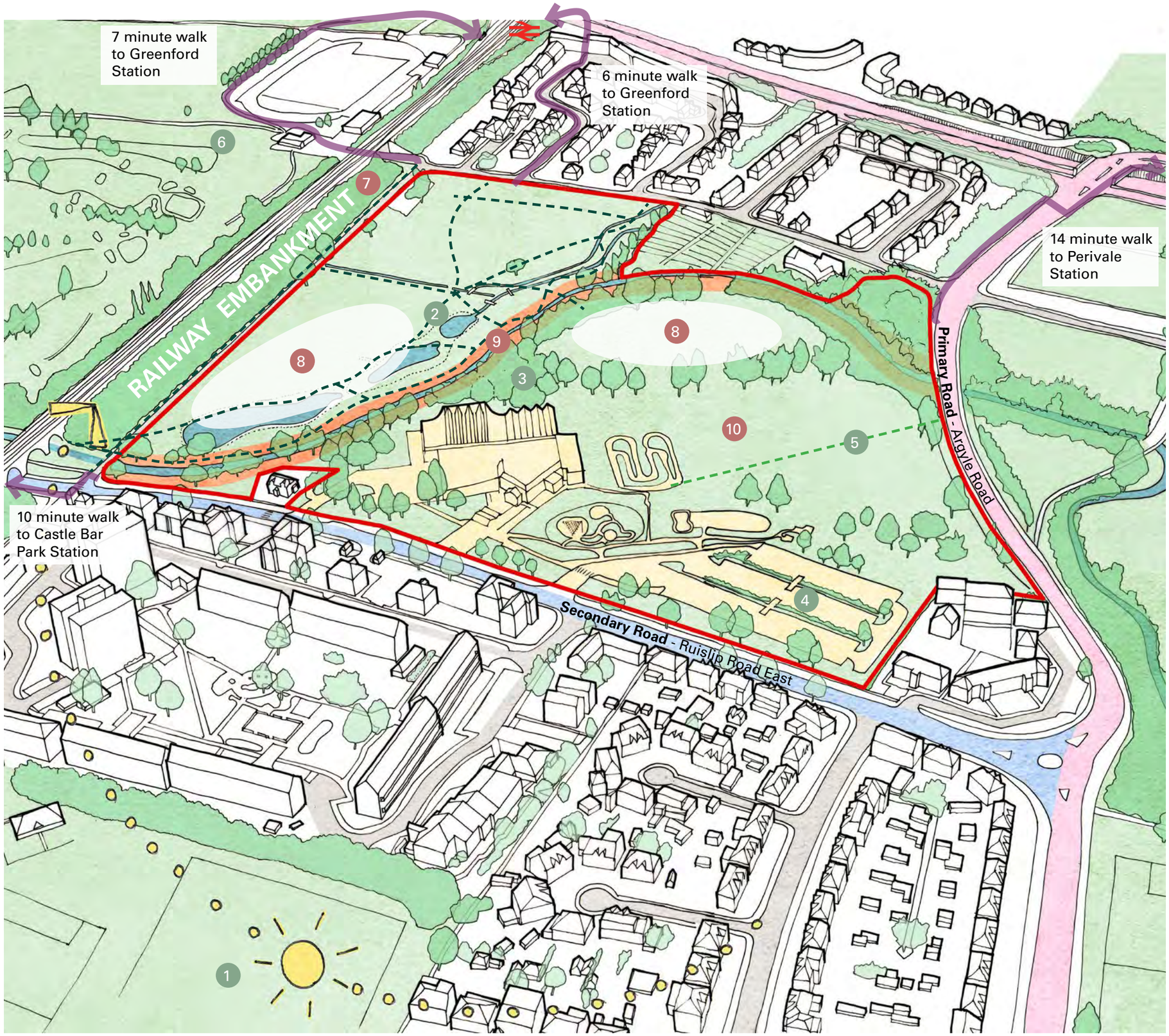
Opportunities + Constraints

Opportunities:

1. The solar orientation means that the new development in unlikely to overshadow neighbouring buildings.
2. Proposed footpaths and footbridge form part of the Greenford to Gurnell Greenway, increasing connectivity to parkland and public transport links.
3. Large and mature existing trees add to the attractive and seasonally engaging landscape.
4. Opportunity to redevelop brownfield land.
5. A desire path across the playing fields locates footfall across the site. Opportunity to further increase site connectivity.
6. Adjacent leisure uses present opportunity to connect to a wider leisure landscape.

Constraints:

7. Steep railway embankment separates the site from the neighbouring Metropolitan Land. Acoustics and vibrations will need careful consideration.
8. Low lying land prone to flooding.
9. 10m wide ecological buffer to each side of the River Brent has been advised by the Environment Agency. Construction to remain clear of this zone.
10. The entire site is within Metropolitan Open Land.



2.0 Planning Context

2.1 Planning Policy Context

2.1 Planning Policy Context
Overview

Introduction

Any development proposal for the redevelopment of the Gurnell Leisure Centre Site and environs will be subject of a future planning application, which will be determined by the GLA and LB Ealing.

As part of this feasibility study the client group has asked the team to develop options in the context of relevant planning policy. This planning section therefore sets out the relevant strategic planning context and considerations.

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires proposals the subject of any planning application to be determined in accordance with the Development Plan unless material considerations indicate otherwise.

The Development Plan for the Gurnell Leisure Centre Project consists of the following documents:

- New London Plan, 2021
- Ealing Core Strategy (2012)
- Development Management DPD (2013)
- Development Sites DPD (2013)

Other documents that will be material considerations in relation to this feasibility exercise include:

- National Planning Policy Framework "The Framework" (2021)
- National Planning Practice guidance
- Urban Greening LPG (draft)
- Whole Life Carbon LPG
- Sustainable Transport, Walking and Cycling (draft)
- Sport England Playing Pitch Strategy Guidance, 2013

The Site has also been the subject of a previous planning application (LBE ref: 201695FUL) the outcome of which is particularly relevant in terms of informing how any future spatial and planning strategy for the site might be approached.

Based on the policies and guidance of the Development Plan and the issues raised during the previous application (LBE ref: 201695FUL) we highlight the following key strategic 'in principle' issues, which have been used to help to shape and inform the scope and content of the strategic options that are advanced as part of this feasibility study, which include:

- **The Site's designation as Metropolitan Open Land and Public Open Space**
- **Relevant land use policies in relation to housing, sport and leisure facilities.**
- **Transport and parking policies.**
- **Ecology and biodiversity policies.**
- **Flood risk and drainage.**
- **Climate change, circular economy and sustainability policy.**
- **Viability and affordability considerations.**

There are of course several other subject specific policies and guidance that will become relevant as the project moves from feasibility into detailed proposals and which will in due course need to be addressed. At this feasibility stage, however, we focus on those key planning policies that will help shape decision making in relation to the various spatial options.

2.1 Planning Policy Context
Previous Application

Overview of the previous application

Description of Development: Demolition of all existing buildings and erection of replacement leisure centre, facilitating affordable and market housing residential development in 6 blocks, flexible retail floorspace, plant room and energy centre, leisure centre coach parking, basement residential and leisure centre cycle and car parking, refuse/recycling storage, new servicing, vehicular and pedestrian accesses and associated highway works, new and replacement play space, public realm and public open space, landscaping and associated ground works to existing public open space.

1. Residential development
2. Leisure centre
3. Parking and service access
4. Courtyard garden
5. Roof garden
6. Basement parking access
7. Play area
8. Skate park
9. Parkland
10. Surface Water Attenuation Basin and sculpted 'overland flow' path
11. Footpath link
12. Coach bays
13. Park entry
14. Proposed pedestrian bridge
15. Brent corridor (ecological enhancements)
16. Brent River Park
17. Wetland scrape areas (habitat creation)
18. Existing trees(supplemented with new)
19. Indicative location of BMX track

2.1 Planning Policy Context

Previous Application

The project team have reviewed the previous application to inform the work of this feasibility study. Key considerations for the urban planning are highlighted below whilst further analysis of the leisure provision can be found later in the report.

- Concentrates development on existing brownfield land
- Accommodates new leisure centre and high number of new homes
- Overbearing development
- Development forms physical and visual barrier between existing neighbourhood to the south and green spaces
- High density of dwellings without evidence of high quality urban design to support development of sustainable neighbourhood and community
- High proportion of single aspect homes and high number of homes accessed each floor from single core / un-naturally lit corridor
- Housing over leisure centre - buildability and future-proofing issues
- Expensive (basement parking a big factor)

Reason for refusal:

The NPPF indicates that inappropriate development is, by definition, harmful to the Green Belt (and by implication MOL) and should not be approved except in very special circumstances. In addition, **there are adverse impacts on openness** and by definition **harm caused by the scale, massing and design of the development proposal**. The benefits of the proposed development are therefore not deemed to outweigh the by definition harm to the MOL. Consequently, the very special circumstances necessary to justify the development do not exist.

2.2 Key Strategic Planning Policy Influences

2.2 Key Strategic Planning Policy Influences

Metropolitan Open Land & Public Open Space

The Site's designation as Metropolitan Open Land and Public Open Space

The existing leisure centre and associated sports and leisure facilities are located within land that is designated on Ealing Development Plan's proposals map as Metropolitan Open Land (MOL). The undeveloped parts of the wider site are also designated as Public Open Space (Refer to MOL & Public Open Space maps on following pages).

Planning Policy at all levels affords special protection to land designated as Green Belt and MOL.

The NPPF states:

137. The government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.

Proposals affecting the Green Belt
147. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances.

148. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ***'Very Special Circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.***

149. A local planning authority should regard the construction of new buildings as inappropriate in the Green Belt.

Exceptions to this are:

(b) ***the provision of appropriate facilities (in connection with the existing use of land or a change of use) for outdoor sport, outdoor recreation,*** *cemeteries and burial grounds and allotments; as long as the facilities preserve the openness of the Green Belt and do not conflict with the purposes of including land within it;*

(c) the ***extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;***

(d) the ***replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;***

(f) ***limited affordable housing for local community needs under policies set out in the development plan*** *(including policies for rural exception sites); and*

(g) ***limited infilling or the partial or complete redevelopment of previously developed land, whether redundant or in continuing use (excluding temporary buildings)****, which would:*

- not have a greater impact on the openness of the Green Belt than the existing development; *or*

- not cause substantial harm to the openness of the Green Belt, where the development would re-use previously developed land and contribute to meeting an identified affordable housing need within the area of the local planning authority.

This policy presumption is reiterated in the London Plan and Ealing's Core Strategy and DMDPD.

The wording of this policy provides a key starting point for this feasibility study.

As is discussed elsewhere in this report the existing leisure centre has reached the end of its economic and design life and building a new, replacement leisure centre represents the most economic and sustainable solution.

The need for a replacement Gurnell Leisure has also been well documented, as part of the previous application:

'Gurnell leisure centre is one of only four locations in London which provide a 50-metre swimming pool and is currently home to the largest swimming club in the country with over 1,700 members. The leisure centre therefore provides a locally and regionally significant facility for which there is a substantial demand which is forecast to increase, as evidenced in the Council's Indoor Sports Strategy (2012- 21). There were 693,000 visits to the leisure centre during 2016, including 3,741 children enrolled on the swim school scheme making it the largest scheme in London'.

In terms of an alternative sites, extensive work has also been undertaken as part of the previous application to look for alternative sites. This work confirmed that the existing site and its environs represents a genuine site of last resort.

Given the above, two of the key steps in making the case in terms of the 'Very Special Circumstances' required to construct new development in the MOL have already been addressed, namely:

- That there are no suitable alternative sites for this development that would be preferable in planning terms.
- That there is genuine need to deliver the new leisure centre.

Given the above, the starting point for this feasibility exercise is to find an appropriate location for the new replacement leisure centre within the existing site and its environs, which is capable of satisfying MOL policy.

The previous application (LBE ref: 201695FUL) located the new leisure centre on the site of the existing facility. All associated development including the necessary enabling housing and commercial development were also confined largely to the previously developed land to the south of the Site.

All the proposed land uses were considered inappropriate MOL development by virtue of their land use or size and therefore in accordance with NPPF 2019 paragraph 143, in order to be acceptable in principle, the development as a whole had to meet the case for Very Special Circumstances (VSC)

2.2 Key Strategic Planning Policy Influences

Metropolitan Open Land & Public Open Space

As part of this feasibility study and in the context of the previous proposals it is considered appropriate to step back and revisit the approach adopted by the previous application. In the context of MOL policy it is felt that there is an opportunity to review the spatial distribution of land uses and to re-consider one of the key 'Very Special Circumstances' questions, namely:

5. whether the impact on MOL openness and purposes has been minimised as far as possible through a well-considered design approach.

As part of the feasibility exercise the nature and scale of the new leisure provision and its disposition are also considered, given NPPF part (d) exception i.e. 'replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces'.

In addition, and as part of this review it is also considered appropriate to:

1. Look beyond the existing site boundary and explore the opportunities to link any new leisure centre with other existing sport and leisure activities in the wider MOL and explore the potential for any potential benefits in terms of shared facilities/ shared parking and hence minimise the impact of any replacement proposals.
2. Explore opportunities to introduce ecology and biodiversity enhancements of the site and the wider area, as part of the scheme wide benefits package.
3. Explore the potential to better integrate the leisure centre into the wider public transport, cycle and pedestrian network in order to create the conditions whereby movement by more sustainable modes can be encouraged.
4. Explore the potential to minimise the land take and impact of any necessary enabling residential development and in the context of the site's wider Public Open Space designation explore the potential to introduce/ create new publicly accessible open space/ landscaping into and through this housing and elsewhere.

The approach has been discussed with planning officers of both the GLA and LBE and in the context of the previous application and decision making it is considered appropriate that the feasibility study should revisit the approach to the spatial distribution of land uses and their implications.

Alongside the spatial considerations and given the potential nature of the proposed development this feasibility also starts to frame the other key steps in terms of how the other 'Very Special Circumstances' steps required by MOL policy might addressed, as follows:

2b). whether all alternative funding sources to pay for a new leisure centre have been exhausted and maximised,
4a). whether the quantum of residential development is no more than is necessary to secure the delivery of the replacement leisure centre and to optimise the quantum of genuinely affordable housing secured through the development (via the Viability Assessment - VA),
4 b) whether the type (housing type/tenure mix) of facilitating development represents the optimum one from the perspective of limiting the quantum of inappropriate development on MOL, whilst maximising the genuinely affordable offer.
6. whether the benefits of the scheme clearly outweigh the 'by definition' harm, the residual harm (after avoidance/mitigation) to the MOL, and any other harms, amounting to very special circumstances.

These VSC steps will be developed and refined as the scheme moves from feasibility to detailed design. This feasibility study, however, starts to give an indication as to the preferred spatial distribution of land uses, the size/ scale of leisure centre and how it might be accommodated on the site, the levels of housing needed to enable delivery, the funding options and the extent of benefit/ mitigation measures that will need to be delivered as part of any planning package in order to mitigate the harm caused to MOL.

2.2 Key Strategic Planning Policy Influences

Metropolitan Open Land & Public Open Space

KEY :

- Metropolitan Open Land
- Green Corridor

2.2 Key Strategic Planning Policy Influences

Metropolitan Open Land & Public Open Space

To the west of the site, the Great Western Railway (1) provides a green corridor that connects river (2) and wetland (3) habitats to nearby green spaces, supporting local biodiversity. For this reason it has been designated as a Site of Importance for Nature Conservation (SINC). National Rail has targets to increase the biodiversity of railways across the nation and advise other land owners over the next 12 years.

Extending beyond the green corridor, a large swathe of the area is designated as Metropolitan Open Land. The Metropolitan Open Land includes the sports landscape, built sports facilities, and housing at Brentside Cottage (4) and Peal Gardens. (5)

KEY :

- Metropolitan Open Land
- Green Corridor

2.2 Key Strategic Planning Policy Influences

Metropolitan Open Land & Public Open Space

The previous application defined a existing area of previously developed land (both building footprint and areas of hardstanding) as 14215m2. This figure was subsequently used to compare to the proposed area of developed land with a minimal net change.

The existing building footprint of the leisure centre is approximately 3919m2. The previous application more than doubled the building footprint on site but contained it approximately to brownfield land at the south of the site. However, condensing development within this location led to a very high density proposal which had an impact on the openness of the metropolitan open land.

Red Line Area = 131208m2 / 13.1ha

3% Buildings - 3919m2

5.5% Car Parking - 7003m2

2.7% Footpaths - 3395m2

Footprint 14215m2

82.4% Green Space / Outdoor Leisure - 108058m2

6.4% Water - 8351m2

2.2 Key Strategic Planning Policy Influences

Land Use Policies - Housing, Sport & Leisure Facilities

Relevant Land Use Policies in relation to housing, sport and Leisure facilities

In relation to the various land uses Development Plan policy and precedent created by the previous application any future proposal will need to include for:

- The re-provision of the existing BMX track, skate park and children's adventure playground.
- The relocation of the existing playing fields to Perivale Park 400 metres to the north-west, together with enhanced playing pitch capacity at Gunnersbury Park and William Perkin School in line with the Council's Playing Pitch Strategy.
- The replacement of the existing leisure centre and justification for the loss of the existing leisure centre in regard to material use, policies to reduce and eliminate waste, and to minimise construction and operational carbon.
- Any enabling residential to be delivered on public land must target 50% affordable housing (by habitable room) and a 60:40 tenure split between social rent / affordable rent accommodation and intermediate housing provision.
- Any enabling residential must satisfy the size, unit mix, design and sustainability standards of both the GLA and LBE.
- Any enabling residential development must satisfy the open space, play space and amenity standards set by policy.
- Contributions to items such as education, health and economic development as a result of any new housing development in line with the previous application should be anticipated by the financial modelling undertaken as part of this feasibility exercise.

2.2 Key Strategic Planning Policy Influences

Initial Analysis of Housing Need - Property Market Report

Overview

An Initial Property Market Report has been conducted of the residential property market in and around the borough of Ealing. It seeks to identify the opportunities that exist for new development and ensure that the uses proposed as part of any Enabling Development reflect the demand over both the short and long term, along with the economic impetus that any new development may bring. There is a focus on the market for the types of property/uses which could be delivered with the Enabling Development area to ensure the planned uses are viable, deliverable and in the right locations.

There are other housing needs (such as any local Community Land Trusts, Specialist Housing Providers etc.) which can be identified and evaluated with LBE in the next stage to assess their suitability for location within any Enabling Development.

The analysis of the residential market within this report focusses on:

- Market Sale Housing
- Private Rented Sector & Build to Rent
- Senior Living

Market Sale Housing

The Ealing Strategic Housing Market Assessment (SHMA) produced in October 2018 in support of the Ealing Local Plan indicated that there is demand for larger units (3-bed followed by 2-beds units) in the which could accommodate families.

This review identifies that the majority of flatted development in the Borough has been for up to 1 and 2-bedroom units. As the proposed development scheme evolves, there may be some scope for a different style of residential product in the form of larger 2- bedroom and/or 3-bedroom flatted units or duplex apartments. It is recommended that this is kept under review as the current development pipeline is brought forward.

Further considerations arising from Agent consultation:

- Local interest from first time buyers and young professionals.
- Accessibility, transport links, i.e.. to Elizabeth Line are a key driver.
- Proximity to amenities, i.e.. Leisure Facility is likely to drive demand.
- Highest demand reported for larger units, i.e.. 2-bedroom units. Local area provides a large quantity of family housing and as a result, demand for smaller units is limited.
- Reported that existing family housing is not keeping up with demand. Noted that buyers are seeking gardens/amenity space, access to green space, and parking.
- Noted that there could be demand for smaller townhouses / mews units.

Private Rental Sector & Build to Rent

Despite the high proportion of residents in private rental units highlighted in our market research, analysis of available data suggests that at present this sector is likely to be dominated by private investors in Ealing. There is limited evidence of purpose-built rental blocks which indicates a shortage of this type of product. The growing young professional and commuter demographic which is active in the Ealing rental market is likely to be well suited to the amenities and facilities offered in a BTR scheme.

As such, both PRS and BTR products have the potential to be delivered as part of the Enabling Development area. From recent consultation with established BTR providers, it is understood that a minimum unit threshold required to make new-build BTR schemes viable is around 150 units and described by one operator as the 'industry-standard' number.

Further considerations arising from Agent consultation:

- Demand from young professionals increasing as COVID restrictions have relaxed.
- Accessibility to London likely to continue to drive a strong rental market.
- Reported that there is a strong demand and limited availability for high-quality units in the Enabling Development location. Units therefore let quickly and achieve high rents compared to out-of-town locations.

Senior Living

The review has shown that senior living operators have not previously favoured locations within Ealing, with the majority of existing stock being of secondary nature. Based on initial research, there is a lack of existing new build senior living stock in the borough. With potential appetite from operators suggests that retirement living facilities could be delivered as part of the Enabling Development. Based on the typical acquisition requirements, opportunities are likely to exist along the main transport routes where land is flat and amenities are within convenient accessibility. This is aligned with the Enabling Development site, which is well positioned near existing transport hubs and infrastructure. The delivery of the new leisure centre, will also improve the attractiveness of this site for retirement living; with the potential for health focused offer to come forward.

Further considerations arising from Operator consultation:

- Typical land requirements of approximately 0.5-5 acres and within 0.5 miles of local centres and public transport.

2.2 Key Strategic Planning Policy Influences

Transport & Parking Policies

Transport and Parking Policies

In line with Development Plan Policy any new proposals will need to be subject to an Active Travel Assessment. Car and cycle parking, including Blue Badge parking and provision of electric charging points will need to be delivered in line with policy.

The proposals will be subject of a TA, which will assess trip generation and transport impacts. There will be an expectation that movements by car should be minimised as a result of the redevelopment and movements by alternative modes should be actively encouraged.

Delivery Service Plans, Travel Plans, Car Park Management Plans and Construction Logistics Plans will all be expected as part of any future planning submission.

Contributions to off-site cycle/ pedestrian/ junction/ traffic calming improvements of a similar scale to the previous application should be anticipated as part of any viability assessment i.e.

- Air Quality monitoring: £136,006
- CPZ Review and Parking Stress Measures: £50,000
- Cycle/pedestrian crossing improvements on Ruislip Road East: £50,000
- Ruislip Road East resurfacing: £90,000
- Argyle Road accident remediation: £50,000
- Junction improvements: £150,000
- Traffic calming on residential streets: £50,000
- Cycle Infrastructure: £90,000
- Travel Plan Monitoring: £5,000
- Street lighting and Ruislip Road East/Argyle Road roundabout improvements: £200,000

The Transport and Accessibility Chapter of this report analyses the baseline connectivity of the site and where there may be opportunities to make sustainable transport interventions.

An approach to car parking will continue to be developed in the next stages, with reference to The London Plan 2021 and guidance which states that car parking should be restricted in line with levels of existing and future public transport accessibility, with car-free development as a starting point for all development proposals in places that are well-connected by public transport. Developments elsewhere should be designed to provide the minimum necessary parking, whilst re-provision of existing parking should not be at previous levels, but reflect the current approach.

Ecology & Biodiversity

Ecology and biodiversity policies

Land to the north and running parallel to of the River Brent is designated as a Site of Borough Importance (Grade 1) for Nature Conservation.

Any future proposals will need to comply with Development Plan Policy in terms of demonstrating a biodiversity net gain of 10% or more and an Urban Greening Factor in excess of 0.4. Any losses will need to be fully compensated for.

Financial contributions to landscaping, provision of allotment space and a new footbridge across the River Brent in the order of that anticipated by the previous planning application should be anticipated as part of the financial feasibility exercise i.e.

- Cost of the construction and maintenance of the Park Landscaping Plan, including flood management and other works: £1,829,403.
- Allotments Space: £70,241.
- Contribution to footbridge over River Brent: £100,000

Refer to the Site Context chapter for mapping of Habitats and Ecological Zones on site which will inform developing proposals.

2.2 Key Strategic Planning Policy Influences

Flood Risk & Drainage

Flood risk and drainage

The site is in Flood Zone 2, 3A and 3B. The existing leisure building is in Flood Zone 2 and the car park in Flood Zone 3A. The River Brent and functional flood plain to the north falls within Flood Zone 3B.

The detailed design approach in relation to flood risk mitigation and safety, including details of the proposed flood warning and evacuation plan will need to be agreed in writing with the Environment Agency.

As with the previous application any new buildings and access routes will displace a volume of flood water within the flood plain which will need to be compensated for to ensure there is no residual increased risk of flooding off-site within the surrounding area.

In addition, a site wide drainage strategy will be required which, as with the previous application, will need to be designed to ensure no flooding will occur at ground level during a 1 in 100 year storm event, taking into account climate change.

Refer to the Site Context chapter for mapping of Flood Zones on site which will inform developing proposals.

Climate Change, Circular Economy & Sustainability Policy

Climate change, circular economy and sustainability policy

Sustainable development is the core principle underlying the spatial planning system and is promoted in the NPPF. Similarly, London Plan Policies 5.2, 5.3 and 5.7 require new developments to minimise carbon dioxide emissions, make efficient use all natural resources and maximise, both during construction and operation of the development, opportunities for recycling and reuse of materials. This should be achieved following the London Plan Energy Hierarchy: Be Lean, Be Clean and Be Green.

The integration of sustainability and energy efficiency into any future scheme will need to be carefully considered throughout the design process to ensure that it makes the fullest contribution to the mitigation of, and adaptation to, climate change, energy usage, and resource wastage, whilst minimising carbon dioxide emissions.

In addition, and in line with policy the feasibility study will need to address head on the potential reuse of the existing building and the whole carbon life cycle equation.

Refer to the Existing Leisure Facility and Sustainability chapters for an initial whole-life carbon appraisal of the Leisure Centre options, and further commentary on sustainability policy.

2.2 Key Strategic Planning Policy Influences

Viability & Affordability Considerations

Viability and affordability considerations

The project will be the subject of a Financial Viability Assessment. This FVA will want to understand the minimum level of housing required to deliver the replacement leisure centre and the other identified benefits/ mitigation associated with the scheme, including 50% affordable housing.

This feasibility study provides an indication of likely cost and returns and considers alternative methods of delivery and funding of the leisure centre proposals. As a result of this initial financial viability work the team is able to give an indication as to the levels of enabling housing that will be required to deliver the proposals.

2.2 Key Strategic Planning Policy Influences

Summary of Opportunities & Constraints

Summary of Key Strategic Planning Policy Influences:

MOL & Public Open Space

- Opportunity to review the spatial distribution of land uses and to re-consider whether the impact on MOL openness and purposes has been minimised as far as possible through a well-considered design approach.
- Look beyond the existing site boundary and explore the opportunities to link any new leisure centre with other existing sport and leisure activities in the wider MOL

Land Use Policies

- Any enabling residential to be delivered on public land must target 50% affordable housing (by habitable room) and a 60:40 tenure split between social rent / affordable rent accommodation and intermediate housing provision.
- Potential to minimise the land take and impact of any necessary enabling residential development and in the context of the site's wider Public Open Space designation explore the potential to introduce/ create new publicly accessible landscaping into and through this housing and elsewhere.

Transport & Parking

- Potential to better integrate the leisure centre into the wider public transport, cycle and pedestrian network in order to create the conditions whereby movement by more sustainable modes can be encouraged.
- Contributions to off-site cycle/ pedestrian/ junction/ traffic calming improvements of a similar scale to the previous application should be anticipated.

Ecology & Biodiversity

- The development must target Biodiversity Net Gain across the full site, including measures to offset impacts from development on current greenfield areas.
- Financial contributions to landscaping, provision of allotment space and a new footbridge across the River Brent in the order of that anticipated by the previous planning application should be anticipated

Flood Risk & Drainage

- As with the previous application any new buildings and access routes will displace a volume of flood water within the flood plain which will need to be compensated

Climate Change, Circular Economy & Sustainability

- The potential reuse of the existing building and the whole carbon life cycle equation needs to be fully assessed.
- Opportunity to meet LBE's 2021 Climate and Ecological Emergency Strategy

Viability & Affordability

- Understand the minimum level of housing required to deliver the replacement leisure centre and the other identified benefits/ mitigation associated with the scheme, including 50% affordable housing.

3.0 Existing Leisure Facility

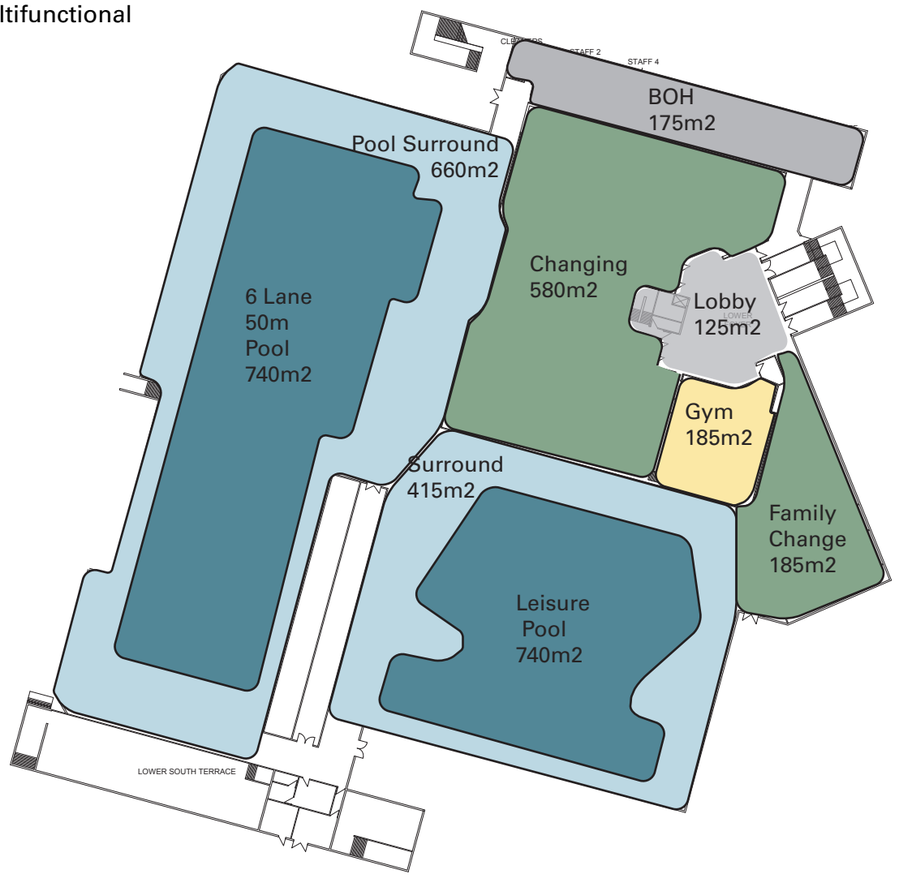
3.1 Existing Facilities

3.1 Existing Facilities

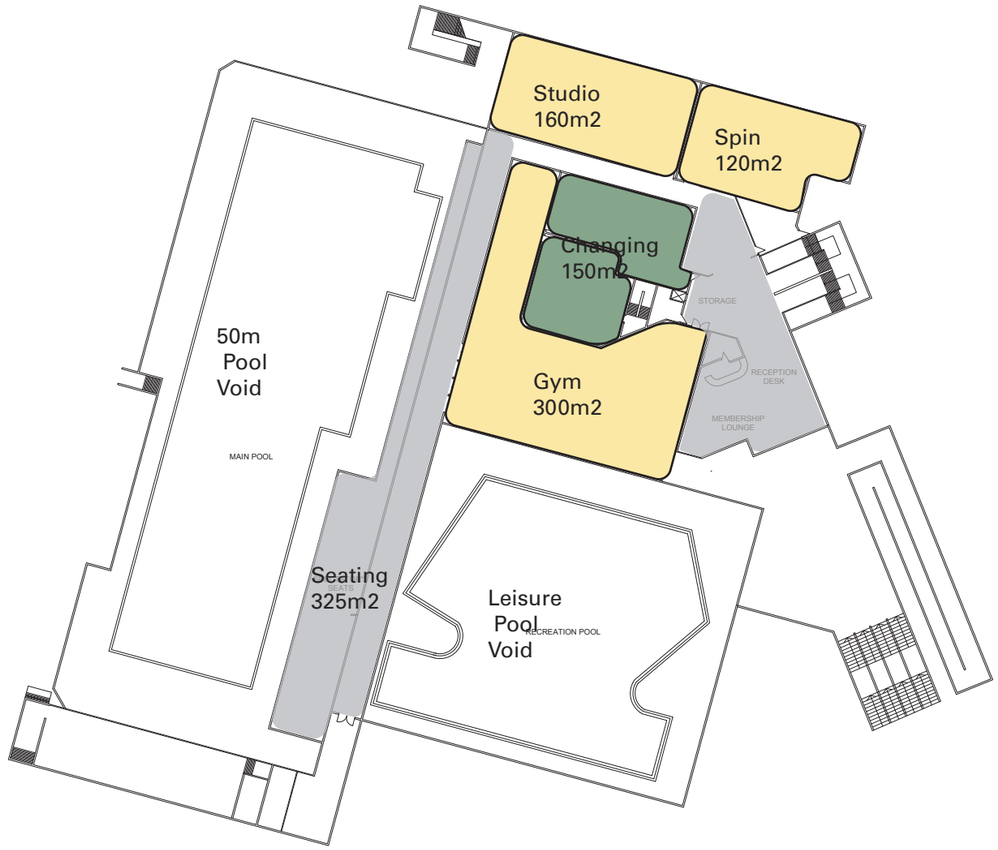
Current Facility

Overview
The existing leisure centre has circa 9,970 m2 of accommodation. It has an at grade car park for the public, with c. 175 spaces. The building sits as part of a wider activity offer including playing fields, skatepark and BMX track. It is adjacent to the natural green spaces - Perivale Meadow Wetlands and Longfield Meadows with the River Brent passing between the meadows and the leisure facility.

The leisure centre has a 6-lane 50m pool, leisure water, a 60 station fitness suite and multifunctional studio spaces.



L00 Building footprint = 3960m2



L01 Building footprint = 1390m2

Total Net Area (ex Plant) = 5350m2

3.1 Existing Facilities

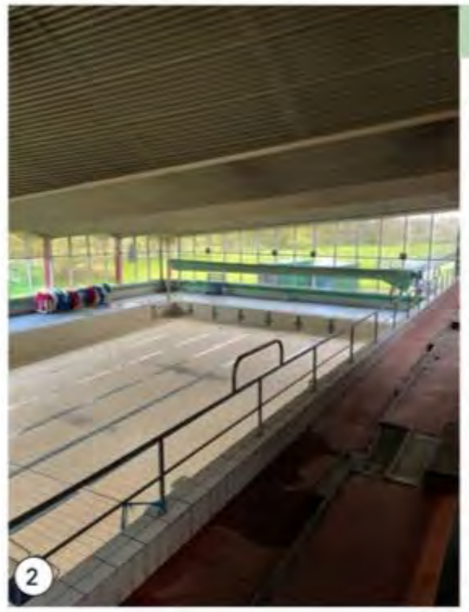
Photos

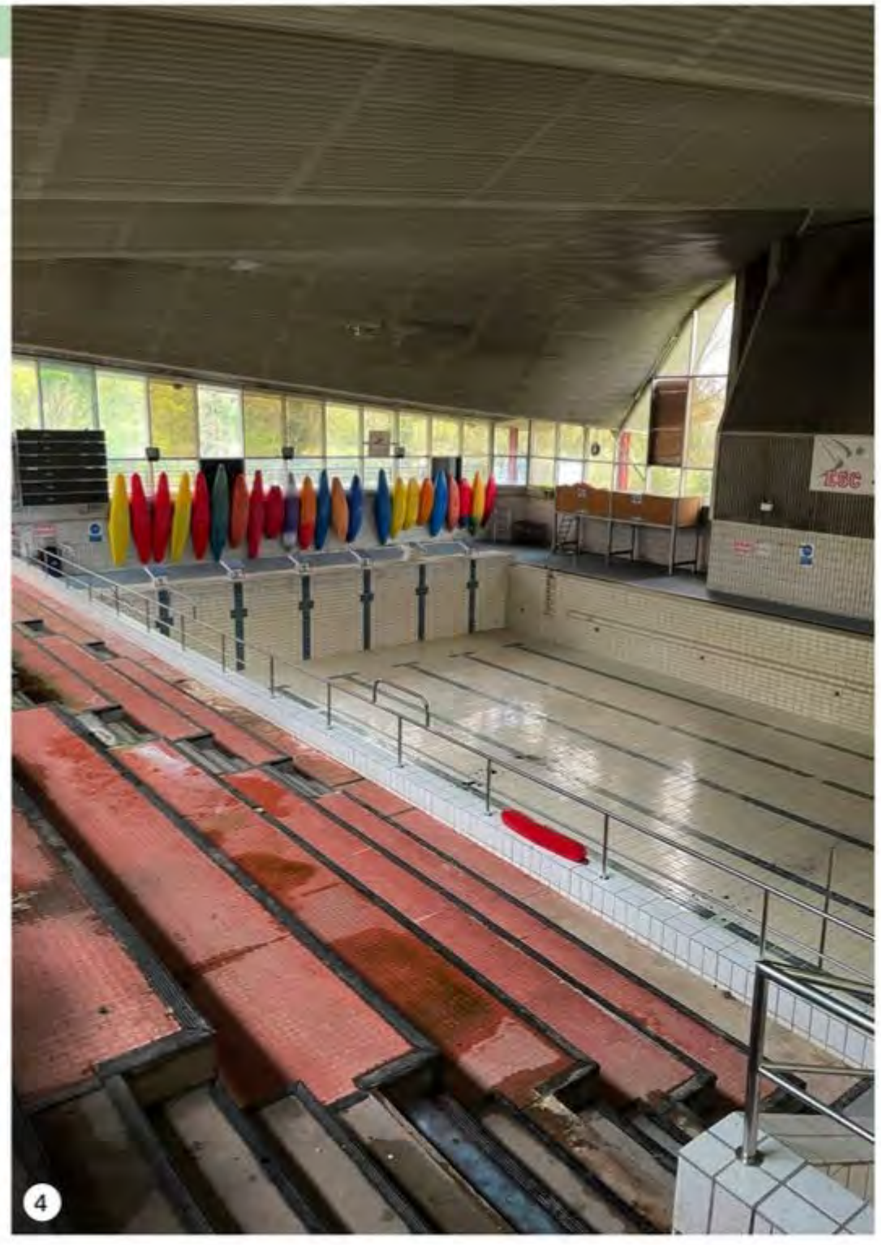
Gurnell Leisure Centre Facilities

1. Leisure Pool

2 & 4. 50m Pool

3. Staff parking and pool servicing access





3.2 Reuse Appraisal

3.2 Reuse Appraisal

Options Appraisal

Reuse vs. Rebuild

The question of whether the existing Gurnell Leisure centre facility should be reopened, retrofitted or demolished needs to take in many considerations.

A single aspect does not provide the answer, and as a council, LB Ealing is in the position to consider this in a holistic manner for both now and the future.

Some of the key considerations are;

Functionality

- Fitness for Purpose - does it meet the current or future space or quality purposes?
- Accessibility - is it inclusive and does it provide for all ages, abilities, needs?
- Flexibility - is it adaptable to meet the changing needs of health and leisure both now and in the future?

Cost

- Revenue Generation - Can it generate enough revenue to support itself without subsidy from the council - i.e. sustainable?
- Operating Costs - especially in the current climate emergency and rising energy bills, will the operating costs outstrip the revenue generation and require a subsidy?
- Maintenance Cost - Will the maintenance costs be affordable? Are there significant maintenance costs in the near future?

Delivery

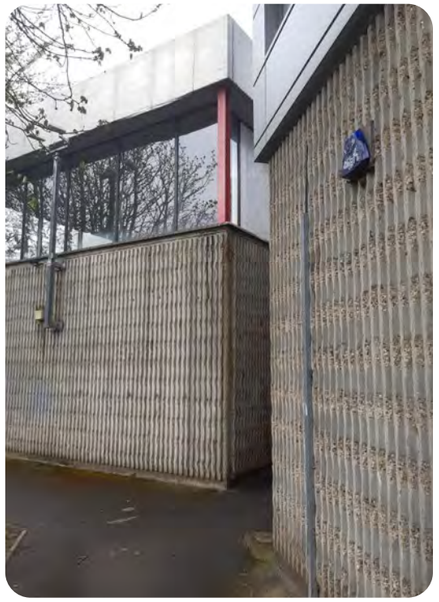
- Timescales - how long will it take to get a new or refurbished Leisure Centre up and running again to meet the needs of the community?
- Funding - how much will it cost and therefore how much funding will need to be found either from the council or enabling development?

Carbon

- Operating Carbon - how much energy is required to run the centre - Leisure centres are very energy heavy and therefore reducing energy demand can make a significant impact.
- Embodied Carbon - There is embodied carbon within the existing structure, but this needs to be considered in context of the whole building lifecycle.
- Lifespan - The life left in a new build vs retrofit needs to be considered. I.e. how much time is left in a retrofit before this process needs to be repeated?

3.2 Reuse Appraisal

Appraisal of the Existing Building

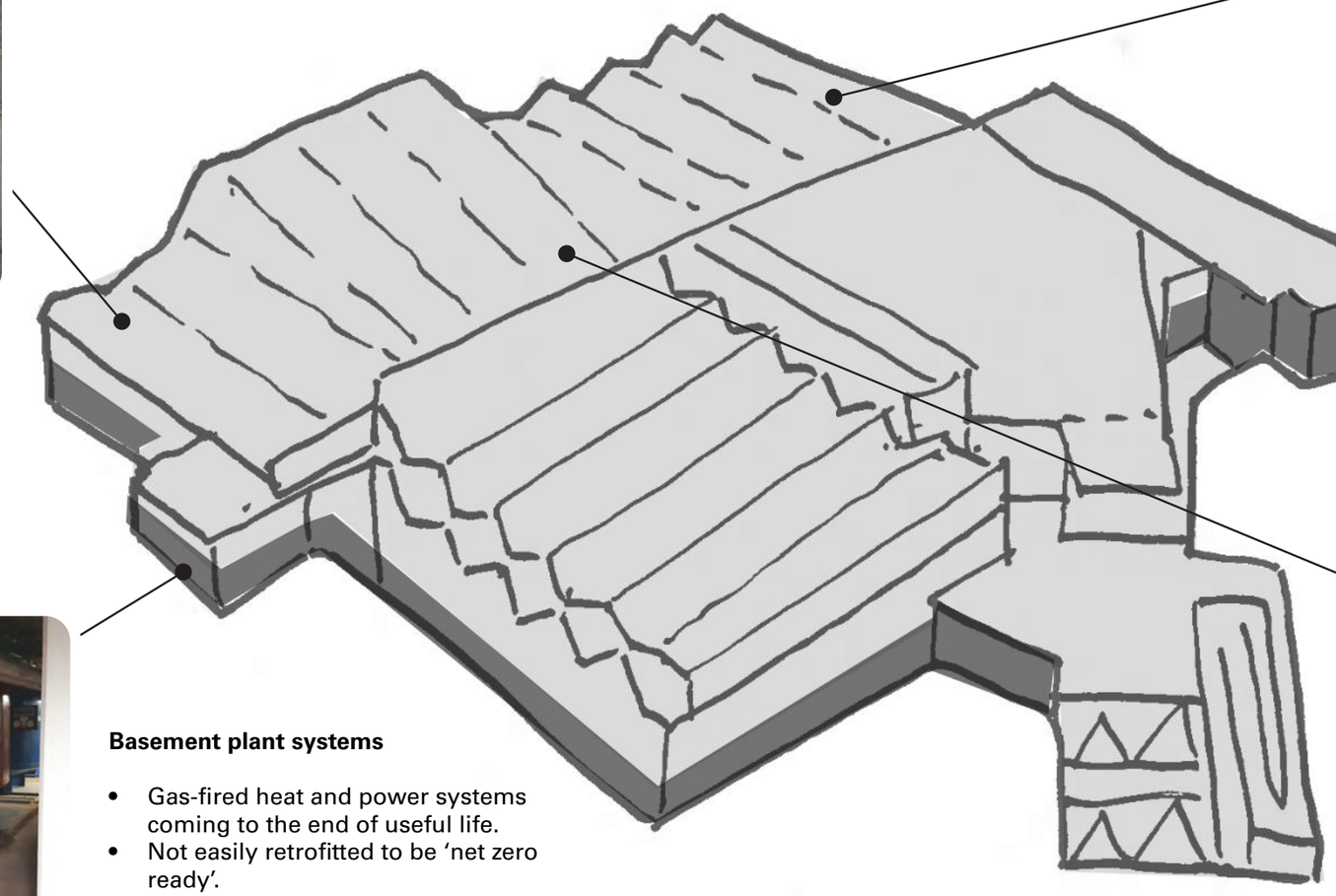


Concrete podium elements

- Provide much of the ‘character’ of the building and will include the majority of the building by mass.
- Likely to be serviceable for a long period. Major barrier to energy efficiency improvement due to thermal bridging.

Steel roof and cladding elements

- Very poor quality and significant existing water damage. Costly to repair for the next 30 years.
- Relatively lightweight construction with limited embedded value.
- Low possibility of re-use for main roof elements due to complex geometries.



Existing interiors and pool spaces

- Largely integral construction with rigid finishes - challenging to recover materials in a major refit.
- Existing volumes highly inflexible, except for previous mezzanine gym infills - which are in lighter construction but of limited residual value,

Basement plant systems

- Gas-fired heat and power systems coming to the end of useful life.
- Not easily retrofitted to be ‘net zero ready’.
- Likely to full scale replacement in near future in any scheme - with a likely need to move to electric led heating to meet LBE net zero targets.

3.2 Reuse Appraisal

Whole-lifecycle carbon appraisal

As developed proposals for the masterplan are brought forward, we recommend that a whole life-cycle carbon assessment is used to help assess the performance of different scheme options.

At this stage of the project, this approach is used to consider the merits of re-use versus re-build options for the leisure centre specifically, with options shown on the next page.

This approach is intended to provide a clear appraisal of the climate change potential of the various options for the centre, to allow these to be assessed quantitatively against other key drivers, including:

- The ability of different options to meet the needs of LBE and the communities they serve
- Financial viability and risk
- Programme and wider site impacts

At this feasibility stage, assessment is necessarily high level using 'generic' building performance data, rather than an estimation of the impact of developed proposals.

As the project develops, these estimates could be replaced by carbon appraisals of the concept designs, and data from energy modelling of the proposed scheme.

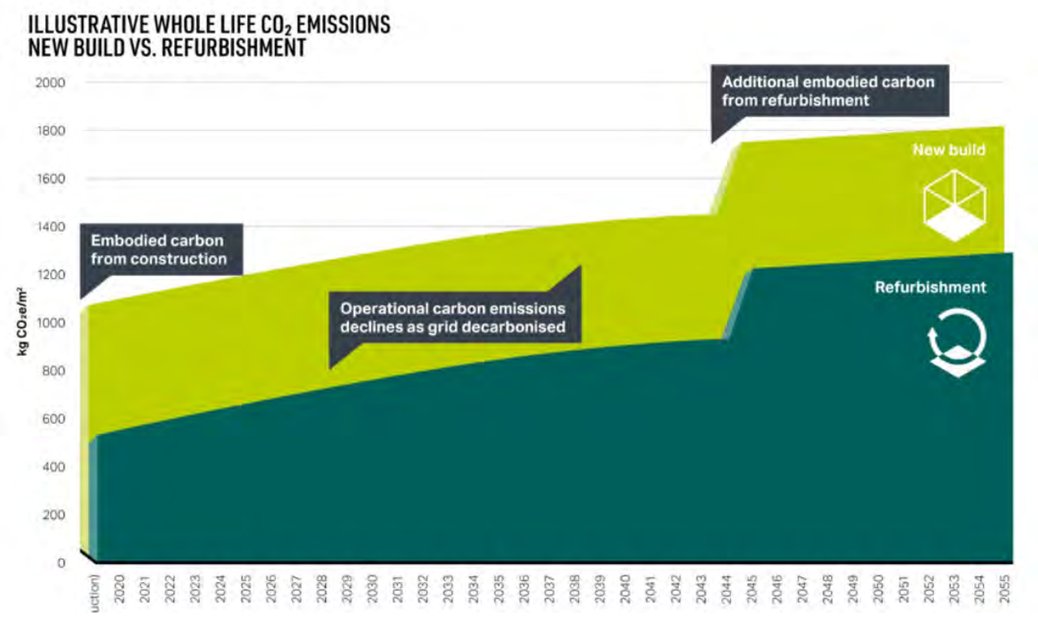
In broad terms, for each option we can estimate:

- The **embodied carbon** required to deliver a redevelopment proposal (with the high level principle that the more we re-use, the lower the impact)
- The ability of each option to deliver a highly efficient building that reduces **operational carbon** over the building life
- High-level technical feasibility and viability of each option, particularly with regard to cost and programme.

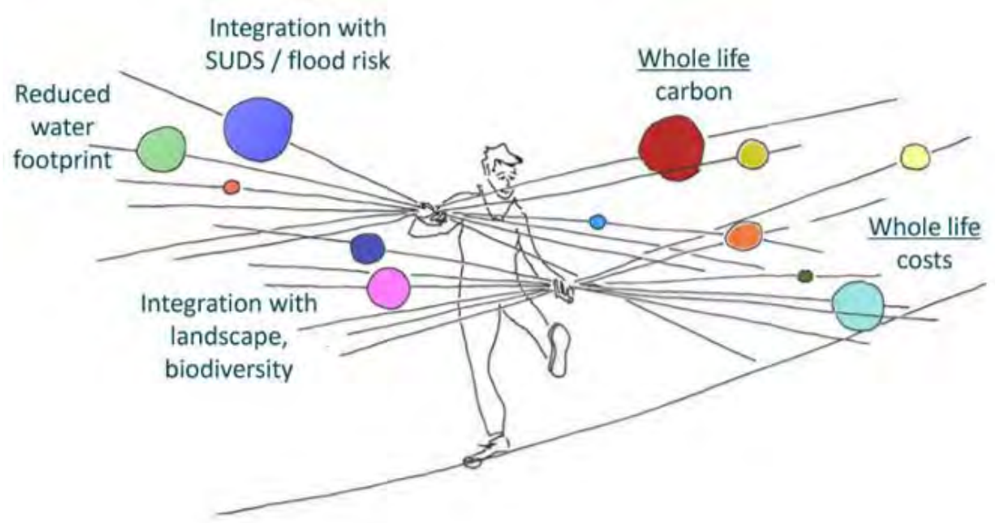
This is particularly useful at Gurnell for two reasons:

- The existing building, with it's exposed concrete structure, poses significant technical barriers to an energy efficient, net zero aligned, retrofit.
- The whole life approach provides a clear target level of ambition that any rebuild proposals must meet in order to be comparable to, or better than a re-use scheme - and so 'mitigate' the impact of replacing the building structure.

In summary, there is a clear trade-off between the measures taken to reduce the ongoing operational carbon of the centre, and the embodied carbon, material use and cost impact of such energy-saving interventions. This approach aims to allow the project to take a 'clear eyed' appraisal of these challenges.



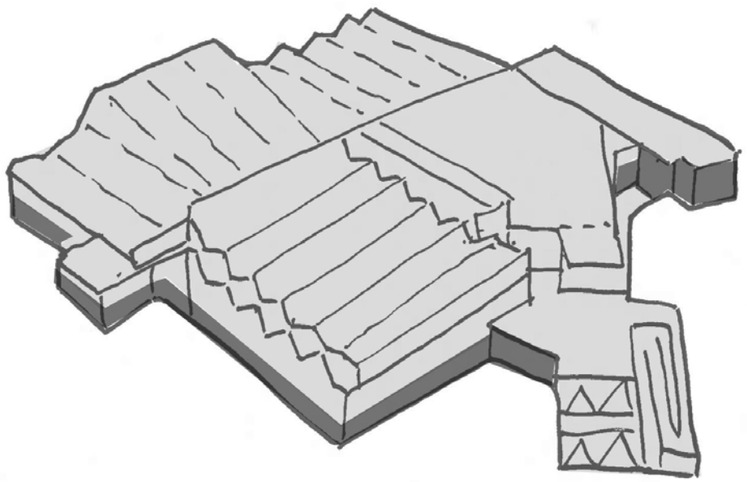
Typical whole lifecycle carbon impacts of buildings (embodied + operational)



Whole-lifecycle appraisal intends to help the team 'balance' the various drivers of the scheme

3.2 Reuse Appraisal

Key Options for Lifecycle Carbon Appraisal

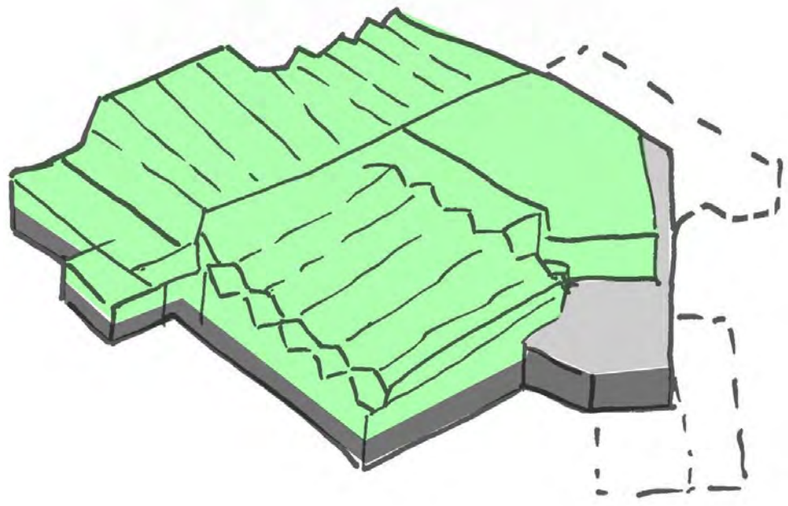


Do Nothing

This is principally reviewed to form a clear baseline for other proposals, and would involve keeping the building running with it's existing gas CHP system, and undertaking only the 'wear and tear' repairs needed to keep the building serviceable.

We understand this is not feasible:

- Ongoing running costs are prohibitive
- Existing gas heating system is running down and is not compatible with a net zero transition
- Roofing elements are moving beyond a 'repairable' condition



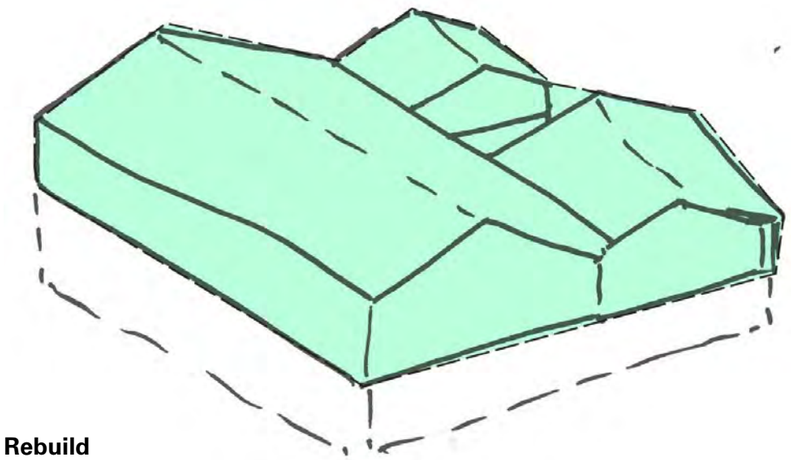
Deep Retrofit

This represents an extensive refurbishment to bring the building up to modern environmental standards, assuming:

- Strip back the roof and cladding to the existing frame and replace with improved fabric
- Replace the entire MEP system with an electric system
- Insulate internally to the retained concrete areas
- Targeted demolition and replacement to improve accessibility and connectivity

This goes some way beyond the ~£18m scheme assessed for LBE by Core5 in 2021, which would not have significantly improved the building energy and carbon performance.

It is therefore expected that costs for such a retrofit would be similar to that of a new build construction and with a minimal saving in construction duration; in effect for the omission of new foundation works only.



Rebuild

This represents the myriad of options available for rebuild - either as a standalone leisure centre or integrated with residential provision.

This model will be developed as design options progress.

For comparative purposes in this study, the 'leisure' option assessed is of matching area to the existing centre, and hence is significantly smaller than the proposed brief developed elsewhere in this report. Additional areas to meet the full brief would then be assessed on a 'new build' basis to minimise lifecycle carbon impacts.

These three high level options are reviewed in the following slides using benchmark data for 'standard' and high performing leisure centres.

Figures have not been validated against *either* energy modelling of refurbishment options or a scheme design for a new centre, and should be considered as indicative only.

3.2 Reuse Appraisal

Energy Options for re-use, retrofit and rebuild

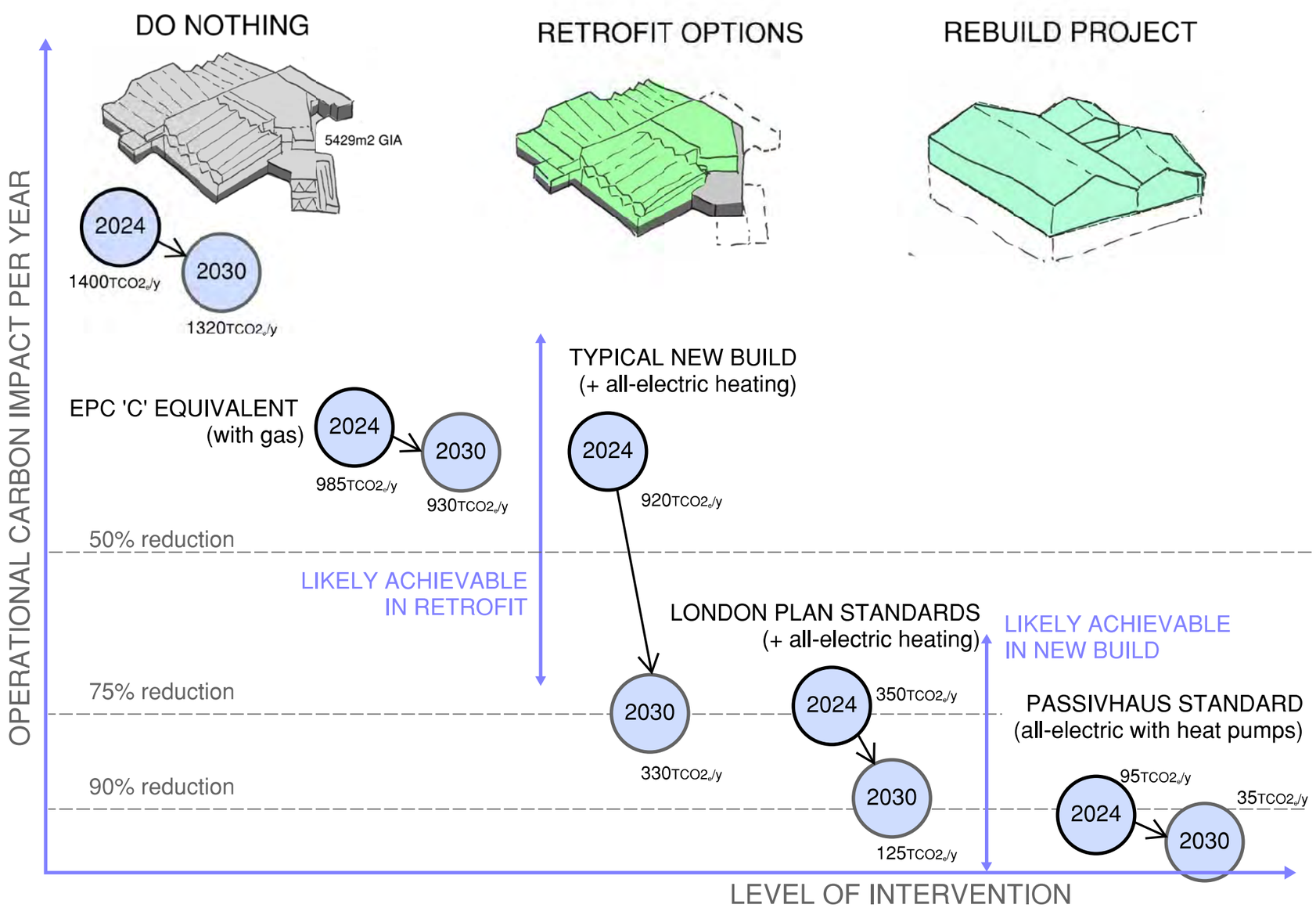
Data provided by the Ealing team suggests a current footprint of around 1385Tonnes CO2e every year for the centre, of which 92% arises from gas usage in the building.

This page describes the likely operational carbon benefits from a range of measures that could be taken with the building. In each carbon estimates are made in 2024 and 2030, highlighting the impact of the decarbonising electricity grid:

- A fabric upgrade refurbishment *only*, to meet an Energy Performance Certificate 'C' rating, and with the existing plant retained, would achieve only an 29% carbon reduction by 2030
- Retrofit proposals that improve the fabric and replace the services for an all-electric heat pump system could achieve between 30-90% in carbon savings, dependent on the level of fabric improvement achieved. It is expected however that a saving of ~75% would represent a 'best achievable' given the constraints of the existing building.
- A 'business as usual' new leisure centre would achieve a 75% carbon reduction by 2030, and more environmentally ambitious buildings would achieve further savings, of around 95% for a passively designed centre and potentially up to 97% in a truly Passivhaus design.

Further reductions towards 'net zero' for any of these options could be achieved through the use of on-site renewables.

For comparison purposes, all options are based on the same reference area of 5429m². It is likely that major redevelopment proposals would include a larger footprint and hence a larger (pro rata) yearly footprint, commensurate with the wider range of services provided to the community.



Illustrative diagram of operational carbon savings from varying levels of energy standards and ambition
High-level energy benchmarks based on previous Passivhaus case studies, existing building data for Gurnell, and TM46 benchmarks, and will be sensitive to the arrangement of specific building options. Carbon intensity data based on BEIS figures for gas and National Grid 'Steady Progression' Future Energy Scenario for electricity. Figures not suitable for comparison with carbon offset fund payments under SAP for the GLA.

3.2 Reuse Appraisal

Whole Lifecycle Carbon for re-use, retrofit and rebuild

We can use these estimates of the operational 'saving' from redevelopment proposals to scrutinise and set ambitions for the redevelopment proposals, compared with typical embodied carbon intensities for such schemes.

Whilst the rebuild options presented on the previous page provide the greatest opportunity to reduce the **operational** energy and carbon of the centre (and hence the borough's direct footprint), the **embodied** carbon impact of such a scheme will necessarily be higher.

As built embodied carbon data for new leisure centres is limited, but for estimating purposes we have assumed that up-front carbon emissions for a refurbishment would vary from 350kgCO2e/m² GIA (for a fabric only retrofit with new internal fit-out) and 700kgCO2e/m² (for a full overhaul of the building within the existing exposed concrete shell).

Up-front carbon for rebuild proposals are estimated as ranging between 950kgCO2e/m² (for a good practice Passivhaus retrofit) and 1650kgCO2e/m² (as an upper bound for a 'business as usual' leisure centre design).

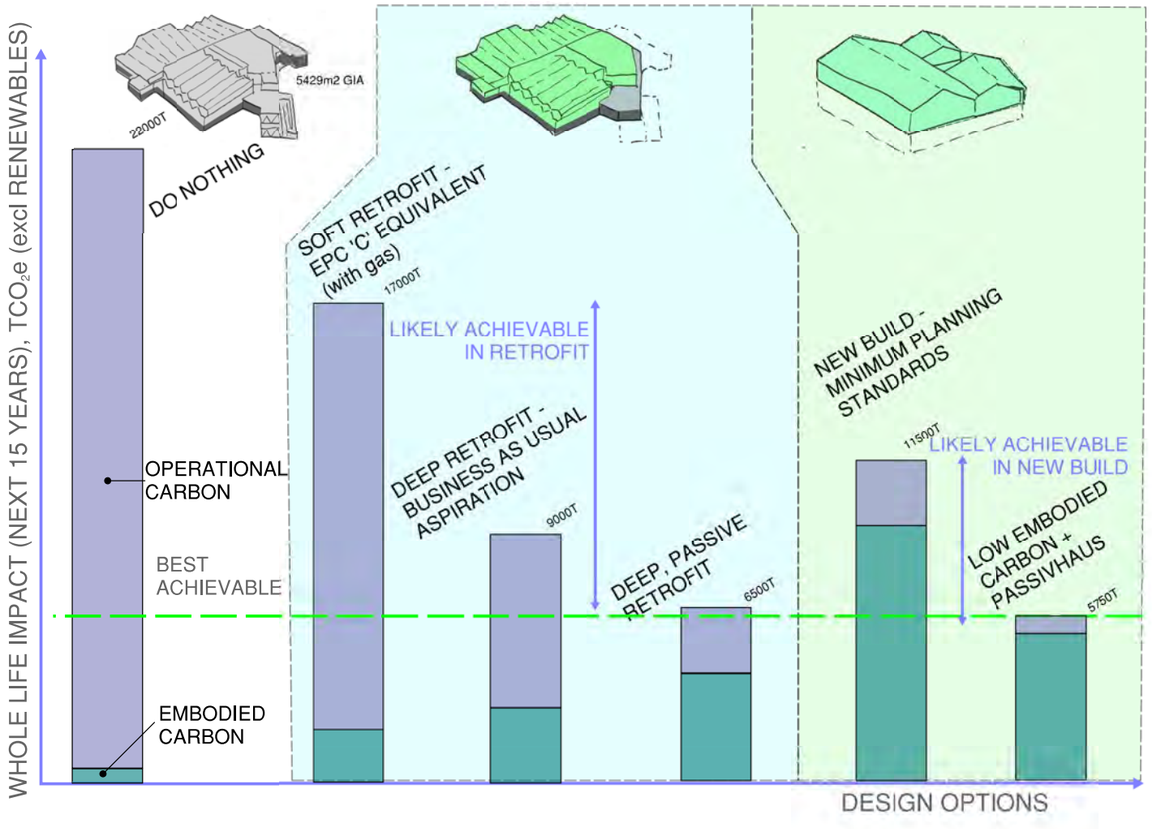
If we consider the next 15 years as an appropriate 'payback' period for a major development, we can consider the whole lifecycle (operational + embodied) impact of scheme options.

This demonstrates that **if** a strong commitment is made to a lean and low carbon new build design which maximises natural and re-used materials, and goes beyond minimum planning requirements, such a scheme will offer the greatest opportunity for carbon reduction over the next 15 years.

It is likely that this will also provide a scheme with the flexibility to succeed as an asset for the longest period. Whilst a 'best in class' deep retrofit could offer similar carbon savings, this would be highly constrained within the existing building volumes and basement structures and is unlikely to be economically viable.

Note that:

- The extent of embodied carbon impact will depend on the detail of new proposals, including the form, materials and specification of the interventions. The principles of some design measures are discussed in a later section of this report.
- As noted, the estimates opposite are based on a constant reference area for all proposals, and a larger centre would have commensurately greater emissions (just as building the same new provision elsewhere would have). These estimates do not include for below ground parking or other enabling features to enable higher density development on the existing site.



3.2 Reuse Appraisal
Holistic Assessment

Considering All Aspects

Alongside the sustainability considerations, there are a range of other aspects to take into consideration to consider the issue of retrofit or rebuild in a comprehensive manner.

We have summarised the key considerations for each of the options; Pre-closure, Deep Retrofit and New Build on this page.

Recommended Way Forward

The recommendation from this process has led to a New Build Leisure Centre. The Council is in the special position of stewardship over the leisure provision for future generations.

Whilst the short term cost and loss of operational leisure centre are deeply felt at this point, a new build leisure centre will be able to be enjoyed for many generations to come in a way that is robust, adaptable, and ready to meet the climate and energy challenges that lay ahead.

Baseline: Pre-Closure

Leisure Centre Area : 6200 sqm

This is a hypothetical scenario as the existing centre cannot be reopened without further works. This is a baseline of the 'existing pre-closure' condition.

Fitness for Purpose
Does not meet current space or quality standards

Accessibility
There is limited accessibility and doesn't provide facilities for all ages, needs, abilities

Flexibility
Existing structure and space planning makes it difficult to adapt to modern needs

Revenue Generation
Required a £400K subsidy from the council to keep operating prior to closure

Operating Cost
High operating and energy costs requiring a subsidy from the council to keep operating prior to closure

Maintenance Cost
At the time of closure there were circa £200K essential maintenance costs to remain open

Timescales
The centre is unable to open without further work. ie. remains closed indefinitely

Capital Funding
Not viable to keep open. Not currently operational and cannot be reopened

Operating Carbon
Very inefficient with an operational carbon footprint of approx. 1400TCO2/year

Embodied Carbon
Much of the building fabric is in poor condition.

Lifespan
The centre is at the end of its life without significant further works and upgrades

Option 01 : Low Energy 'Deep' Retrofit

Leisure Centre Area : 6200 sqm

Extensive retrofit to bring the building up to modern environmental standards

Fitness for Purpose
Even with significant upgrades & extensions it is unlikely to meet current space standards

Accessibility
Will be difficult to achieve inclusive design with existing layout and structure

Flexibility
Existing structure and space planning makes it difficult to adapt to modern needs

Revenue Generation
Revenue opportunities would be improved with modernised facility

Operating Cost
Operating costs would be reduced due to the wide improvements to the existing fabric

Construction Cost
It is likely to cost circa £40+ million to achieve the level of upgrade and performance

Timescales
The timescales for the works would be similar if not longer than a new build

Capital Funding
Significant enabling development of housing would be still be required

Operating Carbon
Operational carbon footprint could be significantly reduced by 50-60% from existing

Embodied Carbon
Significant replacement of the existing roof, building services and interiors.

Lifespan
Warranties refurbishments are difficult to define and will only provide 10 to 15 years against 40 to 60 years for a new build

Option 02 : New Leisure Centre

Leisure Centre Area : 11,000 sqm

New build exemplar centre in both sustainability and leisure facilities. Providing new purpose built spaces to suit local needs both now and in the future.

Fitness for Purpose
Exemplar standards of leisure facility in both the types of spaces and the quality

Accessibility
New leisure centre can be purpose built to provide accessibility for all users

Flexibility
New structure and layouts can be designed to future proof the centre for changing needs

Revenue Generation
Good opportunity for revenue with new modern centre and different facilities

Operating Cost
Operating costs can be reduced significantly with high sustainability aspirations

Construction Cost
It is likely to cost circa £50 million to achieve a new leisure centre of this scale & standard

Timescales
The timescales for the works would be similar to a low energy retrofit

Capital Funding
Enabling development of housing would be required for the scheme

Operating Carbon
Operational carbon footprint could be significantly reduced by 75-90% from existing

Embodied Carbon
Will have a significant impact. Commitment to high standard for sustainable construction

Lifespan
Design life of circa 60 years and be flexible to the changing requirements of the borough.

4.0 Sustainability

4.1 Objectives and Policy

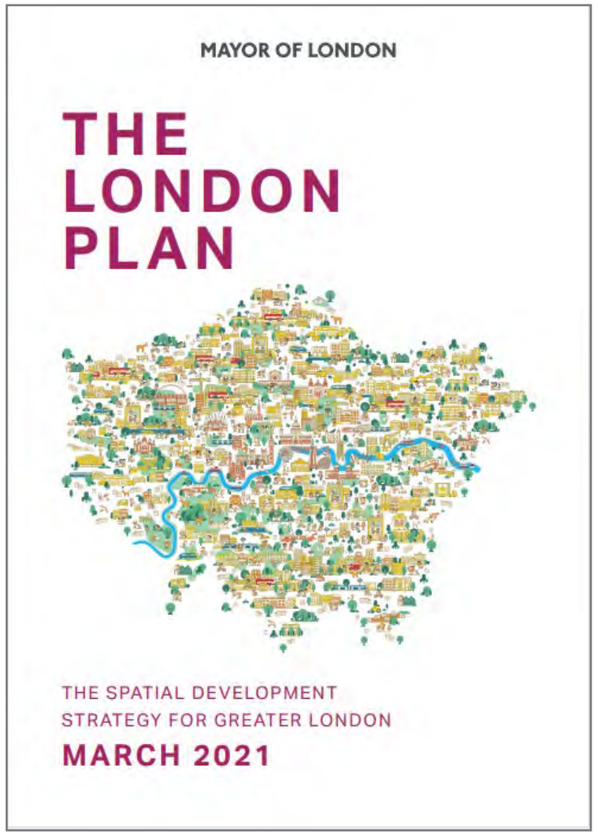
4.1 Objectives and Policy

Gurnell Leisure Centre & Masterplan

As a referable application, the masterplan scheme will be required to meet a number of sustainability requirements under the new London Plan.

The brief for this project is for an exemplar sustainable Leisure Centre and masterplan. Whilst the masterplan and housing targets are more clearly set out in policy, the targets set for the Leisure Centre require more development.

The Leisure Centre targets needs to strike a balance between performance, cost, benefits and impact to arrive at the optimum brief.



Operational Energy

The development should target zero carbon and demonstrate that it is 'net zero ready'.

A minimum improvement of 35% on building regulations emissions is required, principally to be met through fabric improvements, and schemes should 'maximise' opportunities for on-site renewables.

Residual emissions (which are likely to be significant for the leisure building) will require contribution to the LBE administrated carbon offset fund.

Circularity and Waste

The scheme must provide a Circular Economy Statement - ideally in draft format at the pre-application stage and then updated throughout the design development.

This will collate key documents such as a Site Waste Management Plan, and require the scheme to demonstrate a clear circular design strategy (e.g. for flexibility or longevity).

Key circularity waste KPIs will apply, including a min. 15% of materials from recycled sources, and a min. 95% of all site waste diverted from landfill.

Embodied Carbon

The scheme must carry out an embodied carbon assessment at both outline and detailed planning stages.

A minimum standard of 850kgCO2e/m2 up-front carbon will be expected for the residential component (RIBA Grade E) at outline stage, and for the project to demonstrate improvement to detailed stage.

No explicit targets are established for the leisure scheme but the expectation is that the project will set its own aspirations.

Climate Resilience

The scheme is required to meet a range of strong measures - particularly on flood risk, and overheating.

Overheating risk and microclimate assessment should be undertaken at an early stage both for buildings and the public realm.

Land-use and Ecology

A site wide green infrastructure strategy will be required to identify environmental opportunities. Open spaces should be protected and enhanced, and the development should secure biodiversity net gain, if possible. (measured through a BNG assessment)

Measures that improve the quality of poor areas of the wider site will be welcomed, and the project should undertake arboricultural and ecological surveys early to embed this in the design.

The new development area should target an Urban Greening Factor (UGF) score of 0.4, requiring a wide-spread commitment to green roofs and walls, and sustainable surfacing materials.

Sustainable Transport

Development plans should support public transport and active travel, and 'rebalance' the transport system away from the car.
The London Plan sets strong requirements on cycle parking provision and a strategic overview of 'healthy streets' to be provided in the development.

Car parking should be restricted in line with levels of existing and future public transport accessibility, and maximum quantums are mandated. All parking should make allow for electric vehicle charging to be installed, and min. 20% of residential parking should be built with charging facilities.

Other Metrics

The leisure building will be required to meet the equivalent standard of BREEAM Excellent for water use, and should consider setting a BREEAM target to secure wider sustainability standards. The Passivhaus certification, as a measure for ensuring exemplar fabric performance, is discussed further in this report.

4.1 Objectives and Policy

Local policy objectives, brief, and impacts from funding routes

Ealing's current published validation guidance dates from 2012 and will be subject to change during the design of the development, as it is brought into alignment with the London Plan - this is expected later this year.

Much of LBE's existing policy aligns with (and is strengthened by) the London Plan. The project team met with the LBE team in mid-May to understand any specific project requirements or relevant ongoing initiatives.

In January 2021, LBE adopted their Climate and Ecological Emergency Strategy, with key points noted.

Upcoming

Within the course of the design development on the scheme, it is likely that LBE will publish:

- Borough specific carbon offset targets and carbon offset fund prices - LBE team indicated that this was currently in draft format and was likely to be an ambitious figure significantly in excess of the £95/tonne GLA minimum recommendation.
- Borough specific UGF targets
- Tougher requirements on energy modelling at planning stage
- Wide-spread use of embodied carbon assessments
- A specific BREEAM (or equivalent) target for new development.

The Climate and Ecological Emergency Strategy commits to:

Waste

- Increase site waste diversion rates to 80% by 2030

Energy

- A commitment to being a carbon neutral borough by 2030. (Leisure only)
- By 2025, all new council owned residential development must reduce emissions by 70% on building regulations (max 30% residual offset).
- All new council owned housing to be designed to certified Passivhaus - *No specific commitment has been made to Passivhaus housing on the Gurnell site but this is considered a key aspiration and client expectation*.
- Quadruple the renewable capacity on council owned real-estate by 2030 - *it was discussed that the existing provision is very modest but that schemes like Gurnell would be an important part of meeting this target.*

Biodiversity

- All new build development to contribute to green infrastructure and biodiversity enhancements.
- Ambitious targets under the 2021 Biodiversity Action Plan for new trees and planting across public land.

Travel

- Major borough-wide investment in safe cycling infrastructure
- Additional bus provision across the borough by 2030.
- Wide-scale investment in electric vehicle charging

4.1 Objectives and Policy

Gurnell Leisure - Meeting LBE's net zero aspirations

London Borough of Ealing have set an ambitious target to become a carbon neutral borough by 2030.

This target extends beyond those buildings and operations in the council's control to all 'direct' emissions from the borough - and hence public projects will need to play a strong role in demonstrating climate leadership.

Note that this target strictly relates to operational carbon (energy, water, fuel use) in the borough, and the majority of embodied carbon emissions from construction materials would not be included in this commitment.

Leisure centres such as Gurnell are a significant contributor to the council's direct footprint, and **provide significant opportunity for carbon savings**.

The residual emissions from an upgraded building would still be high (in comparison to other LBE assets), due to the inherent heating and lighting demands of such buildings, and a truly 'net zero' building would require extensive renewables provision or, if all other options exhausted, offsetting mechanisms outside of LBE's direct operations.

It is challenging to retrofit existing buildings and operations to a net-zero standard. This is reflected in the LBE climate plan where, in the 'best case' scenario, 50% of 2020 emissions are projected to be eliminated by 2030, with the remainder offset. Of this, the LBE climate plan projects a more modest reduction of around 20% for non-industrial building use by 2030.

These reductions of the existing stock will be accompanied by strong policy measures to ensure that new buildings are **net zero ready.**

'Net zero ready' would apply to buildings that may not be net zero in 2030, but are sufficiently well designed, serviced, and supported by on-site renewables so as to become net zero, as the national grid decarbonises, at least by 2050. This strategy relies heavily on serving the building using green energy, powered by the grid.

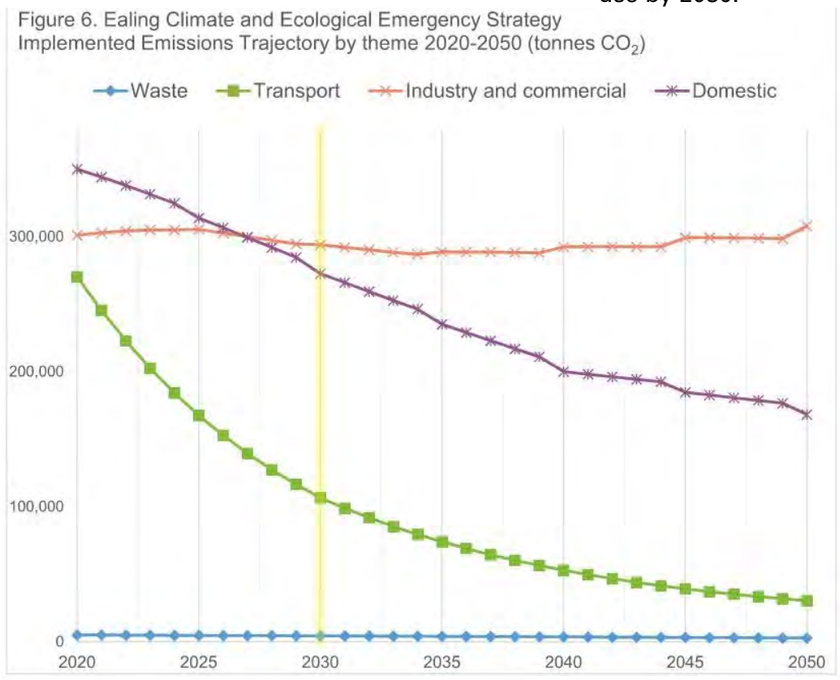
At Gurnell, 90% of the existing energy is provided by gas, leading to a significant 1400TCO2/year operational footprint. If this could be viably switched to an all-electric supply, with no other improvements, emissions could reduce by 75% by 2030 alone. However, with electricity prices around four times that of gas, this would also need to be coupled with wide-scale energy efficiency measures to be economical.

These approaches help to frame the operational carbon challenge for the Leisure Centre at Gurnell.

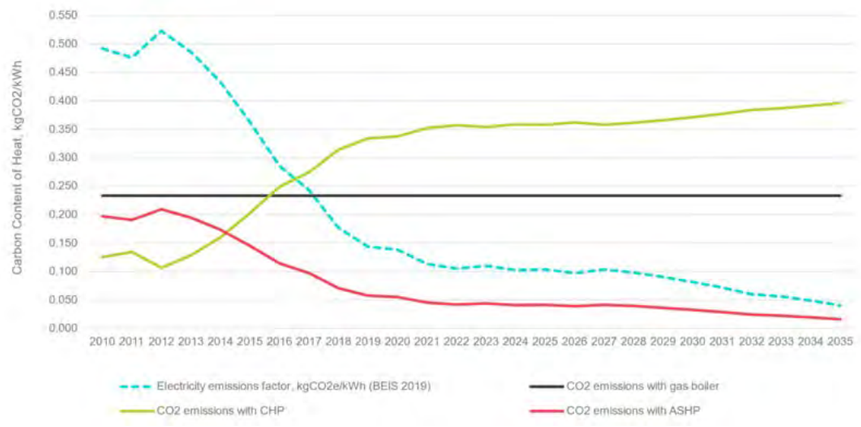
As a minimum standard, LBE need to find an economic model that can fund the replacement of the existing gas CHP system in the building, as well as sufficient fabric improvement to make the building financially viable to run.

This first objective sets a clear deadline on the viable running of the existing building, should LBE seek to meet their carbon neutrality commitment.

Beyond this, the redevelopment should seek to demonstrate exemplar performance, minimising residual emissions through high fabric performance and, where required, on site renewables.



Ealing's preliminary (borough-wide) target carbon trajectory to 2030.



Carbon intensity of different forms of energy over the next 15 years

4.1 Objectives and Policy

Holistic Value and Wider Considerations

It is important that Ealing as client and the team establish a clear vision of their aspirations for the scheme.

The LBE climate emergency policy strongly supports a clear understanding of the 'co-benefits' of sustainability initiatives, but these will not be addressed solely by planning policy and other key performance indicators (KPIs).

There are a number of initiatives in the industry (notably the Construction Innovation Hub) 'Value Toolkit' that are intended to support a more holistic view of sustainability interventions, and provide greater focus on more qualitative aspects of good design.

For Gurnell, these would include the wider business case around public leisure facilities, social value, health and wellbeing, equality and diversity impacts, local investment, and the capacity of the Gurnell scheme to demonstrate environmental leadership for other projects in the borough. These contribute to a unique 'Value Profile' for the scheme which should respond to the needs of the project sponsors, the community the building will serve, and a wider set of stakeholders.

This form of approach also potentially helps support a view of the combined residential and leisure scheme in a more holistic manner. Planning guidance will tend to consider the two elements of the scheme independently, with well established policy metrics for the residential component, but limited case study background to set policy targets on the leisure provision.

For this feasibility study - the key idea is to ensure that decisions are made with a full reflection on the 'value' of the project, beyond those aspects that are straightforwardly quantifiable.

From a stakeholder perspective, much of this has been communicated through the Leisure 'Vision Workshop' summarised elsewhere in this report. This highlighted a strong community desire for a centre that:

- Provides accessible services for all
- Supports healthy lifestyles for the community
- Functions as a social and community hub
- Protects and improves the surrounding natural setting and landscape.
- Delivers a carbon neutral centre.

As the project develops, a more explicit formulation of these key objectives by LBE will be helpful in reviewing the impact of different concept proposals for the scheme.

Construction Innovation Hub 'Value Toolkit', based on the Four Capitals model

4.1 Objectives and Policy

Circular Opportunities at Gurnell

If a rebuild option (or a substantial retrofit) is progressed, there will still be a need to ensure that materials arising from the existing building are carefully considered.

Under the London Plan, the Circular Economy Statement for the project will require:

- A pre-demolition audit, which carefully reviews the potential for re-use of existing materials
- A clear commitment (and strategy) to divert a minimum of 95% of all construction, demolition and excavation waste from landfill.

The pre-demolition audit does not form part of this initial feasibility exercise, but some high level opportunities are identified opposite for elements of the existing building, in the event that demolition is preferred.

It is strongly recommended that the pre-demolition audit is undertaken during RIBA Stage 2 to allow results to inform materials selection in the concept designs for the whole masterplan.

EXISTING CONCRETE

(Majority of existing material) Opportunities to use on site as piling mat / fill materials to a large extent. Challenges to 'up cycle' due to complexity of demolition.

EXISTING FOUNDATIONS

Should be surveyed and inspected to understand possibilities for re-use.

EXISTING CLADDING

Take advantage of recycling schemes for glazing and other high value elements.

INTERIORS

Challenges to disassemble carefully - suggest further surveys required.

EXISTING ROOF

Widely recyclable, limited opportunity to re-use due to unusual geometry and poor condition.

4.2 Sustainability - Leisure

4.2 Sustainability - Leisure

Sustainable Approaches and Passivhaus

Approach to sustainability

As with many local authorities, Ealing Council have declared a climate and ecological emergency and made a pledge to become net zero by 2030.

Leisure facilities are high energy consumers and can be prone to comfort and overheating issues. Temperatures are maintained at high levels with plant operating continuously 24 hours a day over 365 days a year. Space heating and hot water loads are higher than any other building type. In addition electrical energy demand is high due to pool water filtration processes, and fan power and pump power loads, not to mention fit-out items such as gym and catering equipment.

The team's approach to sustainability for the new Gurnell Leisure Centre needs to take into consideration this high energy demand and the challenge of 'net zero' targets using a best practice approach.

Passivhaus Approaches

Passivhaus leisure is one possible option for the facility, however in the team's experience it will come with a cost premium (of c. 10-15%).

With this increase in construction cost to opportunities to move to a Passivhaus appraoch need to be reviewed against budget pressures.

Due to the exceptional heating demands on leisure facilities, they can particularly benefit from the application of the proven and tested low energy Passivhaus standard.

A high performing thermal envelope along with thermal bridge free details and triple glazing, coupled with air tight construction, will mitigate against rising energy costs and will also better protect the fabric. For example, a high standard of air tightness will reduce the risk of warm moist air migrating into the fabric due to unwanted infiltration. Triple glazing and high insulation levels will reduce condensation risk.

A Passivhaus optimised design will focus on:

- orientation and glazing ratios,
- internal layout of thermal zones
- low energy building services design
- maximising heat recover processes

These measures can all result in significant energy savings when compared to standard new build designs.

A dramatically reduced energy consumption is achieved through a number of factors including reduced heat loss, reduced pool water evaporation, reduced air change rate and associated fan power, as well as reduced water heating loads.

4.2 Sustainability - Leisure

Approach to Low Energy Principles and Certification

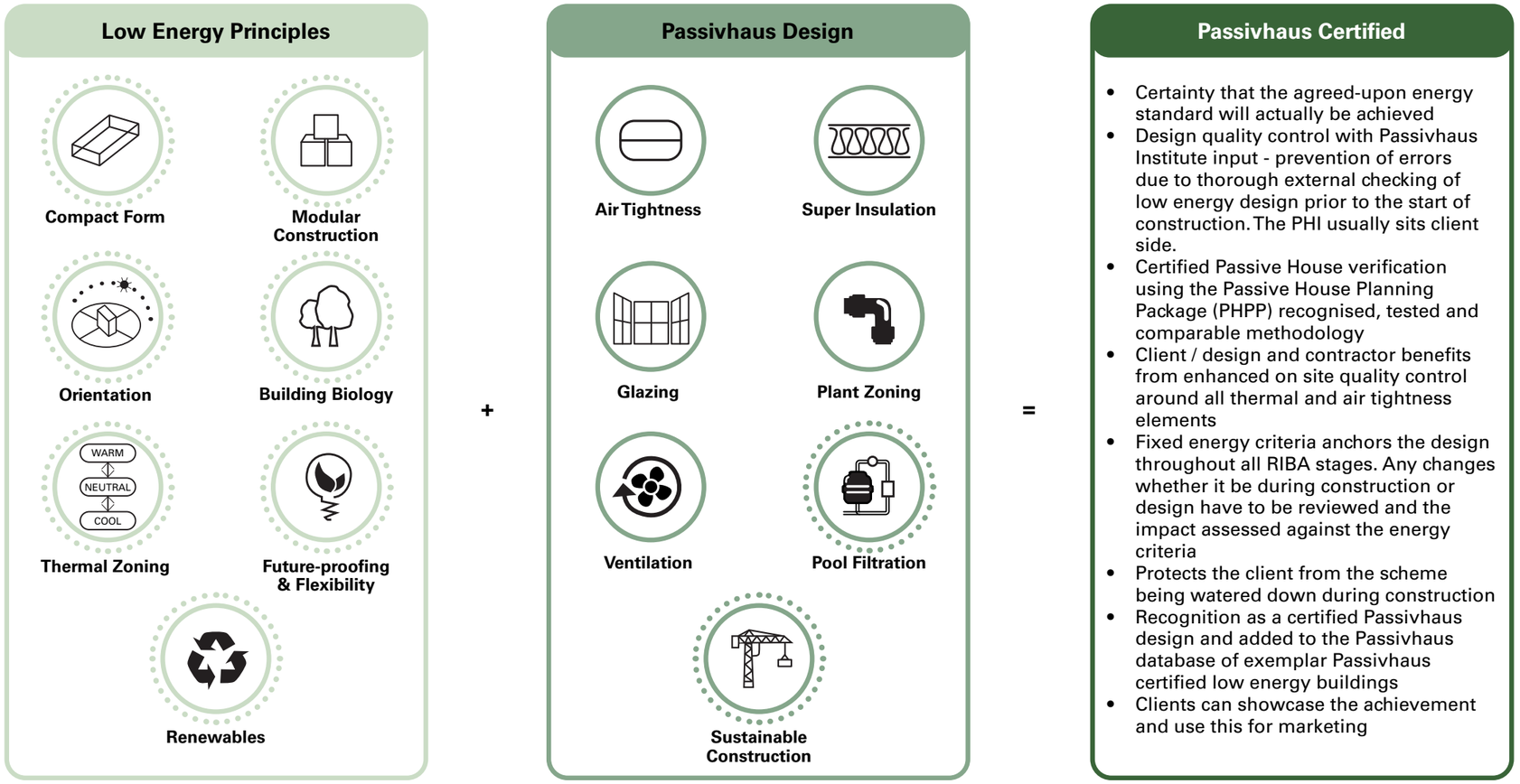
Low energy design principles, Passivhaus design features and the process of Passivhaus certification. These areas broadly represent the elements which need to be embedded in the design at concept, detail and construction stages. It is proposed that Gurnell implement the low energy principles now to best enable the delivery of a sustainable building as the design is developed.

Low Energy Principles
These features are a necessary prerequisite to enable an efficient, sustainable building, and need to be implemented in early design proposals. These maximise 'free' energy savings from the outset of the concept design, and enable further optimisation and implementation of Passivhaus features in the detailed design if required.

In the early design stages, daylight and thermal modelling should be implemented to understand the optimum arrangement of the centre in terms of building physics and daylighting. Glazing ratios and other thermal gain details can be thus optimised and maximise 'free' energy savings.

Passivhaus Design
To develop a Passivhaus design, energy design criteria will be set regarding heating, cooling, hot water, ventilation and total energy demand. The building will be modelled using approved Passivhaus methodologies, and key design elements optimised. These targets will be met by the use of enhanced insulation, high performance (triple) glazing systems, high air-tightness levels, as well as specific performance criteria for all building services, fabric components and pool plant.

Passivhaus Certified
The project will need to decide if the scheme is to be certified by the Passivhaus Institute (with further detail in the table to the right). This can follow at a later design stage provided that the low energy principles described above are embedded fully in the design concept.



Range of tactics to deliver Passivhaus Leisure (GT3)

4.2 Sustainability - Leisure

Measurable Benchmarks and Targets

As a form of building with unique demands on heating, cooling and lighting, environmental benchmarks for leisure buildings are less extensively available than for other building typologies.

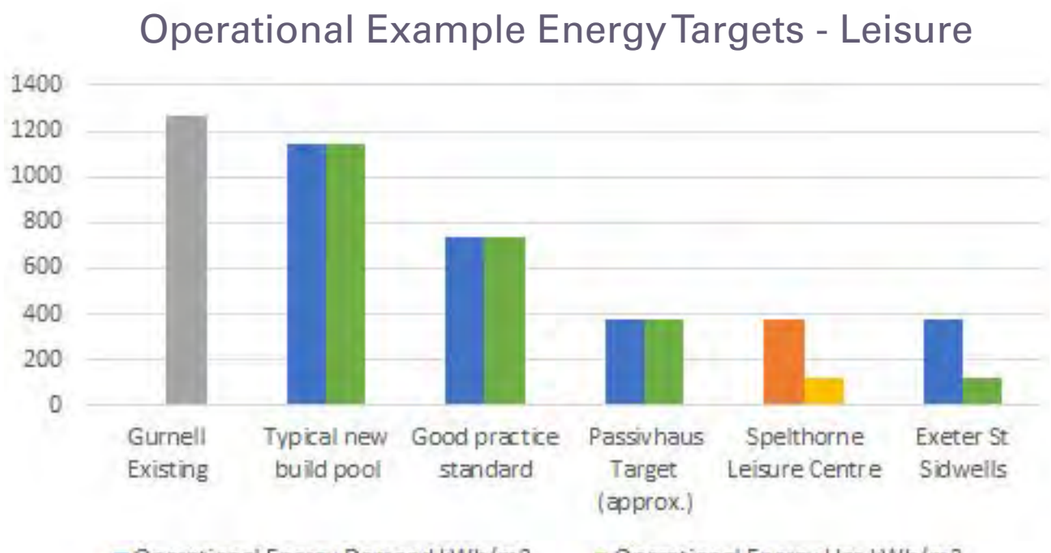
The Building Regulations (Part L) assessments that will be carried out for planing purposes would not consider pool heating within 'regulated' emissions, and this leads to a lack of applicability for this, and related planning policy metrics.

Similarly for embodied carbon, reference figures for commercial buildings will tend to underestimate the impact of leisure buildings, which have significantly longer structural spans, increased extents of glazing, more intensive building services and more specialist internal finishes.

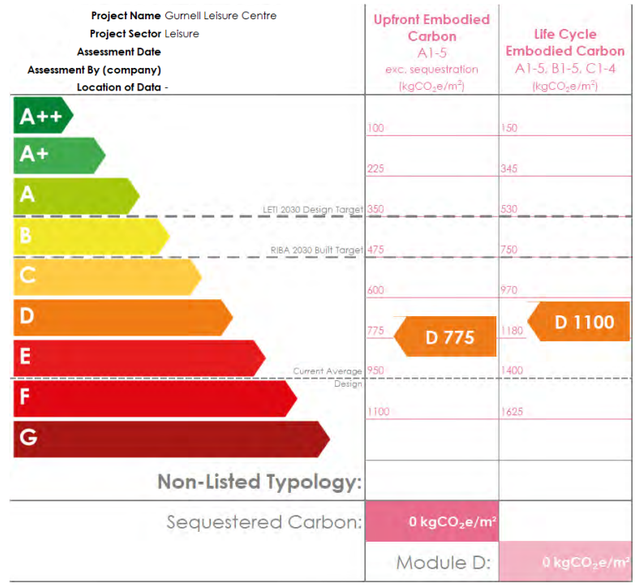
It is therefore proposed that in general for the Gurnell development, targets should be confirmed following completion of a RIBA 2 design, which will allow a robust energy and carbon model of the proposals and establish a scheme specific baseline. This is particularly important as the proportion of wet and dry spaces in the brief is developed during this feasibility stage (with much more significant energy demands for the pool spaces).

In the interim, reference data from previous projects can be used to guide the design proposals at an early stage.

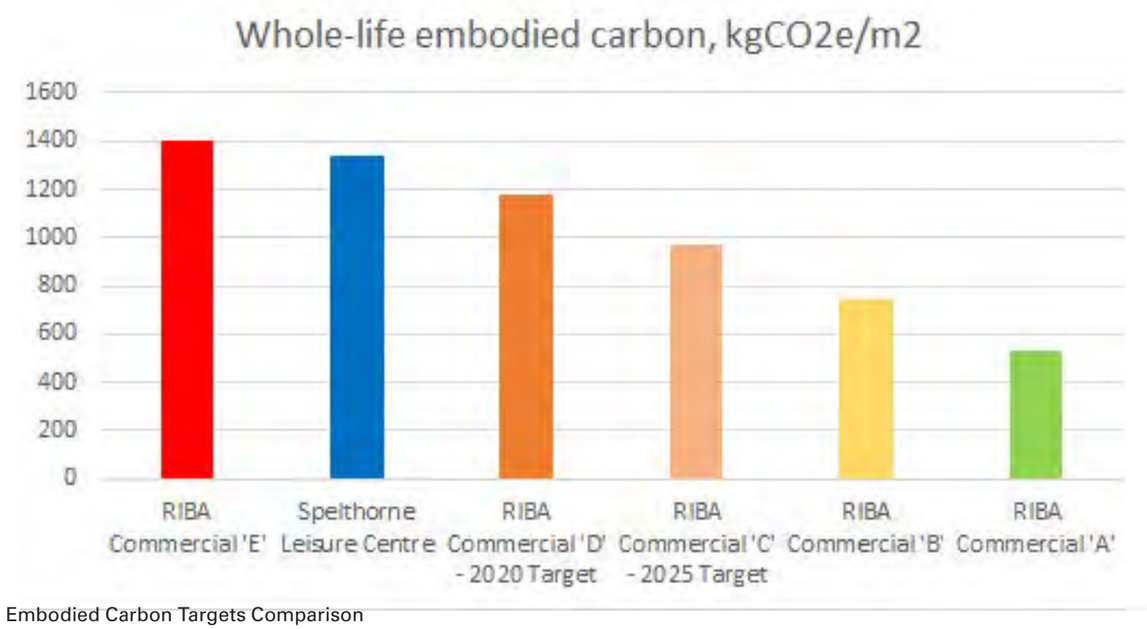
In reviewing targets, we should also recognise that many energy efficiency measures (such as heat pump systems, on-site renewables, etc.) have a significant embodied carbon impact, and it is unlikely that a building can succeed as 'best in class' on both metrics. In general, the operational energy targets should take precedence.



Operational Carbon Targets Comparison



Example RIBA/LETI scoring for embodied carbon



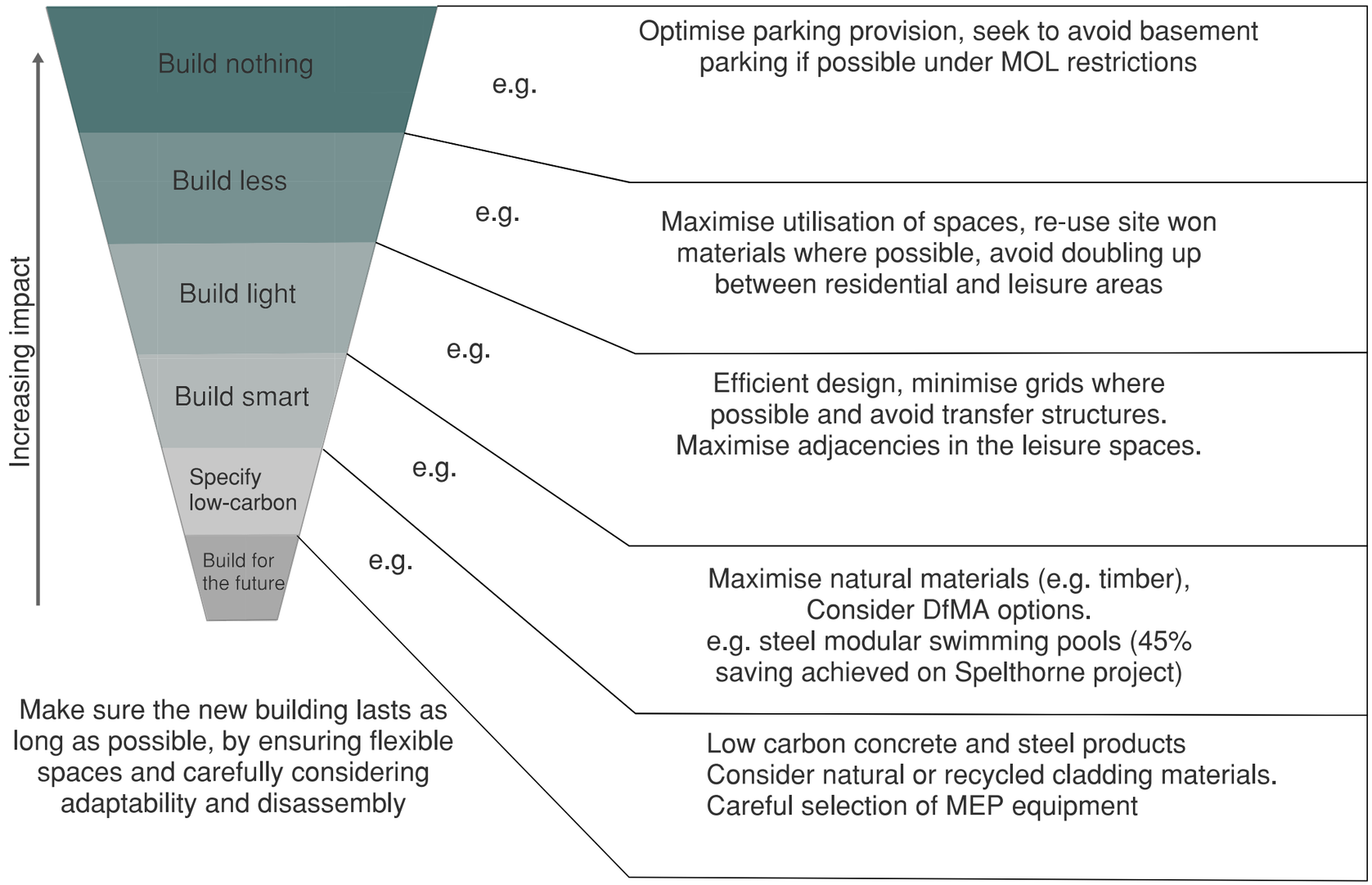
Embodied Carbon Targets Comparison

4.2 Sustainability - Leisure

Embodied Carbon Opportunities - Leisure

A schedule of carbon reduction opportunities should be developed in parallel with the concept design response to the leisure brief.

We can frame an approach to embodied carbon reductions in line with the carbon reduction hierarchy opposite, and draw out some key recommendations at this early stage.



4.3 Sustainability - Wider Masterplan

4.3 Sustainability - Wider Masterplan

Sustainable Residential Typologies

Embodied carbon in new housing

As discussed elsewhere in this report, a key challenge for enabling development on the site is the balance between density and 'space take' onto the Metropolitan Open Land.

In response to this challenge, the previous (2020) application for the site proposed a series of twelve to sixteen storey, concrete frame apartment buildings, located over a large basement parking area.

The architectural section of this report discusses some alternative hybrid approaches, which introduce lower rise elements in a three to six storey range, with discrete, smaller apartment buildings.

From a sustainability and materials perspective, there is a strong argument for these lower-rise, more tightly planned building typologies, as they offer significant opportunities for low carbon buildings.

In particular:

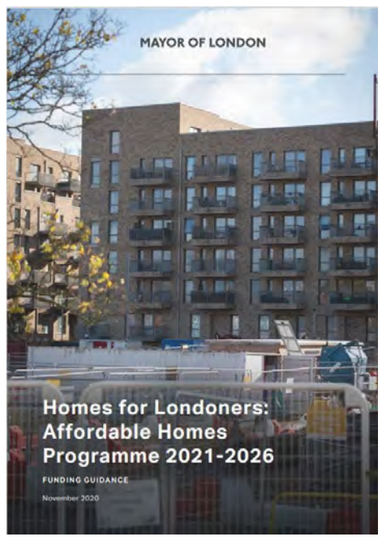
- Low-rise buildings offer significantly greater opportunity for off-site and lightweight construction systems, including timber frame, CLT panel systems, light gauge steel and modular options.
- Low-rise buildings tend to be more space efficient, with less space required for cores, service risers and lifts, per habitable unit.
- Structural requirements are reduced with less internal walls needed for stability compared to a tall building.
- Cladding systems can be more traditional and avoid unitised systems, which tend to be material intensive.
- External areas can be provided in a more efficient way, minimising the use of cantilever balconies and other similar carbon intensive systems.

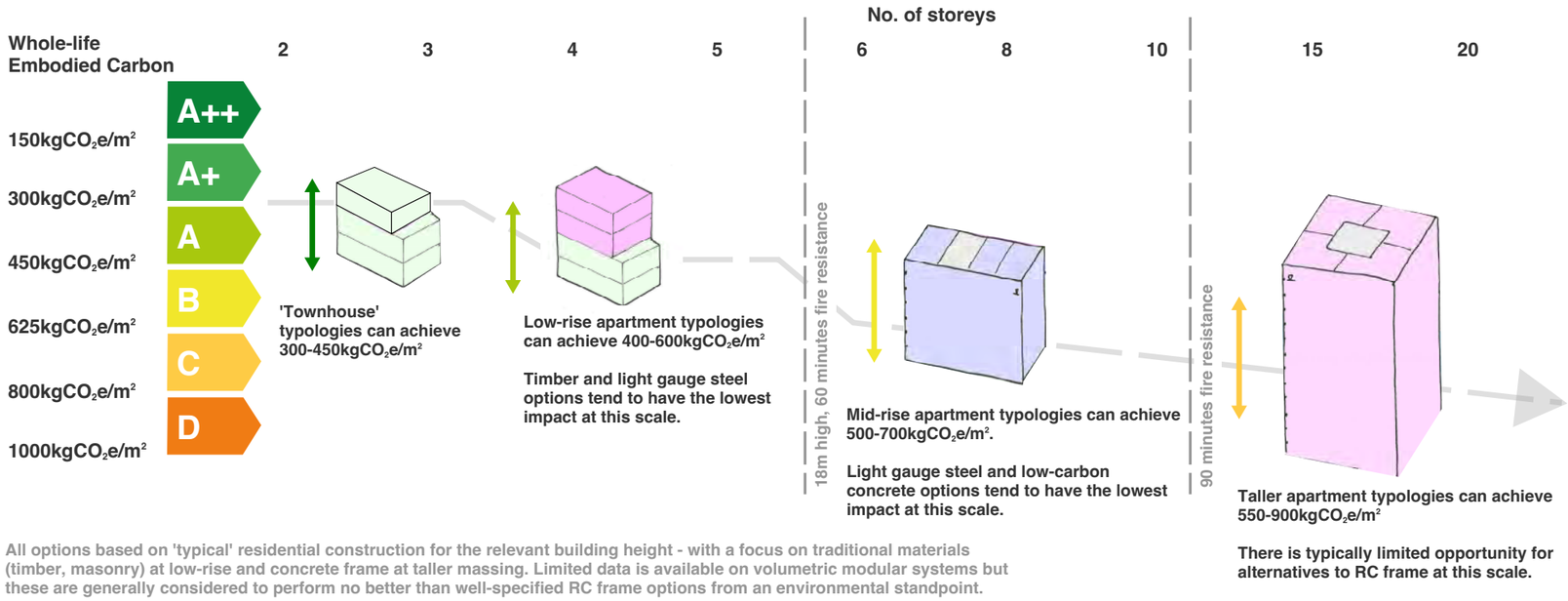
A high level commentary on the likely achievable performance for some different housing typologies is presented below, in comparison to RIBA targets for embodied carbon in housing.

Use of timber for new housing

The use of structural timber elements provides a significant opportunity for low carbon housing. However, under the 2019 Building Regulations, no combustible materials are permitted in the external envelope of buildings over 18m in height (approx. six storeys). This does not preclude the use of timber in tall buildings in a hybrid format but tends to make such buildings economically challenging.

This is a good argument for keeping building heights relatively low; however it should be noted that if funding is sought from the Mayor of London's Affordable Homes Programme, combustible materials are not permitted in buildings of any height, and this will significantly limit opportunities for timber and other natural materials in the project. If required, this funding route should be confirmed as early as possible in the design development.





All options based on 'typical' residential construction for the relevant building height - with a focus on traditional materials (timber, masonry) at low-rise and concrete frame at taller massing. Limited data is available on volumetric modular systems but these are generally considered to perform no better than well-specified RC frame options from an environmental standpoint.

4.4 Sustainability - Summary

4.4 Sustainability - Summary

Sustainability Overview

In this feasibility stage, we have carried out a high level review of key planning requirements for the scheme, noting the major change in ambition at both borough and GLA level since the preparation of the previous planning application for the site.

Approaches to capture whole life decision making with relation to key environmental metrics (including embodied carbon) were discussed, and used to form the basis of an initial appraisal on re-use or rebuild of the leisure centre.

A strong commitment to a leisure centre with low-energy passive principles is recommended and these principles are embedded in the preliminary proposals.

Key embodied carbon reduction principles were also discussed, and key design 'moves' needed to minimise construction emissions, including avoiding basement parking, developing efficient building arrangements, and promoting low-carbon materials.

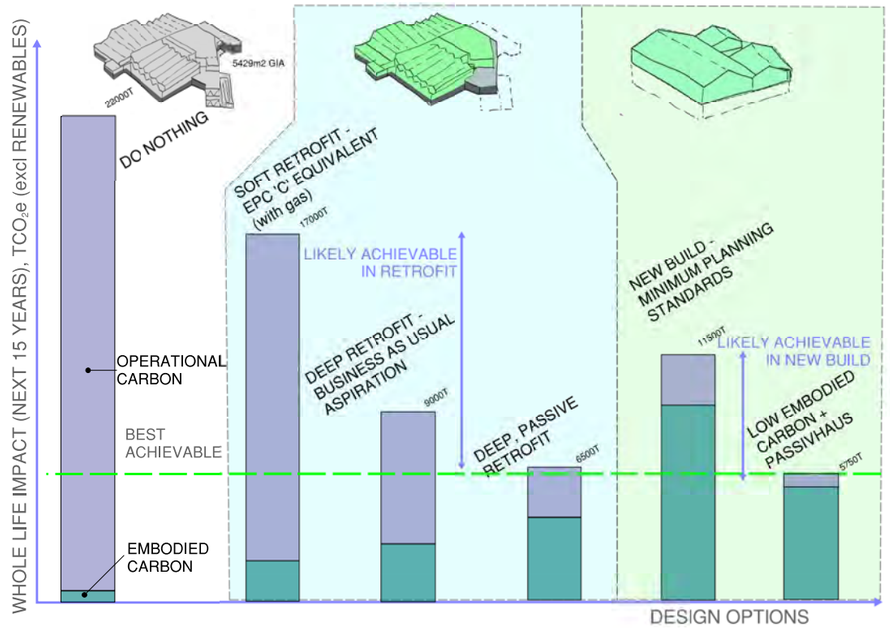
These measures (for a low carbon construction and low carbon operation) are feasible and practical, and if implemented will achieve a major reduction in the borough's carbon footprint, and can perform better than that achievable with a compromised retrofit of the existing Gurnell building.

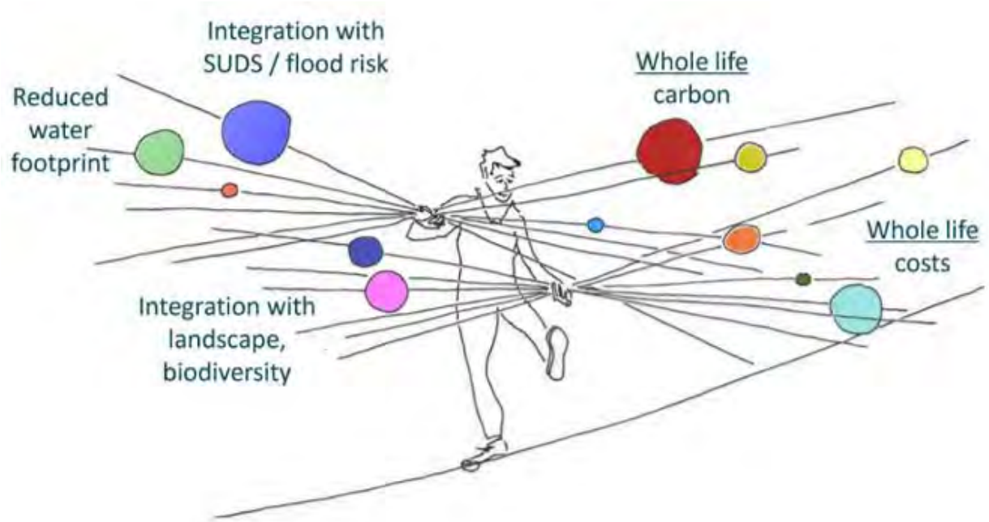
Similar principles are explored at high level for the emerging residential scheme, with the strategic move to a lower density development a major success in enabling low-carbon, affordable and healthy housing.

The next page seeks to begin the development of a sustainability framework for the masterplan, enshrining key principles and recommending key performance indicators for some environmental objectives.

It is recognised that, so far, the principal focus of this study from a sustainability standpoint has been the leisure centre. Further baseline assessment and appraisal is recommended for the wider Gurnell site, particularly in regards to biodiversity.

Additionally climate resilience (particularly flood risk) should be a key area for further development in the next stage, with further technical studies required.





4.4 Sustainability - Summary

Proposed Sustainability Brief for Concept Design

Sustainability Objectives

This section is intended to support effective brief setting by Ealing for the future stages of the development. It summarises the key planning objectives detailed earlier in this report, as well as project specific targets that should be considered to help embed strong performance through the concept design and beyond.

Embodied Carbon

The design should be informed by whole life carbon assessment, as a minimum at key planning stages in line with GLA policy.
As leisure benchmarks are limited, carrying out assessment during concept stage will help to calibrate targets and identify key areas to address.

Land-use & Ecology

Baseline assessments should be carried out early in the next stage with regard to biodiversity, ecology and arboriculture.

These should inform proposals that deliver biodiversity net gain and carefully address green infrastructure opportunities.

Approaches to planning standards should be agreed through consultation with the GLA - particularly the reference area of the site for which Urban Greening targets apply. It is likely that this will be over the existing 'developed' area only with a higher target for the wider MOL land.

Climate Resilience

Overheating risk and microclimate assessment should be undertaken at an early stage both for buildings and the public realm to validate the initial massing options presented in this report.

A detailed flood risk assessment will be required for the site, in particular for new public realm elements in the flood plain to the north-west of the site, and it is likely that strategic upgrades may be required to improve resilience and mitigate the impacts of wider development in these areas.

Operational Energy

Energy strategies should be 'net-zero-ready' and support low carbon heating.

The GLA require a minimum 5% reduction on regulated building regulations omissions for all areas of the scheme, met by fabric improvements and on-site renewables. This is of limited relevance to the leisure building where most emissions are not regulated.

It is recommended that the project aims significantly beyond this by setting total (regulated and unregulated) Energy Use Intensity (EUI) targets for the scheme and/or targeting Passivhaus Certification.

Circularity & Waste

The project should carefully consider opportunities to maximise the retained value of the existing centre.

A pre-demolition audit should be carried out in the next stage to identify opportunities for re-use (as a priority) and recycling (as a last resort)

A clear strategy for the major construction and demolition waste streams from the development will be a key deliverable as part of a Circular Economy Statement for the scheme.

A minimum of 95% of all CDE waste must be diverted from landfill.

Sustainable Transport

The mitigation measures discussed in the transport section of this report should be carefully considered and implemented.

Opportunities for the scheme to optimise and minimise car parking areas (in conjunction with local public transport measures) should be explored and a final brief confirmed.

London Plan requirements for cycle parking should be confirmed and integrated into the developing proposals.

All parking should make allow for electric vehicle charging to be installed, and min. 20% of residential parking should be built with charging facilities.

Sustainability Certification

The project should seek to make an early commitment to low-energy, passive principles across the scheme. There is expected to be a clear Passihvaus commitment on the residential aspects, and for the leisure building, commitment to Passivhaus is subject to detailed viability appraisal within the concept design stage.

Other certification schemes should be considered where beneficial, including BREEAM and WELL certification for the leisure centre, as well as potential CEEQUAL accreditation for the wider upgrades to the landscape. The Construction Value Toolkit approach described could also be used to help measure against a bespoke project 'value' profile.

These additional measures would help to enshrine social value and measures to support the local economy within the developing design.

5.0 Proposed Leisure Facility

5.1 Consultation

5.1 Consultation

Vision Workshop - Overview

Vision Workshop

On 17/05/22 as part of the ongoing design process for the project, GT3 Architects facilitated a 'Vision Workshop' with the 'Sounding Board' and other key project stakeholders. This was held in-person at Ealing Town Hall.

The Vision Workshop was used to:

- Understand, articulate and illustrate the project's vision, values, objectives and aspirations
- Consider attitudes users, functions, activities and spaces
- Develop architectural vision & expression
- To understand what success for the scheme could look like

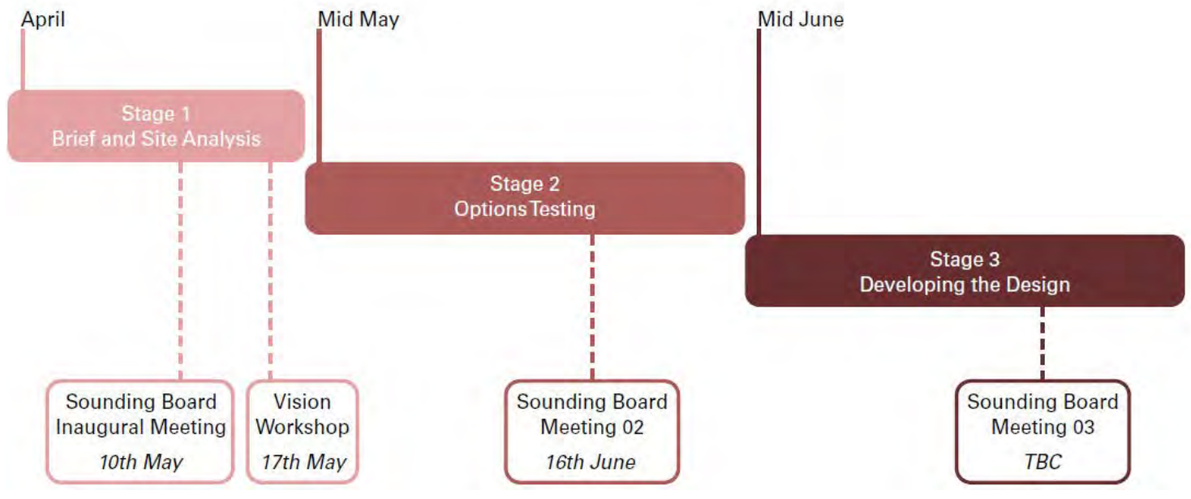
Any successful feasibility study and brief for a project should consider 3no main aspects which are broadly summarised below:

- **DESIRABILITY** - What are the needs of the community and potential future users of the site/buildings?
- **FEASIBILITY** - What can be accommodated on the site bearing in mind technical, buildability and Planning considerations?
- **VIABILITY** - What is affordable, adds value and will be economically sustainable?

Often Desirability is not fully considered or addressed at all due to the pressures of the other two aspects. It is critical to engage with key stakeholder groups and the wider community during the early stages of a project to ensure their invaluable knowledge and feedback are in-putted into the process and to bring them along the journey with the rest of the team.

For the Gurnell Leisure Centre feasibility study, a 'Sounding Board' group has been set up to represent the community and will be engaged with throughout the study. If the project proceeds into more detailed design and delivery stages, engagement with the 'Sounding Board', other key stakeholders and the wider community should be continued.

Feasibility Methodology



5.1 Consultation

Vision Workshop - Executive Summary

Any project or proposal must be for the local community and its residents. Ongoing consultation and engagement with the community is crucial to the success of the project and should be maintained throughout the feasibility study and any future design/delivery stages.

There is a **strong sense of community and attachment to the site and building**. It's important that this sense of identity and belonging is maintained, nurtured and not lost through any interventions or proposals.

Whilst there is a sense of attachment, it is also **recognised that the existing building has reached the end of it's lifespan** and no longer meets the standards expected from a modern leisure facility.

The key objective for the project is to **improve health & wellbeing**. This should be supported by **providing a leisure centre that is flexible so it can expand its activity offer**. These objective should be at the heart of any proposals going forward.

"People" featured prominently across all of the activities whether this be in considering accessibility & inclusivity, activity offer or the precedent images selected for the design aspiration.

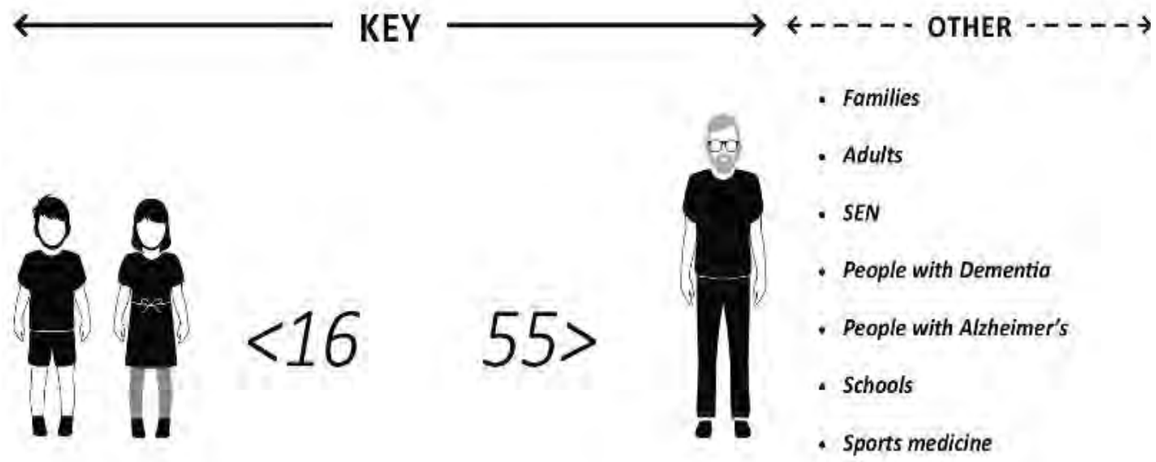
Proposals for a new leisure centre should carefully **consider how the building sits in, and is sheltered by, the landscape. Varied mass and roofline** is encouraged to minimise the impact of a large building on the surrounding context.

Landscape is a key element to the project and is critical to the success of the project as a whole. It should look to maintain the natural, green character whilst providing opportunity for people to engage and interact with it.

5.1 Consultation

Vision Workshop - Six Areas For Change

1. Universal Design within the community
2. Carbon Neutral / Passivhaus Principles to be adopted
3. Flexibility to meet demand (not just sport)
4. Social hub destination for meetings and flexible working
5. The landscape and green space is essential
6. New Technology should be embraced



"The project aims to be inclusive. It begins with targeting under 16s and over 55s as these groups are at most risk of health problems and are most marginalised from current facilities."

MORE ACTIVITY

- Broader range of activities
- Progression of challenges from entry to performance
- Appeal to wider range of participants

MORE NATURE

- Active design that interacts with and strengthens the unique landscape

5.1 Consultation

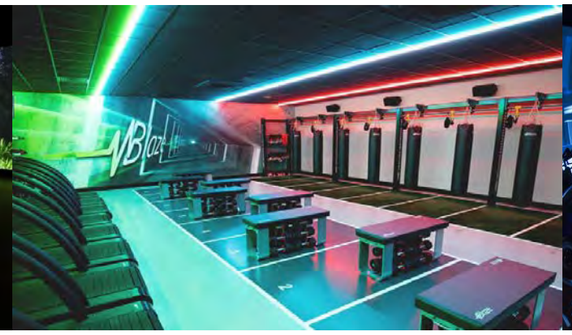
Outcomes from Stakeholder Meetings

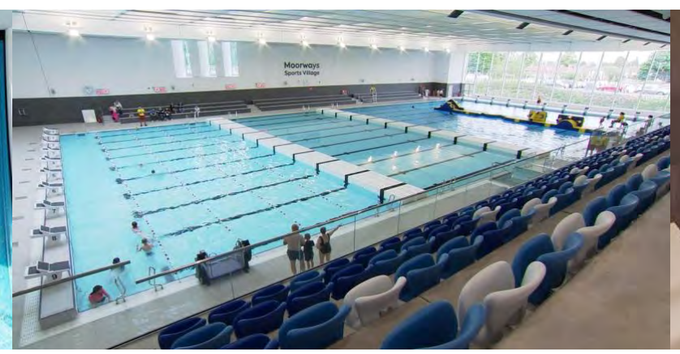
1. Flexible Café Space with ‘zones’ including library space
2. Activity space to link with the café and create external entrance dynamic
3. Large gym with connections to roof space for private outdoor exercise
4. Studios with a difference, embracing new technology
5. A flexible space for sport and non-sport events.
6. Swimming Pool design to target a range of age groups, abilities, race and need, including ‘spa zone’
7. Reduction in energy and water use









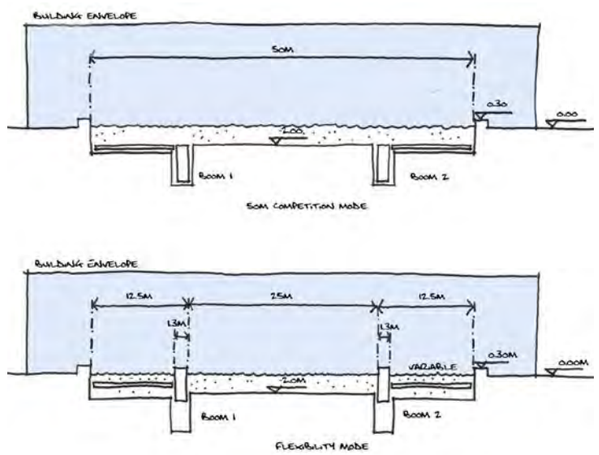

5.1 Consultation

Feedback from Sessions - Wet Areas

Initial feedback to be further tested

Swimming pools and wet side accommodation

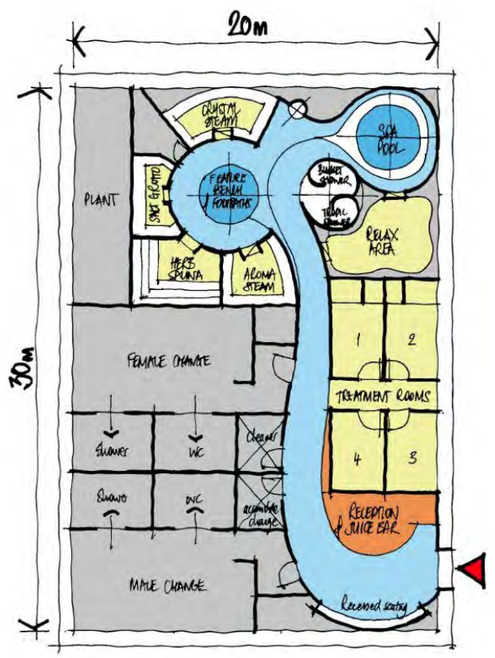
- The 50m main pool is to be 10 lanes based on demand and competition requirements, providing 25m in the width direction.
- Timing pads to be at both ends of the pool (50m) and also both ends of any short course 25m arrangement.
- A conversation around the boom and moving floor arrangement took place, where the following arrangement was agreed as a starting point, offering the swim club the greatest flexibility. The only issue that needs to be resolved is the positioning of diving blocks on the raised 1.3m wide boom when in 25m short course mode. The raised floor to the 12.5m end, will have to raise to 0mm to allow competitors to gather and access the diving blocks.



- There is no requirement for scuba diving or synchronised swimming in the facility so the overall depth doesn't need to be any deeper than -2m.
- Micro-filtration is to be the way forward on pool filtration for the facility. This creates a smaller plant room space and saves on water use and energy costs in heating the pool water.
- Learner pool to be 20m x 8.5m which caters for such a huge demand for teaching water in the borough.
- Learner pool to have a full moving floor down to 1.6m for adult classes in warmer water, with the ability to raise to 0mm (therefore acting as a pool cover).
- Spectator seating to be 250 spaces with accessibility / disabled spaces (6no.) for pool viewing.
- There needs to be careful consideration given to spectator viewing to both the leisure pool and learner / teaching pool water. This could link to the café space.
- Separate conversation to take place with Chris Bunting and his team around the wet changing village design and requirements. This needs testing early at brief stage to see if we can drive down the current area reflected in the design brief.
- A timing room is required (usually at the finish end of the 50m pool). This should have the flexibility to provide swim club use outside of competitions. Room to have good secure storage. Consider judges area when the pool is in short course 25m mode.
- No diving required
- Early consideration of the scoreboard around the block planning would be welcomed.

Spa Facility

- Reiteration that if a spa is to be provided, then it has to be done properly or not at all. The current brief suggests 250sqm, which GT3 believe is too small. This should be more like 600sqm if this is to be a full spa. The following sketch based on this size, illustrates the general requirement for a self contained spa which can benefit from a good source of revenue and enhanced fitness membership:
- The 600sqm is also the size based on the current Berkhamsted Leisure Centre, working with Everyone Active (operator) to create a good spa provision.



Leisure Water Space

- GT3 have met with leisure water providers and will generate a mix of facilities, layout and rides around the current fun pool provision of 600sqm of fun water space. This will include facilities for all ages groups, needs and abilities. Suggested use includes flumes and adrenaline ride, wave pool (wave ball to reduce energy costs), splash pad, kids slides and rides, zero entry water, relaxation space on the perimeter with parent viewing area.

5.1 Consultation

Feedback from Sessions - 50m Tank Layout Option 1

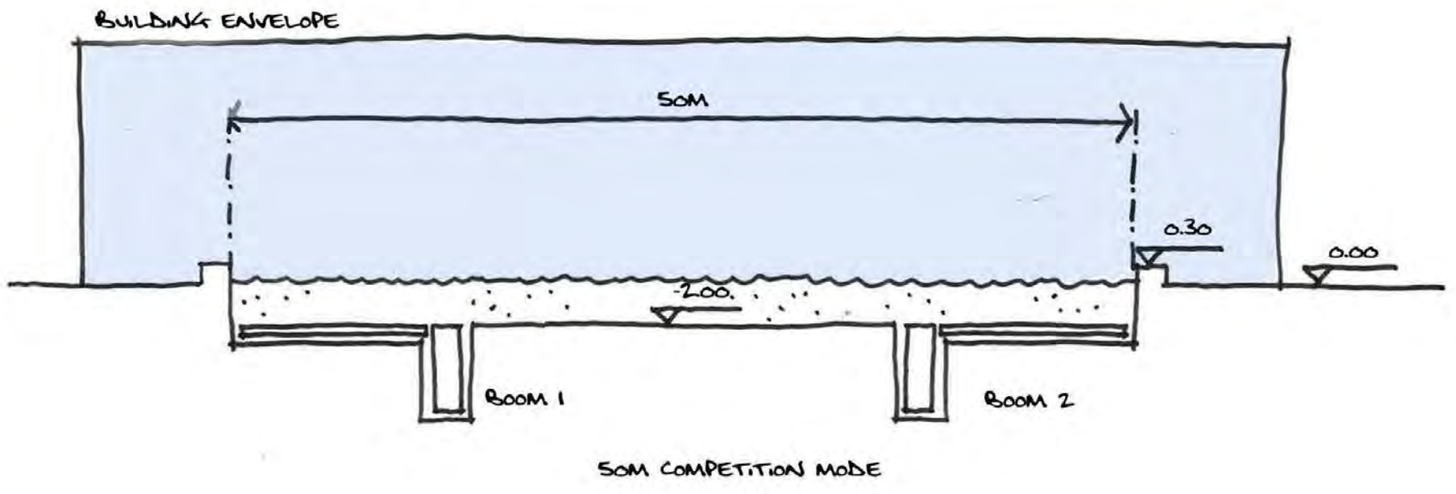
50m Tank with Central 25m short course

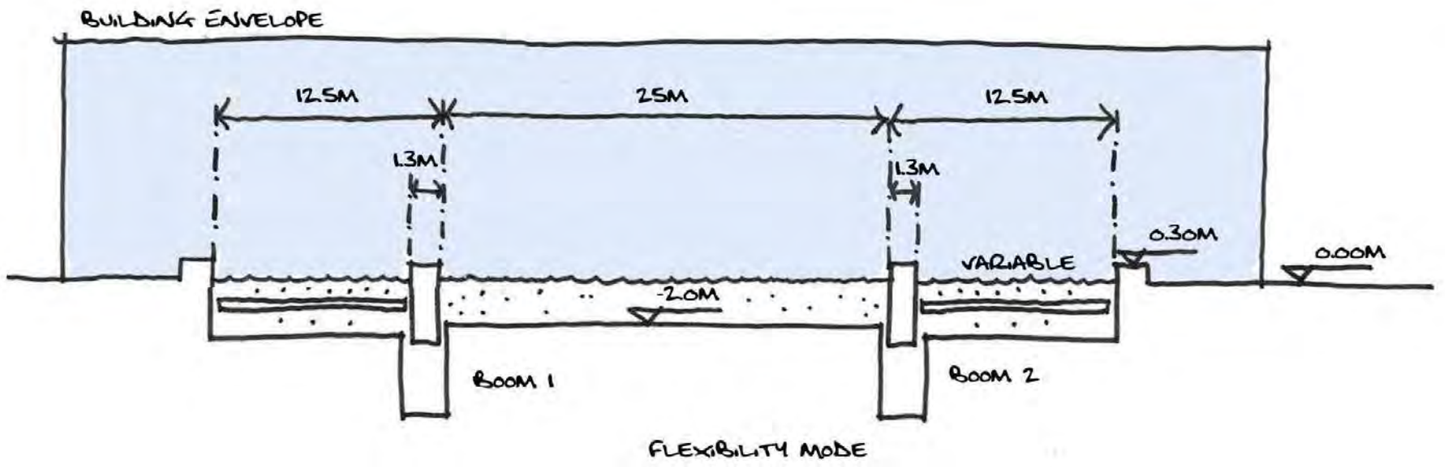
Advantages

- Greatest flexibility of use for teaching and other activities at either end of the pool
- Constant 2m tank in 50m mode
- Safe solution as booms provide barrier to deeper water
- Short course swimming is central for spectator viewing

Disadvantages

- Costly compared to other options
- The diving blocks have to be installed on the boom which creates a tight space for competitors to stand behind the blocks
- Separate timing room required for 25m short course and 50m competitions.





5.1 Consultation

Feedback from Sessions - 50m Tank Layout Option 2

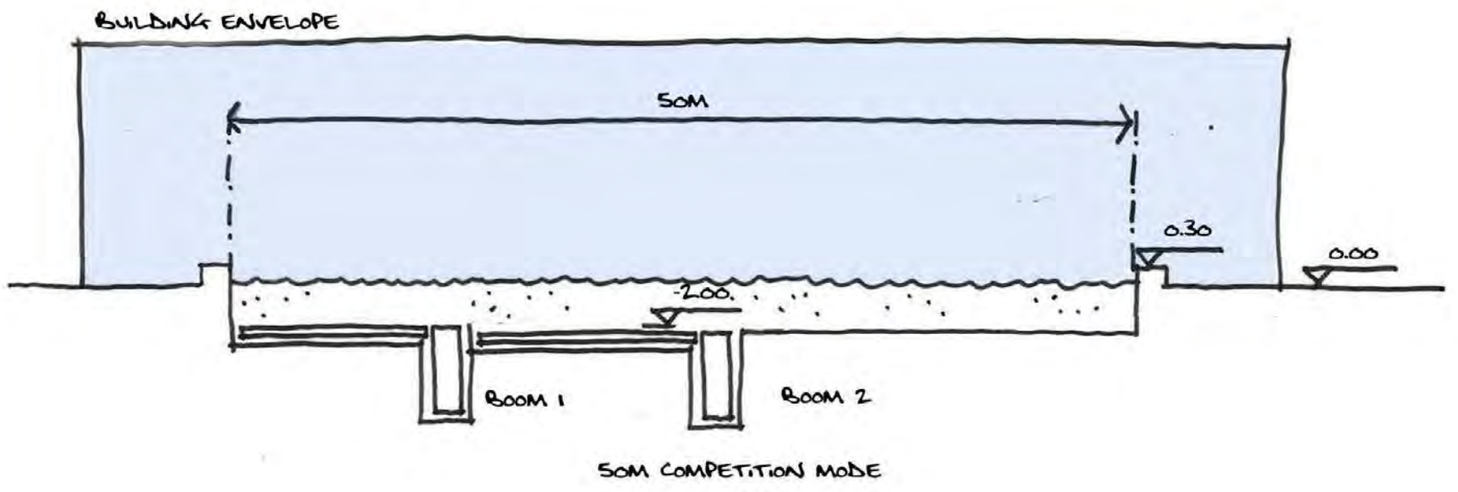
50m Tank with 25m short course to one end

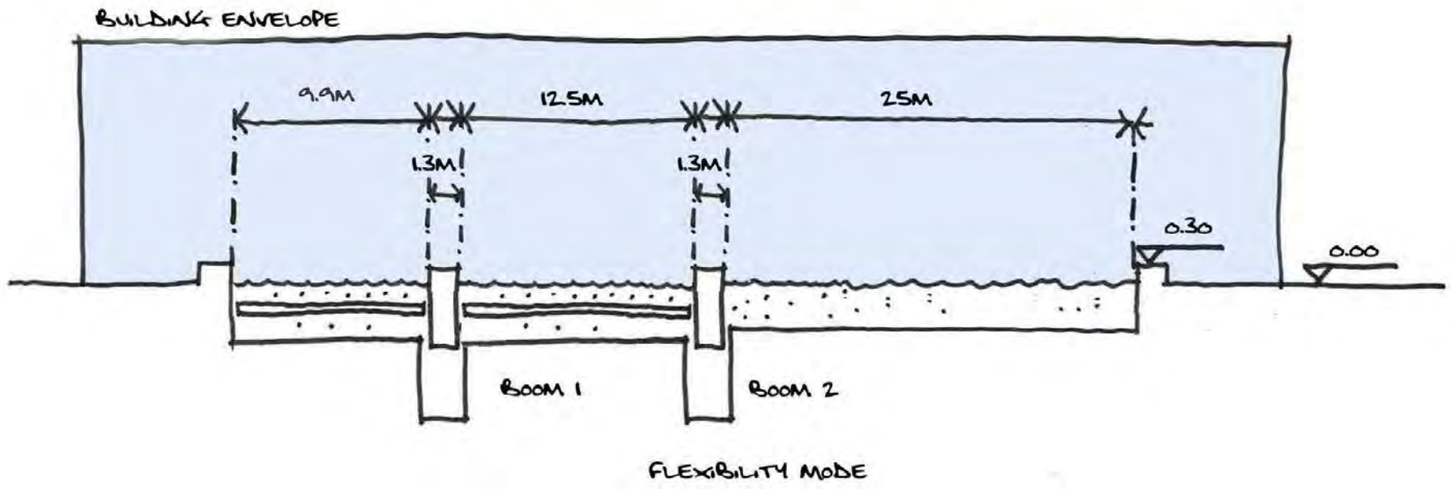
Advantages

- Greatest flexibility of use for teaching and other activities at either end of the pool
- Constant 2m tank in 50m mode
- Smaller areas for flexible teaching water at one end, meaning that you can operate a large teaching space when required.
- The short course 25m pool allows for starting blocks on poolside.
- The timing room can be used for both 50m mode and 25m mode

Disadvantages

- 25m is at one end for spectating





5.1 Consultation

Feedback from Sessions - Sports Hall / Fitness/ Studios

Initial feedback to be further tested

Sports Hall

- Size of sports hall was discussed and a 2 court community hall is deemed too small for the flexibility of sport and non-sport events in the borough.
- The driving force behind the decisions on sports hall size are centred around the gymnastics venue. There is a need for a rhythmic gymnastics venue in the Borough with many of the local clubs training in facilities which are not fit for purpose.
- The above requires a hall with a height of 9m for international competition (exceeds the 7.6m requirement for a standard hall space).
- No need for floor pits or bars, but the space will require good storage (12.5% of the floor space).
- The council would potentially sub-lease the space to the gymnastic club(s).
- Facility requirements for the gymnastic hall are provided below and should form part of the client brief for the sports hall space:
- The 32x18m floor plan required above suits a 4 court sports hall arrangement (20 x34.5m) which will be taken forward as the brief for the sports hall at this stage.

	Podium Potential		Podium	
Venue	**R**	**D**	**R**	**D**
Guideline Hall Dimensions (m)	25 x 18	32 x 18	32 x 18	
Minimum Clearance Height (m)		9	9	12
Lighting - Minimum Lux at floor level	500		500	
Adequate Storage space for equipment and mats	Y		Y	
Well ventilated venue	Y		Y	
Capability to adjust room temperature of venue – min 18 °C	Y		Y	
Separate male, female and disabled toilets	Y		Y	
Adequate car parking (1 space per 3 participants)	Y		Y	
Access to first aid facilities	Y		Y	
Spectator provision (e.g. tables, chairs, viewing gallery)		Y	Y	
Social facilities; kitchen or a bar/vending facilities.		Y	Y	
On-site weight training facilities and expertise		Y	Y	
Access to sports science support		Y	Y	
Access to physiotherapy support		Y	Y	
Video support with play back facilities		Y	Y	
Office		Y	Y	
Club notice board (to keep members informed)		Y	Y	
Trophy cabinet		Y		Y
Shop/merchandising opportunities		Y		Y
Facilities to deliver coach education courses		Y	Y	

		Podium Potential		Podium	
Specific Equipment Requirements		**R**	**D**	**R**	**D**
Floor - Acro	Sprung FIG standard floor area		Y	Y	
	13M x 13M carpeted	Y		Y	
Hand Equipment	Wands	Y		Y	
	Ribbons	Y		Y	
	Clubs	Y		Y	
	Hoops	Y		Y	
	Balls	Y		Y	
	Ropes	Y		Y	
Preparation area	Access to dance studio		Y		Y
	Ballet barres	Y		Y	
	Mirrors		Y	Y	
Other	Sound system	Y		Y	
	Elastics	Y		Y	
	Benches / Platforms	Y		Y	
	Ankle weights	Y		Y	

R - Recommended
D – Desirable

Fitness Suite and Studios

- 200 stations to be provided around 5.5sqm / equipment (1100sqm). This is slightly above the recommended Sport England requirement, however deals with the new IFI requirements (movement around equipment) and new technology and equipment size. This will also provide excellent flexibility around this key revenue generation space.
- Very small consultation room to be provided (say 8sqm)
- Access control or turnstile entry (no reception desk required)
- Toning suite to be considered as a zone or room within the fitness suite (Shapemaster). https://www.shapemaster.co.uk

Studios

- 2no. studios provided at 175sqm each. These don't need a moving wall between them as they are large enough (plus there is a separate large studio at 200sqm.
- 1 of the 175sqm to be inboard from external glazing and used as a HITT studio (Fortis / Blaze).
- The second studio to be used for yoga etc and have immersive technology built in (360 degree projection). This will require black out blinds to any windows and a black ceiling.
- Spin studio for 40 bikes so 130sqm adequate. Spin studio to be immersive.
- Consider hot yoga.
- Everyone Active would like to see a 4x4m space provided in this cluster to create a electric game box area which are very popular and would provide for a wide range of users and age groups. electric game box - Bing images
- Everyone Active would like the fitness and studio spaces to link to external roof terrace spaces for private external exercise and utilise the flat roof space overlooking key aspects of the park.
- Good quality changing at a good size to suit this large fitness and studio provision and to 'sell' to members.

5.1 Consultation

Feedback from Sessions - Reception / Cafe / Library

Initial feedback to be further tested

Reception / Office and Back of House

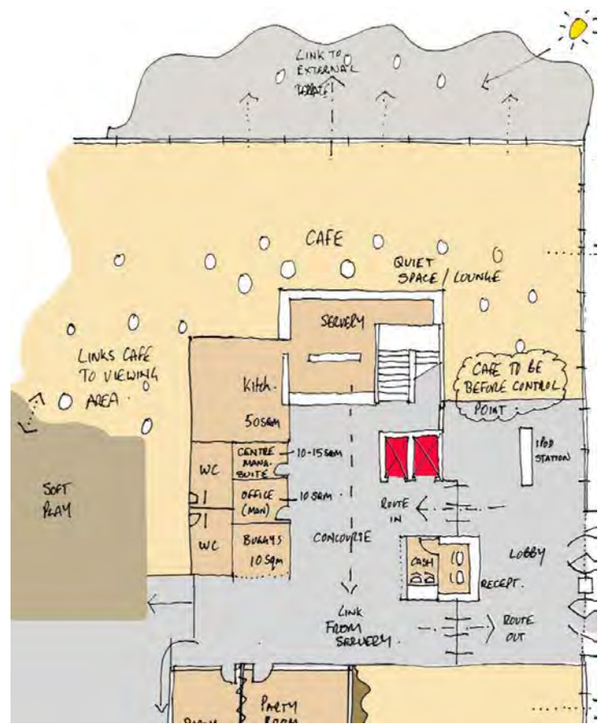
- Reception desk for two people with cash office behind. Cash office to have secure safe and have desk space for two people.
- Duty Managers office for two people (10sqm)
- Separate management office required (15sqm) which can also be a flexible (small) meeting room. This could also be used by the swim club should the timing room not be an adequate space for the club. Storage required.
- Comms room to be off the management office
- Separate staff office for min. 6 people (40sqm). This can be remote from reception.
- Staff office to link to a staff room with dining and kitchenette. No need for any dedicated staff changing rooms.
- A good lobby to be provided for gathering and retail space.
- See Chiltern Lifestyle Centre for good retail layout as part of the lobby space.
- Membership area (comfy sofa) to be located off the lobby but at the 'front of house'.
- An ipod station to be located in the lobby to allow visitors to book classes and access programmes to help free up reception use and queues.
- Lobby doors to be revolving (two no.) to help control draughts to reception desk. This is to be supported by two personnel doors to either side for wheelchairs / pushchairs / etc. Doors to have pushpad facility.
- See sketch right for outcomes of this discussion:

Café

- Cafe to be at the front of the control point allowing park users and non-leisure users to also use the café.
- Café to link to south facing terrace and links to the park
- There needs to be a link between the café and the party rooms at ground floor in close proximity (see sketch above).
- Café to serve minimum 100 covers to allow for flexibility.
- Acoustic booths to be provided to allow for flexible working and Teams calls.
- Café to be zoned to create quiet space and kids space linked to soft play area.
- Good sized toilets linked to café

Library

- 100sqm should be adequate
- Chris B would like to see an emphasis on children's library space
- Self-check in / check-out provision
- Library to share and integrate with the café space.
- Small break-out room for quiet reading
- Computer space for internet use. This again can form part of the café space



5.1 Consultation

Feedback from Sessions - External Sport and Leisure

Initial feedback to be further tested

- Existing playground and skate park are essential and well used – even if they have to be re-provided. Given the recent cost and investment made towards these spaces, consider re-use where possible around the masterplan
- Consider the skate park in an undercroft for all weather use?
- Skate Park could connect with the building and use wall space as part of the skate park?
- Green Gym required
- No BMX provision (nice-to-have) but consider a pump track as part of the brief, integrated into the landscape. Chris B provided the image below from Harrow after the session.
- No football pitches required (these will just be informal pockets around the park
- Need for a trim trail / flow path along the river and connect the park and building to the water. This should include conservation, swales, wetland space, forest school provision with natural amphitheatres for learning. The trail should connect over the river via a footbridge and link the athletics and Perivale Meadows
- Skate park will need a maintenance area as part of the building
- If the above is provided, consider enlarging the maintenance space and create a cycle hire provision with storage for connecting to the wider cycle routes in the Borough. This is desirable and not essential at the moment. Chris B to connect GT3 to the cycle team in the council.
- Outdoor toilets to be provided as part of the park use and café spill out.

5.1 Consultation

Building Visits - Moorways Swimming Complex, Derby - FaulknerBrowns Architects

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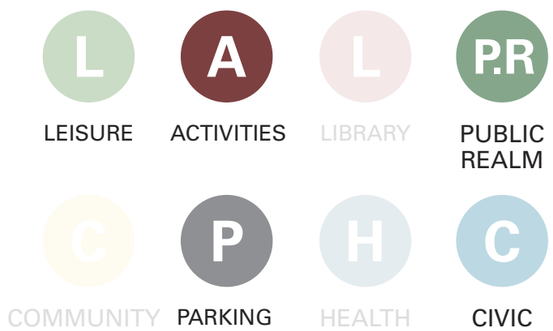

Positive Areas to consider embracing:

- Good quantity of parking with a range of spaces including a good number of electric charging points.
- Interesting that despite it being in a park, it was disconnected from the main road and views of the leisure centre. The operator mentioned that this had little impact on attracting new members.
- Entering the building on first floor, overlooking the pool at high level, created a dramatic space. This allowed the café to be used as a focal point over the swimming pool (see negative below).
- Welcoming entrance with well positioned meeting rooms off reception which had a good balcony connection to the adjacent athletics track. Good use of moving walls to create flexibility of space / size.
- The wet changing village was well designed and felt spacious. The entrance to the main 50m pool was very good (pre -swim showers).
- The pools were well linked (main 50m pool, learner pool and fun pool) having their own space and environment. This meant that humidity could be controlled in each zone.
- The boom configuration on the 50m pool was excellent. This has the 25m short course pool at one end, allowing the diving platforms to be on pool side. This created a smaller zone in the middle of the pool which still has 25m in width for lap swimming (10 lane) and a larger area for teaching. These zones had moving floors for flexible use for different age groups and activities.
- The use of 5m steels allows swimmers to use the structure as a timing and navigation aid.
- Good quantity of competitor seating (150no.) running the length of the 50m pool.
- The fun pool was well designed in such a small space. The inclusion of racing slides and side-winder ride was well placed on each end wall. The use of the 'wow ball' for creating the wave pool was energy efficient and cut down on space. The smaller children's slides and activity frame was well located away from the slides and noise.
- Use of flume externally allowed the internal fun pool area to drop down in height.
- The studios offered a welcome connection with the running track and park.

Negative Areas to ensure we don't make the same mistakes

- Lack of connection to inner workings of the building and what is on offer – very inward looking
- The café was isolated in a corner and very small for a facility of this size. The plastic tables and chairs breathed 'council leisure centre' and lacked the lounge feel at Camberley.
- The west facing window created glare on the pool. The operator has invested in film to apply to the glass which will cut out any connection externally. The east facing window into the fun pool creates the same issue in the morning.
- The spa area was disappointing and not a good use of space. Given the size, there appeared to be a greater scope for inclusion of more than a steam room and sauna.
- The gym area was under whelming with its interior design / material choice. It lacked zones for different uses and was too open. The ceiling at 3.5m made the space oppressive.
- Studio stores had one single door which made it very hard for the operator to transport equipment.
- The plant room was vast and had too much space. Over £2m was spent on the basement plant.
- The main body of water in the fun pool zone (wave pool), lacked flexibility, other than it being a wave pool. Could have been much more flexible to accommodate various age groups.
- The splash pad was isolated at the back of the fun pool zone and offered little connection for parents to view. Operator mentioned that it was hardly used.
- The studio interactive / immersive TV was poor compared to the technology that is now on the market. This has led to a studio space which offers little flexibility.

5.1 Consultation

Building Visits - Camberley, Surrey - Roberts Limbrick Architects

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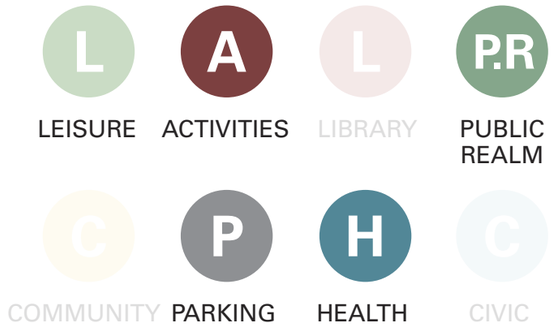
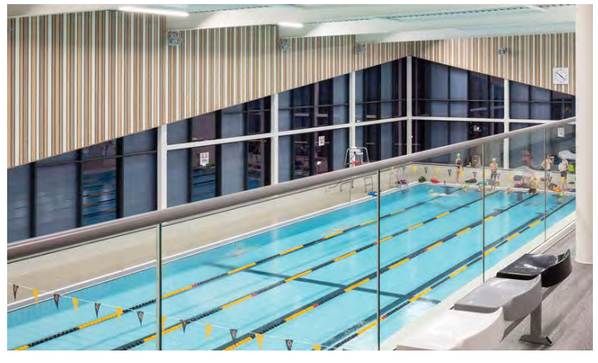


Positive Areas to consider embracing:

- Positive entrance on approach with good visibility to the climbing features in the building and plenty of people movement visible.
- Welcoming entrance with a busy café and reception close by.
- The membership 'zone' is a good addition and connects well to reception and the cafe.
- The retail stands at the front of reception were well organised and guided the user through the foyer to reception. Having low retail racks are a good idea. Too high and they create confusion.
- Flexible meeting rooms off the reception / café were well placed and well used.
- The café with the Costa Coffee franchise created a relaxed and lounge feel, giving the facility a 'private club' feel. In order to compete with other private gyms, this feature is essential.
- The soft play was well connected to the café, but had its own space behind full height glass screens, allowing the noisy space to be contained, leaving the rest of the café as more of a social space.
- The clip n climb was excellent. Minimum 20 lines needed to encourage repeat use. The inclusion of a full height climbing wall on a blank wall was a good addition, resulting in a space which met a variety of age groups.
- Café had good views into the learner pool and provided a link to pool side for those parents who wanted a better connection with the learner pool.
- Minimal circulation which is good.
- Staff zone integrated the general office with staff dining and changing. This worked very well and similar should be incorporated in the Gurnell scheme.
- The changing village was flexible and allowed access to both pools at shallow ends.
- The 'dutch' automatic screen which divided the two pools was very good, allowing private swimming when required and then open-up the halls when division wasn't needed.
- No stainless steel in the pool hall – all nylon coated which makes for easier cleaning and no rusting.
- Fitness suite was a good size and felt open. There was plenty of opportunity to include for a broad range of fitness equipment.
- The spa was compact at 200sqm and allowed a wide range of facilities which provided a premium income from fitness uses who used it. Could have been slightly larger and include for treatment rooms.
- Good use of space by having the sports hall at first floor, connecting to viewing corridors. This was over the changing rooms, to allow for structural support below.

Negative Areas to ensure we don't make the same mistakes

- Splash zone at the rear of the learner pool was lost and disconnected from the café and parents viewing area.
- Tiles in all changing spaces looked old and tired due to dirt and water staining. Consider the use of resin for changing rooms in the new Gurnell Leisure Centre.
- The temperature / humidity in the swimming pool was extreme, especially for spectators and quite a toxic smell of chlorine in the atmosphere.
- Pool store quite remote from the learner pool. Consider having two stores in the Gurnell scheme.
- Fitness change and spa change cubicles and seating looked very cheap. Given that these spaces are for direct debit members, the quality of these spaces should be very high.
- Lack of outdoor terrace space and outside exercise.
- Café lacked any connection with the outdoor environment.



5.1 Consultation

Building Visits - Winchester, Hampshire - LA Architects

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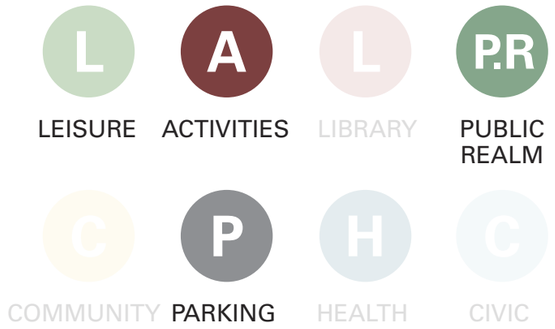
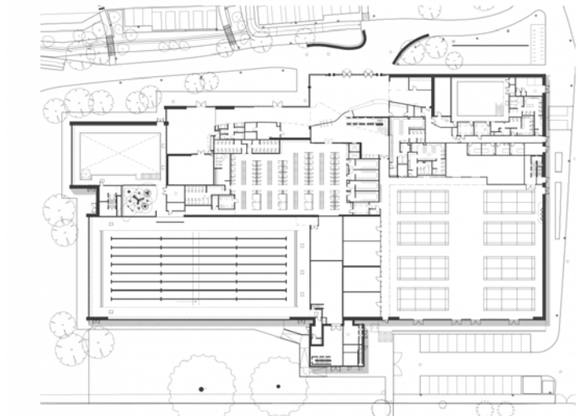


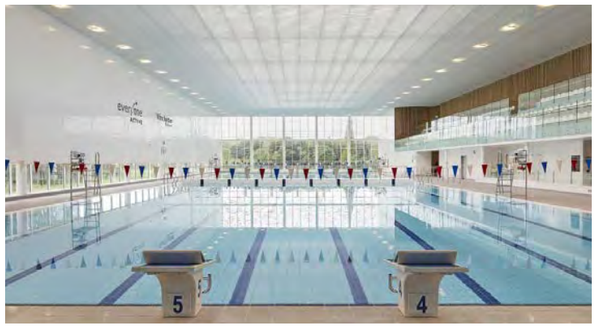
Positive Areas to consider embracing:

- Entrance upon approach was bold and impressive with clever use of landscape, water and planting to soften the hardscape elsewhere.
- Good connection with the neighbouring athletics track
- Good sight lines to the reception desk
- Café was well connected with the clip n climb and the learner pool for parent viewing.
- The private wellbeing clinic with hydrotherapy water created a regional pull for visitors and referrals from community GP's.
- The 50m pool hall was very impressive with good use of natural light from above, making the space light and open (welcoming).
- The humidity and temperature control was very good and worked both at pool level and spectator level.
- Moving floor to learner pool allowed for a range of activities and great flexibility.
- Spacious gym although the look and feel was not as impressive as Camberley Leisure Centre.
- Good idea having lockers in the street circulation. It was noted that many users come changed and don't actually use the changing space.
- The immersive cycle studio was excellent and the operator mentioned that the space is always busy.

Negative Areas to ensure we don't make the same mistakes

- Little connection to what was occurring inside the building, even though there was plenty of glazing.
- Entrance foyer was enormous and double height. If this was a civic centre, it would have been perfect, however whilst the design quality was excellent, the atmosphere was sterile and civic / library like. It didn't say 'leisure centre'.
- Café was formed via the circulation and 'street like'. It felt cold and uninviting and lacked atmosphere.
- A budget option to the clip n climb wall found in Camberley was used. It looked cheap! It was also central to the building and had no connection to outside. It was lost in the building and lacked impact.
- Splash pad was disconnected from parent viewing and was very dark and uninviting. Needs to be better connected with the café space
- The changing room tiles looked worn and dirty due to mixing foot traffic with standing water
- Wet changing village to the swimming pools lacked visual connection with poolside and very difficult to navigate. The village lacked connection with the learner pool.
- Whilst the sports hall looked impressive its function as a hall was terrible. The hall had too much natural light entering the space, making it hard to play sport. The circulation space to the outside of the hall, meant there was a lack of rebound wall space and ruled out the use of many sports in the space. The acoustics were also very poor. A very in-flexible space which the operator struggles to make work.
- Sports hall changing rooms were too large and the operator mentioned they were hardly used.
- Emulsion paint on the studio walls is already leaving hand-prints and looked unsightly.





5.1 Consultation

Existing Leisure Walkaround - Feedback

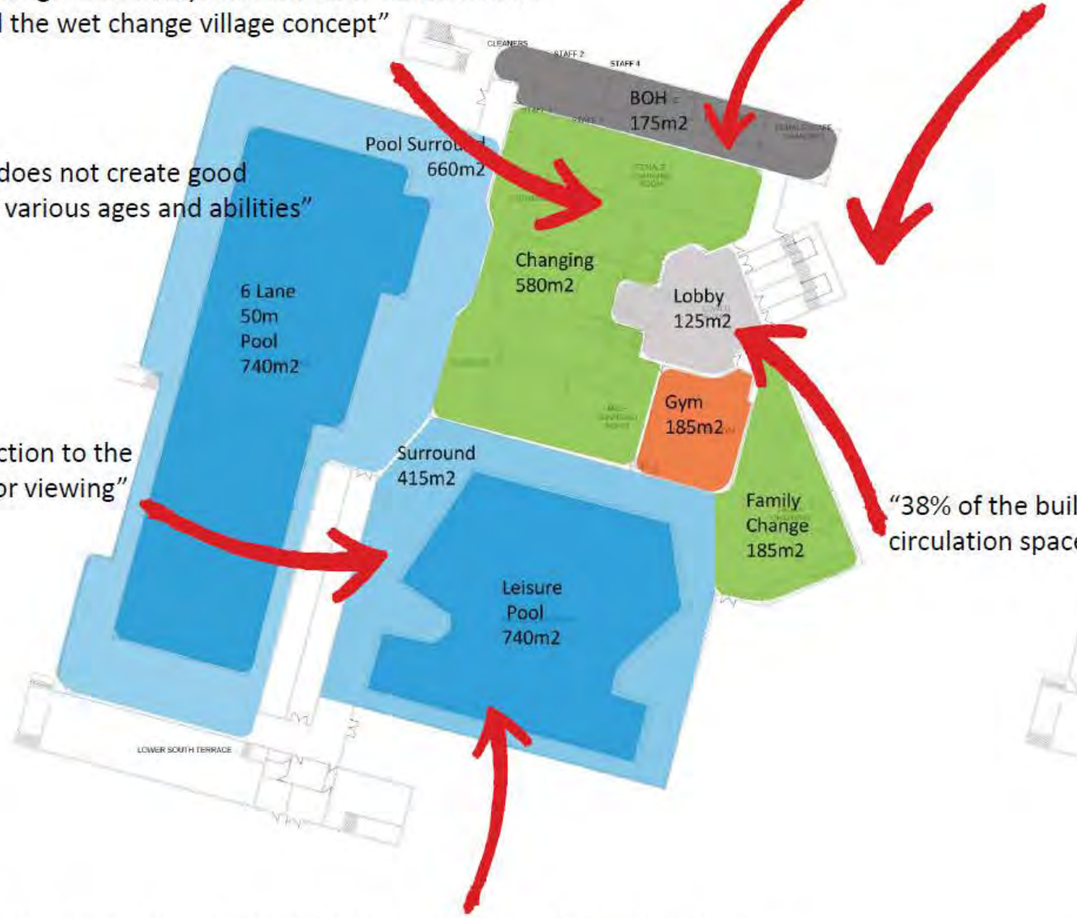
"The fire strategy does not meet current standards and the whole building plan would have to be rationalised to meet regulations"

"The park and building are disconnected (inward facing) with little connection between the café and landscape"

"All plant, inc. pool will Need to be replaced"

"The current wet changing room split of male and female with a separate family change area always worked well. Needed to be convinced around the wet change village concept"

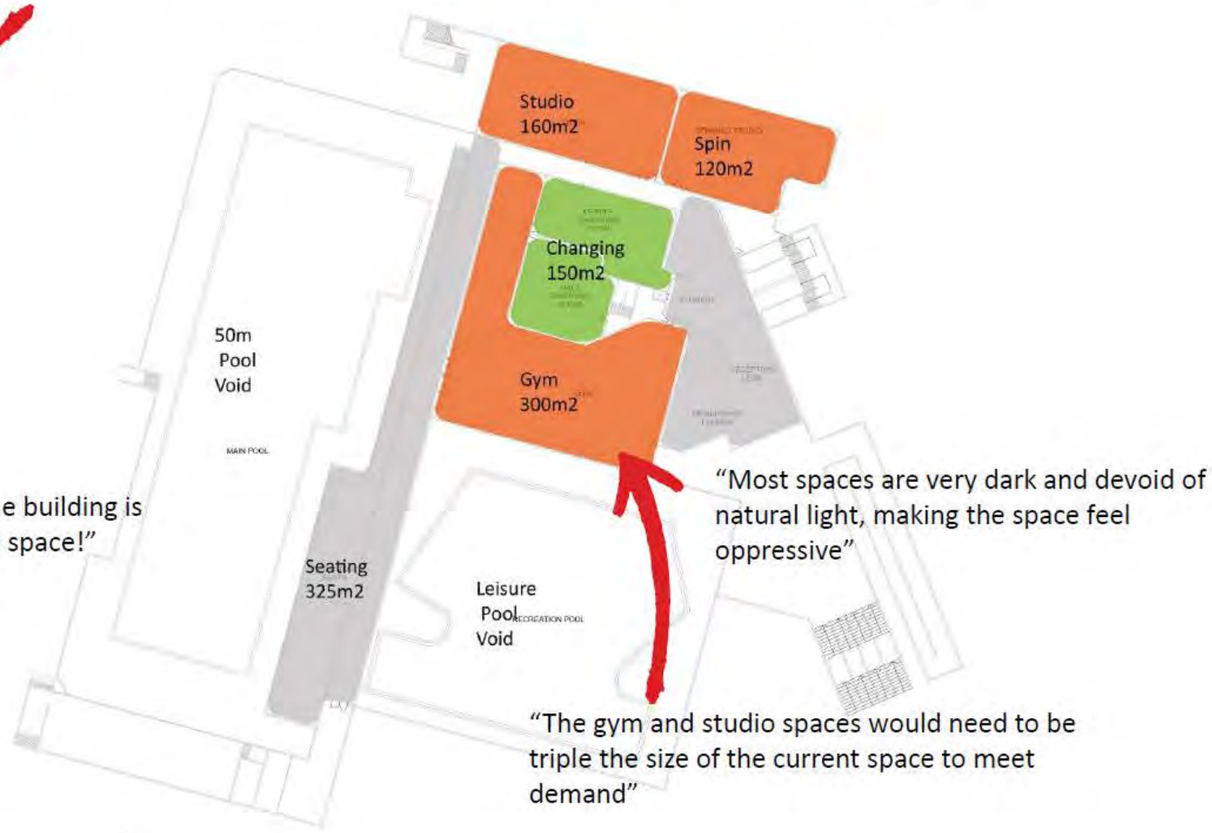
"Arrival is not the most accessible and the foyer / entrance is underwhelming"



"The pool tank does not create good Accessibility for various ages and abilities"

"No café connection to the Fun pool area for viewing"

"38% of the building is circulation space!"



"Most spaces are very dark and devoid of natural light, making the space feel oppressive"

"The gym and studio spaces would need to be triple the size of the current space to meet demand"

"The small area for teaching, combined with the fun pool does not create an environment for swimming lessons due to noise. In addition if an accident happens in the pool, both the teaching water and fun pool would have to close"

"The building needs to have a design life of 40 years, which would result in the building being stripped back to its structure at the very least, with very little opportunity for re-use of material"

5.2 Refining the Leisure Brief

5.2 Refining the Leisure Brief

Where has the brief come from?

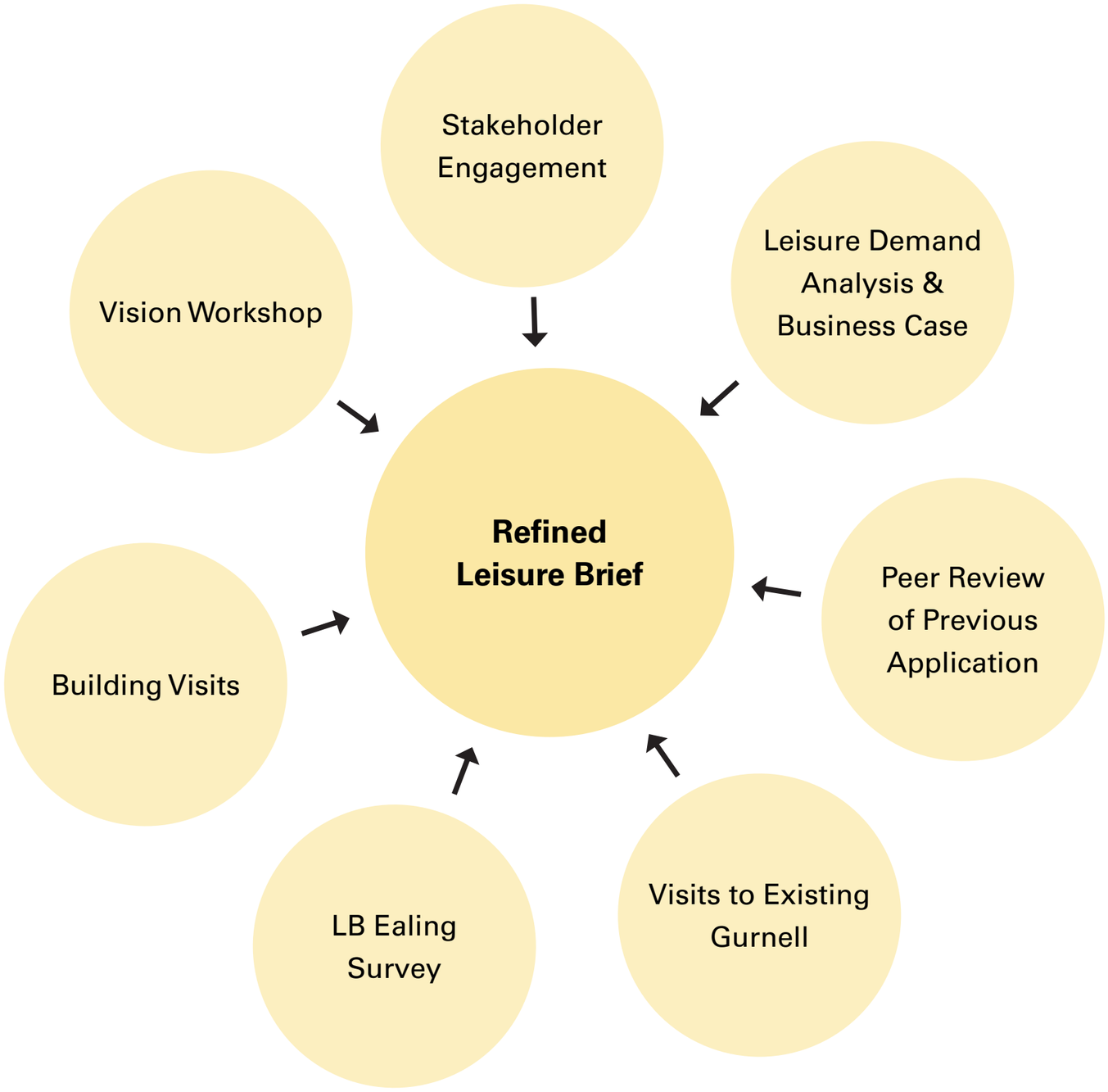
Wide Ranging Engagement

The Leisure brief has been developed through extensive and in depth consultant and analysis including;

- Vision Workshop
- Stakeholder engagement
- Building Visits
- Gurnell site visit
- LB Ealing surveys
- Peer reviews
- Demand analysis
- Business case assessment

The leisure brief is the defining factor that sets out the rest of the masterplan as all enabling development and landscape stems from the Leisure Centre.

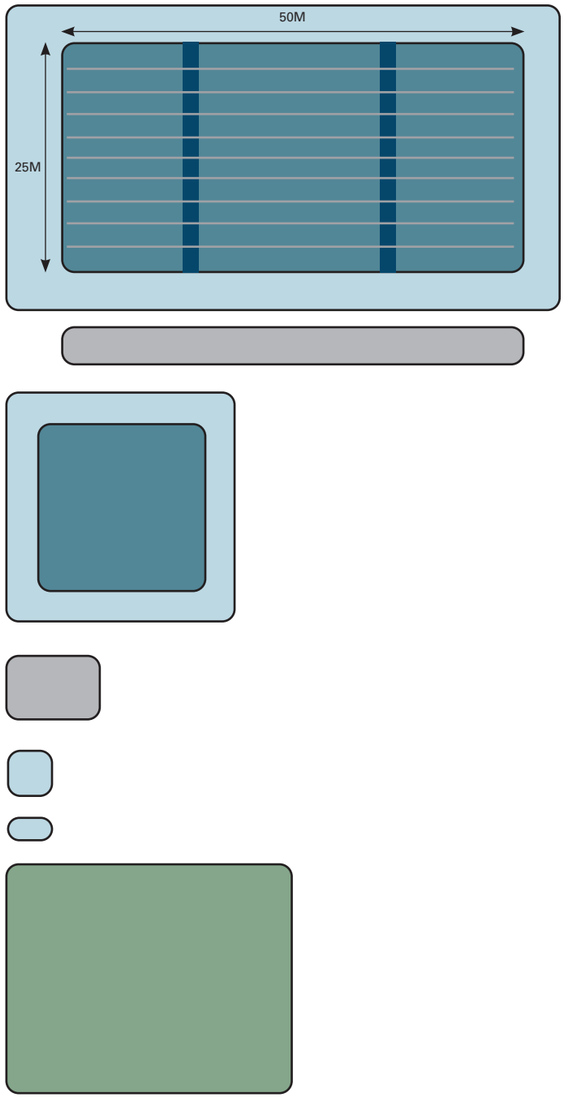
A careful assessment has been undertaken throughout to balance the aspirations and needs of the Leisure Centre for the local community (both now and in the future) with viability and deliverability of a scheme.



5.2 Refining the Leisure Brief

Previous Planning Application - Peer Review

Wet Zones



50M Pool - 10 lane
50 x 25m = 1250m2
2no. Booms, 25m swimming across pool

Pool Surround = 630m2
(undersized to Sport England guidance)

Pool Seating 234 spaces
=170m2
(undersized to Sport England guidance [500])

Leisure Pool = 330m2

Pool Surround = 290m2

Does Leisure water include learner water?

Pool Storage =70m2
(undersized to Sport England guidance)

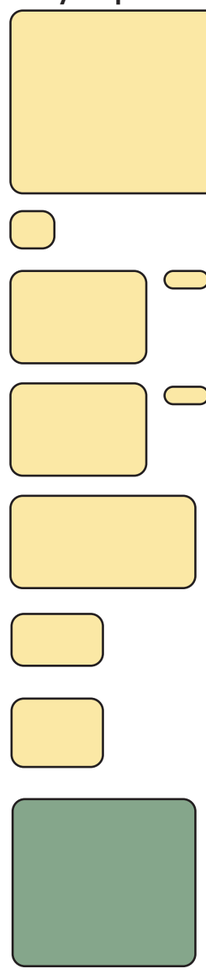
Spa =25m2 (seems small)

First Aid =15m2
(undersized from experience)

Wet Changing Village
= 775m2
(undersized to Sport England guidance)

Wet Zones = 3555m2

Dry Sport Zones



Fitness Suite
174 Station @ 5m2 per
= 870m2
(Undersized if 200 stations)

Fitness Office
=20m2

Studio 1 = 150m2
Store = 10m2
(undersized)

Studio 2 = 150m2
Store = 10m2
(undersized)

Studio 3 = 200m2
Store = 15m2
(undersized)

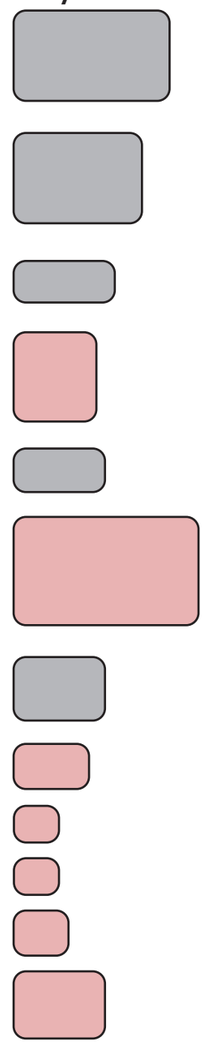
Party Room 1
= 60m2

Party Room 2
= 70mx2

Dry Change
= 360m2

Dry Sport Zones = 1915m2

Dry FOH Zones



Foyer = 170m2

Reception FOH =140m2

Reception BOH
=55m2

Cafe/Seating = 90m2
(seems small)

Kitchen/Servery - 50m2
(seems small)

Soft Play - 240m2

Breakout = 70m2

Meeting 1 = 40m2

Meeting 2 = 25m2

Meeting 2 = 25m2

L00 WC = 30m2

L01 WC = 75m2

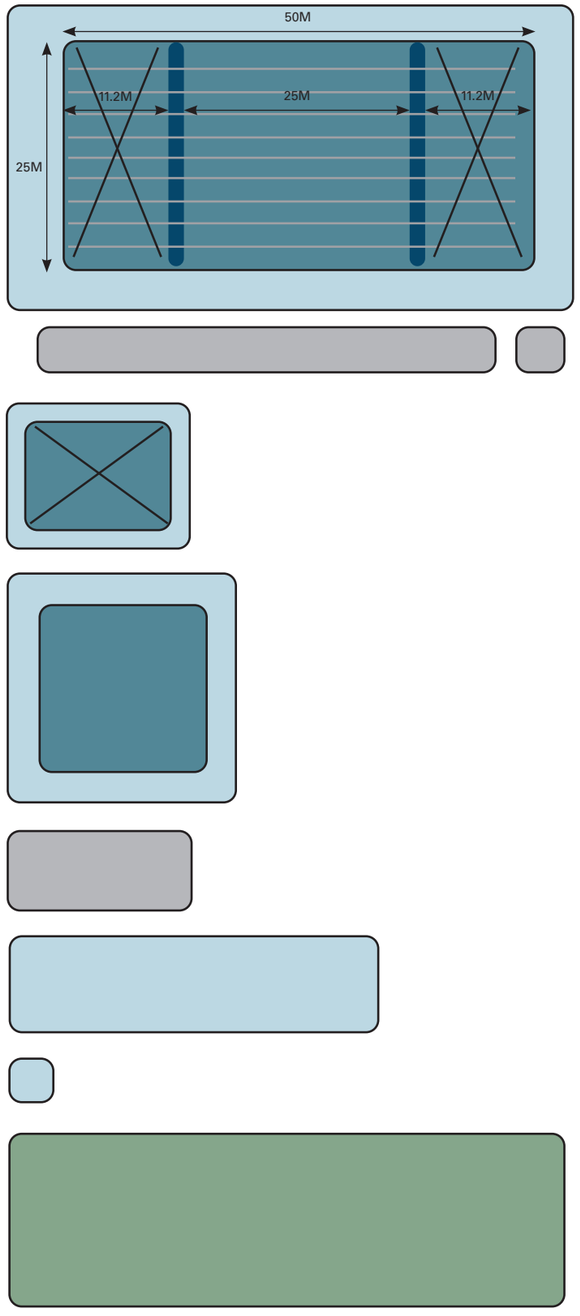
Dry FOH Zones =
1010m2

Wet Zone	= 3555m²
Dry Sport Zones	= 1905m²
Dry FOH Zones	= 1010m²
Total Net	= 6480m²
Plant	= 1770 m² (26.6%) Very High
Circ	= 785 m² (12%)
Total Gross	= 9035 m²
Car parking	= Circa 300 Spaces

5.2 Refining the Leisure Brief

Client Preferred Facility Mix

Wet Zones



50M Pool - 10 lane
50 x 25m
= 1250m²

Pool Surround
= 730m²
6m start, 4m sides, 4m end

2 x Boom + 2 x Moveable floors

Pool Seating 250 spaces + 6 Acc. =250m²

Timing Room = 20m²

Learner Pool - 20x8.5m with moveable floor (1.6m deep max) = 170m²

Pool Surround = 110m²

Leisure Pool = 330m²
Pool Surround = 290m²

Includes slides, play equipment

Pool Storage = 180m²

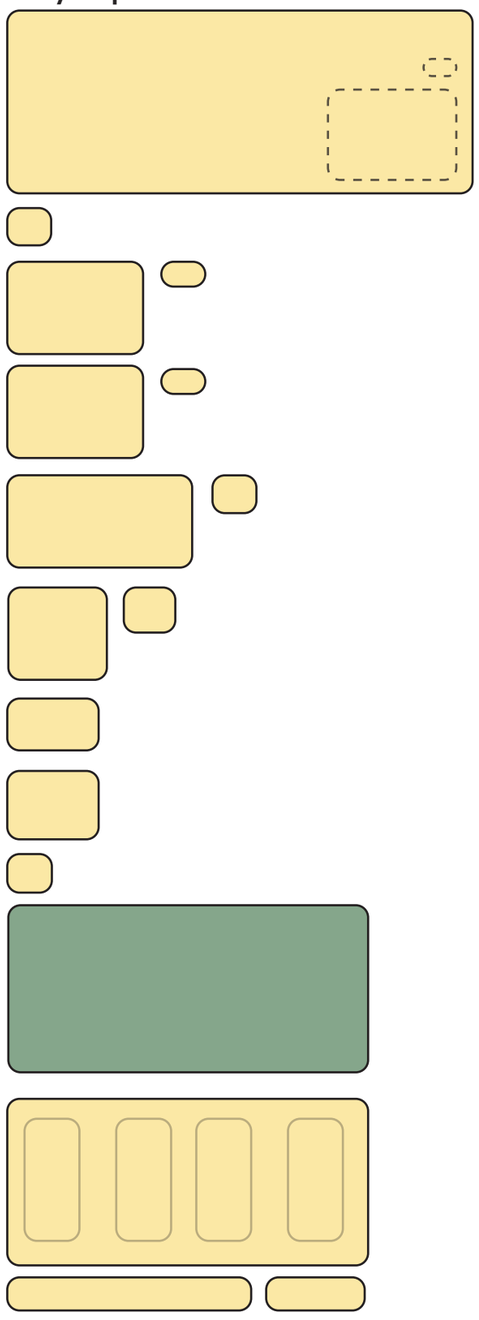
Spa = 600m²

First Aid = 25m²

Wet Changing Village
= 1140m²

Wet Zones = 5095m²

Dry Sport Zones



Fitness Suite
200 Station @ 5.5m² per
= 1100m²
Includes Toning suite and Consult room
Note - Fitness Suite to have access to external terrace

Fitness Office = 20m²

Studio 1 = 175m²
Store = 18m²
HITT

Studio 2 = 175m²
Store = 18m²
Immersive

Studio 3 = 200m²
Store = 20m²

Spin = 100m²
Store = 30m²

Party Room 1 = 60m²

Party Room 2 = 70m²

Game Box = 20m²

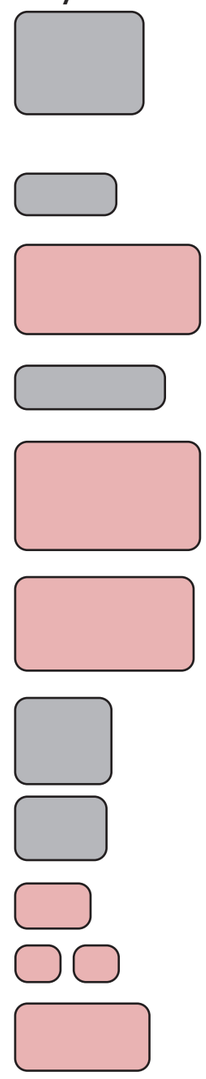
Dry Change = 570m²

4 Court Sports Hall = 690m²
To be used for Rhythmic Gymnastics

Hall Store = 90 m²
Mat Store = 40m2

Dry Sport Zones = 3395m²

Dry FOH Zones



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=165m²

Reception BOH Office & Staff room
=60m²

Cafe/Seating
= 250m²

Kitchen/Servery
= 80m²

Soft Play - 240m²

Clip and Climb = 200m²

Library = 100m²

Breakout = 70m²

Meeting 1 = 40m²

Meeting 2 & 3
= 2 x25m²

WC = 95m²

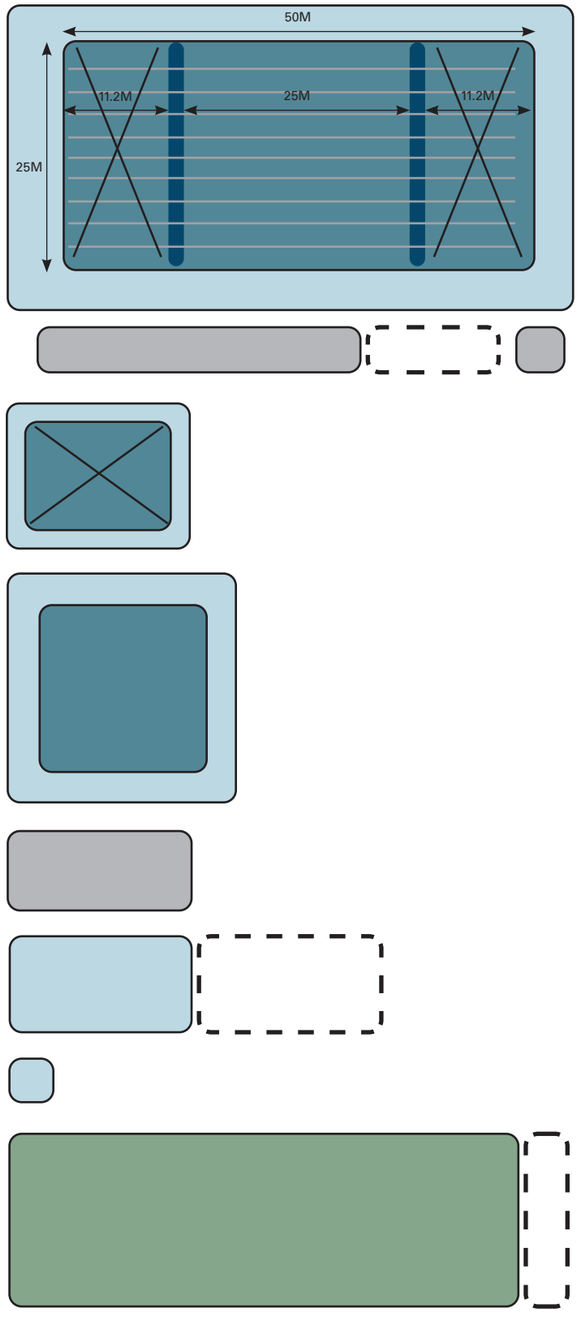
Dry FOH Zones = 1350m²

Wet Zone	= 5095 m²
Dry Sport Zones	= 3395 m²
Dry FOH Zones	= 1350 m²
Total Net	= 9840 m²
Plant @ 15%	= 1475 m²
Circ @ 10%	= 985 m²
Int Walls @ 5%	= 495 m²
Total Gross	= 12795 m²
Car parking	= 200-300 Spaces. Final Number TBC

5.2 Refining the Leisure Brief

Optimised Facility Mix

Wet Zones



50M Pool - 10 lane
50 x 25m
= 1250m²

Pool Surround
= 730m²
6m start, 4m sides, 4m end

2 x Boom + 2 x Moveable floors

Pool Seating 250 spaces + 6 Acc. =~~250m²~~ 200m²

Timing Room = 20m²

Learner Pool - 20x8.5m with moveable floor (1.6m deep max) = 170m²

Pool Surround = 110m²

Leisure Pool = 330m²
Pool Surround = 290m²

Includes slides, play equipment

Pool Storage = 180m²

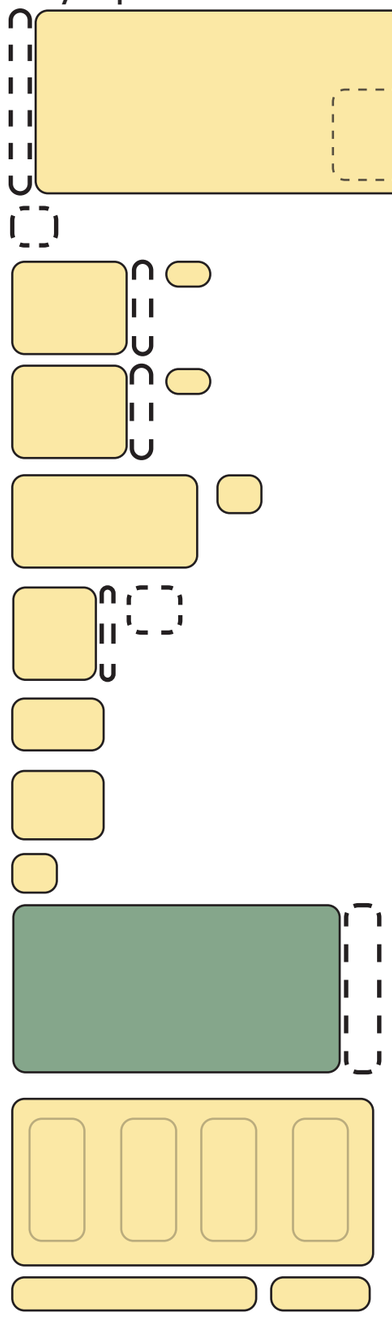
Spa = ~~600m²~~ 300m² inc 50m² bistro/lounge

First Aid = 25m²

Wet Changing Village
= ~~1140m²~~ 1000m²

Wet Zones = ~~5095m²~~ 4605m²

Dry Sport Zones



Fitness Suite
200 Station @ ~~5.5m²~~ 5m² per
= ~~1100m²~~ 1000m²
Includes Toning suite and Consult room
Note - Fitness Suite to have access to external terrace

~~Fitness Office = 20m²~~

Studio 1 = ~~175m²~~ 150m²
Store = ~~18m²~~ 15m²
HITT

Studio 2 = ~~175m²~~ 150m²
Store = ~~18m²~~ 15m²
Immersive

Studio 3 = 200m²
Store = 20m²

Spin = ~~100m²~~ 90m²
~~Store = 30m²~~

Party Room 1 = 60m²

Party Room 2 = 70m²

Game Box = 20m²

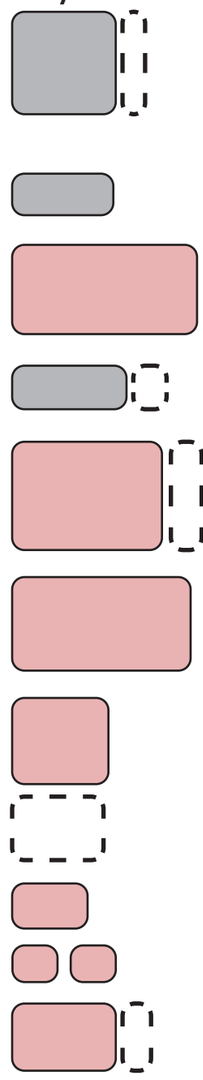
Dry Change = ~~570m²~~ 500m²

4 Court Sports Hall = 690m²
To be used for Rhythmic Gymnastics

Hall Store = 90 m²
Mat Store = 40m2

Dry Sport Zones = ~~3395m²~~ 3110m²

Dry FOH Zones



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=~~165m²~~ 120m²

Reception BOH Office & Staff room
=60m²

Cafe/Seating
= 250m²

Kitchen/Servery
= ~~80m²~~ 60m²

Soft Play - ~~240m²~~ 180m² double height

Clip and Climb = 200m²

Library = 100m²

~~Breakout = 70m²~~ Included in circulation

Meeting 1 = 40m²

Meeting 2 & 3
= 2 x25m²

WC = ~~95m²~~ 60m²

Dry FOH Zones = ~~1350m²~~ 1120m²

Wet Zone	= 4605 m²
Dry Sport Zones	= 3110 m²
Dry FOH Zones	= 1120 m²
Total Net	= 8835 m²
Plant @ 15%	= 1335 m²
Circ @ 10%	= 890 m²
Int Walls @ 5%	= 445 m²
Total Gross	= 11505 m²
Car parking	= 170-270 Spaces. Final Number TBC

5.2 Refining the Leisure Brief

External Facility Mix

1. Green Arrival
2. Green Spine / Ecological Network
3. Green Gym
4. Wheeled Sports
5. The Stage
6. Fun Fit Bank
7. South Facing Terrace
8. The Oval

5.2 Refining the Leisure Brief

Feedback on Feasibility Brief

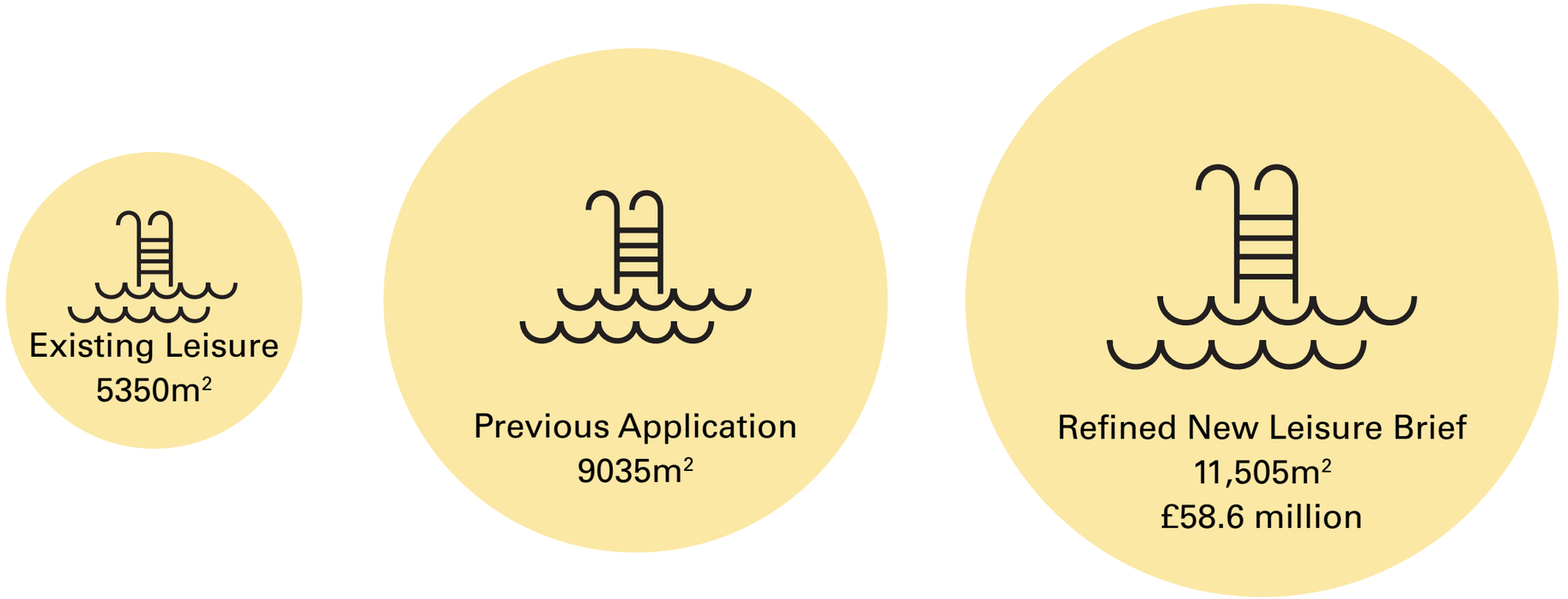
Feasibility Proposal - Feedback

The feasibility leisure brief was presented to the Sounding Board with circa 11,500sqm of accommodation with a £58million construction cost. The indication was that circa. 500 homes would be required as enabling development depending on the funding route

Key feedback was that this is significantly larger than both the existing leisure and the previous application and therefore was resulting in a higher amount of enabling development as well as MOL land take.

The team has taken this on board and undertaken an extensive review in the following chapter to optimise the Leisure Brief so that is demonstrates the minimum amount of development whilst still providing a viable business model and meeting the needs of the local community.

The demonstration of 'minimum development' is also crucial for meeting MOL policy.



5.3 Facility Mix Review

5.3 Proposed Leisure Facility

Facility Mix Sliders

The overall brief was reviewed further due to the 11,500m2 brief providing affordability issues.

To easily communicate the benefits and drawbacks of each facility mix throughout this document we have included four scoring sliders for each option. As the facility mix changes the sliders aim to quantify what each option offers overall.

The sliders have been specifically chosen to reflect the facility brief requirements and how these change between each option.

For each option and each scoring criteria we have used a red, amber, green colour code to help visualise the impact the changes to the facility mix has on the performance of the scheme

CLUB

The 'Club' slider communicates how the facility caters to sporting clubs and their members. The 50m pool, sports hall and studio spaces have the largest impact on this slider.

LEISURE

The 'Leisure' slider communicates how the facility caters for leisure users. The leisure pool, spa, and play facilities have the largest impact on this slider.

COMMUNITY

The 'Community' slider communicates how the facility caters to the local community. All aspects of the facility mix have an impact on this slider as community users cover the widest range of activities. However key spaces are the main pool, learner pool, fitness suite, studios, play spaces and cafe.

FLEXIBILITY

The 'Flexibility' slider communicates how flexible the facility is. For example, how many of the spaces provided can be used for multiple activities and users. Total activities covered is also taken into account.

5.3 Proposed Leisure Facility

Current Feasibility Brief

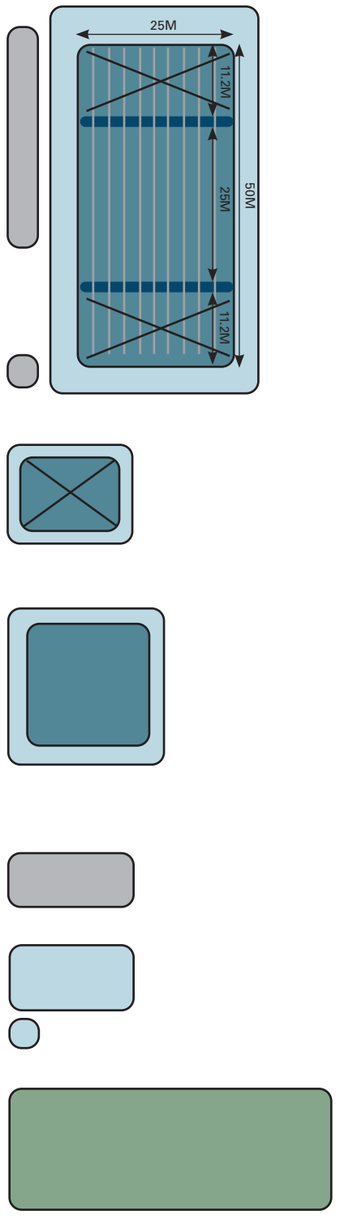
The current feasibility offer provides a wider mix of sports spaces such as a large 200 station fitness suite, 3 studio spaces, a dedicated spin studio and 4 court sports hall.

The wet side facility mix accommodates for a wide range of leisure with a 10 lane 50m pool, learner and leisure pool including slides and play equipment. Additionally a spa and lounge area is included.

The current feasibility also provides additional spaces aimed towards younger years such as 2x party rooms, a game 'box', clip and climb and soft play. Other amenities, adding to the community 'hub' offer include a library, meeting and party rooms.

		Feasibility
Area (sqm)		11505
Construction Cost		£54.4m
Revenue (gross)		£5,269,442
Revenue (net)		£836,930
Impact		
Club	Wet	*Good*
	Dry	*Good*
Community	Wet	*Good*
	Dry	*Good*
Leisure	Wet	*Good*
	Dry	*Good*
Flexibility	Wet	*Good*
	Dry	*Satisfactory*

WET SIDE



50M Pool - 10 lane
50 x 25m
= 1250m²

Pool Surround
= 730m²
6m start, 4m sides, 4m end

2 x Boom + 2 x Moveable floors

Pool Seating 250 spaces + 6 Acc. = 200m²

Timing Room = 20m²

Learner Pool - 20x8.5m with moveable floor (1.6m deep max) = 170m²

Pool Surround = 110m²

Leisure Pool = 620m²
(Includes slides, play equipment)

Pool Storage = 180m²

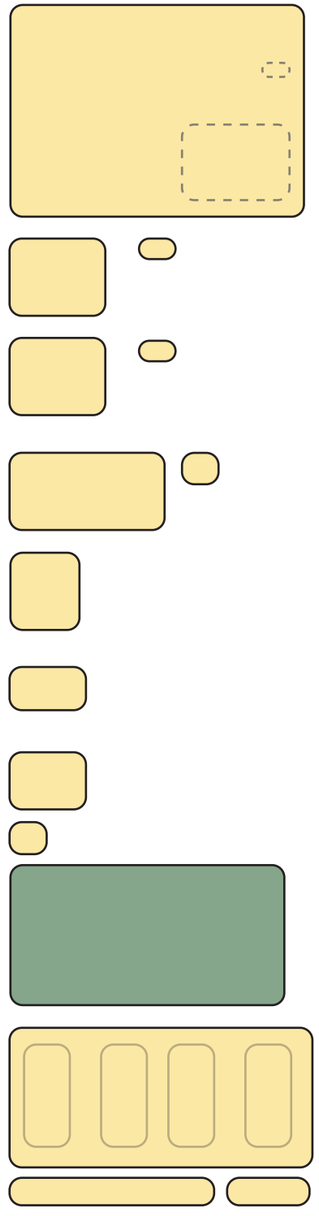
Spa = 300m² inc 50m² bistro/lounge

First Aid = 25m²

Wet Changing Village
= 1000m²

Wet Zones = 4605m²

DRY SIDE



Fitness Suite
200 Station @ 5m² per
= 1000m²
Includes Toning suite and Consult room
Note - Fitness Suite to have access to external terrace

Studio 1 = 150m²
Store = 15m²
HITT

Studio 2 = 150m²
Store = 15m²
Immersive

Studio 3 = 200m²
Store = 20m²

Spin = 90m²

Party Room 1 = 60m²

Party Room 2 = 70m²

Game Box = 20m²

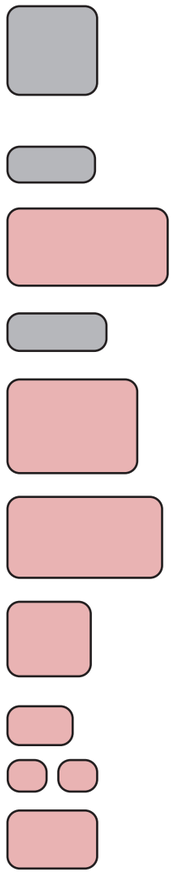
Dry Change = 500m²

4 Court Sports Hall = 690m²

Hall Store = 90 m²
Mat Store = 40m2

Dry Sport Zones
= 3110m²

COMMUNAL & SUPPORT



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=120m²

Reception BOH Office & Staff room
=60m²

Cafe/Seating
= 250m²

Kitchen/Servery
= 60m²

Soft Play - 180m² double height

Clip and Climb = 200m²

Library = 100m²

Meeting 1 = 40m²

Meeting 2 & 3
= 2 x25m²

WC = 60m²

Dry FOH Zones = 1120m²

TOTALS

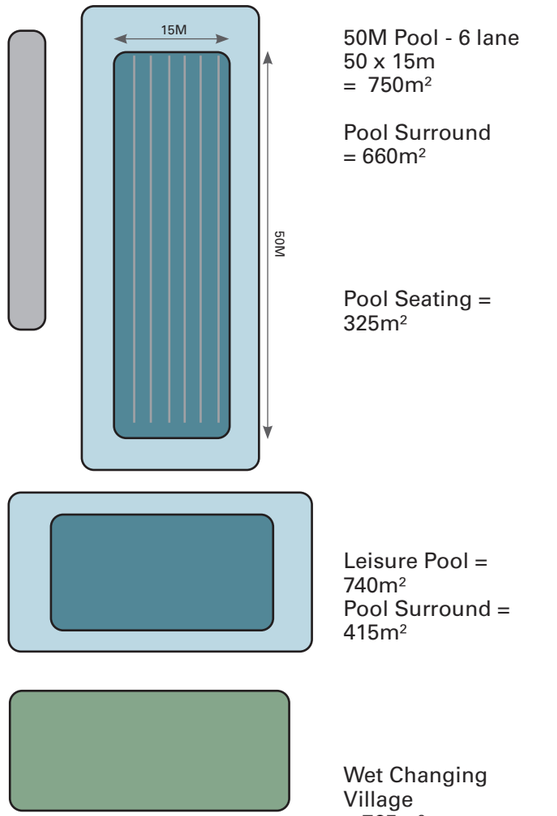
Wet Zone	= 4605 m²
Dry Sport Zones	= 3110 m²
Dry FOH Zones	= 1120 m²
Total Net	= 8835 m²
Plant @ 15%	= 1335 m²
Circ @ 10%	= 890 m²
Int Walls @ 5%	= 445 m²
Total Gross	= 11505 m²

5.3 Proposed Leisure Facility

Existing Facility

The facility mix opposite is based on replacing the existing facilities like-for-like in a new build facility.

		Existing Facility
Area (sqm)		5564
Construction Cost		£28.0m
Revenue (gross)		£3,014,016
Revenue (net)		£84,617
Impact		
Club	**Wet**	*Not Satisfactory*
	Dry	*Not Satisfactory*
Community	**Wet**	*Satisfactory*
	Dry	*Not Satisfactory*
Leisure	**Wet**	*Satisfactory*
	Dry	*Not Satisfactory*
Flexibility	**Wet**	*Satisfactory*
	Dry	*Not Satisfactory*



WET SIDE

50M Pool - 6 lane
50 x 15m
= 750m²

Pool Surround
= 660m²

Pool Seating =
325m²

Leisure Pool =
740m²
Pool Surround =
415m²

Wet Changing
Village
= 765m²

Wet Zones = 3486m²

DRY SIDE

Fitness Suite = 485m²
Over two floors

Studio 1 = 160m²

Spin Studio = 120m²

Dry Change = 150m²

Dry Sport Zones = 848m²
Dry FOH Zones = 1230m²

TOTALS

Total Gross = 5564m²

5.3 Proposed Leisure Facility

Business Case

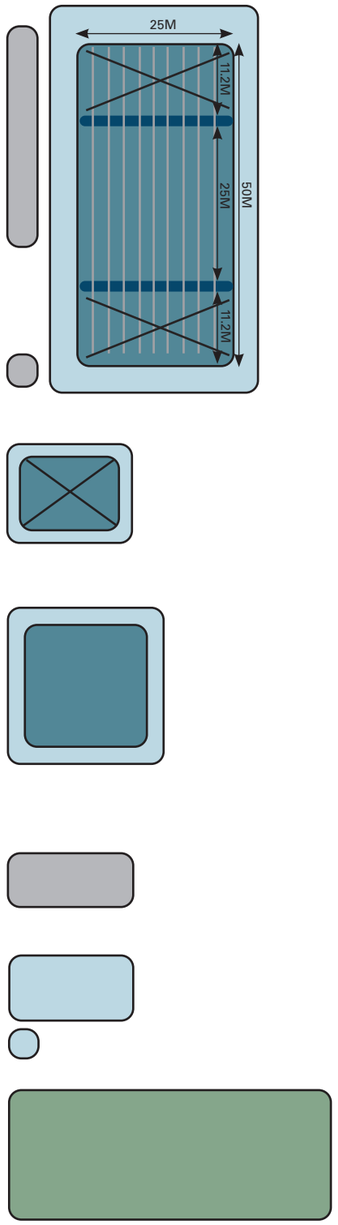
The facility mix opposite is based on the 'business case' option.

This option retains the wet side offer but has reduced pool surrounds and a smaller spa. Several spaces on the dry side have been omitted including 1 studio, 1 meeting room and the 4 court sports hall.

Some communal and support spaces have been omitted such as the provision for meeting rooms, this encourages other spaces such as the party rooms to become more flexible.

		Business Case
Area (sqm)		9681
Construction Cost		£46.1m
Revenue (gross)		£5,064,485
Revenue (net)		£827,160
Impact		
Club	**Wet**	*Good*
	Dry	*Not Satisfactory*
Community	**Wet**	*Good*
	Dry	*Good*
Leisure	**Wet**	*Good*
	Dry	*Satisfactory*
Flexibility	**Wet**	*Good*
	Dry	*Satisfactory*

WET SIDE



50M Pool - 10 lane
50 x 25m
= 1250m²

Pool Surround
= ~~730m²~~ 510m²
5m start, 3m sides, 3m end

2 x Boom + 2 x Moveable floors

Pool Seating 250 spaces + 6 Acc. = 200m²

Timing Room = 20m²

Learner Pool - ~~20x8.5m~~ 16x12m with moveable floor (1.6m deep max) = ~~170m²~~ 192m²

Pool Surround = ~~110m²~~ 130m²

Leisure Pool = 620m²
Includes slides, play equipment

Pool Storage = 180m²

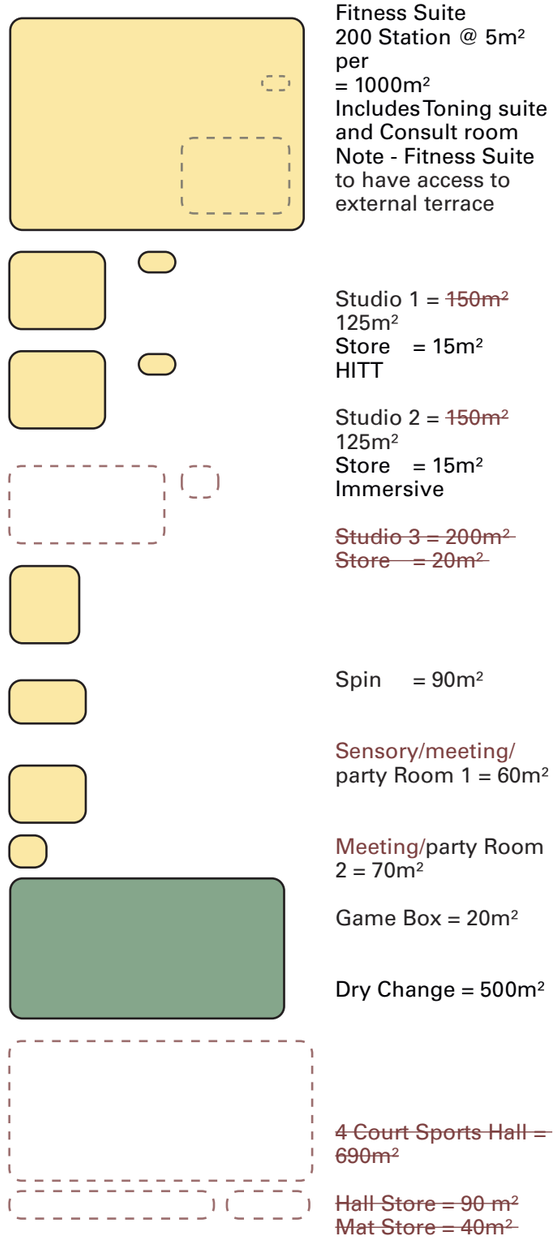
Spa = ~~300m²~~ 250m²
~~inc 50m² bistro/ lounge~~

First Aid = 25m²

Wet Changing Village
= 1000m²

Wet Zones = 4377m²

DRY SIDE



Fitness Suite
200 Station @ 5m² per
= 1000m²
Includes Toning suite and Consult room
Note - Fitness Suite to have access to external terrace

Studio 1 = ~~150m²~~ 125m²
Store = 15m²
HITT

Studio 2 = ~~150m²~~ 125m²
Store = 15m²
Immersive

~~Studio 3 = 200m²~~
~~Store = 20m²~~

Spin = 90m²

Sensory/meeting/ party Room 1 = 60m²

Meeting/party Room 2 = 70m²

Game Box = 20m²

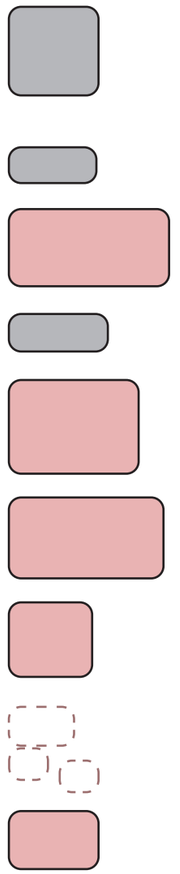
Dry Change = 500m²

~~4 Court Sports Hall = 690m²~~

~~Hall Store = 90 m²~~
~~Mat Store = 40m²~~

Dry Sport Zones = 2020m²

COMMUNAL & SUPPORT



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=120m²

Reception BOH Office & Staff room =60m²

Cafe/Seating = 250m²

Kitchen/Servery = 60m²

Soft Play - ~~180m²~~ 200m² double height

Clip and Climb = 200m²

Library = 100m²

~~Meeting 1 = 40m²~~

~~Meeting 2 & 3 = 2 x25m²~~

WC = 60m²

Dry FOH Zones = 1050m²

TOTALS

Wet Zone	= 4377m²
Dry Sport Zones	= 2020m²
Dry FOH Zones	= 1050m²
Total Net	= 7447m²
Plant @ 15%	= 1117m²
Circ @ 10%	= 745m²
Int Walls @ 5%	= 372m²
Total Gross	= 9681m²

5.3 Proposed Leisure Facility

Optimised 01

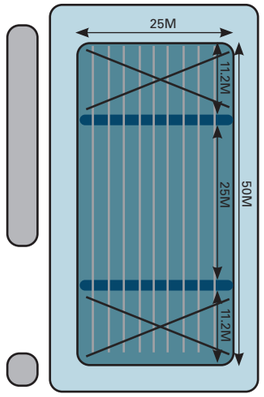
The facility mix opposite is based on the 'Optimised 01' option.

Optimised 01 reduces both wet and dry sides. Changes to the wet side include, reducing the leisure pool and spa. The reduction in area has also reduced the area requirement for the wet change facility.

Changes to the dry side include reducing the fitness suite from 200 stations to 150. The reduction in area has therefore reduced the area requirement for the dry change.

		Optimised 1
Area (sqm)		8509
Construction Cost		£39.7m
Revenue (gross)		£4,918,233
Revenue (net)		£888,258
Impact		
Club	Wet	*Good*
	Dry	*Satisfactory*
Community	Wet	*Good*
	Dry	*Good*
Leisure	Wet	*Good*
	Dry	*Good*
Flexibility	Wet	*Good*
	Dry	*Good*

WET SIDE



50M Pool - 10 lane
50 x 25m
= 1250m²

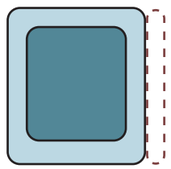
Pool Surround
= ~~730m²~~ 548m²
5m start, 3m sides, 3m end

2 x Boom + 2 x Moveable floors

Pool Seating 250 spaces
+ 6 Acc. = 200m²

Timing Room = 20m²

Learner Pool - 16x12m with moveable floor (1.6m deep max) = ~~170m²~~ 192m²

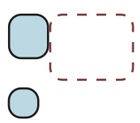


Pool Surround = ~~110m²~~ 120m² 2m start, 2m sides, 2m end

Leisure Area = 450m²

Includes slides, play equipment

Pool Storage = ~~180m²~~ 125m² To be agreed with Sport England



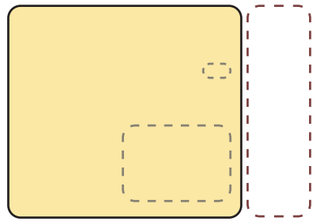
Sauna/Steam Room = ~~300m² inc 50m² bistro/ lounge 200m²~~ 40m²

First Aid = 25m²

Wet Changing Village = ~~1000m²~~ 800m²

Wet Zones = 3770m²

DRY SIDE



Fitness Suite
~~200 Station @ 5m² per = 1000m²~~ 150 Station @ 5.5m² per = 825m²
Includes Toning suite and Consult room.
Note - Fitness Suite to have access to external terrace

Studio 1 = 150m²
Store = 15m²
HITT

Studio 2 = 150m²
Store = 15m²
Immersive

Studio 3 = 200m²
Store = 20m²

Spin = 90m²

Meeting/Party Room 1 = 60m²

Meeting/Party Room 2 = 70m²

Game Box = 20m²

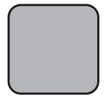
Dry Change = ~~500m²~~ 300m²

~~4 Court Sports Hall = 690m²~~

~~Hall Store = 90 m²~~
~~Mat Store = 40m2~~

Dry Sport Zones = 1925m²

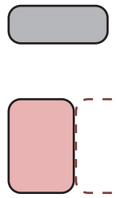
COMMUNAL & SUPPORT



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=120m²

Reception BOH Office & Staff room =60m²

Cafe/Seating = 250m²



Kitchen/Servery = 60m²

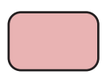
Soft Play - ~~180m²~~ 100m² double height

Clip and Climb = 200m²

~~Library = 100m²~~

~~Meeting 1 = 40m²~~

~~Meeting 2 & 3 = 2 x25m²~~



WC = 60m²

Dry FOH Zones = 850m²

TOTALS

Wet Zone	= 3770²
Dry Sport Zones	= 1925m²
Dry FOH Zones	= 850m²
Total Net	= 6545m²
Plant @ 15%	= 982m²
Circ @ 10%	= 655m²
Int Walls @ 5%	= 327m²
Total Gross	= 8509m²

5.3 Proposed Leisure Facility

Optimised 02

The facility mix opposite is based on the 'Optimised 02' option.

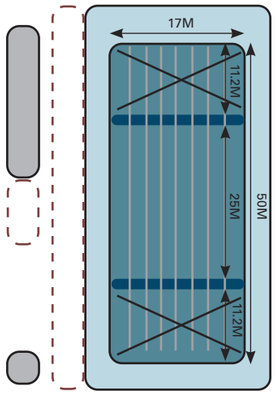
Optimised 02 further reduces both wet and dry sides. Changes to the wet side include, removing the spa which will reduce the overall offer.

Changes to the dry side include further reductions to the fitness suite, however the total number of stations remain at 150 with the space becoming more compact.

Changes to the communal and support spaces include omitting the soft play, clip and climb, library and meeting rooms. The omission of these rooms significantly reduces the sense of a community hub.

		Optimised 2
Area (sqm)		7393
Construction Cost		£35.9m
Revenue (gross)		£4,691,387
Revenue (net)		£827,209
Impact		
Club	**Wet**	*Good*
	Dry	*Satisfactory*
Community	**Wet**	*Good*
	Dry	*Satisfactory*
Leisure	**Wet**	*Satisfactory*
	Dry	*Satisfactory*
Flexibility	**Wet**	*Good*
	Dry	*Satisfactory*

WET SIDE



50M Pool - 8 lane
50 x 17m
= ~~1250m²~~ 850m²

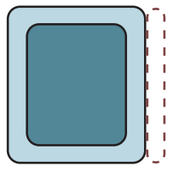
Pool Surround
= ~~730m²~~ 485m²
5m start, 3m sides, 3m end

2 x Boom + 2 x Moveable floors

Pool Seating 150 spaces
+ 6 Acc. = ~~200m²~~

Timing Room = 20m²

Learner Pool - 16x12m with moveable floor (1.6m deep max) = ~~170m²~~ 192m²

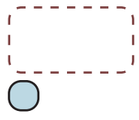


Pool Surround = ~~110m²~~ 150m²

Leisure Area = 450m²

Includes slides, play equipment

Pool Storage = ~~180m²~~ 125m²

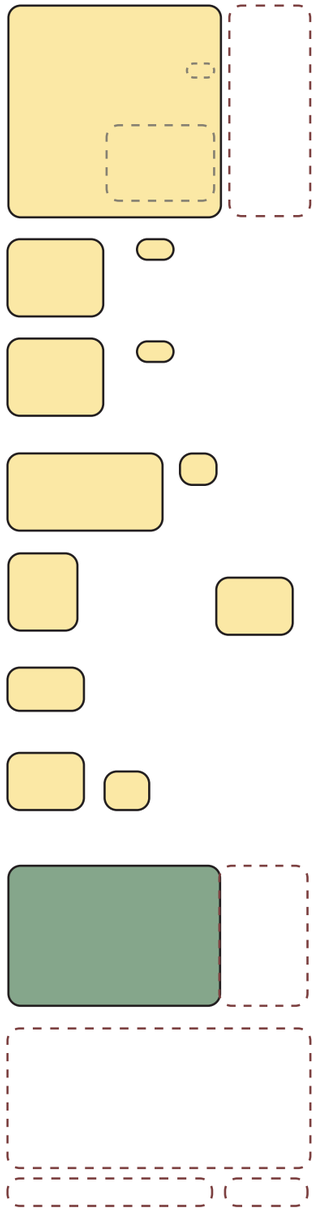


~~Spa = 300m² inc 50m² bistro/lounge~~
First Aid = 25m²

Wet Changing Village
= ~~1000m²~~ 800m²

Wet Zones = 3297m²

DRY SIDE



Fitness Suite
~~200 Station @ 5m² per = 1000m²~~ 150 Station @ 5m² per = 750m²
Includes Toning suite and Consult room.
Note - Fitness Suite to have access to external terrace

Studio 1 = 150m²
Store = 15m²
HITT

Studio 2 = 150m²
Store = 15m²
Immersive

Studio 3 = 200m²
Store = 20m²

Spin = 90m²

Meeting/Party Room 1 = 60m²

Meeting/Party Room 2 = 70m²
Game Box = 20m²

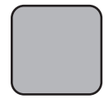
Dry Change = ~~500m²~~ 300m²

~~4 Court Sports Hall = 690m²~~

~~Hall Store = 90 m²~~
~~Mat Store = 40m2~~

Dry Sport Zones = 1840m²

COMMUNAL & SUPPORT



Reception FOH
Manager's Office - 15m² Reception - 20m²
Duty Manager - 10m² Store - 15 m²
Retail - 30m² Lobby - 55m²
Members Zone - 20m²
=120m²

Reception BOH Office & Staff room =60m²

Cafe/Seating
= 250m²

Kitchen/Servery
= 60m²

~~Soft Play - 180m² double height~~

~~Clip and Climb = 200m²~~

~~Library = 100m²~~

~~Meeting 1 = 40m²~~

~~Meeting 2 & 3 = 2 x25m²~~

WC = 60m²

Dry FOH Zones = 550m²

TOTALS

Wet Zone	= 3297 m²
Dry Sport Zones	= 1840 m²
Dry FOH Zones	= 550 m²
Total Net	**= 5687 m²**
Plant @ 15%	= 853 m²
Circ @ 10%	= 569 m²
Int Walls @ 5%	= 284 m²
Total Gross	**= 7393 m²**

5.3 Proposed Leisure Facility

Comparison

		Feasibility	Existing Facility	Business Case	Recommended Brief Optimised 1	Optimised 2
Area (sqm)		11505	5564	9681	8509	7393
Construction Cost		£54.4m	£28.0m	£46.1m	£39.7m	£35.9m
Revenue (gross)		£5,269,442	£3,014,016	£5,064,485	£4,918,233	£4,691,387
Revenue (net)		£836,930	£84,617	£827,160	£888,258	£827,209
Impact						
Club	**Wet**	*Good*	*Not Satisfactory*	*Good*	*Good*	*Good*
	Dry	*Good*	*Not Satisfactory*	*Not Satisfactory*	*Satisfactory*	*Satisfactory*
Community	**Wet**	*Good*	*Satisfactory*	*Good*	*Good*	*Good*
	Dry	*Good*	*Not Satisfactory*	*Good*	*Good*	*Satisfactory*
Leisure	**Wet**	*Good*	*Satisfactory*	*Good*	*Good*	*Satisfactory*
	Dry	*Good*	*Not Satisfactory*	*Satisfactory*	*Good*	*Satisfactory*
Flexibility	**Wet**	*Good*	*Satisfactory*	*Good*	*Good*	*Good*
	Dry	*Satisfactory*	*Not Satisfactory*	*Satisfactory*	*Good*	*Satisfactory*
Summary		• In comparison to the existing facility there is an increased level of flexibility as the wide range of spaces can accommodate various uses and future proofing • Community offer is high - catering for a wide demographic of ages and interests with soft play, meeting rooms and library • Catering for increased level of 'club' sport with 50m pool and sports hall • Dry and wet leisure is maximised with leisure pool, fitness suite, studios and additional spaces such as clip and climb, cafe and spa.	• The existing facility provides some flexibility within the wet side however the dry side is significantly limited • The main pool and leisure pool provide good community facilities. Again the dry side is limited • Potential for club sport within the 50m pool, however the lack of sports hall and large studio spaces reduces the opportunity for elite dry sports • Leisure is also targeted at the wet side with a larger offer compared to the dry side	• Reduced level of flexibility mainly on the dry side due to the loss of studio 3 and sports hall • Community offer remains high, however lack of large studio reduces potential for community events • Opportunity for 'club' dry sports is significantly reduced due to omission of sports hall and large studio • Dry and wet leisure remain high through retaining the leisure pool, fitness suite, studios and additional spaces such as clip and climb, cafe and spa.	• Flexibility has increased based on the inclusion of the large studio - providing a space for a variety of sports and community events. • Community offer remains high for both dry and wet despite some of the spaces reducing in area the overall offer is retained • Loss of the sports hall and reduced fitness suite impacts dry sports space for clubs. Addition of large studio assists, however wet club sports remain high • Leisure wet/ dry, whilst both reduced, remains a good offer.	• Flexibility remains high with the inclusion of a flexible community space • Community offer is reduced significantly for dry leisure with the reduced fitness suite • Elite wet sport remains high with minimal reductions to the wet leisure offer. Dry elite spaces remain low with the omission of the sports hall • Leisure for wet is reduced by the omission of the spa and significantly reduced for the dry side with a number of community and leisure spaces omitted

6.0 Masterplan Principles

6.0 Masterplan Principles

Establishing the Principle of Enabling Development

Funding the Leisure Centre

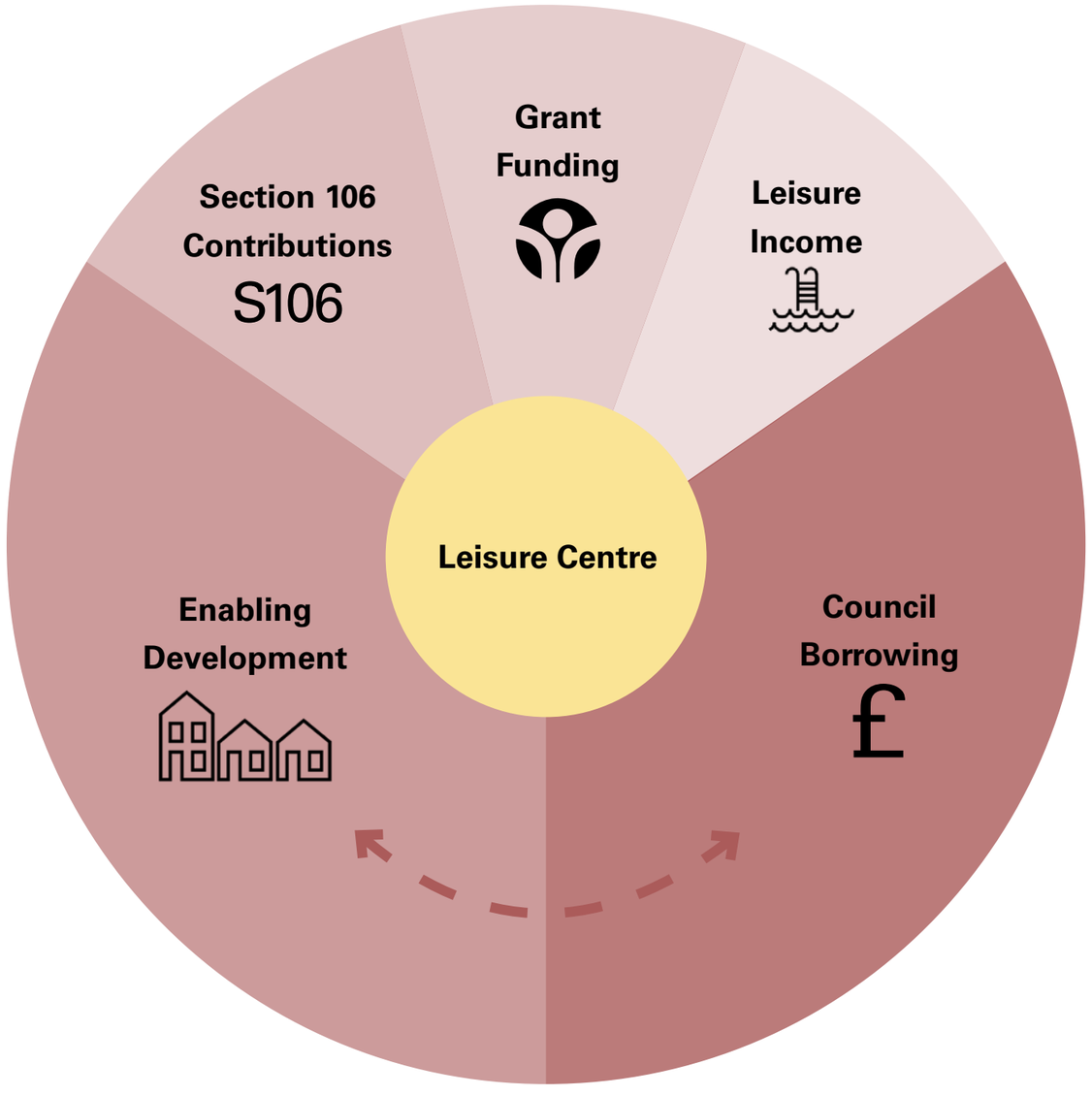
A replacement Leisure Centre has been estimated to cost in the order of £40-50m. The council has confirmed that it does not have the financial means to fund this level of capital expenditure through borrowing alone. In discussion with the council, a number of potential additional funding options have been identified which could be secured from a mix of revenue and capital sources. These are shown on the pie chart to the right. The precise figures would be subject to further review as the project progresses and this is intended to be illustrative only at this stage.

Noting the constraint on available capital, the brief supplied by the council to the design team has included for the exploration of raising funds through the inclusion of residential enabling development in the project.

There are a number of factors that inform the amount of enabling development required;

- Leisure Centre size
- Leisure construction costs
- Amount of council funding
- Housing construction costs
- Chosen delivery route
- Planning

In order to inform the council's strategy for the purposes of this feasibility study, the design team has modelled several options on the basis of there being residential enabling development of up to 500 residential units which broadly correlates to the previous application. A final decision on quantum, scale and massing of any enabling development would be subject to ongoing consideration of the points listed above.



6.0 Masterplan Principles

How can housing best be accommodated on the site?

Learning from the previous Planning Proposal

The previous proposal combined leisure and housing uses at a very high density along the southern edge of the site. At planning, the reason for refusal included adverse impacts on openness (to the Green Belt and by implication MOL) and harm caused by the scale, massing and design of the development proposal.

There is now an opportunity to consider a wider masterplan for the site which imagines the evolution of a sustainable neighbourhood.

Key to unlocking a way forward will be to develop a coherent site strategy which respects MOL and proposes new homes at an acceptable residential density in order to allow the creation of a new high-quality, sustainable neighbourhood.

The following masterplan options demonstrate different site approaches and the impact this has on residential density. Transport and Accessibility analysis in subsequent chapters will explore car parking demand, however the quantum provided in the previous application (335), provides a sensible starting assumption. Accompanying precedent schemes provide comparative information to help illustrate the type of character of spaces created at different building densities.

6.0 Masterplan Principles

Site Approach 1: Leisure at Ruislip Road East

Leisure Centre replaced on existing site

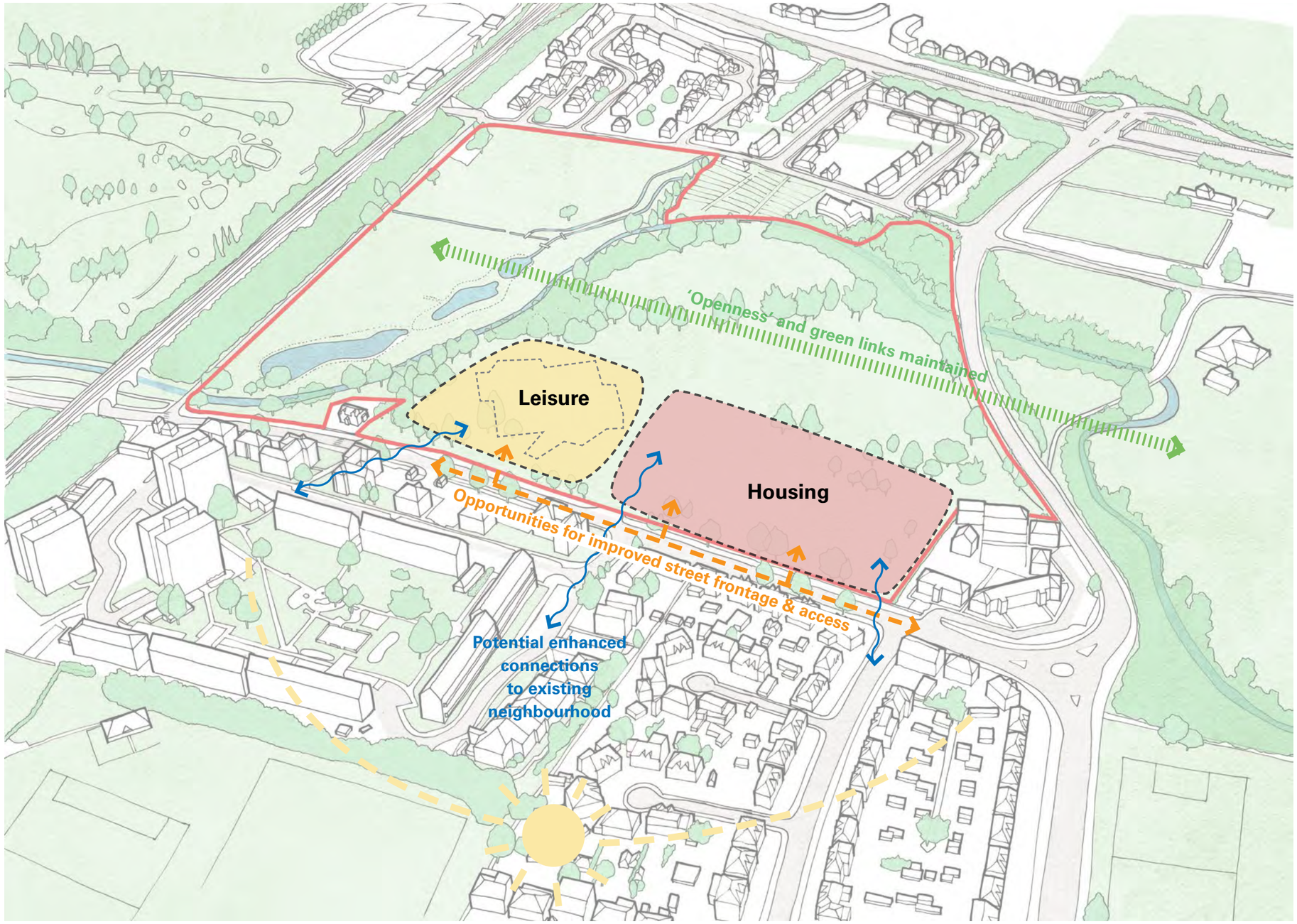
500 Homes
~ 1.64ha site
~ 300 dw/ha
~ 11 storey av. building height

Podium or Basement Parking

Brownfield Development Retaining Leisure Centre

The first option examines the benefits and drawbacks of a site strategy which sites the leisure uses in it's existing location, whilst proposing housing on the current car-parking site. Whilst there are some positives to this approach, a baseline of 500 homes results in a high residential density and average building storey height which presents difficulties in creating a sustainable street-based neighbourhood. This option has greater opportunities if a lower number of homes is required

- Maintaining leisure on Ruislip road maximizes connectivity and visibility
- Potential to adjust previous layout and massing to improve integration of new street based scheme into site
- Opportunity to retain and refurbish existing leisure centre if desirable / feasible
- Can limit development to existing brownfield land thereby reducing impact on MOL
- Could result in similar problems of previous scheme re. density on site, sense of overbearing on MOL particularly at 500 units
- Space constraints and density likely to limit potential of scheme to be integrated with context - greater opportunity if lower density
- Leisure and Residential uses could be required to overlap, resulting in difficulties with buildability, phasing, future-proofing etc.
- Leisure centre car parking is likely to need to be basement/podium due to limited site area
- Existing leisure centre with poor fabric and high operating cost which doesn't meet required space standards



6.0 Masterplan Principles

Site Approach 1 - Precedents

Precedent Study

Project : St. Andrew's Bow, Tower Hamlets

Client : Barratt

Site Area : 3 ha

Dwellings : 964

Density : 320 dw/ha

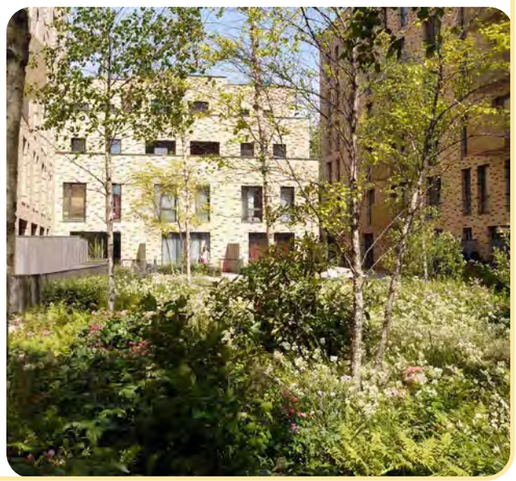
Building Heights : 3 - 25 storeys

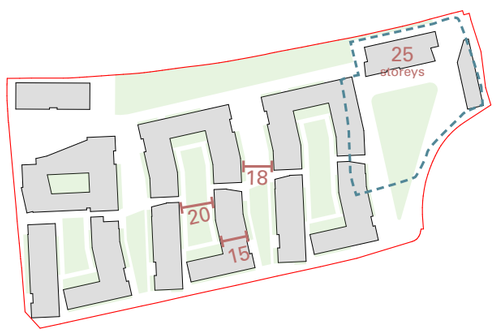
Car Parking : 136 basement spaces, 20 on-street (16% prov.)

Other uses : 3350sqm Health Centre, Retail and Community

Key features:

- High density scheme incorporating a range of building heights, residential typologies and other uses.
- Adjacent to Bromley-by-Bow DLR station





Precedent Study

Project : Porters Edge, Canada Water

Client : Sellar / Notting Hill Genesis

Site Area : 1.53 ha

Dwellings : 235

Density : 154 dw/ha

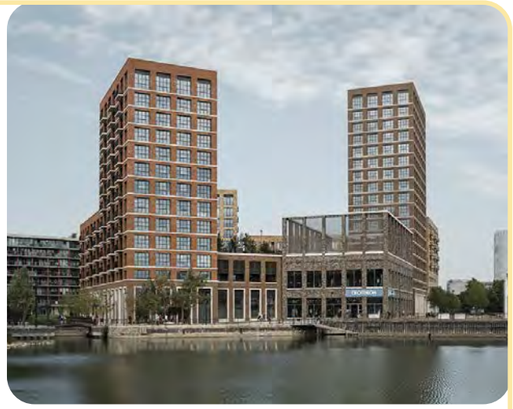
Building Heights : 4 - 17 storeys

Car Parking : 250 basement spaces for commercial use (Car-free Resi)

Other uses : ~ 9000m2 Retail, Tennis court on retail roof

Key features:

- Integrates large retail space with residential wrapped around and above
- Successful courtyard garden and leisure uses above podium



6.0 Masterplan Principles

Site Approach 2: Ruislip Road East Leisure + Lower Density Housing

Leisure Centre replaced on existing site

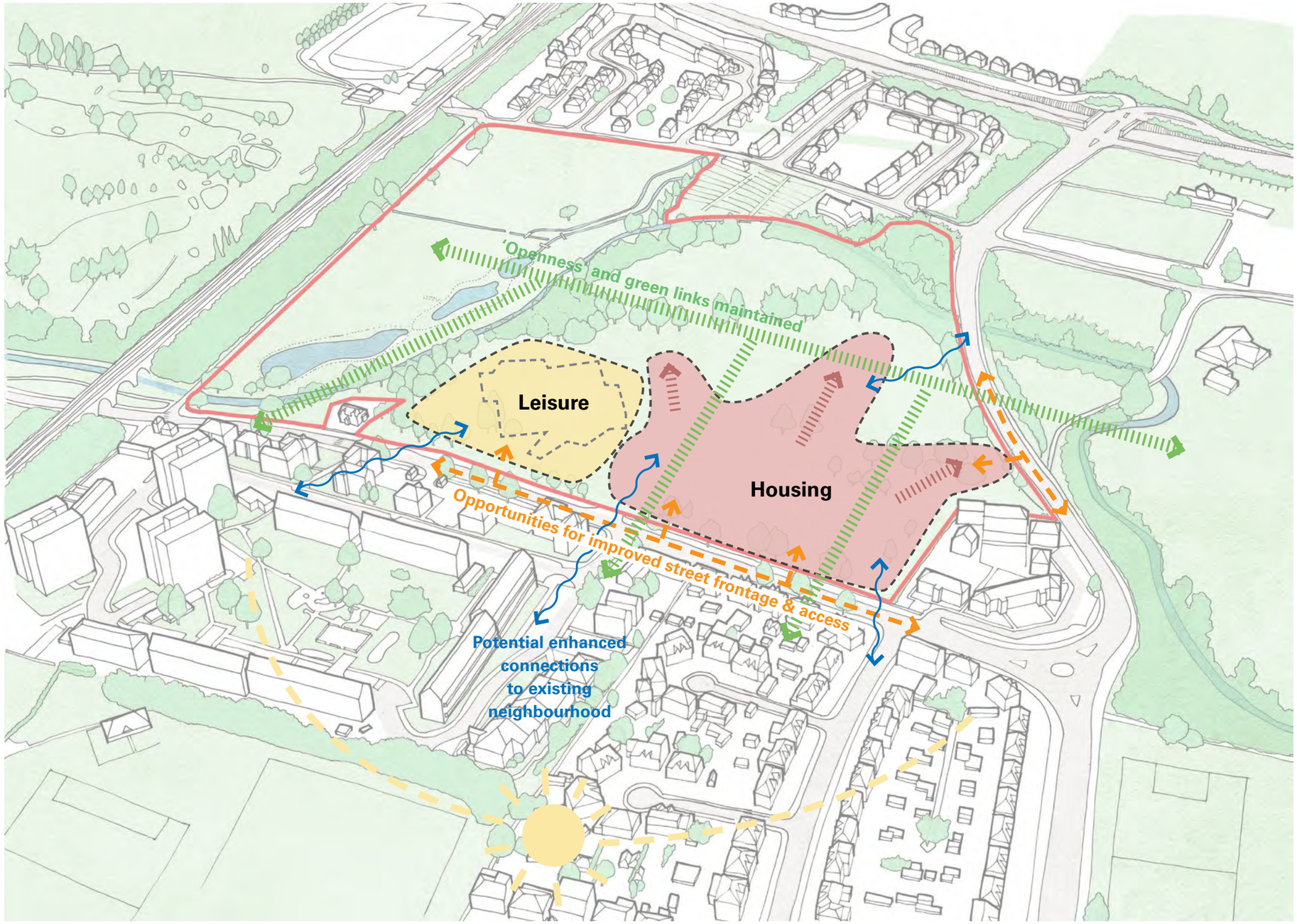
500 Homes
~ 3ha site
~ 167 dw/ha
~ 6.5 storey av. building height

Podium & Street Parking

Brownfield Development + Extending Fingers

This option explores a lower density approach to housing where fingers of development extend north to strategically frame homes and views within the MOL. Although this approach allows for a lower residential density, there are drawbacks outlined below which highlight the importance of a balance between development and openness on MOL.

- Maintaining leisure on Ruislip road maximizes connectivity and visibility
- Potential to adjust previous layout and massing to improve integration of new scheme into site
- Opportunity to retain and refurbish existing leisure centre if desirable / feasible
- Extending buildable area aids creation of sustainable neighbourhood through reducing development density
- Impact on MOL can be limited through careful location of building footprints and massing to maintain sense of openness
- Likely to have unacceptable perceived impact on MOL
- Difficult to justify locating housing on MOL in planning policy terms
- Potentially difficult building orientations for passive solar scheme
- Leisure centre car parking is likely to need to be basement due to limited site area
- Existing leisure centre with poor fabric and high operating cost which doesn't meet required space standards



6.0 Masterplan Principles

Site Approach 2 - Precedents

Precedent Study

Project: Trafalgar Place, Southwark

Client : Southwark Council/ LendLease

Site Area : 1.13 ha

Dwellings : 235

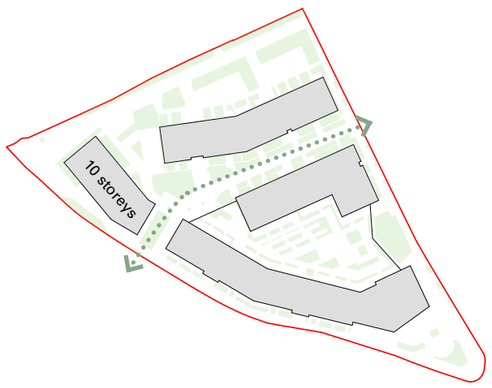
Density : 208 dw/ha

Building Heights : 4 - 10 storeys

Car Parking : 44 under podium spaces, 3 on-street (20% prov.)

Other uses : Commercial (Cafe)

Key features:
- Street-based scheme
- CLT construction



Precedent Study

Project : Colville Estate

Client : Hackney Council

Site Area : 4.6 ha

Dwellings : 884

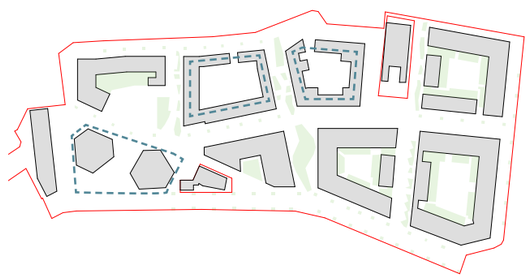
Density : 193 dw/ha

Building Heights : 4 - 20 storeys

Car Parking : 220 basement + podium, 45 street (30% prov.)

Other uses : Commercial (Cafe)

Key features:
- Range of residential heights and building types
- Facing public park



6.0 Masterplan Principles

Site Approach 3 - Leisure at Alternative Location + Lower Density Housing

Metropolitan Open Land & Public Open Space

NPPF - 137, 147, 148,149 / London Plan Policy G3, G4 / All London Green Grid Strategy SPG

The entire application site falls within designated MOL. The undeveloped areas of the site which comprises open space is also designated as public open space. MOL has the same planning status as the Green Belt in London and the London Plan seeks to protect MOL in line with the NPPF.

The construction of new buildings within MOL is considered inappropriate development requiring very special circumstances apart from a limited number of specific forms of development set out within the NPPF exceptions which comprise appropriate development in MOL. Full appraisal of the scheme against MOL policy is included in Chapter 11.

The previous application took a narrow interpretation of MOL policy to define a development plot at the south of the site, limiting development to the brownfield land of the existing leisure centre and parking. Taking a step back and looking at the policy afresh, there is an opportunity to re-evaluate the wider site for the potential to re-locate leisure uses if the openness of the MOL can be retained.

The exceptions relevant to this feasibility study include:

(b) the provision of appropriate facilities for outdoor sport and outdoor recreation, providing these facilities are connected to the existing use of land and preserve the openness, whilst also not conflicting with the purposes of including land within the Green Belt/MOL;

(d) the replacement of a building, providing the new building is the same use and not materially larger than the one it replaces; and

(f) limited affordable housing for local community needs under policies set out in the development plan (including policies for rural exception sites); and

(g) limited infilling or the partial or complete redevelopment of previously developed land, whether redundant or in continuing use (excluding temporary buildings), which would:

- not have a greater impact on the openness of the Green Belt than the existing development; or

- not cause substantial harm to the openness of the Green Belt, where the development **would re-use previously developed land and contribute to meeting an identified affordable housing need** within the area of the local planning authority.

6.0 Masterplan Principles

Site Approach 3 - Leisure at Alternative Location + Lower Density Housing

Alternative Leisure Sites

Taking a step back from the 'brownfield' land that formed the focus of the previous application, there is an opportunity to look at the wider environs for alternative Leisure Centre sites.

This appraisal was discussed with LB Ealing and the thoughts of this captured below.

The conclusion was that there are no suitable alternative sites that meet the brief - particularly programme constraints.

	Planning Risk	Programme	Ecology/ Flood risk	Cost	Transport
Perivale Park Athletics: Recently refurbished, a popular and active athletics facility that would need to be relocated/reprovided	✓	✗	✓	✗	✓
Perivale Park Golf Course: A large expanse of land that could incorporate additional leisure use into the new public parkland	✗	✓	✓	✓	✗
Longfield Meadows: Designated within the site boundary with accepted leisure uses. Accessible from Stockdove way bounded by the railway embankment to minimise impact of development on MOL openness	✓	✓	✗	✓	✓
Hanwell Town Football Club: Proposed for other development and timelines would not suit this programme.	✓	✗	✓	✗	✓
Perivale East Meadow: Not part of council ownership and falls at a pinch point within existing MOL boundaries	✗	✗	✗	✗	✗

6.0 Masterplan Principles

Site Approach 3 - Leisure at Stockdove Way + Lower Density Housing

New Leisure Centre at alternative location

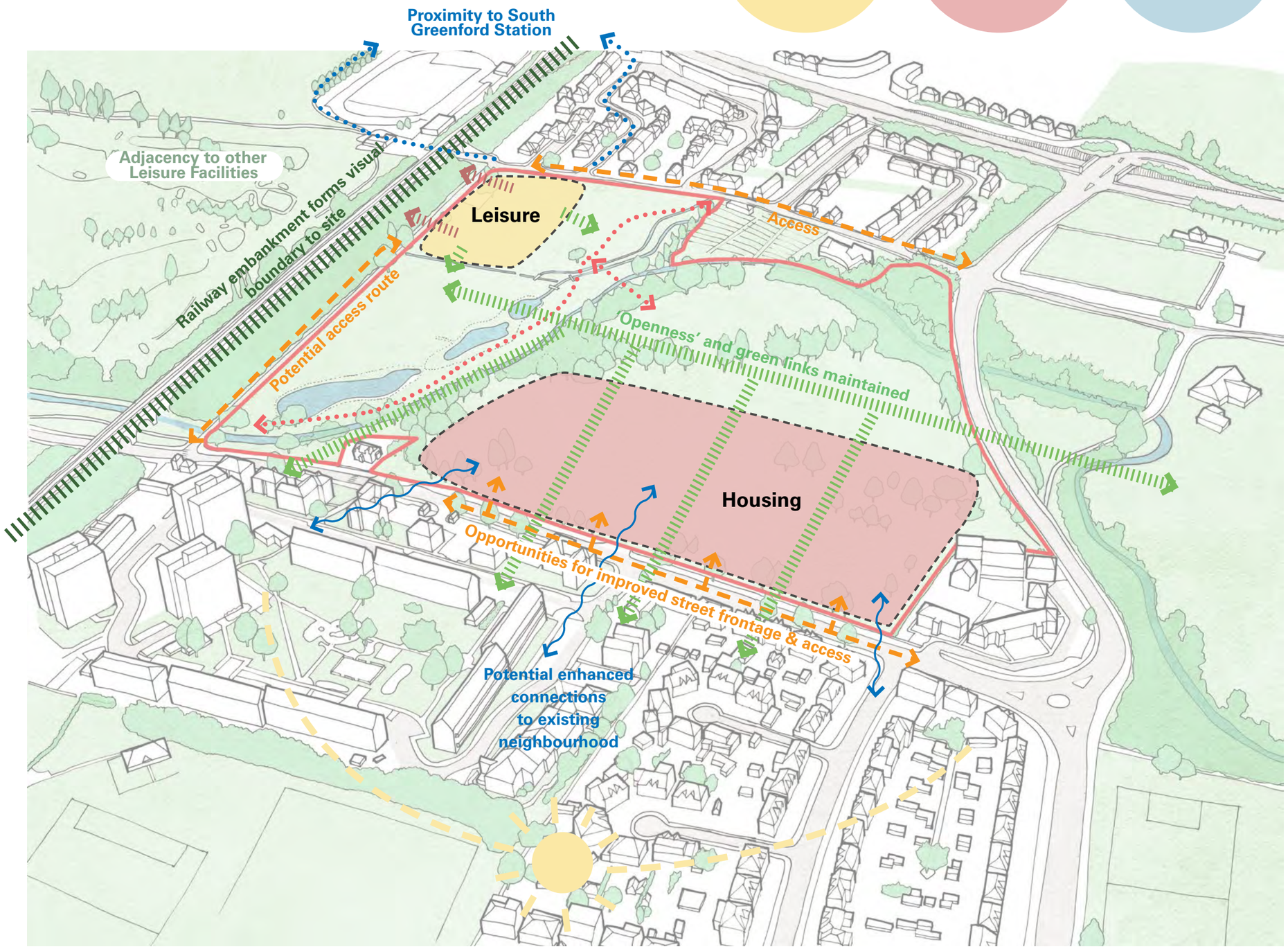
500 Homes
~ 3ha site
~ 167 dw/ha
~ 6.5 storey av. building height

Podium & Street Parking

Brownfield Development + Relocated Leisure

A third approach to the site explores the potential for leisure uses to be re-located within a wider leisure landscape context. This, in turn, creates an opportunity to propose lower density housing on the brownfield southern portion of the site.

- Potential to re-locate leisure centre enabling residential development on brownfield land
- Openness of MOL could be maintained through careful development of building placements, layout and massing to sit alongside existing features on site - i.e.. railway embankment
- New build leisure centre provides ideal facility mix to modern space standards with energy efficient design and low operating costs
- More appropriate residential densities for successful placemaking
- Opportunity for leisure centre to connect to/ associate with existing leisure uses in the area
- Opportunity to connect to ongoing improvements to active travel networks - i.e.. Greenford to Gurnell Greenway
- Greater flexibility of delivery with separated uses, opportunity to phase development and prioritise buildability
- Loss of higher quality habitats and biodiversity than option 1 which would require biodiversity offsetting outside the red line boundary
- Higher planning risk by developing on additional MOL land
- Building Footprint partially located within the floodplain



6.0 Masterplan Principles

Site Approach 3 - Precedents - Street Based Housing

Precedent Study

Project : Bridgewater Triangle Masterplan

Client : London Legacy Development Corp.

Site Area : 2.5 ha

Dwellings : 575

Density : 230 dw/ha

Building Heights : 3 - 11 storeys

Car Parking : 42 (on-street, including 2 car club) (7% prov.)

Other uses : commercial, local community facilities

Key features:
- Landscape led masterplan
- Prioritising low rise high density dwellings
- High proportion of family units at density

Precedent Study

Project : Brentford Lock West

Client : Igloo

Site Area : 3.7 ha
MR Site Area: 0.1 ha

Dwellings : 759

Density : 205 dw/ha

Building Heights : 3 - 10 storeys

Car Parking : 344 (phase 1-2 basement, phase 3 podium) (45% prov.)

Other uses : commercial, local community facilities

Key features:
- Canalside masterplan
- Pedestrians prioritised along a waterfront public realm
- High proportion of family units at density