GREATER**LONDON**AUTHORITY

[redacted]
(By email)

Our Ref: MGLA250319-8616

13 May 2019

Dear [redacted]

Thank you for your request for information which the GLA received on 25 March 2019. Your request has been dealt with under the Environmental Information Regulations (EIR) 2004.

You asked for;

> *I would like to request the following information in relation to the Gurnell Leisure Centre Redevelopment and the proposed housing development:*
>
> *a) A list of correspondence between the GLA and Ealing Council from 1 February 2018 up until the present (relating to the Gurnell redevelopment.)*
> *b) A list of correspondence between the GLA and EcoWorld or Be Living or Wilmott Dixon between February 2018 and the present (relating to the Gurnell redevelopment.)*
> *c) A copy of each of those correspondence and any attachments or documents for the same time frame.*

Please find below a list of correspondence within scope of your request and attached to this response [Part 1]

Part A correspondence	
Page 1	24/01/2019 Email: *FW: EcoWorld and Gurnell Leisure Centre - Ealing*
Page 2	29/03/2018 Email: F*wd: Gurnell Leisure Centre*
Page 3 - 4	29/03/2018 Email chain: *RE: Gurnell Leisure centre*
Page 5 - 6	26/03/2018 Email chain: *GLA/4287 Gurnell leisure centre - GLA pre-application advice*
Page 7	23/02/2018 Email: *Gurnell Lesiure Centre*
Page 8	08/02/2018 Email: *Cancelled: Gurnell Leisure Centre & enabling development - viability meeting*
Page 9	02/02/2018 Email: *Gurnell & Kellogg Tower*
Part B correspondence	
Page 1 – 14	15/02/2019 GLA Assessment
Page 15 - 17	20/04/2018 Email chain: *GLA/4287 Gurnell leisure centre - GLA pre-application advice*
Page 18 - 20	17/04/2018 Email chain: *RE: GLA/4287 Gurnell leisure centre - GLA pre-application advice*
Page 21 - 22	26/04/2018 Email chain: *RE: GLA/4287 Gurnell leisure centre - GLA pre-application advice*
Page 23 - 36	23/03/2018 GLA Assessment

Page 36 - 38	20/03/2018 Email chain: *Gurnell Leisure Centre: Report*
Page 39	09/03/2018 Email: *Gurnell Leisure Centre*
Attachments	
	2018.04.09_Massing_Options_presentation [File ref: MGLA250319-8616 Part 2]
	2018.08.29_Gurnell Leisure Presentation [File ref: MGLA250319-8616 Part 2]
	2018.10.10_Gurnell Leisure Presentation_GLA [File ref: MGLA250319-8616 Part 4]
	140192_Site Plan_Site Boundary [File ref: MGLA250319-8616 Part 2]
	181109 Gurnell Leisure Centre Crib Sheet [File ref: MGLA250319-8616 Part 2]
	Accommodation Schedule [File ref: MGLA250319-8616 Part 2]
	Block Level Architectural Drawing Pack [File ref: MGLA250319-8616 Part 3]
	copy_of_gla_carbon_emission_reporting_spreadsheet_v1.1 [File ref: MGLA250319-8616 Part 5]
	Delivery & Servicing Plan [File ref: MGLA250319-8616 Part 6]
	Design and Access Statement [File ref: MGLA250319-8616 Part 7]
	Energy Assessment [File ref: MGLA250319-8616 Part 2]
	Landscaping Drawing Pack [File ref: MGLA250319-8616 Part 8]
	Residential Travel Plan [File ref: MGLA250319-8616 Part 2]
	Sitewide Architectural Drawing Pack [File ref: MGLA250319-8616 Part 3]
	Sustainability Statement [File ref: MGLA250319-8616 Part 2]
	Transport Assessment [File ref: MGLA250319-8616 Part 9]

Please note that some names of members of staff are exempt from disclosure under Regulation 13 (Personal information) of the EIR. This information could potentially identify specific employees and as such constitutes as personal data which is defined by Article 4(1) of the General Data Protection Regulation (GDPR) to mean any information relating to an identified or identifiable living individual. It is considered that disclosure of this information would contravene the first data protection principle under Article 5(1) of GDPR which states that Personal data must be processed lawfully, fairly and in a transparent manner in relation to the data subject.

Due to the number and file size of attachments, these have been placed directly on to our disclosure log:

https://www.london.gov.uk/about-us/governance-and-spending/sharing-our-information/freedom-information/foi-disclosure-log/eir-gurnell-leisure-centre-redevelopment

If you have any further questions relating to this matter, please contact me, quoting the reference at the top of this letter.

Yours sincerely

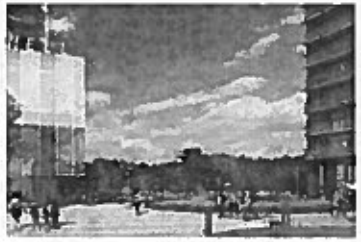
Paul Robinson
Information Governance Officer

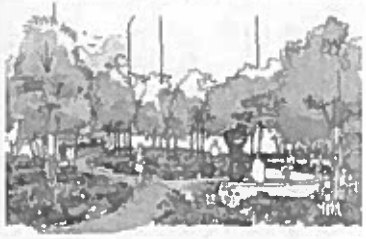
If you are unhappy with the way the GLA has handled your request, you may complain using the GLA's FOI complaints and internal review procedure, available at:

https://www.london.gov.uk/about-us/governance-and-spending/sharing-our-information/freedom-information

GURNELL LEISURE CENTRE

FULL PLANNING APPLICATION





DESIGN AND ACCESS STATEMENT

DECEMBER 2018

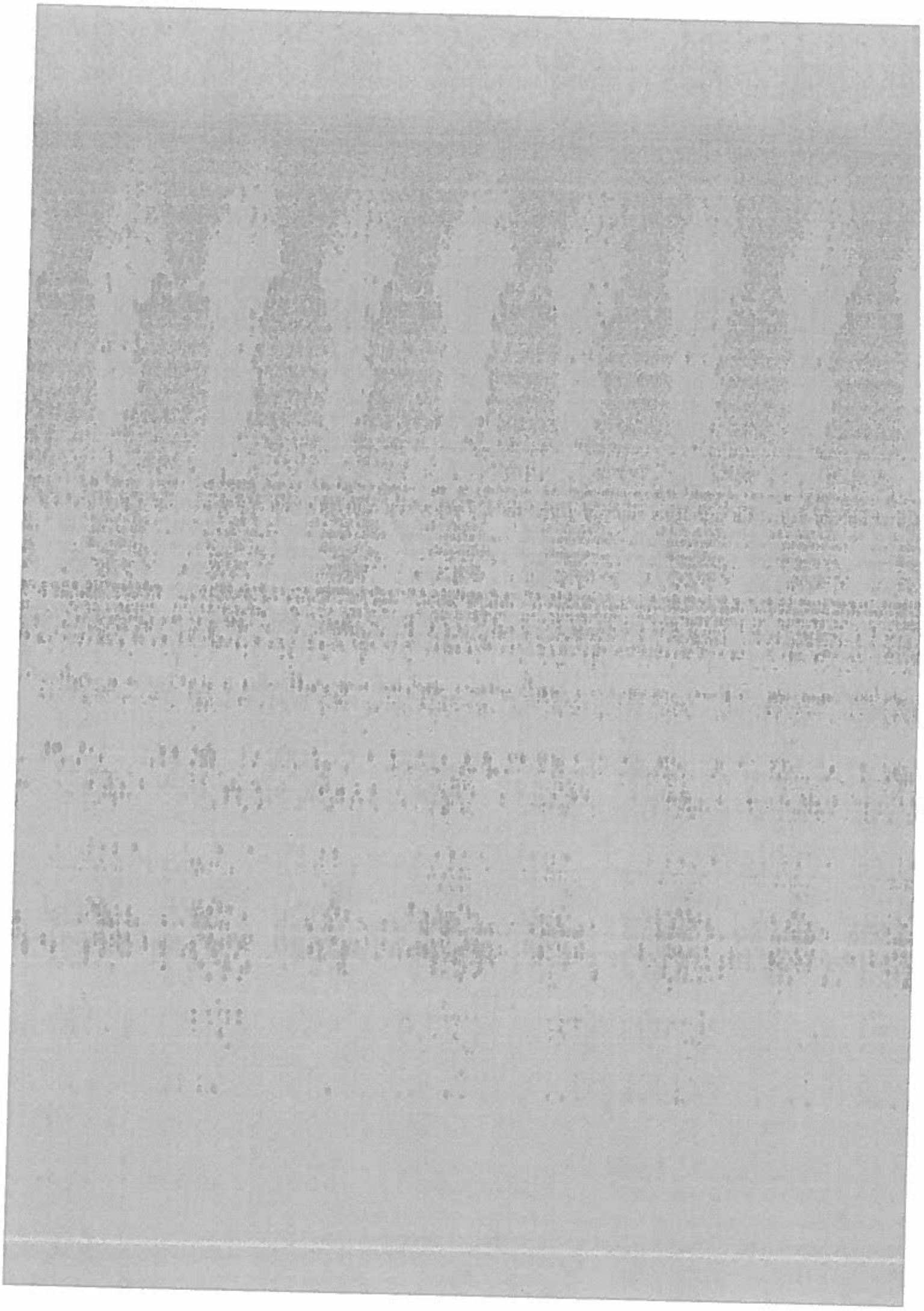
ECOWORLD
INTERNATIONAL
CREATING TOMORROW & BEYOND

Ealing

GURNELL LEISURE CENTRE
DESIGN AND ACCESS STATEMENT

December 2018

3D REID



CONTENTS

3D REID

01 EXECUTIVE SUMMARY

The design team which has prepared the planning application consists of the following:

Client :	Be:Here Ealing Ltd.
Design & Architecture Lead :	3DReid
Structural and Civil Engineers :	Parmarbrook
Cost Consultant & Project / Design Management :	Gardiner & Theobald
Planning Consultant :	Barton Wilmore
Construction Consultant (Leisure Centre) :	Willmott Dixon Construction
MEP, Energy Statement & Sustainability Assessment (Inc. BREEAM) :	Couch Perry Wilkes
Transport & Waste Engineer :	Systra (JMP)
Landscape Architect :	Hyland Edgar Driver (HED)
Acoustic Consultant :	Cole Jarman
Principal Designer :	Silver DCC
Fire Consultant :	IFC Group
Daylight / Sunlight / Rights to Light / Solar Glare :	Point 2 Surveyors
Ecological Consultant :	Ecology Consultancy
Archaeological & Heritage Consultant :	CgMs
Air Quality :	REC
Micro-climate :	RWDI
UXO :	First Line Defence
Stakeholder Engagement :	Meeting Place Communications

GURNELL LEISURE CENTRE
RUISLIP ROAD EAST, EALING, W13 0AL, LONDON

INTRODUCTION

The Gurnell Leisure Centre proposal aims to create a highly liveable and attractive place, maximising the benefits of combining homes with active leisure.

The location already has open green space for sports, fitness and play, and still inside Greater London. The site has good travel connections, including links to the centre of the borough of Ealing. These same qualities also make the location appropriate and attractive for residential use.

This proposal therefore realises the opportunity to redevelop the existing, tired and dated facilities at Gurnell with a state-of-the art 50 m competition pool and associated leisure uses to rival any facilities elsewhere in London, and complements this new leisure development with enabling residential development, to the benefit of both. A high quality new leisure facility here, with integrated homes, will benefit the local community and the wider borough, and will further serve a population across West London and the surrounding counties.

The arrangement of the masterplan improves access to the surrounding parkland, with surface car parking removed and a high degree of permeability allowed to local residents and visitors. The outdoor facilities are planned to ensure that there is a strong integration between the buildings and spaces, with simple and logical connections avoiding any conflicts of use.

The quality and availability of public space has a major influence on people's perception of a place and their willingness both to use it and to return to it for business or pleasure. The high quality landscape design proposed not only enhances and maximises the existing green space, but ties the built development to the natural environment. Flood risk is mitigated, with swales and berms both defending the inhabited uses and appropriately managing elevated water levels on site. New landscaped public squares are created between the buildings, providing outside spaces for the new café as well as seating areas for visitors.

The new leisure centre will include:

- 10 lane 50 metre pool with moveable dividers
- Fun / leisure pool
- Pool viewing areas
- Large fitness gym
- Three large studios / activity spaces
- Sauna and steam rooms
- Children's soft play areas and party rooms
- Wet and dry changing facilities including separate family changing
- Café

As well as the new indoor leisure facilities, the regeneration will provide improved and enhanced outdoor active leisure facilities in the park adjacent, including a playground, skate park, trim trail and distance marker routes.

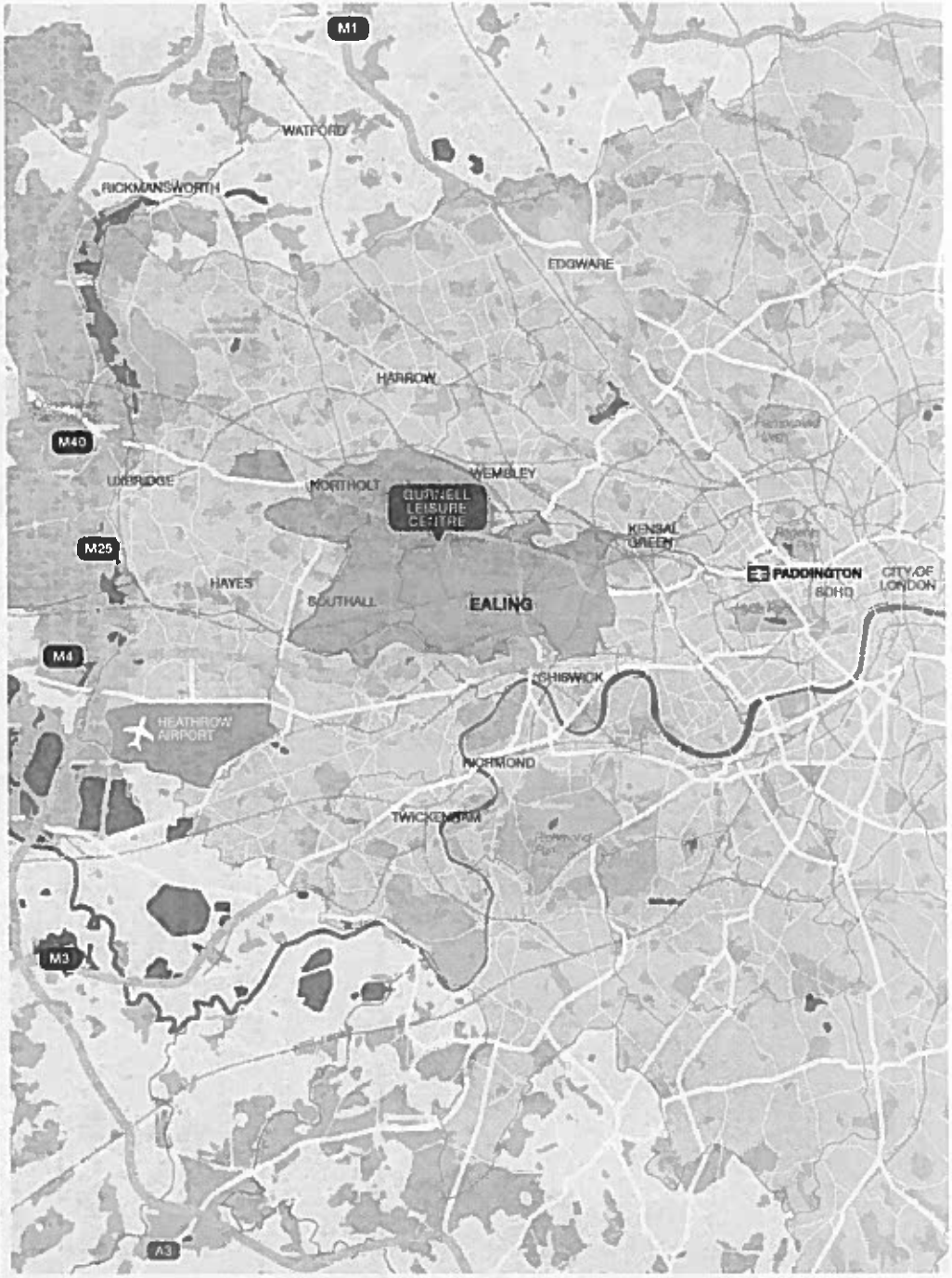
The development will provide 615 homes. The residential components of the masterplan, required to enable and cross-fund the new leisure facility, help to create a community of activity as well as frame the leisure and open spaces. They will be well managed and of a high quality in both layout and finish with the detailed architectural design responding to the local environment in both scale and material as well as resolving and maintaining the separate identities of the leisure and residential uses.

SUPPORTING DOCUMENTS

This Design and Access Statement document is to be read in conjunction with:

- Application Form, Covering Letter and Notifications;
- Planning Statement prepared by Barton Willmore;
- Existing Location Plan (1:1500/1:200) prepared by 3DReid;
- Existing Floor Plans prepared by 3DReid;
- Proposed Architectural Drawings prepared by 3DReid;
- Proposed Landscaping Drawings prepared by HED;
- Design & Access Statement prepared by 3DReid;
- Visual Impact Assessment prepared by HED;
- Lighting Assessment prepared by HED/CPW;
- Transport Assessment prepared by Systra;
- Draft Travel Plan prepared by Systra;
- Servicing and Delivery Plan prepared by Systra;
- Statement of Community Involvement prepared by Meeting Places;
- Energy Statement prepared by CPW;
- Sustainability Statement prepared by CPW;
- Flood Risk Assessment and Drainage Strategy prepared by Parmabrook;
- Ecology Survey prepared by TEC;
- Arboricultural Impact Statement prepared by TEC;
- Overshadowing and Daylight Assessment prepared by Point 2 Surveyors;
- Heritage and Archaeology Statement prepared by CgMs;
- Land Contamination Assessment prepared by Parmabrook;
- Acoustic and Vibration Report prepared by CPW;
- Air Quality Assessment prepared by REC;
- Ventilation and Extraction Details prepared by CPW;
- Fire Statement (Residential) prepared by IFC Group;
- Fire Statement (Non-Residential) prepared by IFC Group;
- Wind and Micro-climate Report prepared by RWDI;
- Financial Viability Report prepared by James R. Brown;
- Alternative Site Assessment prepared by Barton Willmore
- CIL Additional Information Form prepared by Barton Willmore

02 LOCATION AND CONTEXT



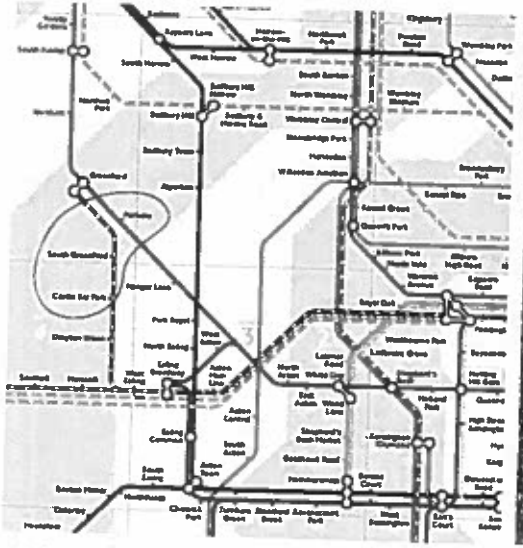
SITE LOCATION

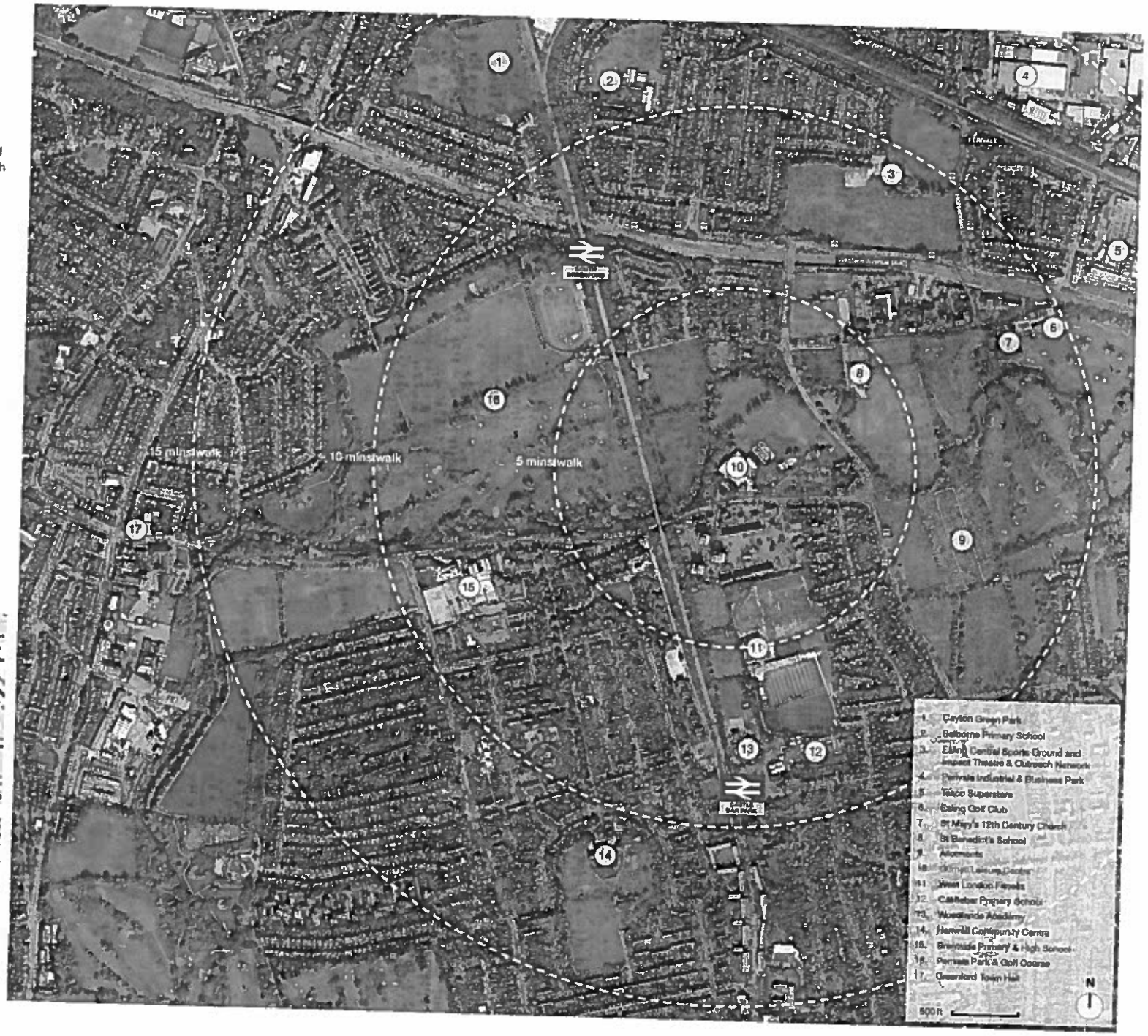
The site is located in the Ward of Perivale in the London Borough of Ealing. Western Avenue (A40) is the main trunk road. Greenford Town Centre to the West of the Site, 20mins walk away, has a high street with banks and shops.

Gurnell Leisure Centre has a PTAL Rating of 3 with tube and rail connections into London via:

South Greenford Train Station	18mins Walk	14mins Bus (E5)
Castle Bar Park Train Station	10mins Walk	
Perivale Tube Station (Central line)	20mins Walk	12mins Bus (297)

Trains from Castle Bar Park Train Station take 20 mins to get into London Paddington.





HISTORICAL CONTEXT

Until the 18th century Perivale was called Little Greenford or Greenford Parva, to distinguish it from Great Greenford.

Perivale is an ancient parish in the historic county of Middlesex. It formed part of Greenford Urban District from 1894 to 1926, and was then absorbed by the Municipal Borough of Ealing. Before the residential building expansion of the 1930s, the fields of Perivale were used to grow hay for the working horses of Victorian London.

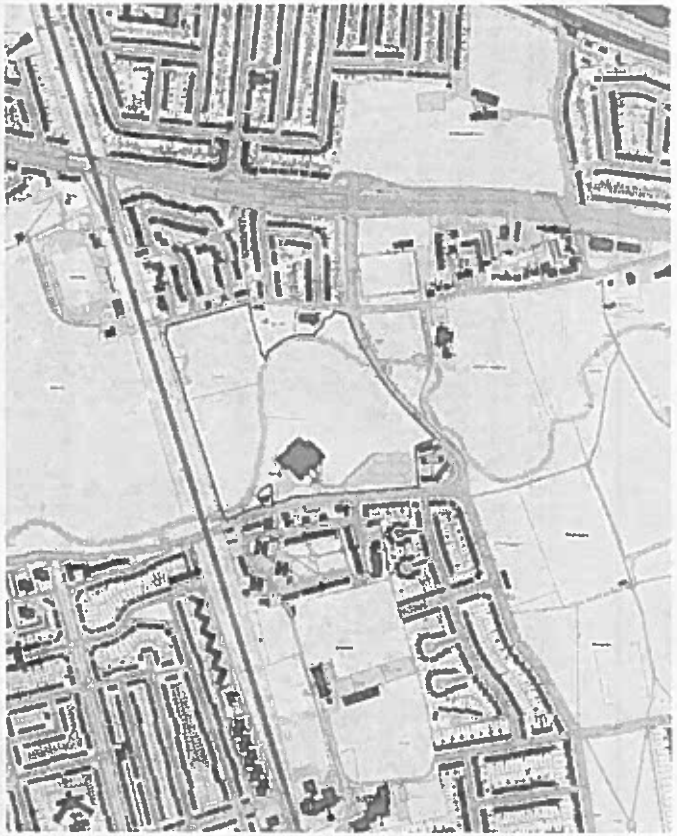
Ealing's ditches were so offensive in 1809 that the copyholders voted £300 for improvements to be effected by the highway trustees. A sewage farm for the southern district was opened at South Ealing Road in 1863. A farm for the northern district was constructed beside the Brent in 1872. In 1936 the West Middlesex Sewerage and Sewage Disposal Scheme was inaugurated, with central works at Mogden in Isleworth, and the Ealing works were superseded.

The existing Gurnell Leisure Centre was built in 1981

1868

1947

2017



03 SITE ANALYSIS

THE SITE

The site is situated in the North West of the London Borough of Ealing, within a band of green MOL stretching East-West across the region and is bounded on the south by Ruislip Road East, by Argyle road to the East and Stockdove Way to the north. All three roads provide key connectivity to both the local area to the rest of the borough. A pedestrian footpath within the Perivale golf club park provides the boundary to the west.

The river Brent is also an integral part of the site and loops across it from the Southwest along Ruislip Road East and provides a physical boundary to the north as it bends back towards southeast of the site.

On the western side of the river Brent the Perivale golf club park and Perivale Park Sports Ground comprises mainly of open park space as does the land on the eastern boundary with the Old Priorian Rugby Club Ealing Golf Club and Pitshanger Park.

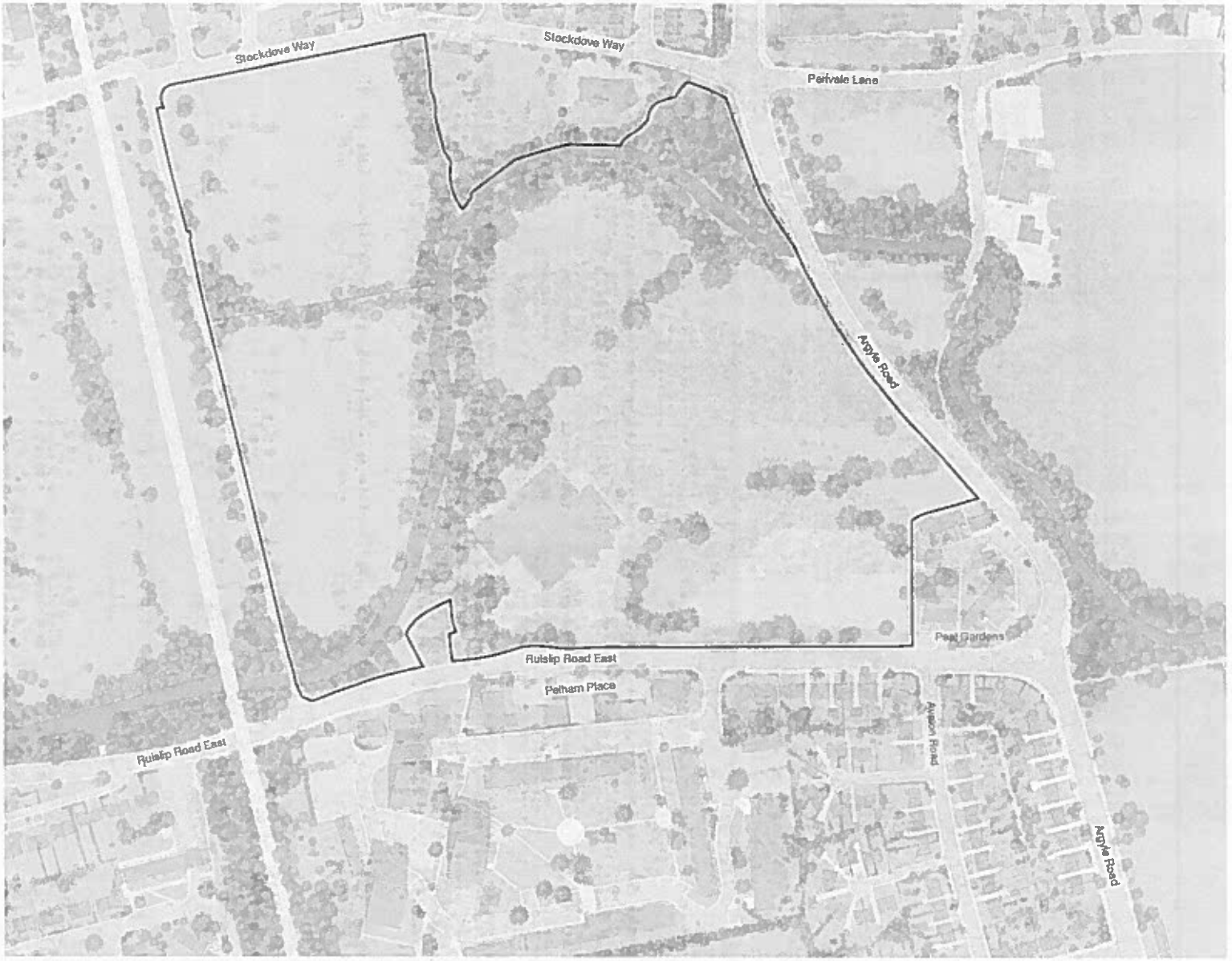
The southern edge of the site is currently occupied by the Gurnell Leisure Centre, with its own c. 175 space surface car park, and a hub of outdoor facilities fully accessible to the public including a: BMX track, skate park, children's playground and two football pitches used for amateur games. The leisure centre itself also has 25 car parking spaces for staff along on its southern edge.

Whilst the nature of the site is overwhelmingly one of green and parkland, Ruislip Road East, to the south and Stockdove Way to the north, delineate the edges of the built environment.

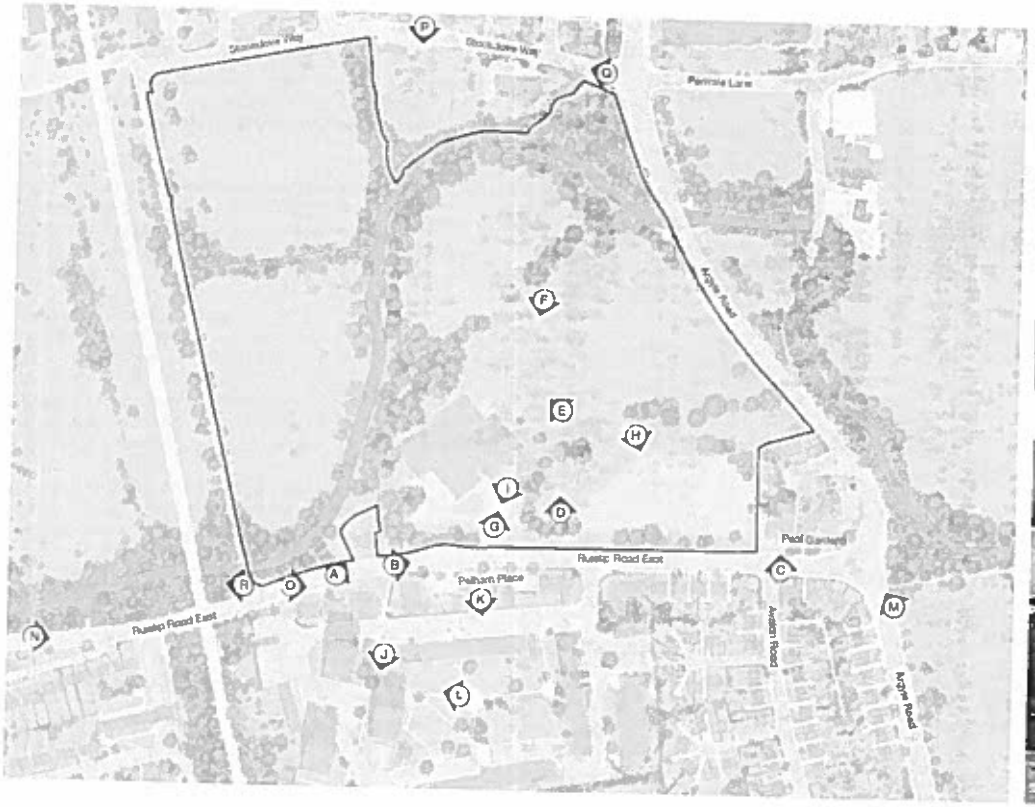
The area to the south of Ruislip Road East is primarily residential development with a suburban character comprising a number of different residential typologies. These range from small three storey apartments through to four and five storeys apartment blocks and the eleven storey residential towers of Dunlin, Kestrel and Falcon House, all providing variation to both the character and height of the surrounding area.

To the South east of the site at the junction between Argyle Road and Ruislip Road east is Peal Gardens, a small cluster of 2 storey houses partly facing the park. At the north of the site, along Stockdove Way and beyond, the suburban character returns, surrounded by large open green areas dedicated to different type of sports activities.

The site also has very good transport links to Ealing Broadway, Greenford and Southall with the several bus routes passing the site and the over ground station at Castle Bar Park or the Central Line tube service at Perivale provide wider links to the rest of London..



CONTEXT PHOTOS

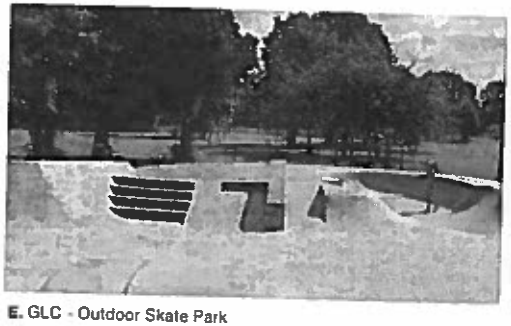


A. Ruislip Road East - Approaching Property Adjacent to GLC

B. Ruislip Road East - Approaching Pelham Road from West

C. Ruislip Road East - Entrance to Peal Gardens

D. GLC - Outdoor Children's Play Area



E. GLC - Outdoor Skate Park

F. GLC - South-Westerly View from Park towards GLC

G. GLC Entrance Approach

J. Footpath into Gurnell Park

H. GLC Car park - Facing Ruislip Road East

I. GLC - View to Gurnell Grove Tower Blocks (Dunlin House, Falcon House, Kestrel House; from left to right)

K. Pelham Place - Facing South towards Gurnell Grove

L. Gurnell Park - Facing North West towards Towers

M. Argyle Road - Facing Peal Gardens

N. Ruislip Road East - Facing Great Western Railway Tracks

O. Ruislip Road East - Convenience Store Opposite GLC

P. Ribchester Avenue - Leading to Stockdove Way

Q. Stockdove Way - Approaching Wyresdale Crescent

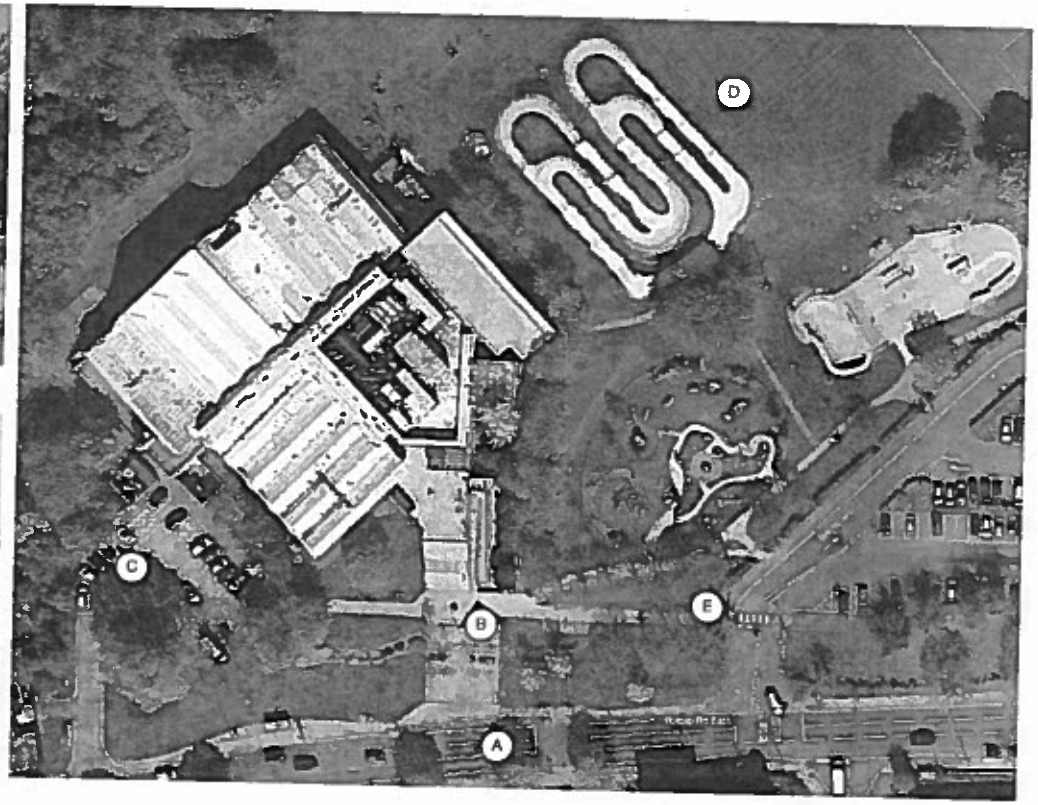
R. River Brent - Under the Great Western Railway Track

EXISTING LEISURE CENTRE

The existing leisure centre opened in 1981 and needs a significant level of repair, which would be nearly as expensive as building a new sports centre.

The existing leisure centre has around 5,460 m² of accommodation. It has an at grade car park for the public, with c. 175 spaces.

A. View of Leisure Centre from Ruislip Road East



B. GLC Entrance Approach Stairs and Ramp

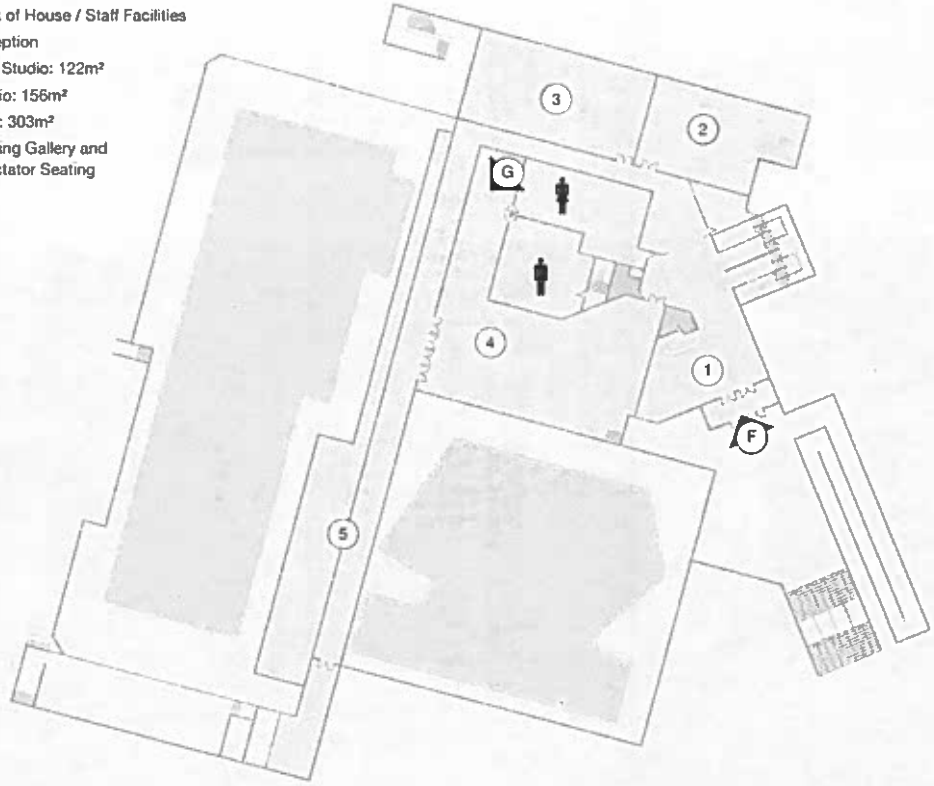
C. GLC Parking

D. View of GLC From North East Skate Park

E. View of GLC Car Park

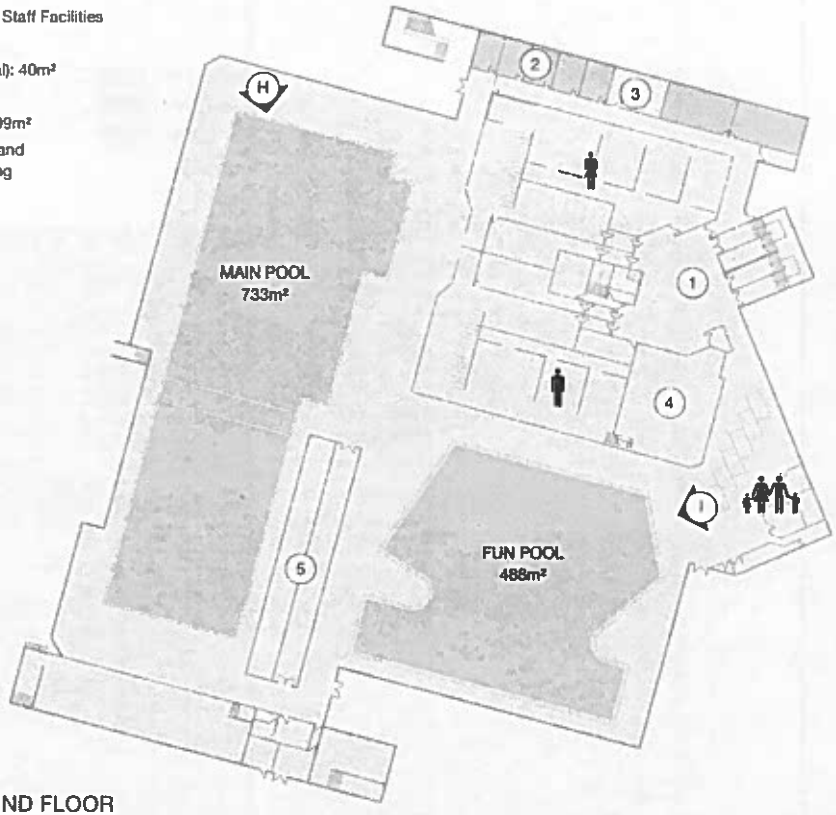
EXISTING LEISURE CENTRE

Back of House / Staff Facilities
1. Reception
2. Spin Studio: 122m²
3. Studio: 156m²
4. Gym: 303m²
5. Viewing Gallery and Spectator Seating



ELEVATED GROUND FLOOR

Back of House / Staff Facilities
1. Lower Foyer
2. Staff rooms (total): 40m²
3. Lounge: 20m²
4. Low level gym: 99m²
5. Viewing Gallery and Spectator Seating

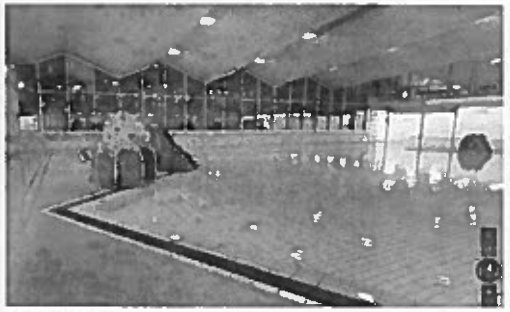


LOWER GROUND FLOOR

F. Main Entrance

G. Gym

H. Main Pool with Gallery Above

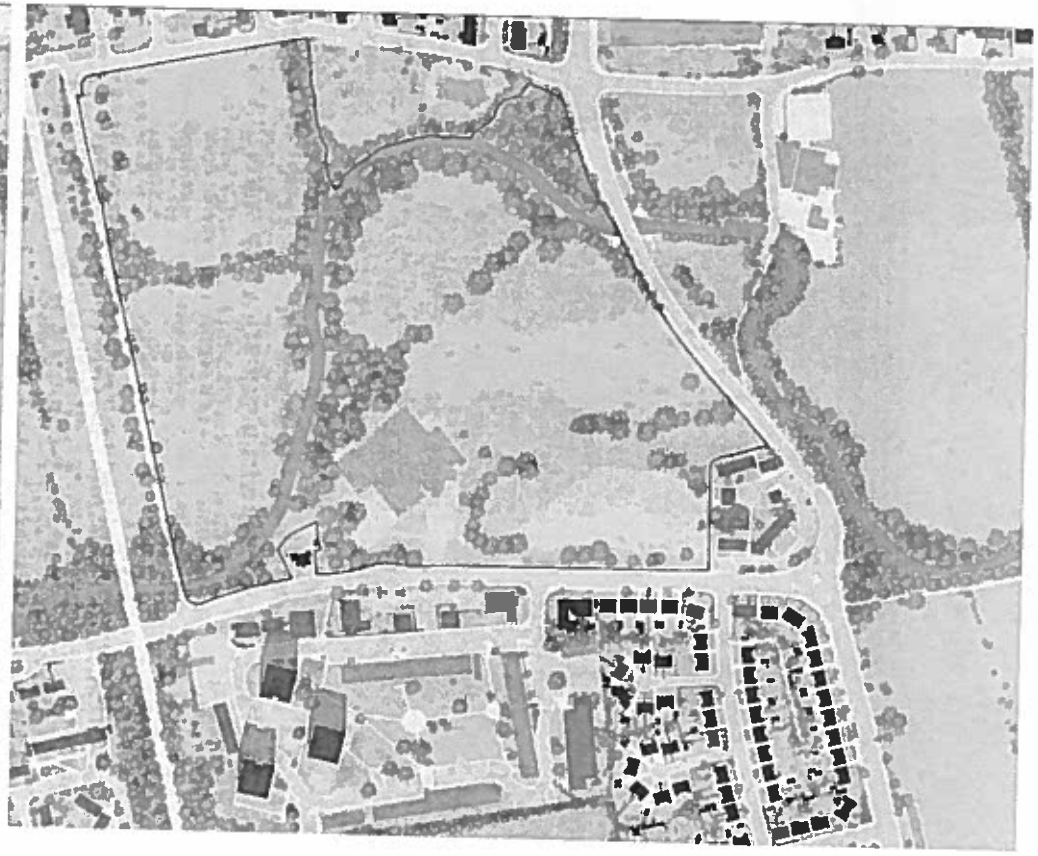


I. Fun Pool

SURROUNDING GROUND FLOOR USES

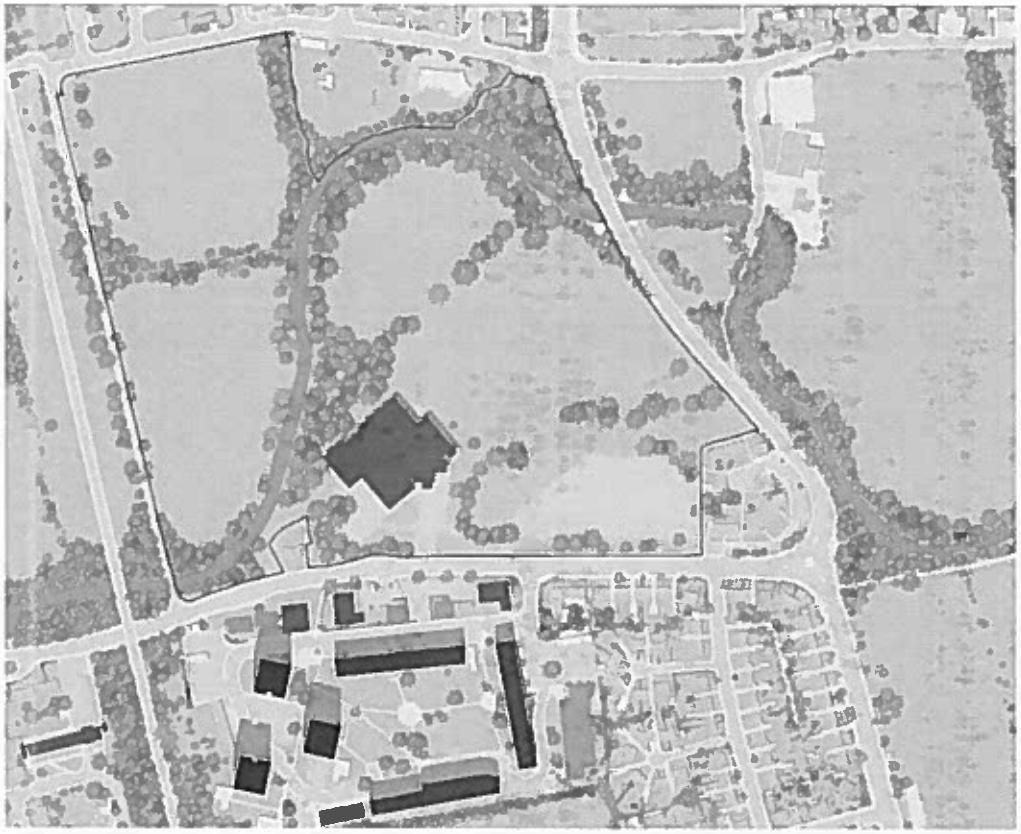
- Existing GLC
- Residential
- Educational
- Food & Wine Shop
- Perivale Athletics Track
- Hanwell Town Football Club
- MenCap Ealing Charity

BREAKDOWN OF RESIDENTIAL TYPOLOGIES



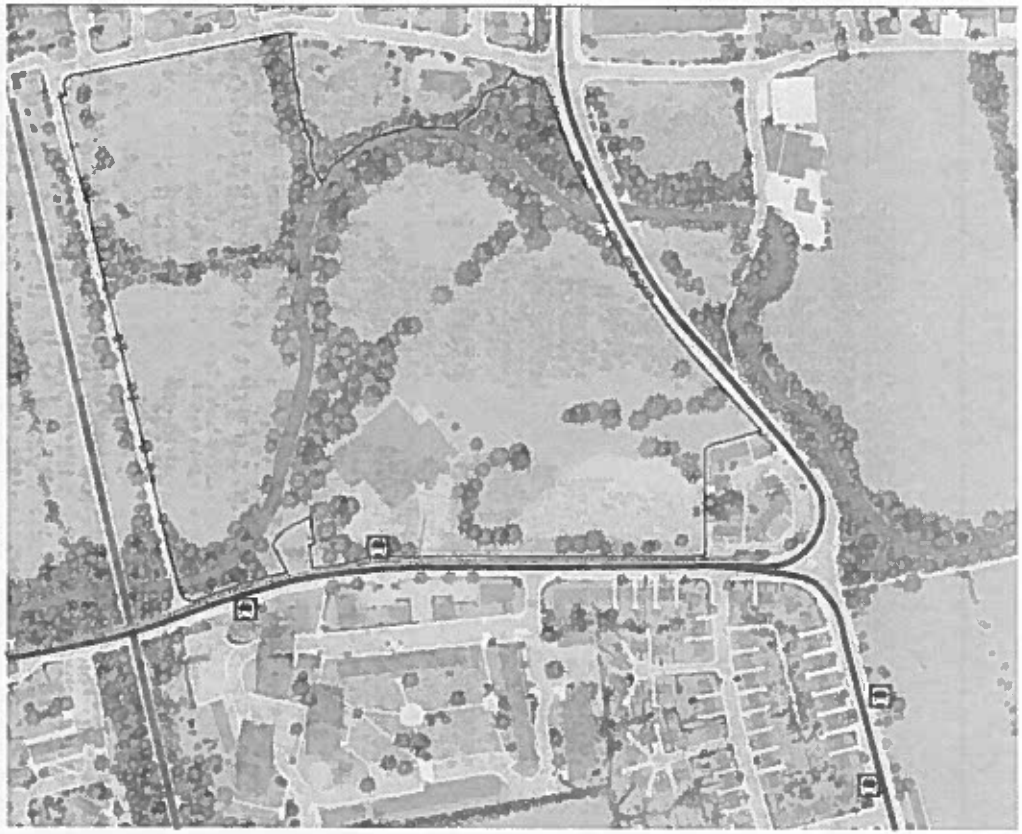
- Flats
- Houses
- Council Houses
- Hotels
- House Post-WWII
- Tower Blocks

SURROUNDING HEIGHTS



10+ Storey
5 Storey
4 Storey
3 Storey
2 Storey
1 Storey

ACCESS



Bus Routes
Rail Routes
Cycle Lanes

ENVIRONMENTAL SITE ANALYSIS
SOLAR

ENVIRONMENTAL SITE ANALYSIS
NOISE

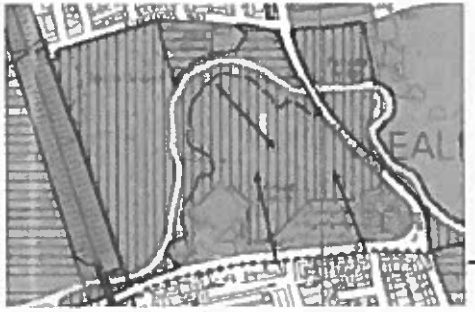
Road

Railway Track

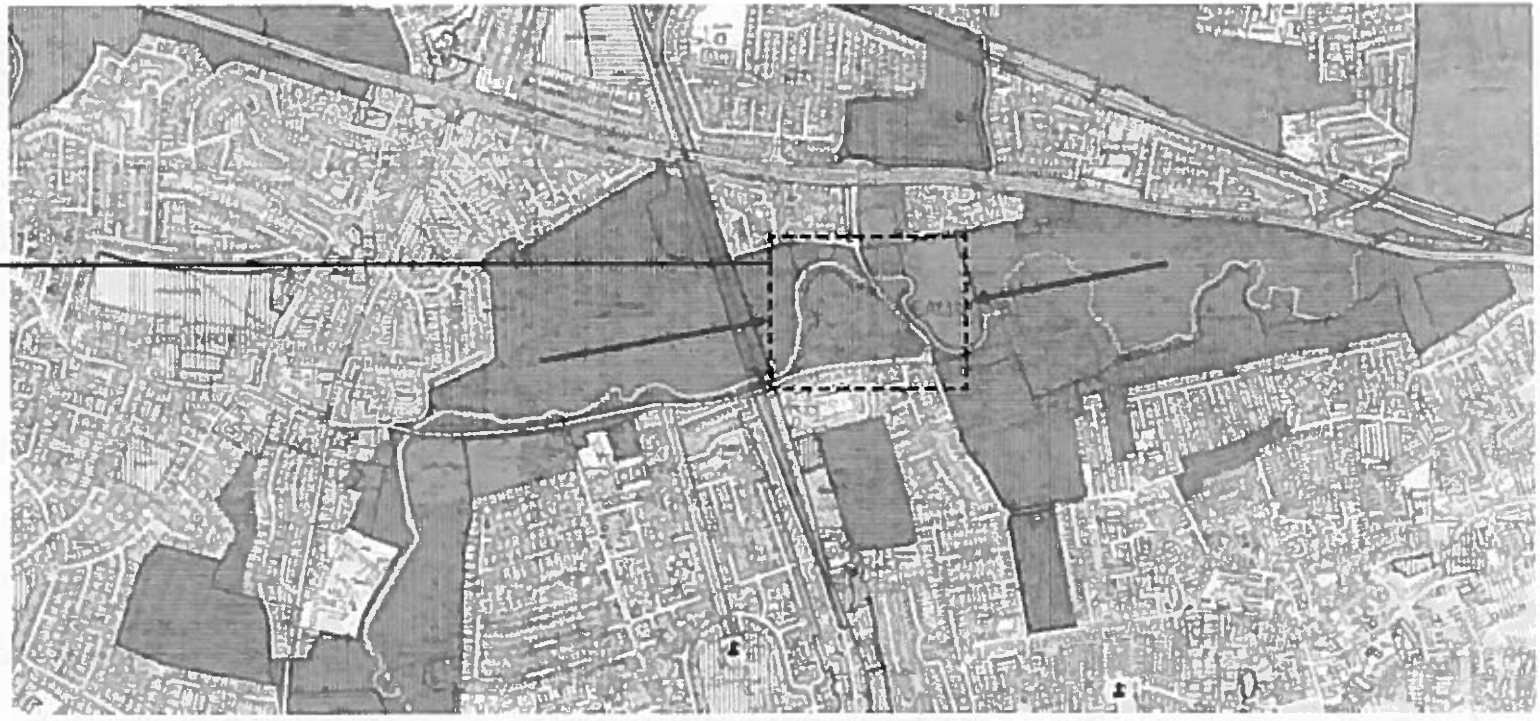
METROPOLITAN OPEN LAND (MOL)

Appropriate Developments:

Limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than existing development. [Extract from NPPF policy]



Above: the immediate MOL context has openness experienced typically in the north-south direction (as indicated by the arrows), reflecting the local settlement pattern.



Above: the wider MOL context has openness experienced more in the east-west direction (as indicated by the arrows), reflecting the course of the River Brent around London.

PLANNING POLICY CONTEXT

This section summarises the Development Plan Documents and material considerations relevant to the Proposed Development. A summary of the relevant planning designations is also provided.

National Planning Policy and Guidance

The National Planning Policy Framework (NPPF) published in March 2012 provided the relevant national planning policy for the Proposed Development. This was superseded however on 24th July 2018 with the adoption of the NPPF 2018. Accordingly, policies from the NPPF 2018 that are relevant to the determination of this planning application are set out below where necessary.

Principally, paragraph 17 in the now superseded NPPF 2012 set out the Core Planning Principles that should underpin both plan-making and decision taking. Whilst these planning principles are no longer listed as a single explicit list in the NPPF 2018, as noted in the guidance for the original NPPF 2018 consultation, "the content of the core principles has been retained and moved to the most appropriate part of the revised Framework". This was done to avoid duplication with existing policy messages.

Accordingly, the core principles contained within the NPPF 2012 still apply so we set out below a summary of how the proposed development accords:

- The proposal is consistent with the policies set out in an up-to-date Development Plan, which consists of the London Plan, LB Ealing's Core Strategy (2012) and Development Management DPD (2013);
- The proposal fundamentally seeks to provide a new flagship leisure centre for use not just by local residents, but by visitors from further afield. This will assist the borough in achieving its goals pursuant to the provision of high quality leisure and sports facilities – encouraging a greater emphasis on health and fitness within the borough. The enabling residential development which will sit alongside the leisure centre will provide much needed housing across a range of dwelling types in order to meet the increased borough need;
- The proposed development would result in the delivery of a new leisure centre which would be usable and functional for many generations to come. It would replace the existing leisure centre which currently fails to meet the long term needs of residents;
- By optimising the use of the land with a well-thought out design, the proposal ensures that any harm to the surrounding landscape or residents is minimised. Alongside the re-provided leisure centre and enabling residential development, enhancements to the outdoor play space and park will ensure accessibility and usability are maximised;
- The proposal optimises the use of previously development land and, through sensitive design and orientation, seeks to minimise impacts on the wider MOL and landscape;
- The proposal would support the transition to a low carbon future through the development of a new flagship leisure centre that meets the efficiency needs to a greater extent than the existing. Re-provision of a new leisure centre building rather than renovation of the existing was seen as the most cost-effective and sustainable approach that minimised disruption to visitors. As part of works to the work, a comprehensive scheme of flood risk mitigation is proposed to maximise the usability of the parkland;
- The proposal involves the reuse and optimisation of low quality, previously developed land on MOL. The scheme has thusly been designed to minimise adverse impacts on that MOL which is currently undeveloped;
- The scheme is a mixed use development that successfully balances the needs of the new leisure centre with the requirements of the enabling residential scheme. These will operate concurrently and complementarily with the open parkland to the north to maximise health, ecology and recreation benefits;
- The scheme is designed and oriented to ensure that no heritage assets are adversely impacted upon;
- All development on the Site will be focussed in the area with the highest PTAL to ensure the fullest use is made of public transport. With regards to the actual design of the scheme, a fundamental principle of the landscape proposal is to maximise accessibility to the MOL and enhance its quality to ensure visitors can derive maximum benefit. This includes the provision of a cohesive cycle and walking network through the park, and a bridge across the River Brent to facilitate access to the wider MOL;
- The proposal would deliver a state-of-the-art flagship leisure centre which is anticipated to be of regional value. This is in line with LBE's strategy for the delivery of sports and leisure facilities to meet local need.

The Development Plan

This section of the Planning Statement introduces the main policy documents that comprise the "Development Plan" for the Application Site. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that the application should be determined in accordance with the Development Plan, which in this case comprises:

- The London Plan (2016) consolidated with alterations since 2011;
- LBE's Development (Core) Strategy and Proposals Map (2012);
- LBE's Development Management Development Plan Document (DPD) (2013); and
- LBE's Development Sites DPD (2013).

In the event of a conflict between the provisions of these documents, and in accordance with Part 3 of the PCPA, such conflict must be resolved in favour of the most recently published or adopted document.

Mayor's Community Infrastructure Levy (CIL) is applicable to these proposals. The Borough falls within the Mayor's Zone 2 where the charge is £35 per sqm. LBE has yet to adopt a Borough CIL.

Emerging Policy

The draft replacement London Plan was published on 29th November 2017 for consultation purposes, with modifications to this document issued in August 2018. Whilst this plan has not yet been formally adopted, the objectives and policies contained within set out the "direction of travel" for current strategic policy in Greater London. The draft London Plan is still therefore a material consideration, so it has been assessed against the parameters of the proposal where relevant.

On 1st April 2019, it is expected that the Mayor's Community Infrastructure Levy 2 (CIL2) will be adopted. This will supersede the current requirement for £35 per sqm and replace it, for LBE as a whole, with a charge of £60 per sqm.

Planning Designations

The application site is subject to the following designations:

- Metropolitan Open Land (MOL);
- Public Open Space;
- Archaeological Interest Area;
- SINC;
- Local Park Deficiency; and
- Blue Ribbon.

Areas in the immediate vicinity of the Application Site are subject to the following policy designations:

- Green Corridor (along the adjacent railway tracks).

Key Matters

Following discussions with LBE, the GLA and the local community, the key matters considered relevant to the determination of the proposed development include:

(a) Land Use - Principle of the proposed development:

  (i) Leisure Centre;

  (ii) Residential;

(b) Layout, Design and Appearance;

(c) Height, Townscape and Visual Impact;

(d) Affordable Housing Provision;

(e) Housing Choice and Quality;

(f) Landscape, Amenity and Playspace;

(g) Neighbouring Amenity;

(h) Transport, Servicing and Waste;

(i) Sustainability and Energy;

(j) Contamination;

(k) Noise and Vibration;

(l) Air Quality;

(m) Flood Risk and Surface Water Drainage; and

(n) Planning Obligations & CIL.

04 COMMUNITY & STAKEHOLDER ENGAGEMENT

CONSULTATION

Meeting Place Communications
www.meetingplacecommunications.com

Public consultation

At the start of the pre-application period there were six initial consultation presentations by Ealing officers, councillors and development partners, to stakeholders and the wider public to introduce proposals and provide updates as they developed. Following each presentation, the presentation and a FAQ document answering frequently raised questions were uploaded online.

On Monday 30th and Tuesday 31st October 2017, BE:HERE EALING LTD and the project team hosted a two-day drop-in consultation event at the leisure centre itself in order to engage with those who will be affected most by the proposals. The consultation material was placed on a bespoke consultation website alongside a FAQ document answering questions raised at the consultation events.

In addition to the public consultation events, BE:HERE EALING LTD met with Ealing Swim Club and London Borough of Ealing councillors to discuss the proposals in further detail and understand their specific needs for the proposed leisure centre.

The public meetings and consultation events have been held with the community and stakeholders that have brought back a great deal of feedback. The nature of these public events and the responses to the feedback received is set out in more detail in the submitted Statement of Community Involvement.

London Borough of Ealing pre-application

BE:HERE EALING LTD had nine pre-application meeting with the London Borough of Ealing with the first occurring on 11th May 2017 and the most recent on 11th October 2018, where the proposals were discussed and amended as needs be.

Following these meetings, designs were amended taking into consideration the needed specifications for the Leisure Centre and the provision of housing within the existing Leisure Centre floor print and car park. This allowed the design team to re-look at the site for comprehensive redevelopment and include additional public realm into the proposals.

Greater London Assembly pre-application

An Initial Greater London Assembly pre-application meeting was held on 10th January 2017, attended by the GLA, LB Ealing and the Applicant. The purpose of the presentation was to review the emerging detailed design proposals, focussing on the massing layout, housing offer, as well as the landscape design strategy. Two subsequent meetings were then held on 27th June 2017 and 22nd November 2017 with a revised design proposal then issued to the GLA for comment on 22nd December 2017.

Following constructive feedback, the decision was taken to go back and review the scheme's design. This new and emerging proposal was presented to the GLA Case Officer in a meeting held on 24th August 2018. A follow up meeting was held with the GLA Design Officer on 9th October 2018 and a formal GLA application meeting has been arranged for 11th January 2019. All previous meetings were attended by GLA, LBE and the applicant, as will the next meeting arranged for January.

PUBLIC CONSULTATION BOARDS - 30TH - 31ST OCTOBER 2017

Gurnell Leisure Centre, Ealing

Ealing

be

Welcome

Gurnell Leisure Centre, Ealing

Ealing

be

Housing

Affordable housing

Design

Parking

www.futureofgurnell.co.uk

Gurnell Leisure Centre, Ealing

Ealing

be

Leisure provision

Facility features

Outdoor leisure

www.futureofgurnell.co.uk

Gurnell Leisure Centre, Ealing

Ealing

be

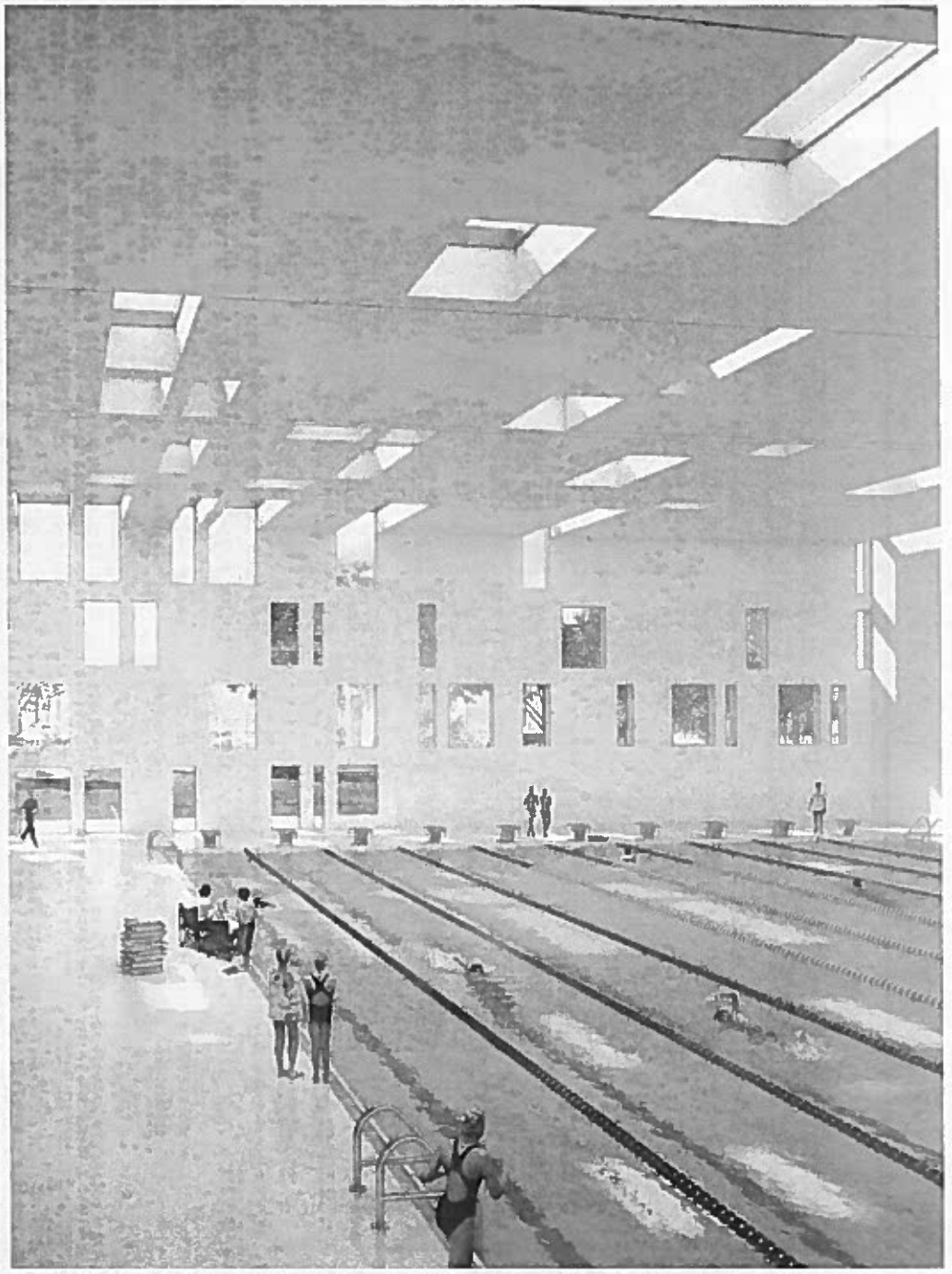
Construction programme

Let us know what you think

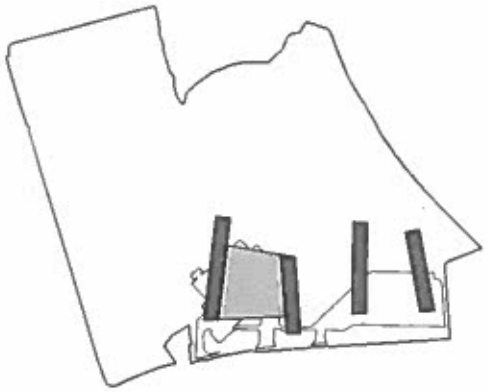
Next steps

www.futureofgurnell.co.uk

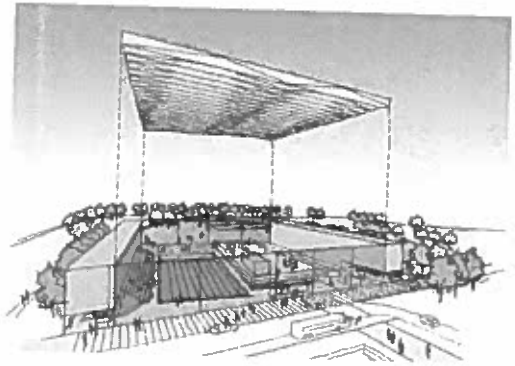
05 DESIGN DEVELOPMENT



01
ORIGINAL PROPOSAL



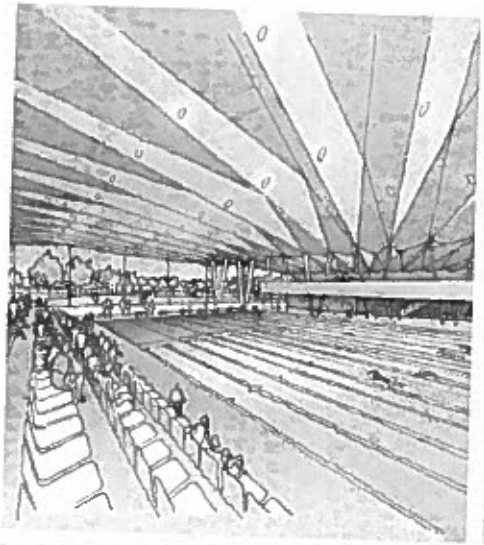
The initial design concept for the Gurnell site stressed permeability to a retained and upgraded park within the containing loop of the River Brent. The masterplan made use of relatively long, medium-rise residential buildings, aligned with a degree of informality so as to continue existing building lines onto the site in a straightforward and relaxed way. Two of these residential buildings framed a leisure building which was conceived as a minimal enclosure with maximum though-transparency. This transparency allowed leisure building users to enjoy the park setting while also showing off the rich leisure programme to the main road adjacent.

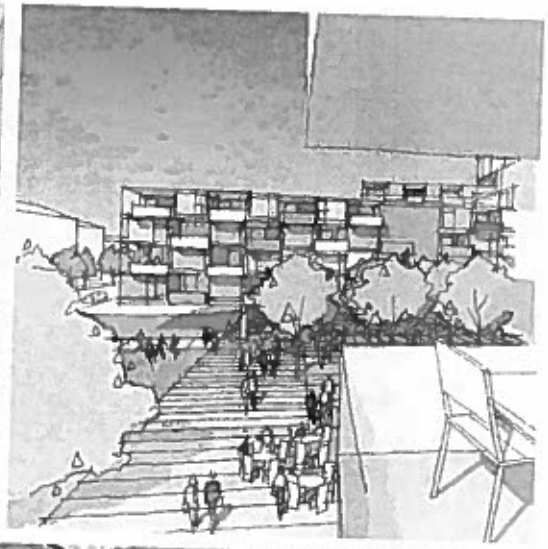


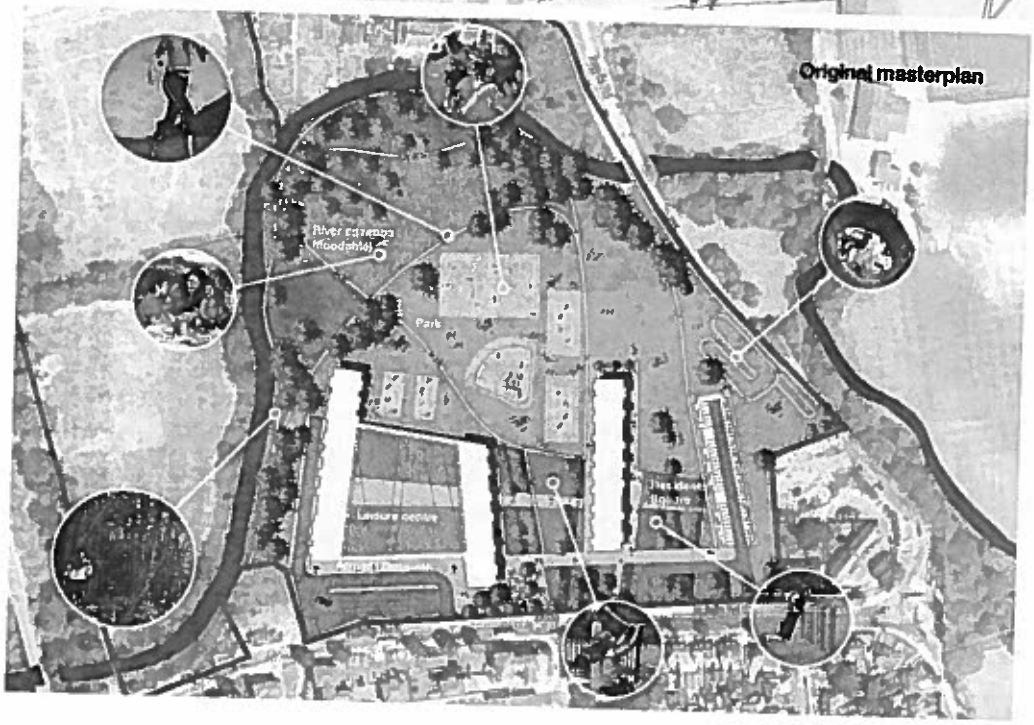
Above: early concept sketch exploring the possibility of making the pool / leisure structure visually permeable, enabling views through to the park.

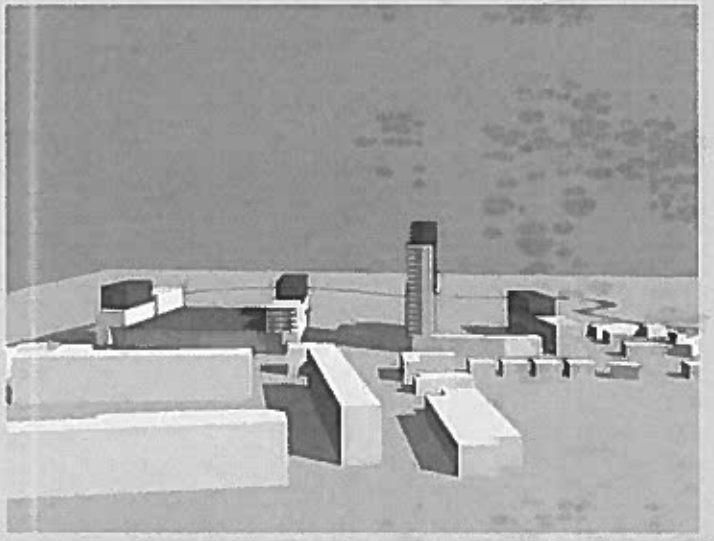
Above: urban diagram showing how existing building lines can be extended onto the site to start to form footprints for the new development.

Right: early masterplan drawing showing the potential for programming the landscape with outdoor leisure / fitness uses, to complement the indoor facilities.



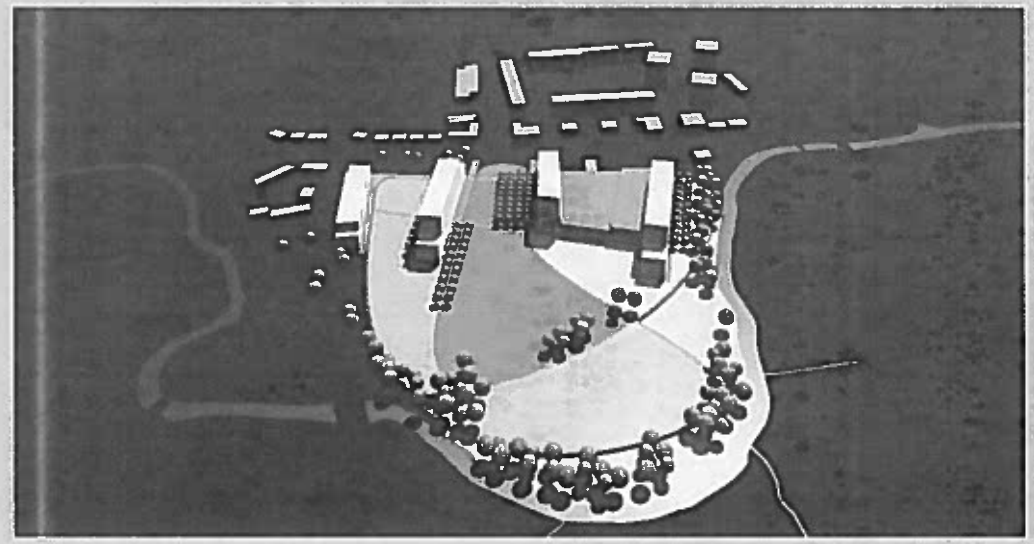


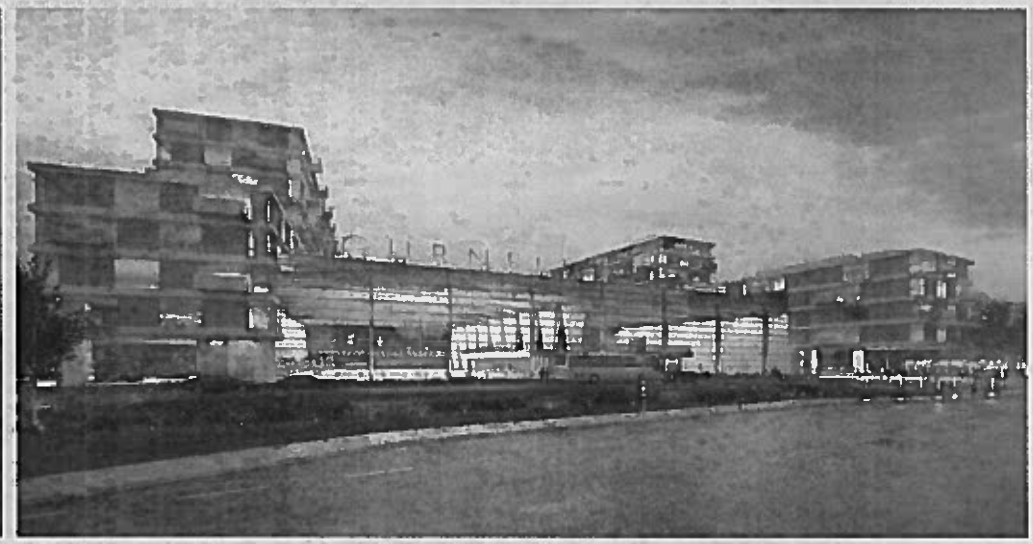




Below: visual showing the proposed new leisure building from Ruislip Road East. Passers-by have a view to the leisure use (and 50 m pool) within, and beyond, to the upgraded park. The leisure use is framed by residential buildings.

Left & left below: massing visuals and model photograph.

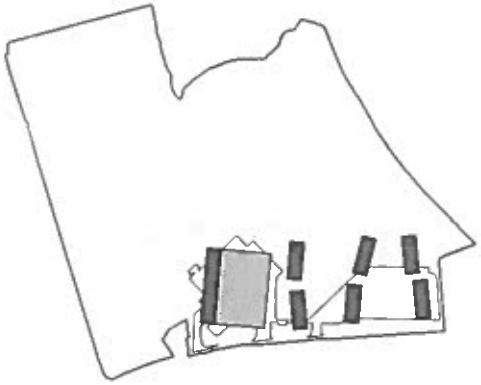




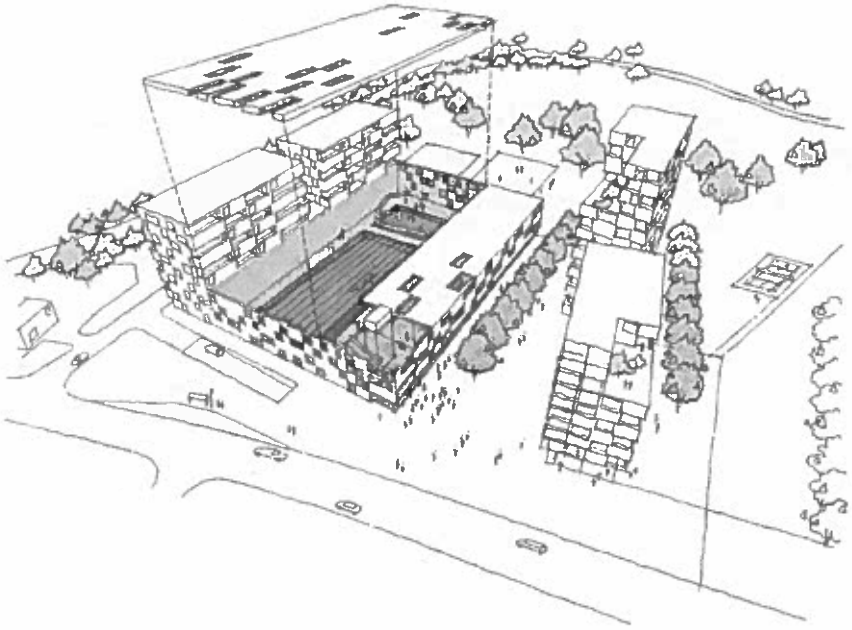
CONCLUSION

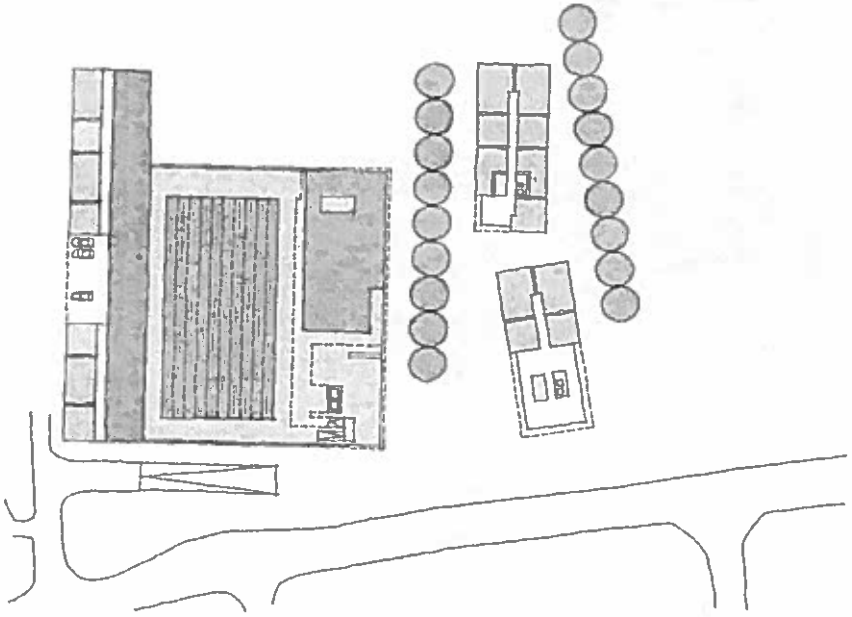
This initial study for the masterplan established a number of working principles for the design; in particular, permeability, visibility (to the leisure uses), and the importance of a single central space for arrival and orientation. However, the relatively low massing adopted for the enabling development necessitated some projection of built form into the park and a comparatively larger land take. In addition, the leisure centre volume shown here proved larger than required.

02
LINEAR LEISURE BUILDING



The second iteration of the design explored a reduced footprint leisure building. The basic masterplan principles of the initial proposal were retained, although with increased articulation and subdivison of the residential 'fingers'.



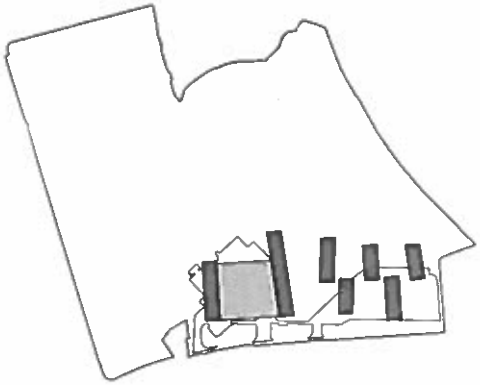


Below & left: visuals showing the proposed leisure building both internally and externally. A corner entrance was proposed, with visibility through to the building interior retained as a feature.

CONCLUSION

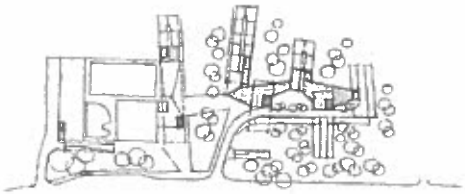
The reduced leisure volume set the parameters for further iterations of the leisure building. The central space is retained. However, the longer, narrower leisure building footprint shown here required extended internal circulation routes, worsening the user experience. In addition, the residential elements were still felt to project too far north into the MOL.

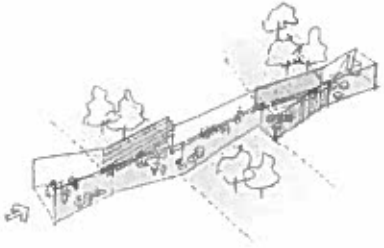
03
ALTERNATING FINGERS

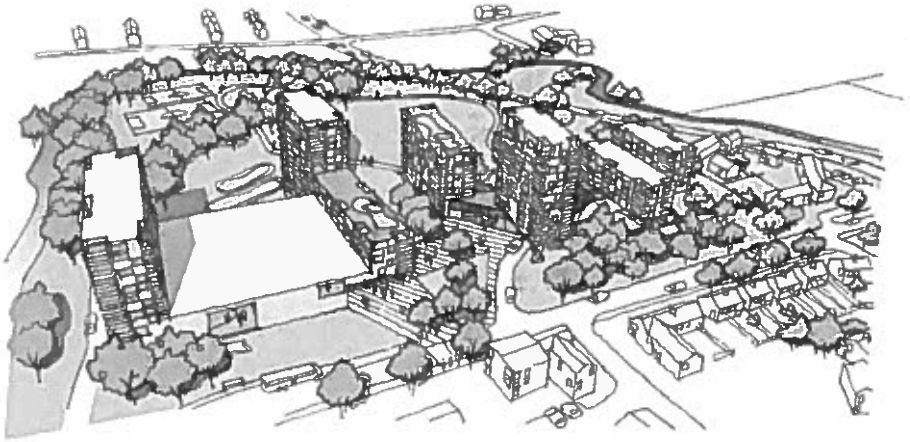


This third iteration of the proposal aimed to reduce the extent of development into the retained park, in favour of shorter, generally taller buildings. An alternating arrangement of residential buildings was introduced to the eastern half of the site as this was found to maximise permeability and minimise overshadowing. Heights were progressively reduced to the east for optimal neighbour adjacency.

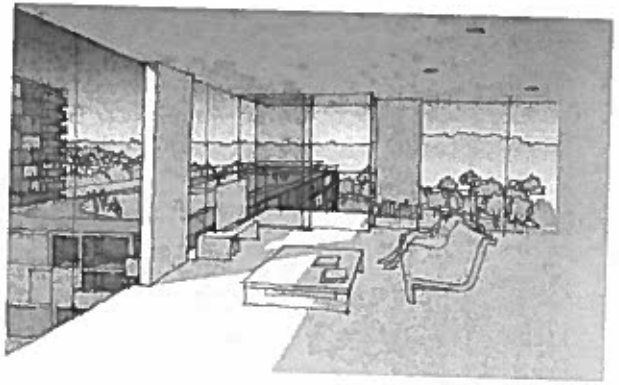
Below: the residential fingers are linked with a central (internal) 'street' for resident convenience

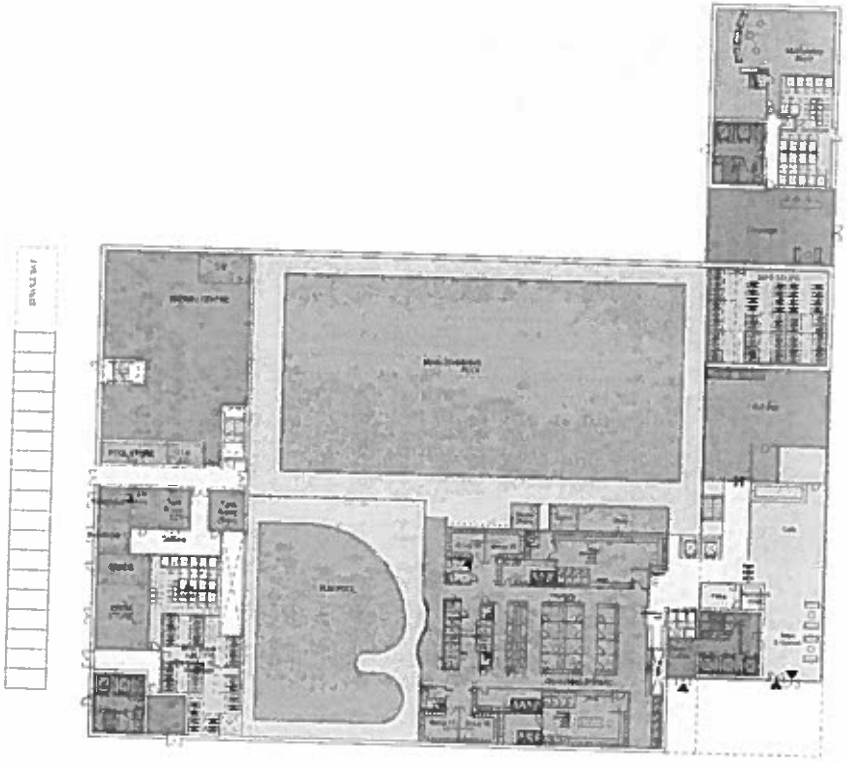






Below: the scheme demonstrates a high level of residential quality and openness to the surrounding landscape

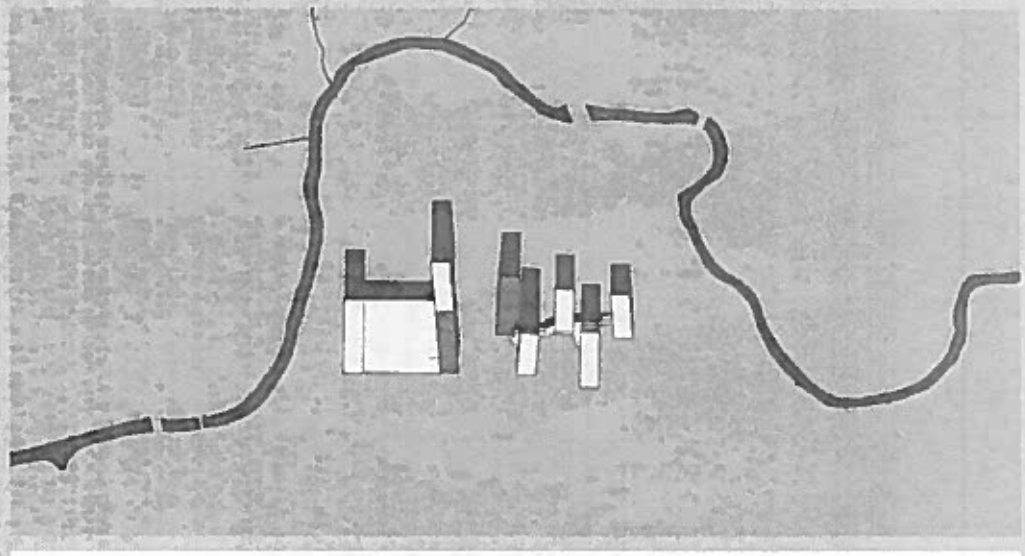


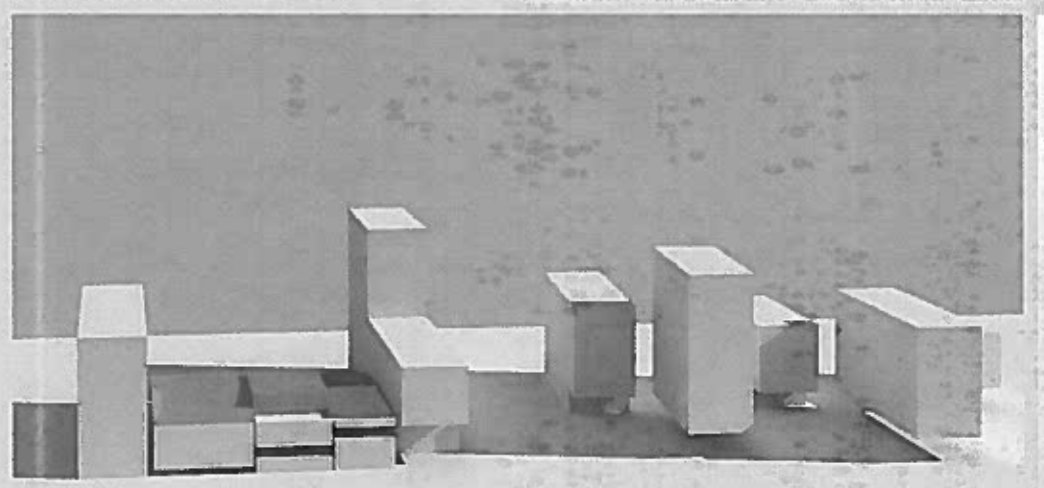


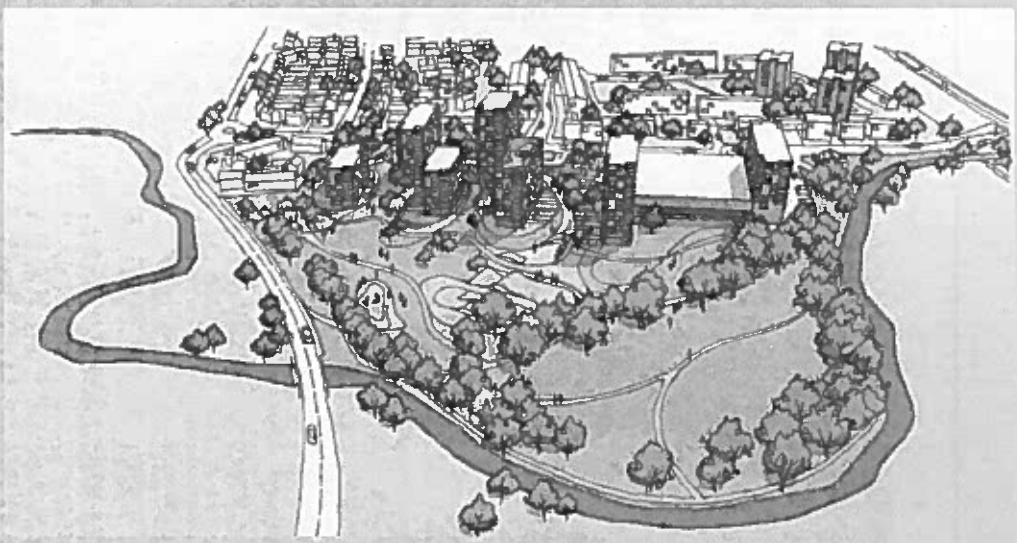
Right: early elevation concept visual, exploring the potential for balcony enjoyment of park views.

Far right and right below: the finger layout was selected for its good shadowing and overlooking qualities.

Below: massing study and model photograph.



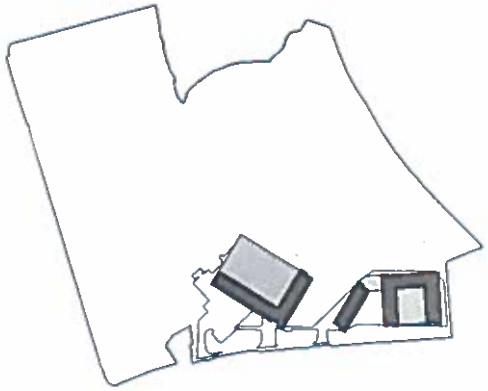




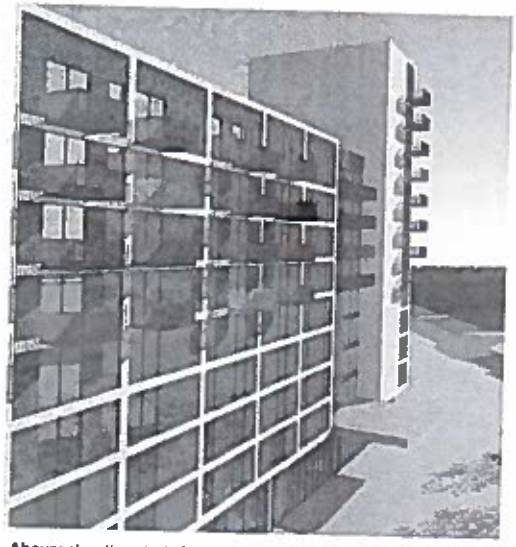
CONCLUSION

Here, the leisure building takes on most of its final arrangement, with the two pools in an L-shaped configuration, arranged around a central wet changing area. This was felt to offer the best leisure centre user experience. The residential accommodation, in a series of compact 'fingers', reduced its northwards projection to a large degree. However, this configuration was felt (principally by GLA officers) to offer a diminished street-facing frontage to Ruislip Road East, and more reinforcement here was seen as desirable.

04
ROTATED LEISURE BUILDING

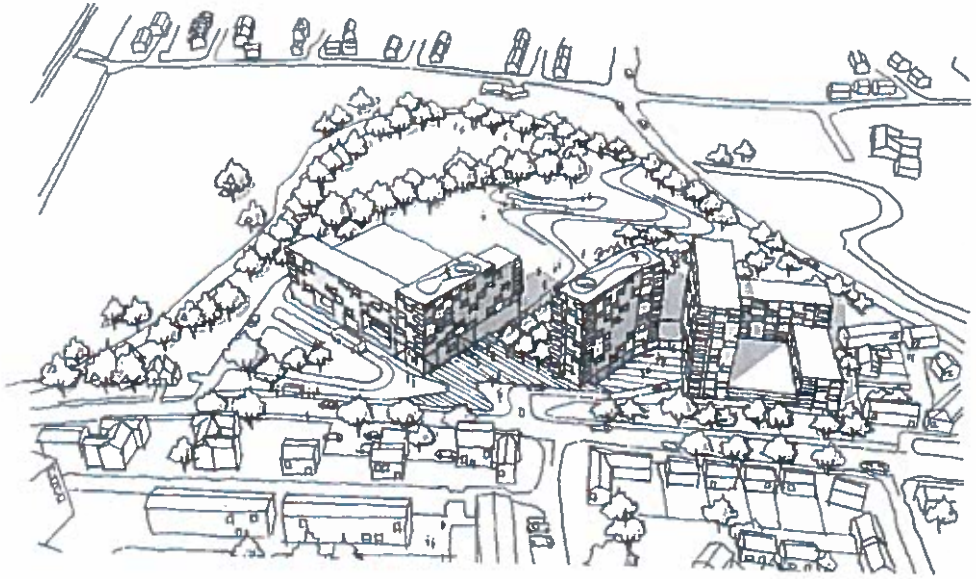


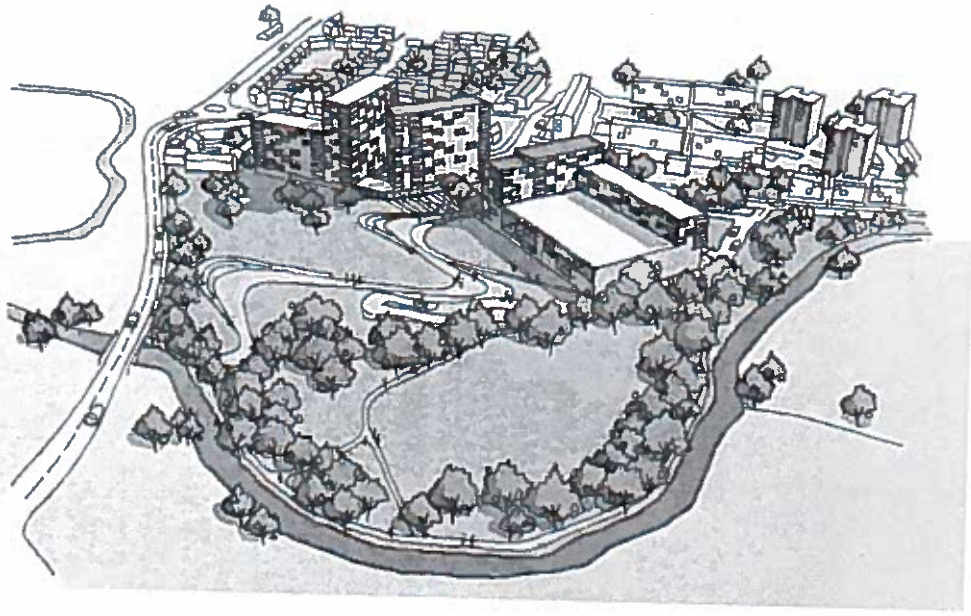
The fourth iteration of the design proposal explored rotating the leisure component so as to more closely reflect the existing leisure building footpint. Similarly the residential component to the eastern half of the site was compressed so as to occupy the land currently in use as surface parking.

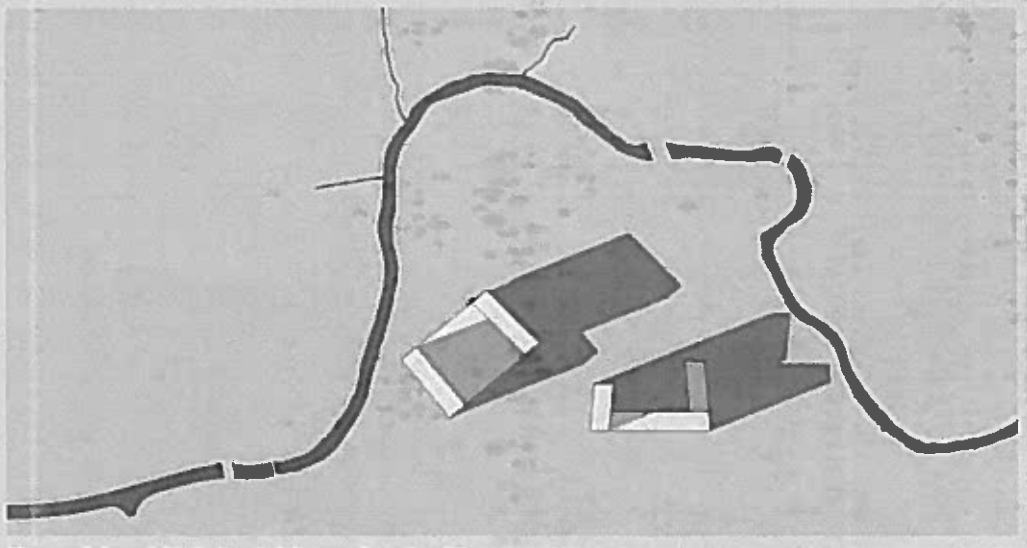


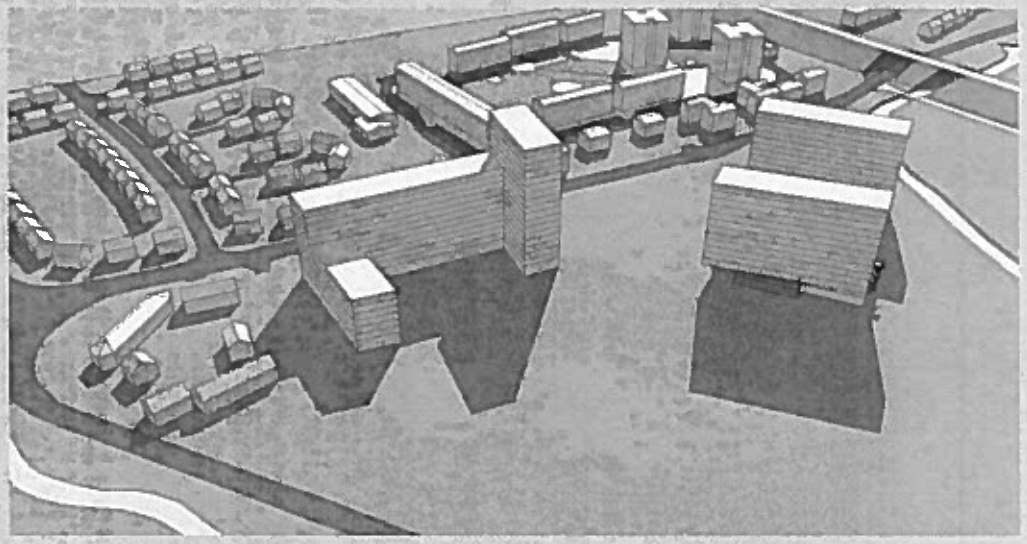
Above: elevation study for the rotated leisure footprint scheme

Below and below left: sketch studies



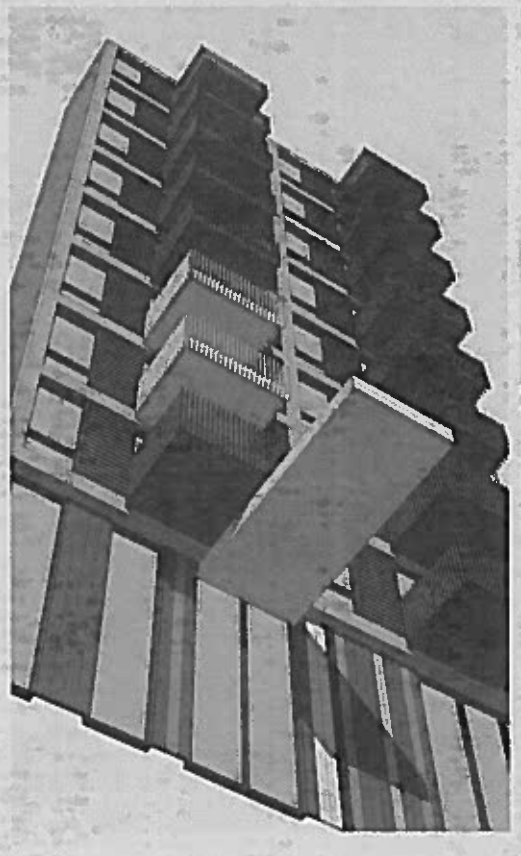


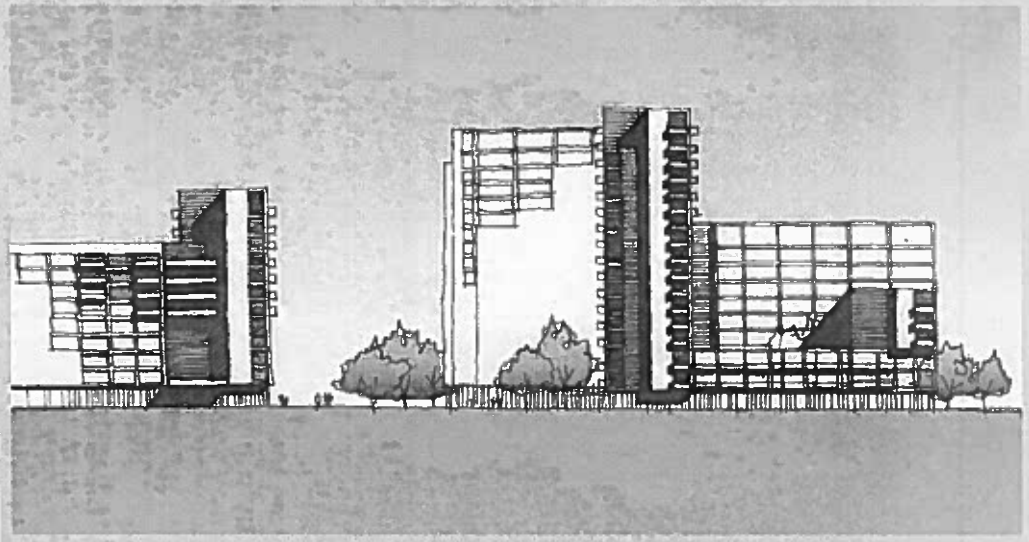




Above and above right: shadow study for an early version of the rotated leisure footprint scheme

Right and far right: early elevation studies

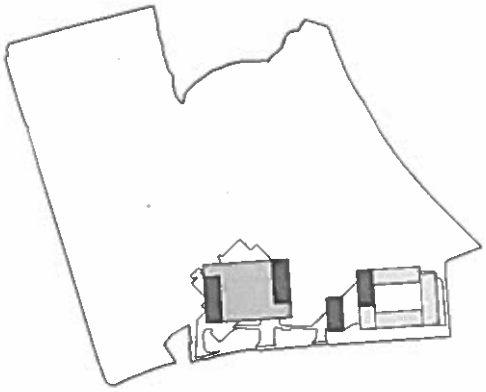




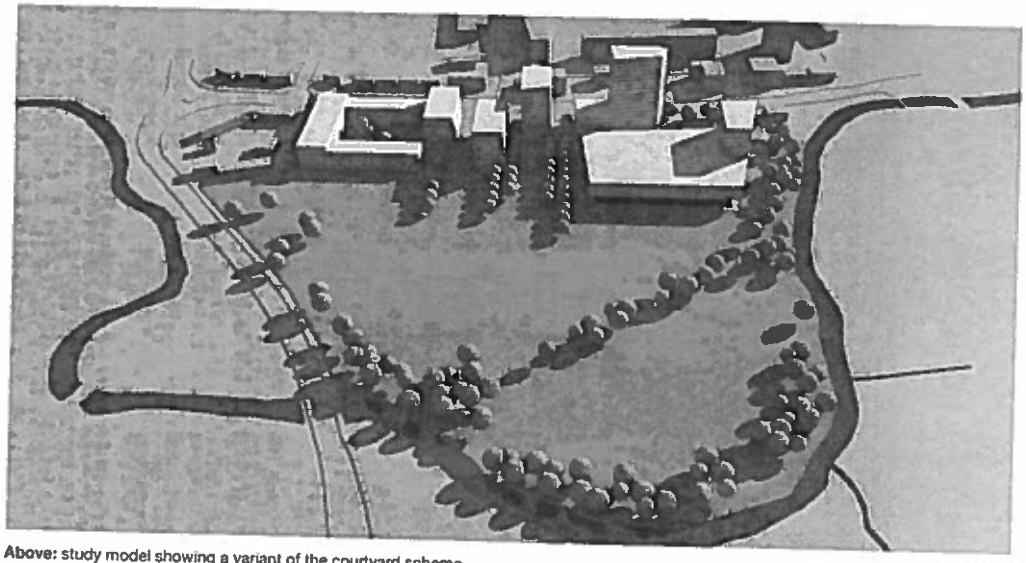
CONCLUSION

In this iteration, the masterplan elements were moved and shaped to achieve a close fit with the footprint of previously developed land. However, in assessment, it was felt that this close fit had come at the expense of other desirable aims, in particular the townscape aim of achieving a coherent street edge to Ruislip Road East. The compactness of the massing also necessitated some abrupt height and scale contrasts.

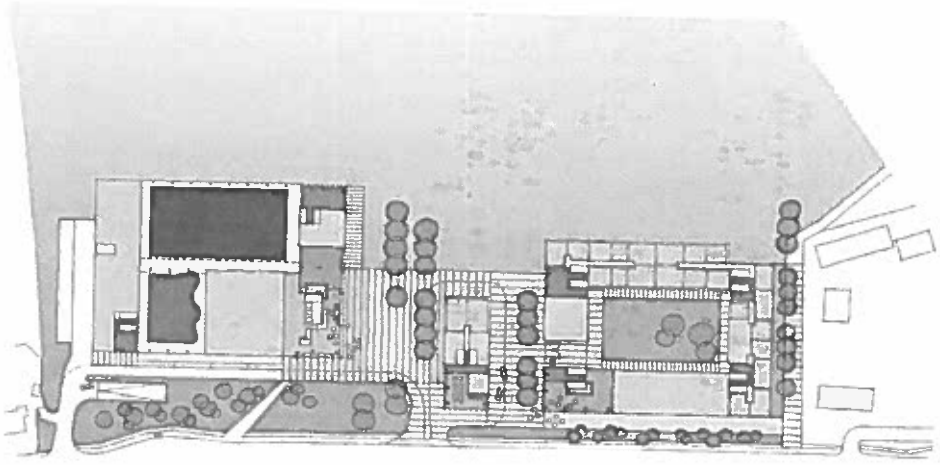
05
REGULAR COURTYARD



The fifth iteration of the design proposal returned to a more regular orthogonal arrangement. This was done with the aim of conforming to the footprint of previously developed land as closely as reasonably possible, while still achieving a high quality of townscape and spatial character.

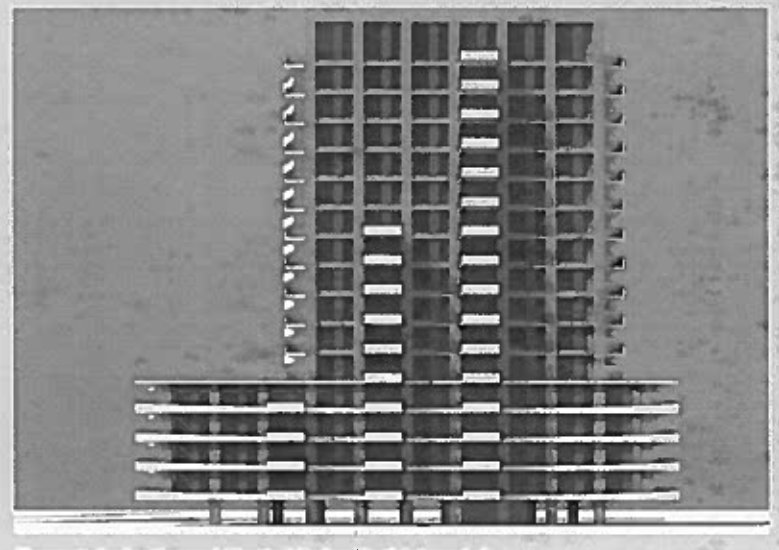


Above: study model showing a variant of the courtyard scheme with some of the residential accommodation in finger blocks.

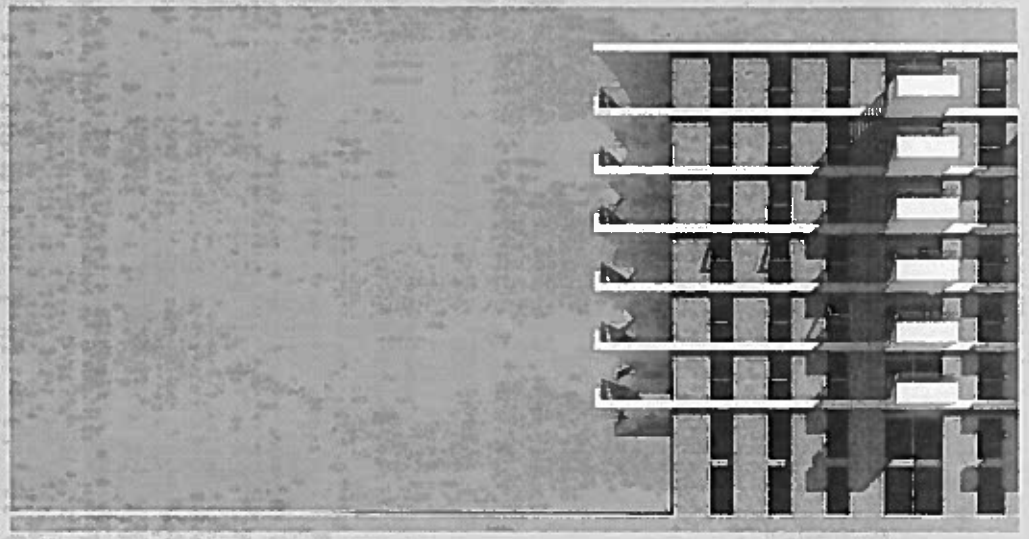


Above: spatial emphasis is still placed on a central space, from which the major components of the scheme are accessed.

Above left: plan at ground floor level. The layout combines finger blocks with a courtyard to the east, with all outdoor spaces connected at grade.



Above: study elevation model for the tallest residential element of the masterplan; the design here introduces a stepped massing to articulate the form and make contextual relationships: this general approach to massing articulation was carried forward into the final iteration.



Above: study elevation model: each floor is marked with a horizontal element, balancing the verticality of the fenestration. This approach was developed further in the final iteration.

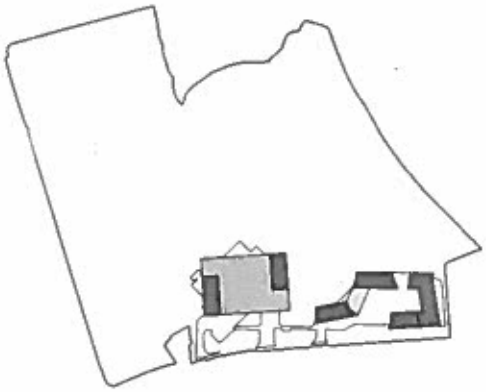
Above: detail of a study elevation model; balconies are given extra emphasis with a partly solid upstand.

Left: study massing model in context.

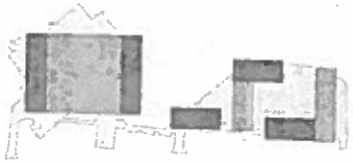
CONCLUSION

This penultimate iteration also adopts a footprint with near conformity with previously developed land while achieving reasonable townscape aims. The fully orthogonal massing, while compact, does tend to close off some spaces, in particular the residential courtyard interior was felt to become private, with limited permeability. The final iteration aimed to address this.

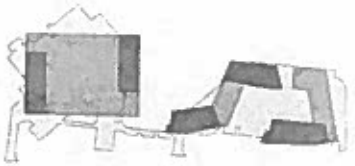
06
SHAPED COURTYARD



1. The starting point: an orthogonal perimeter block courtyard

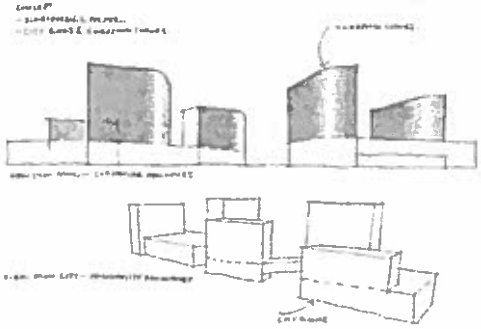


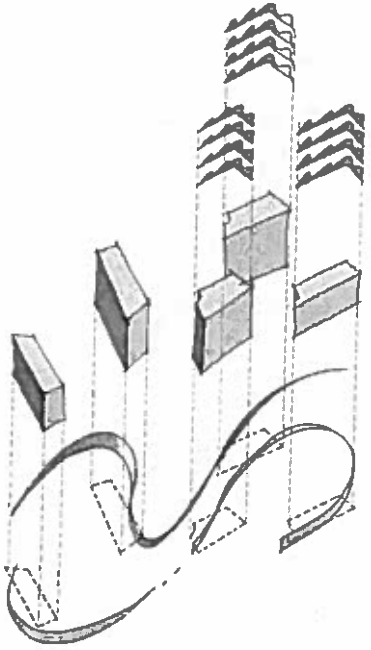
2. Courtyard reconfigured to reduce height / density

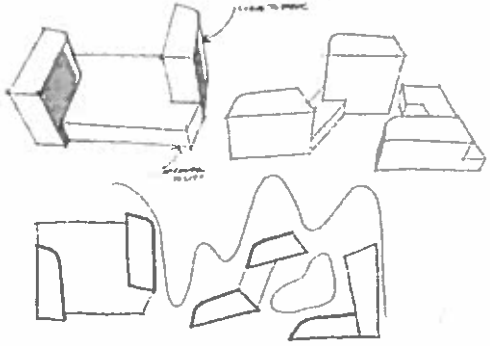


3. Courtyard then 'loosened' to improved permeability

The final iteration of the design proposal also develops a courtyard solution, but of a looser, more open style. The major residential accommodation still forms a perimeter block centred on the previously developed car park. The residential buildings are shaped at their ends to give dwellings a park view, and the footprints are placed to develop a sense of permeability countering the closed feel of a traditional perimeter block. A lower scale linking element in the form of a podium 'ribbon' unifies the



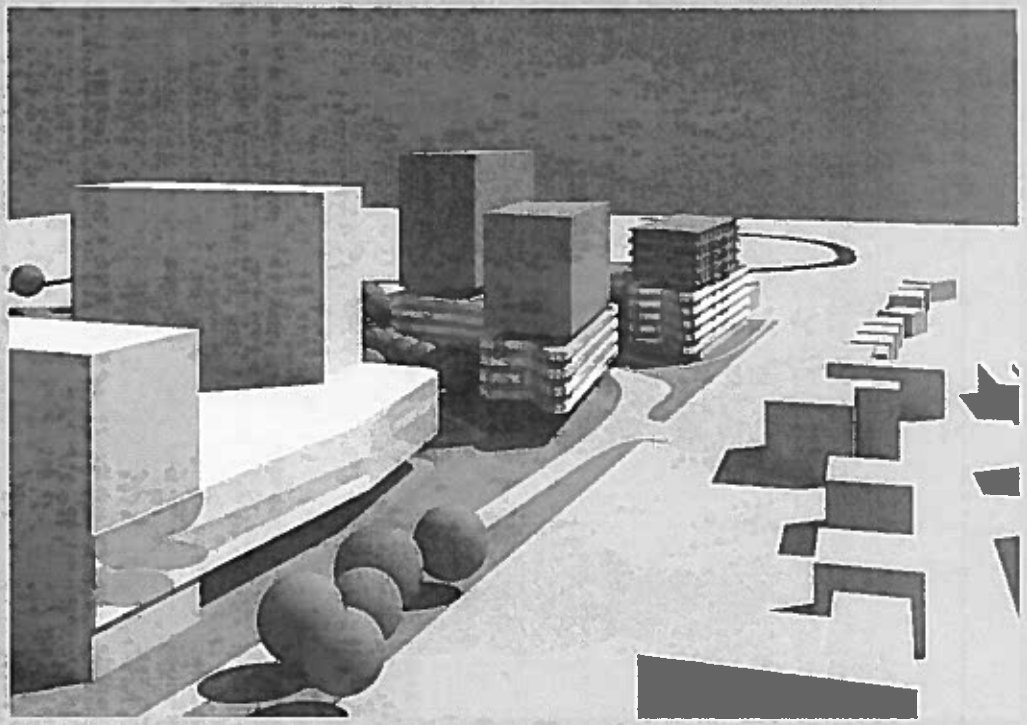




CONCLUSION

This final iteration of the concept was considered to achieve a good balance of openness and permeability with the benefits of a more traditional perimeter block type. This configuration was carried forward for design development..

Above: Near-final study elevation of the proposed leisure centre showing the enhanced prominence given to this building compared with previous iterations of the design.



Above: Early study model illustrated the openness and (comparative) spatial fluidity of the proposed massing.

Below: study model of the proposed development.

06 MASTERPLAN DESIGN PROPOSAL

INTRODUCTION

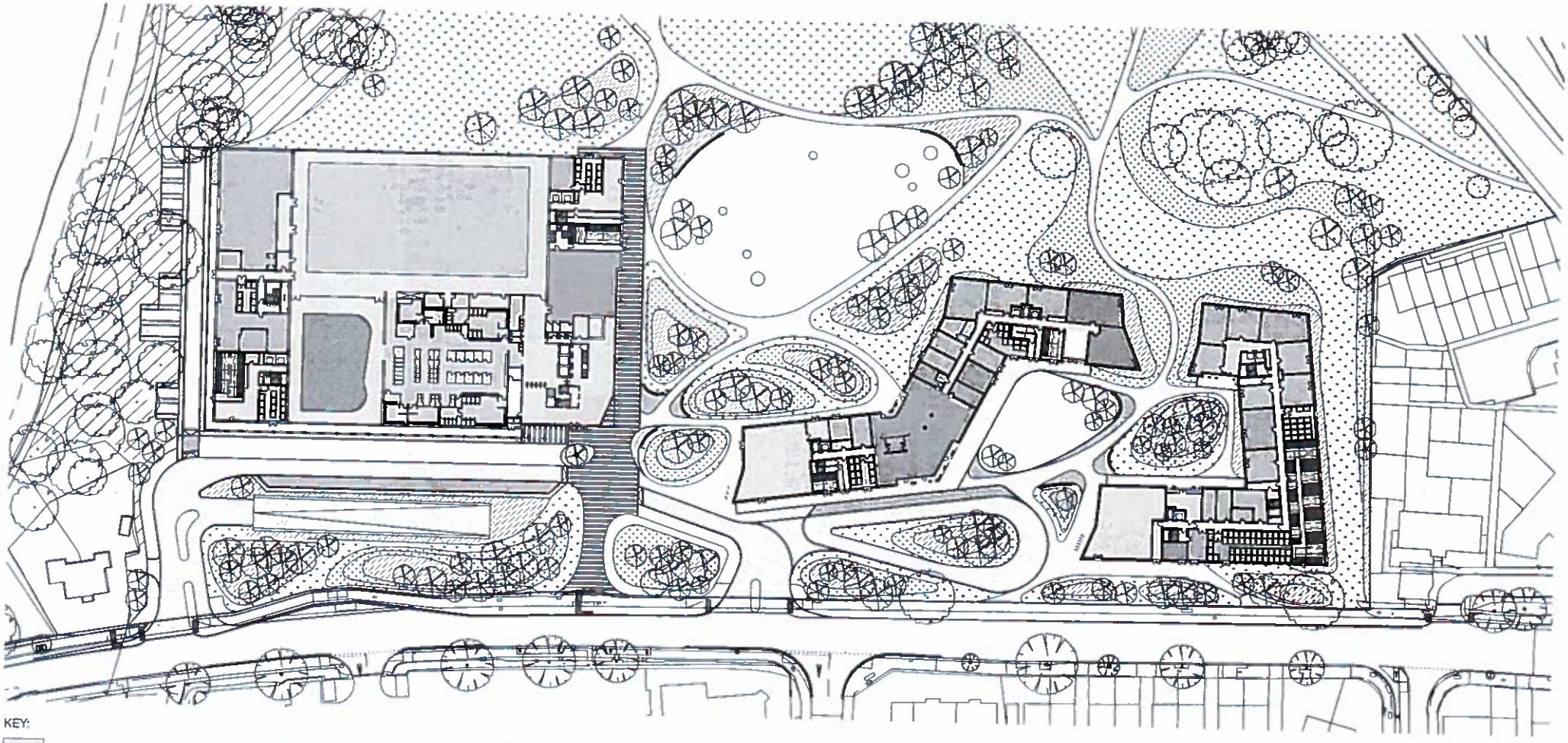
The developed masterplan for the Gurnell site aims to generate a lively and liveable residential community with a high quality leisure facility (featuring a new 50 m competition pool) at its heart. At the same time, access to Metropolitan Open Land is enhanced, and a sense of permeability and openness is retained. The surface parking associated with the existing leisure centre is moved underground, and is extended - again, underground - with a limited quantum of resident parking; this greatly reduces the area of site given over to vehicles as at present, and allows for an enhanced park landscape.

The buildings are placed on the site to promote access, visibility to the active uses, high residential quality and good natural surveillance; especially important on the park-facing edges. The building placement has a degree of informality to develop a sense of openness, but this is combined with a more conventional reinforcement of the built edge to the south to promote a more street-like sense of place on Ruislip Road East.

A generous landscape programme, with extensive new tree planting, is a central feature of the proposal. This aims to encourage outdoor fitness use as a complement to the planned indoor sports uses. At the same time, terrain shaping - working with the grain of the existing contours - allows for implementation of a sustainable drainage strategy and flood mitigation.

SITE LAYOUT & GROUND FLOOR USES

The uses are arranged on the site to ensure permeability towards the proposed new park and to promote visibility of active uses, in particular the new leisure centre with its associated cafe and public-facing facilities, and proposed A1 and A3 uses. Resident lobbies and the resident 'hub' are then placed at key secondary locations. The proposed 50 m pool faces the new park with a glazed frontage. On the eastern half of the site, the park-facing frontages are activated at ground level with dwellings.

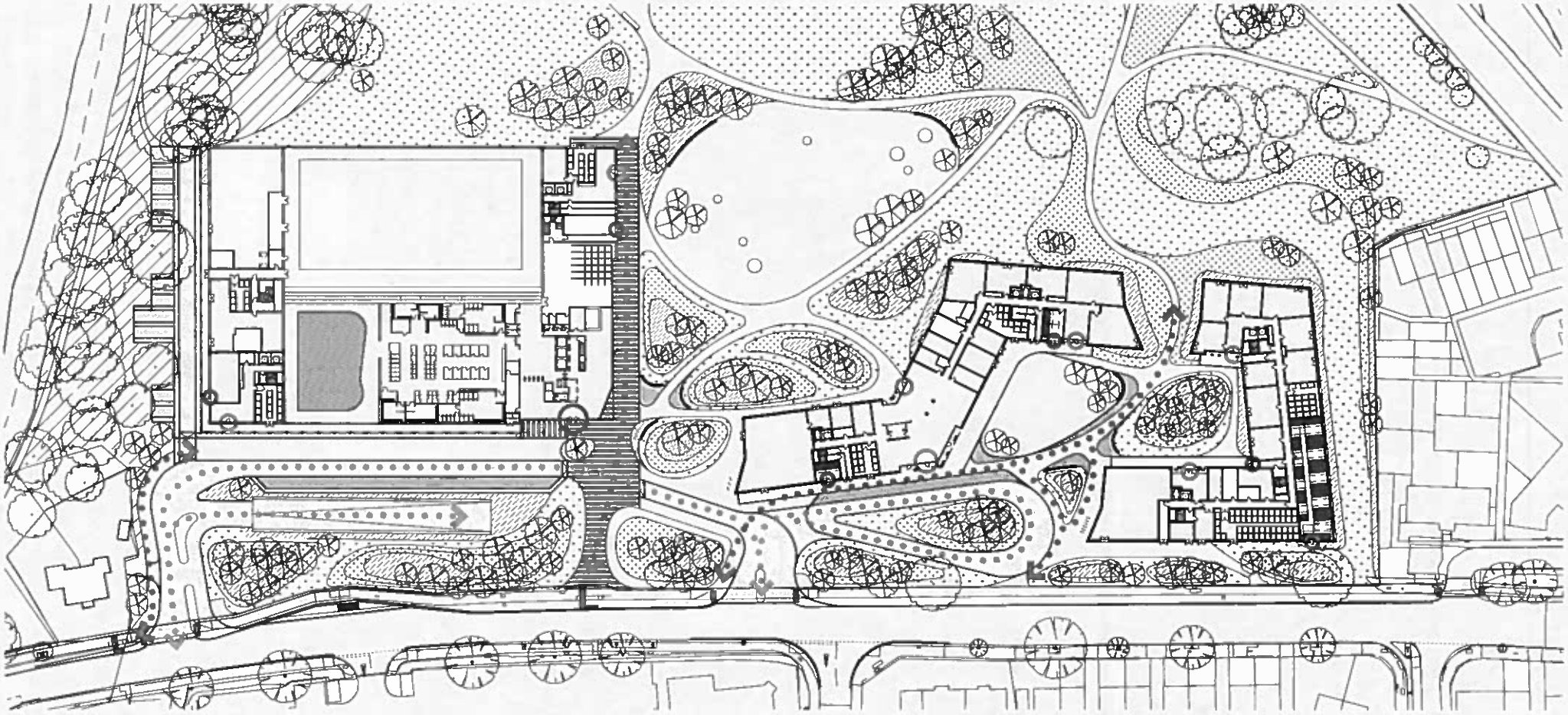


KEY:

- Lobby
- A1 | A3 Use
- Resident Hub
- Soft Play
- Substation
- Cycle Parking | Refuse Stores
- Plant
- Studio Apartment
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment

ACCESS (MASTERPLAN OVERVIEW)

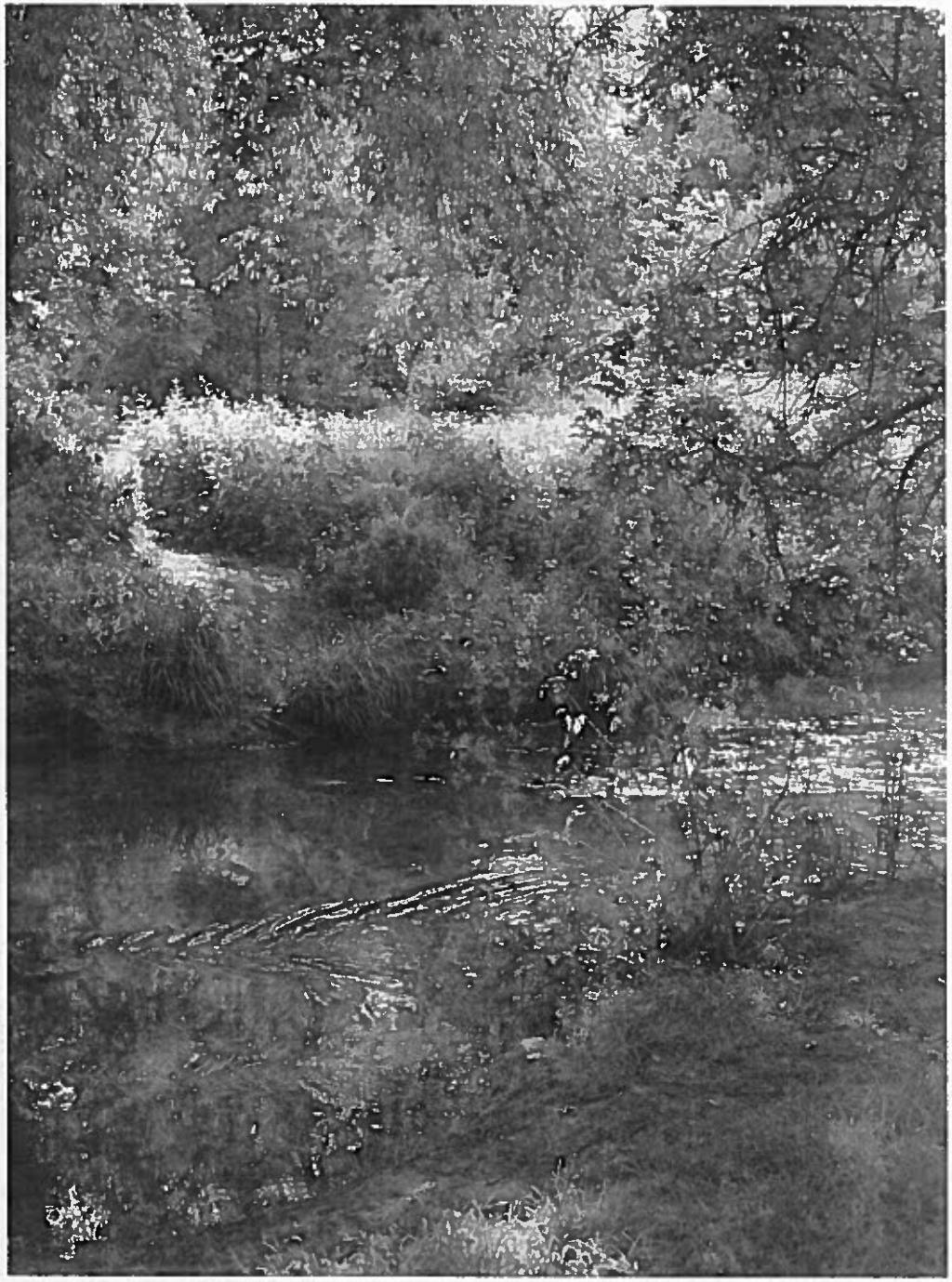
Vehicular access is mainly via the western end of the site, with most cars and some service vehicles proceeding directly to basement level. A limited traffic drop off and servicing turnaround is provided in the eastern half of the site, in front of the proposed resident hub. Vehicles are therefore limited to a shallow zone on the southern edge of the site. By contrast, pedestrian movement is expansive and open, and routes penetrate clearly into the retained MOL. Entrances are placed on key corners and desire lines



KEY:

- Vehicular Access
- Main Pedestrian Route
- Leisure Centre Public Entrance
- Resident Entrance
- Access to Cycle Parking

07 LANDSCAPING DESIGN PROPOSAL



THE LANDSCAPE OPPORTUNITY

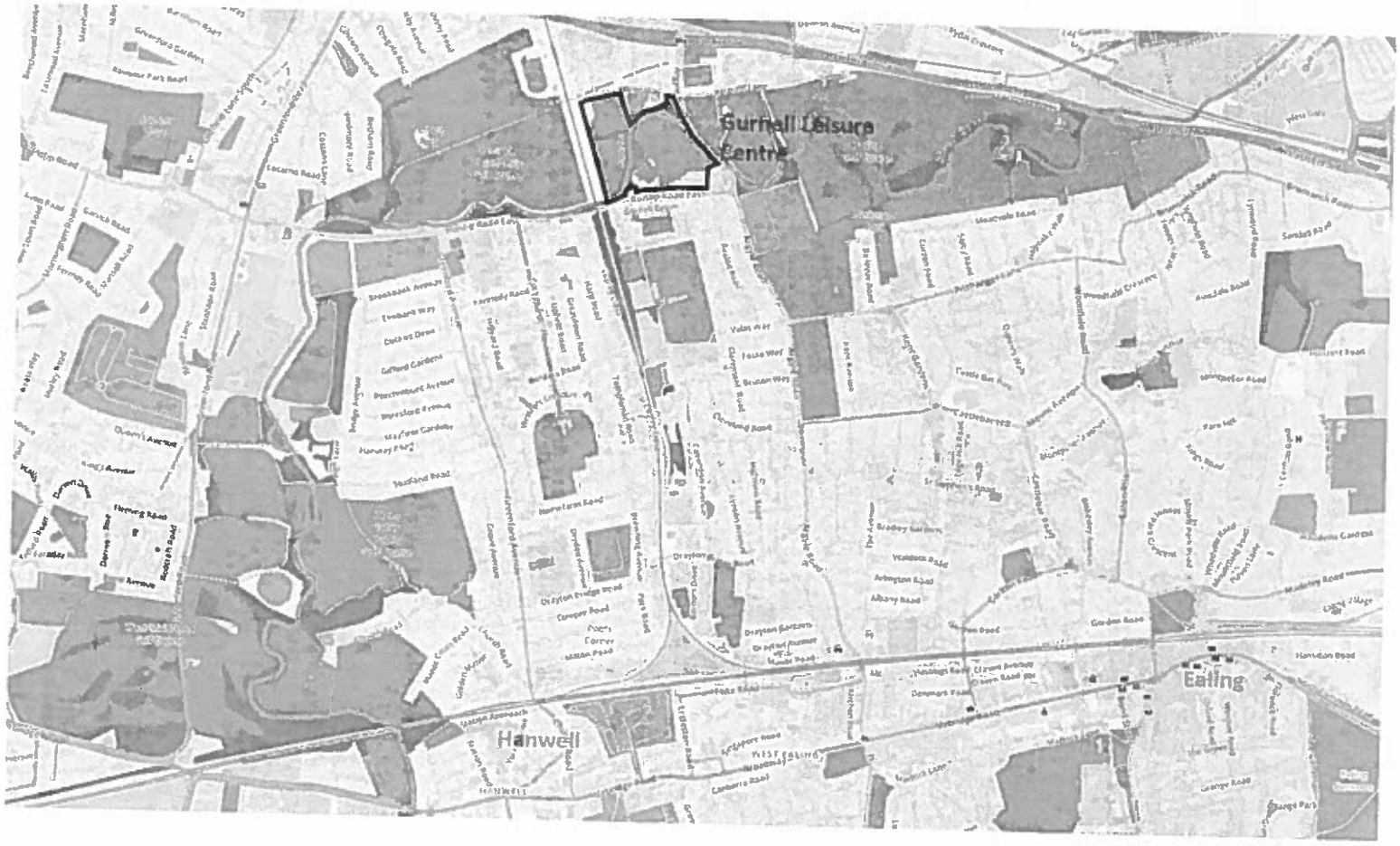
At the heart of the redevelopment strategy is the upgrade and integration of sports and leisure activities at Gurnell to create a parkland campus. The site's location adjacent to the River Brent corridor and on the edge of designated Metropolitan Open Land (MOL) places it centrally within one of West London's most significant corridors of continuous green space. This corridor stretches from the A40 Western Avenue 500m west of Hanger Lane through Pitshanger Park and to Cleveland Park to the east, and Perivale Sports Ground and Park, Brent Valley Park, Brent Lodge Park and on to Osterley Park to the south and west. This continuous and expansive belt of green space encircles the northern and western sides of Ealing, and is the principal source of leisure, historic and natural assets for Ealing, Southall, Perivale, Greenford, Hanwell, Norwood Green, Heston and Osterley. Development of the existing leisure facilities at Gurnell therefore reinforces Gurnell's central position as a hub for sports, play and leisure hub to attract visitors from the whole of Ealing Borough and beyond.

The development is an opportunity to transform existing mown grass (sports pitches replaced elsewhere as part of London Borough of Ealing's sports strategy), with a new, richer parkland environment. The proposals aim to increase visitor numbers and the average duration of stay by broadening both the visual and leisure appeal through a more complex landscape of parkland, nature, play and sport. The parkland will be the setting for a new outdoor leisure hub around the new Leisure Centre bringing together:

- Enhanced play facilities to replace existing facilities and provide for the new homes
- New BMX and skate-park facilities
- New structural tree planting and enhanced habitat
- A more intimate and sculpted landform
- Improved connectivity and access to facilties within the MOL
- Other wider Ealing Borough initiatives within the MOL

The proposals provide the opportunity to improve accessibility of leisure and play provisions to the whole community, with facilities appropriate for all generations and people with impaired mobility, movement or sensory abilities. The increased demand for play facilities from the new homes enables the establishment of a bigger and better public play area with direct, inclusive access for the public, from the proposed new residential units, and wider MOL.

While it is acknowledged that the development will locally increase overshadowing and impact on the openness of parkland, the landscape enhancements will boost the Park's biodiversity, (in particular, the value and influence of the River Brent Corridor's riverine ecology). Though existing trees will be lost to facilitate the development, most of these are assessed as of low value, and a new tree planting programme will ultimately increase the quality, age structure and number of the site's trees. In this respect it is considered that any immediate adverse impacts from the scheme would be off set by the wider and long term benefits.



LANDSCAPE PLANNING POLICY

Landscape Planning Policy is set out in the London Borough of Ealing's Development (Core) Strategy and EBC Development Management (Development Plan Document). These, in turn, reference policy from the Greater London Authority (Draft London Plan) and National Planning Policy.

The design team includes Chartered Landscape Architects to lead the development of proposals for landscape and townscape, as well as to assess the visual impact of the development on the MOL and wider area (described in a separate Visual Impact Assessment). In drawing up the proposals for the landscape, the design team have referenced the following relevant principal areas of landscape policy:

Metropolitan Open Land
Draft London Plan:
- Policy G3

EBC Core Strategy
- Policy 5.2 - Protect and Enhance Metropolitan Open Land (MOL)

EBC Development Management
- Policy 2.18 - Ealing local variation - Green Infrastructure: The network of open and green spaces

Public Open Space and Addressing Deficiency
Draft London Plan:
- Policy G1 and G4

EBC Core Strategy
- Policy 5.2 - Protect and Enhance Metropolitan Open Land (MOL)
- Policy 5.3 - Protect & Enhance Green Corridors
- Policy 5.4 - Protect the Natural Environment – Biodiversity and Geodiversity
- Policy 5.5 - Promoting Parks, Local Green Space and Addressing Deficiency
- Policy 5.6 - Outdoor Sports and Active Recreation

EBC Development Management
- Policy 7d - Open Space
- Table 7D.1 and 7D2 – Requirements for:
  - Private and Communal Gardens – Y – 5sqm/1-2 person unit + 1sqm/additional person
  - Amenity Space – N/A
  - Public Open Space – Y (Space or Financial Contribution) – 19.5sqm/person
  - Children's Play Space – Y – 10sqm/child
  - Allotments - Y (Space or Financial Contribution) – 1.7sqm/person
  - Active Recreation (Outdoor) – Y – 7.3sqm/person

Site of Importance for Nature
Draft London Plan:
- Policy G6 and G7

EBC Core Strategy
- Policy 5.3 - Protect & Enhance Green Corridors
- Policy 5.4 - Protect the Natural Environment – Biodiversity and Geodiversity

EBC Development Management
- Policy 5.10 - Ealing Local Variation - Urban Greening

River Corridors and drainage
Draft London Plan:
- Policy SI12
- Policy SI13
- Policy SI17

EBC Core Strategy
- Policy 5.3 - Protect & Enhance Green Corridors
- Policy 5.4 - Protect the Natural Environment – Biodiversity and Geodiversity Development Management

Archaeological Interest Area
EBC Development Management

Urban Greening
Draft London Plan:
- Policy G6

Green Roofs and development Site Environs
- London Plan Policy G1 and G5

EBC Development Management
- Policy 5.11 Ealing Local Variation - Green Roofs and Development Site Environs

Cycling
Draft London Plan:
- Policy T5

Walking
Draft London Plan:
- Policy T2

Inclusive Environment
Draft London Plan:
- Policy D3 and D4

Designing Out Crime
Draft London Plan:
- Policy D10

EBC Development Management
- Policy 7.3 Ealing Local Variation - Designing Out Crime

Local Character
Draft London Plan:
- Policy D1

Public Realm
Draft London Plan:
- Policy D7
-

EXISTING LANDSCAPE CONTEXT

Overall Site description
The site is low-lying, within the River Brent's flood plain, with all currently developed areas artificially raised by around 1.5m above the natural flood plain level.

Open parkland is surrounded by trees associated with the River Brent. The extension of green space beyond the immediate site to the west, north and east ensures it feels open and green. Though cars are apparent on Argyle Road, they appear to be traversing through the much wider parkland setting, rather than defining an edge to the park.

The existing Leisure Centre architecture appears dated and existing parking infrastructure alongside Ruislip Road East is unattractive and detracts from the parkland setting. Play, skate and BMX facilities are located centrally, but are not especially well integrated into a wider landscape setting, with associated mounding appearing artificial in the context of open, level, mown grass playing fields.

River Brent corridor
The River Brent flows in an arc from the east side of the site to the west, defining the site's northern boundary. The river is variable, but frequently fast flowing with evidence of scouring and erosion, some silt deposition on and within banks, and relatively limited ecological interest.

The corridor is lined with large mature trees of characteristically riverine quality: white willow, crack willow, hybrid black poplar, white poplar and ash. The river is followed by the Brent Valley Footpath.

The area within the river's loop is low-lying, at a 'natural' flood-plain level, and its sports use has been limited.

The area is somewhat isolated, and underused for much of the year.

Existing MOL parkland
Spanning the loop of the Brent is a distinct and steep level change, separating the true flood plain from sports pitches set above the flood plain by approximately 1.5m. This embankment marks the extent of artificial land-raising, probably associated with former use of the area for sewage treatment. Large, mature trees on the embankment are predominantly white poplar and ash.

The area to the south of the embankment is level, with uninterrupted mown grass pitches. The environmental quality leaves room for improvement, with little ecological value found in the amenity grass and clear-stem trees.

To the south of the pitches area is a broken row of mixed mature trees (oak, ash, lime, maple) with the existing BMX track and Leisure Centre to the west.

To the south of these lie the existing skate-park, car park and play area with some scattered trees around these facilities. The only shrub planting is found around the play area and existing Leisure Centre, with a low hedge separating the area from the car park.

To the west of the Leisure Centre, a wider area of trees and undergrowth links the trees running the course of the River Brent and the trees running the embankment at the top of the lower flood plain.

Ruislip Road townscape
Ruislip Road is largely open in character with housing to the south providing intermittent enclosure and the Leisure Centre set back by around 40m to the north. The Centre is orientated at 45 degrees to the Road, with trees, mixed planting and low mounding occupying much of the area between. The wide, Leisure Centre steps are its most obvious feature from the road and these are reduced in prominence by recent plantings of birch trees, making the whole Centre recessive.

Opposite the Leisure Centre on the south side of Ruislip Road, four flatted blocks is set back from the road, separated by parking areas and some trees. Further east, two-storey housing has direct access from the road.

Argyle Road
Argyle Road joins Ruislip Road at a mini-roundabout and runs up the east side of the site. Low-rise housing at Peal Gardens separates the junction from the Gurnell site. As the land on the site reduces in level towards the River Brent, Argyle Road maintains its elevation to cross the river, resulting in a low embankment. A broken row of trees and a timber railing runs alongside Argyle Road, providing partial separation, though cars are still apparent at a raised elevation in comparison to the adjacent parkland.


River Brent at Gurnell


Brent River Park footpath at Gurnell

EXISTING LANDSCAPE CONTEXT

River Brent flood plain - River corridor is tree-lined, with amenity grass currently laid our as football pitch

Field to the rear of Gurnell Leisure Centre car park - Existing skatepark (foreground); BMX track (far right) with the car park, coach parking and Ruislip Road, Pelham Place and Gurnell Grove housing (background)

Field to the rear of Gurnell Leisure Centre car park - Peal Close housing (foreground, left); Car park, Leisure Centre, BMX track and Skate Park and mown grass parkland (football pitch). Argyle Road (right)

EXISTING LANDSCAPE CONTEXT

Leisure Centre seen from near the River Brent crossing of Argyle Road.

Ruislip Road (left) with Gurnell Leisure Centre car park looking northwest. NB. Phtograph taken before completion of cyclepath on Ruislip Road (2017)

Gurnell Leisure Centre from Ruislip Road, looking from near the pedestrian crossing southwest of the Centre. Service entrance (left). Leisure Centre entrance steps and bus stop (right). NB. Phtograph taken before completion of cyclepath on Ruislip Road (2017)

OVERALL MASTERPLAN

The development is set within a wider masterplan to enhance the landscape of the River Brent, upgrade leisure facilities and enhance ecology and public access. The landscape masterplan for the area significantly increases the diversity of parkland uses

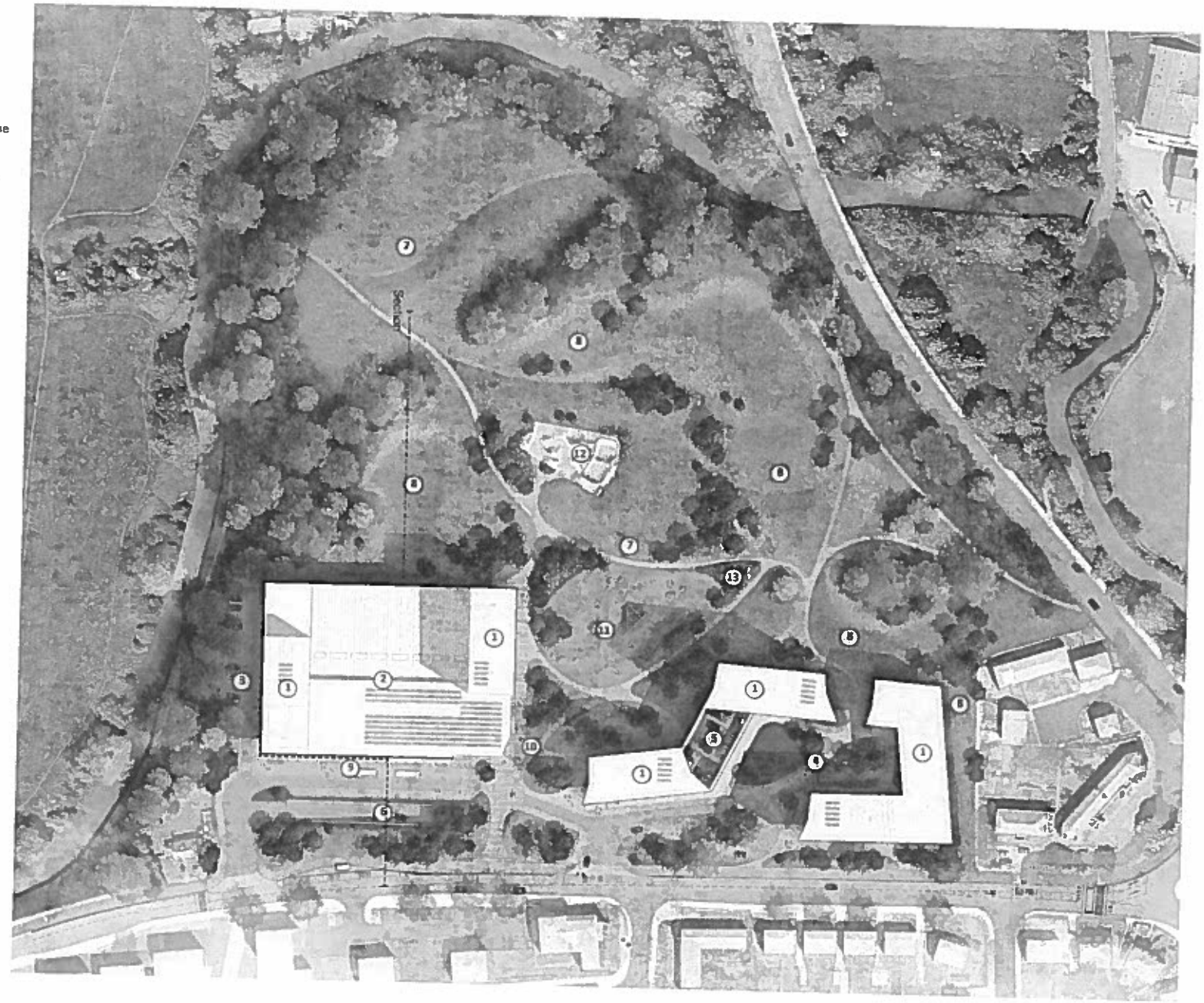
1. Residential development
2. Leisure centre
3. Parking and service access
4. Courtyard garden
5. Roof garden
6. Basement parking access
7. Play area
8. Skate park
9. Parkland
10. Surface Water Attenuation Basin and sculpted 'overland flow' path
11. Footpath link
12. Coach bays
13. Park entry
14. Proposed 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

LANDSCAPE DESIGN STRATEGY

Holistic Landscape Strategy
The landscape design seeks to fulfil a range of functions which both mitigate for loss of openness within the MOL, and enhance the existing landscape by building on its riverine character, integrating existing and new landscape features and improving the quality of the leisure assets.

Proposals are based on the combination of a number of strategic areas which are addressed in the following sections.

- Creating a social and leisure destination
- Place-making within the site
- Adding amenity value
- Improved landscape quality
- Ecological infrastructure
- Lifetime Neighbourhoods and an Accessible Environment



1. Residential development
2. Leisure centre
3. Parking and service access
4. Courtyard garden
5. Roof garden
6. Basement parking access
7. Parkland
8. Surface Water attenuation basin and sculpted 'overland flow' path
9. Coach bays
10. Park entry
11. Play area
12. Skate park
13. Raised planting for ventilation from basement

will be supplemented with new tree planting which is used to define and connect places rather than simply separate them

- The River Brent Corridor will be enhanced through simple measures to increase species diversity, and the accessibility of the footpath
- The parkland entry area will feature a coordinated range of high quality materials for paving and street furniture;
- A seating strategy will create more accessible environment for people with limited mobility
- Skaters and cyclists will be considered within the wider parkland, with 'satellite' skateable features proposed as part of the specialist designer's proposals.
- Children's play facilities will incorporate best practice in encouraging imaginative play and will incorporate 'natural play' principles.

Ecological Infrastructure

Proposals will aim to increase the quantity, quality and connectivity of habitat and green infrastructure within the site.

- Grassland will be managed to promote species diversity, with differential mowing regimes and the introduction of native wildflower species.
- Tree planting will improve the age-structure and species diversity of the site. Native tree species will be given precedence, but where non-native, ornamental species are specified, they will also fulfil an ecological function as a nectar source for pollinators, or other food source for wild birds (where appropriate).
- The River Brent corridor will be enhanced with new native species planting targeted at promoting invertebrate species and pollinators, and providing cover and nesting potential for native songbirds and for amphibians. Consideration will be given to using low-key fencing of some areas to prevent access by dogs and discourage cats and fox.
- Existing habitats will be connected where feasible – reducing flight distances between tree groups or areas of other planting for invertebrates and small birds.
- Opportunities will be taken to provide additional roosts and hibernacula for bats and nesting boxes for birds.
- Consideration will be given as to whether specific bird species such as swift, martin, sparrow, starling or peregrine nesting can be encouraged on external elevations of the buildings or un-accessed roofs.

Lifetime Neighbourhoods and an Accessible Environment

The Foundation for Lifetime Homes and Neighbourhoods (FLHN) defines:

"A Lifetime Neighbourhood is one in which civic and social processes together with physical conditions achieve the following outcomes:

- ***An environment that is accessible and inclusive, aesthetically pleasing and safe (in terms of both traffic and crime)***
- ***A community that offers plenty of services, facilities and open space***
- ***A strong social and civic fabric, including volunteering and informal networks***
- ***A culture of consultation and user empowerment amongst decision makers***
- ***A strong local identity and sense of place "***

(source www.lifetimehomes.org.uk)

These principles are fundamental to the development of the new homes and parkland. The proposals aim to promote access and use of outdoor space (and particularly the MOL), promote independence for an increasing elderly population and for people with disabilities, and facilitate their right to participate widely in society.

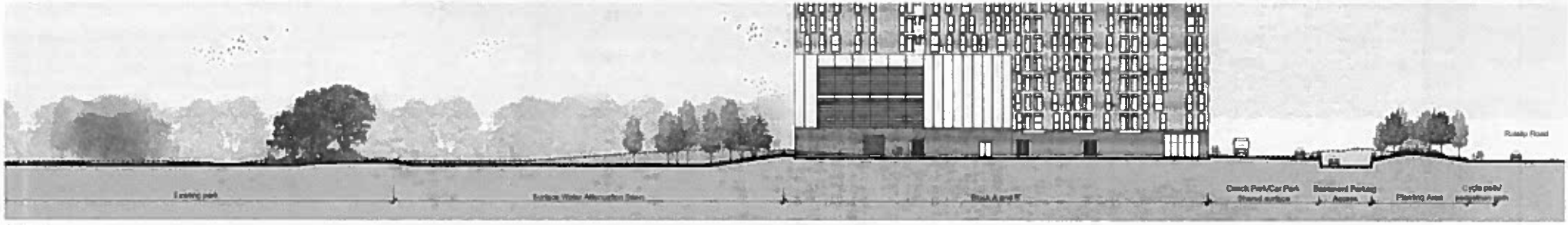
Access for people with limited mobility, sensory other physical disabilities will be given by establishing best practice across the site. New paths will facilitate use of the parkland, enabling a wider cross-section of the community to benefit from contact with the natural capital of the All London Green Grid. A seating strategy will ensure formal or informal seating is provided at a maximum of 50m intervals on all paved surfaces, in accordance with established best practice.

Seats will feature warm-touch timber slats with arm and backrests provided at each location.

Surfaces will be smooth and even, but with sufficient grip to attain a minimum pendulum slip resistance score of 40 in wet conditions. Surfaces which polish down (soft limestones etc.) will not be specified.

Generally, gradients will be 1:30 or shallower, though some localised gradients, ramps or steps are required to mediate between floor levels and over-land flow requirements fixed by the flood risk mitigation strategy.

The proposals will also provide cycle access to the new facilities from the recently completed cycleway on Ruislip Road, and will integrate cycle and skateable access to the BMX and skate facilities on site.



Section

PLAY AND ACTIVE USES STRATEGY

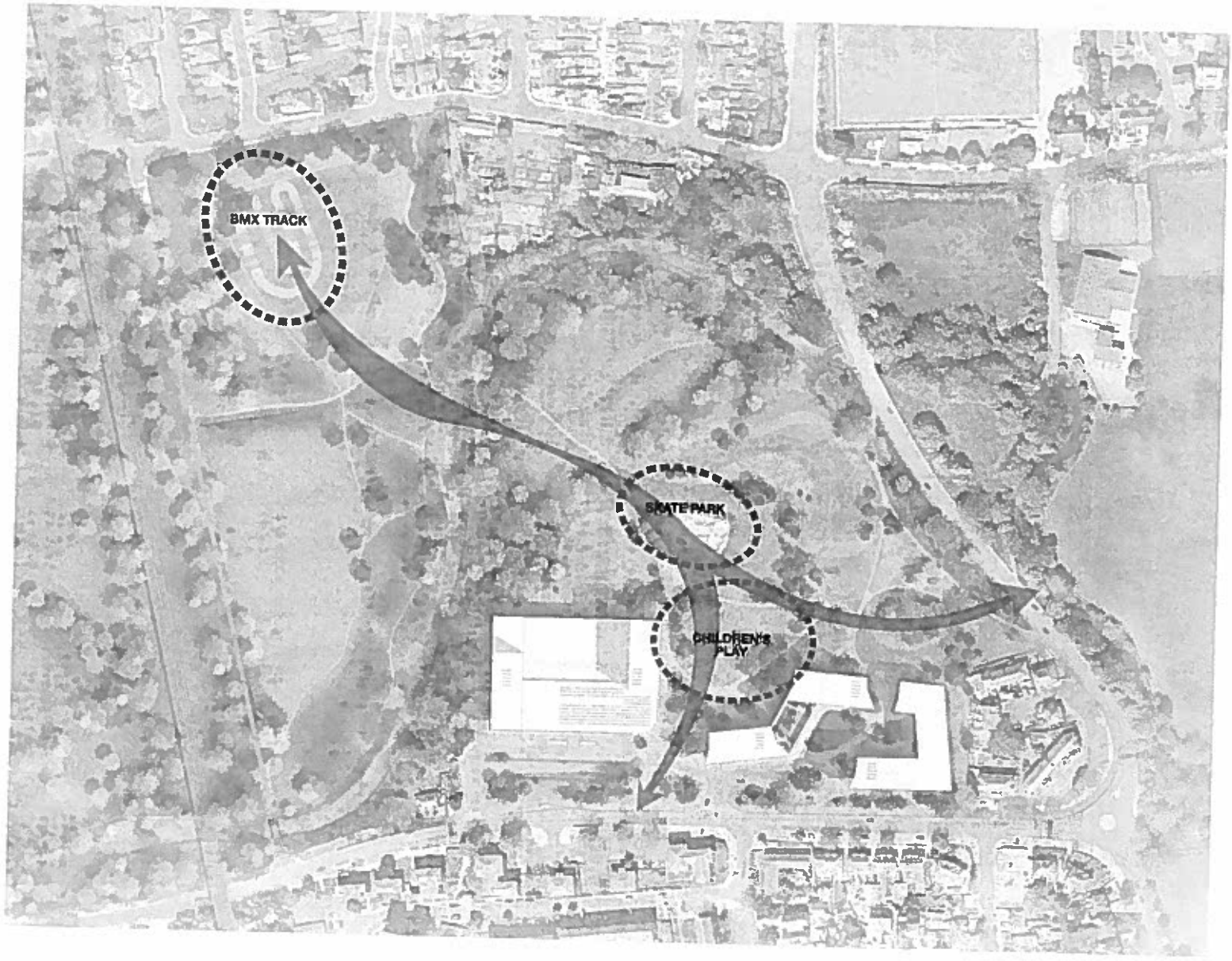
The existing play area is relatively recent, and provides a range of play opportunities for children of a range of ages. The new playable space will seek to replicate existing play value and supplement it with a range of new 'traditional equipment and 'natural play' elements which encourage children to use the environment in creative and imaginative play.

The play area, equipment and facilities will be developed in collaboration with the London Borough of Ealing to ensure the area satisfies the local demand from each age range, and to create an inclusive environment and experience for children with disabilities or other special needs.

The play area will have seating and spaces scaled for children to engage in their own social activity, as well as full-sized traditional seats for adult parents and guardians. Facilities will be overlooked from the Square, where refreshments will be available, and is also linked to the Skate-park where many children – especially older ones – may also wish to spend time.

The formal play areas are intended to complement informal play within the wider park, and children will be encouraged to explore the spaces and natural interest throughout all areas of the park through the creation of a more intimately scaled parkland, new paths, planting, and land-forming.

The existing play area measures approximately 1,190sqm. The total proposed area designated for children's play will include a minimum equivalent area plus additional allowance to accommodate new demand from the development. Further details are given on p. 67.

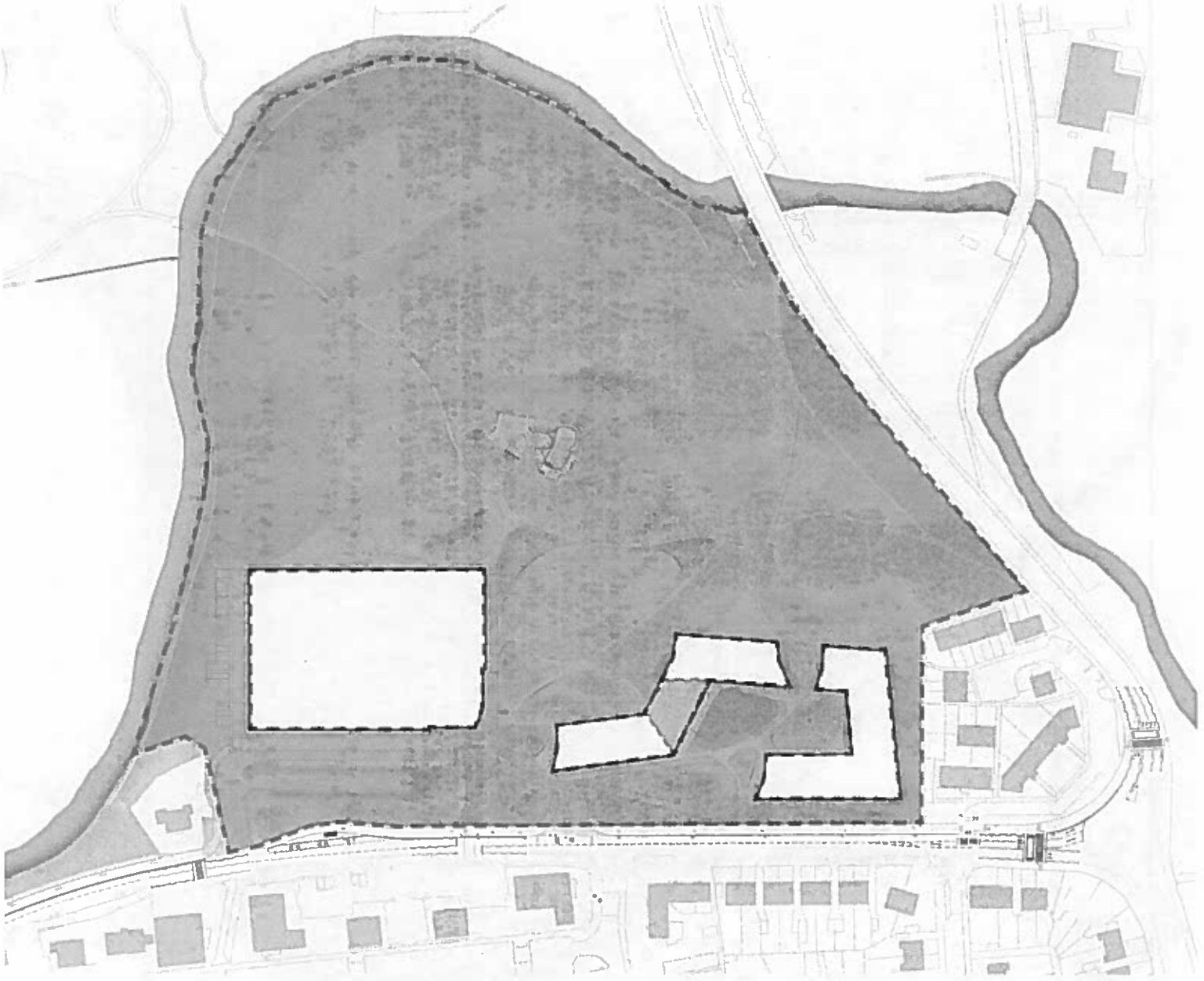


PUBLIC/COMMUNIAL PRIVATE AMENITY SPACE

All areas of the site are clearly defined as in public, communal or private management and use. The whole site will remain publicly accessible, and enhancements to the landscape are for the public to enjoy.

Planting will be used to maintain separation between park users and ground floor dwellings, but continuity of the parkland shall remain paramount.

Communal garden for specifically for residents will be established on level 6 between Blocks C and D, and private outdoor amenity is provided through balconies to individual apartments. Balconies are described in the architectural design descriptions.



Publicly accessible space

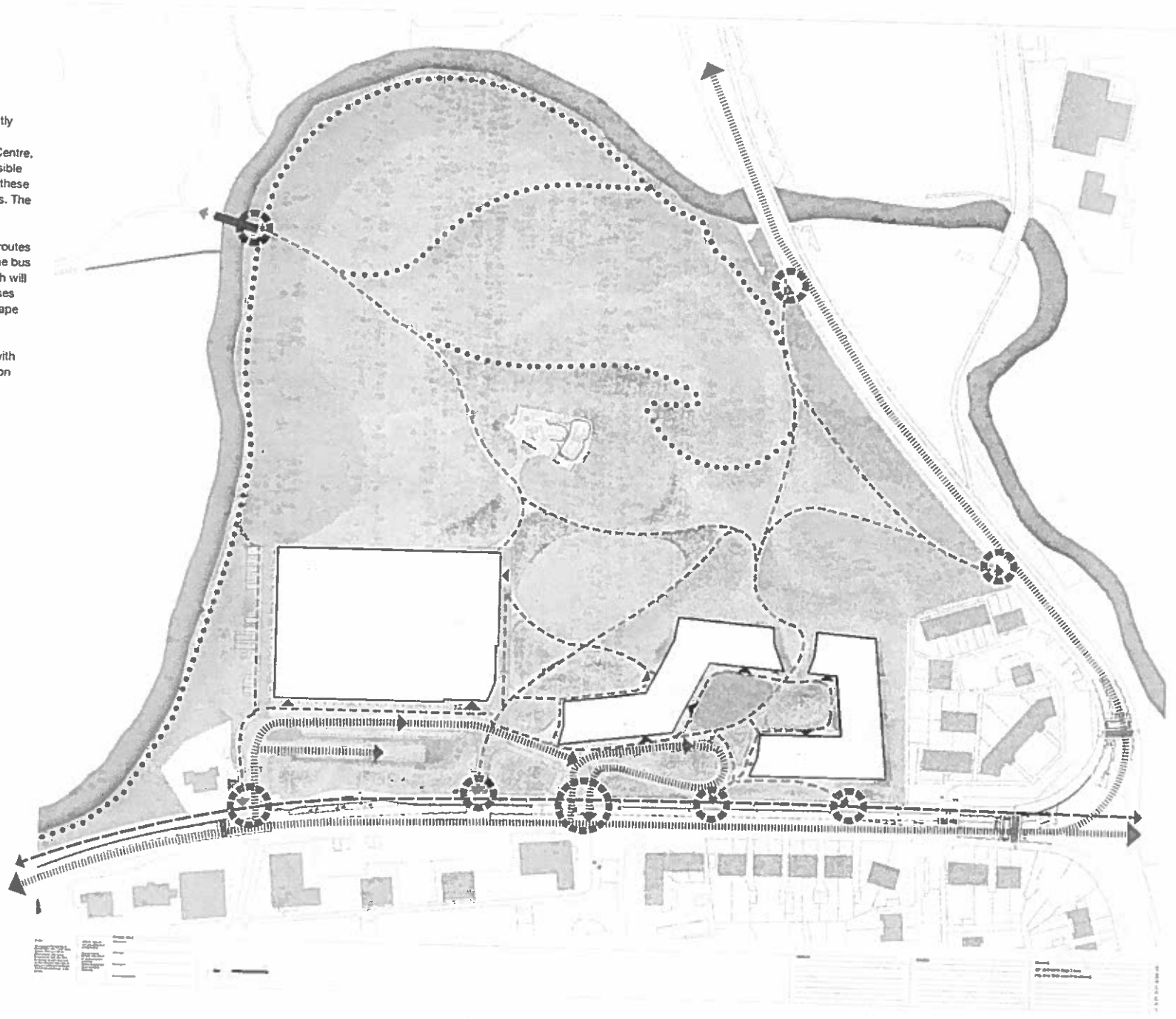
Communal Podium and Roof Gardens

PEDESTRIAN AND CYCLE ACCESS (ILLUSTRATIVE)

The site has excellent cycle connectivity, thanks to the recently completed (2017) cycleway along Ruislip Road East. The proposals ensure direct connection from this to the Leisure Centre, with public cycle parking provided. Cycle access is also possible through the parkland to the skate and BMX facilities, though these are not designated cycleways and primarily serve pedestrians. The routes extend to join Argyle Road.

Pedestrian access is improved through the establishment of routes across the site, and connected to the public transport from the bus stop on Ruislip Road. The River Brent's long distance footpath will be cleared, resurfaced and maintained, as required as it crosses the site, and will benefit from the improvements to the landscape and ecology of the river corridor.

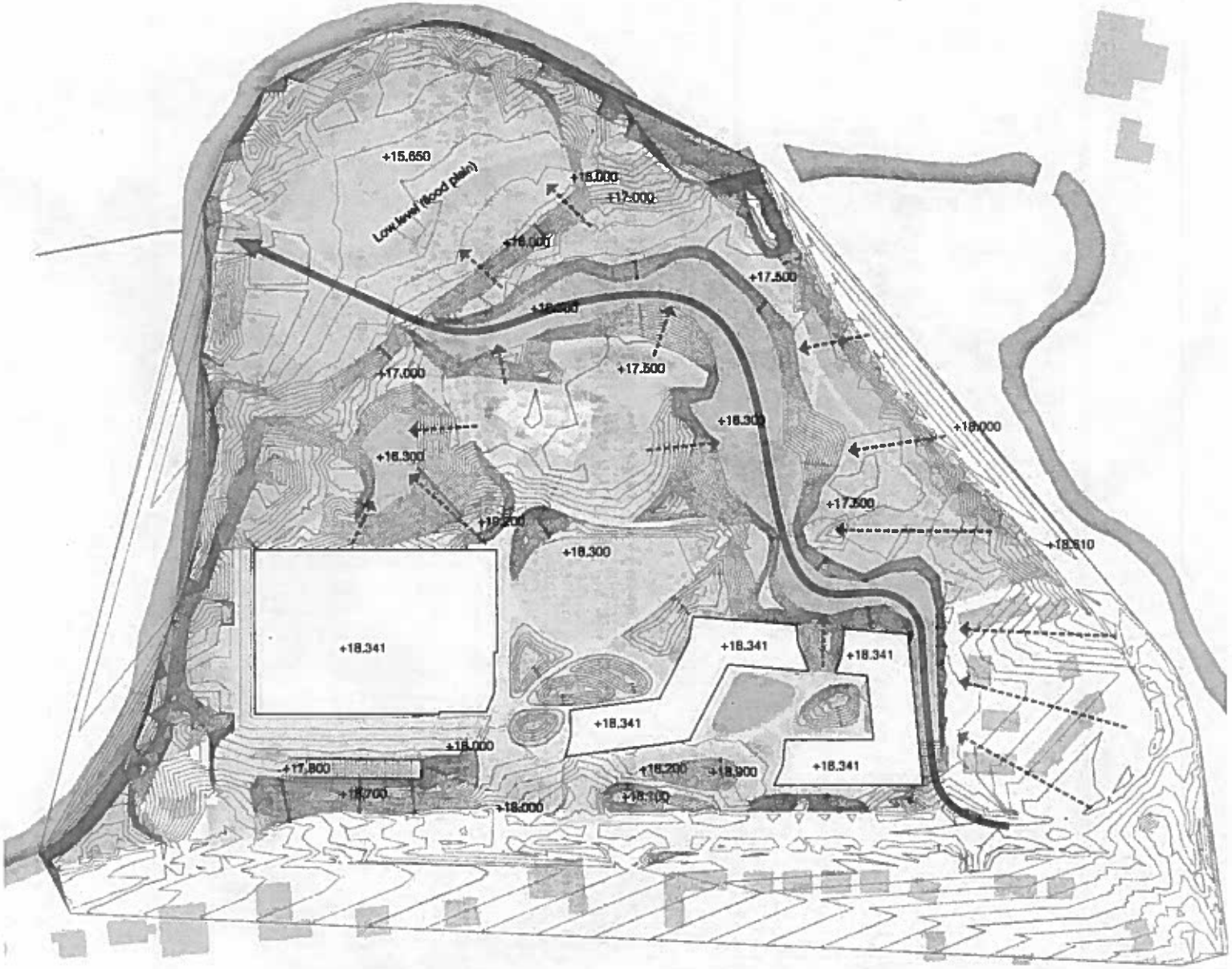
The Brent footpath and new, informal paths will be surfaced with self-binding gravel to provide a natural and low-key intervention away from the busier areas of the park.



LEVELS FLOOD RISK MITIGATION STRATEGY

The site's location within the River Brent corridor means that allowance must be made for overland flow of surface water in the event of extreme rainfall events. A full Flood Risk Assessment is provided in a separate document. The implications for the landscape design are:

- The designs accommodate an overland flow path which channels surface water from off-site areas to the east into the River Brent.
- A meandering channel crosses the site from south-east to north-west to aid overland flow in extreme rainfall events. This minimises flood risk to neighbouring areas in accordance with Environment Agency requirements for the area.
- Localised mounding, associated with the skate-park, frontage to Ruislip Road and Play Area and does not impact on the overland flow. this mounding helps screen traffic and embeds the skatepark within the wider landscape.
- An area within the parkland north of the Leisure Centre has been identified where the landscape offers scope to attenuate the flow of surface water from the roof of the Leisure Centre in heavy rainfall. This is achieved by locally reducing levels to create a basin. In storm events this partially fills with water, and then gradually empties to maintain a steady discharge rate into the Brent. This offers a further opportunity to create seasonally wet or damp habitats and will be designed to complement the differential mowing regime and the footpath



TREE STRATEGY

Trees Retained / Removed
It is inevitable that the development will require the removal of trees around the buildings, and Leisure Centre's underground car park. An arboricultural survey has identified the trees on site and uses nationally defined categories to ascertain their value for local amenity and their arboricultural interest. The vast majority of trees to be removed are categorised as 'C' and are assessed to be of little intrinsic value. The development therefore provides the opportunity to increase the overall number of trees, the range of species (and associated ecological benefits) and improve the age-structure of the tree stock.

Replacement and additional trees will be planted as early as feasible within the construction programme to enable their rapid establishment.

TREE STRATEGY

Trees Proposed
New trees will be planted to achieve a range of sizes and functions in the parkland. Large trees will be used to enhance the site's long-term green infrastructure, improve the age structure and increase overall tree cover in the long run, while smaller species are selected for particular benefits to wildlife and to extend the availability of nectar to pollinators.

Large native tree species will include:

Riverine areas:

- Salix fragilis - Crack Willow
- Salix alba - White Willow
- Populus alba - White Poplar

Parkland and leisure areas
- Quercus robur - Oak
- Tilia cordata - Small Leaved Lime

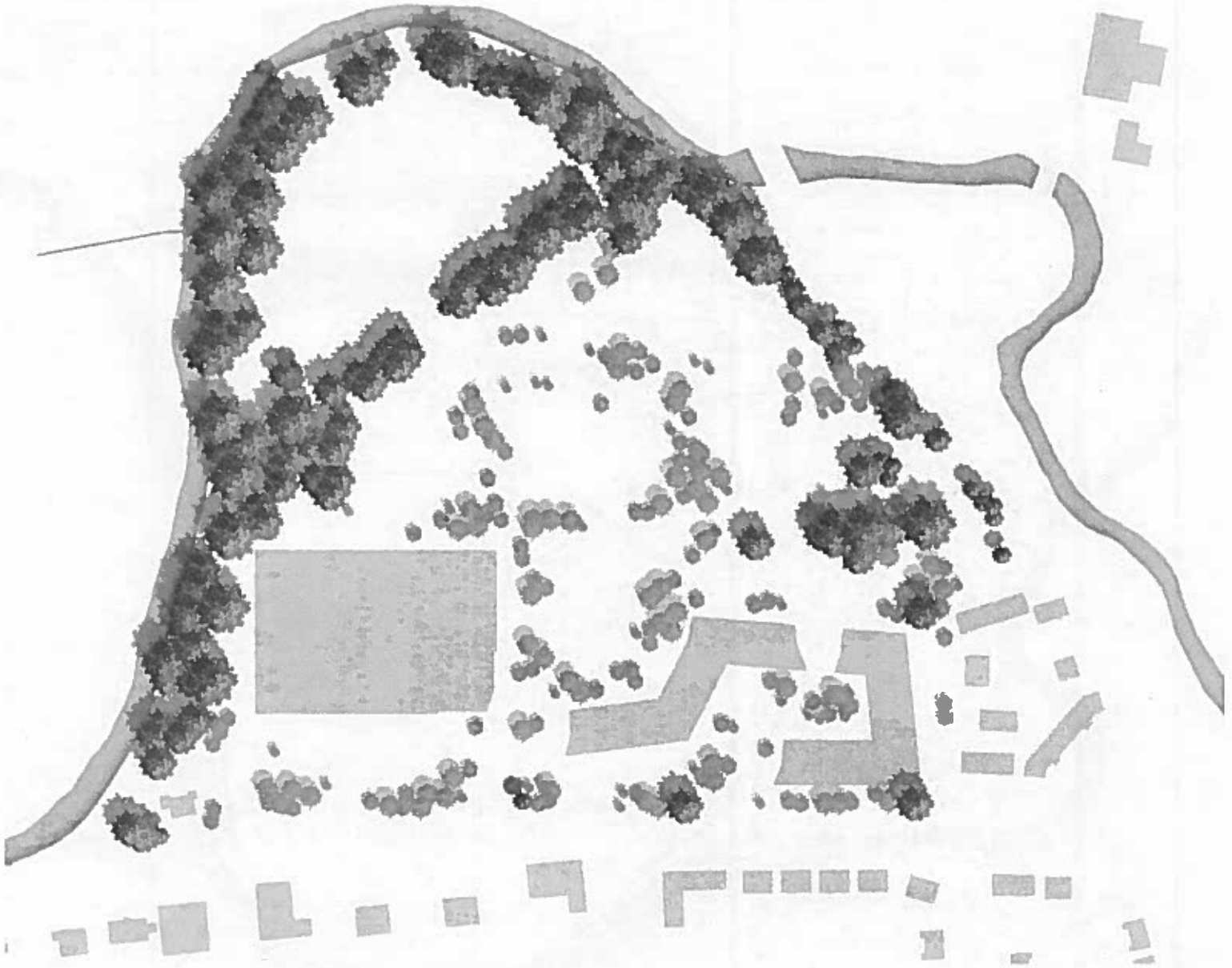
Medium and smaller native trees will include:
- Alnus glutinosa - Alder
- Prunus avium - Wild cherry
- Prunus padus – Bird cherry
- Betula pubescens - Downy birch
- Betula pendula - Silver birch
- Sorbus aucuparia – Rowan
- Arbutus unedo – Strawberry Tree

Non-native, ornamental or fruiting trees which will be of year-round visual interest and benefit to wildlife will include:

- Amelanchier varieties – Juneberry
- Trachycarpus fortunei – Palm
- Pyrus communis varieties – Pear
- Prunus domestica varieties – Plum
- Malus varieties – Apple and crab apple
- Sorbus intermedia – Swedish whitebeam
- Prunus cerasifera Nigra – Black cherry plum
- Alnus cordata – Italian alder
- Alnus asplenifolia – Cut-leaved alder

This core species list will be supplemented by other species as accent and incidental trees. Again, these will be selected for their visual interest, but also their ecological benefit for riverine or urban ecology.

Full details of all landscape design will be provided as a Condition of Planning Approval, including species, sizes, form, rooting volume (where applicable within paved areas) and tree-pit and anchoring details.



HARD LANDSCAPE MATERIALS STRATEGY

Paving materials are selected for their combination of high quality appearance, durability and sustainability credentials.

Concrete flags and blocks
Concrete pavers, laid flexibly (on an aggregate bed) offer an attractive, robust and low carbon, paving solution. Products offer a range of loading options, allowing occasional vehicle trafficking by service and goods vehicles, or for emergency access.

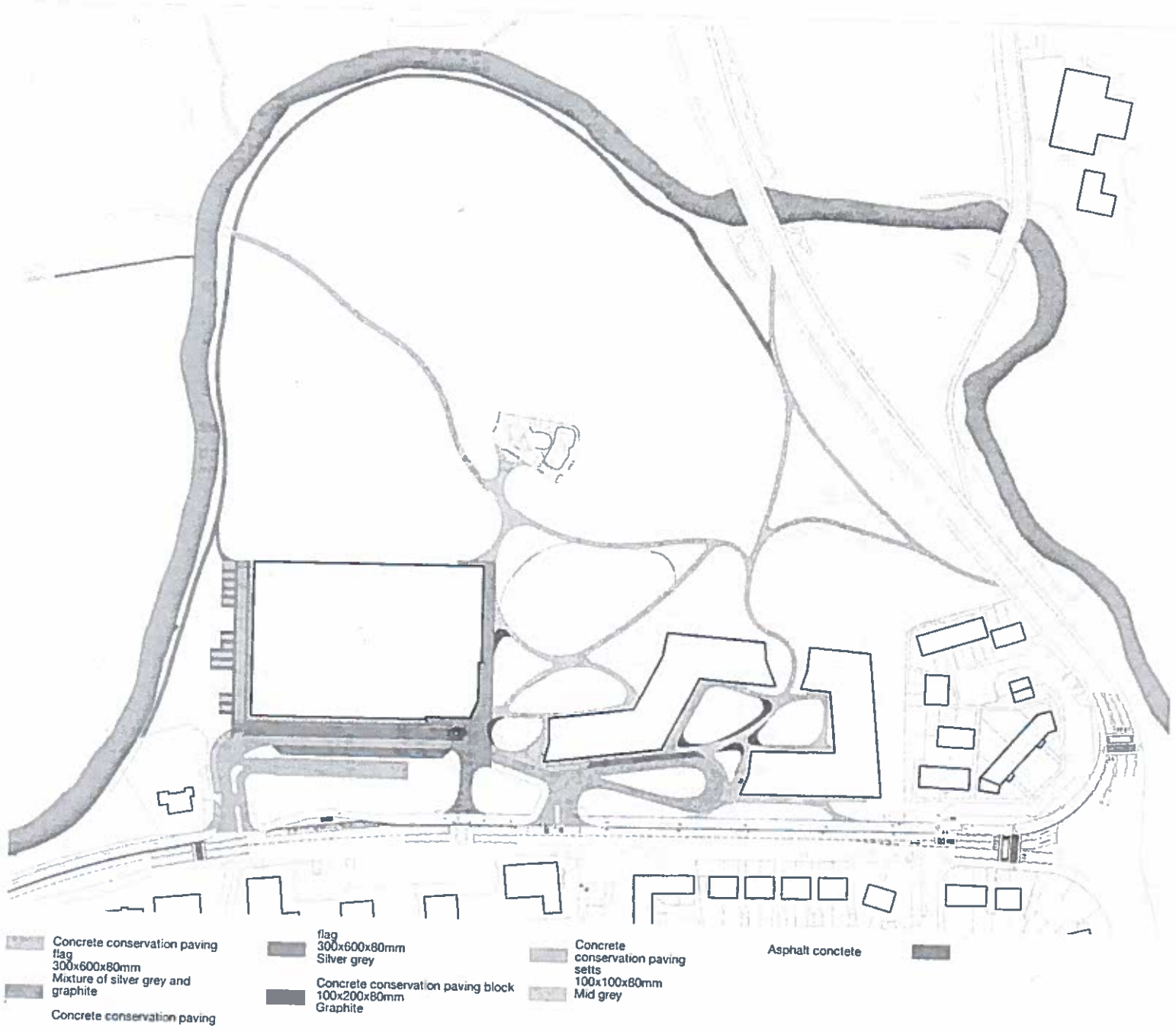
Natural aggregates within the exposed surfaces provide a high quality finish for principal public spaces, including the entry areas and Leisure Centre frontage, and areas outside residential, and retail entrances. These areas will include flag and block pavers which use natural aggregates in the visible topping mix. The appearance is not dissimilar to natural granite, and the neutral grey colour range is chosen to avoid coloured pigments so the appearance feels natural, and colours do not fade over time. The natural aggregates used in the topping layer are generally derived from waste materials, and the system deploys a flexible (unbound) base to reduce embodied CO2 and facilitate easy maintenance access to buried services.

Resin Bound and Resin Bonded Aggregates
Resin-bonded or bound aggregate surfaces (natural gravel surfacing with a clear binder) offer an attractive continuous surface for footways in the parkland. They are especially well suited for areas with curving and free-form edges where flags and blocks would require on-site cutting, and where there is a low chance of trenching for services maintenance.

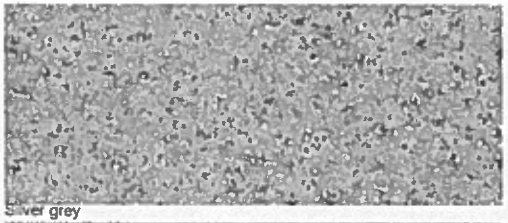
Resin bound and bonded aggregate are smooth-running, for skaters and pedestrians, but have a natural appearance which does not detract from the parkland setting.

Asphalt Concrete
Continuous Asphalt concrete ('black-top' or 'tarmac') surfaces are used within Adopted Highways, bell-mouths and trafficked accesses. Asphalt concrete is used for vehicular surfaces due to its ease of maintenance and robustness. Asphalt Concrete can be readily reheated and recycled, making it cost effective, and sustainable over its lifetime.

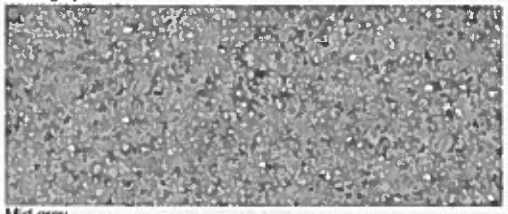
Self-binding Gravel
Bound gravel (Golden Gravel or Hoggin) is proposed for outer paths in the parkland – along the River Brent and on low use leisure routes which do not directly lead to the BMX track, Skate-park or other Leisure facilities. The material is natural in appearance, and has very low environmental impact, with no artificial binders or energy intensive processes in its production.



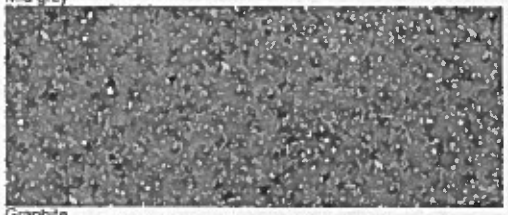
HARD LANDSCAPE MATERIALS STRATEGY



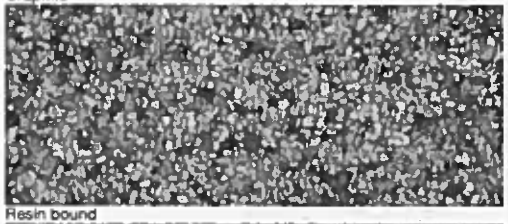
Silver grey



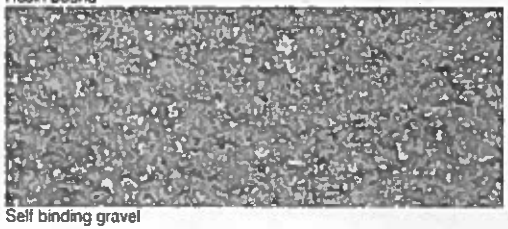
Mid grey



Graphite



Resin bound



Self binding gravel

SOFT LANDSCAPE AND ECOLOGY

In addition to the tree strategy (above), the development offers the opportunity to enhance the parkland, leisure areas and street frontage of the site. Shrub and herbaceous planting layers will be designed to complement the trees and river-corridor character of the site and wider MOL.

Park Grassland areas – will be enhanced through introducing native, flowering species appropriate to the valley, and differential mowing regimes.

Herbaceous areas – will be established for seasonal colour, and to attract pollinators.

Shrub planting – will be used to create attractive screens and boundary conditions which establish new cover for invertebrates, amphibians and small birds, and to provide nectar for over-wintering bee species beyond the capacity of native planting alone.

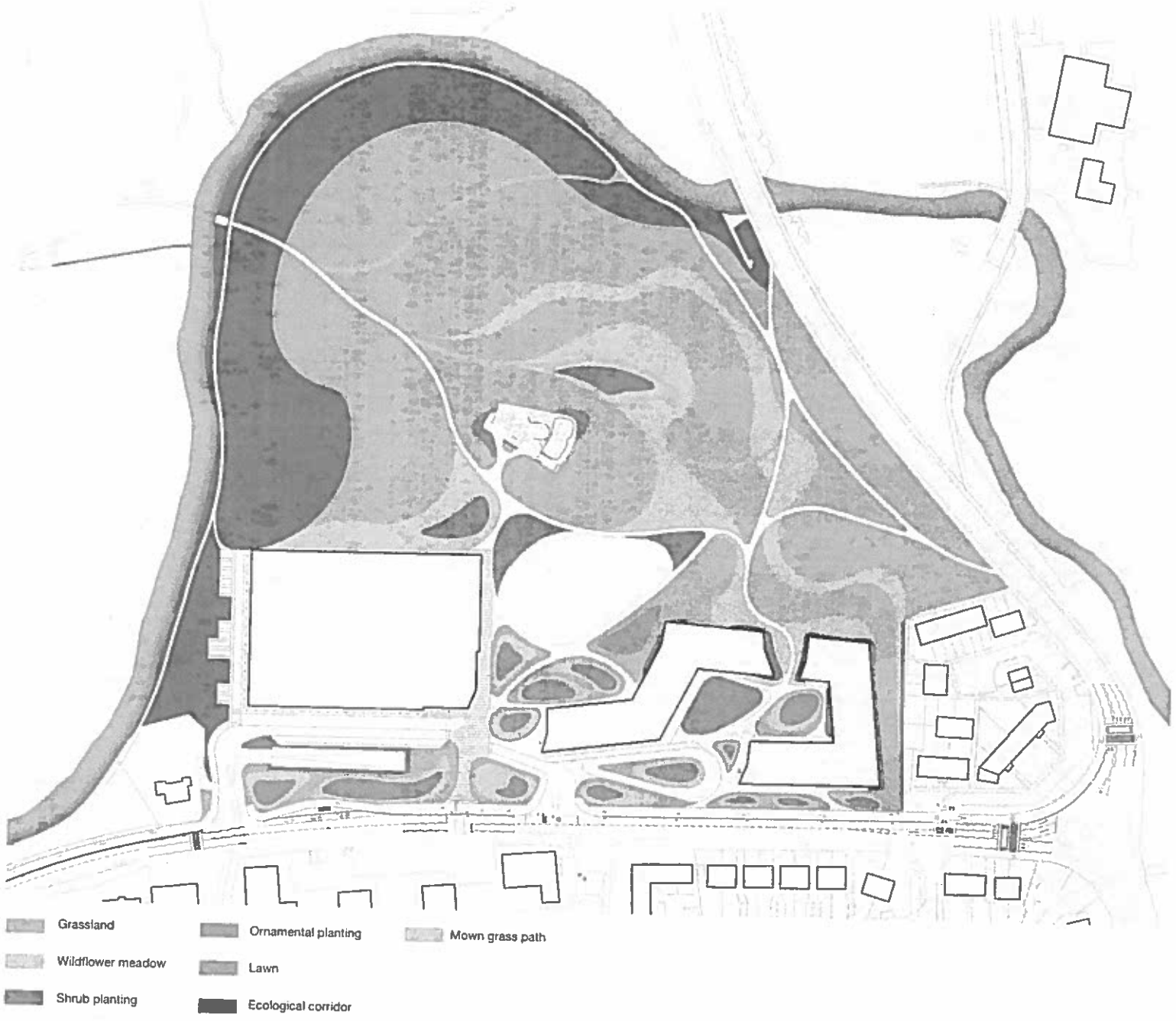
Differential management regimes will promote the biodiversity of the immediate river corridor, and increase the diversity and interest of the river walk.

In order to achieve these outcomes, planting will be specified to minimise the use of chemical fertilisers, pesticides and herbicides, and promote organic and low maintenance management techniques. These will include the use of high levels of organic material within soils, the use of mycorrhizal innoculants to stimulate plant growth, and promote a healthy 'living' soil.

Where species-rich grassland is proposed, topsoil will be stripped to reduce nutrient status, and replaced with an appropriate subsoil. This technique, coupled with correct mowing timing and methods, reduces the competitiveness of grasses in favour of a range of less aggressive flowering species.

Full plans and specifications for soft landscape, including planting species, sizes, root conditions, soils, planting techniques and maintenance will be provided as a Condition of Approval.

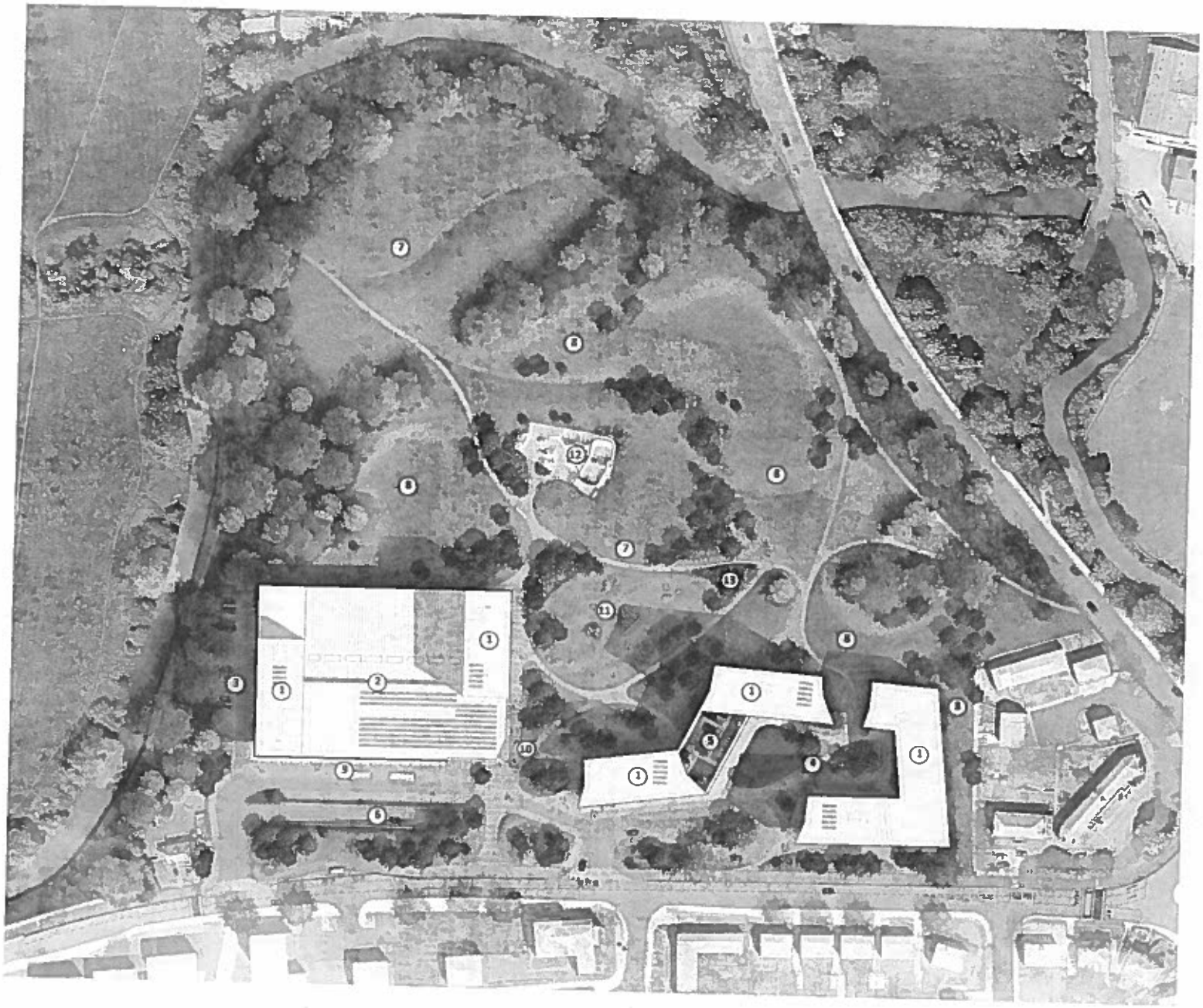
All soft landscape generally will seek to extend and enhance the ecological value of the Site of Importance for Nature Conservation (SINC).



SOFT LANDSCAPE AND ECOLOGY

MASTERPLAN

The illustrative Landscape Masterplan



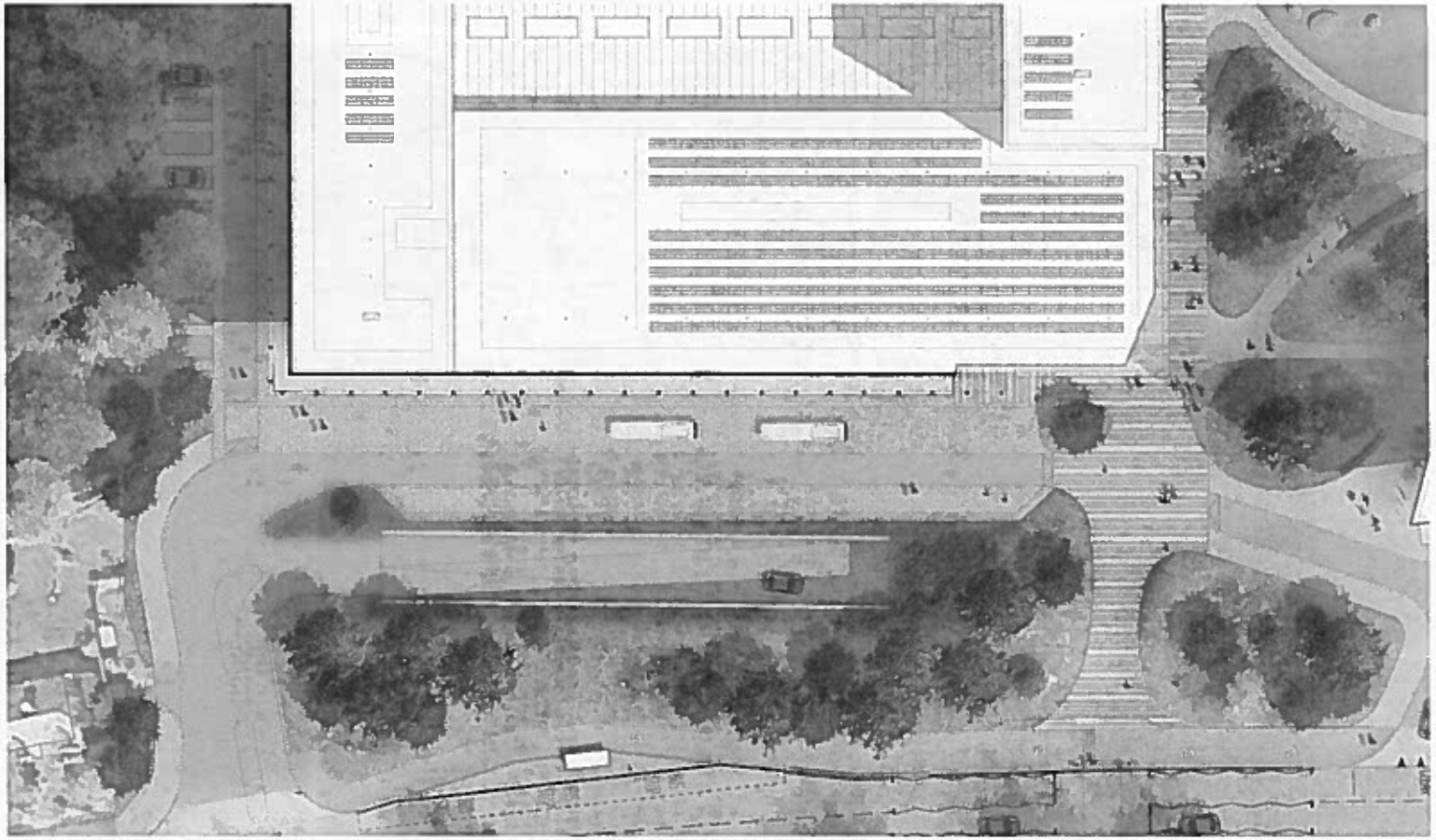
1. Residential development
2. Leisure centre
3. Parking and service access
4. Courtyard garden
5. Roof garden
6. Basement parking access
7. Parkland
8. Surface Water attenuation basin and sculpted 'overland flow' path
9. Coach bays
10. Park entry
11. Play area
12. Skate park
13. Raised planting for ventilation from basement

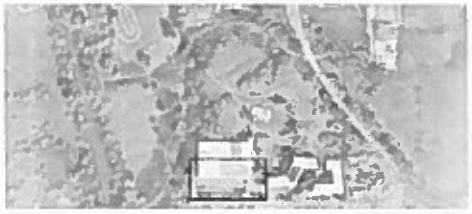
LEISURE CENTRE COACH PARK AND SERVICE AREAS

At the western end of the site's frontage with Ruislip Road, the existing Leisure Centre access is upgraded to give access for visitor and staff parking, coaches and service vehicles. Coach set-down bays and surface parking bays are set back from the road, tucked beneath existing trees near the River Brent with Leisure Centre service areas and parking beyond. Basement parking for visitors is accessed from a ramp which curves down among the new and existing trees.

The remaining area between the Leisure Centre and Ruislip Road extends the influence of the riverine landscape with existing, retained trees supplemented by new trees and grassed lawns and planting to reduce the visual prominence of parked coaches and the car park ramp.

A generous path provides access to the Leisure Centre from the existing bus stop and to visitor cycle parking from the Ruislip Road cyclepath.





LEISURE CENTRE AND PARKLAND ENTRY

The Leisure Centre entrance is at the heart of the leisure, play and parkland campus. It is a common point of arrival and directly accesses the pools, leisure centre, play area, skate-park, and residential hub, and retail.

The area is a social space providing the principal pedestrian connection from Ruislip Road East to the parkland beyond mediating between the rectilinear form of the Leisure Centre and the more fluid lines of the parkland. The park's flowing shapes echo the site's origins in the flood plains of the River Brent, and in the event of severe rainfall, these shapes help guide surface water back to the Brent.

Planting islands within the Square act as small 'rain-gardens' to help drain the areas of paving, and the riverine trees extend the character of the Brent Valley into the development.

This central area will feature permanent seating for park users and outdoor café seating in summer.

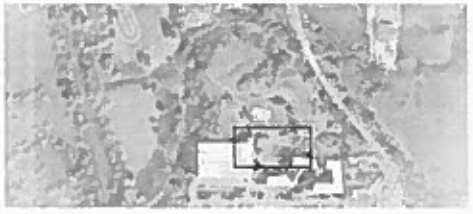
PLAY AREA

The new play area puts children at the heart of the new Gurnell community. The centrally located play area will replace the existing play area with new facilities, and extend the area and diversity of play experience to cater for the additional demand from new residents. While the whole parkland setting will be a great location for children to play, the play area will provide children with safe access to good quality, well-designed, secure and stimulating designated play area, promoting physical activity, imaginative play and sensory stimulation for children of all age-groups and abilities. The principles for play established in GLA Supplementary Planning Guidance "Shaping Neighbourhoods: Play and Informal Recreation".

The guidance promotes the concept of 'playable space' above all – and the enhancements to the Gurnell parkland will offer new opportunities for 'natural play' and interaction with natural elements. Another key element is the promotion of active and healthy lifestyles – a concept which is embraced through the new sports and leisure facilities, improved path network and proposals for fitness trails to include distance measurements and exercise stations. Finally, the guidance promotes accessibility for the widest possible range of users, in terms of age-range, cultural needs and physical and sensory abilities.

The play area's design proposals will be developed in detail in collaboration with Ealing Borough Council with all these key drivers in mind. The stated aim of the design will be to ensure the play area and wider parkland offer the best response to current understanding of children's development through play as the means to developing physical and social skills and to celebrate the enjoyment children gain from play, and that adults gain from participating with their children.

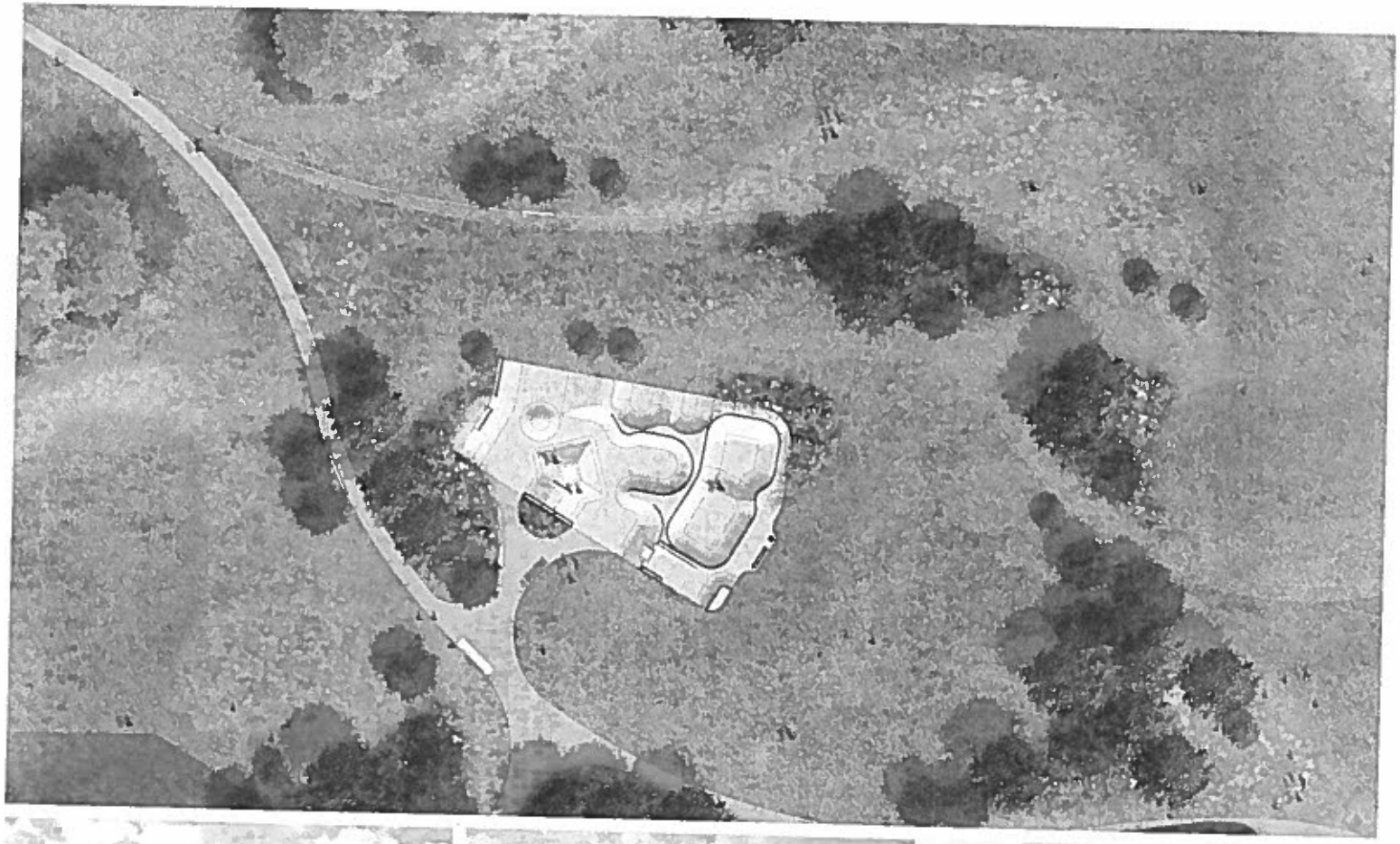
The area designated specifically for the children's play area is based on the GLA's methodology and formulae which are adopted by Boroughs across London as best practice. The method estimates the number of new children that will live in the new development, and indicates an allowance of 397.5 m². This area is added to the measured area of existing play provision of 1,188 m². The total formal allocation of play space will therefore be 1585.5 m². To allow flexibility, this area is incorporated within a larger zone within the landscape masterplan, and scope remains for flexibility of design and adaptation of the main play area, roof gardens and other areas within the MOL.



SKATE-PARK

The new Gurnell Skate-park will replace the existing facilities with new state-of-the-art sprayed concrete ramps and bowls, set within the parkland landscape. The skate-park has been located around 50m from the nearest homes in order to ensure noise does not disturb residents, but the location is in full view of The Square and the Play Area – giving skaters have a prominent location at the heart of the park.

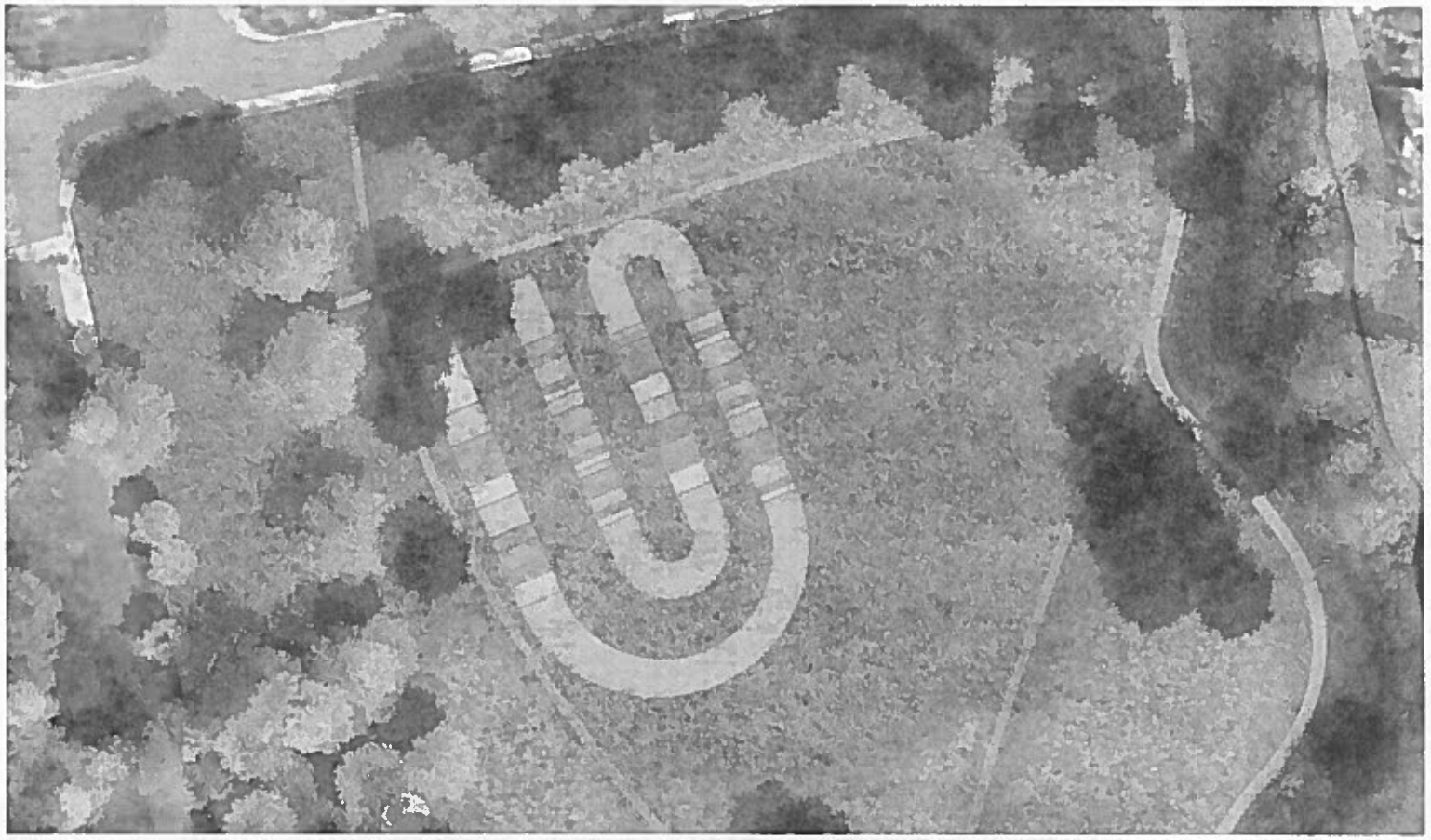
The Skate-park will be accessed by smooth-surfaced paths to ensure good access for skaters, and is also proposed to incorporate a number of 'satellite' skateable features, such as grinding rails and steps which are designed specifically with skaters in mind.

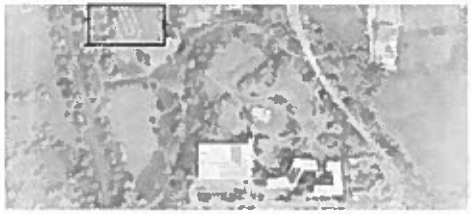


BMX TRACK

The new BMX track replaces the existing track with a new 6m wide (6 rider), 200m long track in accordance with the brief from London Borough of Ealing and designed to dimensions and standards defined by British Cycling. Full details of the track will be brought forward by Ealing Borough Council in a separate Application, and proposals shown in this application are illustrative to show how a track can be accommodated within the new landscape setting of the masterplan.

The design will incorporate new access paths and ancillary areas within the improved parkland setting.

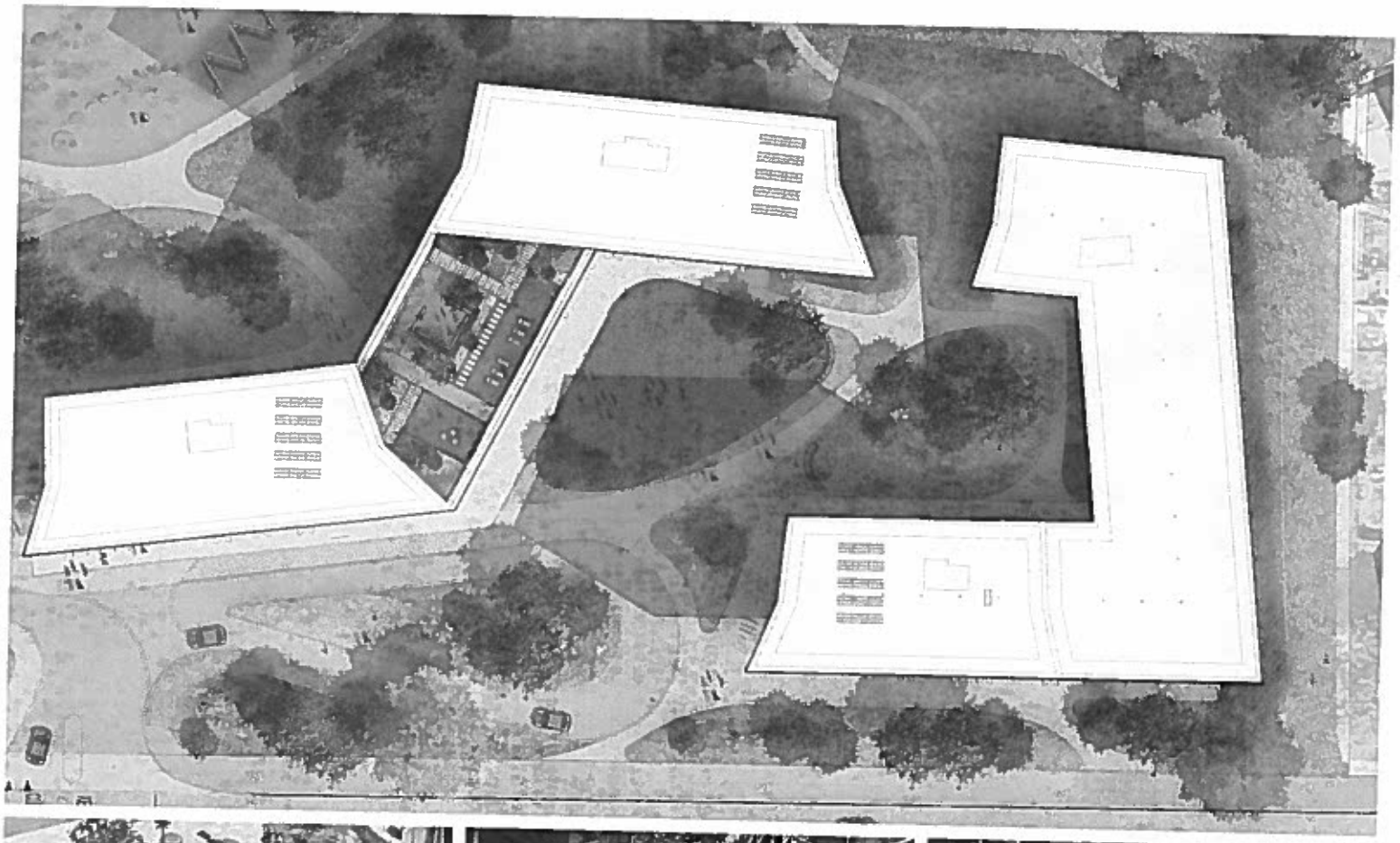


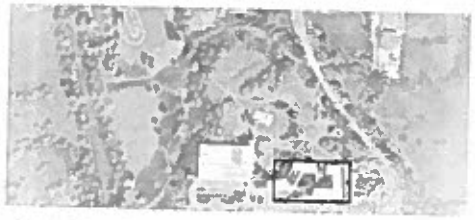


RUISLIP ROAD EAST (EASTERN FRONTAGE) AND RESIDENTIAL COURTYARD

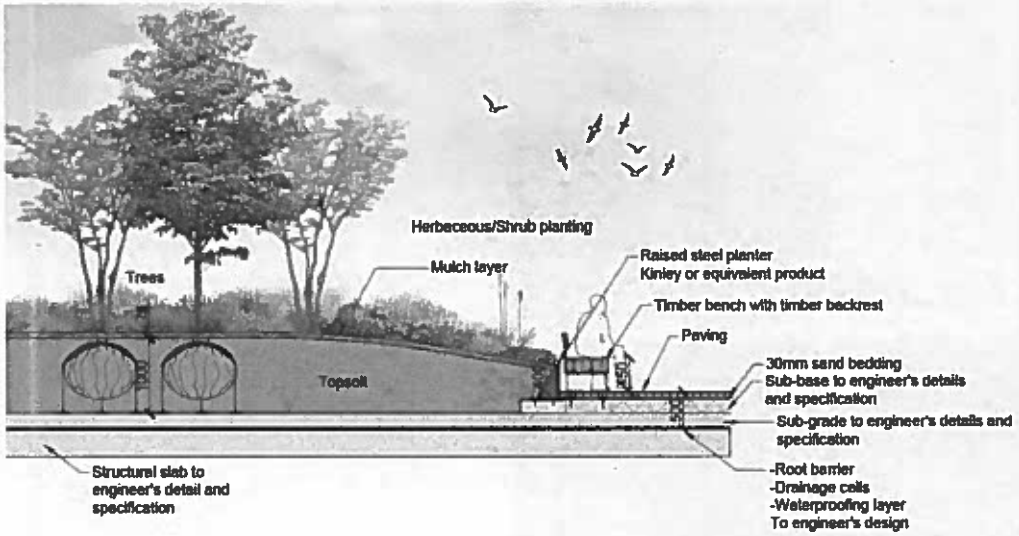
The residential frontage to Ruislip Road East extends an informal band of parkland trees set within planted and grassed areas and regularly crossed by flowing footpaths. These give access to homes, retail and the courtyard between Blocks. This south-west facing courtyard gives access tothe residential blocks, and provides local amenity, seating and access to the wider parkland. It features a central lawn and planted areas with specimen trees.

Full details of hard and soft landscape for the courtyard will be subject to Planning Conditions, and will submitted in subsequent applications.

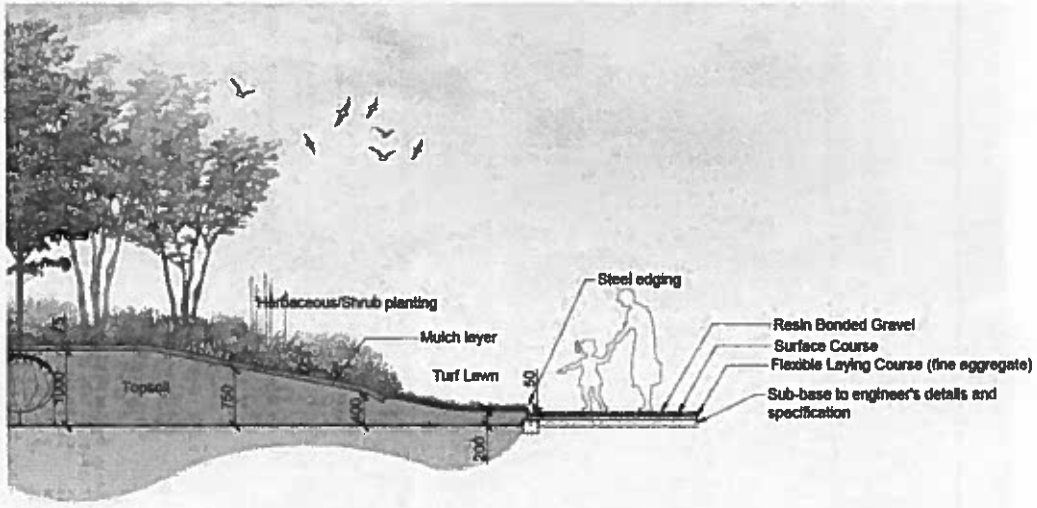




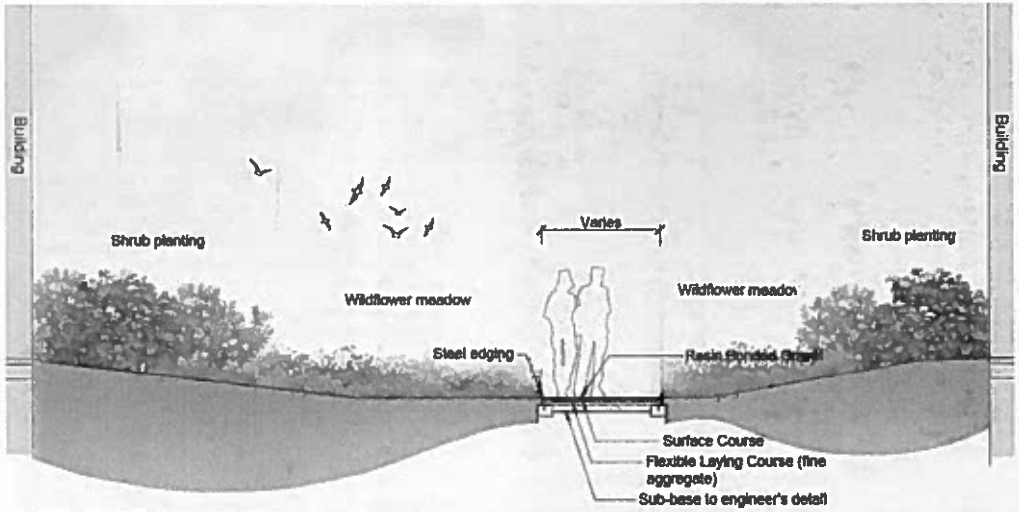
TYPICAL SECTIONS



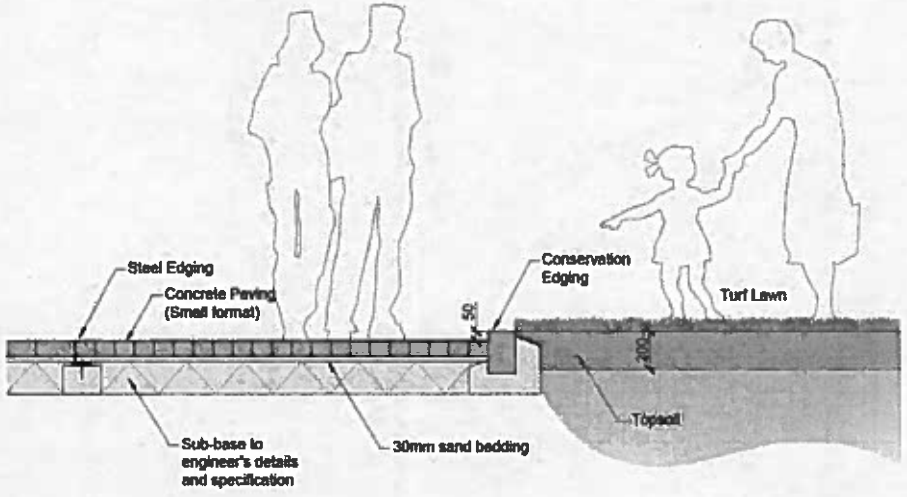
Typical Section - Raised planter over basement



Typical Section - Planting area



Typical Section - Resin bonded path



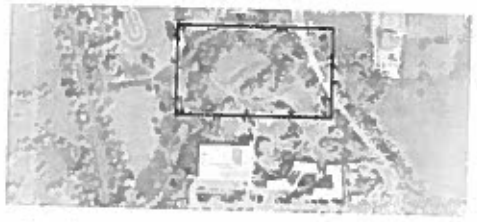
Typical Section - Lawn area

GURNELL PARKLAND AND RIVER BRENT CORRIDOR

Enhancements to the wider parkland will be developed in association with the London Borough of Ealing and may include:

- New pedestrian and cycle accessible bridge and footpaths to provide more direct routes from Perivale and to South Greenford Station.
- New fitness circuits and trails, with distance markers and exercise stations.
- Biodiversity enhancements – improvements to species diversity, differential mowing of grassland, and habitat improvements to the Brent corridor.

The new paths and bridge will open up more direct access to underused fields to the north-west of the Leisure Centre site, promoting the linkages with the Perivale Park athletics ground, golf course and sports pitches.

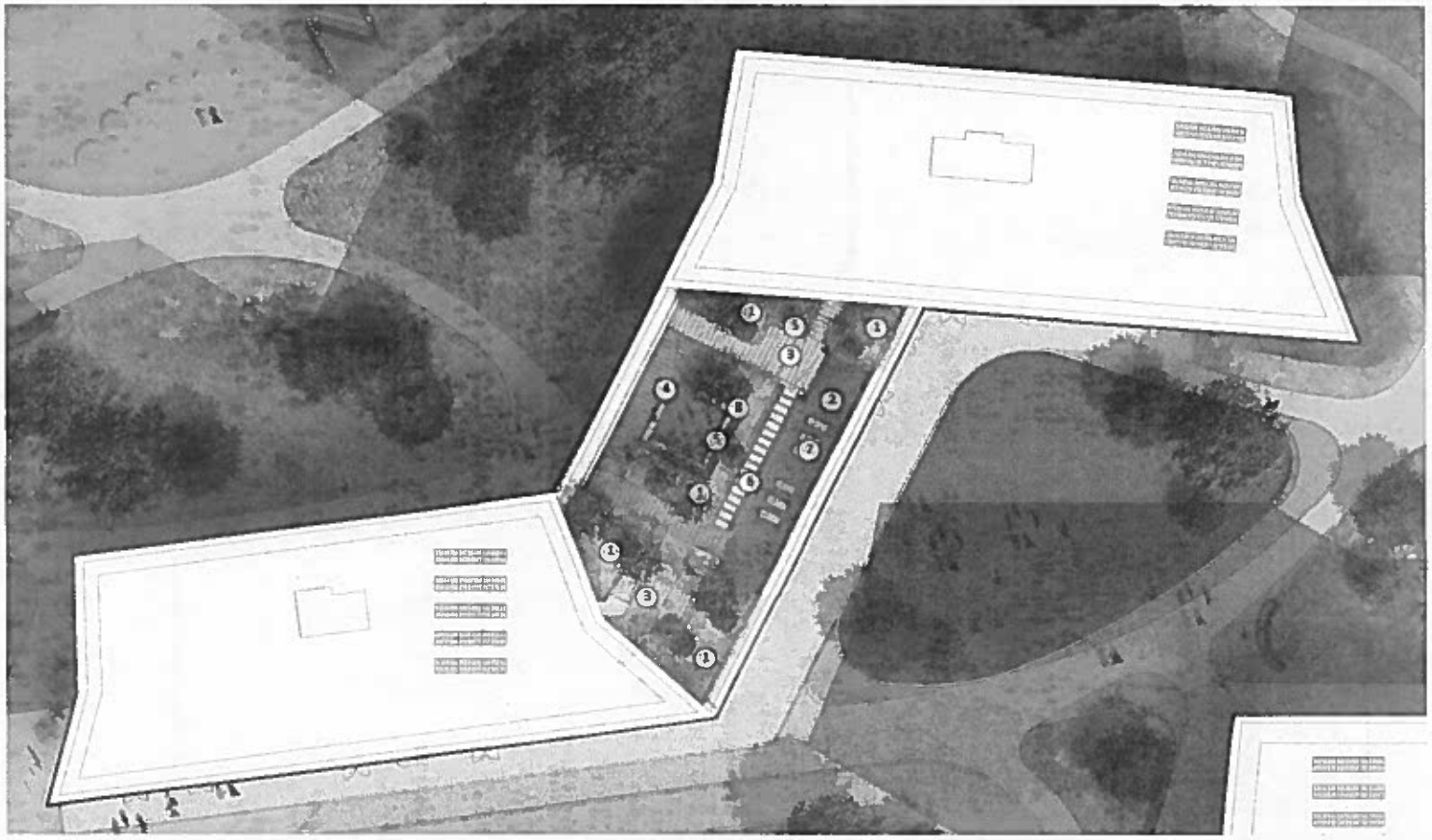


PODIUM GARDENS

The roof garden located between Blocks C and D provides safe and secure private amenity space for residents. Located on level 6, the garden has panoramic views towards the parkland. It incorporates flexible artificial grass playable space, planters and seating.

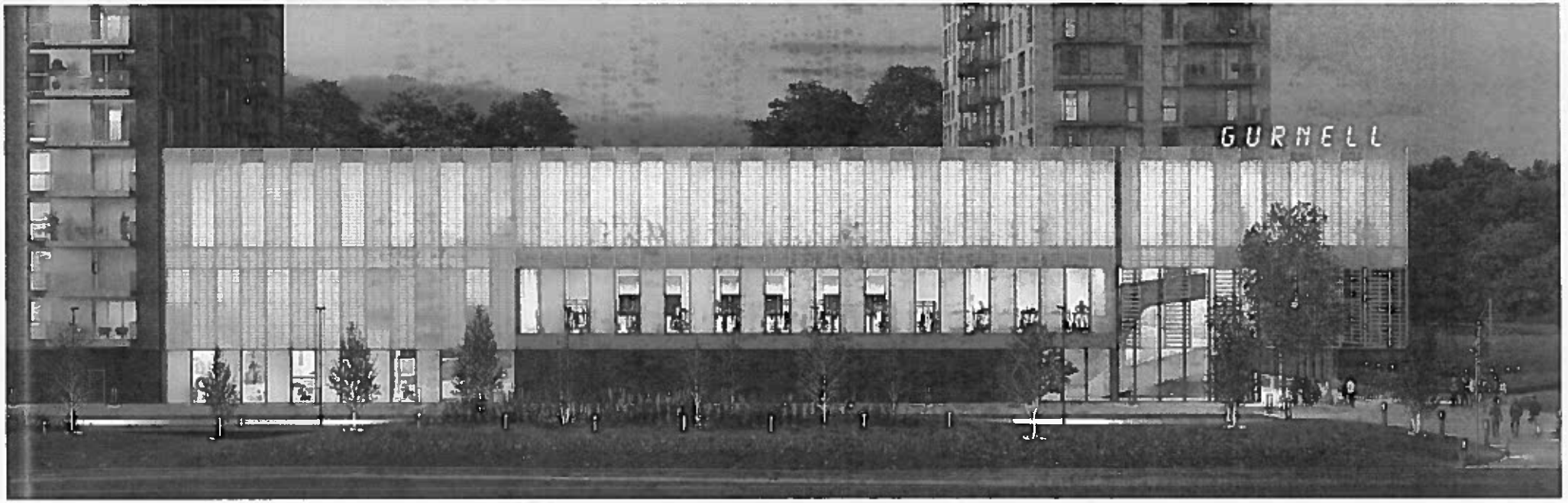
Planting outside apartment windows will maintain separation from private terraces to adjacent apartments. A series of outdoor rooms is proposed to provide spaces scaled for individuals or social groups to meet.

A more open artificial grass area along the southeastern edge will provide direct views to the courtyard garden. It will catch the sun and will be furnished to provide a relaxed lounge area. By moving loose lounge furniture clear, this space can also be used for hosting special events or be used as children's playable space.

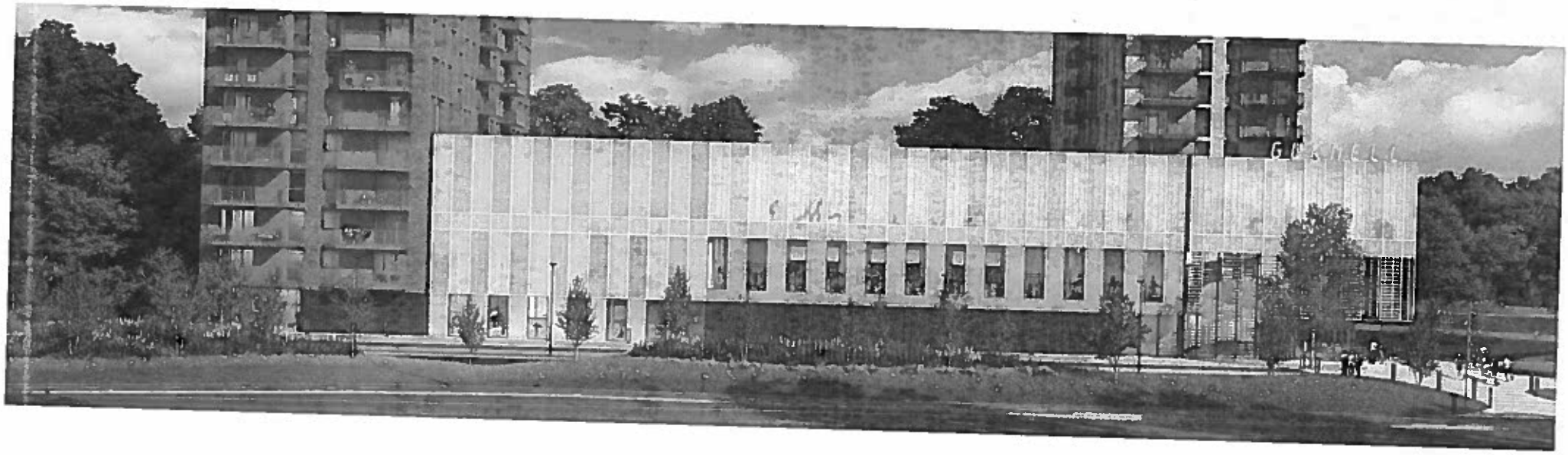


1. Raised planter
2. Artificial grass
3. Concrete paving
4. Timber decking
5. Timber seating
6. Stepping stone
7. Lounge furniture
8. Timber screen

08 LEISURE CENTRE DESIGN PROPOSAL



INTRODUCTION



The proposed leisure centre is of a mixed use type, with residential uses directly adjoining the planned wet and dry indoor sports uses. This has the benefit of minimising inactive 'leisure box' frontages; instead, the building is activated on all sides with a combination of sports uses and dwellings.

At the same time, these two main complementary uses - sports and living - have been carefully positioned so as to allow each to function optimally, without either limiting the other. The public sports uses are not 'tucked away'. From the principal point of leisure centre public access, at the south-east corner of the building, the residential uses are visually recessive and the leisure use predominates. Extensive use is made of transparency and translucency - with suitable modifications for privacy - so as to show the internal activity.

Internally, movement around the leisure building is simple and obvious. The main public stair is positioned openly next to the entrance lobby so as to encourage those users who can, to walk to upper floors instead of using lifts (although lifts are immediately adjacent to assist accessibility for all users). The lobby has a cafe adjacent. Changing facilities are positioned for ease of access and efficient use.

The leisure building's major space is the proposed 50 m competition pool hall. This is arranged in an east-west orientation on the park side of the building, with a 6.5 m high glazed wall allowing excellent views of the park from the eye level of swimmers. The competition pool has spectator seating for 200 people at first floor level; this is accessed directly from the main stair and lifts.

A fun pool is placed to the south of the 50 m pool, suitably partitioned from it. This pool has south-facing frontage, with transparency - made translucent where necessary - to show this activity to the street and advertise its use.

A soft play facility is planned to the east side of the building, adjacent to the entrance and its associated cafe. This is visually open to the central public space of the masterplan, helping to activate the space and signal the facility.

A large gym and three studios are arranged on the upper levels of the south side of the building, along with dry changing areas. Again, facade transparency and translucency are used to announce the activity.

A building of this type has extensive mechanical servicing requirements. All plant areas are internally and discreetly housed, with suitable acoustic treatements to partitions and intakes / extracts. Chlorinated air is discharged at high level, above the residential use.

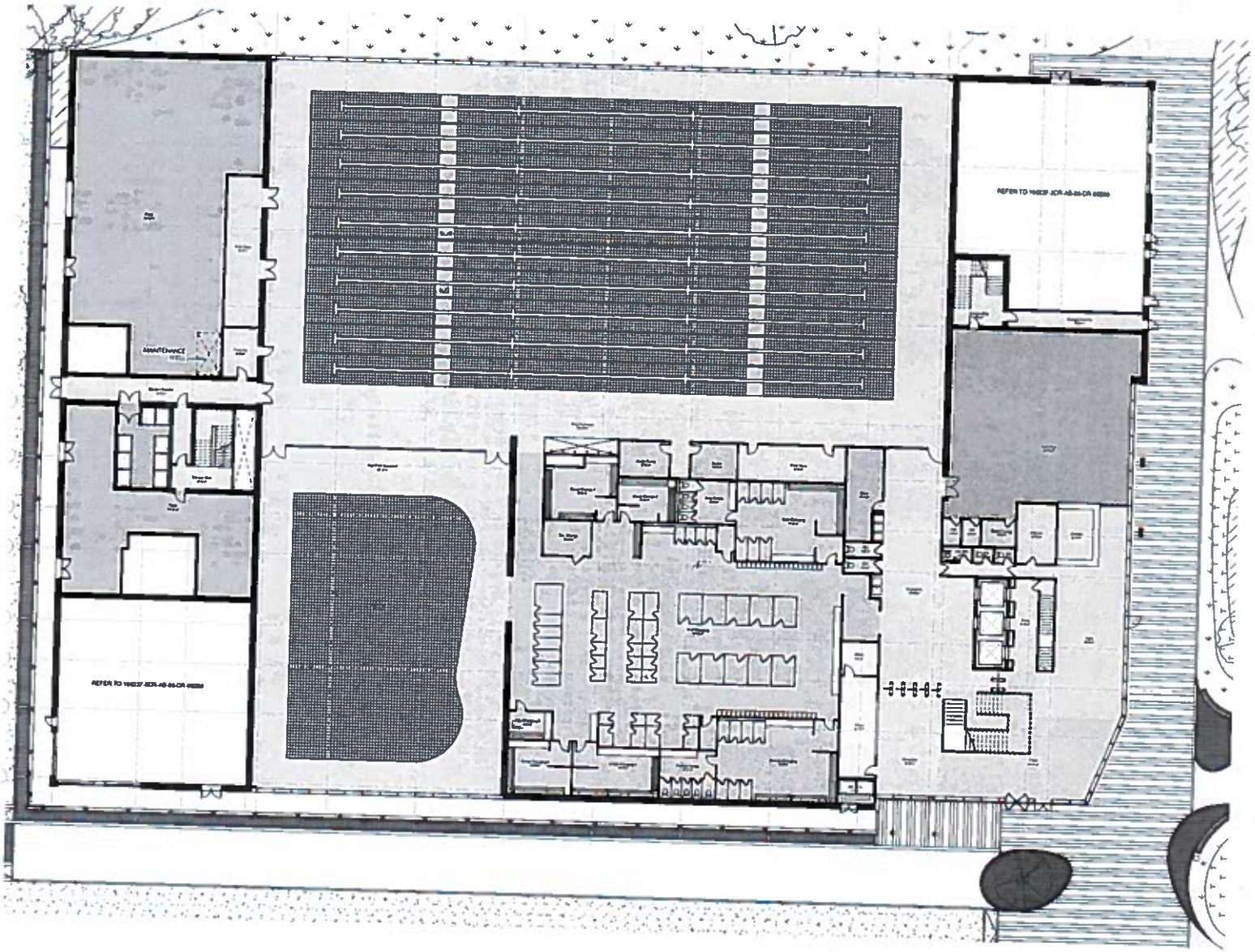
Parking for leisure centre users is provided at basement level, with a dedicated lift core providing access to the lobby above.

The 50 m competition pool enjoys views of the park

GROUND FLOOR PLAN

The ground floor programme of the new leisure centre includes:

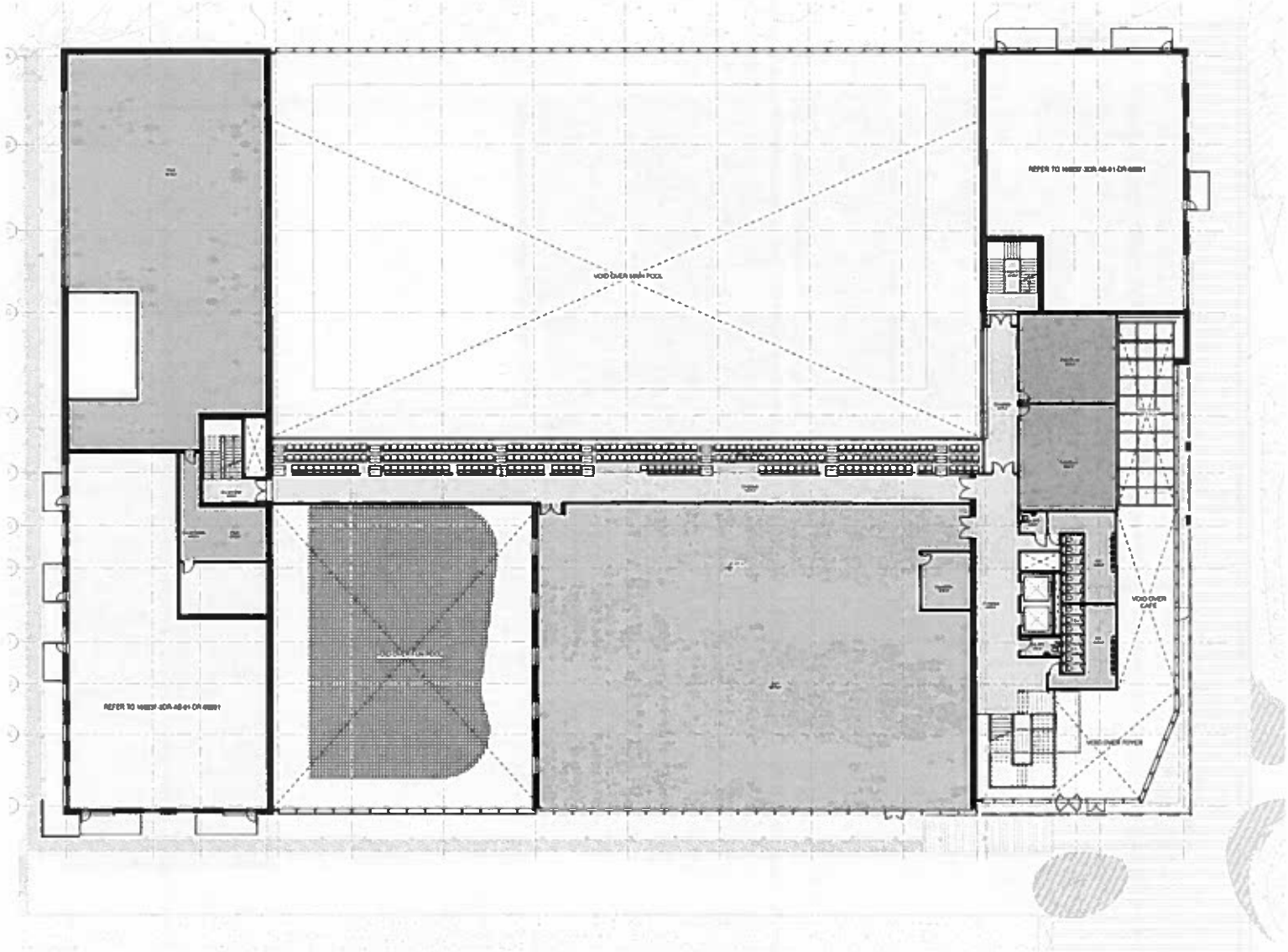
- 10 lane 50 metre pool with moveable dividers
- Fun pool
- Sauna and steam rooms
- Children's soft play area
- Wet changing facilities including separate family changing
- Café



FIRST FLOOR PLAN

At first floor, the programme of the new leisure centre includes:

- Pool spectator seating
- A large fitness gym
- Children's party rooms

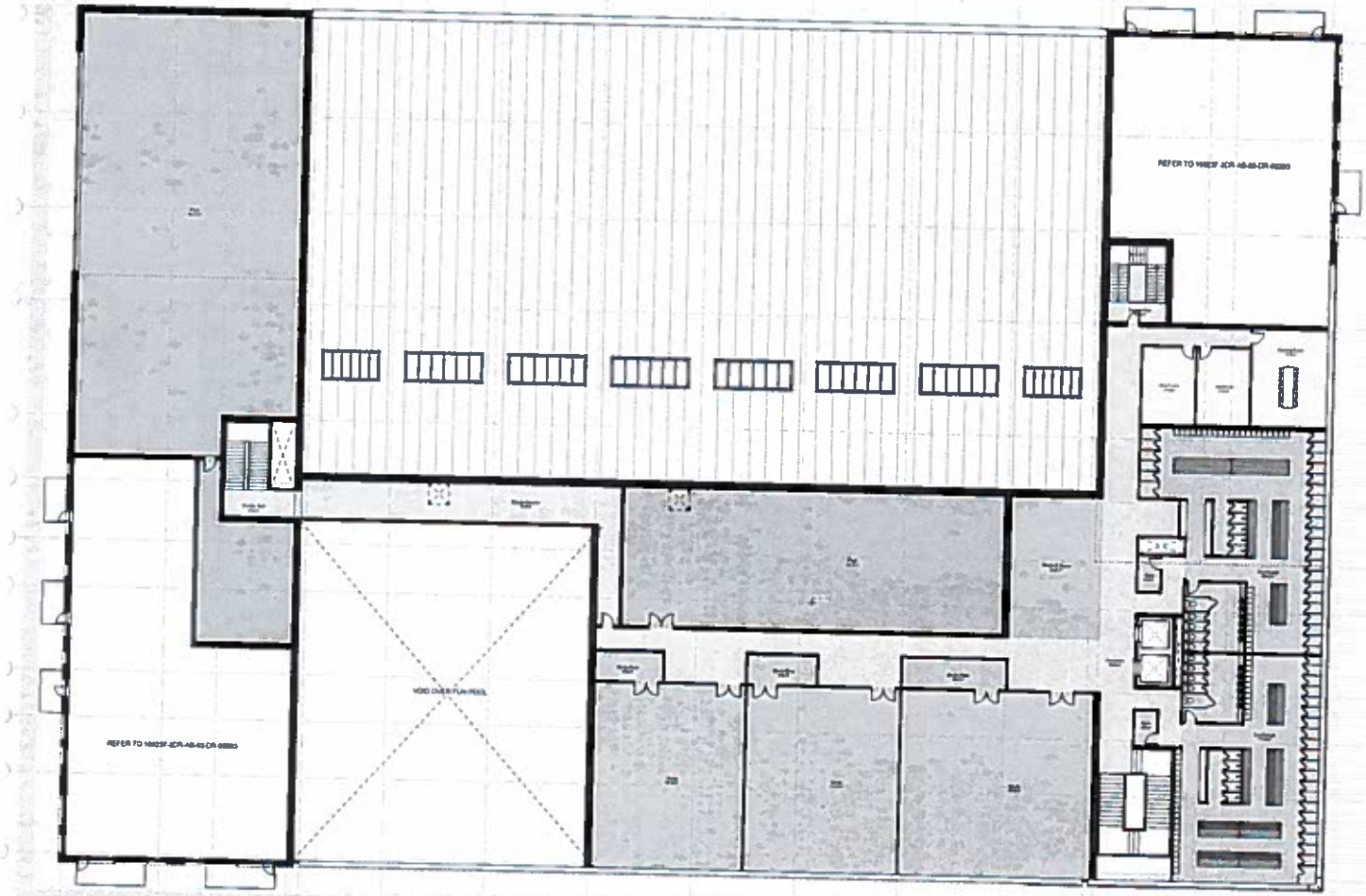


artist impression of the main swimming pool area

SECOND FLOOR PLAN

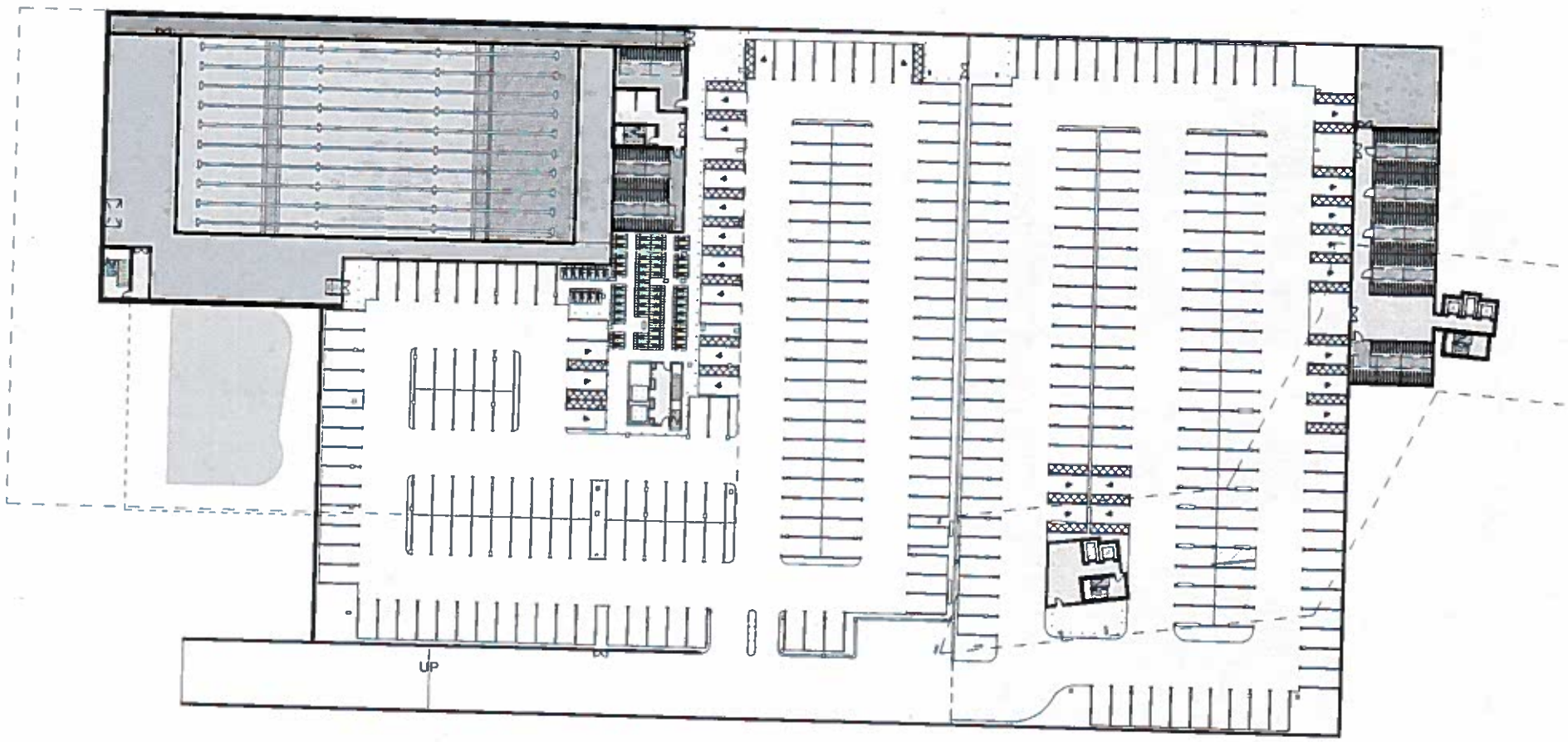
At second floor level the programme of the new leisure centre includes:

- Three large flexible use studios with a break out space
- Dry changing facilities
- Club rooms
- Staff facilities



The leisure centre entrance approach, with the park beyond

BASEMENT PLAN



09 RESIDENTIAL DESIGN PROPOSAL

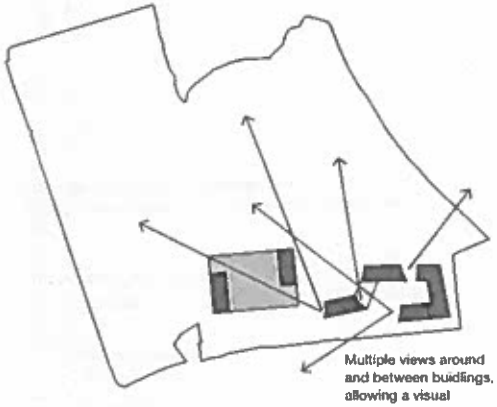
View of a typical corner apartment in Building C, looking north-west

INTRODUCTION

The vision for the residential component of the proposal is to make an attractive new place for dwelling: highly liveable, well integrated into its parkland setting, and respectful of neighbours.

A sense of openness is key: this is crucial both for improving access to Metropolitan Open Land, and also for residential quality. A major benefit of living in a environment such as at Gurnell is space, light and immersion in a green landscape; the residential layout aims to promote these benefits. The plans have been shaped with angles that improve views and bring windows into a park-facing orientation where possible. Clear separation between buildings allows views through and between them, and also improves daylight access.

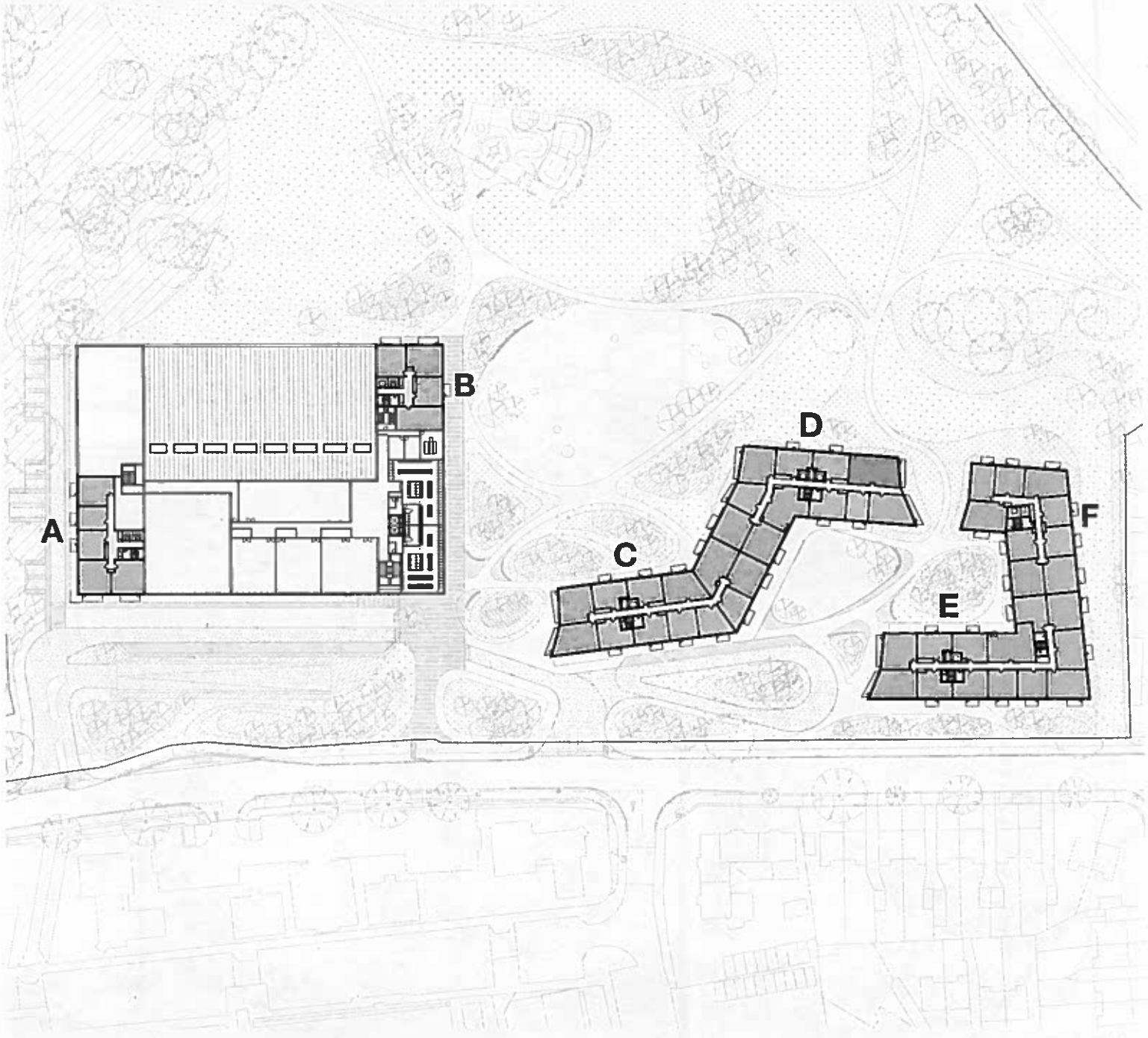
The current proposal also follows guidance from officers, recommending the scheme be constructed principally on the Previous Developed Land (PDL) of the existing Gurnell Leisure Centre and its adjacent carpark. The residential layout uses a loose perimeter block arrangement. Six residential buildings are proposed: named A-F as shown in the plan opposite. Buildings A and B are linked by the leisure building; Buildings C & D are linked by an inhabited podium which also contains the residents' hub, and finally Buildings E & F are also linked: Building F is entirely 'podium height' at six storeys.



Multiple views around and between buidlings, allowing a visual connection to the green

KEY:

- Studio Apartment
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment

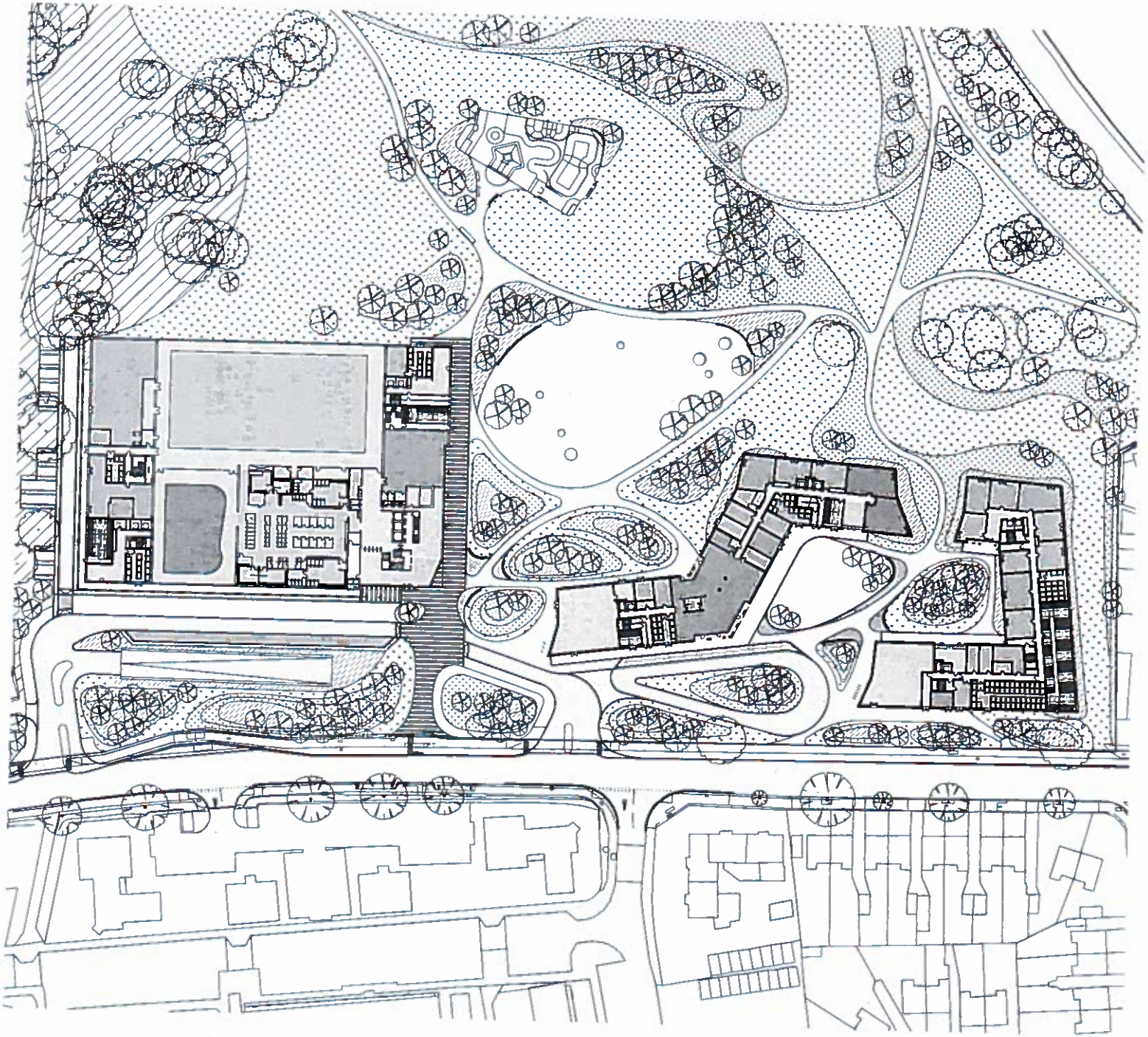


GROUND FLOOR PLAN & RESIDENT AMENITIES

At ground floor Buildings C and D host the central "Hub". The facilities here include:

- Multipurpose rooms
- Audio/Visual rooms
- Shared workspaces
- Laundry
- Parcel stores
- Staff facilities

In addition to the Hub, a number of external amenities have been provided for the residents including a roof terrace.



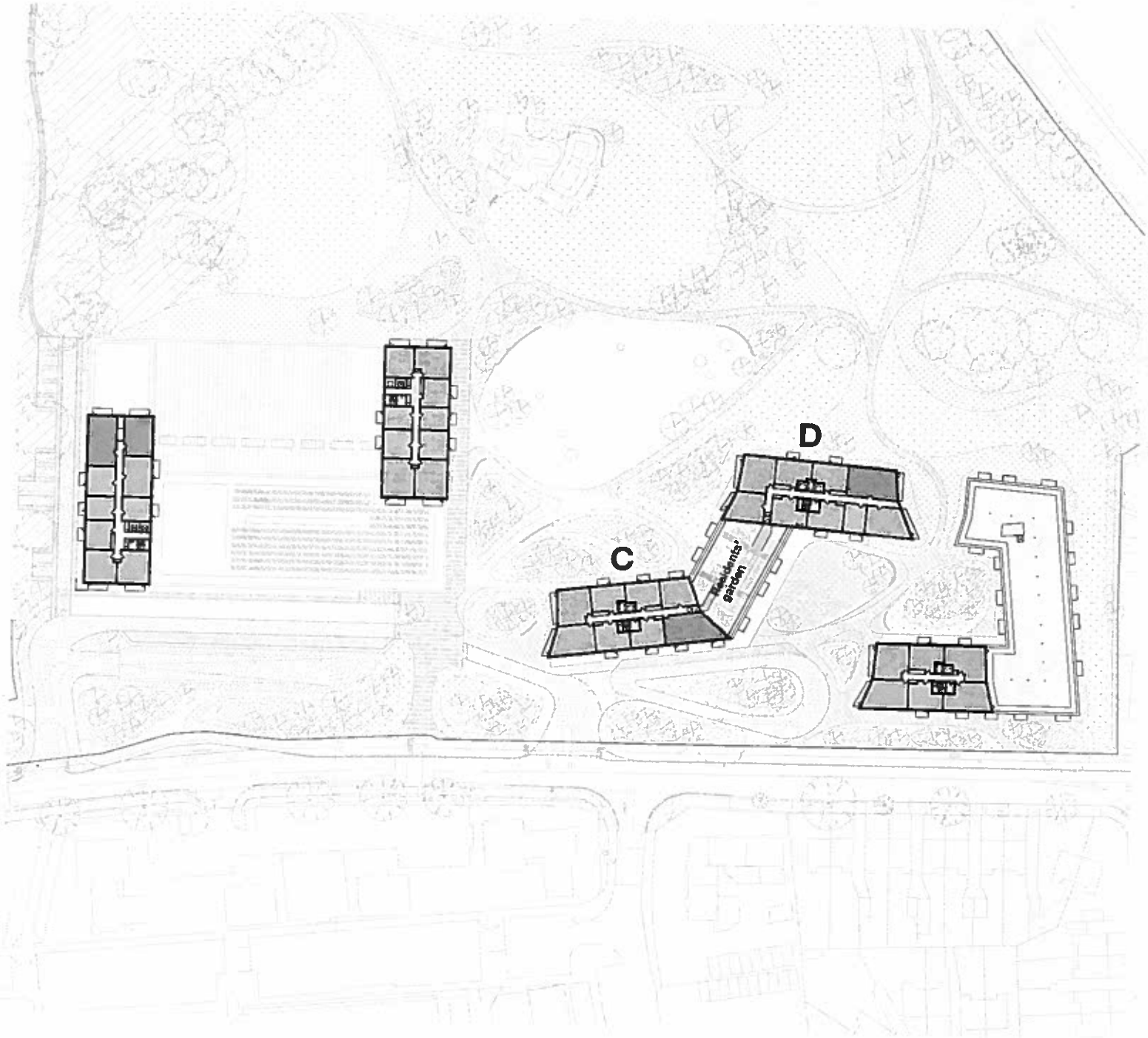
KEY:

- Lobby
- A1 | A3 Use
- Resident Hub
- Soft Play
- Substation
- Cycle Parking | Refuse Stores
- Plant
- Studio Apartment
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment

View from Ruislip Road East, west of the site

PODIUM ROOF LEVEL

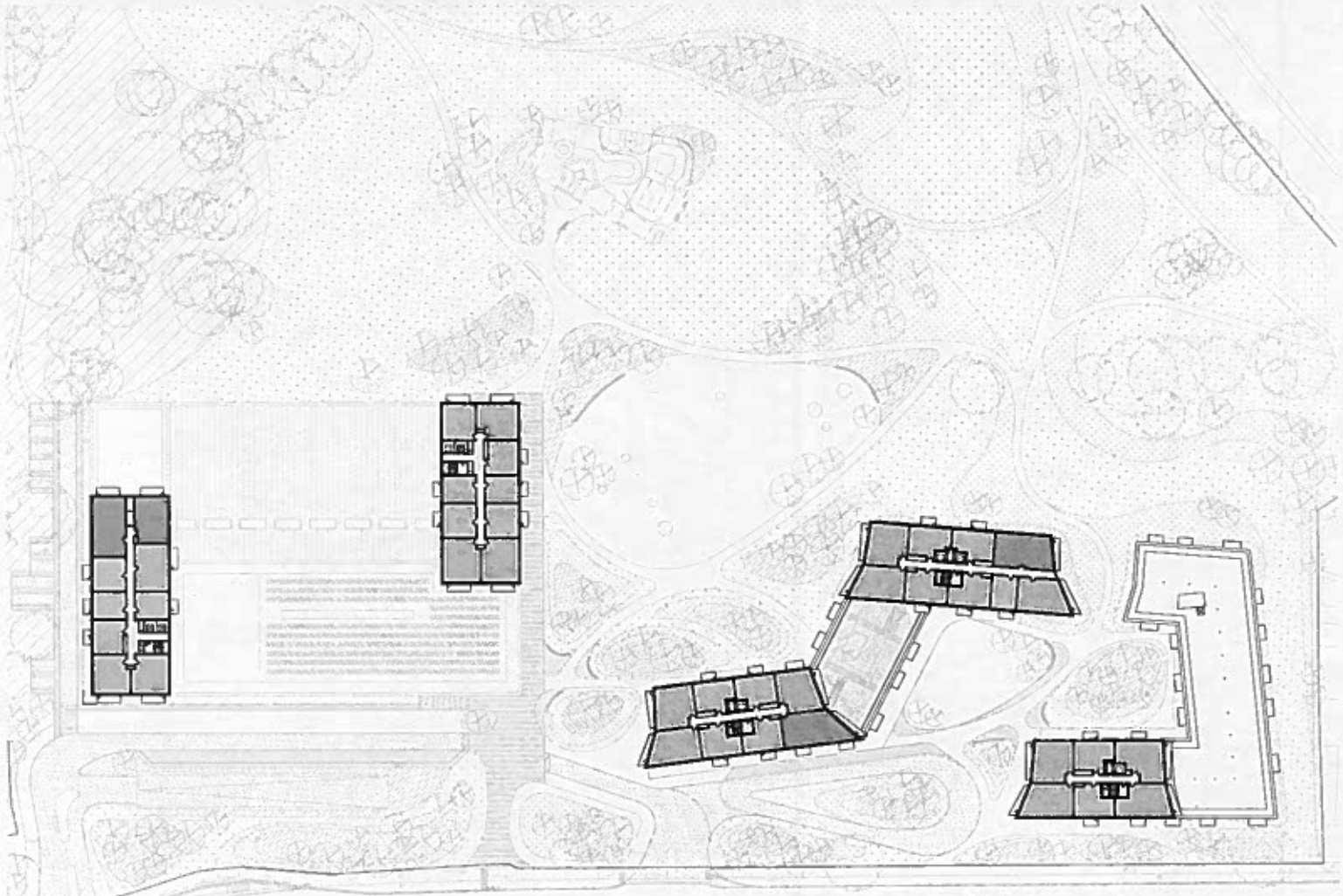
A resident garden is planned at roof level of the podium linking Buildings C & D. The garden has views of the park and also to the south.



KEY:

- Studio Apartment
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment

TYPICAL FLOOR (UPPER)



KEY:

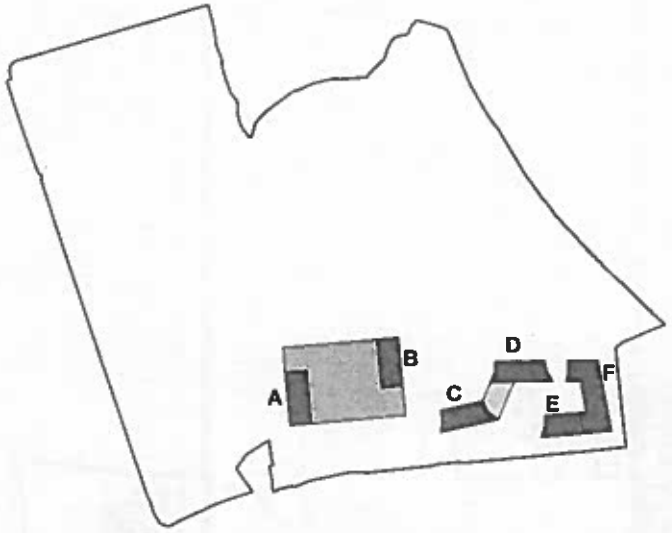
- Studio Apartment
- 1 Bed Apartment
- 2 Bed Apartment
- 3 Bed Apartment

View from Ruislip Road East, east of the site

UNIT TYPE AND MIX

The residential buildings are laid out on the site to promote permeability and the relatively open layout results in good views and daylight to dwellings (94% of the dwellings meet BRE guidance for daylight). 38.2% of the dwellings are dual aspect, a figure consistent with a courtyard / perimeter block arrangement. There are 14.2% north-facing single aspect dwellings; however, these dwellings have excellent outlook and views over the planned park.

Buildings A & B are intended for private rental; Buildings C-F are intended for private sale.



UNIT SCHEDULE

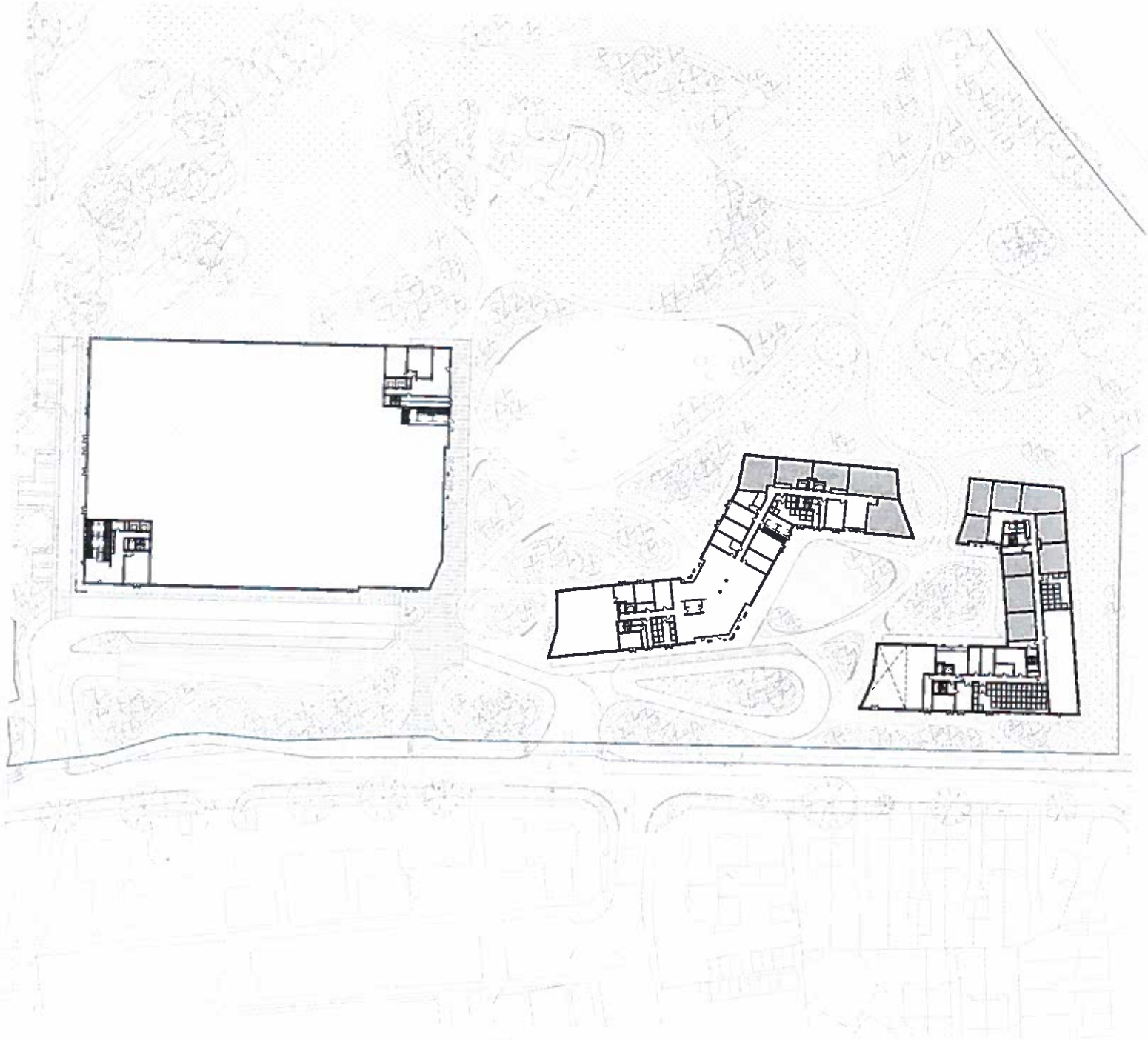
	Building A	Building B	Building C	Building D	Building E	Building F	Totals
Floors (with dwellings)	15 (14)	15 (14)	13 (12)	17	10 (9)	6	
Studio	24	20	0	15	0	2	61
1b2p	32	48	57	66	43	30	276
2b3p	34	14	4	1	0	1	54
2b4p	10	20	36	58	44	21	189
3b4p	0	0	0	1	0	0	1
3b5p	10	0	7	17	0	0	34
Totals	**110**	**102**	**104**	**158**	**87**	**54**	**615**

ANCILLARY SPACE

	Building A	Building B	Building C	Building D	Building E	Building F	Totals
Lobby	53 m²	72 m²	(included in hub)	34 m²	35 m²	42 m²	236 m²
A1 | A3			269 m²		229 m²		498 m²
Resident Hub			399 m²				399 m²
Totals	**53 m²**	**72 m²**	**668 m²**	**34 m²**	**264 m²**	**42 m²**	

PRIVATE AMENITY SPACE PROVISION

591 of the proposed 615 dwellings (96%) have private outdoor amenity space meeting or exceeding the Housing SPG requirement. At ground level, however, it was felt preferable to avoid projecting balconies, both for security reasons and to maximise the area of MOL. The 14 apartments planned at this level have 'Juliet' balconies (full height openable glazed windwos with a balustrade), and benefit from defensible space planting immediately adjacent.

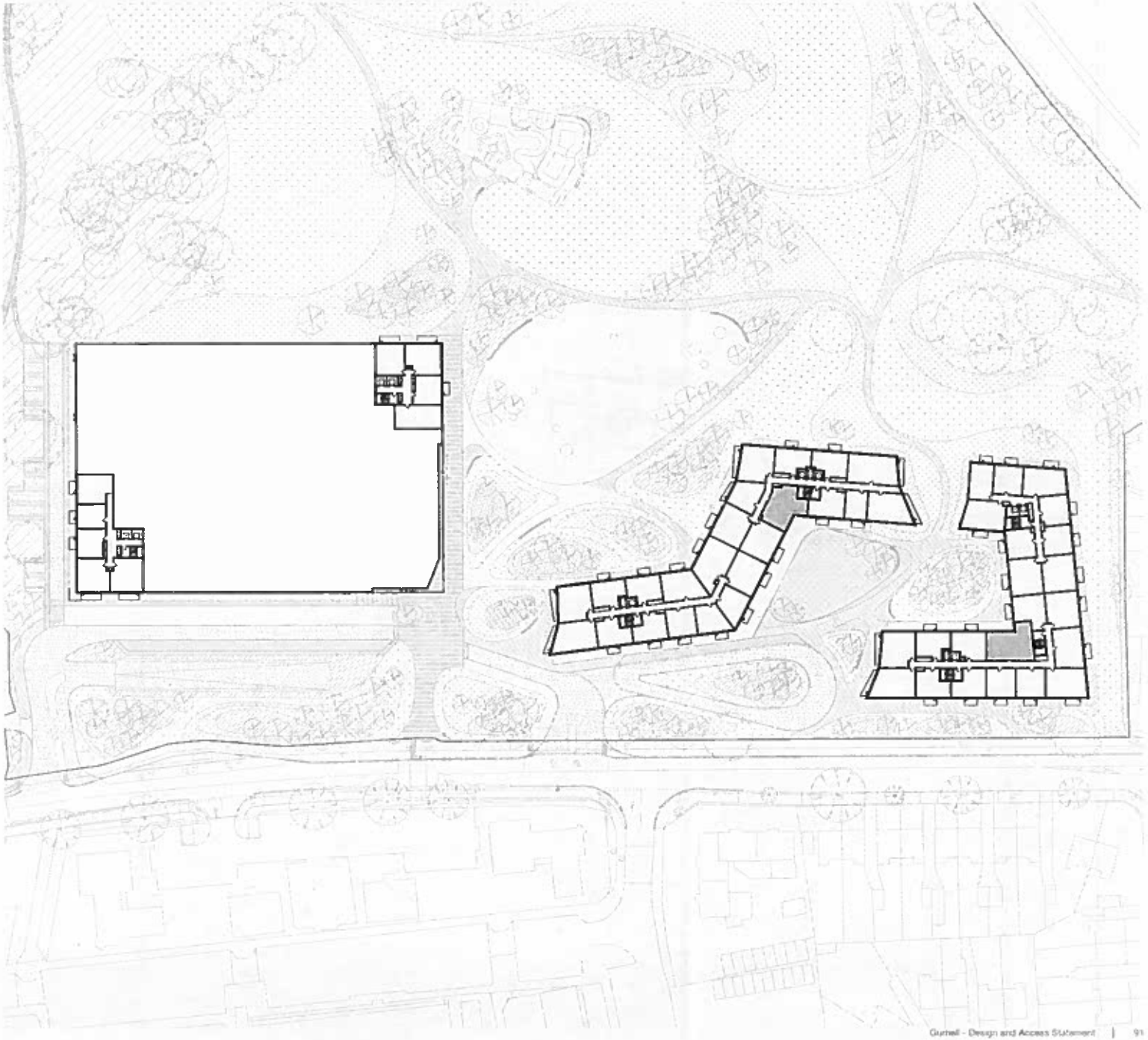


KEY:

Ground floor dwelling without balcony

PRIVATE AMENITY SPACE PROVISION

The remaining 10 dwellings without balconies are in corner locations where a projecting balcony is problematic for privacy and daylight reasons. These dwellings are planned with their private amenity space internally (i.e. these are larger than normal dwellings), consistent with the Mayor's Housing SPG recommendation.

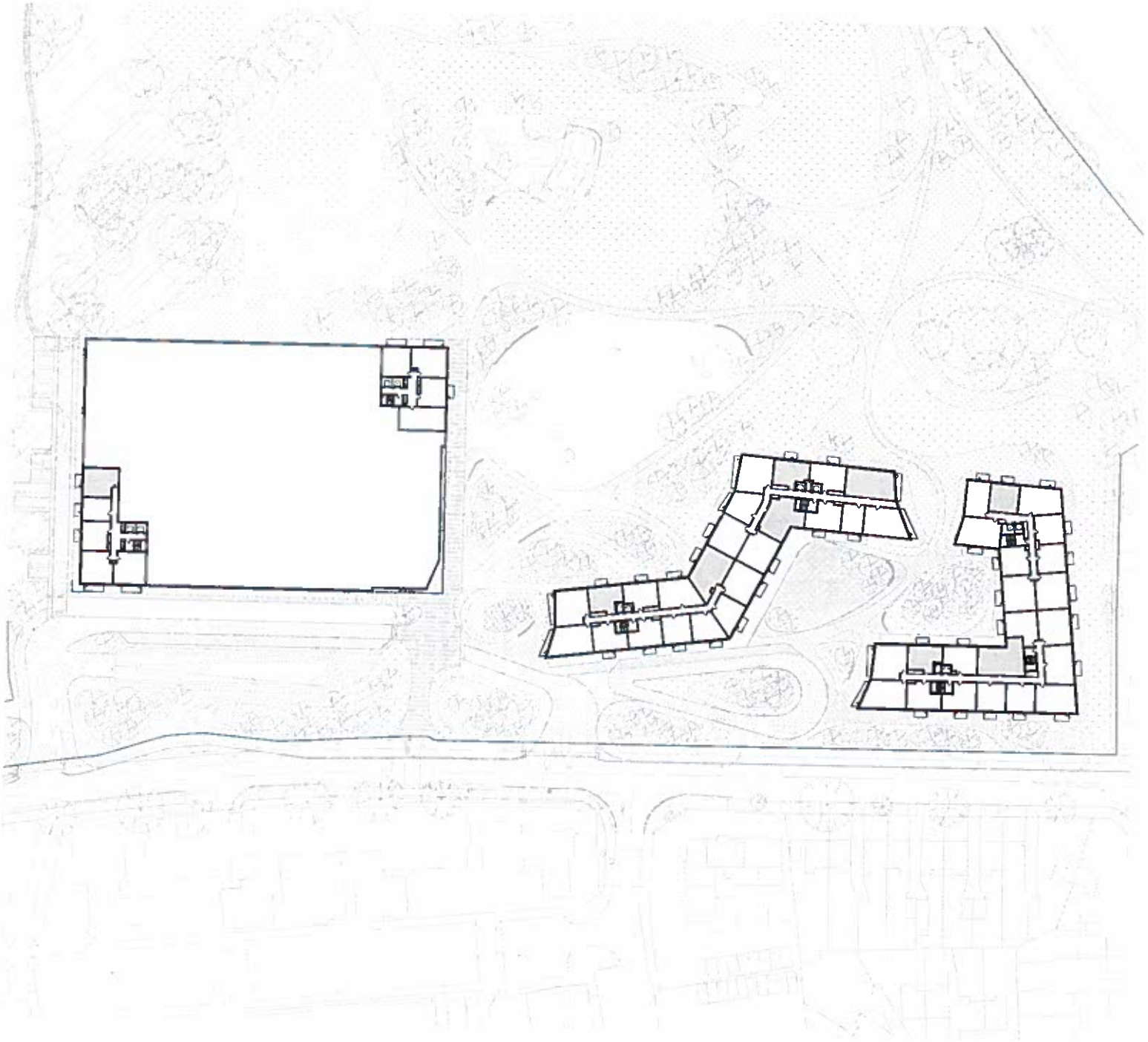


KEY:

Corner dwelling with internal amenity space

WHEELCHAIR USER DWELLINGS: ADAPTABLE (M4(3)) TYPICAL FLOOR (LOWER)

A range of dwelling types, sizes and locations are proposed as M4(3) (wheelchair adaptable) dwellings, comprising 10% of the total number of dwellings.

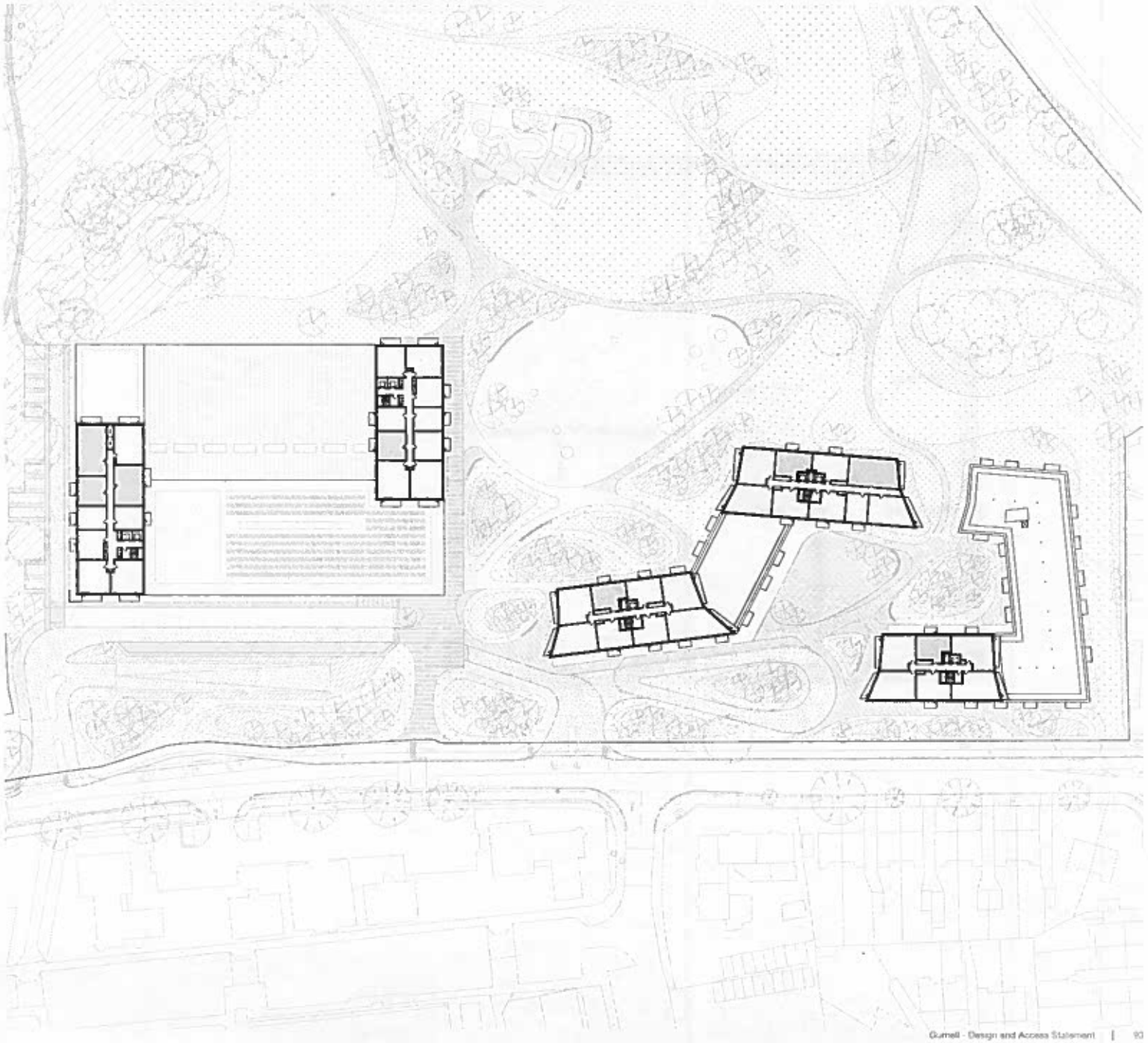


KEY:

M4(3) Apartment Location

WHEELCHAIR USER DWELLINGS: ADAPTABLE (M4(3)) TYPICAL FLOOR (UPPER)

A range of dwelling types, sizes and locations are proposed as M4(3) (adaptable) dwellings, comprising 10% of the total number of dwellings.



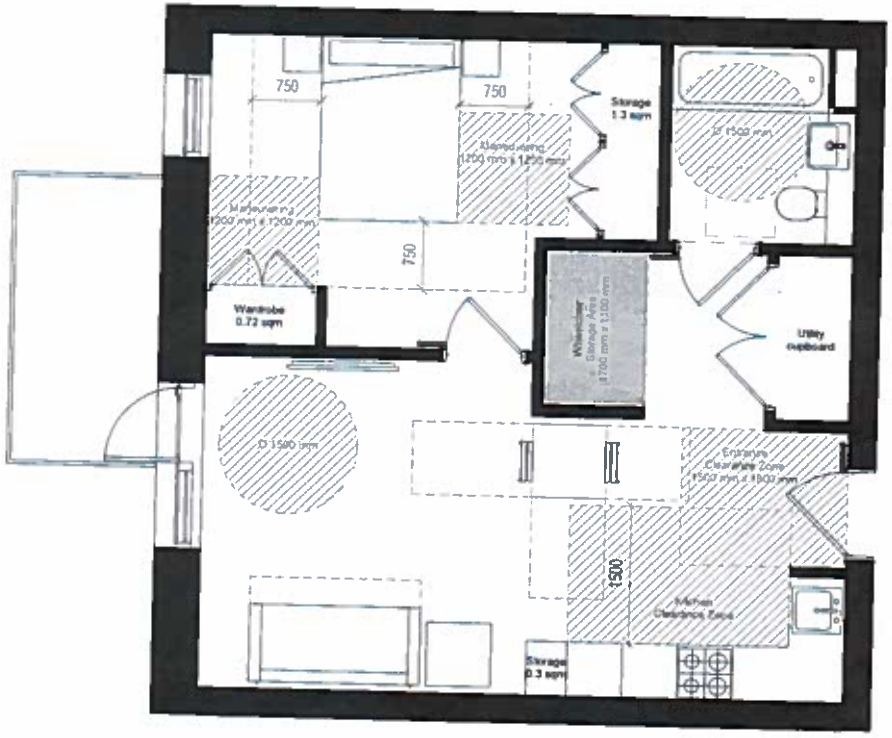
KEY:

M4(3) Apartment Location

ADAPTABLE UNITS M4 (3) COMPLIANCE

1 BEDROOM APARTMENT

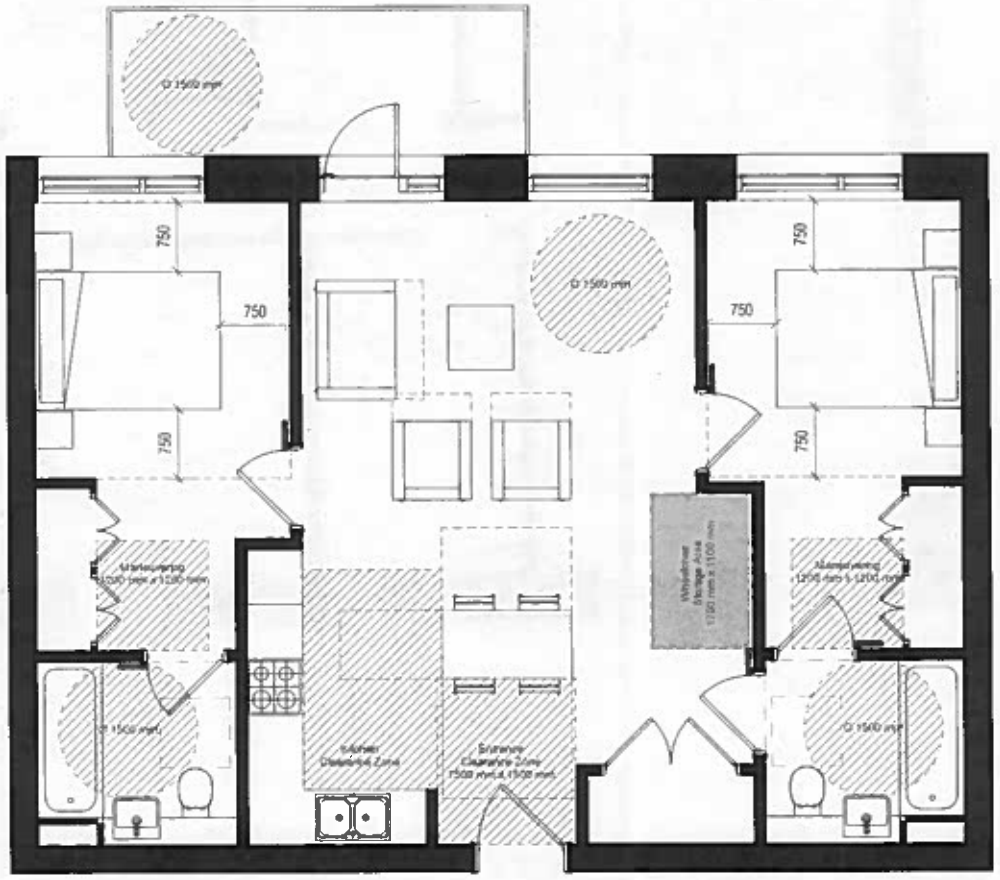
Flat Type	Size	Occupancy	Area
A (Adaptable)	1 Bed	2p	50m²



ADAPTABLE UNITS M4 (3) COMPLIANCE

2 BEDROOM APARTMENT

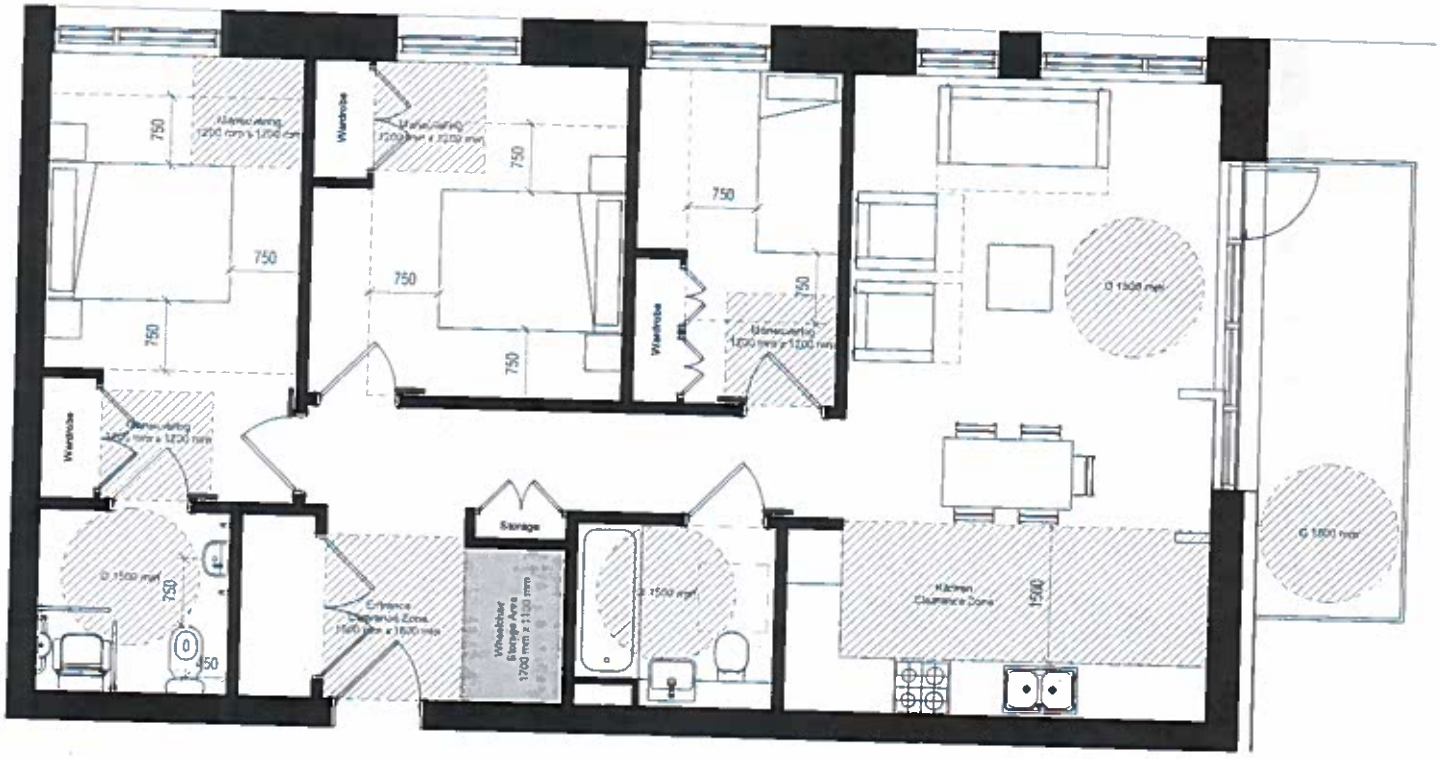
Flat Type	Size	Occupancy	Area
H (Adaptable)	2 Bed	4p	70m²



ADAPTABLE UNITS M4 (3) COMPLIANCE

3 BEDROOM APARTMENT

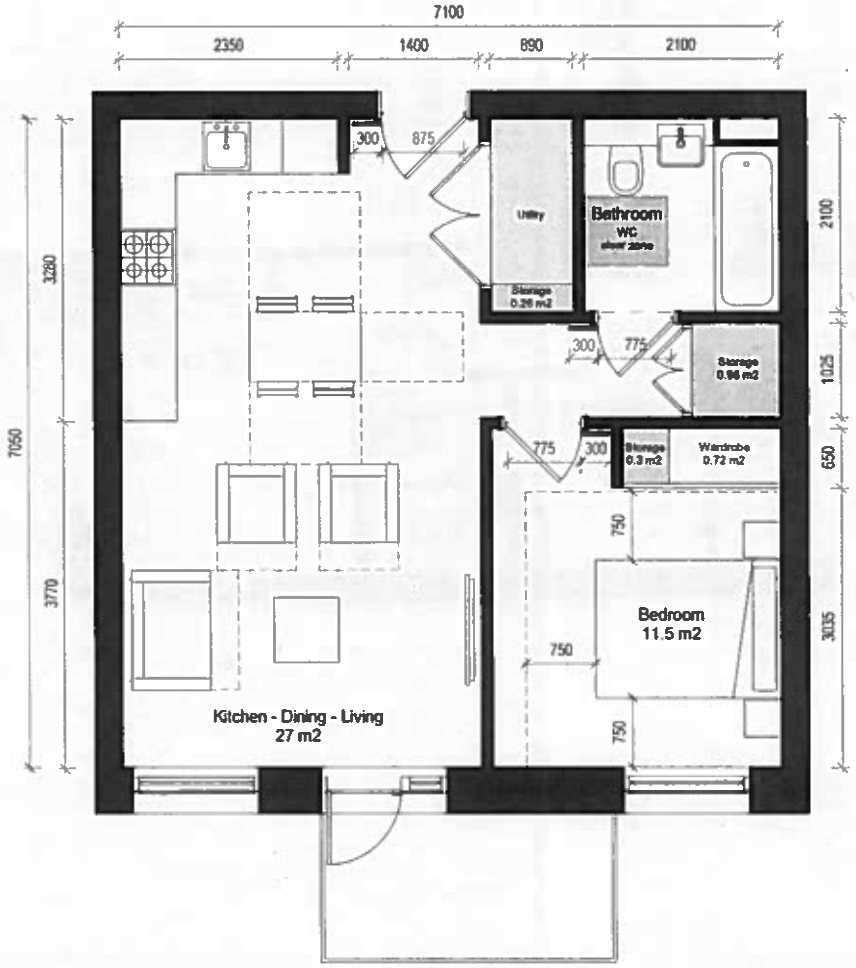
Flat Type	Size	Occupancy	Area
F Adaptable)	3 Bed	5p	79m²



M4 (2) & DRAFT LONDON PLAN COMPLIANCE

1 BEDROOM APARTMENT

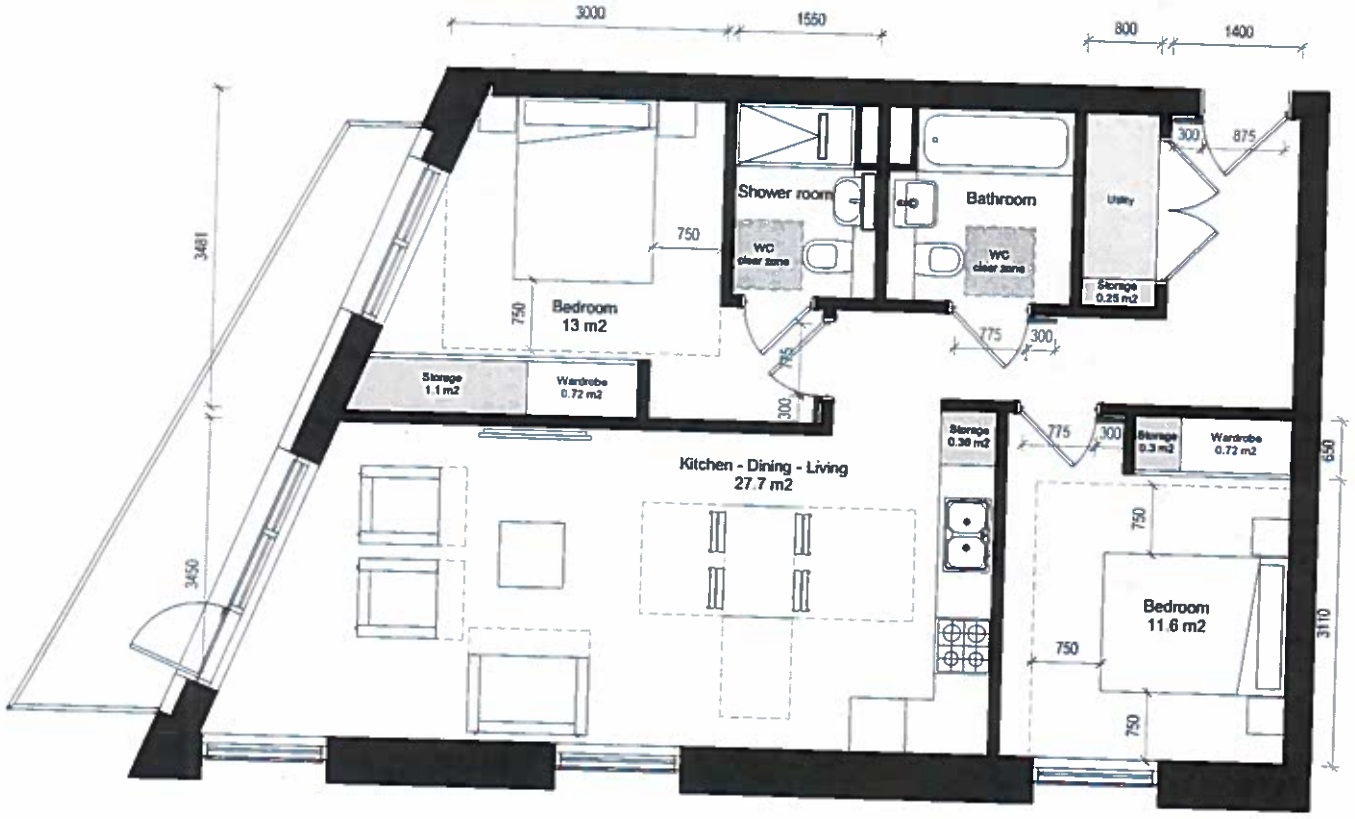
Flat Type	Size	Occupancy	Area	Storage
1B	1 Bed	2p	50 m²	1.5 m²



M4 (2) & DRAFT LONDON PLAN COMPLIANCE

2 BEDROOM APARTMENT

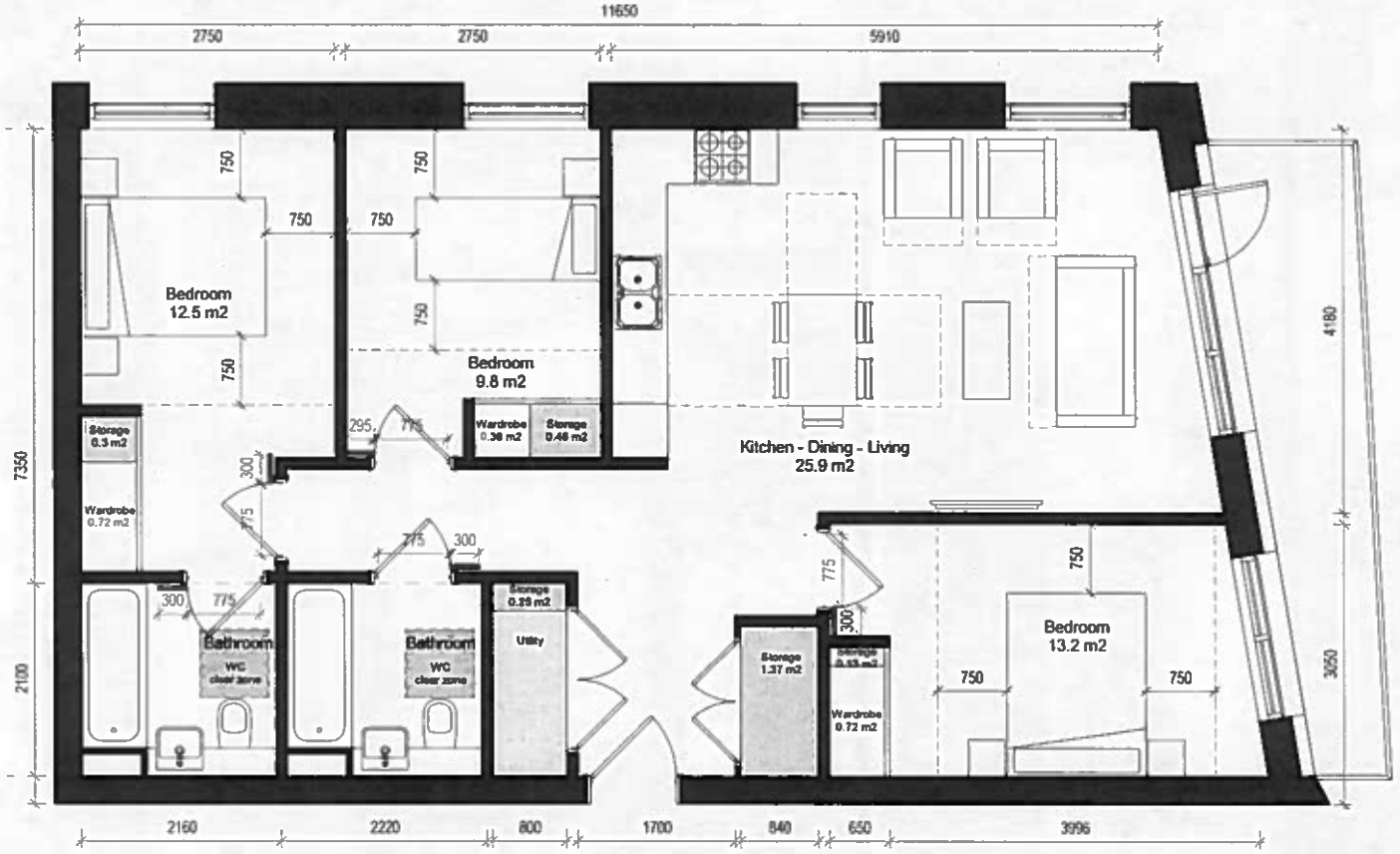
Flat Type	Size	Occupancy	Area	Storage
19	2 Bed	4p	72 m²	2.0 m²



M4 (2) & DRAFT LONDON PLAN COMPLIANCE

3 BEDROOM APARTMENT

Flat Type	Size	Occupancy	Area	Storage
2	3 Bed	5p	86 m²	2.5 m²



View of the proposed A3 space at the base of Building C

10 MATERIALITY

INTRODUCTION

The nature of the design proposal, with a leisure centre integrated into and adjoining residential buildings, requires an approach to materials that ensures the two different programs sit comfortably whilst differentiating their functions and identities.

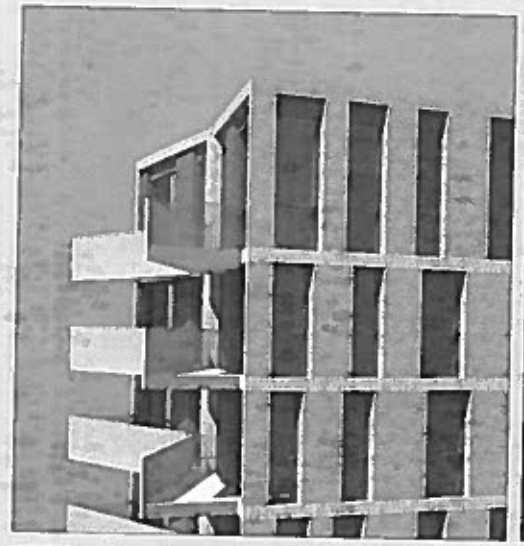
The primary material proposed for the residential envelope is brick, with five different types and colours defining and articulating the proposed buildings.

The leisure centre, by contrast, will have a cladding of a principally light and translucent appearance, with a limited quantity of brick used at ground level for robustness. Full use is made of daylight as an energy reduction measure. Both of the proposed pools will feature glazing at water level to allow swimmers to have views of the surrounding landscape.

The main swimming pool roof, of steel structure and lightweight construction, also incorporates a number of roof lights to provide additional daylight to the pool hall; this further aids sustainability.

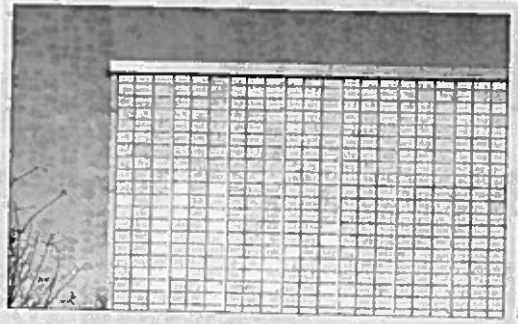
The "working parts" of the proposal, with the energy centre, pool plant and large air handling units, have extensively louvred façades, mainly screened by the existing small wooded area.

The main entrance to the leisure centre is treated as a corner "lantern", with double height curtain walling with additional vertical external sun shades to minimize any solar gain/glare that may occur with low angle sun.

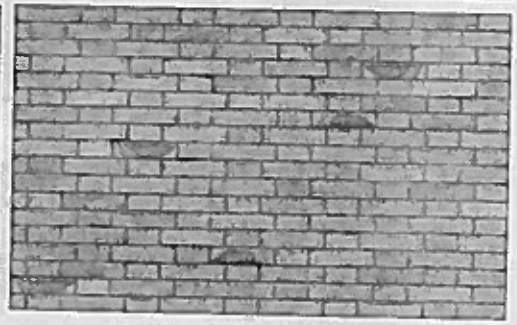


Top: facade study model showing the proposed use of brick on the residential buildings: a proportionate vertical pattern of fenestration is used in combination with precise brick detailing, including 'soldier' courses to storey divisions (Buildings C-F).

Above: The brick colour proposed for Building A, the east-most building.

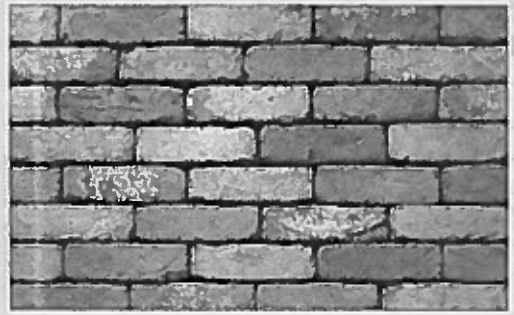


Above: An example of translucent cladding as proposed for the leisure centre.

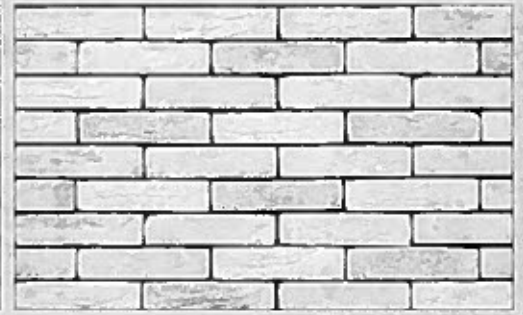


Above: The brick colour proposed for Building B: both residential buildings adjoining the leisure centre have relatively muted brick tones, to allow the leisure building itself to take prominence.

Below: The material palette as a whole is conceived as having 'park-land colours', with a spread of tones that will harmonise with the setting year-round.

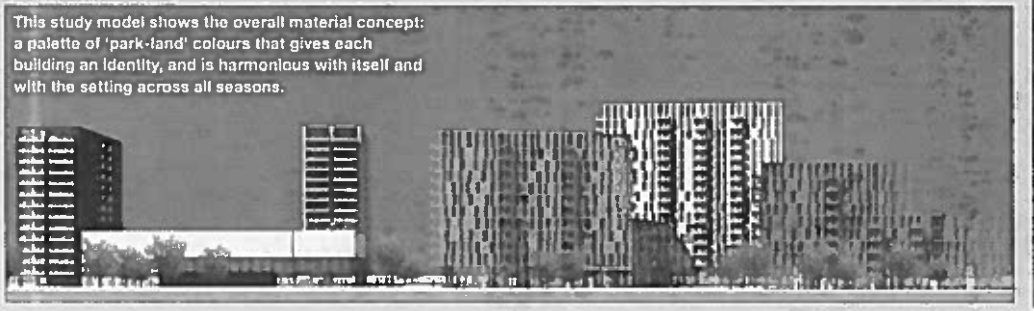


Above: The bright brick colour proposed for Building C, which is marked out as being central within the development, containing as it does both the main residential entrance and the residents' hub.

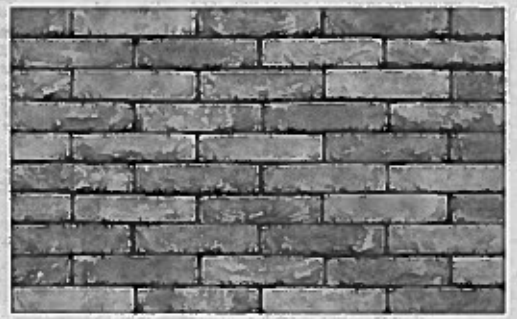


Above: The brick colour proposed for Building D: this light tone contrasts with its neighbours, articulating the overall massing.

Right: The view looking east along Ruislip Road East. The proposed material palette harmonises with itself and with the context, and provides an attractive variation in appearance, reinforced by subtle angle and height variations in the building forms.



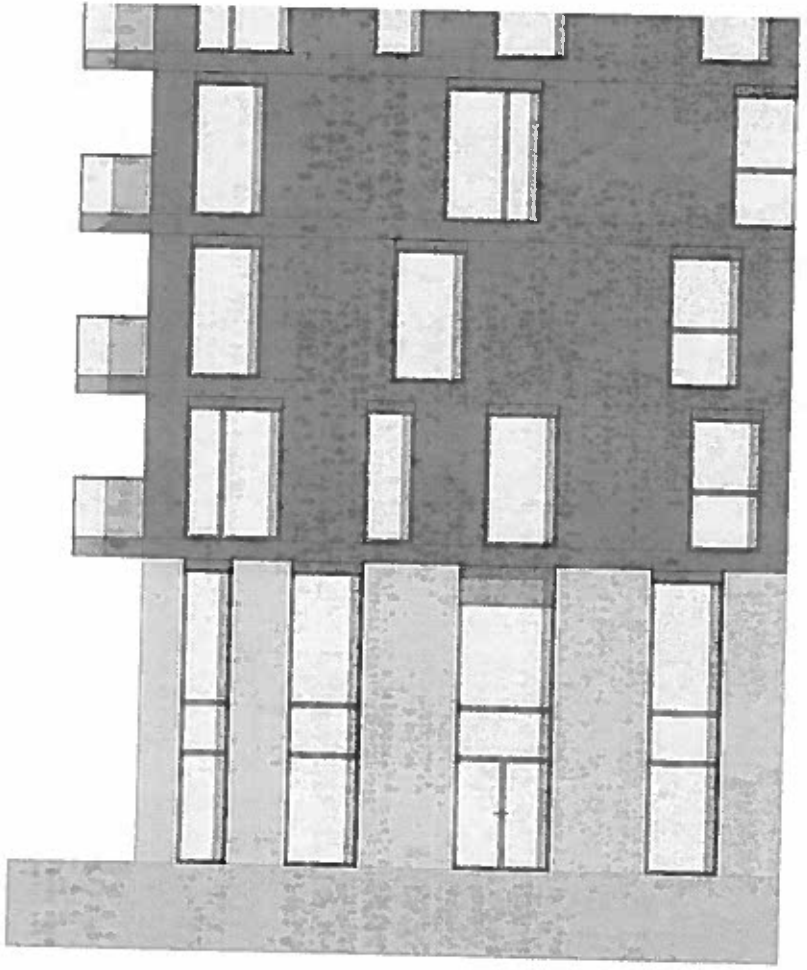
This study model shows the overall material concept: a palette of 'park-land' colours that gives each building an identity, and is harmonious with itself and with the setting across all seasons.

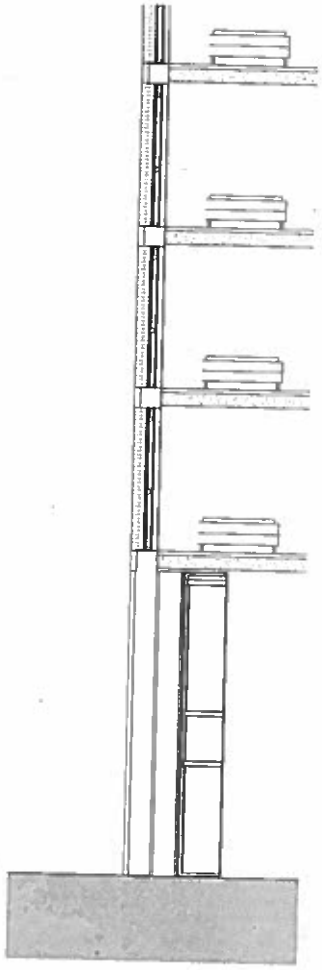


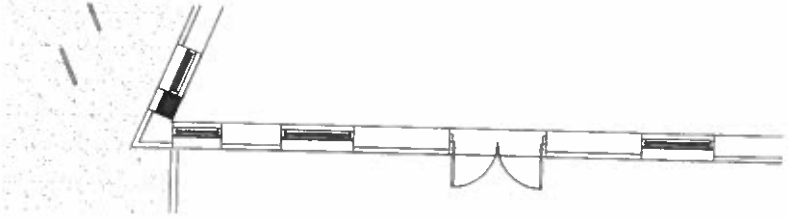
Below: The brick colour proposed for Buildings E-F, adjacent to Peal Gardens, which itself uses a complementary orange-brown brick.

Above: The River Brent near the application site.

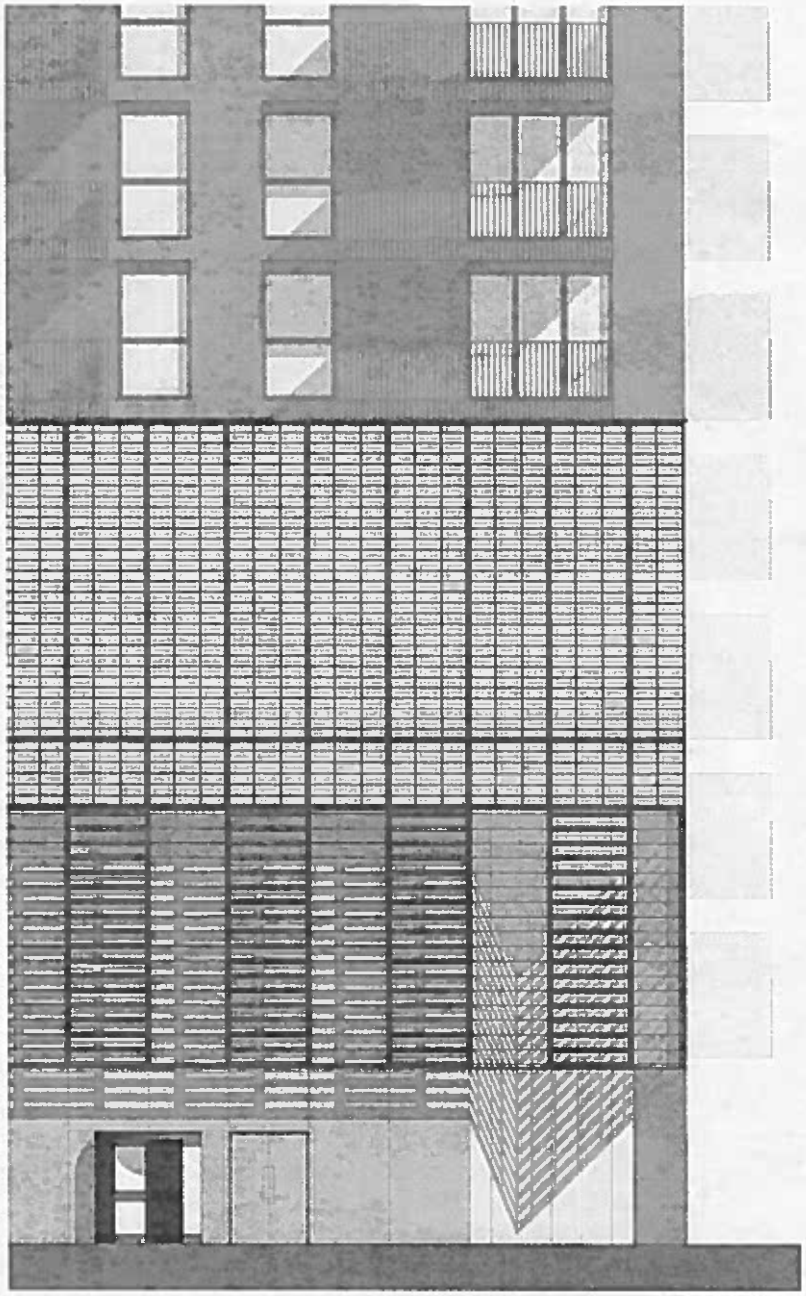
BUILDING C TYPICAL BAY







LEISURE CENTRE & BUILDING B TYPICAL BAY



11 ACCESS AND SERVICING

PEDESTRIAN & CYCLE ACCESS

Ruislip Road East has recently been upgraded with a segregated cycle path on its northern edge. The proposed development allows residents and leisure centre users convenient step-free access to this new safer cycle infrastructure, to the benefit of active travel. Access to cycle parking is direct, with resident cycle parking entrances being planned adjacent to (or near to) residential lobbies, or at basement level, which can be reached via a (shared) ramp. Surface cycle parking is provided adjacent to the leisure centre entrance, with additional spaces at basement level.

Step-free pedestrian access is provided to all resident and leisure centre entrances (in contrast to the existing leisure centre entrance, which is reached via a long flight of steps). The same network of at grade paths extends across the planned new park to the north, encouraging, *inter alia*, walking journeys to Perivale station.

KEY:

- Pedestrian & Cycle Route
- Pedestrian Route
- Secondary Pedestrian Route
- Cycle Route to Basement
- Leisure Centre Public Entrance
- Resident Entrance
- Access to Cycle Parking

CAR, COACH & DELIVERY ACCESS

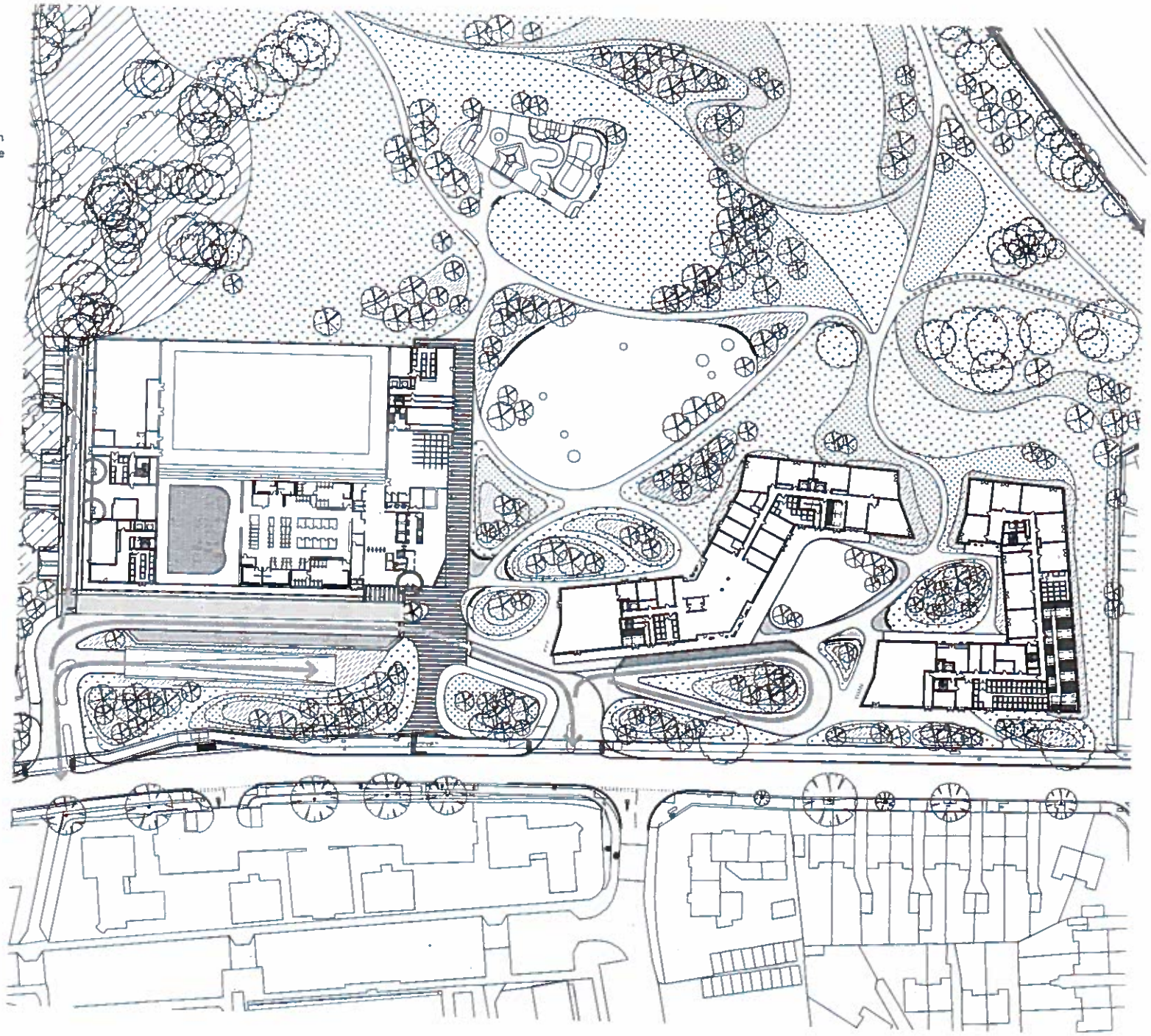
Motor vehicle movement is kept to the south edge of the site (with the exception of limited surface parking and delivery access to the west of the proposed leisure centre).

The large majority of the proposed parking is underground, with access to the proposed basement being via a ramp at the south-west corner of the site, close to Ruislip Road East.

Coach parking for the leisure centre is provided to the south of the leisure centre, and near to the existing bus stop (to help user orientation); space for four coaches is allowed for.

A visitor (*i.e.* taxi) and delivery drop-off is provided to the south of proposed residential Building C.

All proposed vehicle routes on site will be treated as shared surfaces, with speeds being carefully limited; it is anticipated that cycle users will also make use of the proposed motor vehicle routes for convenience. Cycle users are also able to make use of the planned basement ramp.



KEY:

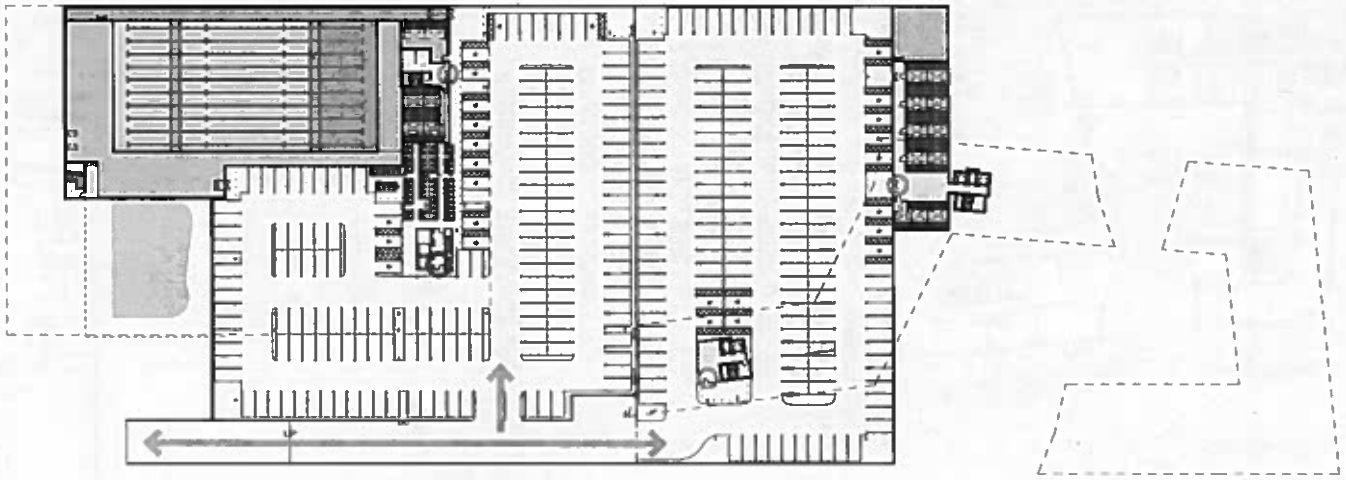
- Vehicle Route (including Cycles)
- Coach Parking
- Leisure Centre Visitor Drop-off
- Residential Drop-off
- Leisure Centre Public Entrance
- Leisure Centre Deliveries

BASEMENT PROVISION

The proposed basement is multi-functional. The principal basement programme is parking, with the existing surface leisure centre parking being re-provided at this level, releasing the ground plane for enabling development and an improved landscape scheme.

The re-provided leisure centre parking is augmented with a limited quantum of parking for residents; apart from the shared ramp and access lane, this additional resident parking area is operationally separate. Both parking areas feature an area of accessible parking, arranged to be close to lift cores serving the accommodation above.

It is also proposed to use the basement for a proportion of the development's cycle parking, with cycle users being able to access the basement via the ramp if they choose.



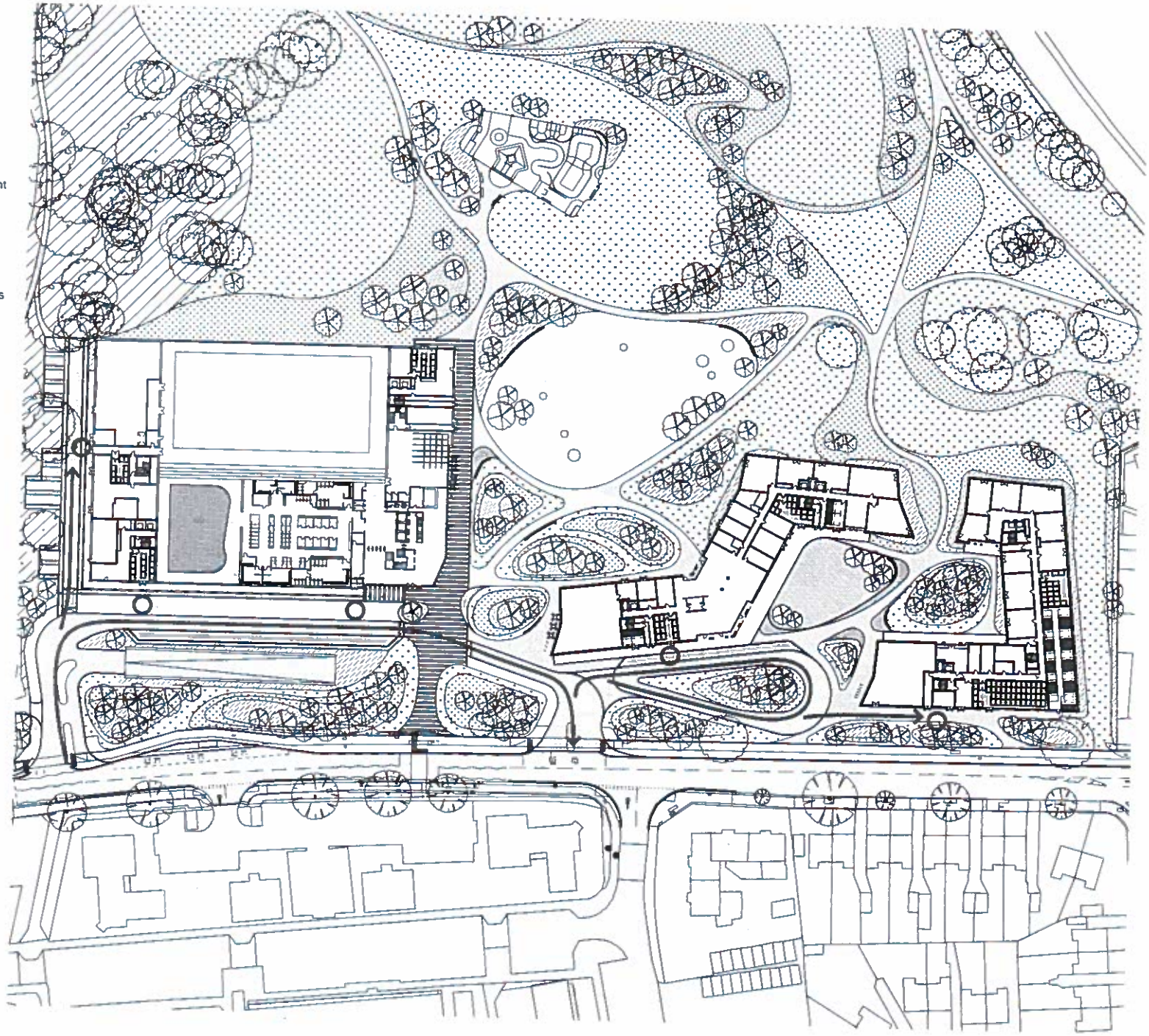
KEY:

- Vehicle Route (Including Cycles)
- Cycle Parking
- Leisure Centre Public Entrance
- Resident Entrance

REFUSE COLLECTION STRATEGY

Refuse collection vehicles follow the same restricted at grade route as other vehicles, with the addition of a limited vehicle reversing extension to the east of the site, south of proposed residential Building E. There are no ground level dwellings adjacent to this route extension.

Some of the proposed refuse stores are located adjacent to the collection vehicle route. Where stores are located deeper into the site (to minimise walking distances to stores for residents carrying refuse), building management will relocate full bins to a store adjacent to the route prior to collection day, and extra capacity has been allocated to the store in Building E to facilitate this.

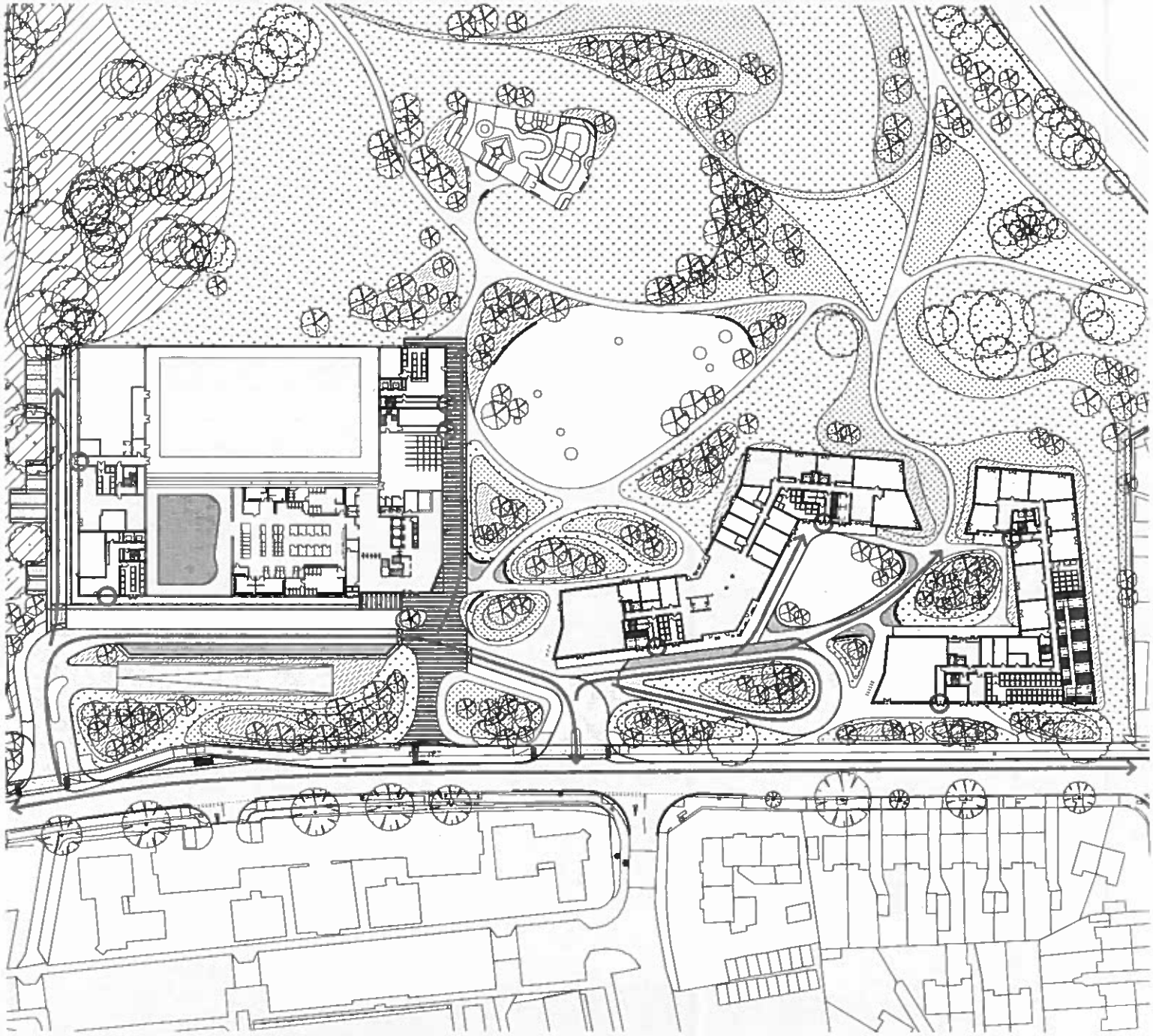


KEY:

- Refuse Vehicle Route
- Refuse Store
- Refuse Collection Point

FIRE SERVICE ACCESS

The fire service access strategy makes use of the vehicular routes provided for routine access, but adds three routes that are normally reserved for pedestrian access (or cyclists on foot). The dry riser to Building E is accessed directly from Ruislip Road East.



KEY:

Fire Service Tender Route

Dry Riser Location

MAINTENANCE & CLEANING

Where windows can be accessed from the ground, podium or terraces and balconies they will be cleaned from those areas. Windows outside of the reach of these areas will be cleaned via trained operatives abseiling from the roof of each building. Glazing replacement will generally be from the inside of the building with suitable access equipment used to position the operative to assist from the outside.

Cleaning contractors will be required to organise and agree all works, including their method statements and risk assessments with the onsite facilities management prior to any works commencing.

Fall Restraint System

In areas where no edge protection is provided by the structure a fall restraint system will be required. Fall restraint lines are to be provided from the point of access and then generally 2.5 metres from the roof edge to ensure that the operative, harnessed to the line via a lanyard, is unable to reach the edge of the building with sufficient slack to allow a fall. Abseiling access will be covered by an integral restraint system within the glazed screen providing safe access to the cleaning system. Additional lines can be positioned to access specific areas as required. The system consists of brackets that are adapted to suit both the roof type and the work need. These are either stand alone anchor points or cable attachment points that accept a shuttle – enabling the operative to move safely along the roof line. The cable is securely attached by swaged end terminals. A key feature is a shock absorbing unit fitted on both ends of a line as well as the inherent shock absorbing capabilities of the bracket, to protect both worker and the roof in the event of a fall. Similar systems are provided by Latchways and XS Platforms providing an energy absorbing post system which imparts minimal loadings into the building structure in the event of a fall.

12 ADDITIONAL CONSULTANT STATEMENTS

STRUCTURAL

parmarbrook

Parmarbrook Ltd have been appointed to provide structural and civil engineering design services for the Gurnell Leisure Centre project in The London Borough of Ealing. A multidisciplinary design team have been appointed by the client to prepare a planning application which can be subsequently developed further through the detail design, tender and construction phases. A full list of consultant appointments can be requested through the planning consultant, Barton Wilmore.

Over the course of the planning design stage, the structural design has been developed to incorporate various criteria to satisfy the statutory design requirements as well as providing information that can be used as part of the cost plan for the development.

The planning scheme comprises the demolition of existing Gurnell Leisure Centre and the redevelopment of a number of buildings as well as the construction of a new Leisure centre. The mixed-use development will include Residential, Commercial, Retail and other Community/Leisure uses. Underground basement car-parking will also be provided.

The proposed building structures will be designed to current Eurocode standards, Building Regulation requirements and industry best practise. It is not envisaged that there will be any derogations to these standards and codes, nor any unique or unusual design and/or construction methods that would first need discussion and agreement with the local building control authorities.

The preferred superstructure solution for all the buildings is based on utilising reinforced concrete flat slab frames, a form of construction that is common for this type of mixed-use development. It provides an economic and efficient structure, allows ease of services and architectural coordination, alongside good acoustic and vibration separation between floor plates.

Typical floor slabs are 250mm thick for all blocks supporting residential loadings. Where there is a change in use between residential and leisure, transfer structures have been incorporated at specific levels in order to accommodate the change in structural grid. There are areas where deeper slab requirements will be required for enhanced loading requirements. This will generally be in areas where there is significant build up from landscaping proposals, accessed terraced areas and other areas required to support plant.

The in-situ reinforced concrete flat slab frame provides uninterrupted slab soffits, which significantly simplify MEP services arrangements and coordination. The detail design stage will enable further co-ordination between Architecture, MEP and Structures.

The structure has been designed to accommodate loads at each slab level to support a hand-set brick façade. Further development and co-ordination will be undertaken in the next design phase with the architect, cladding consultant and wider design team.

The roof over the main 50m swimming pool will be constructed in structural steelwork using long span trusses and a lightweight insulated proprietary decked system.

Columns will be sized to achieve the requisite grade of fire resistance period as part of an overall fire engineered solution, in accordance with Eurocodes. Reference should be drawn from the fire strategy report for a more detailed explanation.

In general, the column grid strategy is consistent through all buildings. Perimeter columns are located within the external wall construction whilst a double line of internal columns are located on each side of the central circulation corridor. Columns are generally located within internal wall zones, such that slab spans have been arranged to provide an efficient slab thickness that minimises the overall build-up whilst providing column setting-out that does not interfere with window modules.

Due to the overall height of some of the buildings the internal columns will generate high internal column loads and as such services distribution via the corridors will need to be further co-ordinated and agreed. The slab perimeters will be designed to accommodate the loads from storey height façade, and roof slabs designed to accommodate required weathering finishes, amenity space, landscaped areas and photovoltaics where required.

Lateral building stability is provided through the reinforced concrete stair/lift cores and shear walls. Horizontal forces, such as wind and notional loads, are transferred through the cladding to the reinforced concrete floors which transfer the forces through diaphragm action to the walls around the lift and stair cores and other additional shear walls. These walls act as vertical cantilevers, transferring the loads down to foundations at both ground & basement levels and will be coordinated with both the architectural layouts and M&E strategy.

The building structures will be designed and detailed to meet the provisions of sections A3 of the Building Regulations by tying the structure together and identifying 'key elements' which require special design considerations.

From recommendations provided in the geotechnical report and due to the high building loads, particularly from the taller buildings, the proposed foundations are to be piled. It is envisaged CFA or bored piles could be used with sizes ranging between 750mm to 900mm in diameter, however this is subject to more detailed design input from piling specialists. Continuous fight auger (CFA) piles are commonly used in London Clay where the groundwater table is high. This is because they have the advantage of not needing temporary casings or support fluid during construction. They are also considerably quicker to build than conventional rotary bored piles resulting in a more cost-effective solution.

The basement slab has been designed as suspended. This is due to the high plasticity index of the London Clay. Anti-heave material such as 'Cellcore' or similar approved will be provided beneath the slab and pile caps to relieve the overburden pressure. It is envisaged the thickness of the Cellcore will be 225mm.

The basement slab will be designed for a hydrostatic water pressure of 1 m below ground floor level. A waterproof admixture can be added to the concrete mix such as 'Caltite' or similar approved together with a waterproof membrane to provide water tightness to the basement. The final 'waterproofing strategy' will be provided in the subsequent design stage led by the Architect.

The Lower Ground floor perimeter walls forming the basement box will comprise of reinforced concrete retaining walls founded on bored or CFA piles and will be designed as propped during the construction phase.

Where possible the perimeter walls will be constructed using open-cut excavation. This will be subject to the construction programme and site constraints. Where this is not possible it is envisaged sheet piling will be required to construct the lower ground perimeter walls, pile caps and basement slab floor. The sheet piling will act as temporary support. Localised pumping of groundwater within the excavation may be required in order to construct the concrete box.

The design life for the buildings is will be 50 years i.e. structural class S4 in accordance with Eurocodes.

Concrete elements will be designed to the recommendations in BS EN 19921-1 Design of Concrete Structures and BS 8500 Concrete – Complementary British Standard to BS EN 206-1, and concrete mixes specified to suit the "normal" structural performance level. Where concrete elements are in contact with the ground, special considerations may have to be adopted depending on the recommendations of the Geotechnical Site Investigation.

Structural Steel elements will be designed to the recommendations in BS EN 1993 Design of Steel Structures and CIRIA Report 174 - New paint systems for the protection of constructional steelwork.

Parmarbrook have undertaken a detailed Flood Risk Assessment and Drainage Strategy and separate reference should be made to these documents which form part of this overall planning application.

In order to deliver an environmentally responsible development, an exemplar approach is being proposed based on low energy design principles. In summary, this approach involves energy demand minimisation through effective building form and orientation, good envelope design and proficient use of services before considering the use of combined heat and power (CHP)-led district heating and low-zero carbon (LZC) technologies to de-carbonise the energy supply – in line with the Greater London Authority (GLA) Energy Hierarchy.

The buildings' envelopes will be designed to ensure that the fabric and form of the development encompasses low energy sustainability principles. The general construction design standards to be adopted will far surpass the requirements of the current (2013 Edition) Part L Building Regulations which stipulate an improvement on the CO2 emissions of an aggregated 6% against 2010 standards for residential elements and an aggregated 9% against 2010 standards for non-domestic elements.

High levels of natural daylight will be provided, wherever possible, through effective window design. The glazing specification for the new development will be optimised to ensure that the glazed elements provide excellent thermal performance combined with optimum solar reflectance to minimise summer solar heat gains along with high daylight transmittance factors to maximise daylight factors. Encouraging the correct quality and quantity of daylight to penetrate the building is key to reducing the amount of light required from artificial sources and hence energy requirements.

It is imperative that the lighting design philosophy provides the correct quality of lighting with minimum energy input and hence reduce internal heat gains. The latest low energy lighting technology will be employed throughout, including light emitting diodes (LED's), where appropriate. External lighting will be designed with consideration to security requirements and minimising nuisance glare and light pollution to the surrounding area.

The design intention is to install site-wide district heating infrastructure connected to an energy centre featuring a gas-fired CHP engine, low nitrogen oxide (NOx) boilers and a thermal buffer store. In accordance with GLA guidance at this stage, communal gas boilers have been assumed with an efficiency of 89.5% supplying the residential elements and 91.0% supplying the non-domestic elements. It is proposed that hot water be supplied to each dwelling via a Heat Interface Unit (HIU) and to the leisure centre via plate heat exchanger(s).

The dwellings will be ventilated via a 'mixed-mode' approach. Mechanical Ventilation Heat Recovery (MVHR) will be used during winter months to minimise heat losses and ensure good indoor air quality. It is proposed to utilise an MVHR system with a minimum heat exchange efficiency of 91%.

Natural ventilation, via means of openable windows, will also be possible where conditions allow for use outside of the heating season and for enhanced summer ventilation to prevent the risk of overheating.

The leisure centre will be mechanically ventilated with an array of air-handling units throughout. Peak-lop cooling and full comfort cooling via chillers will be provided, where appropriate.

The provision of an effective control and metering philosophy is fundamental to the efficient operation of the leisure centre's environmental services. The following provides an overview of the plant efficiency and control measures that are proposed:

- Low temperature flow and return hot water heating to maximise heat generating efficiency and minimise distribution losses.
- Zoning of mechanical ventilation systems.
- Modular open architecture controls systems and associated network.
- High efficiency low energy motors to be used to drive mechanical ventilation systems.
- Variable speed pumps and fans to be used to promote lower operating costs and help match energy usage with the operating profile and occupancy of the building.
- Sub-metering to be provided such that approximately 90% of the input energy from each utility service may be accounted for at end use. The Building Management System (BMS) will be interfaced to provide automatic monitoring and targeting of all sub-meters to promote energy management and deliver lower consumption.

Having reviewed the feasibility of installing a range of LZC technology solutions at the proposed development, the inclusion of 1140m² of roof mounted solar photovoltaic (PV) panels is deemed the most appropriate to de-carbonise the energy supply.

Plant replacement strategy

All major plant room areas including air handling units, tank rooms, generator rooms or similar have been located on the external elevations of their constituent buildings. Adequate external access shall be provided to allow the easy removal or replacement of plant.

All plant rooms shall have adequate vehicular access where required, especially in the case of substations.

Where plant is located on upper levels the plant can be replaced through external de-mountable louvres, specifically in the case of air handling units within the upper plant levels of the leisure centre.

Basement plant areas, mainly pool equipment shall be maintained and replaced via a hoist and chute provided leading from the ground floor to the basement.

TRANSPORT & WASTE MANAGEMENT

SYSTRA

The proposed development has been designed in accordance with national regional and local transport policy aiming to encourage the uptake of active travel through promotion of excellent walking and cycling facilities at the application site.

The site is located within a public transport accessibility level area of 2-3, with the development itself being wholly located within ptal 3 land which is classified as 'moderate' reflecting a range of public transport services within vicinity of the site. The local transport connectivity has been considered during design development of transport elements such as parking provision.

The existing vehicular accesses will be retained in their current locations as part of the development. The eastern access junction is two -way operation and will be the main point of entry. This access serves entry and exit from the basement car park serving both the residential and leisure centre land uses as well as for coach parking and drop off. The western access junction is two-way operation providing the entry and exit for residential servicing including refuse collection, drop off and deliveries as well as egress for coaches. Both the eastern and western access junctions include some widening to accommodate the required vehicle movements and in particular coaches.

All delivery and servicing activity will be accommodated on-site via the western access for the leisure centre (entry via western/ egress via eastern junction) and via the eastern access for residential land uses (access and egress via eastern junction). The internal roads have been designed to a sufficient width to enable these movements to occur.

Basement parking is provided for both the leisure centre and residential land uses. The basement will provide 335 parking spaces, of which 175 are for staff and visitors of the leisure centre and 160 are for residents. An additional 9 parking spaces are provided adjacent to building a at ground level.

In line with sport england policy 15 parking spaces for the disabled will be located in the leisure centre basement car park (8%). Additionally from the outset a total of 19 disabled parking spaces are provided from the outset, in line with the new draft london plan (2018) which requires disabled parking provision in line with 3% of the total residential unit numbers. Additionally, to accommodate changing needs in the future, there is a future adaption strategy to allow an additional 7% of dwellings to be provided with a designated disabled person's parking space in the future if the demand arises.

The landscaping has been designed to improve pedestrian connectivity between ruislip road to the leisure centre and residential entrances as well as the metropolitan open land (mol) to the north of the site. Paths will be created through the mol, guiding site users to their destination and providing an attractive route for members of the public wishing to access the mol to the north.

The proposed development promotes the uptake of cycling by providing 1,037 long stay cycle parking spaces in line with the draft new london plan (2018) policy, as well as 131 short stay spaces, for use by residents and leisure centre visitors / staff.

Based on TRICS data the proposed development is expected to generate 2,189 total person trips a day (including two-way trips), of which 436 will occur in the peak hours. Of those in the peak hours, 97 will be car trips, 170 will be via public transport, 110 by pedestrians and 3 by bicycle.

The Junctions 9 modelling undertaken for the two access points and the roundabout, to the east of the site, showed that the development will have a negligible impact on the highway network. The two existing accesses are underutilised and the roundabout, whilst operating close to capacity in the am peak, is a result of the exiting baseline traffic rather than the additional from the development. All models also show that any traffic generated as a result of the development will have a negligible effect on the local highway network, with all junctions operating within capacity.

In conclusion, the proposed development is acceptable in transport terms as it complies with planning policy, is located in a sustainable and well connected location, with the provision for active travel modes to promote sustainable travel to and from the application site.

NOISE & VIBRATION

The development site is exposed to modest noise levels due to road traffic and very low vibration levels from distant train lines. These noise and vibration levels have been quantified by surveys conducted at the site and all assessments have been completed against relevant national and local planning guidance and policy.

Vibration levels are very low with train lines over 150m away to the west. Worst case assessed levels, including both passenger and freight trains are within Ealing's own guidance contained within SPG10, and also within national guidance of BS7445. No specific mitigation is necessary to account for external vibration sources.

External noise levels are dominated by road traffic to the south. The proposed buildings are set back from the road, reducing the levels incident on the facades. For the proposed new residential accommodation internal noise levels have been assessed; glazing and ventilation design requirements have been set out.

Mechanical ventilation that includes heat recovery technology will be provided as well as acoustic double glazed windows to the residences to ensure suitable internal noise levels in line with BS8233 and Ealing SPG10 are provided for all future residents. Full design specifications have been provided in the acoustic assessment report.

Based upon the survey results, noise limits for future mechanical services plant (primarily from the leisure centre and energy centre) have been set. All mechanical services will be designed to ensure these noise limits are met at the proposed new residences as well as those existing in the community. All equipment installed will also have anti-vibration mounts to ensure no structure borne noise or vibration has a detrimental effect on any residences.

In terms of noise from the leisure centre and commercial sources potentially affecting existing and proposed new residences, the building envelope (i.e. façade, glazing and roof) have been designed with sufficient sound insulation to avoid such disturbance.

Internally, where party walls or floor are located between commercial (including leisure) uses and residential accommodation, the internal structures have been designed to protect the residences from both noise and vibration. This is based upon solid concrete floors with acoustic ceilings beneath (to an appropriate specification) where necessary. To the gym and studio areas proposed, impact resistant flooring will also be installed to ensure structure borne noise or vibration does not affect the amenity of residents above.

With all the above noted acoustic aspects taken into consideration, noise and vibration will be suitably controlled to and from all areas of the site, leisure, commercial and residential, to within appropriate standards in line with national and local planning policy.

WIND ASSESSMENT

A wind micro-climate study was conducted on the Proposed Development to assess its effect on the local wind conditions in and around the Site. A 1:300 scale model of the Proposed Development was instrumented with Irwin Sensors (to measure the local wind speed) and tested with RWDI's boundary layer wind tunnel in Milton Keynes, UK.

The objective of this study was to determine the ground, balcony and terrace level wind environment within and around the Proposed Development for the following configurations:

- Configuration 1: Existing Site with Existing Surrounding Buildings;
- Configuration 2: Proposed Development with Existing Surrounding Buildings; and
- Configuration 3: Proposed Development with Existing Surrounding Buildings and Mitigation Measures.

The meteorological data for the Site indicate strong prevailing winds from the south-west throughout the year with secondary prevailing winds from the north-east, typically during the spring months.

The existing Site (Configuration 1) has relatively calm wind conditions during the windiest season, which is typical of a low-rise surrounding area. There were no instances of strong winds in this configuration.

With the Proposed Development in place (Configuration 2), wind speeds in and around the Site increase due to the larger massing. The Proposed Development due to its size creates down-washing and channelling effects. There are several thoroughfares, entrances, amenity spaces at both ground and elevated areas which would have conditions that are too windy for their intended use. Furthermore, there would be several areas (at ground and balcony levels) where strong winds would exceed the safety thresholds of 15m/s and/or 20m/s annually.

DAYLIGHT & SUNLIGHT

Point 2 Surveyors have assessed the scheme for the Gurnell Leisure Centre site in order to determine the levels of daylight within the Proposed Development as well as how it affects the daylight and sunlight amenity to the surrounding residential properties. An assessment of the Sun on Ground and transient overshadowing has also been undertaken for any relevant external amenity spaces.

The existing site is low-rise and in the most part, completely undeveloped. As a result, the majority of the existing levels of daylight and sunlight within the surrounding residential properties looking over the site are very high and more akin to what one would expect in a village environment as opposed to London. The site is therefore somewhat unique in that regard.

It is almost always the case that when replacing largely undeveloped sites such as this with higher density mixed use developments, that there will be daylight and sunlight reductions which exceed the national advice offered by the BRE Guidelines. A rigid application of the BRE Guidelines to this site would be at odds with the approach adopted by local authorities across London, and indeed Ealing. It would produce an unviable quantum of massing which would prevent the delivery of a new public leisure facility and much needed residential accommodation of varying occupational status.

Point 2 therefore believe it is appropriate to consider not only the relative change between the existing and proposed condition, but also examine the daylight amenity the neighbouring properties will retain with the development in place.

The results demonstrate that 57% of the windows assessed for VSC will adhere to the BRE Guidelines. In terms of NSL, 83% will adhere to the BRE criteria. Finally, 94% of rooms will adhere to the BRE Guidelines for sunlight.

The alterations in daylight mainly occur to windows that have unobstructed views across the site and so the breaches of guidance are not unusual in the circumstances. There are noticeable changes in light to the affected windows although generally speaking, the retained VSC's are above 20%. This is not an uncommon quantum of skylight for properties adjacent to development sites in London, albeit, it is below the nationally applicable recommendations set out in the BRE Guidelines.

The recently updated NPPF 2018, as well as the Mayor of London's Housing SPG recognise the need for local authorities to adopt a flexible approach when considering daylight and sunlight effects to neighbouring properties where they would otherwise inhibit making efficient use of a site.

Daylight and sunlight is one of many planning considerations and should be reviewed in conjunction with the benefits that the development provides. In Point 2's opinion, whilst there are breaches in guidance to many of the properties surrounding the site, they generally retain a good level of daylight which is commensurate with a London development site.

In terms of the Sun on Ground assessment of the gardens within the Peal Gardens properties, the impacts are compliant with the BRE Guidelines.

Point 2 have also undertaken an extensive assessment to determine the quality of light within the new residential accommodation as well as establish the availability of sunlight within the public amenity areas.

With regards to daylight, 94% of rooms meet their respective ADF standards which is considered to be an excellent rate of compliance for a scheme of this size. Where there are deviations from guidance, there are in most cases mitigating circumstances for them. They predominately relate to the trade-off between providing private external amenity space in the form of a balcony and the consequence this has on the availability of light within the room below. The balcony does of course provide additional amenity in the form of private external space, which is a commodity in London. It is important the technical analysis is viewed in this context.

With regards to the availability of sunlight within the public spaces, it is clear that the future occupants will have direct access to well sunlit external amenity spaces for large spells of the year and the results are complaint with guidance.

ECOLOGY

PRELIMINARY ECOLOGICAL APPRAISAL (PRA)

A Preliminary Ecological Appraisal comprising a Phase 1 habitat survey and protected species assessment was carried out by The Ecology Consultancy at Gurnell Leisure Centre, Ealing on 16 September 2016. The main findings of the survey are as follows:

- The site does not form part of any statutory nature conservation site.
- The site is part of the Brent River Park North: Hanger Lane to the Great Western Railway Site of Importance for Nature Conservation (SINC) of Borough level II importance. The site was, therefore, assessed as being of value up to the borough level. However, the construction footprint, which is evaluated as being of site-level importance, will not encroach into the SINC.
- The SINC on site, which also constitutes a Habitat of Principal Importance should be protected throughout construction using fencing to ensure it is not affected by the development. A sensitive lighting strategy should be produced to ensure that any lighting does not impact on the woodland, including bats that may use it for foraging and roosting. Further details are provided in Section 4.
- The site contains broadleaved woodland, dense scrub, scattered broadleaved trees, semi-improved grassland, species-rich and species-poor hedgerows, amenity grassland, buildings and hard-standing.
- Trees within the broadleaved woodland and the building have the potential to support roosting bats, although the woodland is not to be directly affected by the proposed development. Further surveys are recommended to assess the potential of the building on site to support roosting bats. Further detail is provided in Section 4.
- The broadleaved woodland, dense scrub and scattered broadleaved trees have high potential for breeding birds. As such, mitigation measures are required in order to comply with legislation with respect to nesting birds. Further detail is provided in Section 4.

PRELIMINARY ROOST ASSESSMENT (PRA) FOR BATS

A Preliminary Ecological Appraisal comprising a Phase 1 habitat survey and protected species assessment was carried out by The Ecology Consultancy at Gurnell Leisure Centre, Ealing on 16 September 2016. The main findings of the survey are as follows:

- The site does not form part of any statutory nature conservation site.
- The site is part of the Brent River Park North: Hanger Lane to the Great Western Railway Site of Importance for Nature Conservation (SINC) of Borough level II importance. The site was, therefore, assessed as being of value up to the borough level. However, the construction footprint, which is evaluated as being of site-level importance, will not encroach into the SINC.
- The SINC on site, which also constitutes a Habitat of Principal Importance should be protected throughout construction using fencing to ensure it is not affected by the development. A sensitive lighting strategy should be produced to ensure that any lighting does not impact on the woodland, including bats that may use it for foraging and roosting. Further details are provided in Section 4.
- The site contains broadleaved woodland, dense scrub, scattered broadleaved trees, semi-improved grassland, species-rich and species-poor hedgerows, amenity grassland, buildings and hard-standing.
- Trees within the broadleaved woodland and the building have the potential to support roosting bats, although the woodland is not to be directly affected by the proposed development. Further surveys are recommended to assess the potential of the building on site to support roosting bats. Further detail is provided in Section 4.
- The broadleaved woodland, dense scrub and scattered broadleaved trees have high potential for breeding birds. As such, mitigation measures are required in order to comply with legislation with respect to nesting birds. Further detail is provided in Section 4.

BAT ROOST ASSESSMENT

The Ecology Consultancy was commissioned to undertake a Bat Roost Assessment to determine the presence or likely absence of bats within two buildings at Gurnell Leisure Centre, Ealing. The main findings are as follows:

- The development proposals for the site, based on current plans provided by the client involve the demolition of the existing leisure centre building and reinstatement in the same part of the site along with two residential apartment blocks. In addition, five further residential blocks will be constructed in the south-east of the site in place of the existing car park.
- The site comprised two buildings as well broadleaved woodland, dense scrub, scattered broadleaved trees, semi-improved grassland, species-rich and species-poor hedgerows, amenity grassland, buildings and hard-standing.
- An inspection of the buildings scheduled for removal was carried out on 15 November 2016 by a licensed bat ecologist.
- Building 1 the main leisure complex, was assessed as being of moderate potential to support roosting bats. Building 2, a smaller plant building was assessed as being of low potential.
- As per best practice guidance, dusk emergence and dawn re-entry surveys were carried out on Building 1 and a dusk emergence survey was carried out on Building 2.
- • No bats were recorded emerging from either B1 or B2 during the dusk emergence surveys. No bats were recorded re-entering B1 during the re-entry survey.
- Two species of bat, common and soprano pipistrelle were recorded foraging and commuting on site.
- A previous arboricultural report of the site recommended a number of trees on site for removal or for pruning works. Further survey in the form of a preliminary ground level roost assessment is recommended to assess the potential of the trees to support roosting bats.

ARCHAEOLOGY & HERITAGE

The site at Gurnell Leisure Centre, London Borough of Ealing, London, WA13 0AL has been reviewed for its below ground archaeological potential.

In terms of relevant designated heritage assets, no World Heritage Sites, Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Historic Battlefields or Historic Wreck sites are known within the study site.

The closest listed buildings are recorded as follows:

- The Grade I listed 'Church of St Mary the Virgin' lies c.440m east of the study site;
- The Grade II listed 'Colleton Tomb, St Mary the Virgin Churchyard' lies c. 460m east of the study site;
- The Grade II listed 'Lych Gate to North West of Church of St Mary the Virgin' lies c. 450m northeast of the study site.

The study site is well screened by mature trees from all nearby built heritage assets. None of the listed buildings are visible from the study site and the study site does not contribute to the setting of any of the listed buildings. In this particular instance we do not suggest that a full heritage statement would be necessary to support any planning applications.

In terms of non-designated heritage assets, the study site is located within the Brent River Valley and Perivale Village Archaeological Priority Area. The study site is considered to have a low archaeological potential for all past periods of human activity, although evidence of land division, agricultural activity and the 19th/20th century sewage works might conceivably be present.

The proposed developable area is confined to 1.4218 ha; the majority of which lies within the footprint of the existing leisure centre in the southern part of the site and the existing car park in the southeastern part of the site.

In view of the study site's perceived archaeological potential, the development of the study site is unlikely to have a significant or widespread negative archaeological impact.

It is suggested that any further archaeological mitigation measures that may be required can be secured by an appropriately worded archaeological planning condition attached to any planning consent. Due to the study site's location within an Archaeological Pricrity Area the GLAAS archaeological officer may require further work to fully establish the study site's archaeological potential.

13 APPENDICES

MAYOR'S HOUSING SPG AUDIT

	SPG Standard	Draft London Plan 2017 Update to supersede SPG Standard	Compliance Level		
			Non/high risk	Partial/medium risk	Full/low risk
1	Development proposals should demonstrate: a. How the design responds to its physical context, including the character and legibility of the area and the local pattern of building, public space, landscape and topography. b. How the scheme relates to the identified character of the place, to the local vision and strategy or how bolder change is justified in relation to a coherent set of ideas for the place expressed in the local vision and strategy or agreed locally.	N/A			
2	Development proposals should demonstrate: a. How it complements the local network of public spaces, including how it integrates with existing streets and paths. b. How public spaces and pedestrian routes are designed to be overlooked and safe, and blank elevations onto the public realm at ground floor have been avoided. c. For larger developments, how any new public spaces including streets and paths are designed on the basis of an understanding of the role and character of these spaces within the local movement network, and how any new spaces relate to the local vision and strategy for the area.	N/A		(b) There are limited areas of blank GF elevations	
3	Development proposals should demonstrate that they comply with the LPAs' open space strategies, ensuring that an audit of surrounding open space is undertaken and that where appropriate, opportunities to help address a deficiency in provision by providing new public open spaces are taken forward in the design process.	N/A			
4	Where communal open space is provided, development proposals should demonstrate that the space: a. is overlooked by surrounding development; b. is accessible disabled people including people who require level access and wheelchair users; c. is designed to take advantage of direct sunlight; d. has suitable management arrangements in place.	N/A			
5	For developments with an estimated occupancy of ten children or more, development proposals should make appropriate play provision in accordance with the Mayor's Play and Informal Recreation SPG.	N/A			
6	Development proposals should demonstrate how the density of residential accommodation satisfies London Plan policy relating to public transport access levels and the accessibility of local amenities and services, and is appropriate to the location.	With the Density Matrix removed, density must now be assessed on a site by site basis with a view to current and future transport, infrastructure and growth objectives. The higher the density of a development, the greater the level of scrutiny that is required of its design. If density exceeds the figures below, a management plan must be submitted with any application. • PTAL 0-1: 110 u/ha • PTAL 2-3: 240 u/ha • PTAL 4-6: 405 u/ha			
7	Development proposals should demonstrate how the mix of dwelling types and sizes and the mix of tenures meet strategic and local need and are appropriate to the location.	N/A			
8	All main entrances to houses, ground floor flats and communal entrance lobbies should be visible, clearly identifiable, and directly accessible from the public realm.	N/A			
9	The distance from the accessible car parking space of standard 18 to the home or to the relevant block entrance or lift core should be kept to a minimum and should be preferably level or where level is not possible, gently sloping (1:60 – 1:20) on a suitable ground surface.	N/A			
10	Active frontages should be maximised and inactive frontages minimised on the ground floor of buildings facing publically accessible space, in order to provide natural surveillance and activity.	N/A			
11	90 per cent of new build housing should meet Building Reg requirement M4(2) 'accessible and adaptable dwellings' with the remaining 10 per cent meeting Building Regulation requirement M4(3) 'wheelchair user dwellings'.	N/A			
12	Each core should be accessible to generally no more than eight units on each floor.		Where dwelling corridors have been designed to include windows and additional stairs to assist with access and fire evacuation		
13	An access core serving 4 or more dwellings should provide an access control system with entry phones in all dwellings linked to a main front door with electronic lock release. Unless a 24 hour concierge is provided, additional security measures including audio-visual verification to the access control system should be provided where any of the following apply: • More than 25 dwellings are served by one core; or • The potential occupancy of the dwellings served by one core exceeds 100 bed spaces; or • More than 8 dwellings are provided per floor.	N/A			
14	Where dwellings are accessed via an internal corridor, the corridor should receive natural light and adequate ventilation where possible.	N/A			
15	All dwellings entered at the seventh floor (eighth storey) and above should be served by at least two lifts.	N/A			
16	It is desirable that every wheelchair user dwelling is served by more than one lift.	N/A			
17	The maximum parking standards for residential are below:  Adequate parking spaces for disabled people must be provided preferably on-site. 20 per cent of all spaces must be for electric vehicles with an additional 20 per cent passive provision for electric vehicles in the future.	Boroughs can no longer impose minimum parking standards. Maximum residential parking standards are below: • PTAL 5-6: Car-free • Inner London; ○ PTAL 4: Car-free ○ PTAL 3: Up to 0.25 spaces per unit ○ PTAL 2: Up to 0.5 spaces per unit ○ PTAL 0-1: Up to 0.75 spaces per unit • Outer London; ○ PTAL 4: Up to 0.5 spaces per unit ○ PTAL 3: Up to 0.75 spaces per unit ○ PTAL 2: Up to 1 space per unit ○ PTAL 0-1: Up to 1.5 spaces per unit 20% of all spaces should have active charging facilities, with passive provision for all remaining spaces. (LB Ealing is Outer London)			
18	Each designated wheelchair accessible dwelling should have a car parking space that complies with Part M4(3).	N/A			
19	Careful consideration should be given to the siting and organisation of car parking within an overall design for open space so that car parking does not negatively affect the use and appearance of open spaces.	N/A			
20	All developments should provide dedicated storage space for cycles at the following level: • 1 per studio and one bed dwelling • 2 per all other dwellings • In addition, 1 short stay cycle parking space should be provided per 40 units.	All developments should provide dedicated storage space for cycles at the following level: • 1 space per studio • 1.5 spaces per 1-bedroom unit • 2 spaces per all other dwellings In addition, 1 short stay cycle parking space should be provided per 40 units.			
21	Individual or communal cycle storage outside the home should be secure, sheltered and lit, with convenient access to the street. Where cycle storage is provided within the home, it should be in addition to the minimum GIA and minimum storage and circulation space requirements. Cycle storage identified in habitable rooms or on balconies will not be considered acceptable.	N/A			
22	Communal refuse and recycling containers, communal bin enclosures and refuse and recycling stores should be easily accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection. Refuse and recycling stores within buildings should be located to limit the nuisance caused by noise and smells and maintained to a high hygiene standard.	N/A			
23	Storage facilities for waste and recycling containers should be provided in accordance with local authority requirements and meeting at least British Standard 855906:2005 Code of Practice for waste management in Buildings.	N/A			
24	All new dwellings should meet the nationally described space standard.	All new dwellings must the following requirements: • A 1+ bed dwelling must have at least one double (or twin) bedroom at least 2.75m wide. Every other additional double (or twin) bedroom must be at least 2.55m wide. • A single bedspace room must have a floor area of at least 7.5sqm and be at least 2.15m wide. • A double bedspace room must have a floor area of at least 11.5sqm • Built in wardrobes count towards the bedroom floor area requirements but should not reduce the width below the above minimums.			
25	Dwelling plans should demonstrate that dwellings will accommodate the furniture, access and activity space requirements relating to the declared level of occupancy and the furniture schedule set out in Approved Document Part M.	N/A			
26	A minimum of 5sqm of private outdoor space should be provided for 1-2 person dwellings and an extra 1sqm should be provided for each additional occupant.	N/A			
27	The minimum depth and width for all balconies and other private external spaces should be 1500mm.	N/A			
28	Design proposals should demonstrate how habitable rooms within each dwelling are provided with an adequate level of privacy in relation to neighbouring property, the street and other public spaces.	N/A			

29	Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided.	Developments should normally avoid the provision of single aspect dwellings unless it is considered a more appropriate design solution and it can be demonstrated that all habitable rooms and kitchen will have adequate passive ventilation, daylight, privacy and avoid overheating. North facing or three bed single aspect units should not be permitted.			
30	The layout of adjacent dwellings and the location of lifts and circulation spaces should seek to limit the transmission of noise to sound sensitive rooms within dwellings.	N/A			
31	A minimum ceiling height of 2.5 metres for at least 75% of the gross internal area is strongly encouraged.	To address the impacts of the urban heat island effect, a minimum ceiling height of 2.5 metres for at least 75% of the gross internal area is required.			
32	All homes should provide for direct sunlight to at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight.	N/A		TBC	
th c3 3	Minimise increased exposure to existing poor air quality and make provision to address local problems of air quality (be at least 'air quality neutral' and not lead to further deterioration of existing poor air quality (such as areas designated as Air Quality Management Areas (AQMAs).	Developments of large scale redevelopment areas should propose methods of achieving an Air Quality Positive approach through the new development. All other developments should be at least Air Quality Neutral. Where it can be demonstrated that on-site provision is impractical or inappropriate, off-site measures to improve local air quality may be acceptable			
34	All homes should satisfy London Plan policy on sustainable design and construction and make the fullest contribution to the mitigation of and adaptation to climate change.	N/A			
35	Development proposals should be designed in accordance with the LP energy hierarchy, and should meet the following minimum targets for carbon emissions reduction as an improvement on 2013 Building Regulations • 2016 - 2036 - 35 per cent • 2016 - 2036 - Zero carbon	N/A			
36	Development proposals should demonstrate how the design of dwellings will avoid overheating without reliance on energy intensive mechanical cooling systems.	N/A			
37	New dwellings should be designed to ensure that a maximum of 105 litres of water is consumed per person per day in line with the optional requirement of Part G.	N/A			
38	Where development is permitted in an area at risk of flooding, it should incorporate flood resilient design in accordance with the NPPF and its associated technical Guidance whilst ensuring level access is maintained.	N/A			
39	New development should incorporate Sustainable Urban Drainage Systems and green roofs where practical with the aim of achieving a Greenfield run-off rate, increasing bio-diversity and improving water quality. Surface water run-off is to be managed as close to source as possible.	N/A			
40	The design and layout of new residential development should avoid areas of ecological value and seek to enhance the ecological capital of the area in accordance with CLA best practice guidance on biodiversity and nature conservation.	N/A			There would be an impact on existing trees but wider ecological enhancements would offset any harm
41	Developments should manage existing materials, specify sustainable materials that are robust and fit for purpose and secure the sustainable procurement of materials.	N/A			

workshop record

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Architecture Interiors
Masterplanning

job title: Gurnell Site
job number: 180237
date: 21 Nov 2018

purpose: SBD Strategy
present: PC Stuart Hutchinson (SH), Marinella Bononcini (MB), Peter Griffith (PG)

1. **General Comments**
   - 1.1. There are no particular concerns on the scheme. The new design is seen as an improvement in SBD design terms, when compared to last year's scheme.
   - 1.2. Location of ground floor apartment/s in the North West corner of building D is beneficial to the natural surveillance of the playground.

2. **Basement**
   - 2.1. Residential roller shutter to be LPS1175 with FOB on both sides.
   - 2.2. All doors leading from the carpark, plant, bike stores and lobbies to be large single leaf (stronger than double) PAS 24 doors.
   - 2.3. Lobbies and bike store doors to have a FOB.
   - 2.4. Fire escape doors to have either a flap over the break glass button setting off a 90 dB alarm, or interlinked into a fire / smoke alarm, in order to prevent casual access from CP to residential cores. To be discussed with the fire consultant and the client as the project progress.
   - 2.5. Carpark ceiling recommended to be painted white. Bright and appealing appearance of carpark very important for perceived safety from users.
   - 2.6. SBD would like to know of access control intentions to LC car park, and if it's pay to park.
   - 2.7. Lift controls to be programmed so access from basement only to ground floor.

3. **Leisure centre**
   - 3.1. All glass doors to be PAS 24 with P2A glazing.
   - 3.2. Curtain wall does not require additional specifications.
   - 3.3. Revolving door at the entrance should be PAS 24, however as there only is one certified solution currently on the market, it should be possible to identify different options further down the line of the project.
   - 3.4. Doors to plant areas and emergency exits doors to be PAS24 and key operated. No ironmongery from the outside

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   - 3.5. Rooflights on the leisure centre discussed post meeting, and PC SH confirmed they're not seen as posing any issues.

4. **Residential**
   - 4.1. All ground floor doors to lobbies areas to be LPS 1175 SR2 or LPS 2081. SH recommends LPS 2081 as they are all in areas with good natural surveillance, LPS 1175 SR2 more recommended for doors with little or no surveillance.
   - 4.2. All windows at ground floor to be PAS 24 with P1A glazing.
   - 4.3. Letter boxes anticipated to be within the entrance lobby to each block, may need to treat lobby as an airlock with second door fob controlled. All post boxes to be TS 009.
   - 4.4. Lifts to be "smart lifts" programmed to stop only at the level of the resident's apartment. Access control system integrated with lift system and building doors.
   - 4.5. All residents to have access to concierge / HUB
   - 4.6. Residents to be allowed only into their dedicated bike stores, and access to be managed with FOB control. Buildings A-B to access their own bike store and to share store under core of B; same for buildings C-D, which additionally to their stores will share the basement bike store under D's core; buildings E-F to share large bike store at GF of building E.
   - 4.7. Core stairs doors to have a FOB at ground floor, on the corridor side. On all other floors FOB required on the stair side, not on the corridor.
   - 4.8. All apartment doors to be PAS 24 (2016), dual certified for fire and security.
   - 4.9. Level 6 of CD to be accessible by all the residents, because of roof terrace location. No FOB requirements for accessing this level; push button to allow exit onto the terrace, but the combination of programmed smart lift and fobbed entrance from escape stairs to corridors, will ensure users do only exit the way they came in, and do not access any other part of the building/s.
   - 4.10. All fire escape doors to be PAS 24 (2016), and have a FOB on the outside.
   - 4.11. All bin stores to have a FOB on the inside, a PAS 24 with keys on the outside.
   - 4.12. CCTV system are not part of SBD, but are welcomed in lobbies and key areas (i.e. bike stores).
   - 4.13. All bike stores to have PAS 24 and FOB both sides of doors and to outside.
   - 4.14. No requirement for plant doors. Keys and no ironmongery from the outside.

5. **External Lightings**
   - 5.1. Lighting on the vehicular roads on site to comply with BS 5489 standards. Provide a good level of light to west elevation by parking area. Same standard applies to the road west of the LC.

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