One Museum Street

Pre-Redevelopment Audit
APPENDIX A

DSDHA GXN BC PARTNERS simten DEVELOPMENTS

One Museum Street - Selkirk House Retention & Redevelopment Options Review & WLC comparison

Prepared by DSDHA

Submitted on behalf of Lab Selkirk House Ltd

Selkirk House, 166 High Holborn and 1 Museum Street, 10-12 Museum Street, 35-41 New Oxford Street and 16A-18 West Central Street, London, WC1A 1JR

July 2023

Rev	Date	Purpose	Document Ref	Comments
-	February 2023	Issue for Planning	295AB_1MS-Selkirk House Retention Options Review & WLC Comparison	
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Contents

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Introduction

Purpose of the Report

The purpose of this report is to provide a holistic and robust analysis of the possible retention/redevelopment scenarios for the Selkirk House site (including NCP Car Park), part of the One Musuem Street planning application.

The report incorporates the context and existing building analysis, the options considered and assumptions underlining these, the associated assessments, - including carbon and other relevant sustainability considerations - and a summary of the planning submission.

This report has been prepared by DSDHA and Scotch Partners to support the planning application being submitted by the Applicant 'Lab Selkirk House Ltd', hereafter referred to as 'the Applicant'. This document should be read in conjunction with the Design and Access Statement, the Sustainability Statement, the Circular Economy Statement, and the Whole Life Carbon Assessment Report submitted as part of this application.

It is relevant to note that the planning application for One Museum Street incorporates a sensitive retention and refurbishment approach to much of the historic West Central Street block, that is outside of the scope of this report. More information on this can be found in the planning application Design and Access Statement section 7.0.

The report is split into seven sections as follows.

1.0 Development Context and Principles
This section sets the wider context underlying the development, focusing on the site itself, the planning context, the carbon and climate emergency context and the development brief.

2.0 Development Options & Assessment Criteria
This section introduces the development options considered and the evaluation criteria used to assess them.

3.0 Summary Analysis
A summary of the assessment of the various options is included here with detailed assessment included under section 5.0

4.0 Existing Condition Appraisal
This section includes the analysis of the existing building set out by its different components and summarises it's main challenges and known implications.

5.0 Development Options Sustainability Assessment
Detailed assessment of the options against each individual criteria as set out on section 2.0.
This sections also includes the carbon assessment comparing the carbon emissions for the redevelopment options considered and details on the scope and methodology used for the assessment.

6.0 Application Scheme Summary
This section summarises the submitted scheme proposals.

7.0 Key Findings & Conclusion

Introduction

Team

Simten
Development Manager

Simten is the development manager for the project with experience in delivering major ambitious projects across London. As Development Manager, Simten are bringing the proposals forward on behalf of BC Partners.

Simten is a London-based developer of progressive buildings, focused on the creation of healthy and sustainable places. We work with likeminded investors and asset owners to develop market leading, low carbon buildings. Simten is currently responsible for the development of c.1m sq ft NIA of progressive office and mixed-use developments in central London and across the United Kingdom.

DSDHA
Lead Architect

Founded by Deborah Saunt and David Hills in 1998, we're an architecture, urban design and research practice, with the persistent search for new forms of beauty through active design, research and agency at the heart of everything we do.

For us, architecture isn't about bricks and mortar and cities aren't about buildings, they're both about people.

By adopting a people-centred approach, we deploy our spatial intelligence across a broad range of scales – from infrastructure to intimacy - to produce spatial strategies and designs that tap into each project's latent potential to foster positive change, in balance with nature and the planet.

Our work in Camden spans the last decade and includes both built and ongoing architectural, urban and public realm projects – Corner House, Suffolk House and working with Camden Council on the West End Project and Central Somers Town Masterplan.

Our work has been recognised with 17 RIBA Awards, and has twice been nominated for the European Union Mies Van Der Rohe Prize for Contemporary Architecture, and shortlisted for the RIBA Stirling Prize. But more than that, it's been taken to the hearts of communities.

Scotch Partners
Sustainability and MEP Consultants

Scotch is a building design practice providing mechanical, electrical & public health engineering, sustainability, energy and planning (SEP) and acoustic consultancy services.

The culture of the practice is founded upon respect for people and trust. Since its inception, Scotch has organically grown being careful to employ people that believe in our shared values of quality, collaboration, and trust. With a team of c50 people we work on projects of all scales across the UK.

We are committed to creating a great and inclusive working environment where the best minds in the industry will flourish. This is supported by our high retention rate which was c.97% in 2022.

Edge, London Bridge

Central Somers Town masterplan, Camden

Benjamin Street, Farringdon

Executive Summary

Report purpose

This report has been prepared to provide a robust analysis and comparison of the holistic sustainability performance of various scenarios for bringing the Selkirk House site back in to productive use (including multi storey Car Park) as part of the wider One Museum Street scheme.

Five scenarios are compared, from a light-touch refurbishment to a complete new build. It incorporates analysis of the site context and brief, establishes potential development options and the assumptions underlining these. The options are assessed against relevant sustainability factors including carbon. The report has been prepared by DSDHA and Scotch Partners to support the planning application for One Museum Street.

The Planning application

A planning application for One Museum Street was submitted in June 2021 and updated in September 2022 following stakeholder feedback. Following the recent listing of 10-12 Museum Street and 35 and 37 New Oxford Street the application is being withdrawn, to be replaced by an amended Planning and Listed Building Consent application which responds to the Grade II status of these buildings. The 0.53HA site sits between Holborn and Tottenham Court Road stations. The application proposes to deliver c. 22,650sqm (GIA) of high quality office floorspace targeting ambitious sustainability credentials, new and replacement residential space including affordable family-sized homes, and town centre uses set in a landscaped, public masterplan.

Following detailed analysis of the options available, the proposal seeks to redevelop the vacant Selkirk House building (former Travelodge and NCP car park) to provide a significant uplift in space quantum and quality, and a sensitive part retention and refurbishment of the historic West Central Street block. The proposals (including West Central Street) are expected to accommodate around 1,700 jobs* and 100 residents across a site that's been largely derelict for several years. A Whole Life Carbon Assessment (WLCA) for the planning application has been undertaken and can be viewed as part of the planning submission.

Report scope

The report focuses on the Selkirk House element of the site as this provides the greatest scope for change. The One Museum Street Planning application also incorporates part of the historic West Central Street block. The application proposes a combination of sensitive retention and refurbishment and redevelopment of the existing buildings to deliver new homes and retail uses at ground floor. It is anticipated that the approach to this block would remain consistent whichever development option was taken forward for Selkirk house. The WLC and Energy statement submitted with the planning application incorporate this element, however for clarity it has been excluded from this analysis.

Existing Site Plan (Showing West End Project Improvements)

Executive Summary

Report structure and methodology

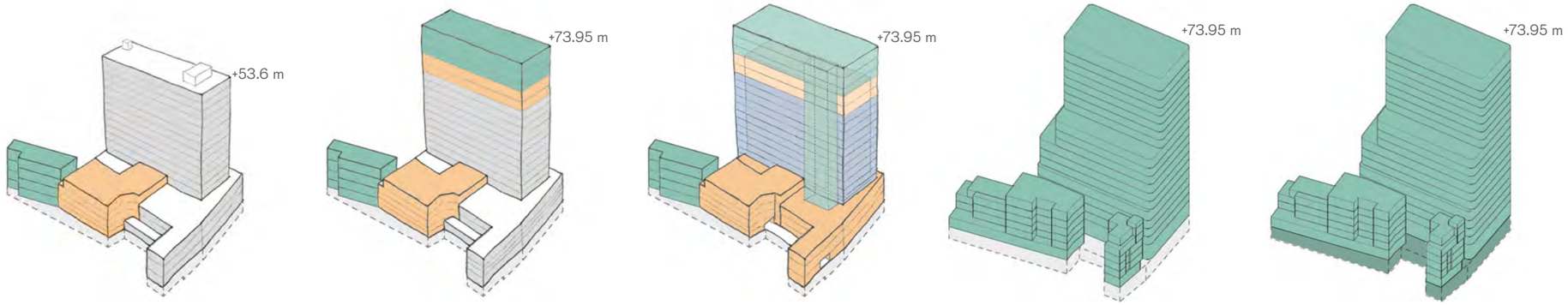
The report firstly sets the context for the development exploring the site and planning policy and regulatory drivers. It then sets out brief criteria and establishes the development principles that underpin the five development options established in chapter 2.0.

The assessment criteria are established, along with a summary of the quantitative and qualitative analysis and comparison of relative performance of the five options. A detailed assessment of the existing building condition and the detailed sustainability analysis, including a thorough technical analysis of the comparative carbon performance of each option. The report conclusions are summarised in this Executive Summary.

Development options explored

In order to undertake an assessment, five potential development scenarios where established, informed by the development context and principles established.

This report and analysis has been undertaken on the basis of a commercially-led development on the site of Selkirk House. This enables a consistent methodology for the Whole Life Carbon Assessments of the options in the report allowing direct comparison to the planning application. This also takes advantage of the greater level of design to provide a more robust modelling of factors such as materials and operational performance across all options. The comparison and issues affecting the existing building and their implications, as set out in chapter 4.0 & 5.0, would apply equally, though in slightly different degrees, to alternative uses of the building.



Option 1 Maximum retention and retrofit (no extension)	Option 2 Maximum retention and extension	Option 3 Partial Retention and extension	Option 4 Basement retention and new build (planning submission)	Option 5 New Basement and new build
Light touch refurb with retention of existing building structure e.g. cores and structures. Minimal intervention and capital costs	Refurb of existing building structure to level 13 with demolition of two top floors and replacement with 5-storey new build extension	Retain existing building structure to level 13 and extend these existing floor plates by 800mm; demolition of two top floors and replacement with 5-storey new build extension	New build above ground to replace existing Selkirk House and NCP car park to deliver office, class E and residential accommodation alongside public realm improvements	New build (including new basement levels) to replace existing Selkirk House and NCP car park to deliver office, class E and residential accommodation alongside public realm improvements

Retained & Retrofit Demolished & New-Build Extended floorplates New-Build New-Build (Basement)

Executive Summary

Key Findings

- When seeking to assess the sustainability of development options for a site such as Selkirk House, **a host of factors** including carbon emissions, economic and social contributions such as affordable housing delivery and contribution to the urban environment and experience **should be taken into account.**
  - Local and regional Planning policy establishes a framework for a holistic approach to sustainability.
  - Recent London Plan Planning guidance seeks that developers to fully consider retaining buildings before demolition is proposed.

- **The Selkirk House site sits in an area with high public transport connectivity (PTAL rating 6B) and in an area identified for growth in local planning policy.** A drive to optimise use of land in sustainable locations is reflected in both local, regional and national planning policy. This is in part due to the high carbon impact of travel to less well served locations.

- **New build development options offer more efficient land use through an uplift in both floorspace quantum and quality. These options are also able to more fully deliver public and operational benefits** such as public realm design improvements, affordable homes (both through improved viability and optimising the site plan) and direct and indirect economic uplift by accommodating a higher number of workers. The scale and design of the new-build options also enables them to be operationally energy efficient.

- **The existing Selkirk House building has design and structural limitations.** These include low floor to ceiling heights across the car park and Selkirk House that would result in 2.35m or lower head height, below minimum guidance for refurbishments

- **The existing structure's limited loading capacity** means that additional strengthening - with associated carbon from construction and materials - would be required to enable the building to meet modern standards.

- **The inflexible car park structure at floors 0-3 present a key challenge.** The existing car park is a continuously ramped structure with no level floors. In addition the floors have extremely low ceilings and deep floorplates, severely constraining the quality of space that could be provided and potential uses. The design studies undertaken conclude that the car park slabs would need to be demolished and the space rebuilt as the limitations of the existing space cannot be satisfactorily overcome. However, as the car park forms part of the supporting structure for the tower, substantial temporary works would be required to support the Selkirk House tower while redevelopment was carried out. These are associated with additional upfront carbon.

- **Option 1 has been assessed for completeness, however can only be safely occupied at less than half the density of a standard office due to limitations on the fire escapes.** This constraint severely limits the usefulness of the space and demand from occupiers, making it economically unsustainable.

- **Option 2 has been included as a retention baseline. It incorporates major modifications to elements including the cores to allow the safe occupation in line with current codes.** However, the investment and area loss required to incorporate the modifications required to bring the building's capacity up to a market standard occupational capacity would require considerable additional NIA to be delivered to enable a viable development.

- **Option 3 incorporates further modification through expanding the floorplates of the existing building.** This results in an uplift in area compared to options 1 and 2. However the result would produce a greater level of poor quality floorspace as it maintains the characteristics of the existing building. The deeper floorplates of option 3 combined with the low floor to ceiling height would result in poor daylight levels to the middle of floors and exacerbate the feeling of the low ceiling height for users.

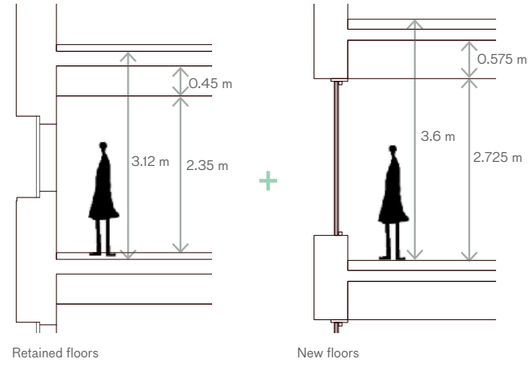
- **Options 4 and 5 represent the planning application scheme, with the addition of a new build basement for option 5**. These options deliver good floor to ceiling height of 2.8m with a centralised core and flexible, adaptable floorplans.

- Active ground floors are supported in planning policy and key to creating enjoyable, safe spaces. **Options 1-2 offer a limited ability to improve the current, poor street level experience, as they require retention of much of the inactive frontage.** Active frontage is increased in option 3, however option 4 (and 5) offers the most holistic ground floor improvement through enabling the creation of Vine Lane and providing retail spaces and entrances on all sides of the site.

- **Demolition of existing buildings and replacement with new buildings incurs a meaningful upfront embodied carbon impact when compared to options that retain existing structures.** This is to be expected given that the building structures typically represent a substantial proportion of the upfront embodied carbon associated with construction. This is reflected in the carbon assessment which finds that option 1 represents less upfront embodied carbon that option 4.

- **When taking in account the overall embodied carbon associated with a building across a standard 60 year lifespan, the gap between the level of emissions of retained and new build options per m2 of space narrows substantially.**

- When compared to industry benchmarks the overall embodied carbon emissions per m2 associated with **option 4 is 1,112 kgCO2e/m2, below the GLA benchmark of 1,400.**



Retained vs New Build Floor to Ceiling Height

Executive Summary

Key Findings

- **Retaining the existing structure significantly impacts the capacity, quality and flexibility of the finished building.** These factors contribute to additional embodied carbon that is not captured by RICS methodology. Poorer quality workspace is let on shorter leases to less stable tenants. **The resulting anticipated turnover frequency increases likelihood of regular major refurbishment to keep up with market demand and a greater frequency of tenant fit-out activity. This incurs additional embodied carbon across the buildings' lifetime.** The impact on a substantially shorter average tenancy options 1-3 compared with option 4 and 5 results in higher level of associated carbon per m2 over a 60 year period from the increased quantum of Cat-B fit-outs. Taking into account the more frequent refurbishment cycles anticipated with options 1-3 the difference in WLC emissions between retention and redevelopment narrow significantly, with options 4-5 performing marginally better.

- **When comparing operational energy, the options present broadly similar results with the new build options performing marginally better.** The opportunity to further improve this performance through detailed design and while in use is significantly great for options 4 and 5 due to the design flexibility offered by a new build and the economic viability of incorporating higher performing systems.

- **Options which increase the density and productivity of the site are associated with commensurate uplifts in public benefits.** In terms of affordable housing delivery, option 2 would be required to deliver around 1,928sqm GIA of additional residential floorspace of which 38% would be required to be affordable equating to 733sqm GIA. **Option 4 would be required to deliver over double the amount of affordable residential floorspace (1,787sqm GIA).**

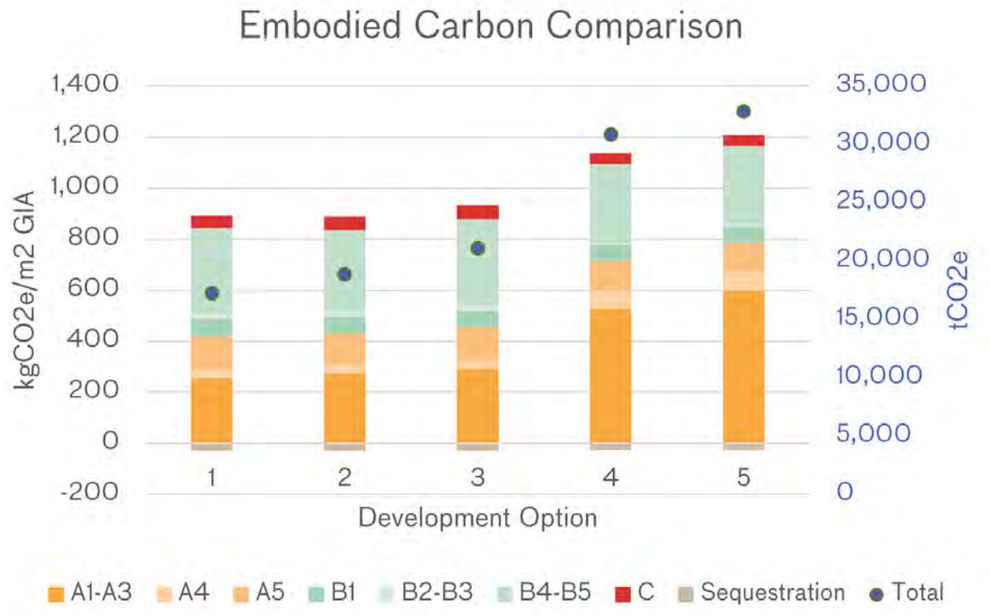
- With an occupation density ratio of 1:10 applied to options 2-5, **options 4 and 5 would accommodate over 500 more people (1,571)** compared to option 3 (1,037). This uplift in employment offers direct local benefits in terms of employment opportunities, as well as indirect benefits of local spend. Options 4 and 5 also generate less operational carbon per employee accommodated.

- **Options 2 and 3 perform reasonably well against some of the sustainability factors** and provide an uplift in area. However, these options to not address the existing limitations of the building. **They result in a compromised outcome that would generate additional embodied carbon through its life-span and are not able to secure the majority of the wider benefits of options 4 and 5.**

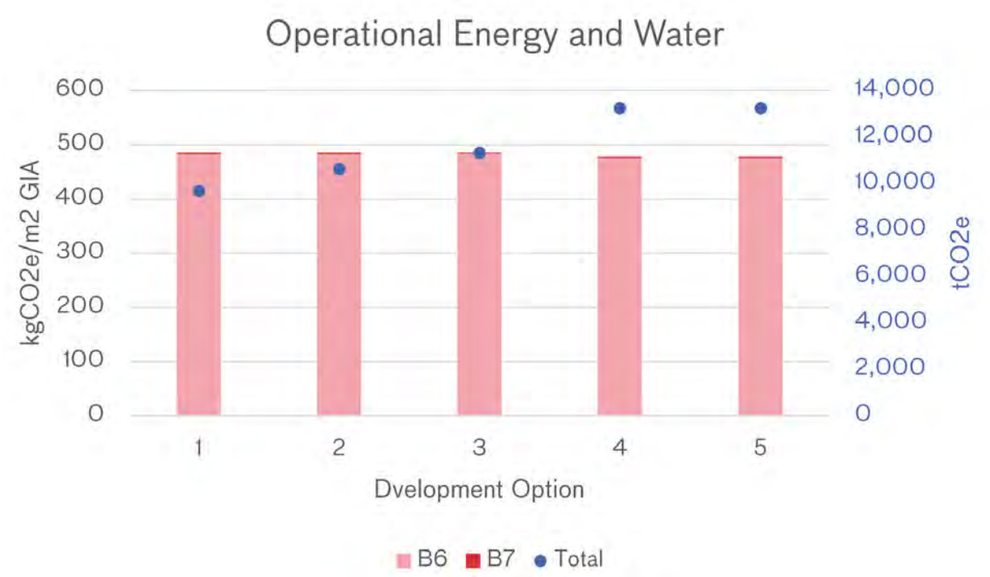
- **When taking holistic sustainability factors into account option 4 – the planning submission – represents the best outcome against the criteria for redevelopment of the Selkirk House site.** This option is associated with higher whole life carbon per m2 than the option 1. Over a 60 year lifespan is the equivalent to the carbon displaced by around 2.5 weeks by Whitelee Windfarm in Eaglesham Moor*. Arguably over time, taking into account additional factors such as travel connectivity, and the way it is likely to be adapted and refitted in use, this will result in the lowest carbon option of all over its life.

- **WLC emissions of option 4 per m2 are also lower than option 5 through the through the retention of the existing basement.**

** Whitelee Windfarm holds 215 turbines (source: https://www.whitelee-windfarm.co.uk/). With 2-3MW capacity these turbines produce an estimated 6 million kwh electricity per annum, equivalent to about 1,398tCO2e*



Embodied Carbon Comparison - refer to the Life Cycle Modules diagram (included on section 5.0) for details on the scope of the different modules



Operational Carbon Comparison - refer to the Life Cycle Modules diagram (included on section 5.0) for details on the scope of the different modules

Introduction

Analysis results

The following table compares the high-level performance of the five options for each of the criteria analysed in the report. The full report captures the detailed quantitative and qualitative analysis underpinning the ranking assessment.

	Option 1 Maximum retention and retrofit (no extension)	Option 2 Maximum retention and extension	Option 3 Partial Retention and extension	Option 4 Basement retention and new build (planning submission)	Option 5 New Basement and new build	Assessment Notes
Efficient Use of Land	5	4	3	2	1	Land-use efficiency informed by planning policy and context including public transport accessibility. The new build basement associated with option 5 would optimse the below ground space.
Construction Impacts	1	2	3	4	5	Retention of the existing structure would reduce the construction programme duration and potentially reduce the extent and/or duration of the most impactful works.
Space Quality	3	5	4	1	1	Focused on workspace quality; option 3 extends already constrained floorplates thereby exacerbating exisitng challenges. Option 2 reduces the NIA with additional cores further constraining space and layouts.
Ground floor activation	5	4	3	1	1	Ability to incorporate active frontages and address current building condition.
Employment capacity uplift	5	4	3	1	1	Options 4 & 5 would accommodate around 1,500 workers in the workspace compared to less 1,000 for option 2.
Public realm enhancements	5	4	3	1	1	Options 3, 4 and 5 all introduce the new pedestrian route.
Housing offer	5	4	3	1	1	Options 4 & 5 would be required to deliver over 1,000sqm GIA more affordable housing than option 2 (equivalent to around 10 homes).
Future flexibility	5	4	3	2	1	The additional floors delivered in options 2&3 enhance the building's flexibility somewhat. The new build basement in option 1 is considered to be more efficient that option 2 therefore improving future flexibility.
Long Term Economic Sustainability and Planning Benefits	4	5	3	2	1	On balance the interventions required to option 2 increase cost without providing a commensurate uplift in NIA floorspace.
Whole Life Carbon per m2	2	1	3	4	5	Modules A-C (kgCO2e/m2 GIA). For details on the methodology and results see 5.10
Total Embodied Carbon per m2 (RICS method)	2	1	3	4	5	Modules A-C exc. B6&B7 (kgCO2e/m2 GIA). For details on the methodology and results see 5.10
Operational Carbon per m2	3	3	3	1	1	Modules B6&B7 (kgCO2e/m2 GIA). For details on the methodology and results see 5.10

Best

Worst

1.0 Introduction

Executive Summary

Conclusion

This report sets out to assess whether it is appropriate to retain the existing Selkirk House in full or in part, or whether a new build scheme represents a better use of the site. It distils a huge amount of work by the design team over an extended period of time to review a far wider range of options and individual decisions and it represents these in the form of five options. The criteria against which theses should be judged are set out, and a rigorous and transparent methodology adopted for their assessment.

Whilst carbon emitted in creating the development and in use is given appropriate focus, wider considerations must be taken into account to assess holistically the environmental price and the resulting benefits of the scheme. The carbon accounting for the production of the building does not consider how and by how many people the development will be used, nor how they will get there and use it. It does not consider the quality and enduring appeal of the resulting product and therefore its utility and inevitable adaptation over time.

Whilst the planning application scheme (option 4) is not the best in every category, on holistic review of all the measures it provides the majority of benefits whilst minimising impacts, including carbon as measured by RICS. Importantly though, in delivering a higher quality, more flexible building with the urban benefits of public realm and active ground floor, it best meets the tests of utility and enduring appeal. This therefore represents the best investment of carbon. Arguably over time, taking into account additional factors such as travel connectivity, and the way it is likely to be adapted and refitted in use, this will result in the lowest carbon option of all over its life.

A review of the site shows that the existing building has a number of significant limitations, even before considering the age of the structure and the modifications that have taken place over time. The sloping and deep floors for car park, constrained headroom on the tower and small cores for lifts and fire escape mean that it is not possible to bring the building back into use without major modifications and temporary support. Option 1 is therefore not a workable option.

The analysis finds then that inevitably new build results in greater carbon invested up front, but that the difference between the options on a m2 basis, even on the relatively narrow RICS criteria is modest on a Whole Life Carbon basis.

In absolute terms the carbon emitted is materially greater for the larger options, but this is principally the result of creating more built area. This is supported by planning policy, and it is this additional density on the site that allows a number of the benefits to be delivered. Those most closely linked being housing (including affordable) and employment. If we consider there is a growing demand for space, the strong conclusion of planning policy and of the application team is that doing this on previously developed sites well served by public transport is far preferable to more remote or greenfield sites. Whilst it is outside the scope if this report, the carbon emitted for occupier journeys to and from any development through its life are material to the wider sustainability of our built environment.

Whilst the carbon emitted in development is significant, the report shows that all the options perform well against benchmarks and the ability to reduce carbon in use for the new build schemes is greater. The project team have a commitment to minimise carbon through the development.

Another point central to the discussion is the quality of the space created. The impacts on its utility over time and the likely cycle of adaptation and re-invention of poor quality space all has a carbon price. The report shows that when these scenarios are taken into account the new build options perform better over time. The existing building has already seen significant modification and change of use in the tower and the indication is that as the fundamental characteristics of the building cannot be changed this cycle will only be maintained and accelerate.

There are a number of other benefits identified in the report that can only be delivered through the new build, reconfiguring of site, public realm, and street activation. These are more difficult to quantify, but are certainly material to the consideration of the options.

The planning application scheme is targeting BREEAM outstanding and NABERS 5* (based on actual energy in use) and the applicant is committed to seeking improvements in both embodied and operational carbon performance from the baseline established in the WLC report submitted.

Amongst the local benefits delivered by the scheme are the 19 new affordable homes (representing over 50% of the new residential floorspace), and a substantial improvement in public realm including a new pedestrian route - Vine Lane.

The proposed building would accommodate around 1,500 workers (at 1:10 occupancy), at least 50% more than option 3 and thus provide a substantial economic uplift from a currently vacant and derelict site.
The scheme addresses the ecological emergency by creating a valuable local addition of biodiversity in an Area of Deficiency in public access to nature and an Urban Greening Factor of 0.3. The scheme will also lower CO2 emissions by replacing nearly 200 car parking spaces from the area as well as removing fossil fuel (gas) for heating and cooling from the site.

Subject to planning, the next stage of detailed design and advances in technology offer the opportunity to improve the scheme further in regard to operational and embodied carbon, while retaining the wider benefits that the proposals are able to deliver.

1.0 Development Context & Principles

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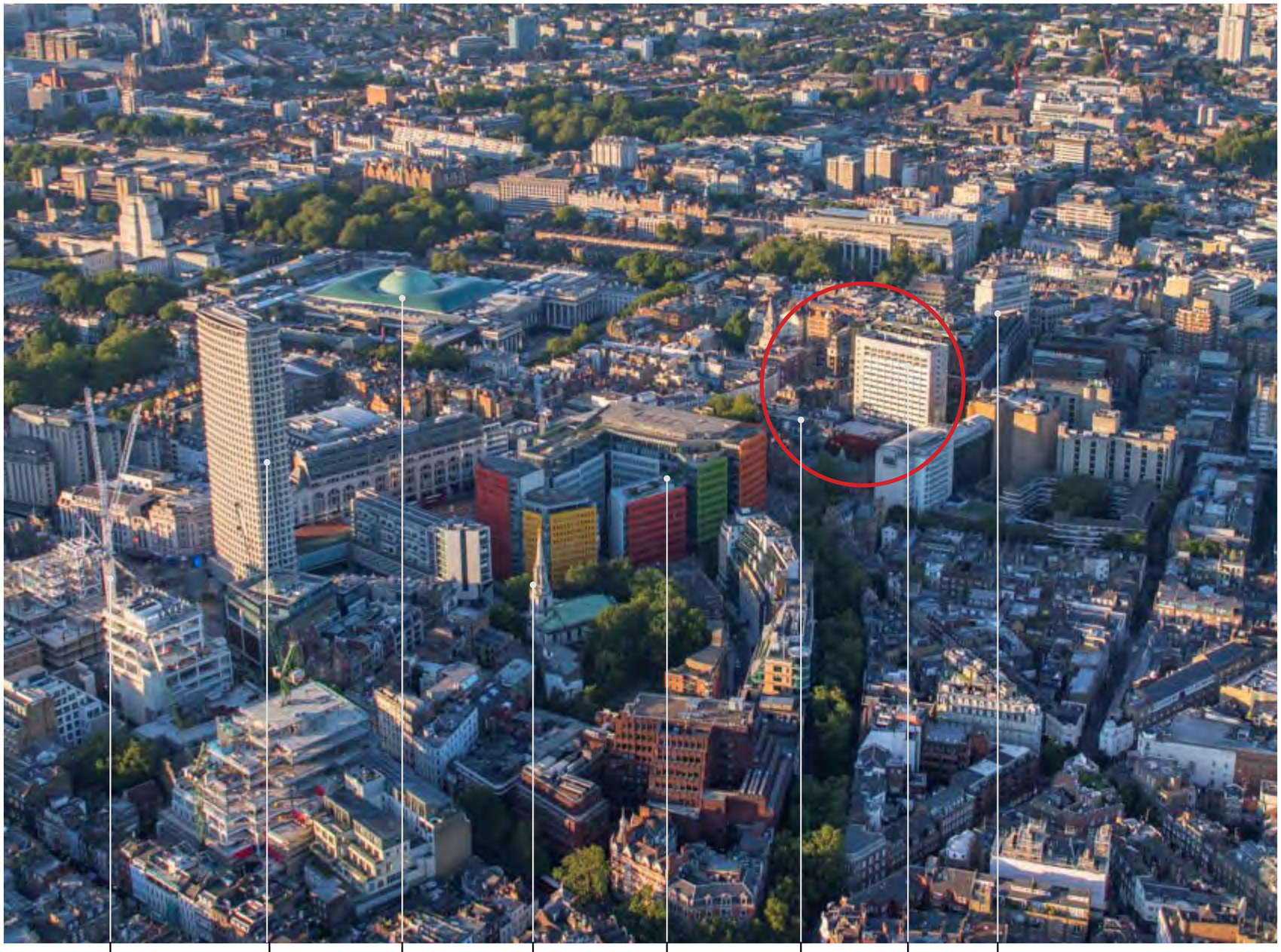
1.0 Development Context & Principles

1.1 Site Context

The Site is located in the area historically known as St. Giles, which is set between Covent Garden, Holborn and Bloomsbury, in the London Borough of Camden.

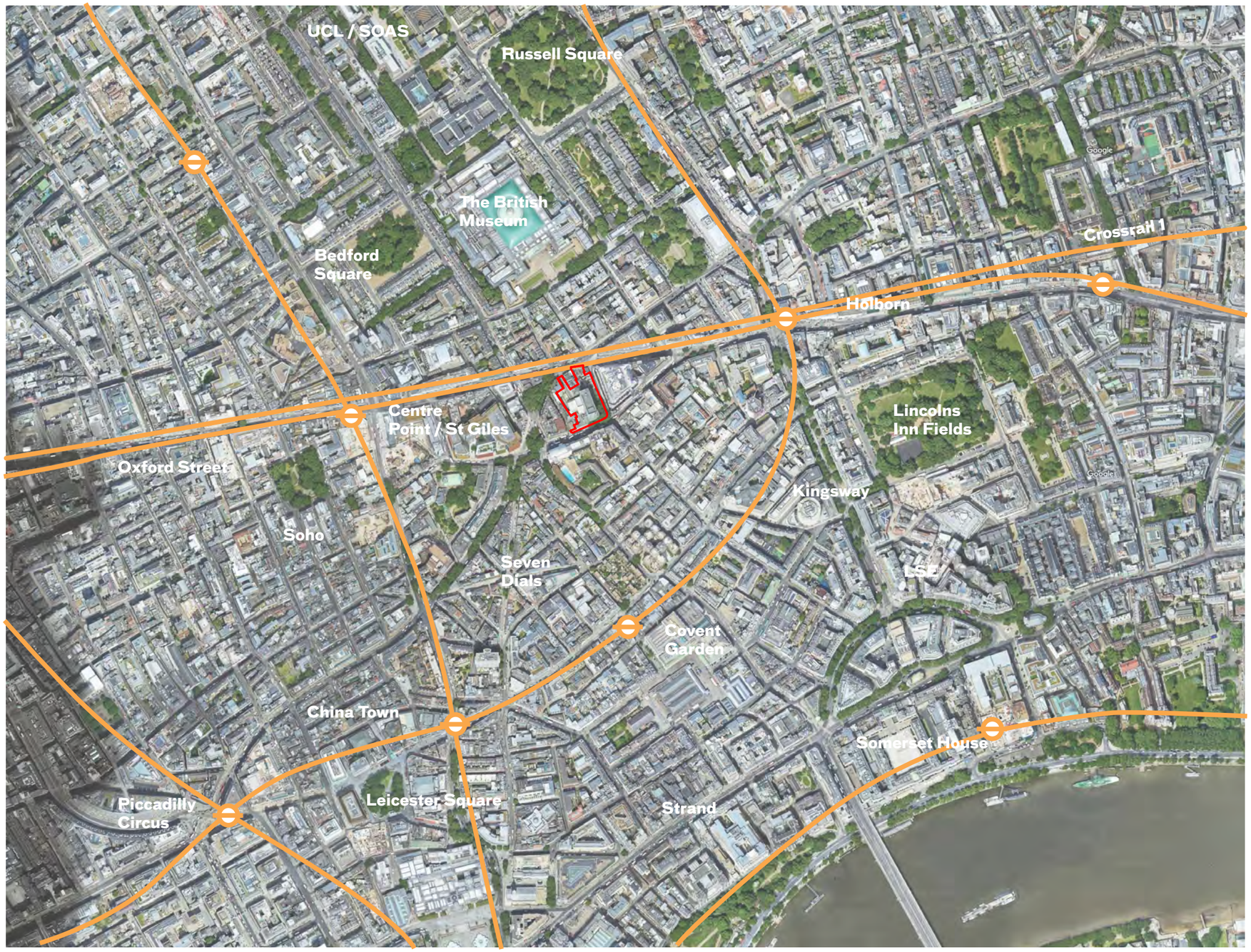
The Site covers an area of approximately 5,300 sqm (0.53ha) and benefits from a PTAL rating of 6b being close to three underground stations, namely Holborn to the east, Tottenham Court Road to the west (also including the future Crossrail station) and Covent Garden to the south.

This area of London is very well served by bus routes on High Holborn and New Oxford Street. High Holborn and New Oxford Street are also on the London Cycle Network and experience high levels of commuter cycling, as well as high levels of pedestrian movements in the area surrounding the site which is part of Tottenham Court Road Opportunity Area.



1.0 Development Context & Principles

1.1 Site Context



Key:

- Underground connections
- Underground Stations

Aerial View showing the Site within the wider context

1.0 Development Context & Principles

1.1 Site Context

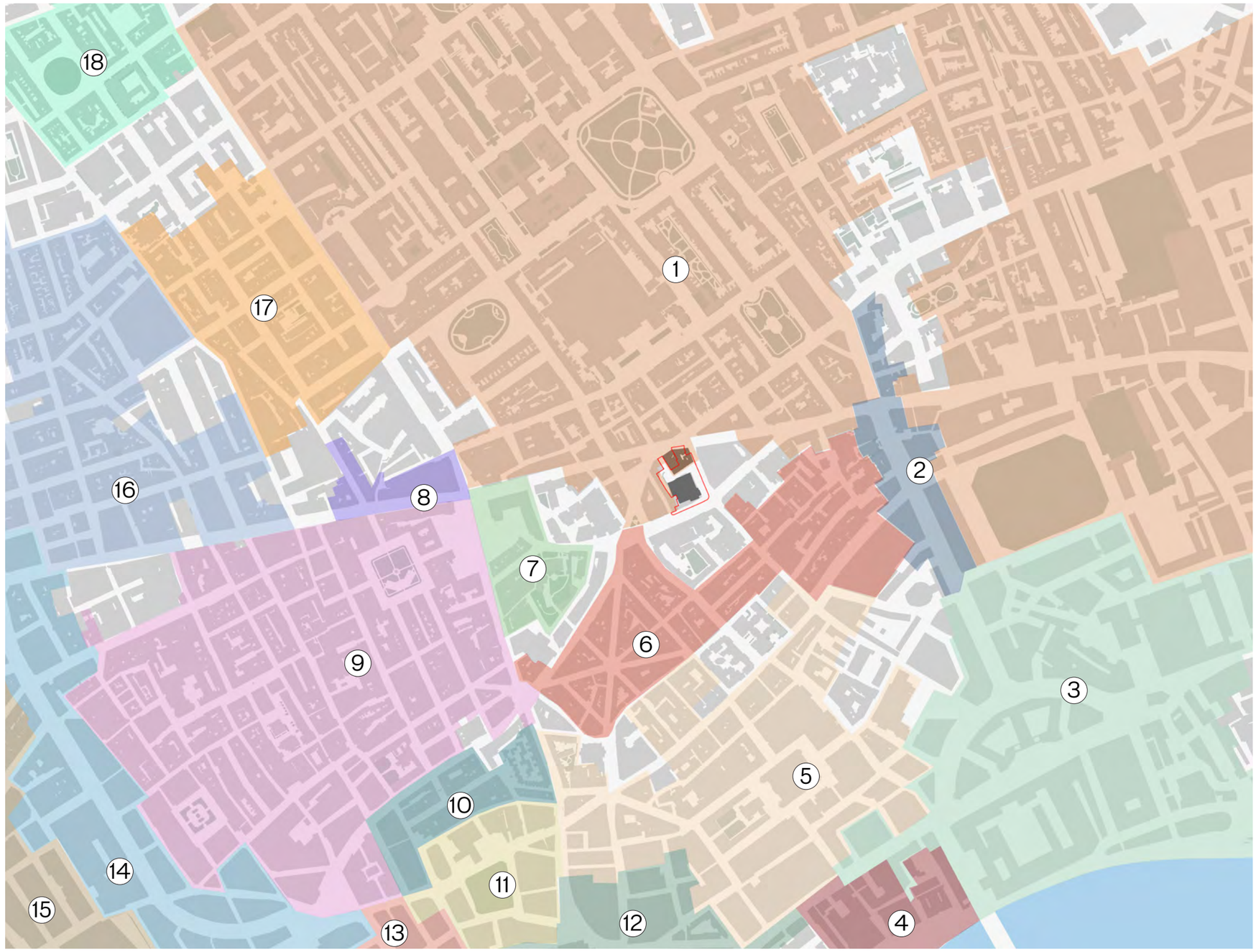
Conservation Areas

Selkirk House sits outside of the the Bloomsbury Conservation Area boundary which runs along West Central Street, whilst the northernmost section of the West Central Street buildings lies within this Conservation Area.

The majority of the site falling between conservation areas is closely correlated to the significant number of poorer quality post-war buildings bounding High Holborn, of which, Selkirk House can be considered one.

KEY:

1. Bloomsbury
2. Kingsway
3. Strand
4. Savoy
5. Covent Garden
6. Seven Dials
7. Denmark Street
8. Hanway Street
9. Soho
10. Chinatown
11. Leicester Square
12. Trafalgar Square
13. Haymarket
14. Regent Street
15. Mayfair
16. East Marylebone
17. Charlotte Street
18. Fitzroy Square



Conservation Areas

1.0 Development Context & Principles

1.1 Site Context

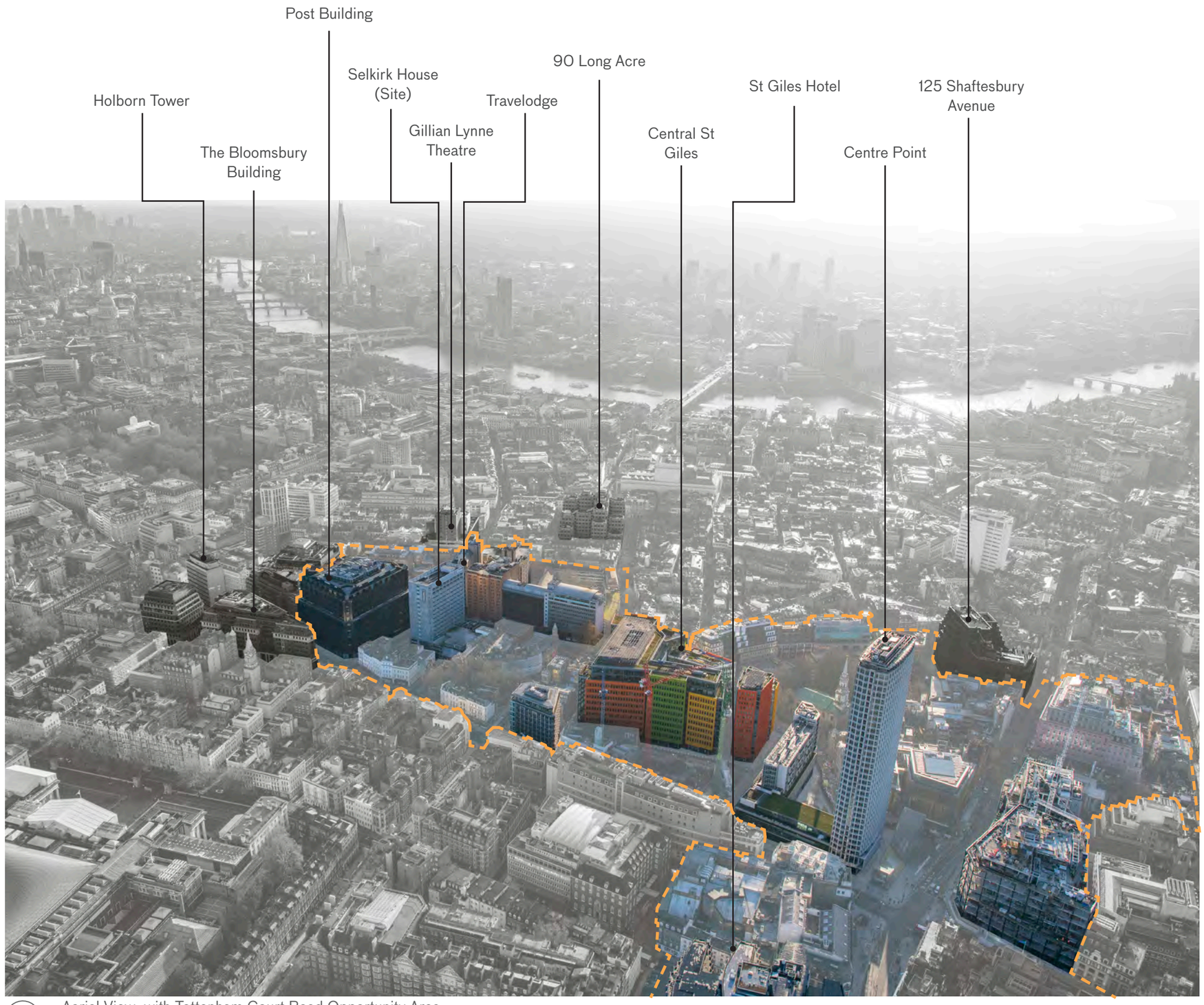
A string of large-scale post-war developments fundamentally altered the urban grain of the stretch between Tottenham Court Road and Holborn stations: Centre Point, St Giles Court, Selkirk House, the NCP Car Park, the Royal Mail Sorting Office and developments along the southern frontage of High Holborn. These typically had large block sizes, and were out of scale with local character and urban grain.

Typically these blocks had low permeability and activation at ground floor and reinforced the primacy of the motor vehicle. The resultant poor quality of public realm led to decades of under-investment and the area having a poor image. Recent work to reinstate and repair urban grain has been successful through improvements such as Central St Giles, the closure of St Giles High Street to form St Giles Square and the ongoing West End Project works.

Selkirk House remains as it was - an under-activated and impermeable block designed with the motorist in mind.

Post War Development Sites

Tottenham Court Road Opportunity Area



Aerial View with Tottenham Court Road Opportunity Area

1.2 Planning Policy Context

Local, national and regional planning policy establishes the framework within which development proposals are considered for planning permission. A high level summary of the relevant planning policy is provided below.

Development Plan

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that applications are determined in accordance with the development plan unless material considerations indicate otherwise.

The statutory development plan for the London Borough of Camden, and in turn the application site, consists of:

- The London Plan (2021); and
- London Borough of Camden Local Plan (2017)

There are a number of other relevant adopted and emerging planning policy documents published nationally, regionally and by Camden Council that represent material considerations:

- The National Planning Policy Framework (NPPF);
- The National Planning Policy Guidance (NPPG);
- London Borough of Camden Supplementary Planning Guidance;
- London Borough of Camden Draft Holborn Vision and Strategy (2019); and
- London Borough of Camden Draft Site Allocations Plan (2020).

Local Designations

The site is also subject to the following site-specific planning policy designations as identified by the Council's adopted Policies Map:

- Tottenham Court Road Growth Area;
- Tottenham Court Road Opportunity Area;
- Central Activities Zone ('CAZ') as an area identified for growth

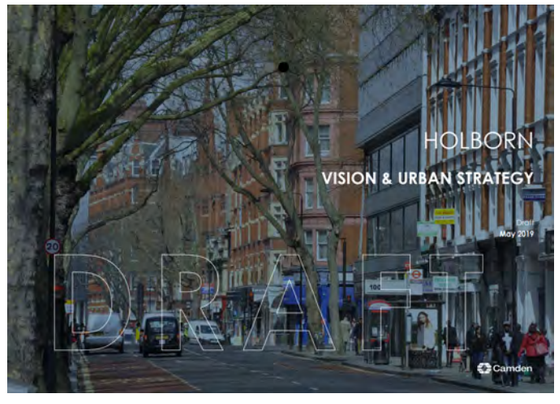
In addition, the site is also identified as a development site within the Council's Draft Site Allocations Plan (2020) under Policy HCG3 ('1 Museum Street'). The draft allocation supports the comprehensive redevelopment of the site with a mix of commercial and residential uses, emphasising the requirement for enhancing the public realm, permeability through the site and ground level experience.

The West Central Street component of the site falls within the Bloomsbury Conservation Area. Recently, 10-12 Museum Street, 35 and 37 New Oxford Street buildings (within the application boundary) have been listed as Grade II. In addition, Grade II listed buildings adjoin the site boundary at 43-45 New Oxford Street and 16 West Central Street. Selkirk House sits outside of the Conservation Area boundary which runs along West Central Street.

The site is also identified within the emerging Holborn Vision and Urban Strategy (2019) as a 'Key Project' for potential redevelopment. Its location makes it ideally situated to benefit from increased transport capacity and wider connectivity (due to the new Crossrail), hence the area being a focal point for employment intensification.

The axis shown in the mapping opposite illustrates how the site should act as a linkage, with the potential to 'join the dots' between a number of important employment sectors, both emerging and already established.

The site's current fragmented and transitory nature offers significant room for improvement - with increased pedestrian connectivity underpinning the aims of the long-term strategic approach to creating and nurturing a vibrant, diverse and resilient wider commercial district.



LBC's Holborn Vision & Urban Strategy (Draft)

Key connections for growth and opportunity

1.3 Carbon & Climate Emergency Context

With an emphasis on the global climate crisis, the GLA and the Council have declared a 'Climate Emergency'. There is a growing commitment to achieving Net Zero Carbon buildings by 2030, meaning many new developments need to consider now how far they can go to design in features to enable the lowest carbon performance possible.

The applicant and the project team are acutely aware of the impact that construction has on Carbon emissions. The built environment currently accounts for 25% of the UK's greenhouse gas emissions. 'The thrust of Strategic and Local Plan Policy has therefore resulted in a focus on reducing the operational energy and embodied carbon relating to the construction industry. As part of planning applications, prospective developments now need to quantify their carbon impact.

80% of London's 2050 stock is likely to be comprised of buildings already standing today - adapting this stock is a huge challenge for the industry. However, retrofit is not always feasible or viable for those with poor architectural quality, inflexible layouts, limited accessibility and insufficient loadbearing capacity..

A number of industry benchmarks and aspirational targets established for the development industry. These focus on the embodied carbon emissions associated with construction and can be found in chapter 5.0.

NPPF

As stated in the National Planning Policy Framework, the planning system has three overarching objectives: economic, social, and environmental. Paragraph 8 says that to achieve sustainable development these three interdependent pillars need to be pursued in mutually supportive ways so that net gains are secured for each objective.

Therefore, in determining an application, the range of benefits a development offers in addition to carbon savings must be considered in the balance. These benefits include delivery of high-quality new homes (including affordable homes), an uplift in employment floorspace, new public realm, urban greening, increased site permeability and significant long term economic benefits generated by the higher quality and flexible space which will appeal to a wider range of operators.

London Plan (2021)

Introduced in March 2021, the currently adopted London Plan places a strong focus on the lifecycle carbon impact of new development.

London Plan Policy SI 2 (Minimising Greenhouse Gas Emissions) states that major development should be netzero in terms of operational carbon. This means reducing greenhouse gas emissions in operation and minimising energy demand. London Plan Policy SI 2 also seeks to achieve a minimum operational carbon reduction from part L of 10% for residential development and 15% for non-residential development through energy efficiency measures. Where it is clearly demonstrated that the zerocarbon target cannot be fully achieved on-site, any shortfall should be provided, in agreement with the borough by a carbon offset contribution secured via a S106 legal agreement.

London Plan Policy SI 7 (Reducing Waste and Supporting the Circular Economy) focuses on reducing waste and supporting the circular economy. The policy seeks to achieve resource conservation, waste reduction, increases in material re-use and recycling and reductions in waste going for disposal.

London Plan Policy GG6 (Increasing Efficiency and Resilience) seeks to improve energy efficiency and support the move toward a low carbon circular economy. The policy seeks to ensure that buildings are designed to adapt to climate change and its impacts.

In support of the London Plan, the GLA have also released London Planning Guidance (LPG) for Whole-Life Carbon Assessments. Importantly, in line with London Plan Policy SI 2, the guidance requires developers to fully consider options for retaining existing buildings before substantial demolition is proposed, as this is typically the lowest-carbon option. Whole Life Carbon Principle 1 from the guidance states that "retaining existing built structures for reuse and retrofit, in part or as a whole, should be prioritised before considering substantial demolition." The London Plan Guidance carries no specific statutory weight; however, it is capable of being a material planning consideration enabling the implementation of adopted London Plan policies.

The GLA has established a benchmark and aspirational targets for the upfront and overall embodied carbon of new developments. More information on these can be found in chapter 5.0. Developments are therefore required to calculate whole life-cycle carbon emissions through a nationally recognised Whole Life-Cycle Carbon Assessment (WLCA) in order for their performance against these benchmarks to be assessed. The WLCA must demonstrate actions taken to reduce life-cycle carbon emissions.

Camden Local Plan (2017)

Camden Local Plan Policy CC1 requires all development to minimise the effects of climate change and encourages developments to meet the highest feasible environmental standards that are financially viable during construction and occupation. Moreover, all development is required to reduce carbon dioxide emissions in line with the targets set out within the London Plan.

Local Plan Policy CC2 requires all development to be resilient to climate change through the adoption of appropriate climate change adaptation measures. Local Plan Policy CC2 also promotes the incorporation of sustainable design and construction measures within developments.

In January 2021, the Council published the Energy Efficiency and Adaptation CPG. The CPG has been prepared to support the policies of the London Plan (2021) and the Camden Local Plan (2017).

In 2020, LB Camden published the Camden Climate Action Plan (2020-2025) which sets out the Council's ambition for a zero carbon Camden by 2030.
National Planning Policy Framework (2021)

At the heart of the NPPF is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.

NPPF Paragraph 119 encourages development that makes as much use as possible of previously developed or 'brownfield' land.
NPPF Paragraph 152 sets out that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change.

NPPF Paragraph 153 states that plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes and the risk of overheating from rising temperatures.

Planning submission approach

The proposed development has been designed to also consider the key policies relating to sustainable design and construction, focusing primarily on the following documents:

- Camden Local Plan 2017
- Camden Planning Guidance (CPG) Energy efficiency and adaptation, January 2021
- CPG Planning for Health and Wellbeing, January 2021
- CPG Biodiversity, March 2018
- The London Plan 2021

The carbon impacts of the submitted scheme have been fully considered through the Whole Life Carbon Assessment, Circular Economy Statement, Energy Statement and Carbon Comparison Documents which can be found on the planning portal.

Further information on the sustainability aspirations targeted by the planning submission scheme can be found in chapter 6.0 of this report and in the planning application documents.

1.4 Development and Design Brief

In briefing the development of the Selkirk House and wider One Museum Street site a number of areas were taken into consideration and aspirations set. These have informed the development and design approach taken and project decision making to enable the development and submission of a planning application. These areas take into account both external and internal project drivers.

This section summarises the development considerations and brief. These factors provide a base against which the redevelopment options can be assessed, alongside the Carbon Assessment and are reflected in the analysis in section.

Existing wider context
As set out above, the site is very centrally located in London. This should inform the proposals for the site acknowledging the economic, social and cultural activity that should be supported through development.
The exceptional transport links to tube, bus, cycle and new Elizabeth line (Crossrail) in immediate proximity allow sustainable transport for building users and support maximising density on the site.
There is also the opportunity to create a "car free" development and removing a 196 space car park from the site currently in use under a temporary operation run by APCOA.

The nearby conservation areas, high quality buildings and heritage assets are to be understood and addressed in the proposals, as is the opportunity to integrate into the street pattern and improve permeability of the site and how it relates to the surroundings. Fundamentally, and development proposals for the site should re-establish this site as an active contributor to the local and wider area.

Further study of the context that helped inform the understanding of the context and response can be found in the Design and Access Statement document part of the planning application (including DSDHA “100 Journeys study”).

Planning policy
The proposals should be set in the context of national, regional and local planning policy as a pre-requisite. Local Camden Planning policies seek efficient use of land and highest quality architecture. One Museum Street is identified within the emerging ‘Holborn Vision and Urban Strategy’ as a ‘Key Project’ for potential redevelopment. Further commentary on the relevant planning policy can be found in sections 1.2 and 1.3.

The proposed development should:

- Incorporate all the key masterplanning requirements and uses specified by the Camden Council Local Plan (2017), the Holborn Vision and Urban Strategy (2019), and the Draft Site Allocations Plan (2020).
- Meet the mixed use and affordable housing policies as far as possible through the development.

Existing buildings and site constraints
Detailed review of the existing buildings with a preference to retain where possible to minimise cost and carbon intensity of the development and contribute to character in the completed development.

- Clear opportunity to improve or replace buildings of low architectural quality and improve the grain of the site and activation at ground floor.
- Dead ends and blank frontages to be designed out.
- Full review of further site constraints, physical and legal to ensure deliverability of proposals.

Sustainable economic use
For the quality and longevity of the scheme it is imperative that the site is developed with uses that have a strong business case. This is also necessary to ensure it is managed to a high standard in use with continued investment. The architecture should allow for future change of use where possible though flexible column grids, good slab to slab heights, and access to daylight.

The following uses were therefore prioritised in the development and design brief:
- Workspace to serve economic development and employment. Workspace should be high quality, adaptable space that meets occupiers needs now and is able to do so in the future
- Residential to support a diverse mix of uses and meet planning policy
- Ground floor retail and active uses to underpin public spaces and support uses above 1st floor level

Environmentally sustainable
Deliver a sustainable development fit for the future, which meets our ambitious environmental and social sustainability targets utilising a circular economy approach.

Produce a car free development and encourage more sustainable forms of transport to and from the site.

Design for long life and flexibility of use to ensure maximum benefit from embodied carbon “invested” in the redevelopment. Key metrics to pursue:
- Very low carbon development in use and embodied
- Target BREEAM outstanding rating
- Target NABERS rating 5*+
- Consider other accreditations including WELL
- Net-zero carbon enabled with the aim of a zero-carbon balance
- Adaptable and flexible structure to enable future adaptability

People Focussed
Create a safe and inviting environment for building users, residents and visitors to the area. Focus on high quality thoughtful public realm and active ground floor uses to create the place.

Provide users and residents with generous outdoor spaces and openable windows for access to fresh air. Incorporate active design and provision of facilities to encourage active travel.

Masterplanned approach
The site’s current fragmented and transitory nature offers significant room for improvement - with new pedestrian connectivity underpinning the aim of the long-term strategic approach to creating and nurturing a vibrant, diverse and resilient commercial district that is aligned with its conservation-sensitive context.

The proposals should support these aims, whilst respecting and complementing the heritage and character of their immediate context.

Summary
These factors have been used to inform the assessment criteria used to analyse the development options for Selkirk House.
Museum Street is to produce high quality, adaptable space that meets occupier needs now and is able to do so in the future.

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2.0 Development Options

2.0 Development Options

2.1 Options Investigated

Development Principles and Assumptions

Upgrading the building stock to achieve net zero carbon standards presents both challenges and opportunities, and each building presents a unique set of location based, physical and historical characteristics.

Taking the Development and Design Brief summarised in chapter 1.0 as a starting point, and informed by a detailed analysis of the existing condition and challenges of the site and existing buildings (chapter 4.0) the following assumptions were made to all development options explored:

- Office is the priority use for Selkirk House and all options assume an office-led scheme
- Remove the existing structure of the Car Park due to constraints related with the structural frame and loadings for reuse, floor to ceiling heights, ramped slabs and poor daylight levels
- Reuse the existing cores as much as possible and upgrade as needed to suit current building standards to provide future flexibility
- Renew all MEP services throughout
- Remove existing cladding and replace with new to meet current building regulations requirements and extend the building's lifespan
- Due to the constraints identified in chapter 2.0, floors 14-15 are replaced in options 2-3
- Where extension is proposed, the height is equivalent to the planning submission (73.95m AOD)
- All options assume a ceiling servicing zone due to the operational and user experience limitations of perimeter servicing (see chapter 4.0)

Establishing the Scenarios

In line with the Waste Hierarchy, first the condition of the existing site must be considered for any opportunities for a refurbishment in order to prevent waste prior to a new building being developed.

All development options have been designed with considerations for the state of the current building, and associated issues. Further details relating to the development options, including design assumptions, can be found in section 2.0.

This study investigated a series of development options for the Selkirk House and NCP car park, with a starting point of the retention and retrofit of the existing building. These options vary in the scope of their proposed development. This study was used to establish the scope of development required in order to address the problems of the existing site. These options have been informed by the design team.

The report establishes and assesses five development options for the Selkirk House site (including the NCP car park).

The options considered and assessed as part of this report are listed here:

- Option 1 - Maximum Retention & Retrofit
- Option 2 - Maximum Retention & Extension
- Option 3 - Partial Retention & Extension
- Option 4 - Basement Retention & New Build
- Option 5 - New Build

A comparison of each of the options and design assumptions is set out in the following page for clarity. It is important to note that an indicative design has been established for options 1-3, while options 4 and 5 reflect the developed design of the planning application scheme (with the addition of a new build basement for option 5). Therefore there is a greater extent of detail available for options 4 and 5.

Alternative uses

This report assesses five options for a commercially-led development on the site of Selkirk House. The planning application scheme for the site is for a commercially-led mixed use development, with the existing Selkirk House being replaced by a commercial office building; this use is in line with the Council's Draft Site Allocations Plan (2020) which helped inform the brief for the site.

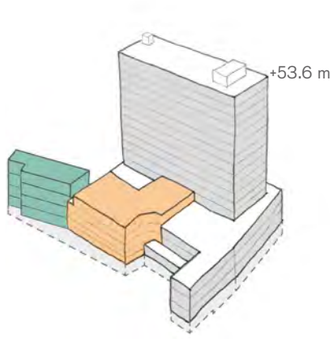
The methodology for the Whole Life Carbon Assessments of the options within this report requires a level of design, performance specification and materiality information for each of the options in order to enable factors such materials and operational performance to be accurately measured and modeled. The assessment within this report therefore utilises the design for the planning application scheme as a basis for these inputs.

Earlier proposals for the site - while in previous ownership - have explored alternative uses, such as a hotel. However residential or hotel in Selkirk House did not meet the wider brief requirements. Therefore a we have not carried out a design exercise to enable us to assess this option with a level of accuracy to enable comparison.

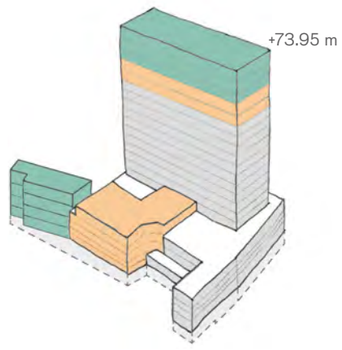
However the issues affecting the existing building and their implications (chapter 4.0) and analysis (chapter 5.0) apply equally, though in different degrees, to any alternative repurposing of the building for residential or hotel use – for example the limitations of the existing structure to the upper floors, the quality of space provided by the existing structure, deep floorplates on the lower levels and the existing ramped car park levels.

2.0 Development Options

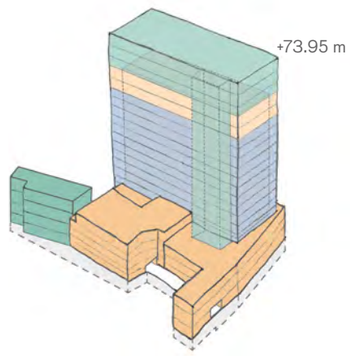
2.1 Options Investigated



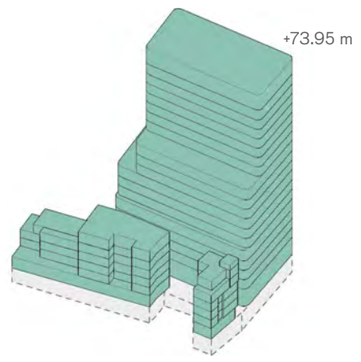
Option 1
Maximum retention and retrofit (no extension)



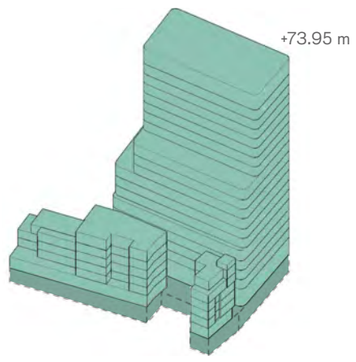
Option 2
Maximum retention and extension



Option 3
Partial Retention and extension



Option 4
Basement retention and new build (planning submission)



Option 5
New Basement and new build

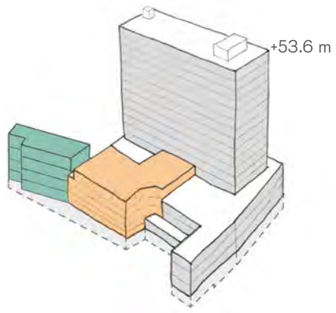
Description	Light touch refurb with retention of existing building structure e.g. cores and structures. Minimal intervention and capital costs	Refurb of existing building structure to level 13 with demolition of two top floors and replacement with 5-storey new build extension	Retain existing building structure to level 13 and extend these existing floor plates by 800mm; demolition of two top floors and replacement with 5-storey new build extension	New build above ground to replace existing Selkirk House and NCP car park to deliver office, class E and residential accommodation alongside public realm improvements	New build (including new basement levels) to replace existing Selkirk House and NCP car park to deliver office, class E and residential accommodation alongside public realm improvements
Summary	- Retain existing Selkirk House tower and assess floor capacity of existing cores - Demolish car park area and build new structure - Retain lower levels (podium) along High Holborn - Recladding the existing facade - Renew all MEP services - New residential building along West Central Street (where existing car park access ramp is located)	- Demolish two storeys above level 14 - Add 5no. new storeys - Retain existing cores as much as possible and adjust/ add as necessary - Demolish car park area and build new structure - Retain lower levels (podium) along High Holborn - Recladding the existing facade - Renew all MEP services - New residential building along West Central Street	- Demolish two storeys above level 14 - Add 5no. new storeys - Extend typical slab edge by 800mm - Adjust existing cores as needed / potential to introduce new stair core (external) - Demolish car park area and build new structure - Demolish lower levels along High Holborn and build new incorporating a new passageway (Vine Lane) - Recladding the existing facade - Renew all MEP services - New residential building along West Central Street	- Retain Selkirk House basement structure as much as practicable possible - Demolish existing Selkirk House and NCP car park - New set of buildings - One Museum Street, High Holborn and Vine Lane Buildings providing office and residential accommodation - alongside public realm improvements	- Demolish existing Selkirk House, NCP car park and existing basement levels - New set of buildings - One Museum Street, High Holborn and Vine Lane Buildings providing office and residential accommodation - alongside public realm improvements
Total GIA*	19,939 sqm**	21,907 sqm**	23,339 sqm**	27,733 sqm**	27,733 sqm**

* Gross Internal Areas (GIA) part of this technical report have been measured in accordance with IPMS. Note that the GIA figures differ slightly to those reported within the One Museum Street planning application due the planning reportable GIA figures excluding external floor areas (i.e. covered terraces, external circulation and amenity roof terraces), plant spaces, loading bays and typically uninhabited BOH. The figures in this line represent the total built GIA as measured by IMPS.
**Area excludes the West Central Street buildings

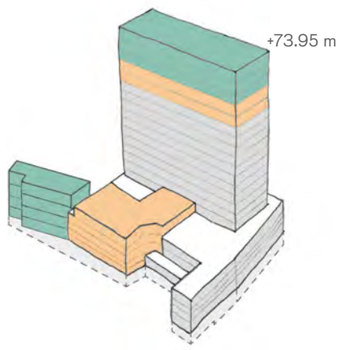
Retained & Retrofit | Demolished & New-Build | Extended floorplates | New-Build | New-Build (Basement)

2.0 Development Options

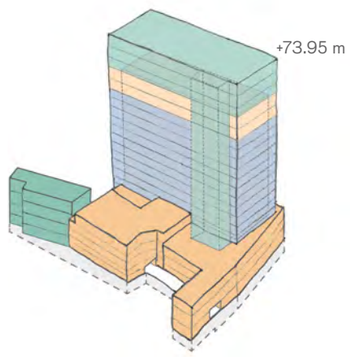
2.1 Options Investigated



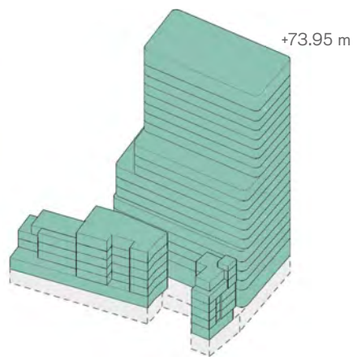
Option 1
Maximum retention and retrofit (no extension)



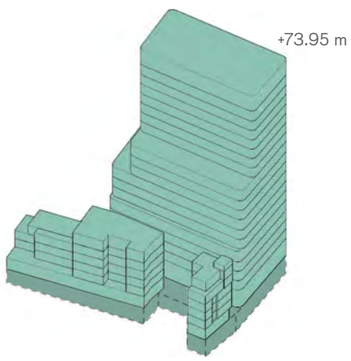
Option 2
Maximum retention and extension



Option 3
Partial Retention and extension



Option 4
Basement retention and new build (planning submission)



Option 5
New Basement and new build

	Option 1 Maximum retention and retrofit (no extension)	Option 2 Maximum retention and extension	Option 3 Partial Retention and extension	Option 4 Basement retention and new build (planning submission)	Option 5 New Basement and new build
Demolition of existing car park and build new structure	Yes	Yes	Yes	Yes	Yes
Retain floors 14-15	Yes	No	No	No	No
Retain podium along High Holborn	Yes	Yes	No	No	No
Additional floors to Selkirk House	0	5	5	5 (equivalent)	5 (equivalent)
Temporary works required	Yes	Yes	Yes	Yes (to basement only)	Yes (to basement only)
Cores	Retained in situ	Partly retained with adjustments	Partly retained with adjustments	New cores	New cores
MEP renewal	Yes	Yes	Yes	Yes	Yes
Facade recladding	Reclad existing	Reclad existing and new facades for new build structures	No (new facades)	No	No
Reuse of existing basement structure and minimise excavation	Yes	Yes	Yes	Yes	No
New build along West Central St (where car park ramp is located) – to provide residential accommodation	Yes	Yes	Yes	Yes	Yes

Retained & Retrofit Demolished & New-Build Extended floorplates New-Build New-Build (Basement)

2.0 Development Options

2.1 Options Investigated

The diagrams opposite show each phase of the options from demolition, new build elements and the finished scheme. These expand on the previous options diagrams and for clarity, the colours/key have been adjusted.

Option 1
Maximum retention and retrofit (no extension)

Option 2
Maximum retention and extension

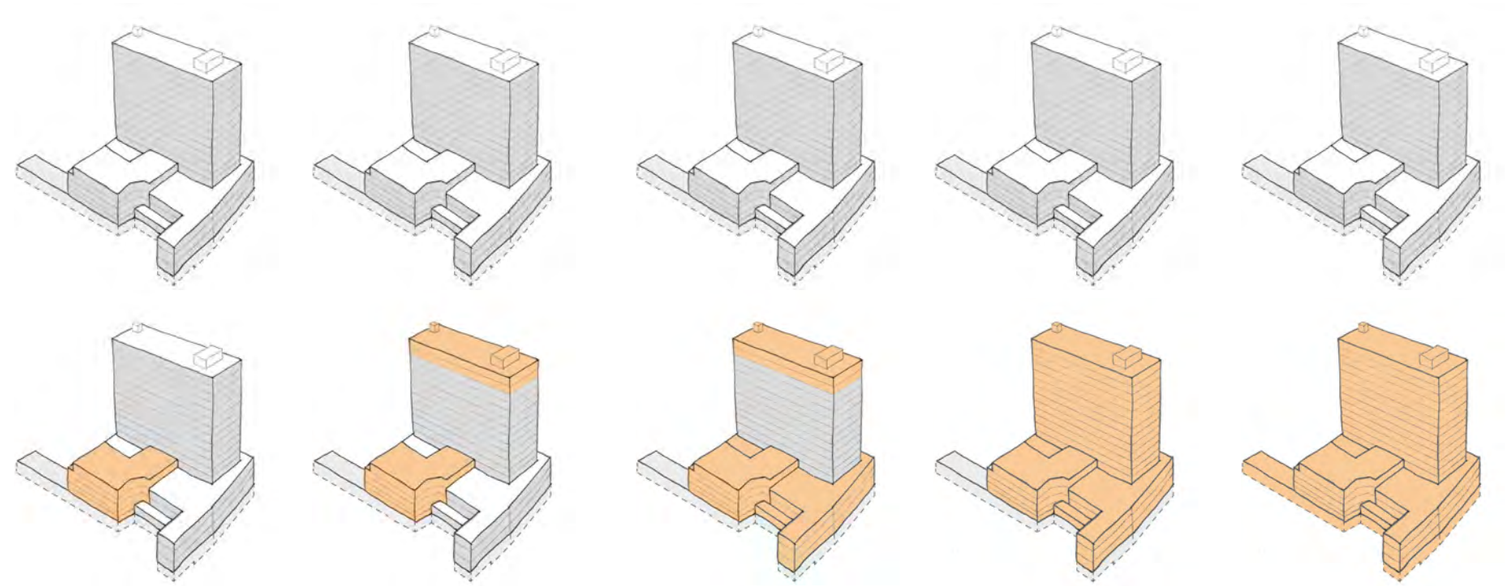
Option 3
Partial Retention and extension

Option 4
Basement retention and new build (planning submission)

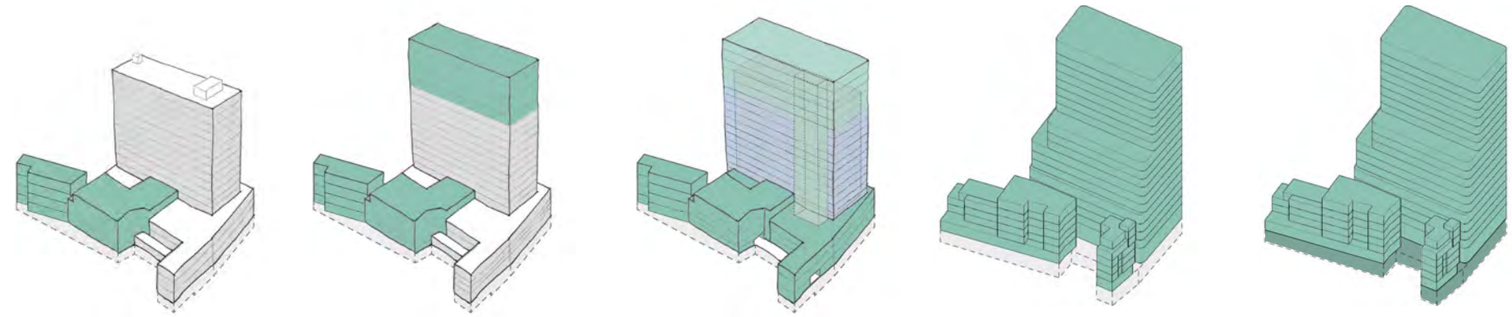
Option 5
New Basement and new build

Existing

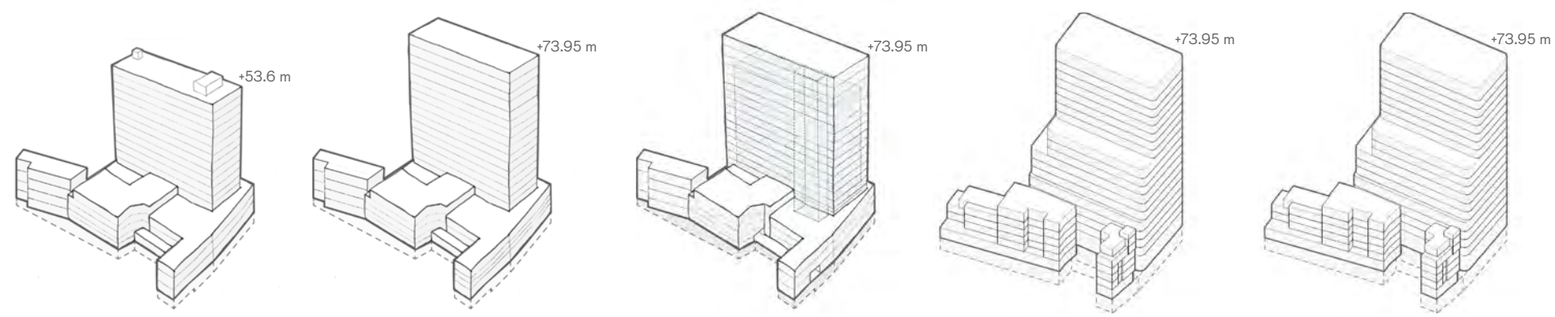
Demolition
- Retained & Retrofit
- Demolished



New-Build
(including replacement of demolition and floorplate extension)
- Extended floorplates
- New-Build
- New-Build (Basement)



Proposal



2.2 Criteria for Evaluating Options

Based on the site context and development principles (chapter 1.0) and on the analysis of the existing building challenges and implications (chapter 4.0) the below criteria have been established to evaluate the five development options considered.

The criteria used are also aligned with the guidance on optioneering considerations part of Whole Lifecycle Carbon Optioneering, Planning Advice Note document commissioned by The City of London Corporation.

Efficient use of land
Assessing the site against current planning policies and its location, acknowledging the economic, social and cultural activity that should be supported through development.

The Selkirk House site is identified within the emerging 'Holborn Vision and Urban Strategy' as a 'Key Project' for potential redevelopment - its location makes it ideally situated to benefit from increased transport capacity and wider connectivity.

Construction Impacts
Assessing the options in terms of building complexity and construction impacts is also included. The building complexity will increase construction impacts - this includes programme and site disruption to residents and workers in the area.

Space Quality
Assessing the options in terms of overall space quality and flexibility to support office use, namely:
- clear head height / floor heights
- space planning and constraints of the structural grid
- plan depth
- access to natural daylight

Ground Floor Activation
Review options against the existing condition of inactive street frontages and relationship with the surrounding public realm and how the options would improve the existing condition.

Floorspace provision and Employment capacity uplift
Review of the options in terms of the extent of additional floor area created, the direct employment capacity uplift generated and indirect benefits of this.

Public Realm enhancements
Ability to address the current challenges and contribute to the local and wider area including public realm enhancements, increased site permeability and biodiversity.

Housing offer
Ability to address the current challenges and contribute to the local and wider area to provide more new homes and affordable housing delivered on site.

Circular Economy, future flexibility, adaptability and resilience to climate change
To evaluate future proofing the full life cycle of a building should be considered alongside the six circular economy principles. Assess how the options would offer future flexibility in terms of adaptability and reuse; as well as overall offering a resilient design - addressing ecology / biodiversity, heath & wellbeing, etc.

Long-term economic sustainability and planning benefits
Review of the quality and quantum of space provided for creating an attractive and economically sustainable building which supports active management and maintenance. Ability of the option to support compliance with planning contributions.

Carbon Assessment
An assessment of the carbon impacts of each of the five options This has been worked through in detail for each of the options following the RICS methodology.

This assessment also explores carbon associated with additional factors we believe is worth consideration when comparing the development options. The scope and methodology used is described in Section 5.0.

3.0 Summary Analysis

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3.0 Summary Analysis

3.1 Assessment Summary

The following pages summarise the analysis in chapter 5.0 of the five development options considered. This identifies some of the key benefits and challenges associated with each options.

3.0 Summary Analysis

3.1 Assessment Summary

	Option 1 - Maximum Retention & Retrofit	Option 2 - Maximum Retention & Extension	Option 3 - Partial Retention & Extension
Carbon Assessment	- Overall embodied carbon (scope A-C) at 865 kgCO2e/m2 GIA - 485 kgCO2e/m2 GIA Operational carbon - 26,930 tCO2e total WLC and 1,351 kgCO2e/m2 GIA by m2 (RICS methodology) - If carbon associated with projected CAT B fit-outs were to be included this would result in 2,431 kgCO2e/m2 GIA Whole life carbon - Extensive temporary works and strengthening required to maintain existing structure above third floor during construction and to remove sloping slabs. - Existing problems with the building persist which results in a more frequent refurbishment cycle, adding to total embodied and therefore whole life carbon.	- Overall embodied carbon (scope A-C) at 862 kgCO2e/m2 GIA - lowest of all options - 485 kgCO2e/m2 GIA Operational carbon - 29,512 tCO2e total WLC and 1,347 kgCO2e/m2 GIA by m2 (RICS methodology) - If carbon associated with projected CAT B fit-outs were to be included this would result in 2,427 kgCO2e/m2 GIA Whole life carbon - Extensive temporary works and strengthening required to maintain existing structure above third floor during construction and to remove sloping slabs. - Existing problems with the building persist which results in a more frequent refurbishment cycle, adding to total embodied and therefore whole life carbon.	- Overall embodied carbon (scope A-C) at 904 kgCO2e/m2 GIA - 485 kgCO2e/m2 GIA Operational carbon - 32,426 tCO2e total WLC and 1,389 kgCO2e/m2 GIA by m2 (RICS method) - If carbon associated with projected CAT B fit-outs were to be included this would result in 2,469 kgCO2e/m2 GIA Whole life carbon - Extensive temporary works and strengthening required to maintain existing structure above third floor during construction and to remove sloping slabs. - Existing problems with the building persist which results in a more frequent refurbishment cycle, adding to total embodied and therefore whole life carbon.
Appropriate use of site	- No increase to site capacity in a central London location well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling - LBC policy aspirations largely unmet (housing, new route etc)	- Minor increase to site capacity in a central London location well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling - LBC policy aspirations largely unmet (housing, new route etc)	- Minor increase to site capacity in a central London location well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling - LBC policy aspirations largely unmet (housing, new route etc)
Space Quality	- Poor head heights of 2.35m, below BCO minimum guidance for refurbishments of 2.45m - Inflexible space planning due to structural grid - Disjointed floor plates and compromised core location - Constrained/ compartmentalised space on floors 14-15 - Low floor to ceiling heights contribute to poor natural daylight as well as deep floor plates on lower levels - Compromised building services provision due to constraints of existing structure & low ceiling heights - Inadequate lift provision to accommodate modern office occupancy levels - No wellbeing amenities (e.g. terraces) for occupants	- Improved ceiling heights and space planning in new floors to min. 2.7m - Poor head heights of 2.35m, below BCO minimum guidance for refurbishments of 2.45m in retained floors - Inflexible space planning in retained floors due to structural grid - Disjointed floor plates and compromised core location - Low floor to ceiling heights contribute to poor natural daylight on retained floors as well as deep floor plates on lower levels - Compromised building services provision due to constraints of existing structure & low floor to ceiling heights - No wellbeing amenities (e.g. terraces) for occupants	- Improved ceiling heights and space planning in new floors to min. 2.7m - Poor head heights of 2.35m, below BCO minimum guidance for refurbishments of 2.45m in retained floors - Inflexible space planning in retained floors due to structural grid - Low floor to ceiling heights contribute to poor natural daylight as well as deep floor plates on lower levels - Compromised building services provision due to constraints of existing structure & low floor to ceiling heights within retained structures - Limited ability to integrate wellbeing amenities (e.g. terraces) for occupants
Ground Floor Activation	- Street frontages remain largely inactive - Deliveries would still happen on West Central Street which will result in increased traffic.	- Street frontages remain largely inactive - Deliveries would still happen on West Central Street which will result in increased traffic.	- Additional active frontages introduced - Consolidated main servicing access off High Holborn will reduce traffic on West Central Street and allow it to become pedestrian and cyclists focused
Public realm enhancements	- No increase to existing public open space - Minor public realm improvements due to inactive street frontages retained - No substantial improvements on biodiversity across retained Selkirk House - No increase to Urban Greening Factor (UGF) expected	- No increase to existing public open space - Minor public realm improvements due to inactive street frontages retained - No substantial improvements on biodiversity across retained Selkirk House - No increase to Urban Greening Factor (UGF) expected	- Public realm improvements with new passageway connecting West Central St. and High Holborn - improved site permeability - Slight increase to UGF expected - Slight increase in public open space

3.0 Summary Analysis

3.1 Assessment Summary

	Option 4 - Basement Retention & New Build	Option 5 - New Build
Carbon Assessment	- Overall embodied carbon (scope A-C) at 1,112 kgCO2e/m2 GIA - second highest of all options - 478 kgCO2e/m2 GIA Operational carbon - 44,097 tCO2e total WLC and 1,590 kgCO2e/m2 GIA by m2 (RICS method) - If CAT B were to be included this would result in 2,130 kgCO2e/m2 GIA Whole life carbon Less frequent refurbishment cycles expected - Less frequent tenant refurbishments - Design expected to meet Nabers 5* and BREEAM Excellent as minimum (targeting Outstanding)	- Overall embodied carbon (scope A-C) at 1,184 kgCO2e/m2 GIA - highest of all options - 478 kgCO2e/m2 GIA Operational carbon - 46,097 tCO2e total WLC and 1,602 kgCO2e/m2 GIA by m2 (RICS method) - If CAT B were to be included this would result in 2,202 kgCO2e/m2 GIA Whole life carbon Less frequent refurbishment cycles expected - Less frequent tenant refurbishments - Design expected to meet Nabers 5* and BREEAM Excellent as minimum (targeting Outstanding)
Appropriate use of site	- Increase to site capacity in a central London location well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling - Contextually responsive appearance possible	- Increase to site capacity in a central London location well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling - Contextually responsive appearance possible
Space Quality	- New structural grid able to be designed to BCO guidance to enable efficient space planning - Good floor to ceiling heights of 2.725m - within BCO guidance for new office space - Flexible floor plates and flexible services - Good daylight levels due to tall floor to ceiling heights - Good wellbeing benefits for occupants, including outdoor amenity spaces - High quality, flexible commercial office space delivered with generous floor to ceiling heights, open plan and good size floor plates with good daylight levels	- New structural grid able to be designed to BCO guidance to enable efficient space planning - Good floor to ceiling heights of 2.725m - within BCO guidance for new office space - Flexible floor plates and flexible services - Good daylight levels due to tall floor to ceiling heights - Good wellbeing benefits for occupants, including outdoor amenity spaces - High quality, flexible commercial office space delivered with generous floor to ceiling heights, open plan and good size floor plates with good daylight levels
Ground Floor Activation	- Creation of new public pedestrian route through the site which will link High Holborn with West Central St. increases site permeability - Deliveries on High Holborn allow West Central Street to be more pedestrian focused	- Creation of new public pedestrian route through the site which will link High Holborn with West Central St. increases site permeability - Deliveries on High Holborn allow West Central Street to be more pedestrian focused
Public realm enhancements	- Public realm improvements that focus on maximising permeability through the site - Increased UGF [0.3 within the red line] - Public open space area increase by 28% - Public realm improvements along Museum Street, West Central Street and Vine Lane new pedestrian route	- Public realm improvements that focus on maximising permeability through the site - Increased UGF [0.3 within the red line] - Public open space area increase by 28% - Public realm improvements along Museum Street, West Central Street and Vine Lane new pedestrian route

3.0 Summary Analysis

3.1 Assessment Summary

	Option 1 - Maximum Retention & Retrofit	Option 2 - Maximum Retention & Extension	Option 3 - Partial Retention & Extension
Opportunity to create additional floor area / Employment uplift	- Lower occupancy capacity due to no. lifts - 1:20 - Total GIA of 12,676 sqm / NIA of 9,507 sqm - Minimal uplift associated with car park conversion - Low employment capacity - safe office capacity of c.592 workers. Selkirk house element would accommodate just 359 of these.	- Possible to have 1:8 occupancy - Total GIA of 14,644 m2 / NIA of 9,254 m2 - Some uplift associated with car park conversion and more efficient new upper floors partially replacing existing building - Office capacity of c.925 workers based on 1:10 occupancy. Selkirk house element would accommodate 692 of these.	Possible to have 1:8 occupancy - Total GIA of 16,076 m2 / NIA of 10, 372 - Uplift Modest – some additional floorspace created through extension and replacement of car park - Office capacity of c.1,037 based on 1:10 occupancy, of which 804 would be in Selkirk House.
Housing offer	- Some housing possible to be provided within masterplan - 3,473 sqm GIA (this includes WCS) - Uplift required as residential accommodation would equate to approx. 943.50 sqm GIA - Policy target for affordable housing would be 18% (equates to 170 sqm GIA)	- Some housing possible to be provided within masterplan - 3,473 sqm GIA (this includes WCS) - Uplift required as residential accommodation would equate to approx. 1,928 sqm GIA - Policy target for affordable housing would be 38% (which equates to 733 sqm GIA)	- Some housing possible to be provided within masterplan - 3,473 sqm GIA (this includes WCS) - Uplift required as residential accommodation would equate to approx. 2,644 sqm GIA - Policy target for affordable housing would be 38% (which equates to 1,322 sqm GIA)
Circular Economy, Future flexibility, adaptability and resilience to climate change	- Limited opportunity to design services to facilitate future adaptability (cellularisation, tenancy splits or change of use) in many areas due to constraints of existing structural grid. - New reclad required - Inflexibility of existing building maintained - Development would not be expected to meet BREEAM Excellent or NABERS 5* - Potential to use car park demolition material as backfill - Working with contractors to recycle 95% of waste	- Limited opportunity to design services to facilitate future adaptability (cellularisation, tenancy splits or change of use) in many areas due to constraints of existing structural grid. - New reclad required - Inflexibility of existing building maintained - Development would not be expected to meet BREEAM Excellent or NABERS 5* - Potential to use car park demolition material as backfill - Working with contractors to recycle 95% of waste	- Limited opportunity to design services to facilitate future adaptability (cellularisation, tenancy splits or change of use) in many areas due to constraints of existing structural grid. - New reclad required to retained parts - Inflexibility of existing building maintained - Development would not be expected to meet BREEAM Excellent or NABERS 5* - Potential to use car park demolition material as backfill - Working with contractors to recycle 95% of waste
Long-term economic sustainability and planning benefits	- Compromised office floorplates will have less appeal to occupiers and are more likely to achieve lower target rent levels and be let on shorter leases. - Lower long-term investment in management and maintenance than options 4 and 5 - It can reasonably be expected that lower quality and therefore lower value space would mean a reduction in planning benefits and S106 contributions compared to option 4 and a lower level of Business rates payable.	- Compromised office floorplates will have less appeal to occupiers and are more likely to achieve lower target rent levels and be let on shorter leases. - Lower long-term investment in management and maintenance than options 4 and 5 - It can reasonably be expected that lower quality and therefore lower value space would mean a reduction in planning benefits and S106 contributions compared to option 4 and a lower level of Business rates payable.	- Compromised office floorplates will have less appeal to occupiers and are more likely to achieve lower target rent levels and be let on shorter leases. - Lower long-term investment in management and maintenance than options 4 and 5 - It can reasonably be expected that lower quality and therefore lower value space would mean a reduction in planning benefits and S106 contributions compared to option 4 and a lower level of Business rates payable.

3.0 Summary Analysis

3.1 Assessment Summary

	Option 4 - Basement Retention & New Build	Option 5 - New Build
Opportunity to create additional floor area / Employment uplift	- Designed for 1:8 occupancy - Total GIA of 21,491 m2 / NIA of 15, 707m2 - Uplift substantial – 65% uplift in NIA compared to option 1 - Standard occupancy would result in capacity of c.1,571 with opportunity to occupy at great densities.	- Designed for 1:8 occupancy - Total GIA of 21,491 m2 / NIA of 15, 707m2 - Uplift substantial – 65% uplift in NIA compared to option 1 - Standard occupancy would result in capacity of c.1,571 with opportunity to occupy at great densities.
Housing offer	- Maximises housing delivery within masterplan - 5,502m2 GIA - Uplift required as residential accommodation would equate to 3,573 sqm GIA (excludes reprovision) - Policy target for affordable housing would be 50% (which equates to 1,787 sqm GIA) - Development option achieving 51% affordable housing across the whole site.	- Maximises housing delivery within masterplan - 5,502m2 GIA - Uplift required as residential accommodation would equate to 3,573 sqm GIA (excludes reprovision) - Policy target for affordable housing would be 50% (which equates to 1,787 sqm GIA) - Development option achieving 51% affordable housing across the whole site.
Circular Economy, Future flexibility, adaptability and resilience to climate change	- Less superstructure temporary works required than the refurbishment options - Incorporation of SUDs and blue roofs - Backfilling on site with demolition material - Working with contractors to recycle 95% of waste - Prefabrication off site of components possible - Exploration of potential reuse of existing building elements in new building - Designed to meet BREEAM Excellent as a minimum and targeting Outstanding; and NABERS 5*	- Less superstructure temporary works required than the refurbishment options - Incorporation of SUDs and blue roofs - New basement structure will produce more waste - Working with contractors to recycle 95% of waste - Prefabrication off site of components possible - Backfilling on site with demolition material - Exploration of potential reuse of existing building elements in new building - Designed to meet BREEAM Excellent as a minimum and targeting Outstanding; and NABERS 5*
Long-term economic sustainability and planning benefits	- Higher quality, flexible space with a wide appeal to occupiers is considered more likely to achieve target rent levels, be let on longer leases and to occupiers with strong covenant strength. - This in turn supports service charges for ongoing investment in the building's fabric and performance resulting in better management and longer productive life of the building. - Expected annual Business Rates are IRO £15m	- Higher quality, flexible space with a wide appeal to occupiers is considered more likely to achieve target rent levels, be let on longer leases and to occupiers with strong covenant strength. - This in turn supports service charges for ongoing investment in the building's fabric and performance resulting in better management and longer productive life of the building. - Expected annual Business Rates are IRO £15m

3.0 Summary Analysis

3.1 Assessment Summary

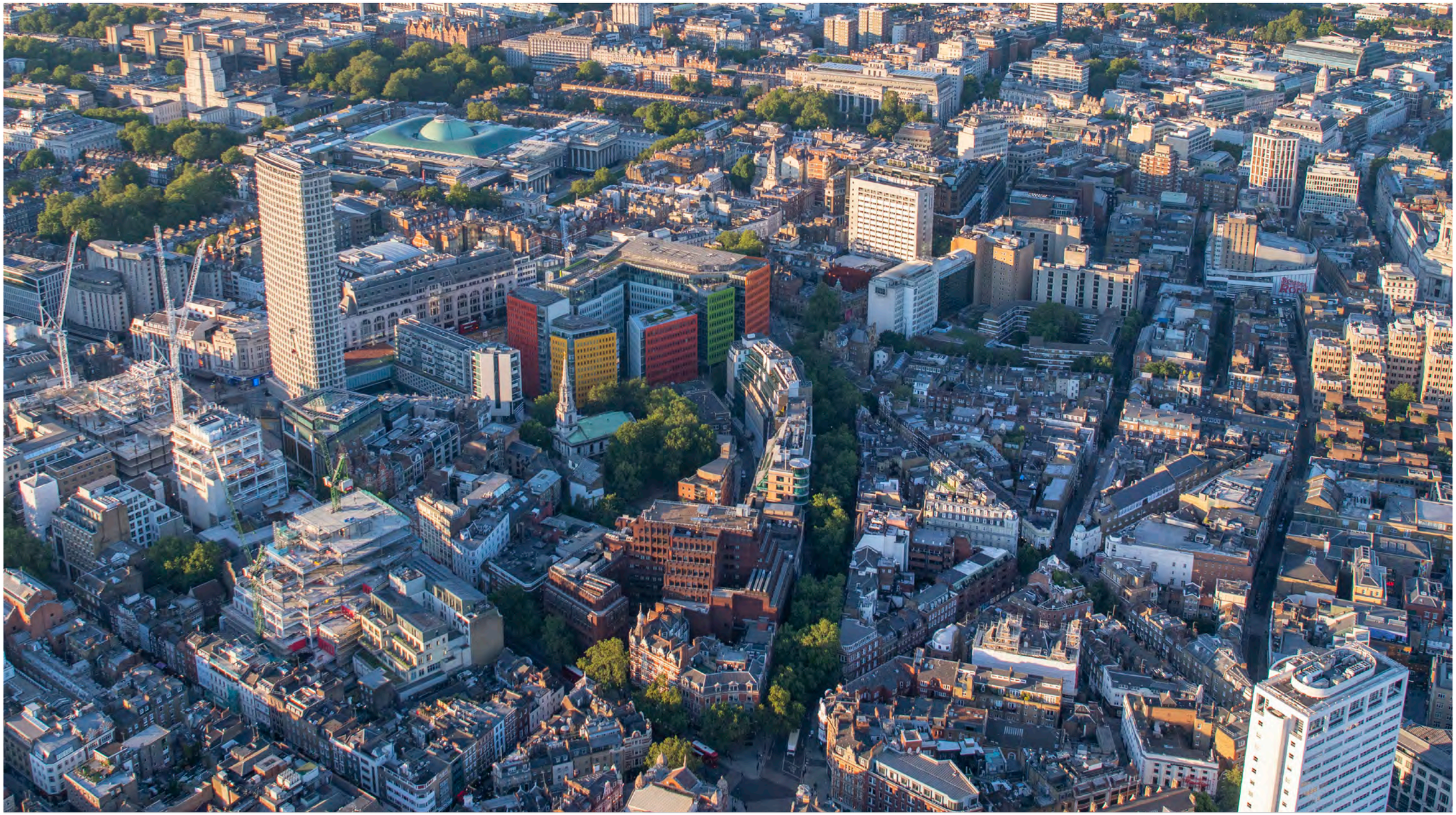
The following table compares the high-level performance of the five options for each of the criteria analysed in the report. The following chapter captures the detailed quantitative and qualitative analysis underpinning the ranking assessment.

	Option 1 Maximum retention and retrofit (no extension)	Option 2 Maximum retention and extension	Option 3 Partial Retention and extension	Option 4 Basement retention and new build (planning submission)	Option 5 New Basement and new build	Assessment Notes
Efficient Use of Land	5	4	3	2	1	Land-use efficiency informed by planning policy and context including public transport accessibility. The new build basement associated with option 5 would optimse the below ground space.
Construction Impacts	1	2	3	4	5	Retention of the existing structure would reduce the construction programme duration and potentially reduce the extent and/or duration of the most impactful works.
Space Quality	3	5	4	1	1	Focused on workspace quality; option 3 extends already constrained floorplates thereby exacerbating exisitng challenges. Option 2 reduces the NIA with additional cores further constraining space and layouts.
Ground floor activation	5	4	3	1	1	Ability to incorporate active frontages and address current building condition.
Employment capacity uplift	5	4	3	1	1	Options 4 & 5 would accommodate around 1,500 workers in the workspace compared to less 1,000 for option 2.
Public realm enhancements	5	4	3	1	1	Options 3, 4 and 5 all introduce the new pedestrian route.
Housing offer	5	4	3	1	1	Options 4 & 5 would be required to deliver over 1,000sqm GIA more affordable housing than option 2 (equivalent to around 10 homes).
Future flexibility	5	4	3	2	1	The additional floors delivered in options 2&3 enhance the building's flexibility somewhat. The new build basement in option 1 is considered to be more efficient that option 2 therefore improving future flexibility.
Long Term Economic Sustainability and Planning Benefits	4	5	3	2	1	On balance the interventions required to option 2 increase cost without providing a commensurate uplift in NIA floorspace.
Whole Life Carbon per m2	2	1	3	4	5	Modules A-C (kgCO2e/m2 GIA). For details on the methodology and results see 5.10
Total Embodied Carbon per m2 (RICS method)	2	1	3	4	5	Modules A-C exc. B6&B7 (kgCO2e/m2 GIA). For details on the methodology and results see 5.10
Operational Carbon per m2	3	3	3	1	1	Modules B6&B7 (kgCO2e/m2 GIA). For details on the methodology and results see 5.10

Best

Worst

4.0 Existing Condition Appraisal



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4.0 Existing Condition Appraisal

4.1 Existing Condition

There are two constituents parts within the Site ownership boundary - Selkirk House and West Central Street buildings.

Selkirk House
The existing Selkirk House tower, podium and basement, including the NCP car park bounded by West Central Street and Shaftesbury Avenue to the north, Museum Street to the east, High Holborn to the south, and Grape Street to the west. This is the larger of the two blocks and it includes a tall hotel building (Selkirk House). It lies outside the Bloomsbury CA.
The public realm also forms part of the Site, including the pavements adjacent to the site boundary and all of the West Central Street.

Note that West Central Central buildings do not form part of this report analysis; the proposals for this part of the site combine sensitive retention and refurbishment with new build.

Existing Site Plan (Showing West End Project Improvements)

4.0 Existing Condition Appraisal

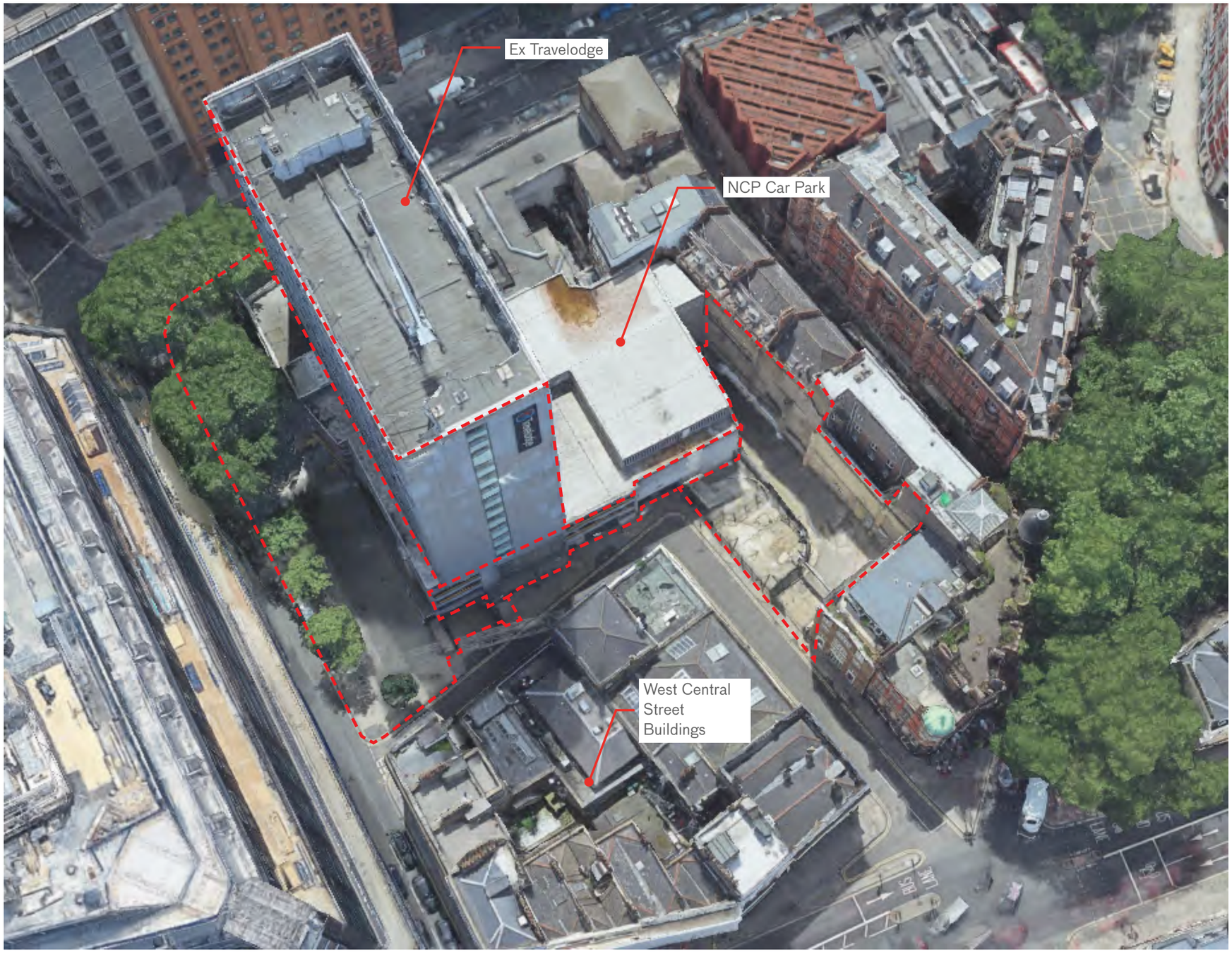
4.1 Existing Condition

Selkirk House

Selkirk House comprises a vacated 17 storey building, which includes two basement levels, and a further partial basement level. Selkirk House was, until 2020, occupied by the former Travelodge hotel building and NCP car park. The building provided overspill accommodation from the primary Travelodge hotel building on the opposite side of High Holborn, however, the hotel use at the site ceased all operation in June 2020. At lower levels there is an NCP car park set across basement to second floor level which closed in September 2020. The car park was reopened in February 2023 as a meanwhile use and is currently in operation.

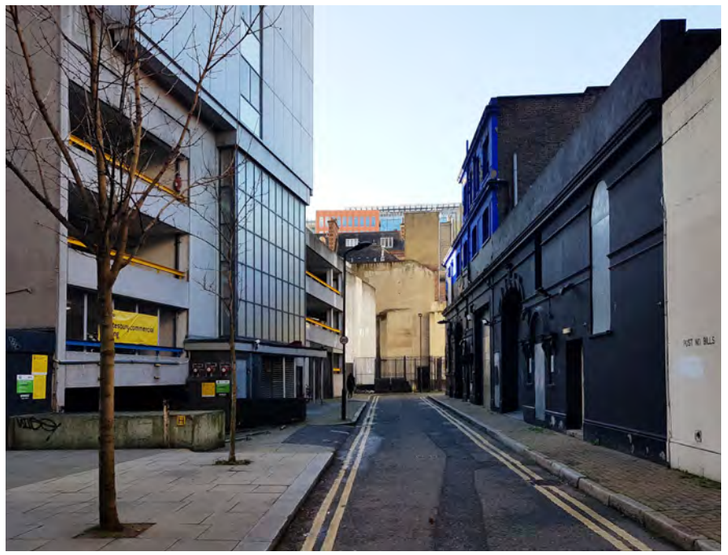
The heart of the site suffers from low levels of footfall and anti-social behaviour, exacerbated by poor visibility and a number of conditions at ground level related with the defunct car park use, which detracts significantly from the surrounding conservation areas.

There are a number of issues with the existing Selkirk House and the NCP car park that are summarised in the following pages.



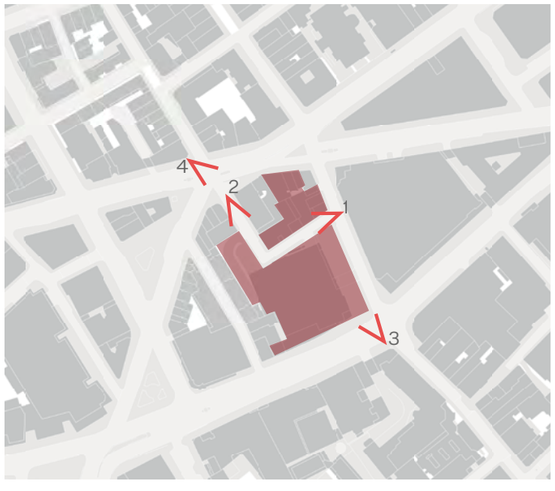
4.0 Existing Condition Appraisal

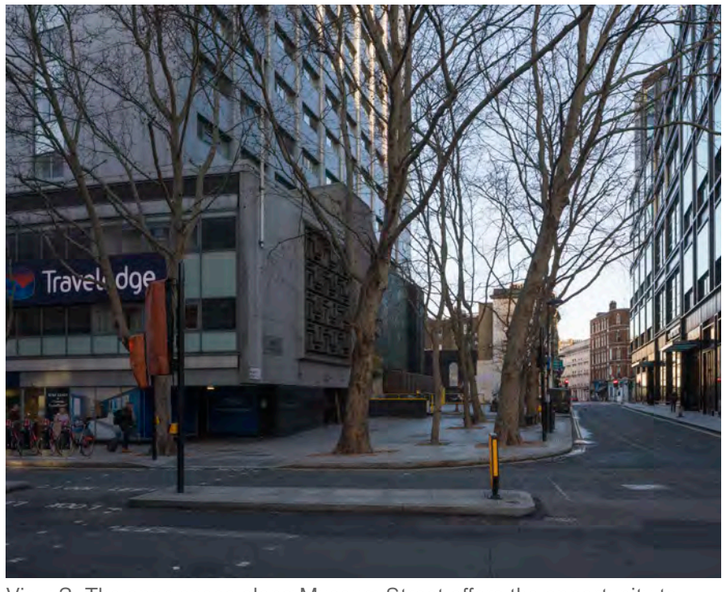
4.1 Existing Condition



View 1: In the west section of the site a fenced-off vehicular ramp leads down to the lowest basement level of the NCP Car Park. Very infrequently used, and terminating in a dead-end condition with poor over-looking, this area of West Central Street has been blighted with anti-social behaviour.

View 2: The Car Park ground floor condition is poorly activated and detracts significatly from the surrounding conservation areas. The lack of permeability at the building base leads to low levels of pedestrian traffic. The overall sense is one of neglect and discordance with surroundings.





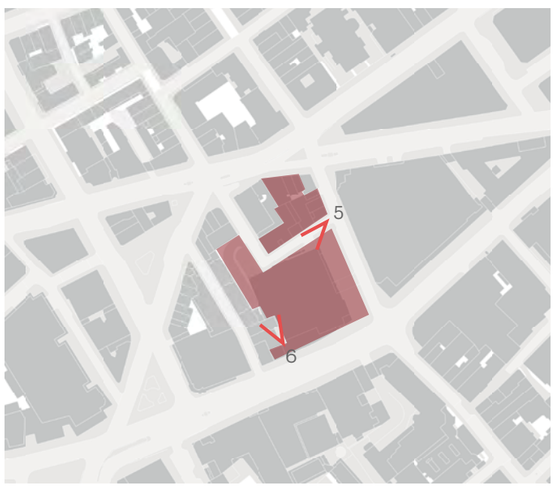
View 3: The open space along Museum Street offers the opportunity to provide a more meaningful public realm in greater harmony with, and with more to contribute to, the identity of the local area.

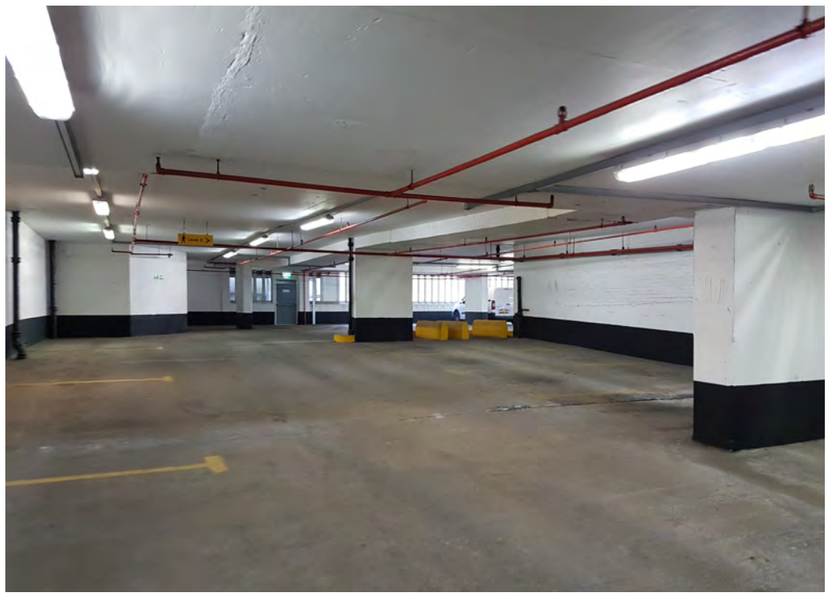
View 4: The facade of Selkirk House is in poor condition, presenting a significant area of blank, and ill-proportioned frontage.

4.2 Existing Building Challenges

View 5: Car park access ramp on West Central Street; due to the amount of inactive frontage West Central Street is infrequently used by pedestrians

View 6: Existing lightwell between Selkirk House and the Embassy of Cuba highlights issues with overlooking





View within existing car park with deep floor plates as ramped slabs and very little daylight

View of typical floor of former Travelodge corridor

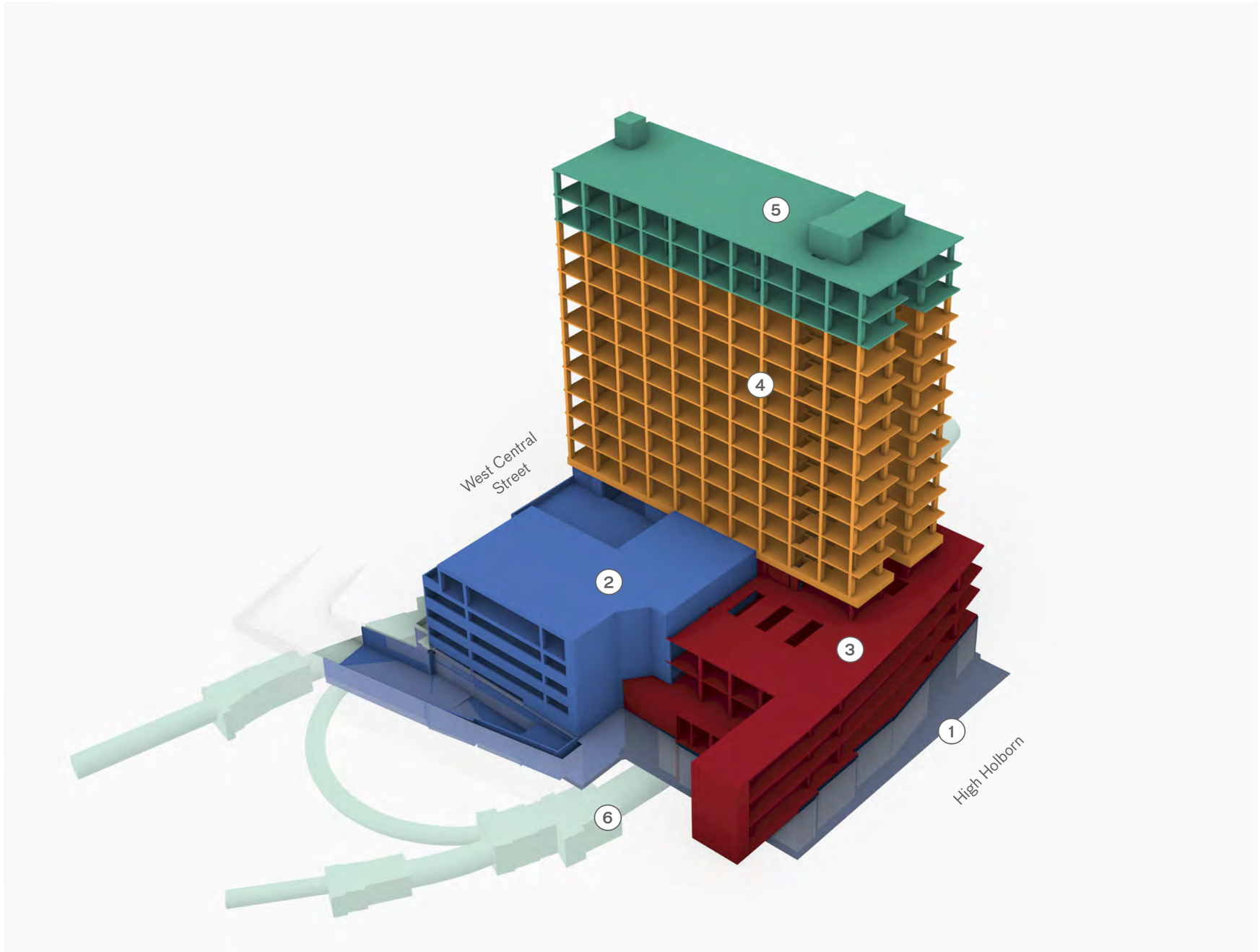
4.2 Existing Building Challenges

1. Selkirk House - Structural Elements

The existing Selkirk House building is formed of five constituent parts each with a different structural approach to framing.

1: Basement
2: Car Park
3: Hotel: Podium
4: Hotel: Typical Floors
5: Hotel: Upper Floors

The Post Tunnels (6) run below the site.



Existing Building - Axonometric Diagram of Structure

4.0 Existing Condition Appraisal

4.2 Existing Building Challenges

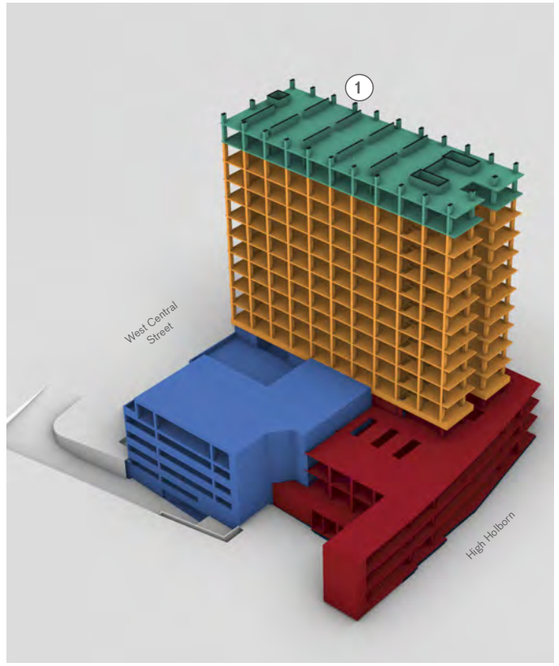
1. Selkirk House - Structural Elements

Existing structural grid - Upper Floors
The upper two enclosed storeys (Floors 14 and 15) which housed previously HMO use utilise a shear wall structural arrangement. These span onto the columns on 13th floor, requiring structural transfer through 'dropheads' (of 450mm) which locally thicken the slab.

The shear wall arrangement makes these floors unusable for commercial purposes, and deeply inflexible for any other use.

The residential configuration on these floors as duplex units is non-compliant with the London Housing Design Standards in terms of minimum areas.
The existing 2-beds units (equivalent to 2B3P) are configured as 2-storey dwellings of circa 57sqm and 65sqm - which are under minimum area of 70sqm.

The existing Selkirk House structure and it's complexity have clearly been designed for specific uses and less for flexibility and adaptability.



Axonometric Diagram of Existing Structure - Upper Floor

View within existing apartment (fourtheen floor)

Existing Building - Fourtheen Floor Plan

4.2 Existing Building Challenges

1. Selkirk House - Structural Elements

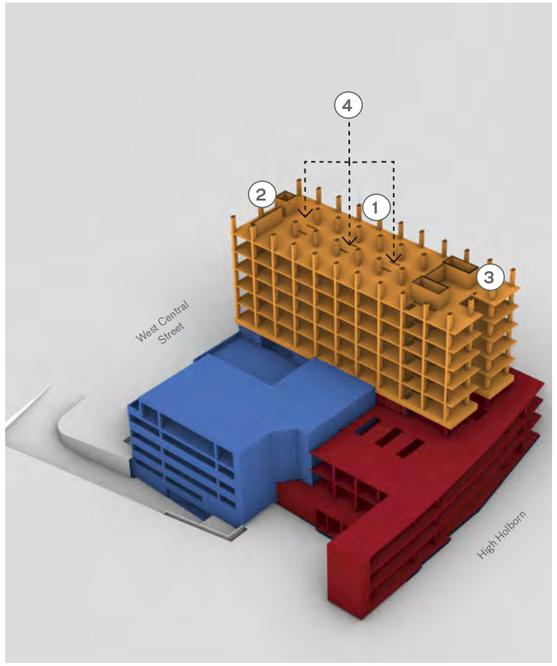
Existing structural grid - Typical Upper Floors

1. Typical floor columns are at 13' 6" (4.11 m) x 16' 8" (5.08 m) centres between levels 4 and 14. The BCO recommended grid spacing for a building of this scale is between 6m - 9m and multiples of 1.5 meters to work with contemporary office space planning.

2. The northern core provides structural stability to the tower. The location of the core in this area is associated with significant stretches of blank facade along the North/West Central Street restricting the opportunities for views and cross ventilation.

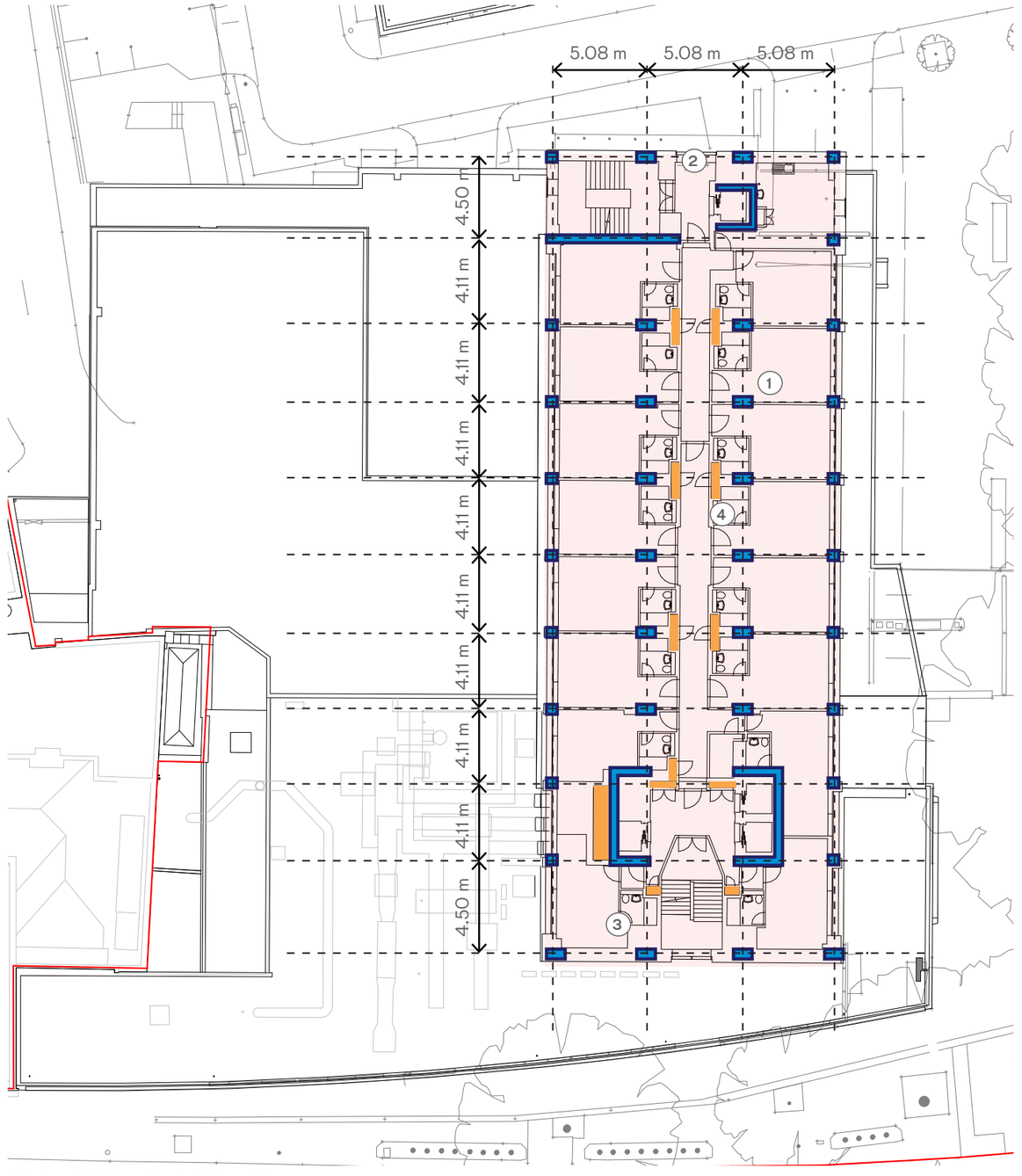
3. To the south, the relationship of the core to the perimeter is also poor, with no viable connected lettable space between core and building perimeter. This existing lift core incorporates 3no. lifts, which would not accommodate the greater building occupancy required. Re-coring the building is likely to be a prerequisite to meeting modern safety standards.

4. Mini-risers have been punched through the original structure to service the typical floors of the hotel creating a series of openings through the main transfer structure between hotel and car park grids. This restricts flexibility of use and suits only a cellular layout with central corridor which is not suited for commercial use. Cutting larger openings in the transfer structure would require significant strengthening works, and temporary works that require temporary materials as well as adding to the complexity of the construction.



Axonometric Diagram of Existing Structure - Typical Floor

View of existing corridor / typical floor



Existing Building - Typical Floor Plan

4.0 Existing Condition Appraisal

4.2 Existing Building Challenges

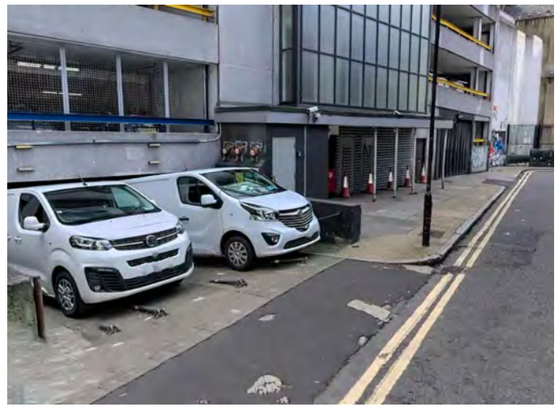
2. Ground Floor Condition / Inactive Frontages

The existing ground floor has a fragmented street frontage disrupted by extensive areas of structure, and service arrangements. The adjacent plan and photos highlight the areas of inactive frontage.

On High Holborn, the building has a retail front with a number of ventilation louvres in between. The street frontage is mostly inactive with blank walls and multiple vehicle entrances on Museum St. and West Central St.

- Inactive frontage
- Pedestrian entrance
- Vehicle entrance
- Structure

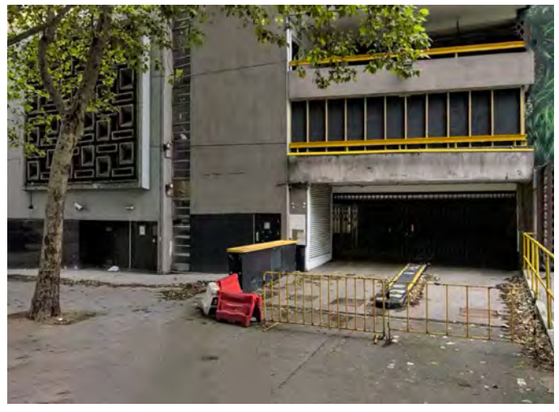
High Holborn elevation with Travelodge hotel entrance



West Central Street inactive frontage - access to existing NCP car park and ventilation grilles

Museum Street - reccessed corner is not activated

High Holborn elevation with ventilation louvres to existing UKPN substation and basement area



Museum Street - access to NCP car park

Existing Building - Ground Floor Plan

Structure

4.0 Existing Condition Appraisal

4.2 Existing Building Challenges

3. Existing Car Park Constraints

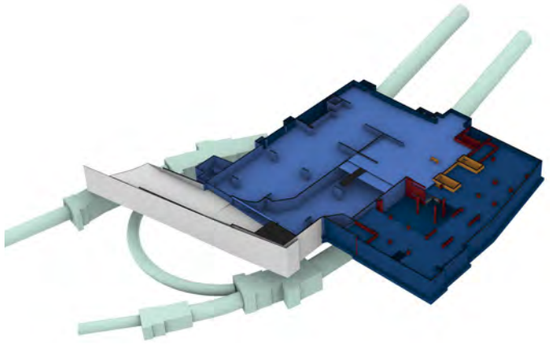
Structure

The columns in the lower floors and basement are typically at 9.7 x 8.2m centres in the car park area.

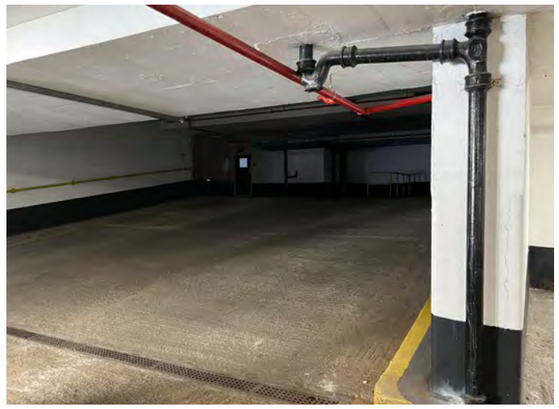
1. The car park would likely have been designed for a live load of 2.5kN/m2 (1). Residential and hotel uses could work with this capacity with a very lightweight floor build-up (i.e. no screed as the car park do not have a floor build-up at the moment). Offices with a very lightweight partitions allowance would come in at around 3.0-3.5kN/m2 and therefore just exceed this capacity. Any communal and civic uses would not be feasible without significantly strengthening and replacing the existing structure.

A typical modern office building of this scale would be designed for an imposed load 2.5kN/m2 + 1.0kN/m2 for partitions. A hotel would be designed for an imposed load of 2.0kN/m2 + 1.0kN/m2 for partitions.
This factor has implications for the buildings' use and capacity.

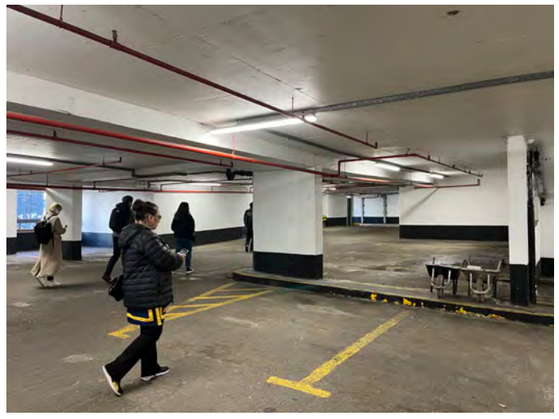
2. The 'H-wall' (2) and 'Perimeter Wall' (3) would both require retention in order to keep the tower supported above, acting as significant barriers to activating the ground floor along Museum Street and West Central Street, as well as incorporating outward facing new uses.



Axonometric Diagram of Basement Existing Structure

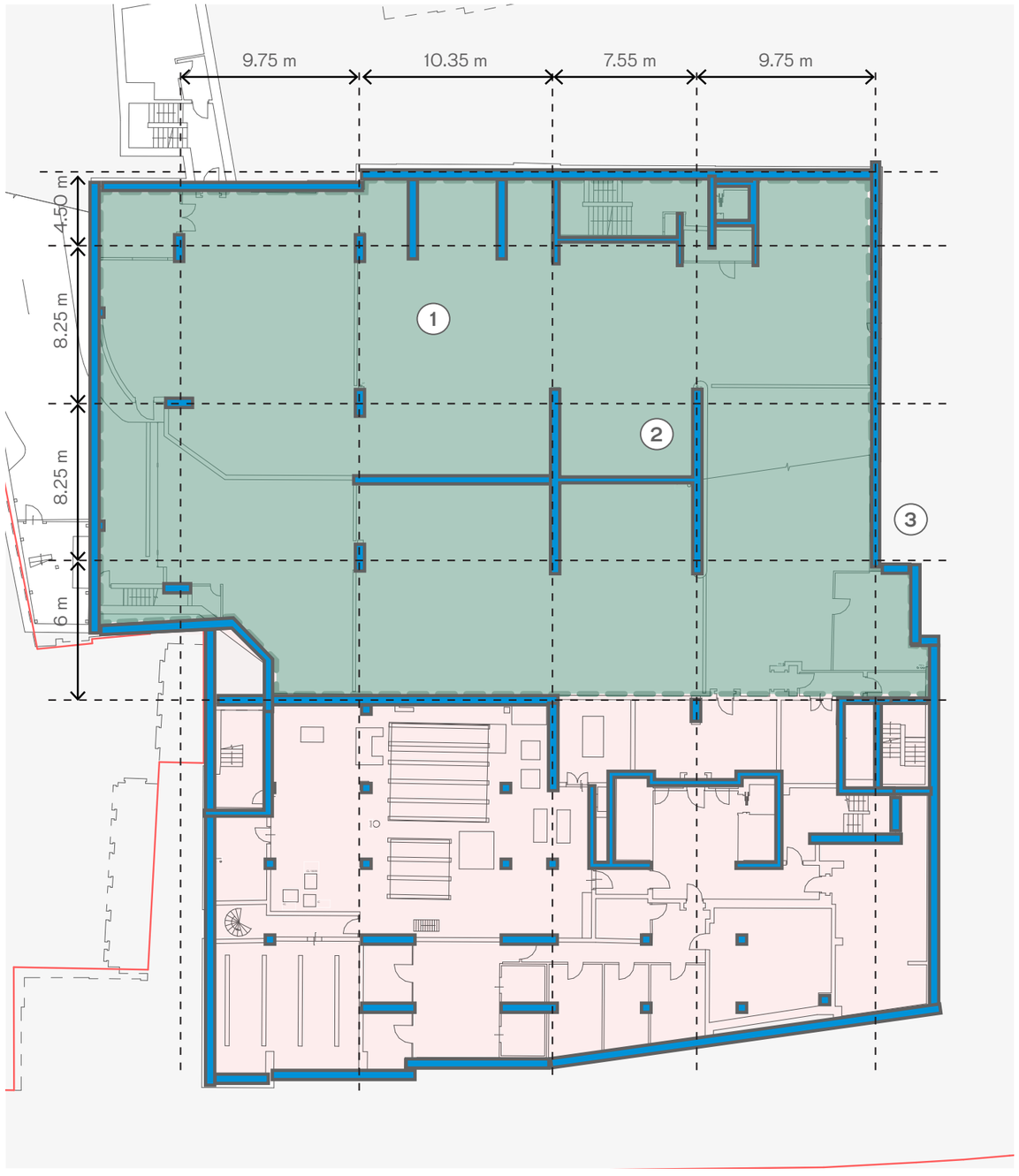


Existing car park ramped slabs



Existing car park restricted floor to ceiling heights

Existing car park deep floorplates



Existing Building - Second Basement Floor Plan

Structure
Car park

4.2 Existing Building Challenges

3. Existing Car Park Constraints

Ramped Floor Plates

Fragmented floor plates within the car park area result in disjointed spaces and limit its potential reuse. The existing ramps are 18m (2), 10m (4) and 18m (6) long and have a slope of 1:22. The ramps' long span and relatively high gradient will limit the access of wheelchair users.

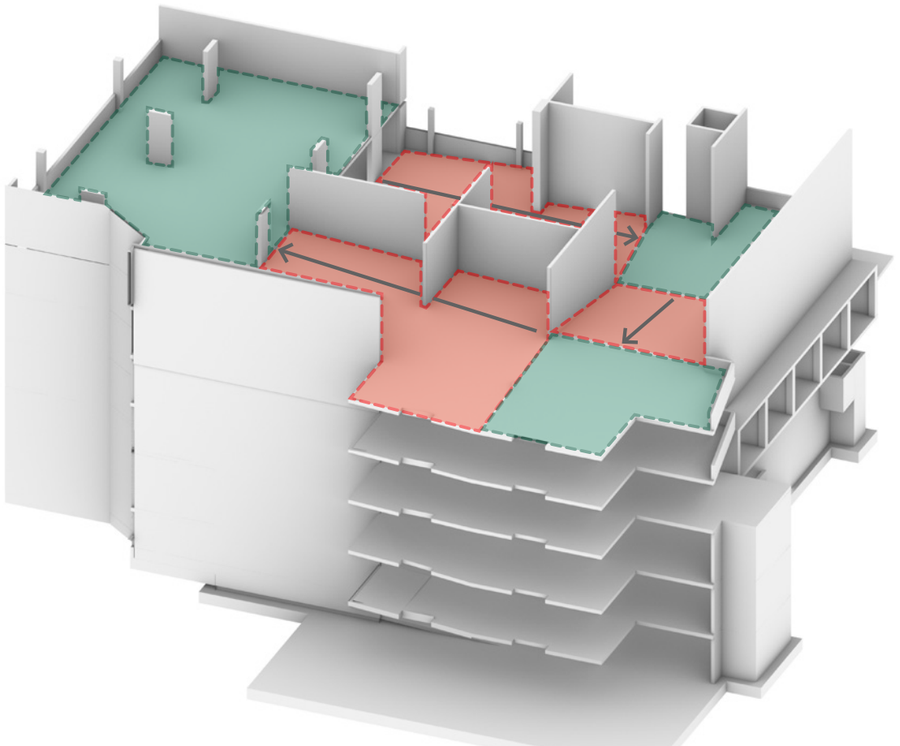
The total GIA of the ramped area per typical floor is 620 sqm, which represents 54% of the total GIA per typical car park floor.

The remaining areas of flat slab are set at three different levels preventing them from being connected to form a single usable floorplate.

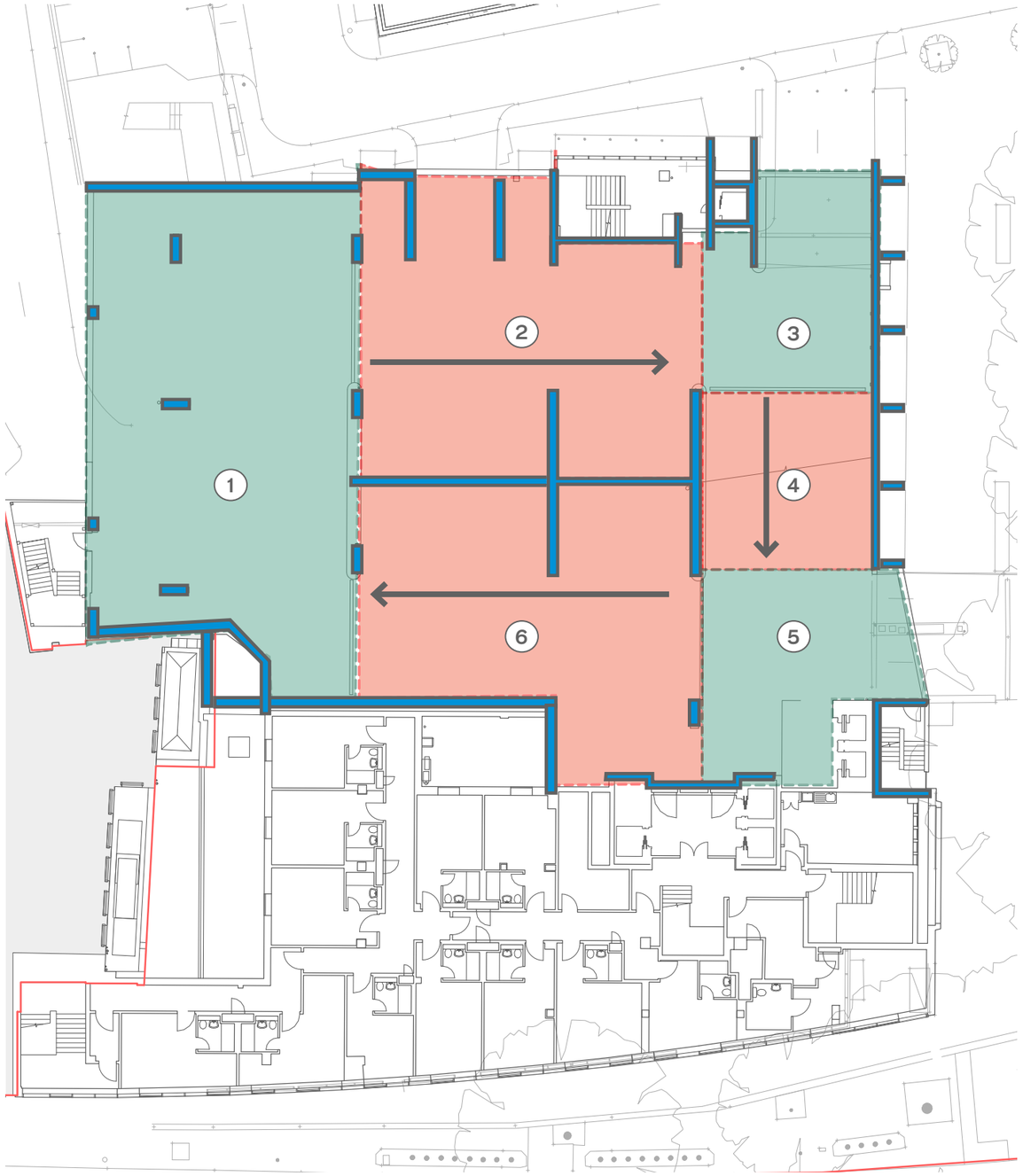
Structure

Flat slab areas

Ramped slab areas



Existing Building - Car Park Structure Axonometric View



Existing Building - Car Park Second Floor Plan

Structure

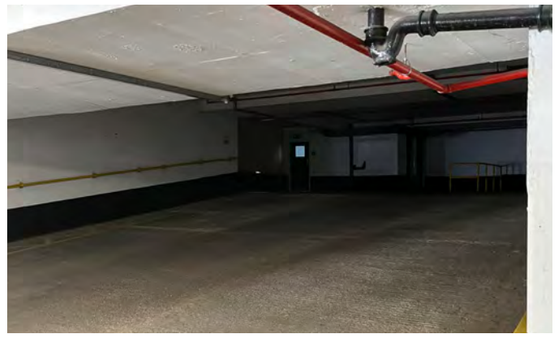
4.2 Existing Building Challenges

3. Existing Car Park Constraints

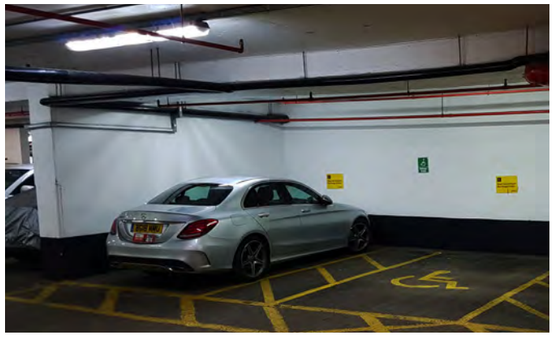
Poor Daylight

The existing car park structure incorporates four facade areas with openings - two of these openings are located on the northern facade (1) (2), one on the eastern facade (3) and one on the western facade (4). Small areas of openings combined with shallow floor to ceiling heights and deep floor plates result in poor levels of daylight and a reliance on artificial light. This leads to negative health and wellbeing impacts on building users.

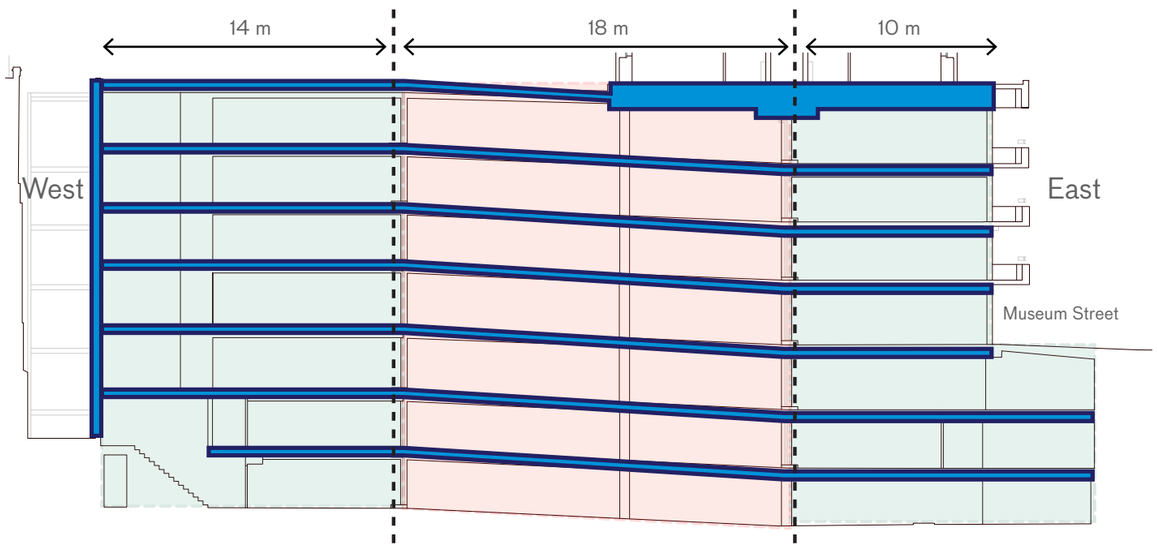
Existing facade opening on the north east corner



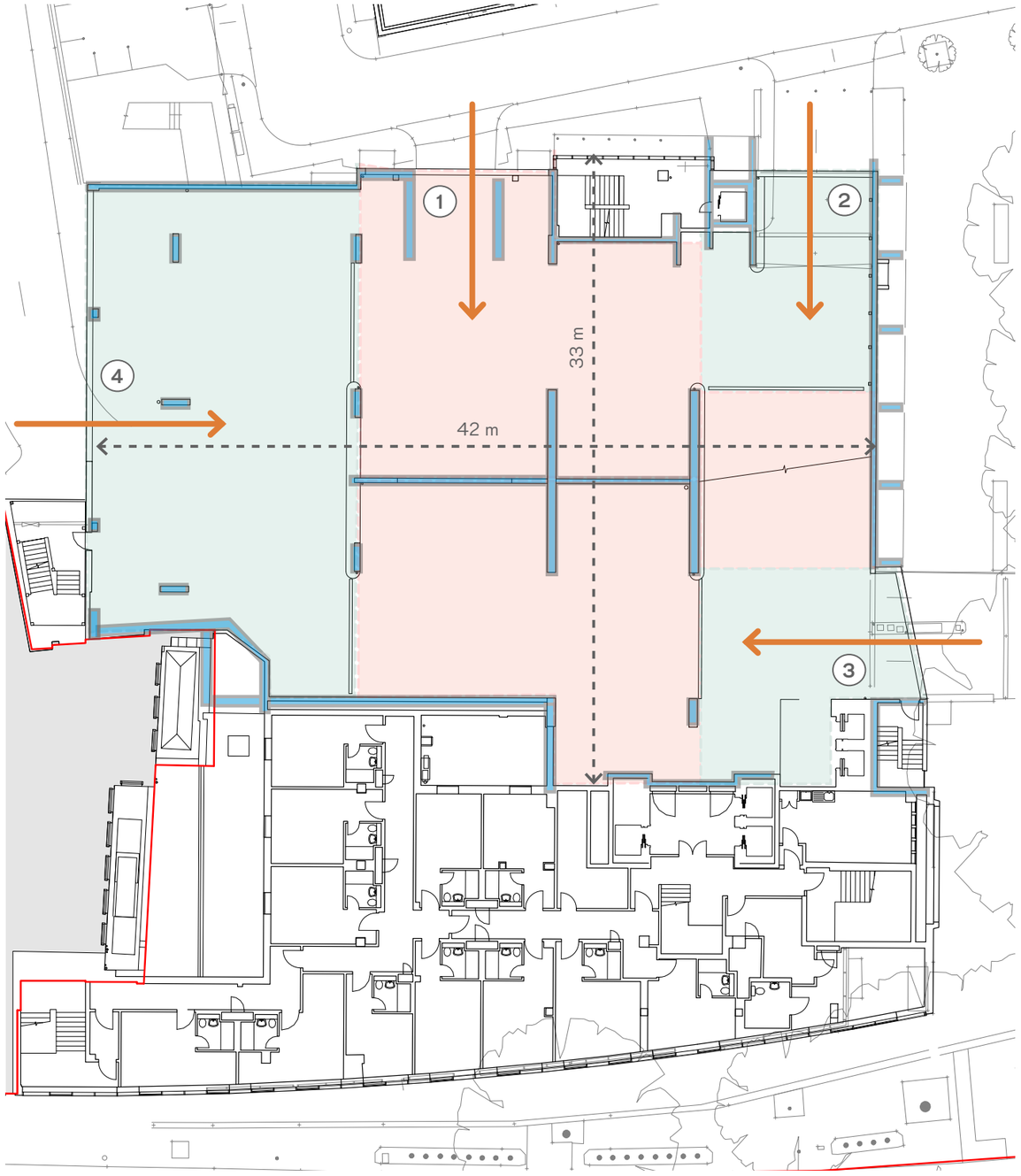
Existing deep floor plates and unlit places



The existing car park relies heavily on artificial lighting



Existing Building - Section through existing car park



Existing Building - Car Park Second Floor Plan

4.2 Existing Building Challenges

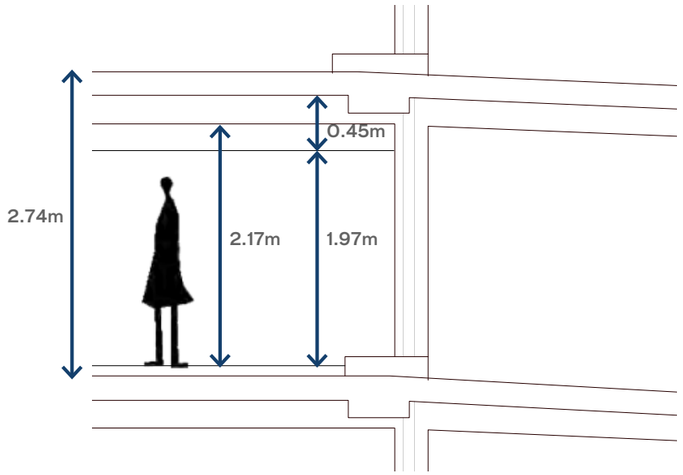
3. Existing Car Park Constraints

Floor to Ceiling Heights

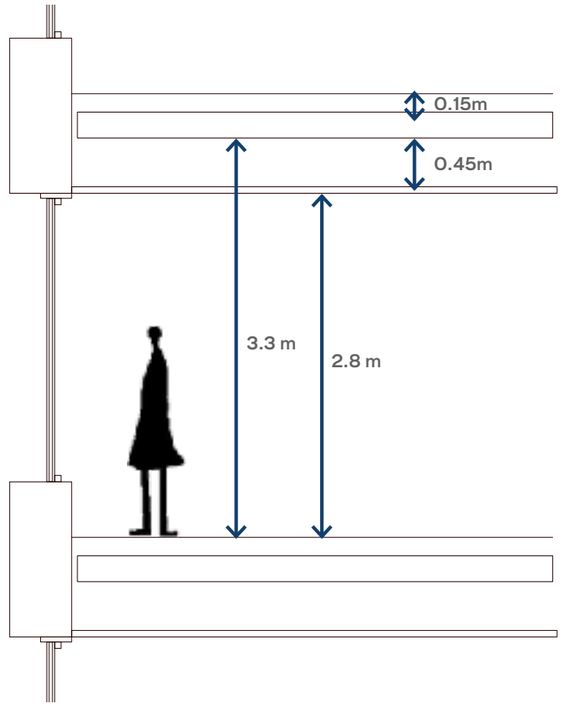
On the limited areas of flat slab, typical slab to slab heights are spaced at 2.74m with circa 220mm thick slab. Application of a comparable 100mm floor zone and circa 450mm flexible services zone leaves achievable floor to ceiling heights of around 1.97m. which is well below typical floor ceiling heights for workspace, residential and cultural/civic uses.

A perimeter servicing strategy could be used in order to reduce the ceiling zone to 200mm, and raise the resultant floor to ceiling height to 2.2m (althought this would reduce the flexibility on how the space could be used). This would result in still compromised head heights; which, alongside the compromised layouts due to the structural frame, this presents considerable challenges to repurposing of the space.

BCO guidance recommends clear head heights between 2.45m to 2.8m for refurbishments and between 2.6m to 2.8m for new builds.



Existing building - carpark typical section



Market expectations - typical section (in line with BCO guidelines - clear head heights for new build between 2.6 to 2.8m)

Existing Car Park

4.0 Existing Condition Appraisal

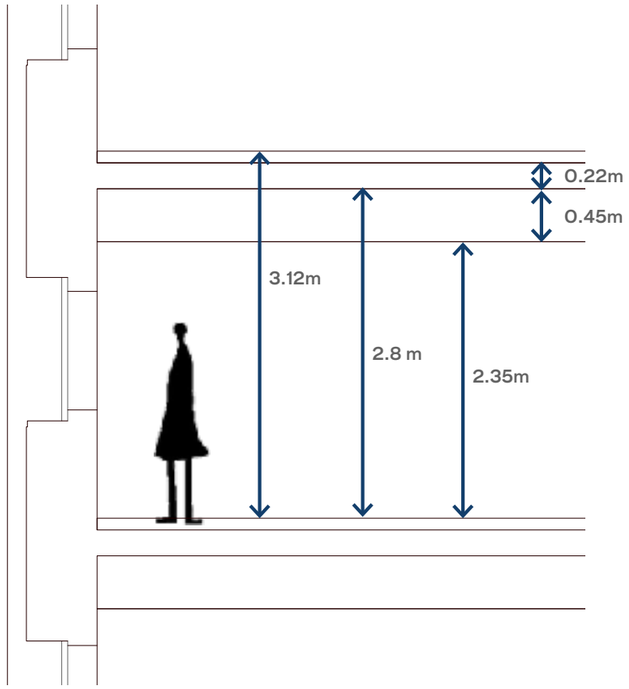
4.2 Existing Building Challenges

4. Floor to Ceiling Heights - Typical Floors

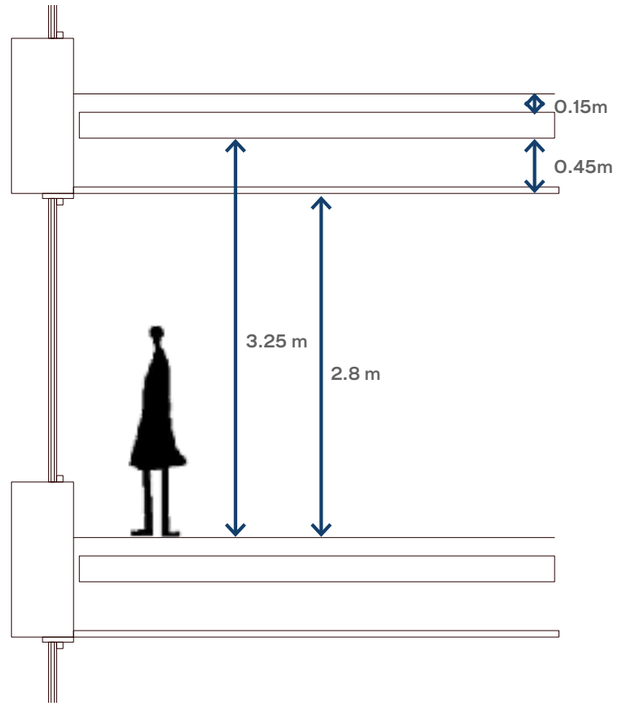
Typical tower floor (1) slab to slab heights are spaced at 3.12m with a circa 220mm slab. Application of a comparable 150mm BCO compliant floor zone and circa 450mm flexible services zone leaves achievable floor to ceiling heights of around 2.35m.

A perimeter servicing strategy could be used in order to reduce the ceiling zone to 200mm, and raise the resultant floor to ceiling height to 2.55m (althought this would reduce the flexibility on how the space could be used). This still falls notably below BCO guidance and would also result in compromises to the flexibility of the floorplates.

This factor, alongside the compromised layouts due to the structural grid and core location, severely limits the ability of Selkirk House to offer attractive and comfortable office space.



Existing building - typical section for office use



Market expectations - typical section (in line with BCO guidelines)

Existing Typical Floor

Existing Typical Floor - hotel bedroom

The Hickman, commercial development completed in 2020, DSDHA

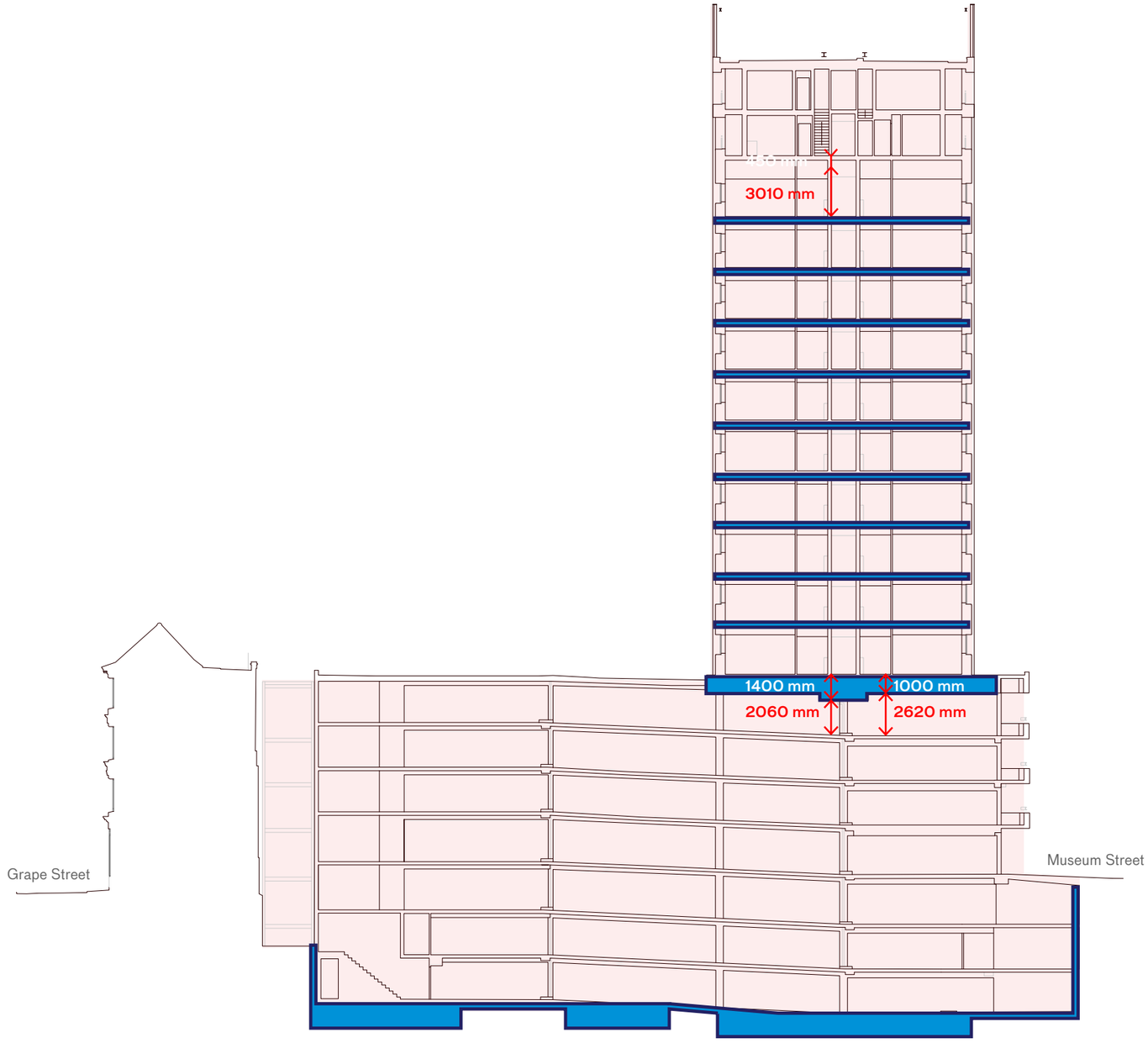
4.2 Existing Building Challenges

4. Floor to Ceiling Heights - Floor Transfers

Additionally, the depth of the transfer structure restricts the floor to ceiling height of level 3 substantially, as shown in the adjacent section. The level 4 slab has a 1.4m deep beam down the middle which supports a 1m deep slab.

The transfer slab is critical to the stability of the existing building and this restricts the opportunity for any new service penetrations. This is likely to result in a less efficient services strategy also requiring a highly visible plant room at the upper levels of the building in order to service the building from above, as well as from below.

The upper two storeys (Floors 14 and 15) utilise a shear wall structural arrangement. These span onto the columns on 13th floor, requiring structural transfer through 'dropheads' which locally thicken the slab to 450mm. The existing 14th floor localised slab thickening is worked into the lower central corridor zone within the hotel floor plan, which is not something that would be proposed in a commercial scheme with cores set at either end on a floor plate of this size.



Existing Section

4.0 Existing Condition Appraisal

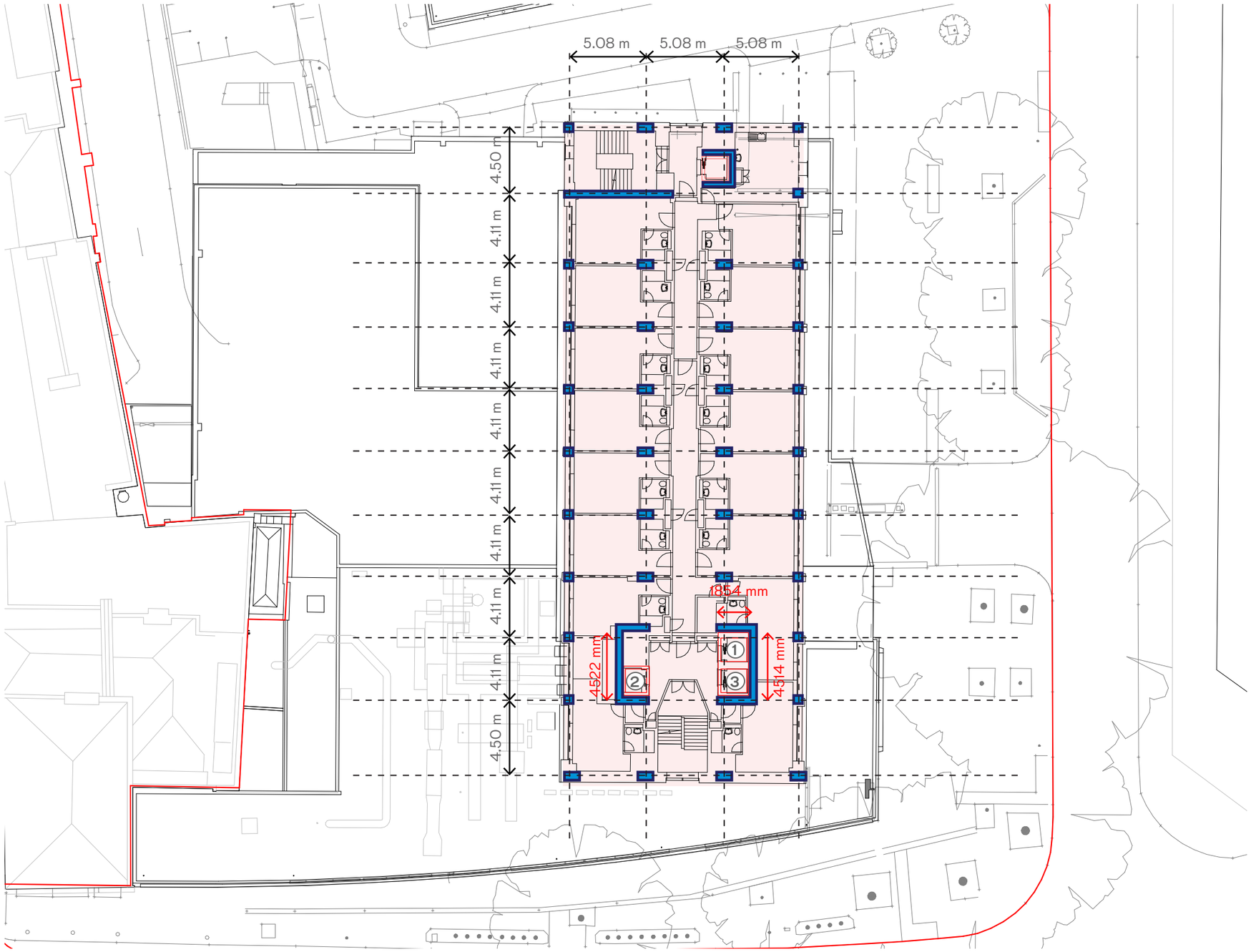
4.2 Existing Building Challenges

5. Substandard lift provision

The existing shaft sizes give an indication that the existing lifts are 12 persons, 900kg but there is no indication of the speed of the existing equipment.

Although there are 4no. existing lifts in total the occupancy of the floorplates calculation would need to be based on 3no. lifts (due to the location of the 4th lift not forming part of the main group of lifts).

Based on modern standards, the existing lift capacity for commercial use would only allow a safe floor occupancy of 1 person per 20sqm GIA (1:20). This reduces to 1:27 when modern occupational expectations are taken into account, which results in an average lift waiting time of 25 seconds. This occupancy level compares extremely poorly to the BCO guidance standard occupancies of 1:8 to 1:10. In order to occupy the existing Selkirk House building at a modern occupancy ratio of 1:10 it is anticipated that a total of 3no. passenger lifts would be required.



Existing Building - Typical Floor Plan

4.3 Summary of challenges and their implications

There are a number of issues with the existing Selkirk House and the NCP car park as summarised in the previous pages which currently makes the building unlettable.

These issues were also identified in a successful Change of Use from Office to Hotel Use submitted in 2002, where the Applicant in that case noted " The tower and podium office floorspace comprises secondary office accommodation. The building has significant physical constraints with small floorplates, low floor to floor heights and intrusive internal columns... we consider that the physical characteristics of the building, namely sub-optimal floor plates and internal concrete columns, make it unattractive to other office occupiers..."

This existing situation will continue to worsen as time goes on. Issues with the existing building are summarised in table below as well as the predicted and/or known consequences or implications.

	Challenges	Implications
Selkirk House Structure - Upper Floors	The existing upper two storeys (Floors 14 and 15) house 11 no. of single aspect flats of 57-65sqm in size. The current residential configuration on these floors as duplex units is non-compliant with the London Housing Design Standards in terms of min. area of 70sqm for duplex 2-bedroom homes.	Existing residential units do not meet LHDG standards Shear wall arrangement makes these floors unusable for commercial purposes, and deeply inflexible for any other use.
	Floor 14-15 utilise a shear wall structural arrangement meaning that they cannot be removed to open up the floorplate for non-residential use.	Floor 14th localised slab thickening is worked into the lower central corridor zone, which is not something that would be proposed in a commercial scheme with cores at either end of a floor plate this size.
Selkirk House Structure – Typical floors *- Structural grid*	Typical floor structural grid / columns are set at 4.11m x 5.08m centres between levels 4 and 14.	A grid this dense is not considered competitive in the modern commercial market being a long way off the BCO recommended smaller grid spacing of 6m - 9m. This will also restrict the building's use and future flexibility. A standard space planning grid of 1.5m cannot be accomodated.
	The facade to the north would be heavily influenced by the location of the core retained for stability.	This would retain significant stretches of blank façade along the North/West Central Street restricting the opportunities for views and cross ventilation. This restricts flexibility of use and suits more a cellular layout with central corridor. Cutting larger openings in the transfer structure will require significant strengthening and temporary works that will add to the complexity of the works required.
- Mini risers	Mini-risers have been punched through the slab to service the typical floors of the hotel, These create a series openings through the main transfer structure	
Selkirk House Ground Floor	The existing ground floor has a fragmented street frontage disrupted by extensive areas of structure, service arrangements and multiple car park vehicle entrances on Museum St. and West Central St. The only activation is along High Holborn.	The existing condition of the ground floor with substantial amount of inactive frontages supports the existing anti-social behaviour due to the lack of active surveillance and 24 hour uses.
Existing Car park - structure	Car park structure and loading constraints - The car park would likely have been designed for a live load of 2.5kN/m2.	Residential and hotel uses could work with this capacity with a very lightweight floor build-up (i.e. no screed as the car park do not have a floor build-up at the moment). Offices with a very lightweight partitions allowance would come in at around 3.0-3.5kN/m2 and therefore just exceed this capacity. Any communal and civic uses would not be feasible without significantly strengthening and replacement of the existing structure.
	Existing structural elements like the ‘H-wall’ and ‘Perimeter Wall’ would both require retention in order to keep the Selkirk House tower supported above.	Retaining H-wall and perimeter wall would act as significant barriers to activating the ground floor along Museum Street and West Central Street.
Existing Car park - ramps	The existing ramps are 18m, 10m and 18m long and have a slope of 1:22. The total GIA of the ramped area per typical floor is approx. 54% of the total GIA per typical car park floor.	Restricted use due to the ramped slabs in most of the floor plates of the car park. One option tested would be to level these areas (i.e. with a raised floor) but this would restrict even more the head heights.

Existing Car park - Floorplates	Existing car park has substantially deep floor plates that restrict the building reuse; also areas of openings are restricted by the existing structure	This results in poor levels of daylight and a reliance on artificial light which severely limits potential uses and is associated with negative health and wellbeing impacts on building users.
Existing Car park - Head Heights	On the limited areas of flat slab, typical slab to slab heights are spaced at 2.74m with circa 220mm thick slab. Application of a comparable 100mm floor zone and c. 450mm services zone results in floor to ceiling/services height of around 1.97m, which is not feasible. A perimeter servicing strategy could be used to reduce ceiling zone to 200mm /raise the resultant floor to ceiling height to 2.2m. This would result in still very compromised head heights.	Existing car park with constrained heights and ramped slabs is impractical for other uses other than car park.
Selkirk House Typical Floor plates - Head Heights	Typical tower slab to slab heights are spaced at 3.12m with a circa 220mm slab. Application of a comparable 150mm BCO compliant floor zone and circa 450mm flexible services zone leaves achievable floor to ceiling heights of around 2.3m. If floor zone is reduced to 100mm a floor to ceiling height of 2.35m could be achieved. A perimeter servicing strategy could be used in order to reduce the ceiling zone to 200mm, and raise the resultant floor to ceiling height to 2.55m.	With a typical servicing strategy, the head heights would fall considerably short of the lower end of BCO guidance for refurbishments (min. 2.45m). Even with a perimeter strategy, notwithstanding the other challenges associated with this approach, the head heights would only just fall within this guidance. These compromised floor to ceiling heights, which, alongside the compromised layouts due to existing structural grid and core location, does not represent a compelling Grade A office offer.
Selkirk House - Structural Transfers	The depth of the transfer structure restricts the floor to ceiling height of level 3 substantially. The level 4 slab has a 1.4m deep beam down the middle which supports a 1m deep slab. The transfer slab is critical to the stability of the existing building and this restricts the opportunity for any new service penetrations. The upper two storeys (Floors 14 and 15) utilise a shear wall structural arrangement, which span onto the columns on 13th floor requiring structural transfer through 'dropheads' which locally thicken the slab to 450mm.	Level 3 reduced floor to underside of structure is along centre of plan is 2060mm and the rest of the plan 2620mm; when 100mm floor zone and circa 450mm flexible services zone is introduced this would result in floor to ceiling/services height of approx. 2.07m. Level 13 reduced floor to underside of structure is 3010mm; when 100mm floor zone and circa 450mm flexible services zone is introduced this would result in floor to ceiling/services height of approx. 2.45m. In these cases only perimeter servicing would ever be considered.
Selkirk House Lifts provision	Although there are 4no. existing lifts the occupancy of the floorplates calculation would need to be based on 3no. lifts (due to the location of the 4th, it would not form part of the main group of lifts).	Existing lift provision is substandard to achieve current standards of floor occupancy expected for office use. Based on modern standards, the existing lift capacity for commercial use would only allow a floor occupancy of 1:20. This occupation density is not commercially viable necessitating a new core strategy.
Existing Facades	The facade of Selkirk House is in poor condition, presenting a significant area of blank, and ill-proportioned frontage. When the building was refurbished in 2002 for its conversion to the current (Travelodge) hotel use, the original facade of concrete panels was overclad with aluminium insulated panels.	Given the age and condition of the existing building, the existing façade would need to be removed and replaced with a new facade due to non-compliance with current safety and building regulations.

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