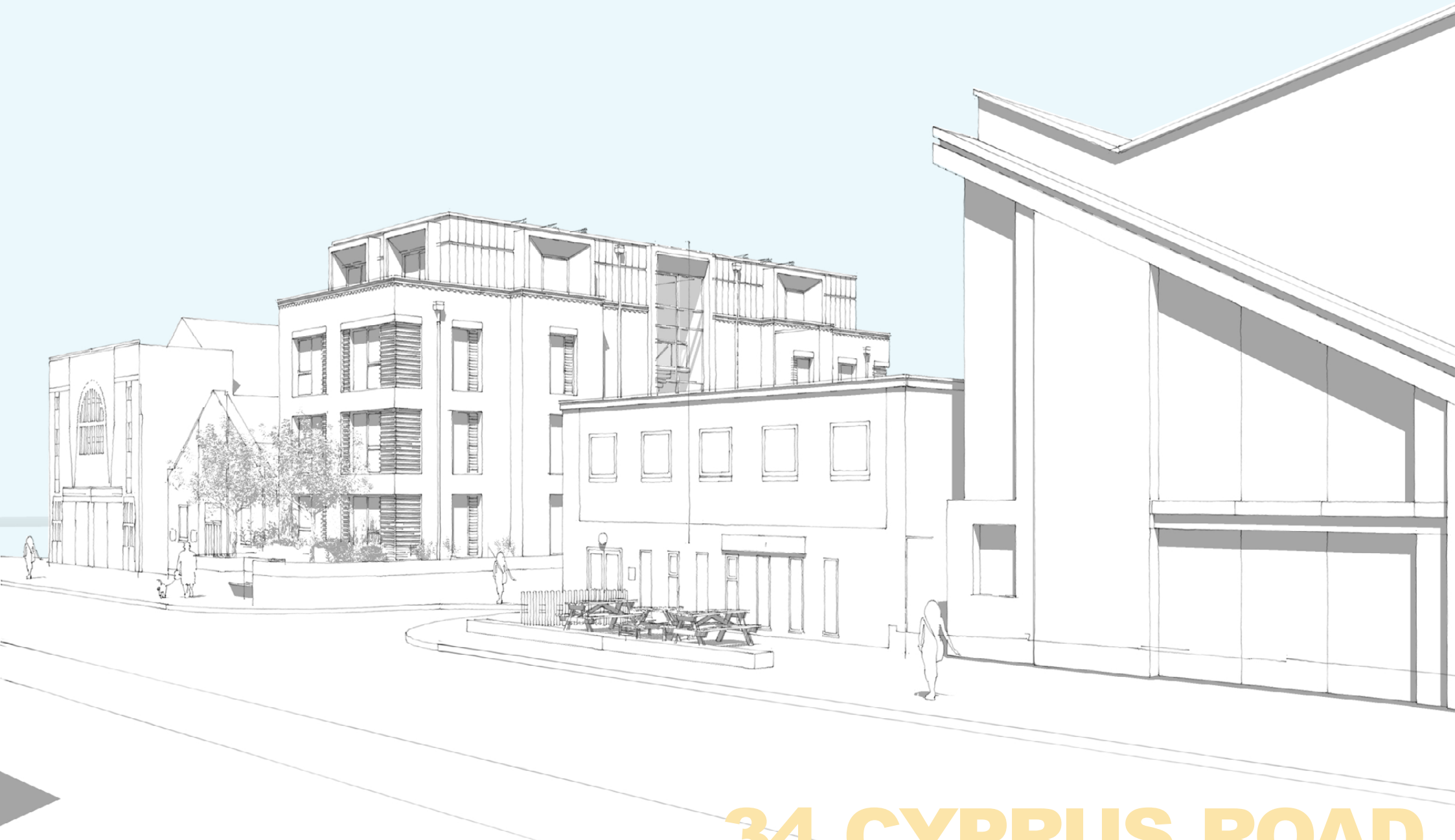




# 34 CYPRUS ROAD

**Design, Access and Sustainability Statement**

for the re-development of 34 Cyprus Road, Burgess Hill, RH15 8DX

Design, Access and Sustainability Statement  
for the re-development of 34 Cyprus Road, Burgess Hill, RH15 8DX

prepared by

RUSS DRAGE ARCHITECTS

on behalf of

JIVA HEALTHCARE LTD

FEBRUARY 2025

## **0.0 Contents**

### **1.0 Introduction**

- 1.1 Background
- 1.2 This document
- 1.3 Jiva Healthcare

### **2.0 The site and its setting**

- 2.1 Site location and the town centre
- 2.2 The site
- 2.3 Site photographs
- 2.4 Site setting
- 2.5 Emerging context

### **3.0 Previously consented scheme**

### **4.0 Preliminary proposals**

- 4.1 Layout
- 4.2 Scale, massing and appearance

### **5.0 Pre-application consultation feedback**

### **6.0 Preliminary proposals**

- 6.1 Key design development moves
- 6.2 Use and amount
- 6.3 Site Layout
- 6.4 Building Layout
- 6.5 Scale and massing
- 6.6 Appearance and materiality
- 6.7 Accessibility

### **7.0 Sustainability statement**

### **Appendix A - Daylight impact**

## 1.0 Introduction

### 1.1 Background

In 2009 an application for the redevelopment of 34 Cyprus Road was granted planning consent. The application was for a part 3-storey, part 4-storey building containing seven residential apartments together with ancillary refuse, recycling and cycle storage.

The proposals were initially refused planning consent on the grounds of an imperfect unilateral undertaking, the design of the main, east elevation of the proposal and that the development as a whole would be premature in the light of the Burgess Hill Town Centre Masterplan.

An appeal followed and although the inspector rejected the two design-based reasons for refusal, the appeal was dismissed solely on the grounds of the imperfect unilateral undertaking.

Planning consent was subsequently granted for an identical scheme to that initially refused but which included a compliant unilateral undertaking.

The consented scheme was not implemented and the original one and two storey building continues to occupy the site, 15 years later.

A pre-application consultation submission was made to Mid Sussex District Council (MSDC) in July 2024 to establish the principle of replacing the existing building with a part-4, part-5 storey building that would accommodate 15 supported living studios within Use Class C2 (residential institutions). The new facility would be operated by Jiva Healthcare, and included on-site facilities for 4-6 staff and carers, a laundry to serve the new use and ancillary refuse, recycling and cycle parking, together with a small commercial unit.

A site meeting was held with the planning officer and a written response was received from MSDC in September 2024.

### 1.2 This document

This document has been prepared by Russ Drage Architects on behalf of the current building owner to support a planning application for a similar building to that which formed the basis of the pre-application submission, revised and developed in detailed design terms, in response to MSDC's pre-application feedback.

This document describes the site and its setting together with the significance of three areas of change that have had occurred in the 16 years since the original planning application was prepared, namely;

- adoption of the Burgess Hill Neighbourhood Plan
- a new residential building adjacent the Orion Cinema (DM/17/4547)
- planning consent for a theatre and arts centre on the site of the former British Legion building to the east of the site.(DM/19/3138)

This document also includes a summary of preliminary design proposals that formed the initial pre-application consultation submission.

The middle section of the document outlines MSDC's pre-application consultation feedback and the key design development moves that followed, together with a summary of the final proposals.

The document concludes with a Sustainability Statement in accordance with District Plan Policy DP 39.

This document should be read in conjunction with the Planning Statement that includes substantiation for the proposed C2 Use Class. Flood Risk, Drainage, Preliminary Ecological Assessment and Biodiversity Net Gain strategies also accompany this application.

### 1.2 Jiva Healthcare

Jiva provides supported living facilities for people with mental health & learning difficulties between the ages of 16 and 65 for which there is currently a local shortfall.

Jiva aim to provide a recovery pathway for their clients that will enable them to live with increasing independence and to progress to having their own flat.

The new building would be staffed and managed 24 hours a day, creating up to 20 new jobs in the town. Staff will focus on recovery and providing care and life skills training that will include;

- building relationships,
- daily routine and budgeting
- emotional and physical support
- medication support

The supported living studios will be run in partnership with surrounding Local Authorities, enabling clients to leave hospitals and care homes for more appropriate living accommodation, freeing up much needed bed spaces within local healthcare trusts.

## 2.0 The site and its setting

### 2.1 Site Location and the town centre

The site is within Burgess Hill town centre less than 100m from Church Road and Church Walk, the town's main shopping streets. This location facilitates access to the full range of town centre retail and amenity facilities.

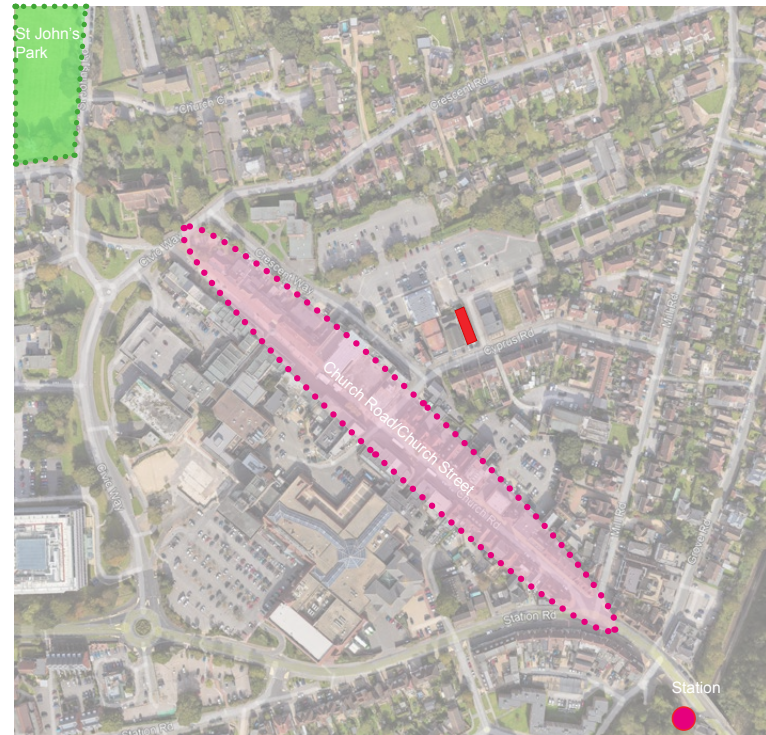
The site is a short 400m walk from both the mainline railway station on the Brighton to London main line to the south-east and the St John's Park recreation ground, a similar distance to the north-west.

The site lies on the junction of Cyprus Road (which runs in a north easterly direction away from the town centre) and a narrow un-named road that runs from Cyprus Road downhill towards the main town centre car park and Market Place to the north of the site.

In 2015 the Burgess Hill Neighbourhood Plan was adopted. This included a change in masterplanning strategy for Cyprus Road and the car park area to the north, which is identified within Policy TC1 as a Civic and Cultural Quarter.

The policy notes that Cyprus Road is suitable for civic and community buildings and that new housing development will be acceptable in principle as part of a mixed-use scheme only where it will facilitate the provision of community facilities.

The Neighbourhood Plan also proposes that the current level of car parking to the north of the site is maintained. This suggests that any sense of prematurity associated with the proposals for redevelopment of this site in 2009, has now passed.



SITE LOCATION PLAN



CYPRUS ROD FROM CHURCH WALK



NEIGHBOURHOOD PLAN 2015 - POLICY TC1

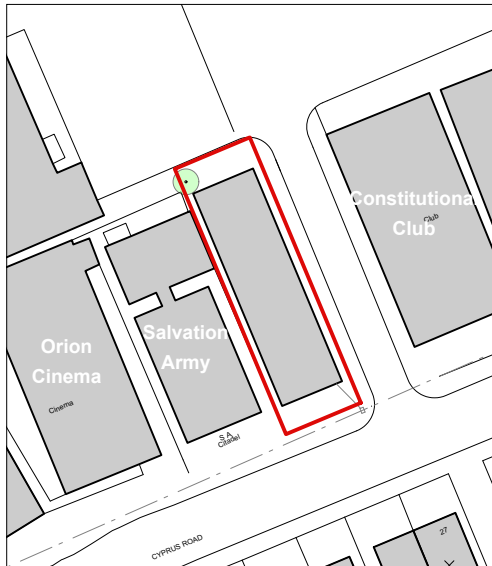


## 2.0 The site and its setting

### 2.2 The site

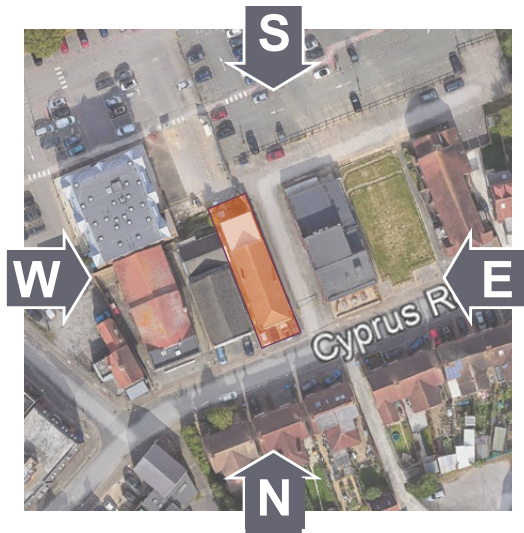
The site itself comprises a 9.3m wide by 33.0m deep rectangular plot with an area of 0.03 hectares (0.075 acres) and is occupied by a part single part 1.5 storey high commercial unit with its main entrance on Cyprus Road.

As a consequence of a 1.60m fall from south to north along the site's long boundary, an additional storey sits beneath the main commercial floor level, and the building therefore presents a two-storey gable to the car park/marketplace to the north.



## 2.0 The site and its setting

### 2.3 Site Photographs



## 2.0 The site and its setting

### 2.3 Site Photographs



## 2.0 The site and its setting

### 2.4 Site setting

Cyprus Road is fairly broad at approximately 19.5m wide (elevation to elevation) and its southern street frontage is formed by terraced and semi-detached 2-storey Victorian/Edwardian houses. Despite 'modernisation', window replacements and general alterations, these buildings retain many of their original details including distinctive, decorative red and cream polychrome brickwork, ornate fascias, brackets and distinctive chimneys.



CYPRUS ROAD LOOKING WEST TOWARDS TOWN CENTRE



## 2.0 The site and its setting

### 2.4 Site setting

The northern side of Cyprus Road is aligned with a mixed group of buildings, the largest of which is the Orion Cinema 50m to the west of the site, a substantial late 1920's, 3-4 storey high structure, the entrance façade of which is listed.

Between the cinema and the site is a single storey pitched roof chapel occupied by the Salvation Army.

To the east, facing the site's long elevation on the opposite side of the 9.3m (elevation to elevation) wide lane is occupied by the Constitutional Club a box-like, flat roofed brick building with tile hanging to the upper floor. Narrow footpaths run to either side of the car park access lane and a 1.0m wide grass verge which falls within the site demise, borders the western footway.



ORION CINEMA & SALVATION ARMY



CAR PARK ACCESS



CINEMA TO CONSTITUTIONAL CLUB

## 2.0 The site and its setting

### 2.4 Site setting

Immediately to the north of the cinema and contiguous with the buildings northern gable, is a recent 3.5-storey residential development of 10 apartments set above a commercial ground floor level that replaced the original 1.5 story restaurant on the site. The building extends approximately 24m north of the building line formed by the rear of buildings fronting Cyprus Road.



RECENT RESIDENTIAL DEVELOPMENT TO THE REAR OF CINEMA



CAR PARK



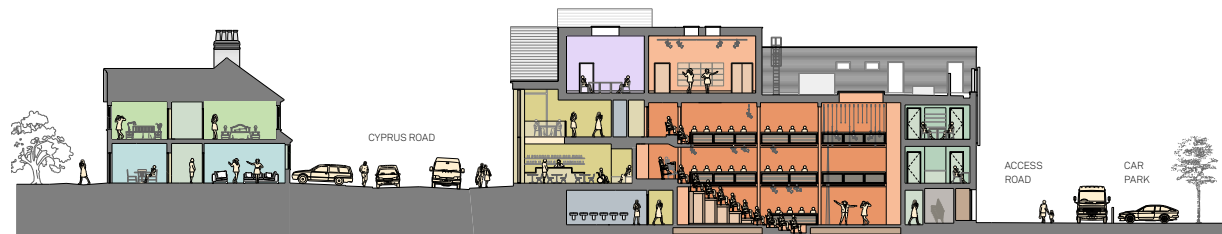
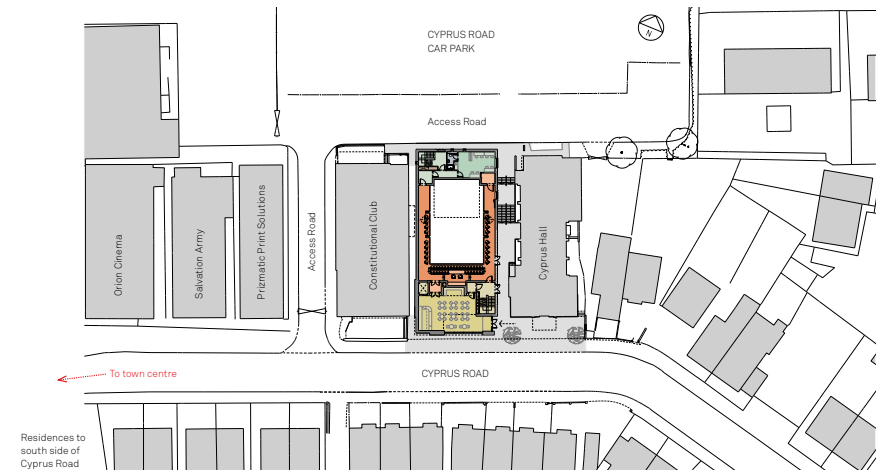
CYPRUS HALL & SITE OF THE FORMER BRITISH LEGION

## 2.0 The site and its setting

### 2.5 Emerging context

To the east of the Constitutional Club, the former British Legion building has been demolished leaving a currently vacant plot. In 2019 the site received planning consent (DM/19/3188) for the construction of The Beehive Centre, a community entertainments and events facility containing a 237- seat theatre space, a dance/rehearsal studio, a large meeting room, a café/bar, foyer spaces and multi-functional backstage accommodation.

At the time of writing no construction work has commenced, however new building would represent a considerable change to the character of Cyprus Road, meeting the objectives for the creation of a cultural quarter set out within the neighbourhood plan while introducing a dynamic, asymmetric building of considerably greater scale and mass than the building it replaces. At approximately 20m overall height the proposed Beehive Centre would be the equivalent of at least five residential storeys.



### 3.0 Previously consented scheme

As noted above, planning consent was granted in 2009 for a residential redevelopment of the site to accommodate 7 apartments. During the course of the preparation of that application, MSDC planning, and urban design officers raised no objection to the design concept, contemporary language or to the change of use to residential in this location.

MSDC's main concerns related to the design of the eastern elevation and the impact that the proposals might have on the then emerging Town Centre Masterplan for the area to the north, now superseded by the Neighbourhood Plan.

At that time MSDC's recommendations included;

- The potential to increase height to 3 + 1 on Cyprus Rd and 4+1 on the northern frontage to improve proportions.
- Introducing deeper vertically proportioned windows on the eastern elevation to allow it to read as a more domestically scaled building.



RESIDENTIAL SCHEME CONSENTED IN 2009

## 4.0 Preliminary proposals

### 4.1 Layout

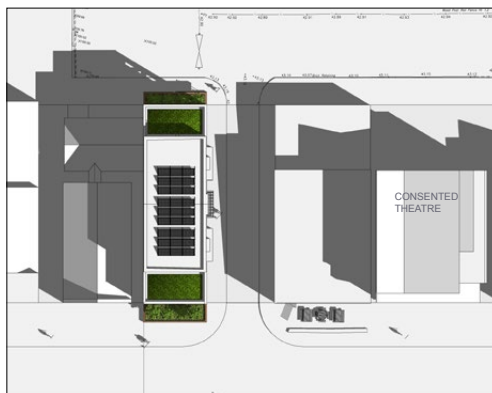
The pre-application consultation submission proposed 15 supported living studio bedrooms within a part-4, part-5 storey building with staff accommodation.

A refuse and recycling store, cycle parking, a laundry room (for residents' use only) and with a coffee shop sized commercial unit of 30m<sup>2</sup> located within the smaller lower ground floor.

Nine of the proposed studios were between 37 - 39m<sup>2</sup> in area and six were between 21 and 30m<sup>2</sup>.

The main entrance provided access to a central staircase and platform lift that offers step free access to all upper levels. The location of the main entrance in the un-named 'lane' which connects Cyprus Road to the car park would help activate this route with increased pedestrian movements and natural surveillance.

The proposed supported living accommodation was arranged as two pairs of studio flats per floor with primary windows on the northern and southern elevations.



ROOF PLAN



CYPRUS ROAD ELEVATION



EAST ELEVATION

## 4.0 Preliminary proposals

### 4.2 Scale, massing and appearance

The recently consented theatre and arts centre building established new precedents for both in terms of architectural expression and scale. The height of the theatre reflects MSDC's suggestions to RDA during the original 34 Cyprus Road consultation in 2008, regarding the possibility of increased height on the street frontage.

The pre-app proposals therefore suggested 3 full storeys with a setback 4th floor on the Cyprus Road frontage and, as a consequence of the fall from south to north, a 4-storey building with a setback 5th floor on the car park frontage.

The resulting massing fitted comfortably between the Orion Cinema and proposed theatre building, and importantly it also sits within a 25° daylight angle in relation to ground floor living room windows on the opposite side of Cyprus Road minimising any impact upon the existing residential amenity.

The set back top floor was formed by a cluster of four, smaller studios.

At street level a local red brick plinth formed the base of the building with a brown/grey brick forming the upper-levels, reflecting the materials of the terraced houses opposite the site.

The setback top floor level will be clad with standing seam zinc or similar, forming the 'top', with parapets concealing a flat roof.

The initial proposals adopted a more vertical compositional emphasis to establish a domestic character in keeping with the residential setting.



PRE-APP MODEL VIEWS



CYPRUS ROAD STREET ELEVATION

## 5.0 Pre-application consultation feedback

MSDC supported the principle of the redevelopment of the site subject to justification for the reduction in commercial floorspace.

However, MSDC's response was also written from the position that they believed the proposed new building would fall within the C3 use class. In subsequent correspondence the planning officer confirmed that it would be necessary for the applicant to make the case for the scheme being within the C2 use class. MSDC noted that if this were the case then the scheme would only be required to make contributions towards Total Access Demand and Libraries, and that there would be no affordable housing requirements or contribution.

As noted above the Planning Statement that accompanies this application includes the applicant's justification for C2 use.

In terms of design, MSDC noted that the introduction of street trees on the Cyprus Road frontage was welcomed, as was the inclusion of the café/commercial unit on the car park frontage. They also suggested a seating/resting area might be incorporated into the Cyprus Road frontage planter.

However, MSDC also raised concerns regarding the quality of accommodation proposed as a consequence of deep, narrow plan forms, particularly in relation to daylight, overheating and natural ventilation.

They also recommended that further brick detailing should be considered, together with how the western elevation might appear above the adjacent Salvation Army building.

MSDC also requested that the application should include long, medium and close-range CGI to show the proposed new building in context.



PRE-APP MODEL

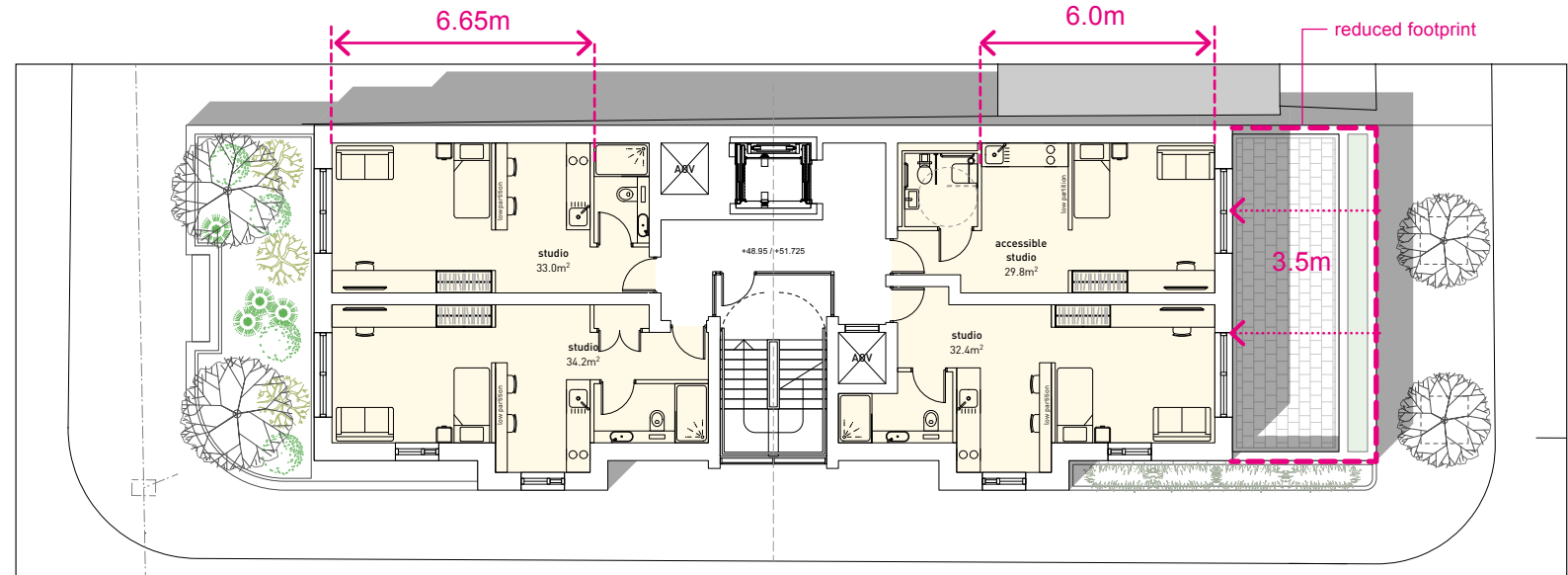
## 6.0 Final Proposals

### 6.1 Key design development moves

In response to MSDC feedback the following key design changes have been made;

1. Individual studio bedrooms have been reduced in depth so that the main living areas are 6.65m deep. This results in;
  - studio bedrooms that are smaller than the National Technical Standards requirement for 1 bedroom 1 person studios within the C3 use class.
  - greater access to daylight within living spaces.
  - a reduction in overall building footprint and volume
2. The raised planter on the Cyprus Road frontage is extended to include a public seating/resting place
3. Corner balconies have been removed to improve access to daylight, and a communal amenity terrace has been added
4. Brick detailing has been developed, particularly to articulate the western elevation in views over the lower Salvation Army building

Further aspects of design development are discussed in the following sections.



TYPICAL UPPER FLOOR



BRICK DETAILING



COMMUNAL TERRACE ABOVE COMMERCIAL UNIT



RAISED PLANTER AND SEATING

## 6.0 Final Proposals

### 6.2 Use and amount

This application will provide supported living accommodation for people with mental health and learning disabilities between the ages of 16 and 65, for which there is currently a local shortfall.

The proposals are for a building predominately within the C2 Use Class and further justification for this use class is covered within the Planning Statement that accompanies this application. A lower ground floor level café/commercial unit of 50sqm GIA within Use Class E is also included.

14 supported living studio bedrooms are proposed within this part-four, part-five storey building. Residents will benefit from 24 hour, around the clock care and consequently staff accommodation is also provided on the upper ground floor level.

A large multi-functional resident's social space is also proposed which will form the focus of communal leisure activities, together with a laundry and waste and recycling facilities.

The site's town centre location provides easy pedestrian access to public transport connections, and therefore dedicated car parking is not proposed. Residents will not use cars or bicycles during their stay and therefore only two staff secure cycle spaces and two visitor cycle spaces are provided.

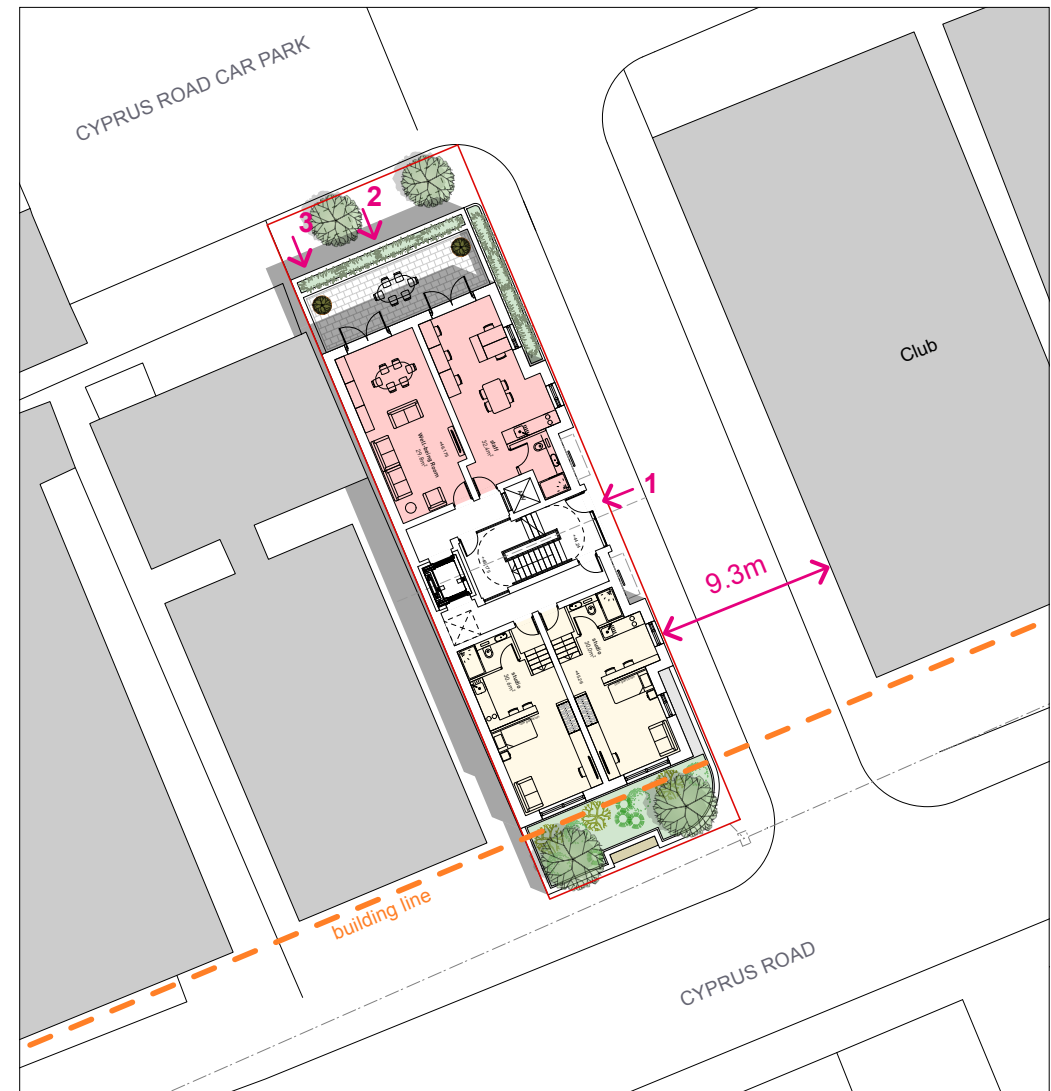
The site also adjoins Burgess Hill's main town centre public car park.

### 6.3 Site layout

The new building occupies a similar footprint to the existing building, reinforcing the established building line on Cyprus Road and slightly offset from the back of pavement along the unnamed lane that serves the car park to the north of the site.

A 3.2m deep raised planter is to be formed on the Cyprus Road frontage that will accommodate two new street trees and shrub planting incorporating a wide bench seat.

The main entrance to the building will be from the unnamed lane on the site's eastern boundary. The lower ground floor commercial unit has an independent access from the pavement on the northern boundary of the site from which point a secondary means of escape route for the main building provides access to the waste and recycling store and staff cycle parking.



UPPER GROUND FLOOR IN CONTEXT

- 1. main entrance
- 2. commercial unit entrance
- 3. waste, cycles and fire escape

## 6.0 Final Proposals

### 6.4 Building layout

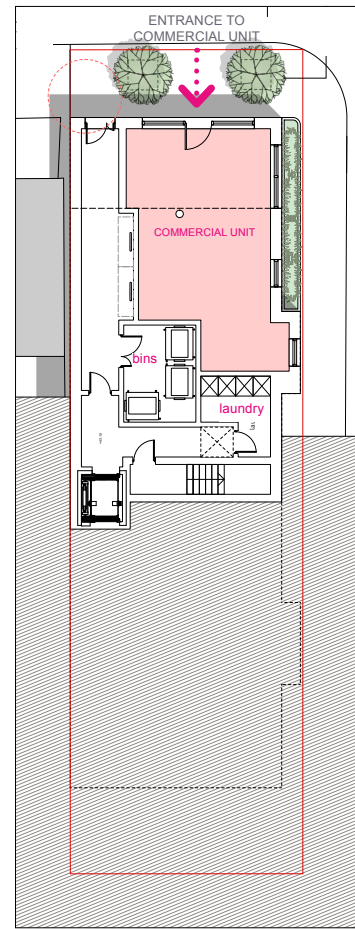
The building is arranged around a central circulation core with four studio bedrooms per floor, two bedrooms to the north and two bedrooms to the south, with primary fenestration on the northern and southern elevations off the building. This arrangement avoids any direct overlooking between the new accommodation and windows within the Constitutional Club to the east of the 9.3m wide lane, or any fenestration proposed as a consequence of the future redevelopment of the Constitutional Club site.

With the exception of the glass screen serving the main entrance staircase and landings, introduced to help articulate the facade, all fenestration on the eastern elevation has obscured glazing to admit light and to maintain privacy

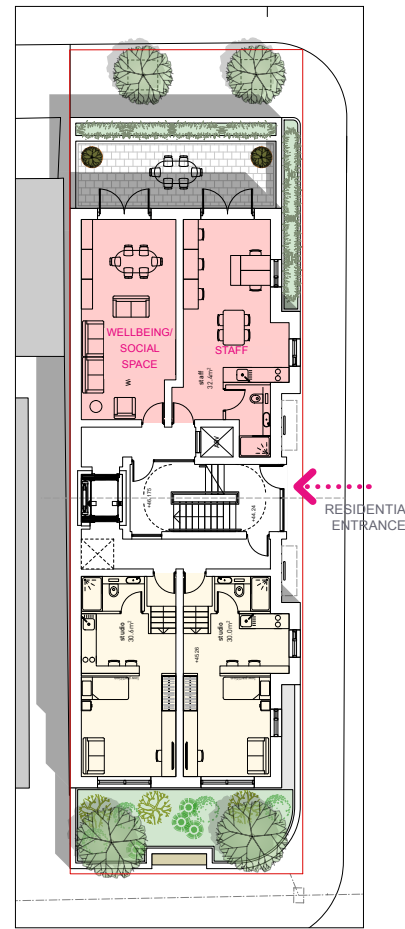
The location of the main entrance not only forms a focal point of interest on an otherwise heavily constrained elevation, but will also increase pedestrian movements within the unnamed lane, improving natural surveillance the safety of the walking environment.

As noted above, the main resident's wellbeing/ social space and the staff accommodation are adjacent to one another on the upper ground floor, both easily accessible from the main lift and stair core, sharing the northern frontage of the upper ground floor with access onto the external amenity terrace and seating area.

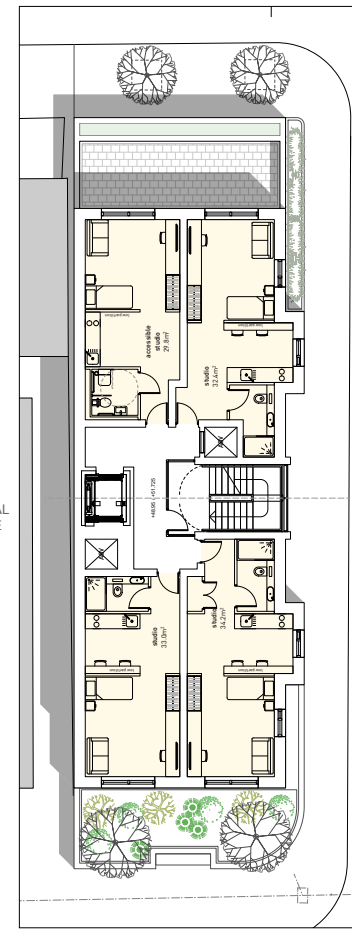
The shared laundry and waste and recycling facilities are located on the lower ground floor together with the self-contained commercial unit that has a glazed shopfront with a main entrance facing the car park.



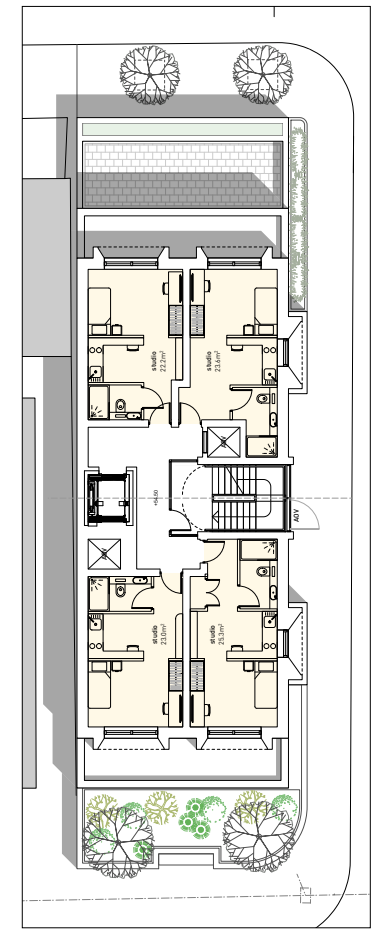
LOWER GROUND FLOOR



UPPER GROUND FLOOR



FIRST AND SECOND FLOOR



THIRD FLOOR

## 6.0 Final Proposals

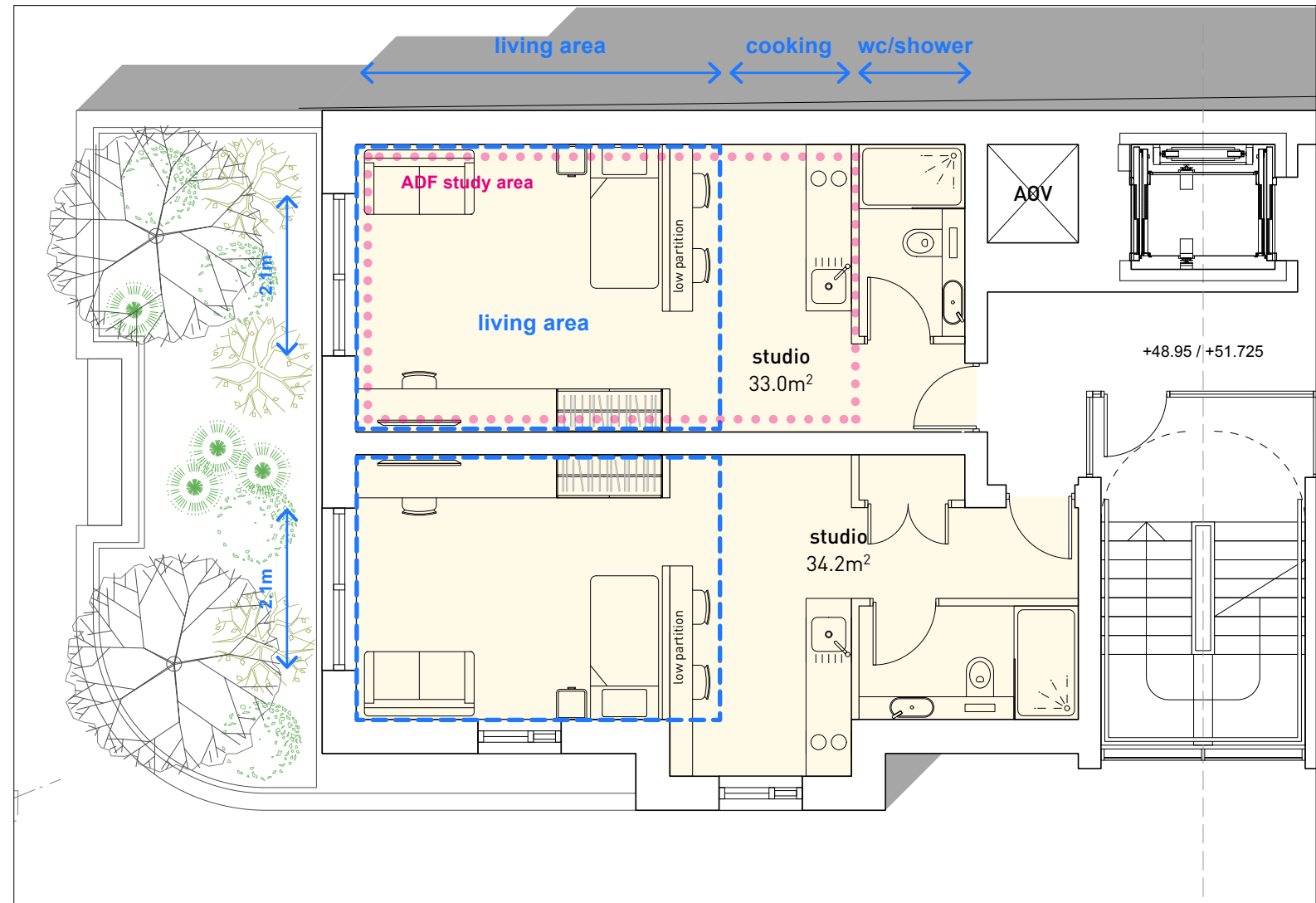
### 6.4 Building Layout

The key changes to the design of the individual studio bedrooms are as follows;

- The depth of the studios has been reduced so that the larger studio bedrooms on the lower floor levels are 30 – 34sq.m and the smaller studio bedrooms on the set-back top floor are between 23-25sq.m.
- Windows have been increased in size to optimise daylight levels within the living/activity areas of each studio bedroom.
- The internal layout has been adjusted so that those areas with a lower expectation of daylight including the shower room, entrance and kitchenette are within the deeper plan parts all the studio, with primary activity spaces closer to the windows.

In June 2022 the BRE published new guidance regarding the assessment of daylight in new dwellings requiring complex modelling using specialist software. However, to inform the ongoing design development process RDA calculated Average Daylight Factors (ADF) utilising the BRE's pre-2022 ADF formula.

BRE guidance suggests that an ADF of 1.5 to 2.5% is adequate for ordinary tasks such as reading. RDA's initial assessment for a 'worst case' ground floor studio bedroom where the visible sky is partially restricted by the buildings opposite the site, is that an ADF of 2.75% is achievable within the main activity area highlighted on the plans opposite.



TYPICAL STUDIO LAYOUT

## 6.0 Final Proposals

### 6.5 Scale and massing

As noted above, the recently consented theatre and arts building establishes a new precedent for buildings within Cyprus Road both in terms of architectural expression and scale. The final proposals therefore adopt a similar massing to the pre-application consultation scheme, with three full storeys and a setback 4th floor on the Cyprus Road frontage and a four storey facade with a setback 5th floor on the car park frontage taking up the change in level from south to north.

The Cyprus Road elevation has a similar overall height to the proposed theatre and a second-floor parapet height that matches the parapet of the street frontage facade of the Orion Cinema.

The overall height of the new building just clips the 25° daylight angle when measured in relation to the ground floor living room windows of the houses directly opposite the site on Cyprus Road. Consequently, a BRE vertical sky component assessment has been undertaken and is included at Appendix A to this document. The result is a VSC of 35.75% which exceeds the BRE recommended minimum level of 27% VSC. Therefore, the new building will have no detrimental or noticeable impact on the level of daylight enjoyed by the neighbouring houses.



VIEW NORTH WEST ALONG CYPRUS ROAD



HEIGHT - CYPRUS ROAD STREET ELEVATION

PROPOSED THEATRE

## 6.0 Final Proposals

### 6.5 Scale and massing

Three photomontages have also been prepared using the SketchUp Photomatch process. These longer range images demonstrate how the new building will sit within the current streetscape and also indicate the outline and volume of the proposed new theatre building to complete the picture.

The first of these images looks west along Cyprus Road from the town centre. Here the height relationship between the Orion Cinema entrance facade and the proposed three storey main elevation is clear with the new theatre as a backdrop, closing the vista.



PHOTO MATCHED VIEW ALONG CYPRUS ROAD LOOKING NORTH-EAST

## 6.0 Final Proposals

### 6.5 Scale and massing

The second montage looks west along Cyprus Road with the form of the proposed theatre in the foreground. In this view the comfortable, transitional relationship between the proposal and the cinema and theatre buildings is clearer.



PHOTO MATCHED VIEW ALONG CYPRUS ROAD LOOKING SOUTH-WEST

## 6.0 Final Proposals

### 6.5 Scale and massing

The final view looks south from the within the carpark. From this position the proposed new building sits comfortably between the consented theatre and new residential building to the rear of the cinema.



PHOTO MATCHED VIEW FROM THE CARPARK LOOKING SOUTH

## 6.0 Final Proposals

### 6.6 Appearance and materiality

A simple base, middle, top composition is proposed. At street level a masonry plinth forms the base of the building, taking up the level change between Cyprus Road and the car park and extending to include the new street frontage planter on the southern elevation.

The middle section of the building incorporates the primary fenestration, set within deeply recessed reveals. The building is capped by a setback top floor level, clad with standing seam zinc or similar sheet metal system.

Top floor windows are framed by metal clad dormers with chamfered frames that further articulate the roof line. Parapets with metal copings conceal a flat roof that will accommodate a blue roof drainage attenuation system and an array of PV panels.

The overall composition is divided into two symmetrical blocks by the full height glazed screen that clearly signals the location of the building's main entrance, flanked by a pair of slightly projecting, full height bay windows supporting roof level dormers.

The full height glazed screen allows daylight into the main circulation space and forms the primary feature of the eastern elevation.



PROPOSED SOUTH ELEVATION



PROPOSED EAST ELEVATION

## 6.0 Final Proposals

### 6.6 Appearance and materiality

The final proposals include a higher level of brick detailing throughout all levels of the building. This starts at ground level where the red brick plinth is capped by a double soldier course which forms a continuous horizontal band around the entire perimeter of the building.

The soldier course marks the springing point of the middle section of the building where a wrap-around corner emphasis is formed by masonry banding of alternate protruding and recessed horizontal courses. Upper mid-section window have soldier course lintels and the main façade is capped by a pre-cast stone coping supported on corbels and a dentil course of pulled headers.

It is not possible to include 'live' fenestration on the western elevation due to the proximity of the site boundary and restrictions on unprotected areas for fire safety. Therefore the main façade window rhythm has been continued on to the western elevation by a grid of pulled header textured recessed masonry panels.



TEXTURED BRICKWORK PANELS



SOLDIER COURSE AND CORBELING + DENTIL COURSE + PCC COPING



DOUBLE SOLDIER COURSE



TEXTURED BRICKWORK PANELS TO THE WEST ELEVATION

## 6.0 Final Proposals

### 6.6 Appearance and materiality



VIEW NORTH TOWARDS THE CARPARK



VIEW OF EASTERN ELEVATION



VIEW SOUTH FROM THE CARPARK

## 6.0 Final Proposals

### 6.7 Accessibility

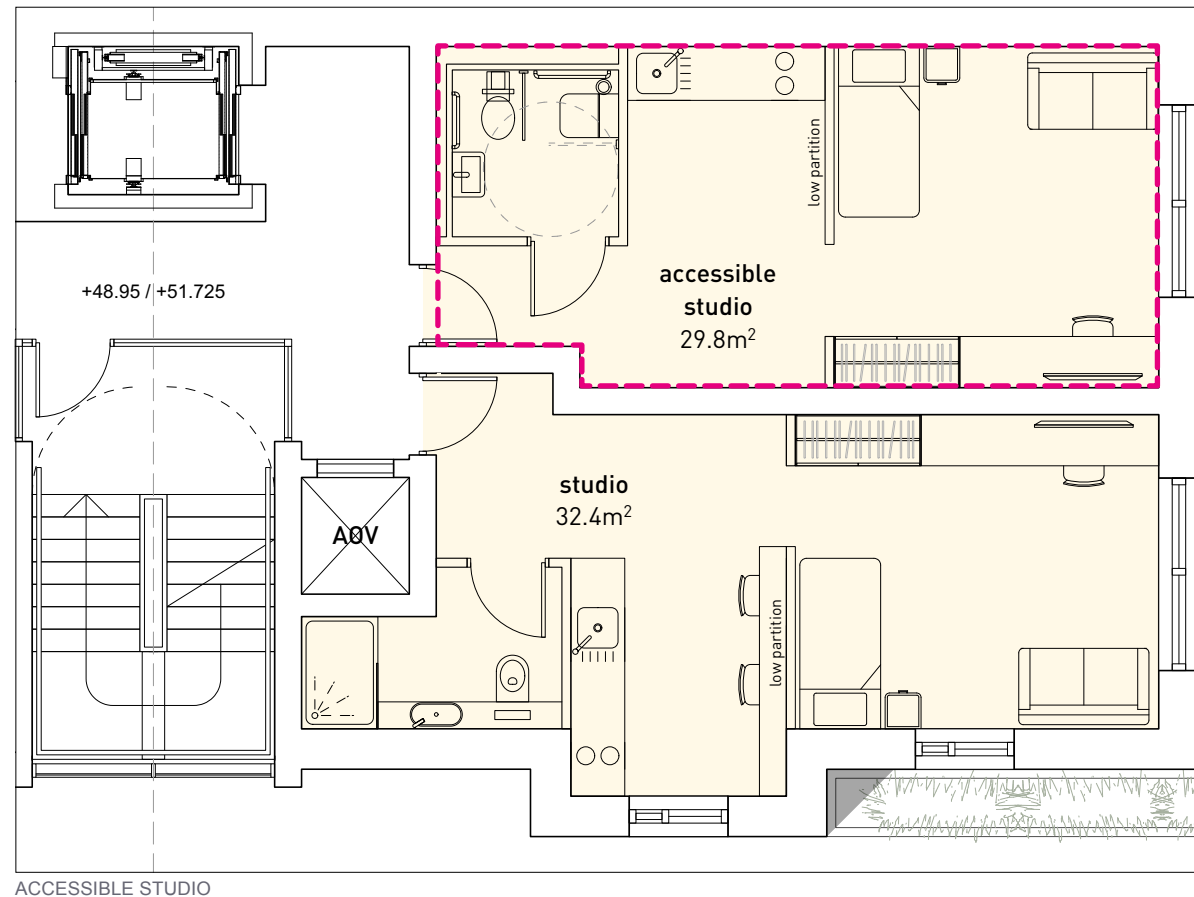
MSDC policy DP28: states that all developments will be required to meet and maintain high standards of accessibility so that all users can use them safely and easily and that 20% dwellings should be 'Accessible and Adaptable' accommodation, (M4(2) and that 4% should be 'Wheelchair User' accommodation, (M4(3).

The main residential entrance from the side road will provide step free access leading to an accessible lift which will serve all levels within the building. Only two of the studios on the upper ground floor will have steps inside the accommodation in order to address the external ground level difference across the site, which is almost 2m.

These proposals are for accommodation within the C2 Use Class and are therefore subject to part M(2) Buildings other than dwellings. However, one wheelchair user studio bedroom is proposed, equivalent to 7% of the total, which will include an accessible wetroom/wc and adjustable height work surfaces and cooking facilities.

Opposite is an example of a wheel chair user studio provided on the first floor.

The entrance into the commercial unit on the lower ground floor facing the car park will also have step free access.



## 7.0 Sustainability statement

### Background

This Sustainability Statement has been prepared to address the sustainable development requirements of the Mid Sussex District Plan, and those described in District Policy DP39: Sustainable Design and Construction

DP39: Sustainable Design and Construction states;

All development proposals must seek to improve the sustainability of development and should where appropriate and feasible according to the type and size of development and location, incorporate the following measures:

- Minimise energy use through the design and layout of the scheme including through the use of natural lighting and ventilation.
- Explore opportunities for efficient energy supply through the use of communal heating networks where viable and feasible.
- Use renewable sources of energy.
- Maximise efficient use of resources, including minimising waste and maximising recycling/re-use of materials through both construction and occupation.
- Limit water use to 110 litres/person/day in accordance with Policy DP42: Water Infrastructure and the Water Environment.
- Demonstrate how the risks associated with future climate change have been planned for as part of the layout

Part L 2021 of the Building Regulations requires that all new homes must produce 30% less CO2 emissions than that of Part L 2013 in-order to achieve Building Regulation compliance. Similarly, under Part L Volume 2: Buildings other than dwellings, new non-domestic and commercial buildings will be required to produce approximately 27% lower CO2 emissions than under Part L 2013.

### Minimising energy use

The design and layout will use less energy and manage demand during operation through fabric and operational improvements. This will include good design and careful construction optimise air tightness with a low air permeability target, minimising thermal bridging, and improved fabric performance to meet, and potentially exceed, current Part L targets.

With regard to daylighting, the layout of individual rooms has been modified and the overall depth of plan reduced in order to maximise natural daylight in daytime activity and living spaces, with shower rooms and kitchenettes, which have a lower expectation for daylight, placed furthest from the windows. The size of primary windows has been increased and it is estimated that over two thirds of the floor area of the larger rooms and a majority of the floor area of the smaller rooms will meet BRE average daylight factor guidelines.

Additional windows with obscured glass panels, introduced to articulate the eastern elevation where the use of clear glazing is restricted by privacy offsets from existing windows serving the Constitutional Club to the east of the site, will provide supplementary diffuse daylight to 50% of the proposed accommodation.

The optimisation of daylight to improve amenity and reduce the energy needs for artificial lighting, brings with it potential increased thermal gains in the summer and heat loss in winter. The final design will incorporate natural ventilation via openable windows, supplemented by single room MVHR systems with heat recovery which can also provide cooling. This will mitigate the risk of overheating, particularly within south facing rooms and limit winter heat loss.

Energy efficient LED lighting will be specified throughout the scheme.



## 7.0 Sustainability and energy statement

### Efficient energy supply

A communal heating network is not considered viable or feasible for this project. However, as an alternative to gas, the proposals will utilise only electrical power supplemented by an array of PV panels roof level.

The incoming electrical connection will serve high efficiency electric panel radiators to supplement the MVHR system if required, and local electric water heaters within the kitchenette and shower rooms.

### Renewable sources of energy

The site context, and the inclusion of a large upper-level flat roof within the scheme design, suggests that a roof-mounted photovoltaic (PV) system is the most suitable way to provide on-site renewable energy.

The flat roof area, which will also form a 'blue roof' for rainwater attenuation, can support between 50 – 100m<sup>2</sup> of PV panels. This should therefore provide peak power of 10kWp – 20kWp.

### Efficient use of resources

The development will optimise the re-use of an existing urban site with a higher rise, higher density new building,

The proposals will also seek to maximise the efficient use of resources, including minimising waste and maximising recycling and the re-use of materials through both the demolition and construction phases and in use during occupation.

Where practical, new building materials will be sourced locally to reduce energy usage and pollution associated with transportation and to support the local economy. New materials will be selected based on low environmental impact from responsible suppliers and sustainable sources, for example;

- timber will be sourced from FCS or PEFC certified sources.
- building materials such as floor beams, bricks, blocks and plasterboard will be from verified responsible sources with certification to BES 6001 or equivalent.

### Limiting water use

In accordance with MSDC's policy DP42: Water Infrastructure and the Water Environment, as a non-residential building, internal water use will meet the equivalent of a 'Good' standard, as a minimum, with regard to the BREEAM water consumption targets for the development type.

This will be achieved by;

- the use of low flow rates water appliances, such as taps and showers
- dual flush toilets
- If supplied by the contractor, low water use dish washers and washing machines.

### Mitigation of risks associated with future climate change

In detailed design, these proposals will be required to address overheating, which is likely to increase as a consequence of climate change, through passive measures including reducing solar gains and removal of heat, which are fully described in Part O of the Building Regulations.

The flat roof area will accommodate an array of PV panels and a blue roof water attenuation system. This SuDS system will reduce surface water flooding by retaining rainwater with reduced outflow rates. This measure will help reduce flood risk, which is likely to increase with higher winter rainfall. However, the site itself is within an area of extremely low flood risk.

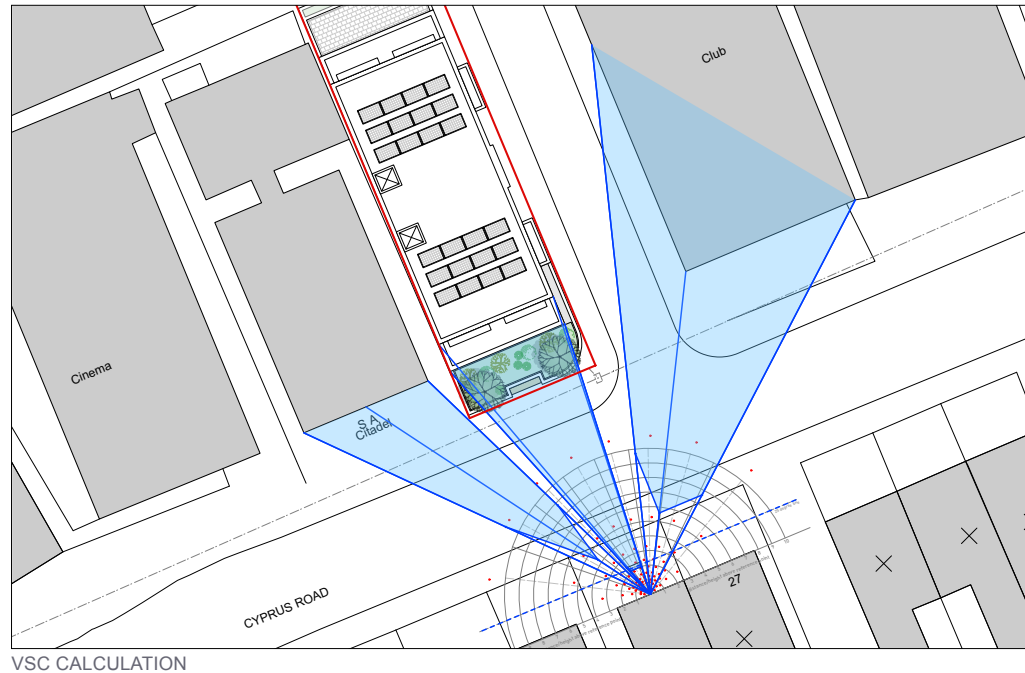
## Appendix A - Daylight impact

The building is slightly taller than the initial pre-app scheme and the building therefore sits just above the the 25° daylight angle in relation to the ground floor living room windows on the opposite side of Cyprus Road.

According to BRE guidance, new structures below the 25° line will have no impact on received daylight.

The second diagram shows the BRE daylight protractor applied to this window with parts of the sky that are obscured by existing and proposed buildings shaded blue.

The result is that the window will have a visible sky component (VSC) of 35.75% which is greater than the 27% VSC that is considered to be adequate within BRE Daylighting guidelines.



### VSC Calculation

8.5 obstructed points

$8.5/2 = 4.25$

$40\% - 4.25\% = 35.75\%$