

ONE CAMBRIDGE SQUARE

DESIGN AND ACCESS STATEMENT

30 JUNE 2017

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ONE, CAMBRIDGE SQUARE
JULY 2017

This planning application seeks permission for the development of a high quality new office building for Plot 010 (to be known as 'One Cambridge Square'), facing on to the new Cambridge Square, within the Masterplan area of South Cambridge. Full planning permission is being sought for this development.

This building will be 7 storeys in height, comprising mainly of B1 office floorspace together with ground floor retail, cafés and restaurants.

The proposals have been the subject of detailed discussion with Officers at South Cambridgeshire District Council and have been presented to the Quality Panel on a number of occasions as well as the Disability Panel.

01 INTRODUCTION

- THE AIM OF THIS DOCUMENT
- ANALYSIS

THE AIM OF THIS DOCUMENT/

1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
JULY 2017

This Design and Access Statement has been compiled by Perkins+Will Architects in collaboration Robert Myers Associates, Mott MacDonald, Hilson Moran and Bidwells on behalf of Brookgate.

This Design and Access Statement aims to give an insight into the design process for “One, Cambridge Square” on land opposite the new Cambridge North Station. The building forms part of the first phase of the wider redevelopment of the Cambridge North area into a new urban quarter.

This application will be submitted parallel to an application for a hotel building designed by Formation Architects. Both buildings will together ‘frame’ the new station square and set a quality benchmark for development of the wider Area Action Plan.

The plot site, access, levels, parking provision and the servicing infrastructure are determined by the approved station application (application number S/1236/15/FL and 15/0994/FUL).

This document explains the proposal submitted for planning approval. It illustrates how the detailed design has been informed by a rigorous process of assessment, involvement, evaluation and design.

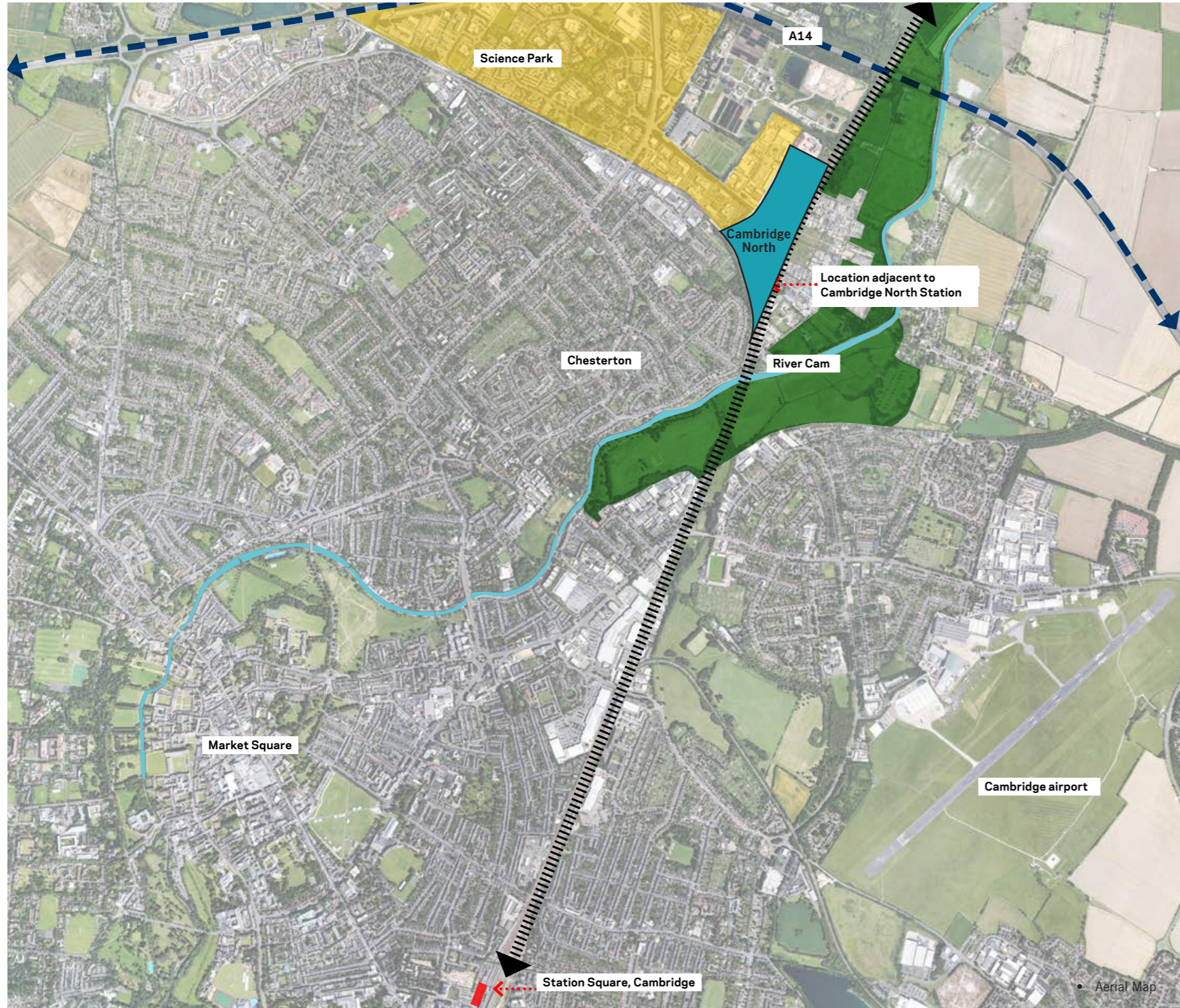
This report is organised into three main sections: Design Process, Access and technical and environmental.

- Design Process explains the evolution of the proposals and the proposed uses, layout and scale of the proposed development for which planning permission is now sought. The public realm and landscaping proposals are explained as well as the appearance of the building, use of materials and details of the cladding.
- Access relates to the way people enter, exit and service the development and the impact of these movements around One, Cambridge Square.
- The last part describes the sustainability and environmental aspirations for building as well as the services and technical development.

To fully appreciate the design, this report should be read in conjunction with the submitted drawings, Planning and landscape statements submitted as part of the application, and other supporting documentation.



1 INTRODUCTION



This Design and Access Statement forms part of the planning submission documents and should be read in conjunction with the application drawings to scale and the following reports:

- Acoustic Report
- Air Quality Assessment
- Archaeological DBA + WSI Assessment
- Drainage Statement
- Ecological Impact & Enhancement statement
- Framework Construction Traffic Management Plan
- Geotechnical and Geo-environmental Desktop Study
- Health Impact Assessment
- Landscape Design Statement
- Noise Impact Assessment
- Odour Assessment
- Planning and Consultation Statement
- Townscape Strategic Views
- Sustainability & Renewable Energy Statement
- Transport Statement
- Travel Plan
- Utilities Statement
- Ventilation & Extraction statement
- Waste Management Strategy
- Contaminated Land Assessment

1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
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ANALYSIS/

The Site

The immediate context of the site varies considerably:

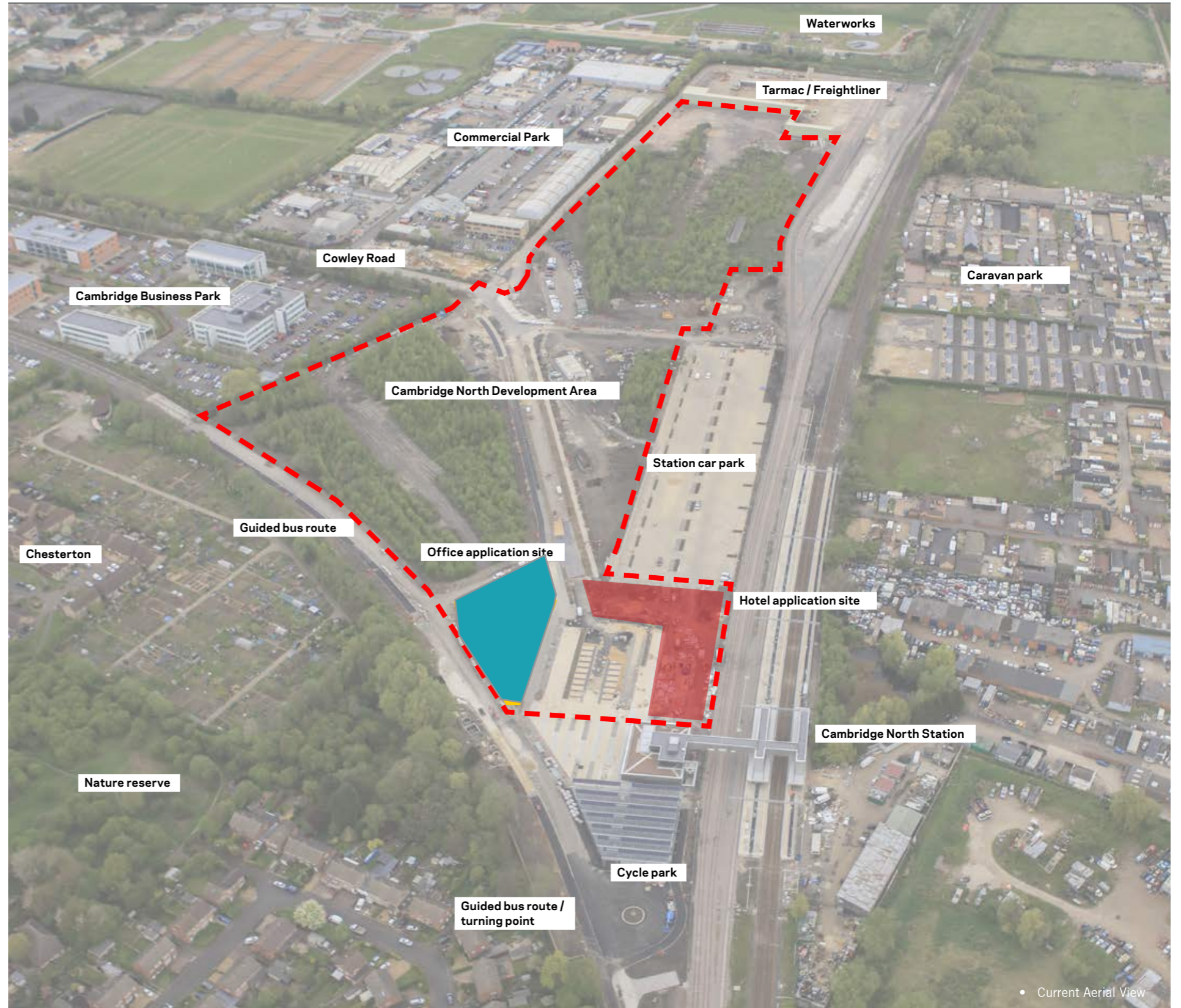
Freightliner and Tarmac have previously used part of the site but their operations are now concentrated in the northern part of the site to enable development. New sidings have been built parallel to the existing mainline tracks to serve the Freightliner and Tarmac.

Cambridge North Station Opened to the public on the 21st of May 2017.

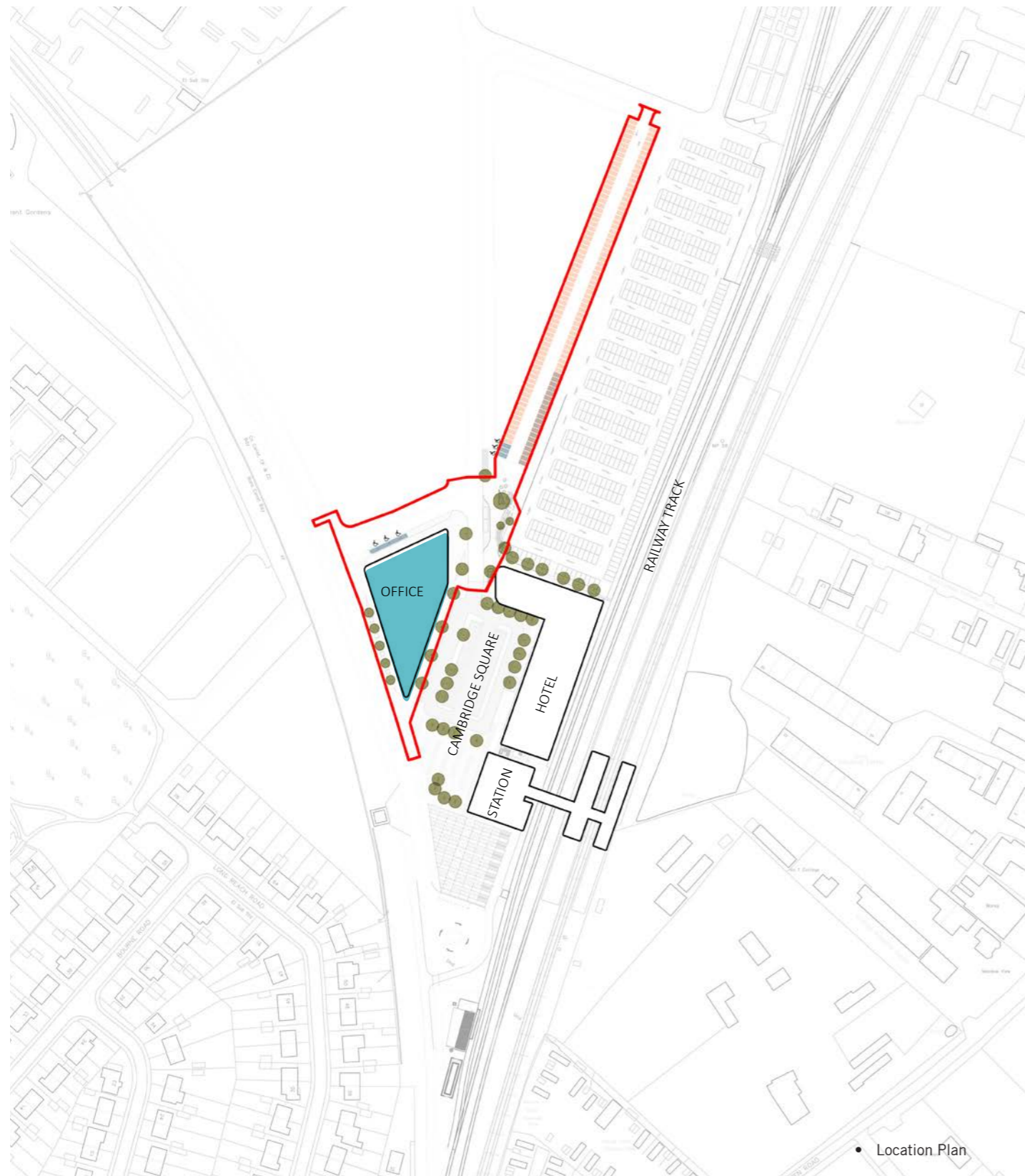
The Eastern boundary of the application site comprises the mainline tracks for the Ely to London Route, with low density housing East of the tracks.

The Network Rail station Carpark forms the northern boundary.

The completed Cambridge Square forms the western boundary, with the station located just South of the development plot.



• Current Aerial View



The proposed office development has been submitted alongside a concurrent planning application for the development of a new hotel adjacent to the Cambridge North Station. Together these two developments will form the first phase of development of Brookgate's wider Masterplan. The proposed office and hotel buildings, which together will frame the new Station Square are intended to help generate activity around the new station following its opening in May 2017.

As part of the Cambridge North Station development, a series of access roads and related infrastructure have been constructed to serve the new Station. The construction of these access roads and the Station Square have resulted in the formation of a number of development plots around the new Station. The proposed office occupies one of these development plots which lies opposite the new Station building and is framed by the Station Square to the east, the Station Bus Road to the south west and the Link Road between the Station Access Road and the Bus Road.

1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
JULY 2017

ANALYSIS/

Cambridge Northern Fringe East Area Action Plan

Work is actively progressing on the Cambridge Northern Fringe East Area Action Plan (AAP) in accordance with Policy 14 of the Submission Cambridge Local Plan and Policy SS/4 of the Submission South Cambridgeshire

Local Plan to create: “a vibrant and successful employment led, mixed use neighbourhood, shaped as a whole by the community, and embracing:

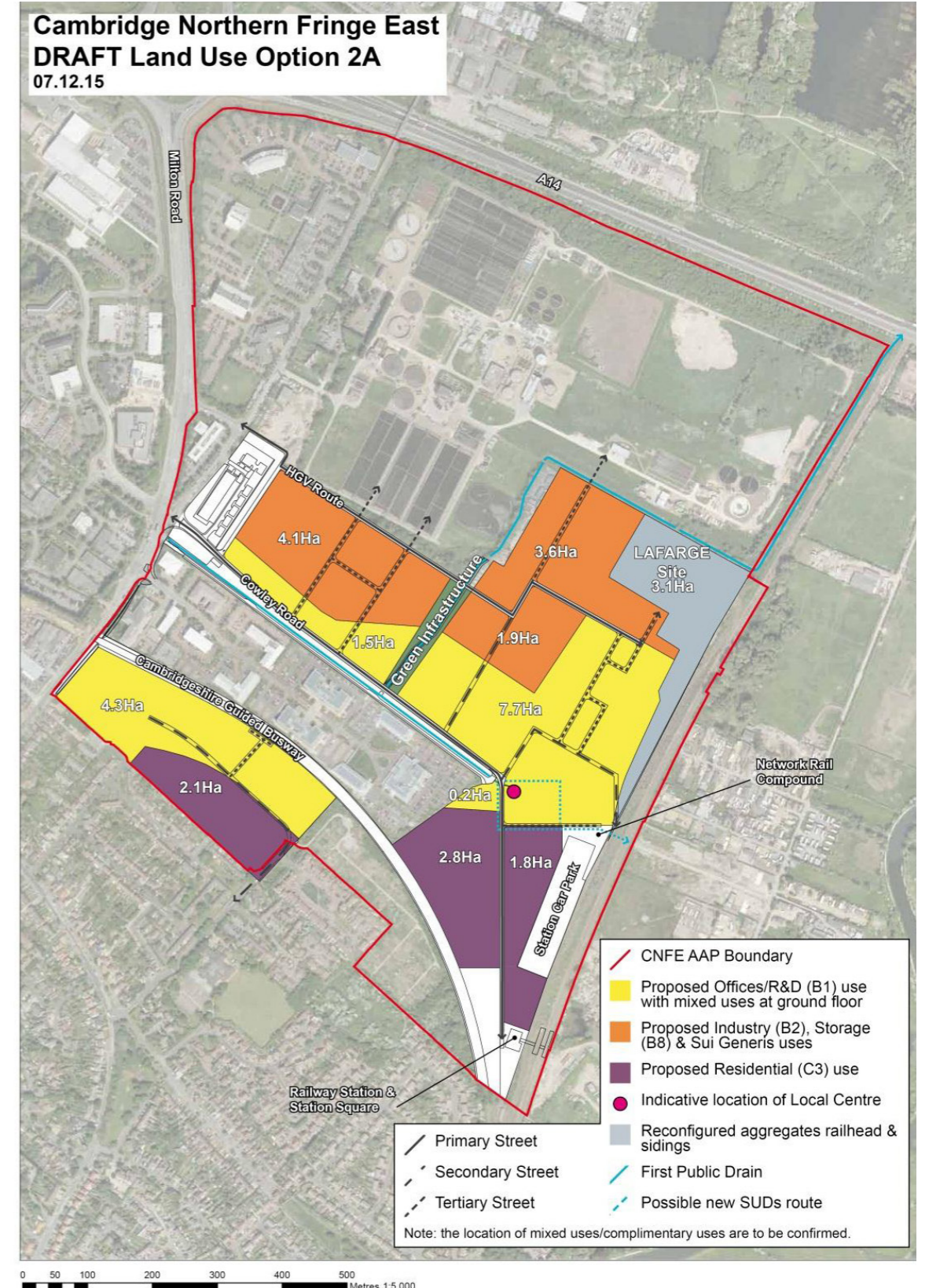
- Successful regeneration of the wider area;
- Modern commercial business needs and buildings;
- Sustainable urban living;
- The proposed new railway station and extension to the Cambridgeshire Guided Busway to create new high quality transport gateway and transform the area;
- Opportunities to create a well-connected and vibrant place;
- Opportunities to enhance the environmental assets;

As part of this process, opportunities for the redevelopment and regeneration of the CNFE including the areas around the new station are being explored with a view to transforming the area into a new mixed-use urban quarter of the City focussed around the new Station.

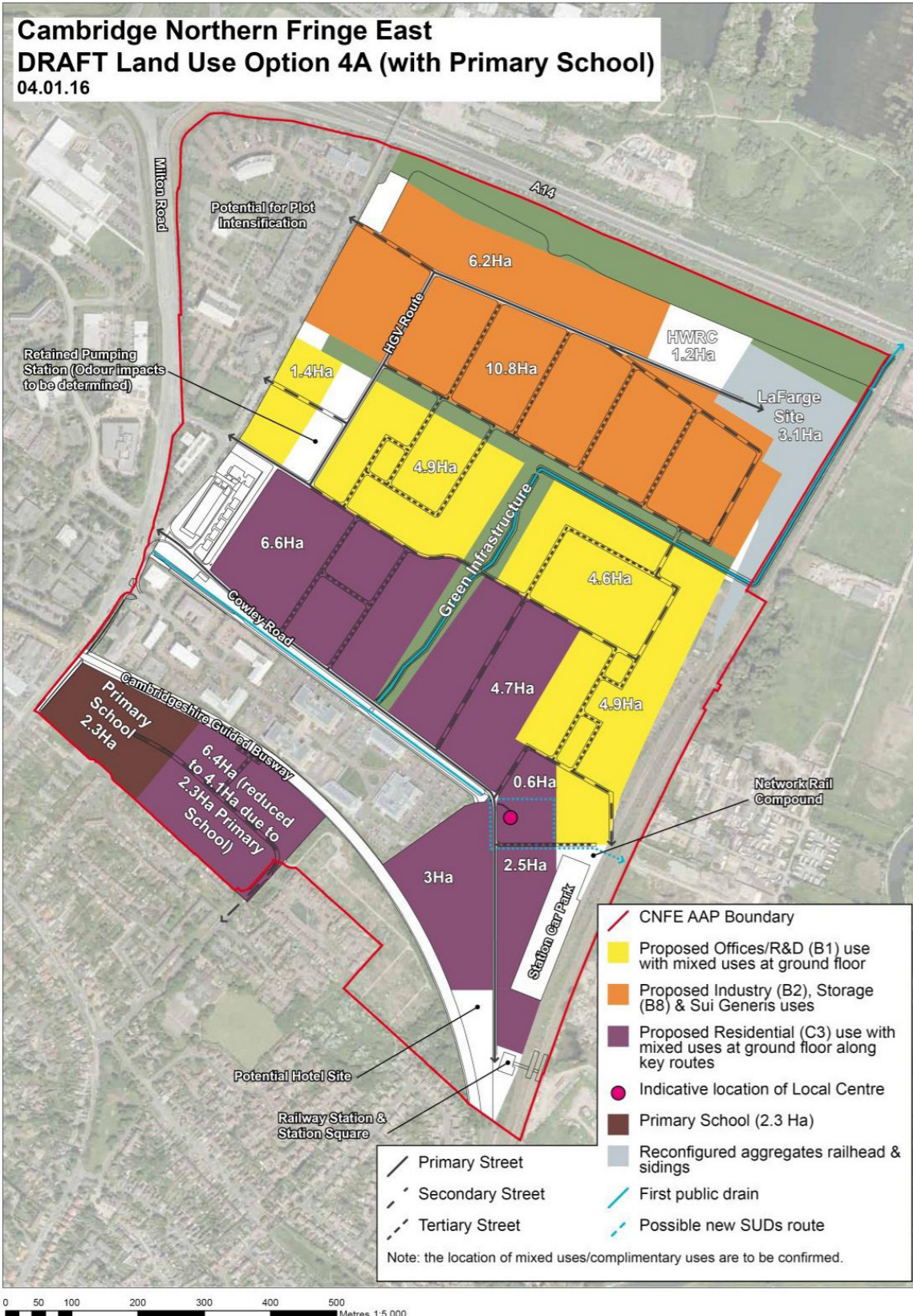
The issues and Options Document was published for consultation in 2016 outlining four potential development options for the site. Following public consultation on these options the Councils are now

undertaking further work in relation to two refined development options Option 2a and Option 4a with the former assuming development without the Anglian Waste Water Treatment Works and Option 4a assuming that the Treatment Works are relocated and this area of the site is also developed.

These two development options take into account the consented Station Amendments scheme and are currently the subject of detailed assessments and investigations to further refine the development of a preferred option for the site and the development of a Draft Area Action Plan for consultation in 2017.



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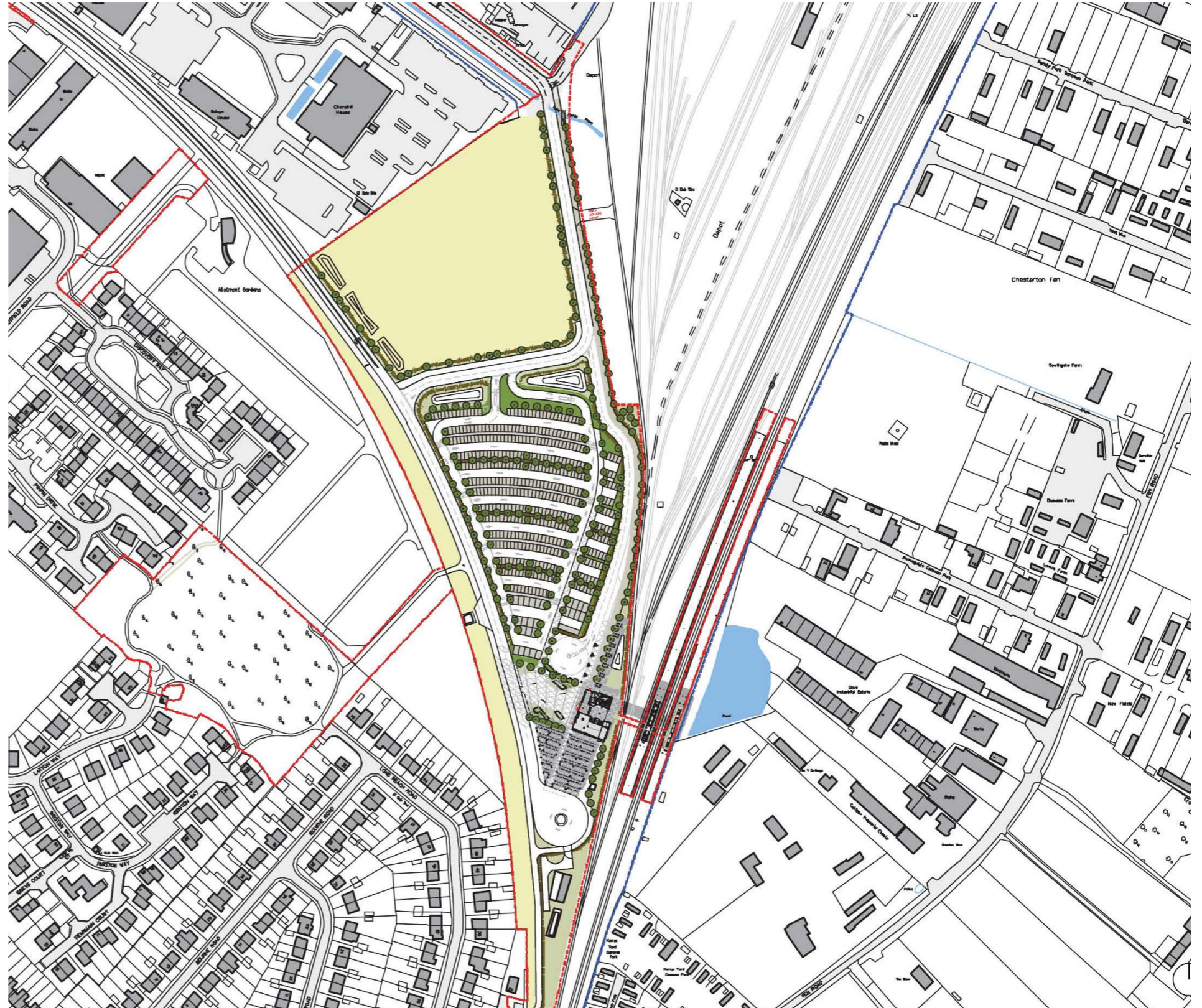
1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
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ANALYSIS/

Cambridge North Station Interchange Application

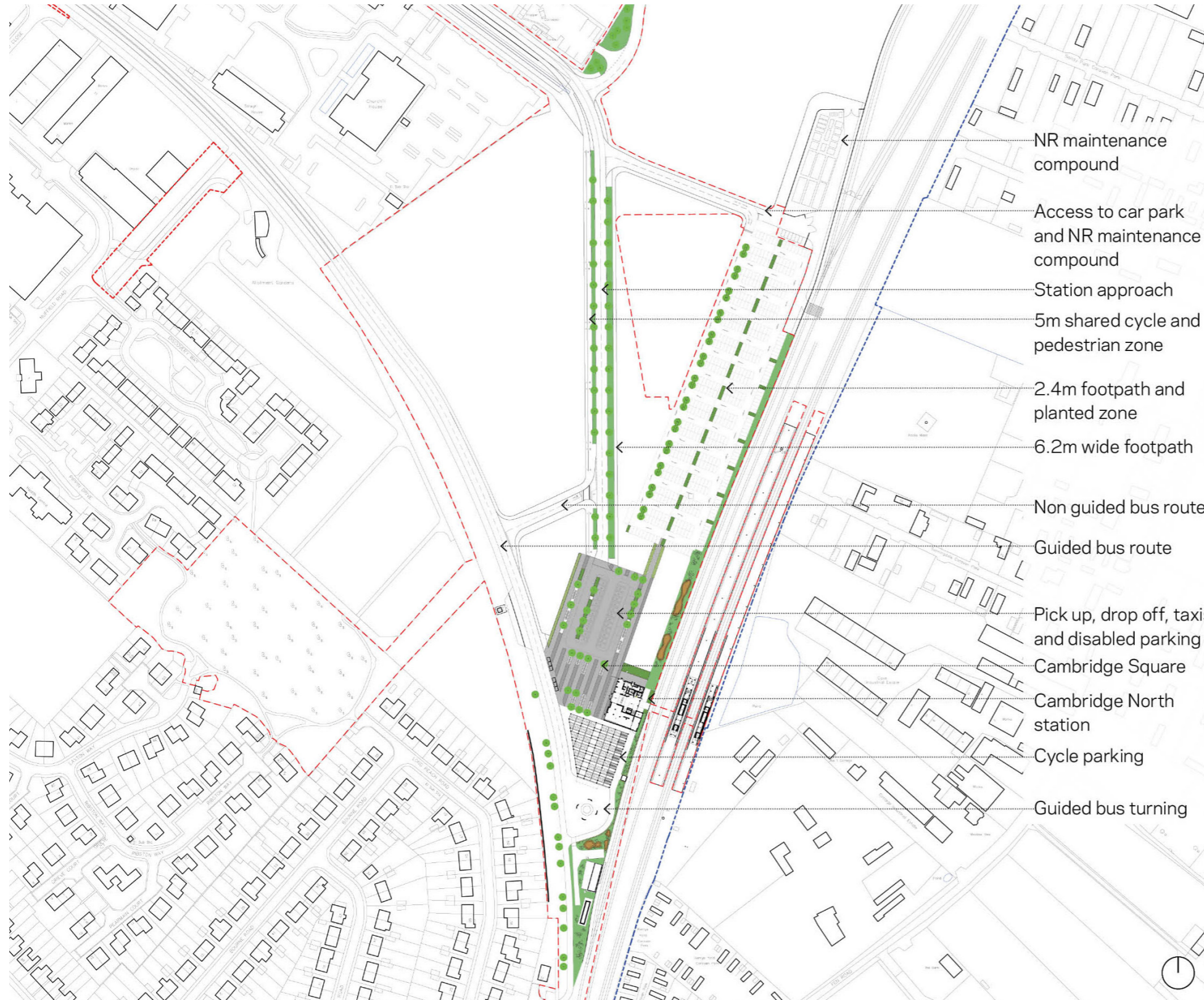
The adjacent layout of the station, station square, car park and access road was approved July 2014. This layout was constrained by the retained sidings to the East of the application site. The location of the carpark prevents any development close to the station and thus fails to release the development potential of this highly accessible site.



ANALYSIS/

Approved Station Amendments Planning Application - December 2015

1 INTRODUCTION



A subsequent application submitted in December 2015, aimed to improve upon the restrictive consented application.

The relocation of Freightliner and Tarmac and subsequent removal of the sidings as a constraint, led to a 4 month consultation process to determine the optimum layout of the carpark and road infrastructure to release the full development potential of the site.

A wide range of masterplan options for a new urban quarter consisting of a hotel, an office building, a residential and a business quarter were tested against a set of agreed criteria.

The adjacent plan illustrates the final station amendments plan which was approved in March 2016.

It determines the location of the:

- New station access road
- Extension of the guided bus route
- Link route to guided bus
- Car park and access
- Enlarged Station Square
- Footpaths and cycle routes along the main routes
- Disabled parking
- Taxi rank
- Short term parking

This layout forms the basis for the proposed hotel and office applications.

1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
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ANALYSIS/

Character Areas

Based on the AAP Option 2a the suggested distribution of uses defines four distinct character areas:

1. Station Square/ Cambridge Square

- Point of arrival
- Active ground floor frontages
- Hotel by the station
- Signature office building
- Public transport interchange

2. Residential Quarter

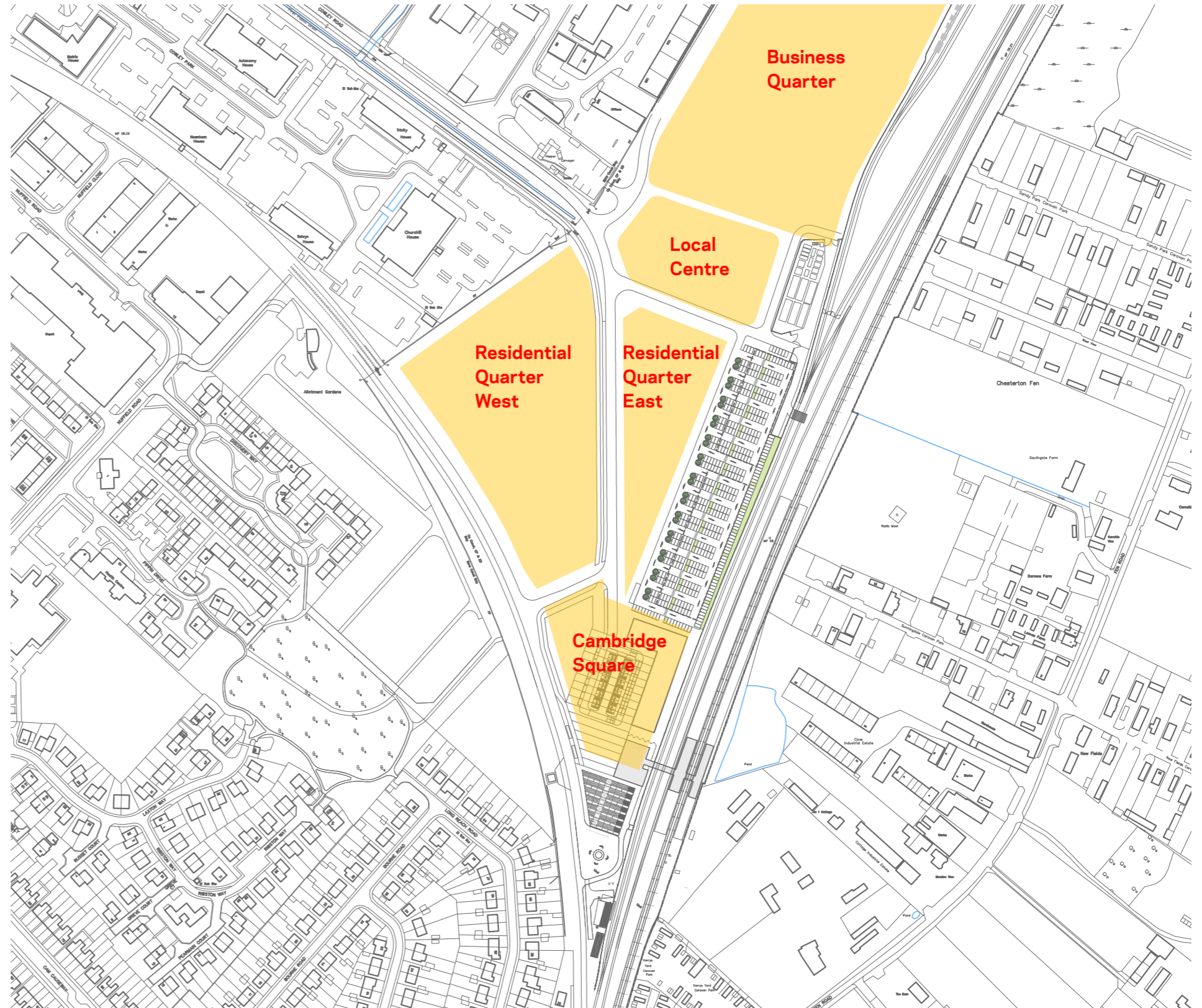
- Core of the emerging quarter North of the station
- Potential of delivering up to 1,000 units
- Defines the boulevard leading to the Station
- Defines the development edges to the nature reserve, the car park and adjacent business quarter

3. Local Centre

- Mediates between residential quarter and future Business quarter
- Central hub to the wider quarter
- Potential location for a local landmark to aid orientation

4. Business Quarter

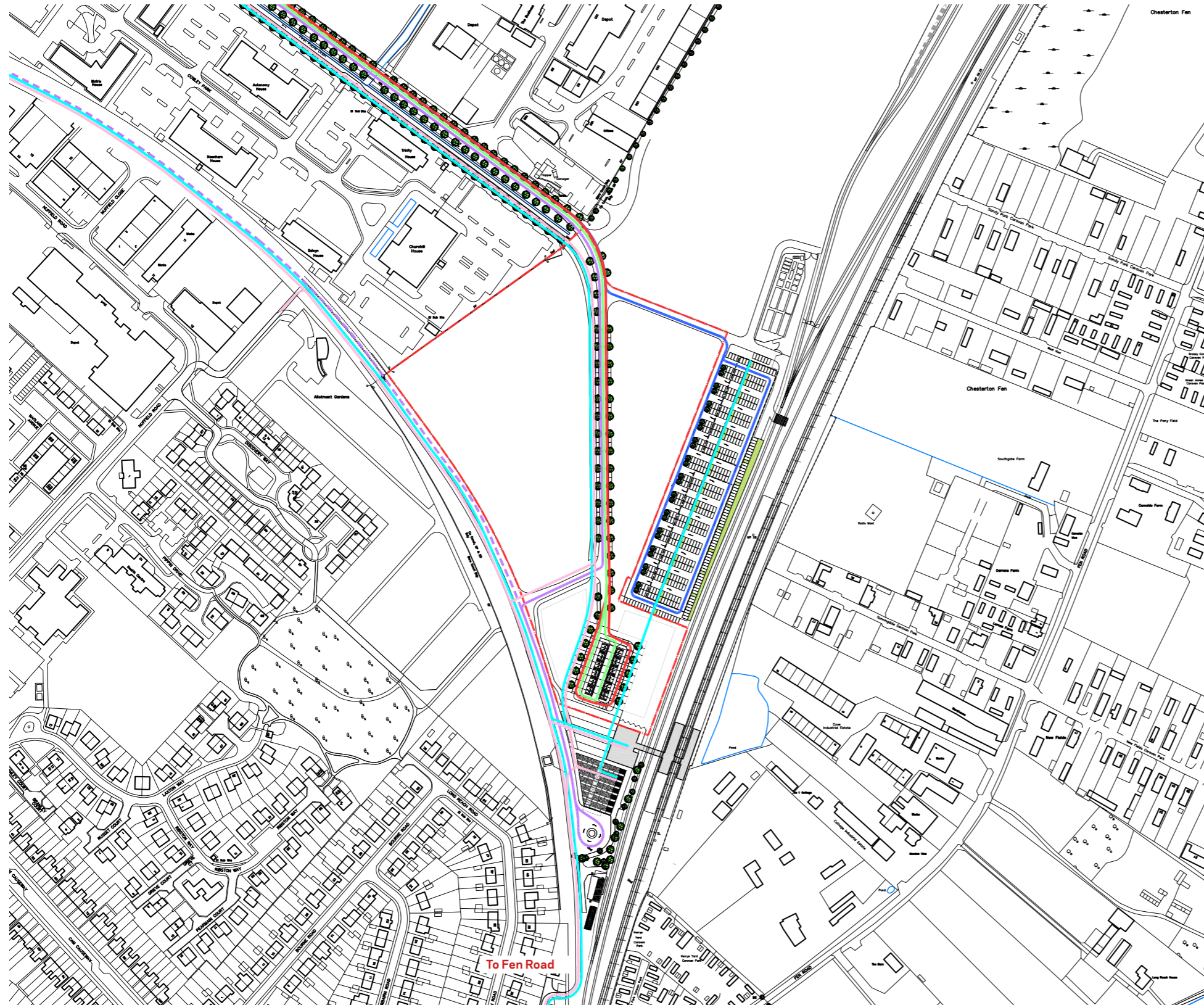
- Up to 1,000,000sqft office space in close proximity to the transport hub
- Potential linkages to adjacent commercial park



ANALYSIS/ Access

1 INTRODUCTION

Cambridge North will be highly accessible by walking, cycling and public transport, with vehicular access achieved from Cowley Road. Improved pedestrian and cycle access will be provided to the site from the surrounding areas, including a new pedestrian link to Moss Bank to the south. Cowley Road itself will be extended to form a tree lined boulevard, with a footway and cycleway along its western side. Secondary streets lead to the carpark and the guided bus route. The disused Network Rail access track running to the south of Cowley Road will be reopened to provide a cycle/ pedestrian route separated from vehicular traffic, with linkages provided through to Cambridge Business Park. The above works will be completed as part of the approved planning application for Cambridge North Railway Station. Cambridge North Railway Station is now in full operation and is located in the southeast corner of the proposed development site. The new station will significantly increase the accessibility of the site by rail. Cambridge North Station will also be served by an extension to the Cambridgeshire Guided Bus (CGB) and re-routed Citi 2 bus services, connecting the station and Cambridge North Phase 1 to Cambridge centre via high-frequency bus services.



- Key:
- Private cars (car park)
 - Drop off (cars and taxis)
 - Pick-up (taxis)
 - Principal Cycle routes
 - Principal pedestrian routes
 - Bus (non-guided)
 - Bus (guided)

ANALYSIS / Site Photographs

1 INTRODUCTION

ONE, CAMBRIDGE SQUARE
JULY 2017



• 1 - Panoramic view of Cambridge Square + Station



• 1 - Aerial View of Cambridge Square under Construction

1

INTRODUCTION



• 2 - View towards Cambridge Square + Station



• 3 - View of existing cycle park



• 4 - View towards Office Building



• 5 - View towards North Corner



• 6 - Panoramic view of Cambridge Square + Station



• 1 - View along the Station Access Road (Milton Avenue) towards the Square

02 THE PROPOSAL

- SITE AND CONTEXT
- CONSULTATION PROCESS
- THE PROPOSAL

2 THE PROPOSAL

ONE, CAMBRIDGE SQUARE
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SITE AND LOCATION/

Wider + Immediate context

The site is located in the north eastern fringe of Cambridge. It forms part of a development around the new railway station, which opened on the 21st of May 2017 known as Cambridge North. The new station will serve trains operated by Greater Anglia on the Cambridge to London and Cambridge to Norwich routes.

The new station makes the development site extremely well connected meaning that it will be an extremely sustainable development site in the long term because of its good public transport connections.

The site was formerly used for railway sidings.

In addition to the station building a number of other structures have already been built, these include the following:-

- The main Station Access Road
- The Station Bus Road and other road linkages
- The station square included disabled parking, passenger vehicle drop-off area and taxi queuing area.

A 450 space car park serving the new Station;

- A 1,000 space cycle park serving the new Station;
- Various elements of site access and infrastructure.



2

THE PROPOSAL



2 THE PROPOSAL

ONE, CAMBRIDGE SQUARE
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THE PROPOSAL/

Key Constraints

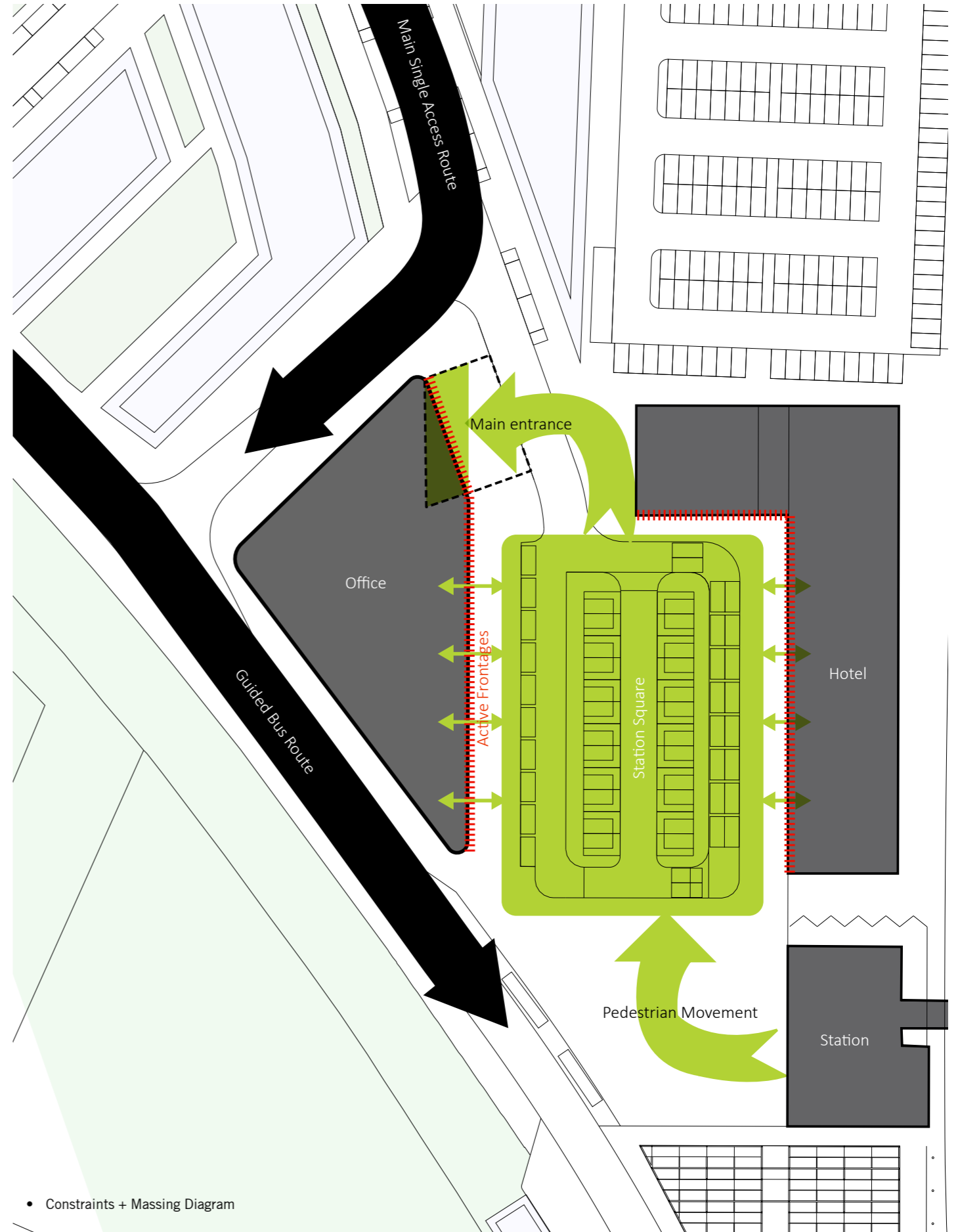
The Development plot and the subsequent desing massing has been defined by the following site constraints:

- Main access route into new Station Square + forming new 'Gateway' into the development.
- Western Guided bus route.
- Station Square layout as consented defining prominent elevations.
- Direct Pedestrian movement and access from Cambridge North Station.
- Defining visible entrance from Cambridge North Station and main access route.
- Height of exisitng Station and proposed heights of neighbouring Hotel.
- High water table level - no basement.
- Triangular shape following site massing.

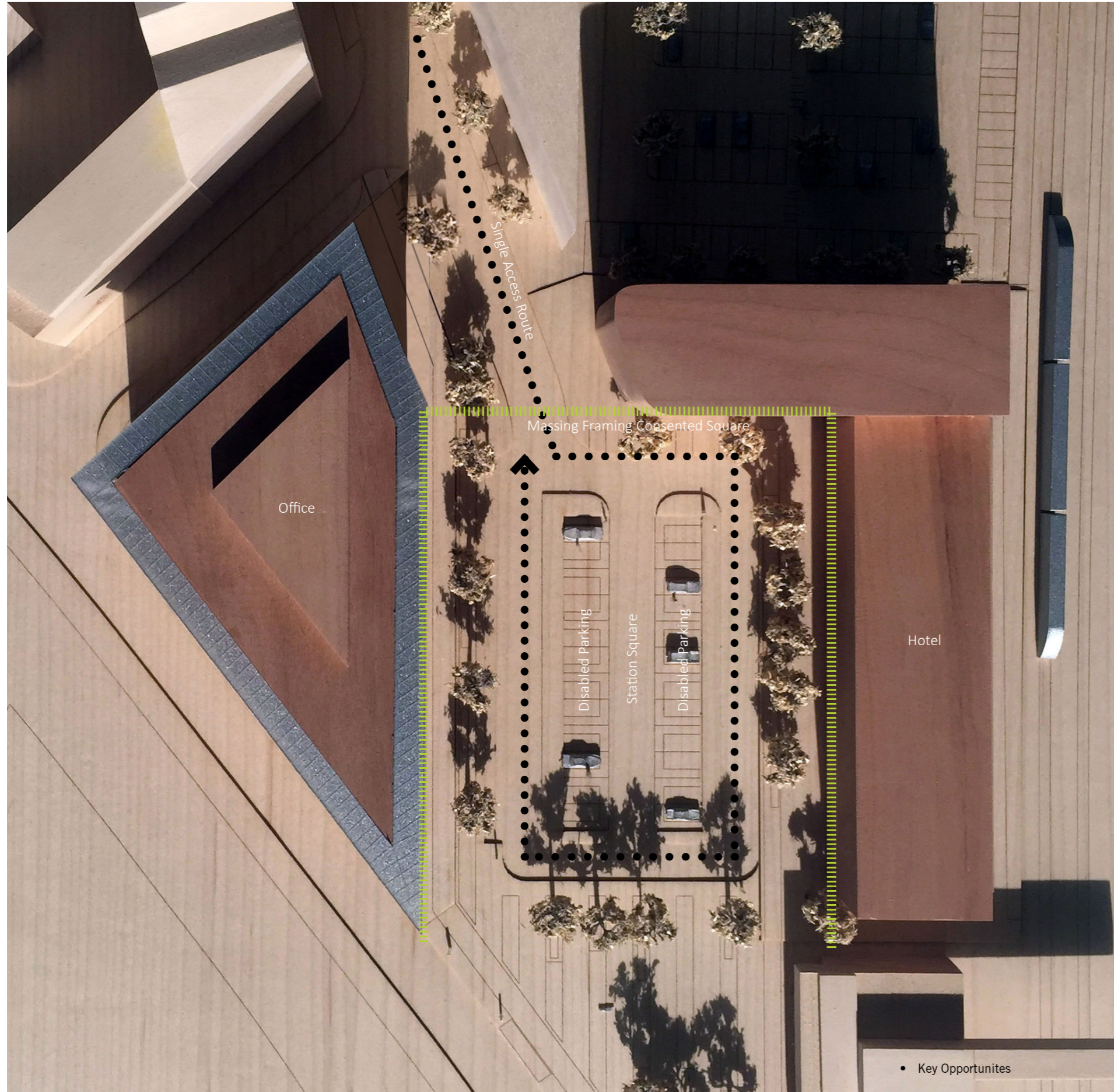
The following diagram demonstrates the key contraints of the site and how this has defined the massing.

The subesquent sections of this document will outline in more detail the Layout / Use / Amount + Apperance of the scheme which have been defined by thes orginal constraints.

Throughout the design process the scheme has been development with these Key site constraints in mind.



• Constraints + Massing Diagram

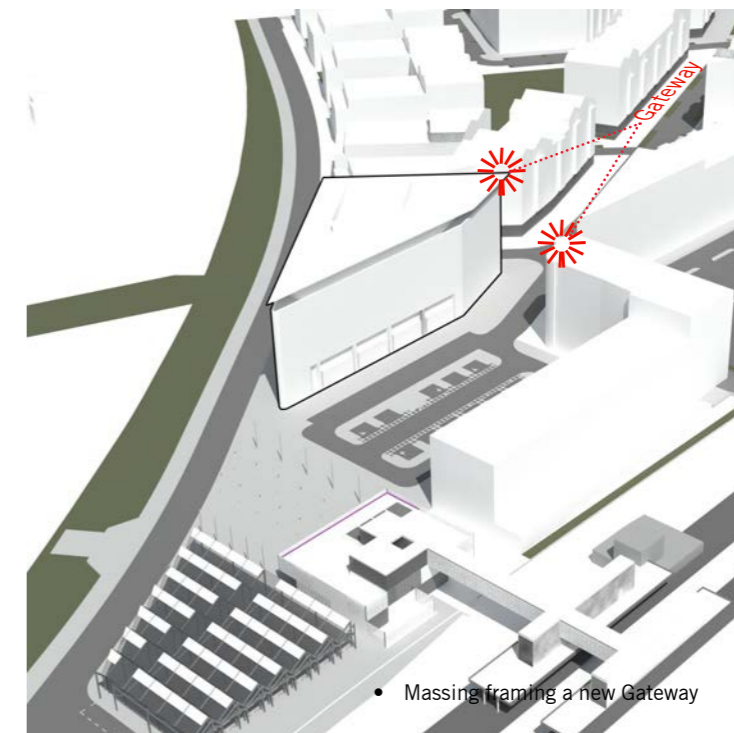


• Key Opportunitites

THE PROPOSAL/ Key Opportunities

The development of the site has created the following key Opportunitites;

- Alongside the Hotel the New office will deliver a new urban square and activate the wider development.
- The office building will provide new retail and amenities for Cambridge North Station and the adjacent Hotel.
- The office will enhance the landscaping and public realm and complete the square.
- The Office and Hotel will form a new gateway to the square



• Massing framing a new Gateway

2 THE PROPOSAL

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THE PROPOSAL/

Development + Consultation

The current planning applications cover two buildings which together will provide the back-drop and animation to the new Station and the public space outside the Station building.

This planning application relates to the proposed new office building with ground floor retail accommodation which is to be located within the triangular plot to the west of the Station Square and framed by the Station Bus Road to the south west and the link road between the Bus Road and the Station Access Road to the north west. In addition, to the north east of the Station Square, north of the main Station building, there is proposed a new hotel designed by Formation Architects and the subject of a second concurrent planning application.

The hotel occupies the northern and eastern sides of the square, the office building covers the west side and the southern side of the square is open with the exception of the station bicycle parking area.

Whilst they are subject to separate planning applications, the two proposed buildings framing Station Square have been designed having regard to one another and have been subject to joint pre-application discussions with the Councils. It is intended that together they will provide a coherent, high quality design which creates a place around the new Station building.

A series of consultation have been carried out as part of the design process and the application progress. These are as follows;

First Pre-application meeting 06 Dec 2016



Presentation Overview

The general outline of the scheme was shown. Options for different geometrical responses to the site were demonstrated. These had been developed in response to the entrance to Station Square, either the building was to have a curved response to bringing people into the square or it should have a much more direct response to the geometry of the square itself. The building was expressed as a very light glass and steel structure with a brightly coloured yellow soffit to the roof.

Summary of Response

- It was agreed that a more direct response to the Station Square was appropriate.
- Consideration should be given to alternative materials.

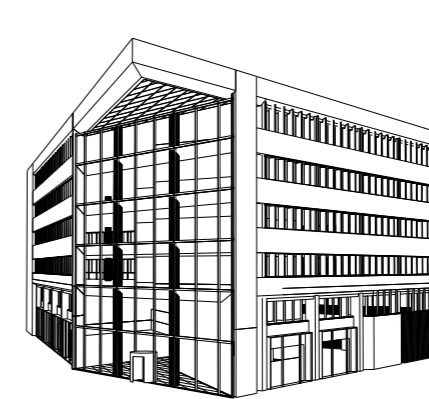
Second Pre-application meeting 26 Jan 2017



Presentation Overview

In the second pre-application meeting we presented the methodology and selection of townscape views for comment and approval. We showed a further development of the design of the building and the recognition of the opportunities presented by the triangular geometry. We presented development of ideas using brickwork, particularly perforated brickwork and natural materials. We showed a development of the roof canopy and the potential use of glass and integrated solar collectors. The first views of the building were shown in white outline. Ideas of the BREAM strategy were developed and the BREAM target was set as being excellent. Ideas about the parking, bicycle storage and servicing of the building were discussed.

First Quality Panel meeting 08 Feb 2017



Presentation Overview

The presentation to the quality panel on the 8th of February was a development of the pre-application meeting of the 26th of January. More detailed Computer Graphic Images of the building had been prepared. Details were submitted on the temporary uses that were being developed on the site.

Summary of Response

- The general design of the building was welcomed.
- It was suggested that the canopy should extend along the entire building.
- The environmental approach was welcomed.
- The northern entry point was considered the weakest element.
- The provision of an external bicycle store was criticised

Disability Consultative Panel meeting 28 Feb 2017



Presentation Overview

The scheme was presented to the panel. It was noted that the building had level access, that it had pass doors at the entrance, that there was lift access to all floors and the appropriate refuges associated with the means of escape. It was noted that there were accessible toilet facilities on every floor and spaces for disabled cyclists parking. It was noted that there was accessible parking close to the entrance of the building.

Summary of Response

- There was some discussion about the provision of gender neutral toilet provision.

Third Pre-application meeting
09 March 2017



Presentation Overview

The third pre-application meeting presented some progress in developing the design in response to the comments of the quality panel. The roof had been extended over the whole length of the building. The idea was introduced that roof canopy could be solid and reflective rather than glass was discussed. The bicycle parking had been further developed. The cycle changing facilities were shown within the building

Public Exhibition
14 March 2017



Presentation Overview

On the 14th of March a public exhibition was held at the Trinity Centre, Cambridge. There was a total attendance of 22 people.

Summary of Response

Four comment forms were completed by the visitors.

The comments were largely positive with some queries relating to car parking.



Second Quality Panel meeting 10
April 2017



Presentation Overview

The development of the design since the previous panel was explained. An additional storey had been added to the building. This was generally supported. The core had been redesigned with the lifts acting as double sided lifts. As a result of this space had been saved and the cycle facilities were partially incorporated into the building.

Summary of Response

- It was commented that all the cycle facilities should be incorporated into the building.
- The additional massing on the building was supported.
- Concern was raised about maintaining the quality of the building.

Thrid Pre-application meeting 27
April 2017



Presentation Overview

The third pre-application meeting presented detailed elevations of all the facades and an explanation of how the façade materials worked. There was also proposals brought forward to show how the bicycles could all be housed within the building with the exception of those around the building to service the retail areas.

Summary of Response

- The incorporation of the bicycle parking into the building was welcomed.
- There was some reservations expressed about the proposed colour and materiality of the windows.

Meeting with officers; May 2017



Presentation Overview

Following the concerns that were raised about the materiality and colour of the elevations which were expressed at the pre-app on the 27th of April some further work had been carried out to develop the language of the design of the façade and CGI's were procured to show generally lighter colours and the use of either timber or bronze coloured aluminium external louvers.





2
THE PROPOSAL

03 USE

- WHAT THE BUILDINGS AND SPACES WILL BE USED FOR

3 USE

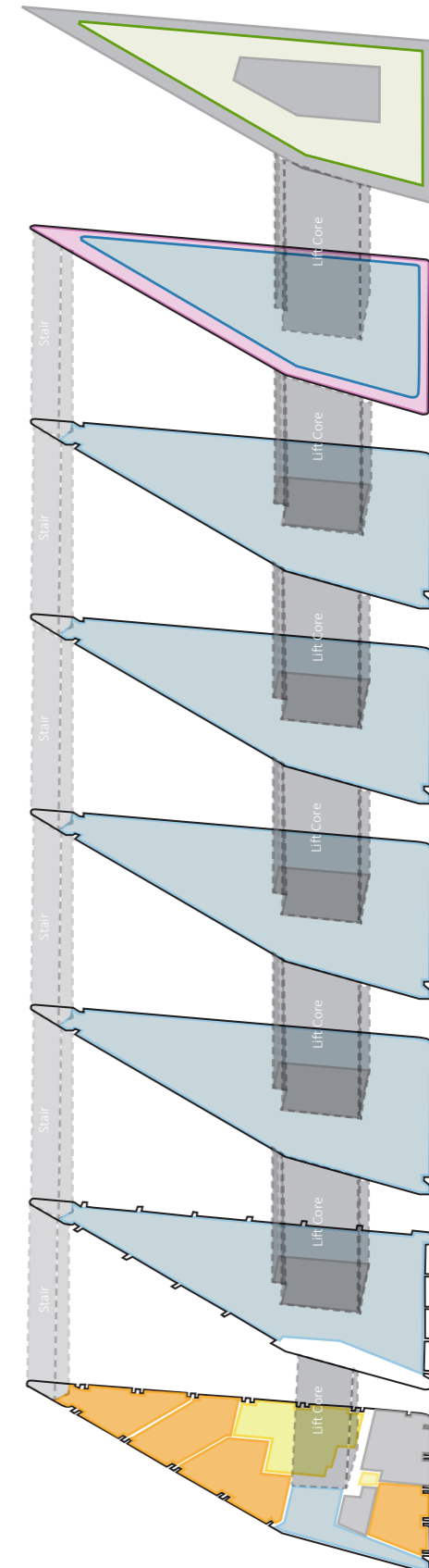
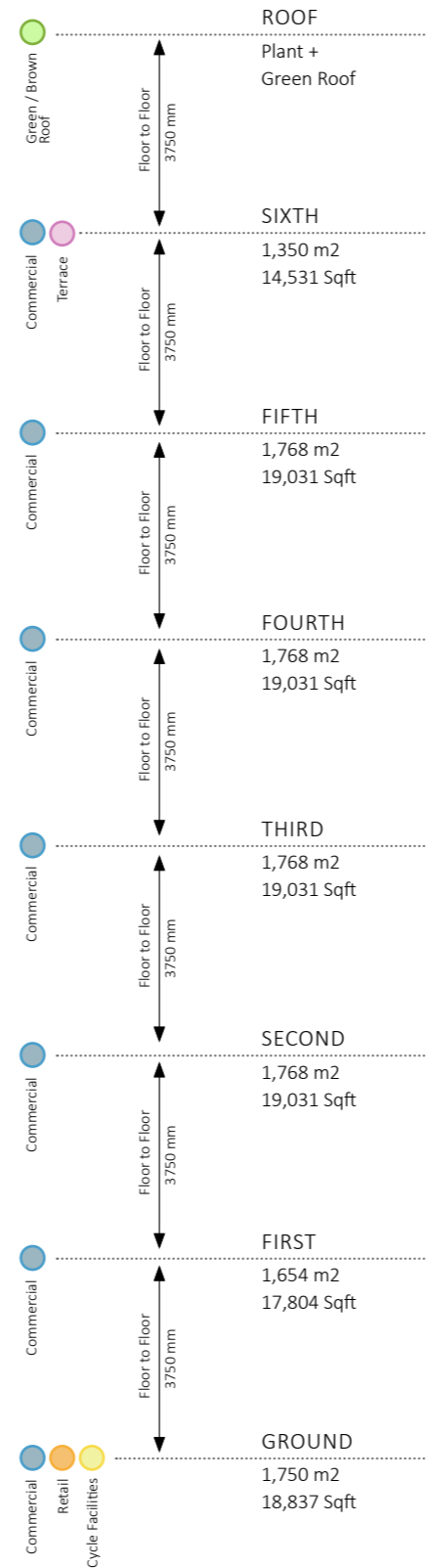
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USE

The building is mixed-use. Predominately it is an office building on the upper six floors. However on the ground floor there is a substantial quantum of retail accommodation along with the retail there is the office entrance, the plant and equipment for the building and bicycle storage and changing provision.

The building is conceived as an important element in the square outside the new station at Chesterton, North Cambridge. The building will occupy the north-west side of the square and the retail accommodation will animate the ground floor of the building and provide useful amenity to passengers coming to and from the station. The guided bus route and the Link Road also have retail frontage to add a level of animation and passive surveillance to those spaces.

In total there are 365 bicycle spaces associated with the building. The ground floor of the building houses 255 bicycle spaces together with cyclist changing and showering facilities. In addition to the bicycle store within the building there will be a total of 110 Sheffield bicycle stands around the building to cater for visitors and the retail requirements as well as some more for the office occupants.



• Exploded Axonometric



Commercial



Terrace



Commercial - Artistic View of Reception



Retail

3
USE

04 AMOUNT

- HOW MUCH WILL BE BUILT ON THE SITE

4 AMOUNT

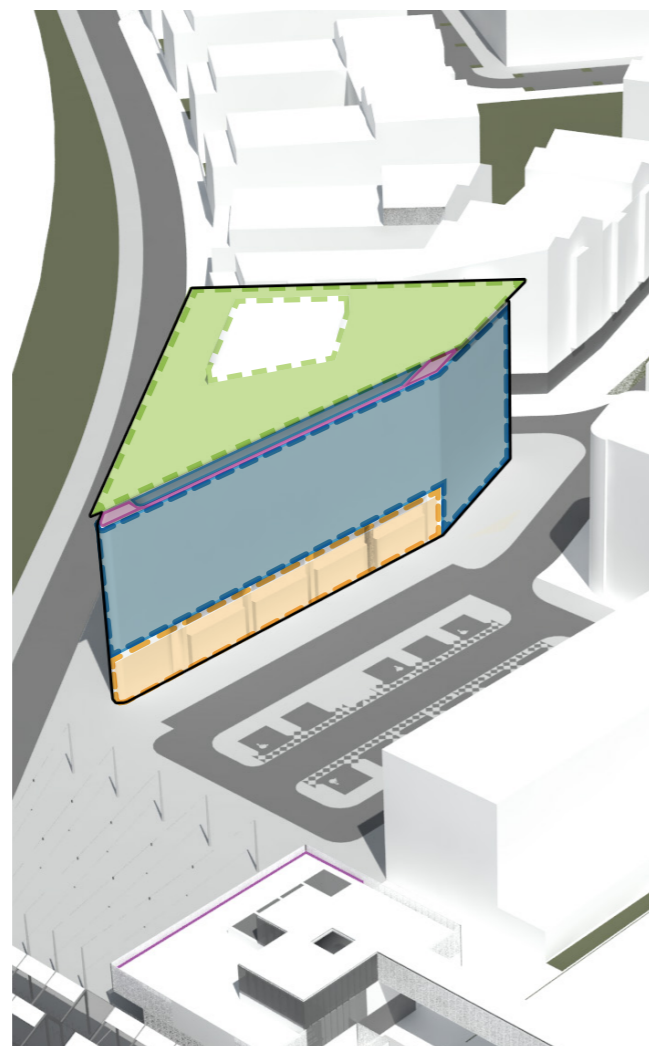
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AMOUNT/

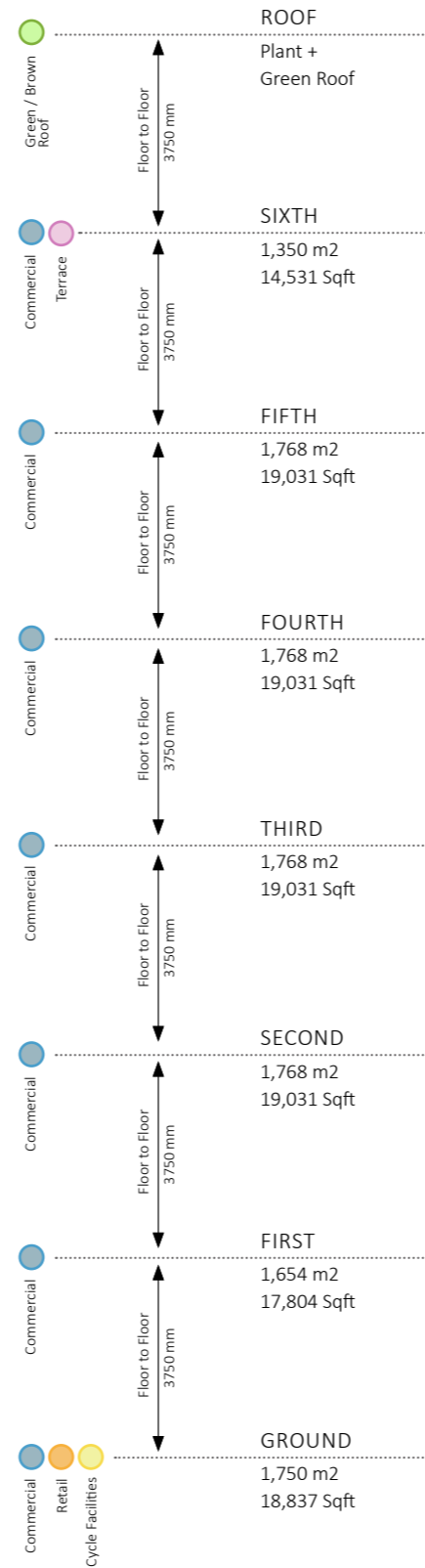
In total there will be 11,825sqm (127,294sq ft) of gross external space in the building.

This space will be split as follows;

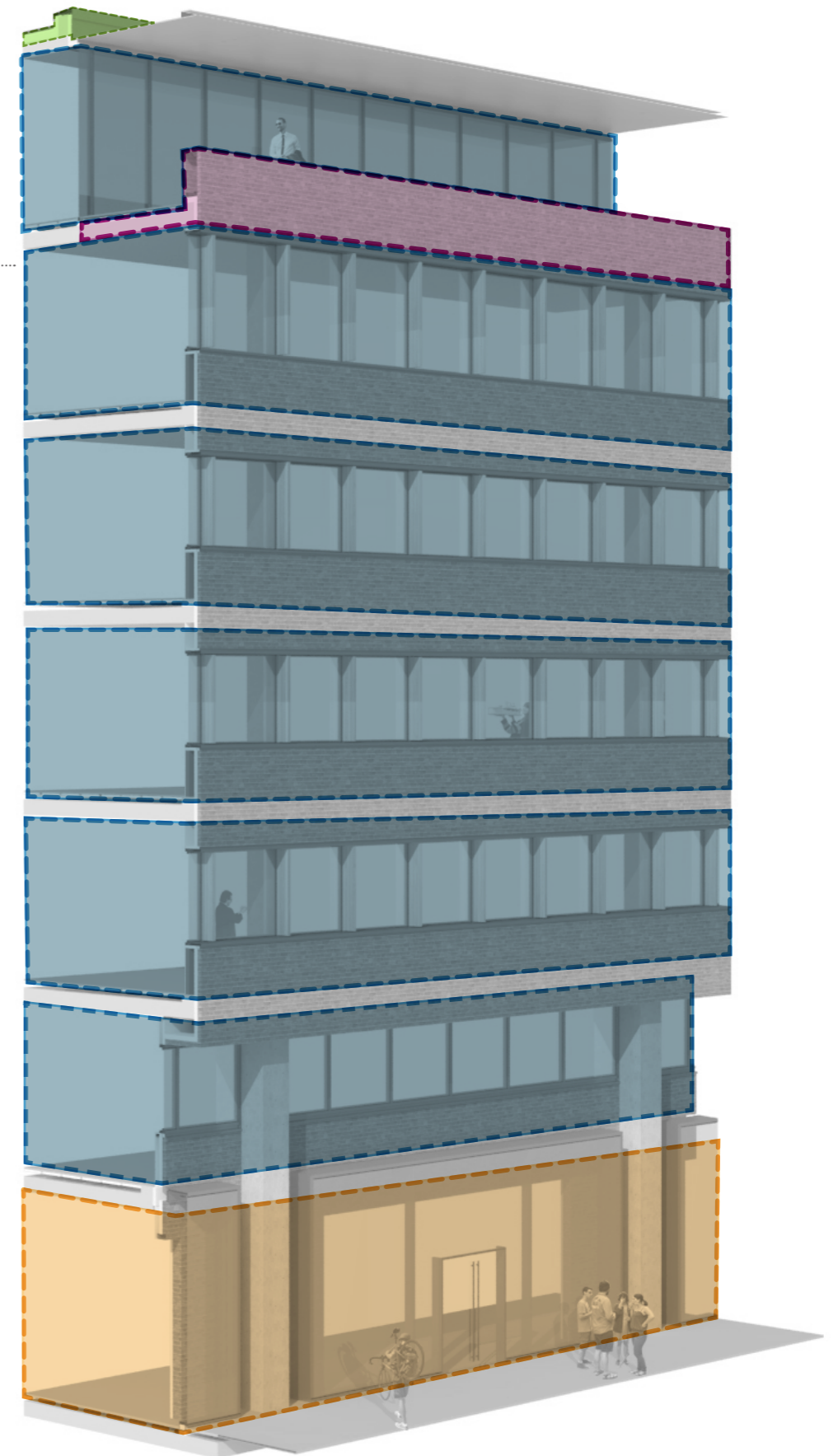
- Retail
- Office
- Cycle facilities
- Back of house (BOH)



• Amount aerial massing Diagram



• Amount Facade Section Diagram





One Cambridge Square, office building

GEA		GIA								NIA Office		NIA Retail		
Level	SqM	SqFt	SqM				SqFt				SqM	SqFt	SqM	SqFt
			Office	Cycle Storage	Retail	BOH	Office	Cycle Storage	Retail	BOH				
Ground	1,750	18,837	198	325	806	369	2,131	3,498	8,676	3,972			791	8,514
First	1,654	17,804	1,472				15,844				1,267	13,638		
Second	1,768	19,031	1,680				18,083				1,477	15,898		
Third	1,768	19,031	1,680				18,083				1,477	15,898		
Fourth	1,768	19,031	1,680				18,083				1,477	15,898		
Fifth	1,768	19,031	1,680				18,083				1,477	15,898		
Sixth	1,350	14,531	1,335				14,370				1,169	12,583		
			9,725	325	806	369	104,679	3,498	8,676	3,972				
Total	11,826	127,294	11,225				120,825				8,344	89,814	791	8,514

Please Note:
1: Areas to be confirmed by Quantity Surveyor

Office Cycle Parking: 1 per 30m2 Gross Internal Area (exc basement):	324
Retail; Cycle Parking: 1 per 25m2 Gross Internal Area	32.24
Total	356
Drawn Scheme Provision:	365

05 LAYOUT

- HOW THE BUILDINGS AND PUBLIC AND PRIVATE SPACES WILL BE ARRANGED ON THE SITE, AND THE RELATIONSHIP BETWEEN THEM AND THE BUILDINGS AND SPACES AROUND THE SITE.

5 LAYOUT

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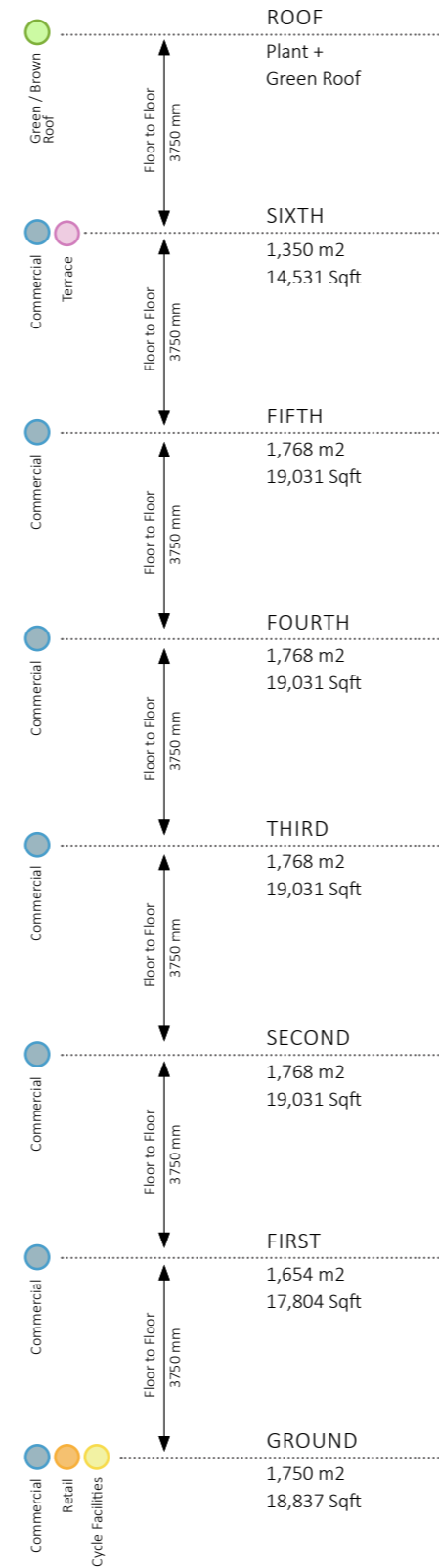
LAYOUT/

The site is in a fantastic prominent location opposite the train station and on the station square. However the shape of the site is not ideal for an office building. Office buildings are ideally square or rectangular to provide large amounts of regular rectilinear accommodation. The triangular nature of the site precludes that type of development. However what the triangular geometry takes away in terms of efficiency and utility is compensated by the dramatic opportunities which are afforded by the triangular geometry. In fact the building geometry is even more complex than a simple triangle: the north east corner of the site is truncated by the angle that the 'boulevard' takes to arrive in the square. The arrangement of the ground floor is dictated by this geometry and the various more or less public facades of the building.

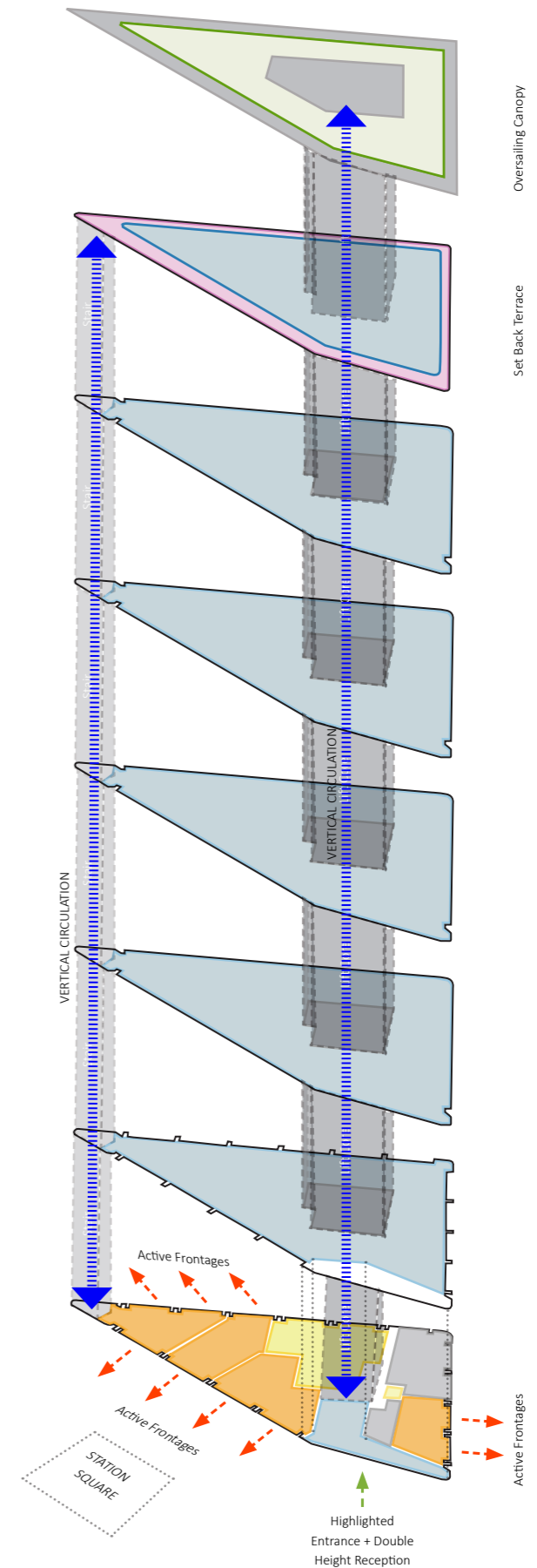
We have taken the facades facing the Square, the guided bus route and the Link Road to be the more prominent and 'public' facades of the building. We have placed retail facades on the most prominent areas of these facades. The façade facing the Boulevard we have used for the entrance to the office building. We perceive the north west corner of the building to be the least prominent area and for that reason we have placed the service elements, plant rooms, bin store and access to 'back of house areas' in this location.

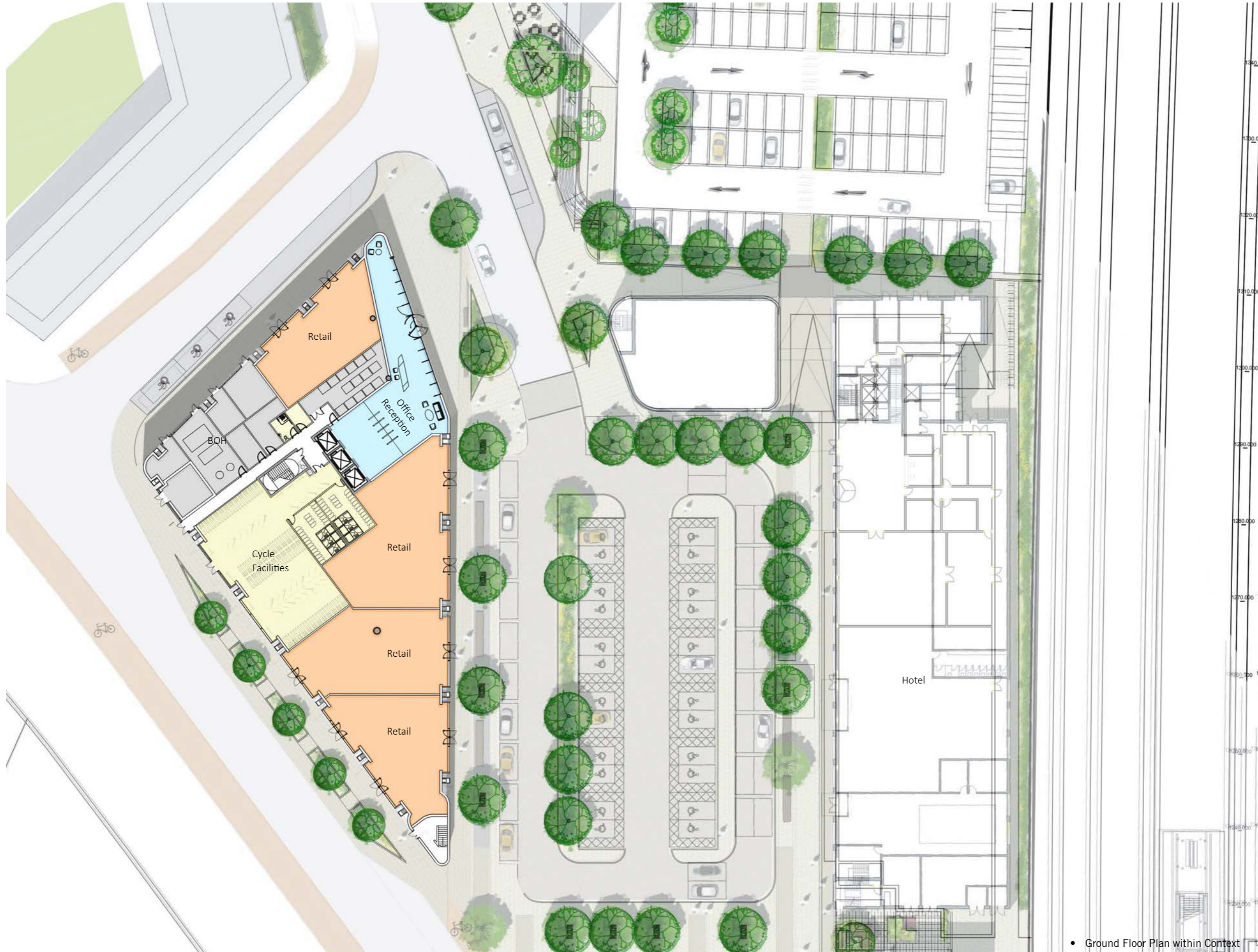
The building itself is expressed as a triangular brick form. Where the north east corner of the building is truncated by the angle of the Boulevard it is expressed as a glass façade as though the corner of the building had actually been 'cut-away'. The building is organised vertically into a base

middle and top section. The base section is expressed via the giant scale of the shop-fronts which are expressed as a extra height taking in the floor zone and modesty zone of the first floor to give the retail additional presence and signage zones within the retail 'boxes'. The mid-section is expressed in horizontal strips of window and spandrel bands. This is a rational relationship allowing the building to achieve high levels of thermal and solar insulation; whilst allowing the light to enter the building where it can be most useful. The upper floor is set back to allow the roof to project and create an emphatic top to the building. The roof will incorporate brown roof technology and photo-voltaic panels to respond to the sustainability requirements of the building.



• Layout Exploded Explanatory axonometric diagram





• Ground Floor Plan within Context

5 LAYOUT

5 LAYOUT

ONE, CAMBRIDGE SQUARE
JULY 2017

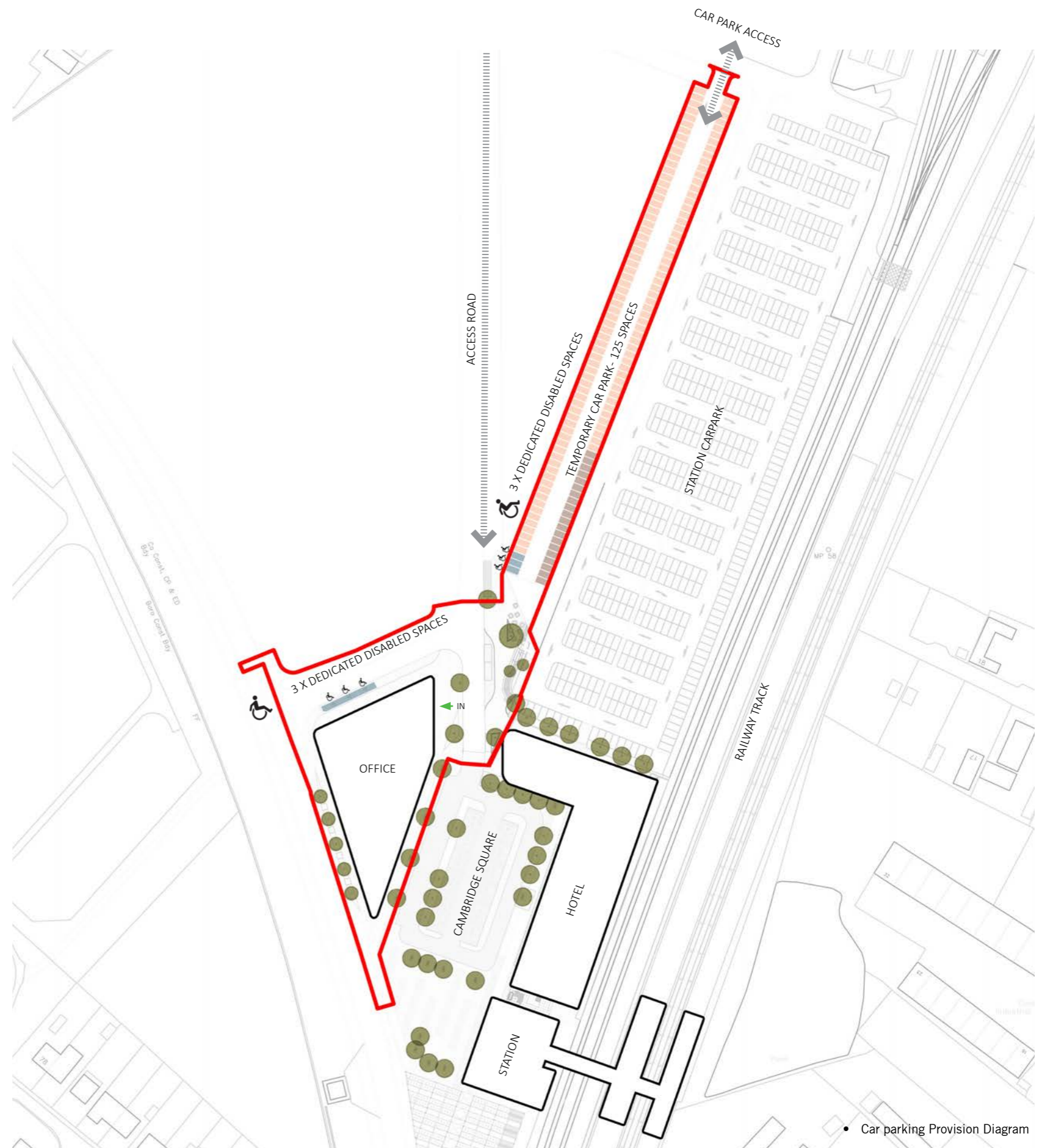
CAR PARKING/

Site and numbers

In total there are 365 bicycle spaces associated with the building. The ground floor of the building houses 255 bicycle spaces together with cyclist changing and showering facilities. In addition to the bicycle store within the building there will be a total of 110 Sheffield bicycle stands around the building to cater for visitors and the retail requirements.



125 6



• Car parking Provision Diagram

5 LAYOUT

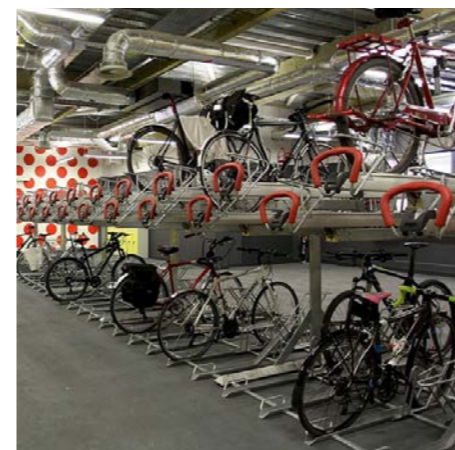
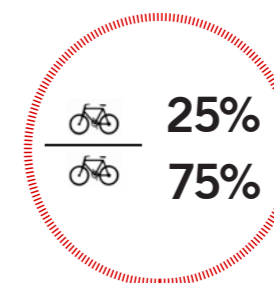


CAR PARKING/

Facilities and calcs.

The cycle facilities provided have been based on Cambridge City Council requirements adopted by South Cambrdge and following consultation with officers. The provision is based on 01 space per 30 sqm with only 25% of bikes being on the upper tier of stacking units to ensure accessibility.

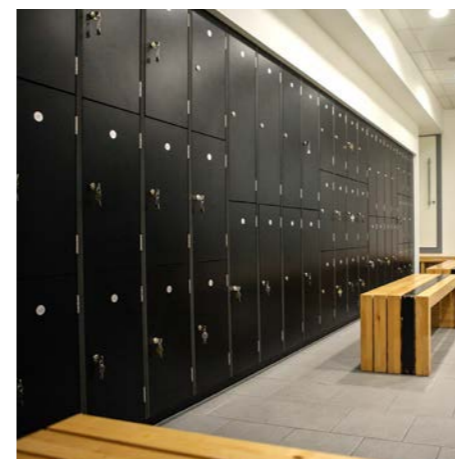
$$\text{Bicycle Icon} \ 365 = \text{Bicycle Icon} \ 181 + \text{Bicycle Icon} \ 184$$



BICYCLE SPACES:
TOTAL 365

325 B1 OFFICE INCL. VISITOR
255 INSIDE ON GROUND FL.
70 OUTSIDE ON STANDS

RETAIL INCL. VISITOR
40 ON STAND OUTSIDE



06

SCALE

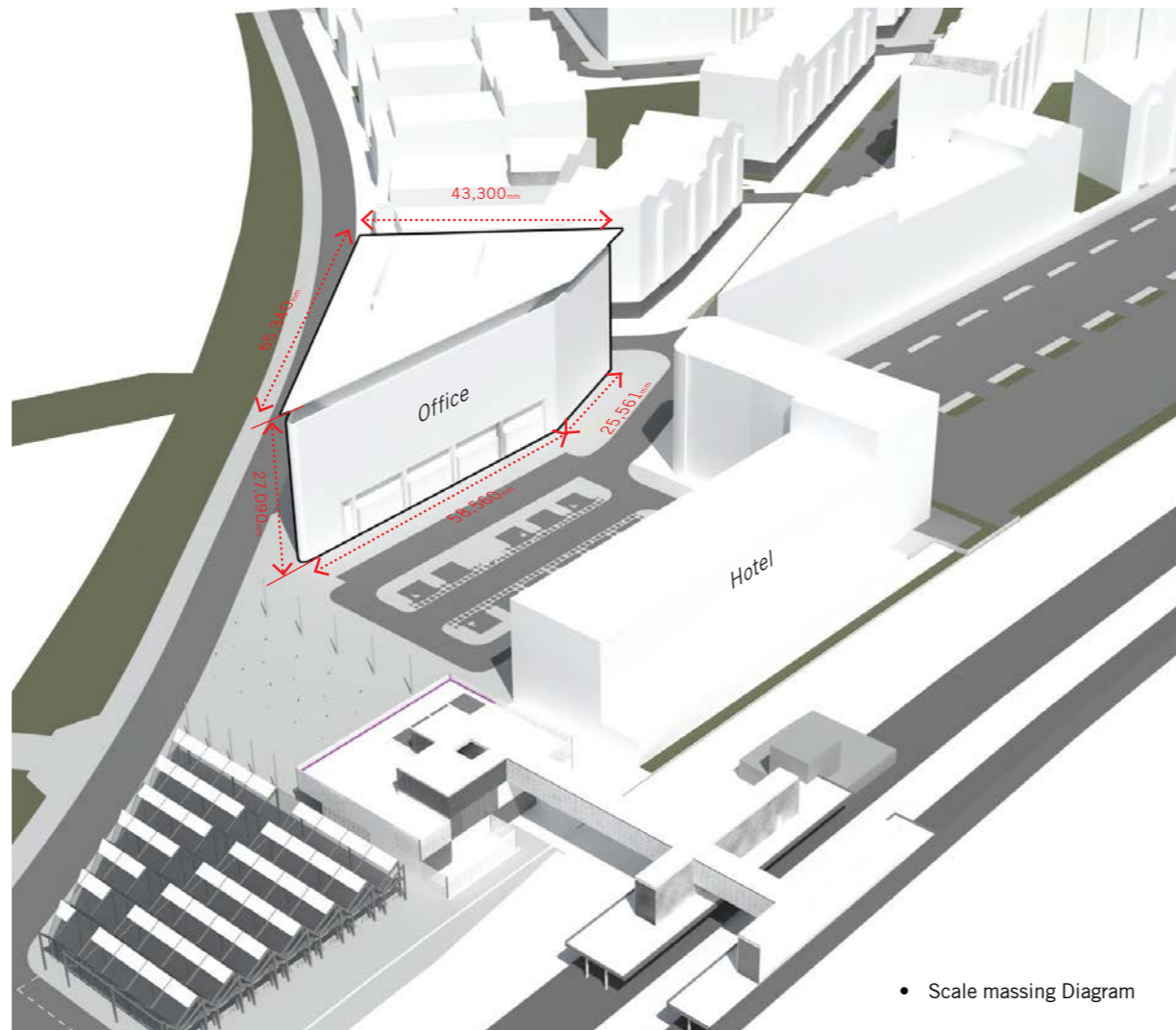
- HOW BIG THE BUILDINGS AND SPACES WOULD BE THEIR HEIGHT, WIDTH AND LENGTH

6 SCALE

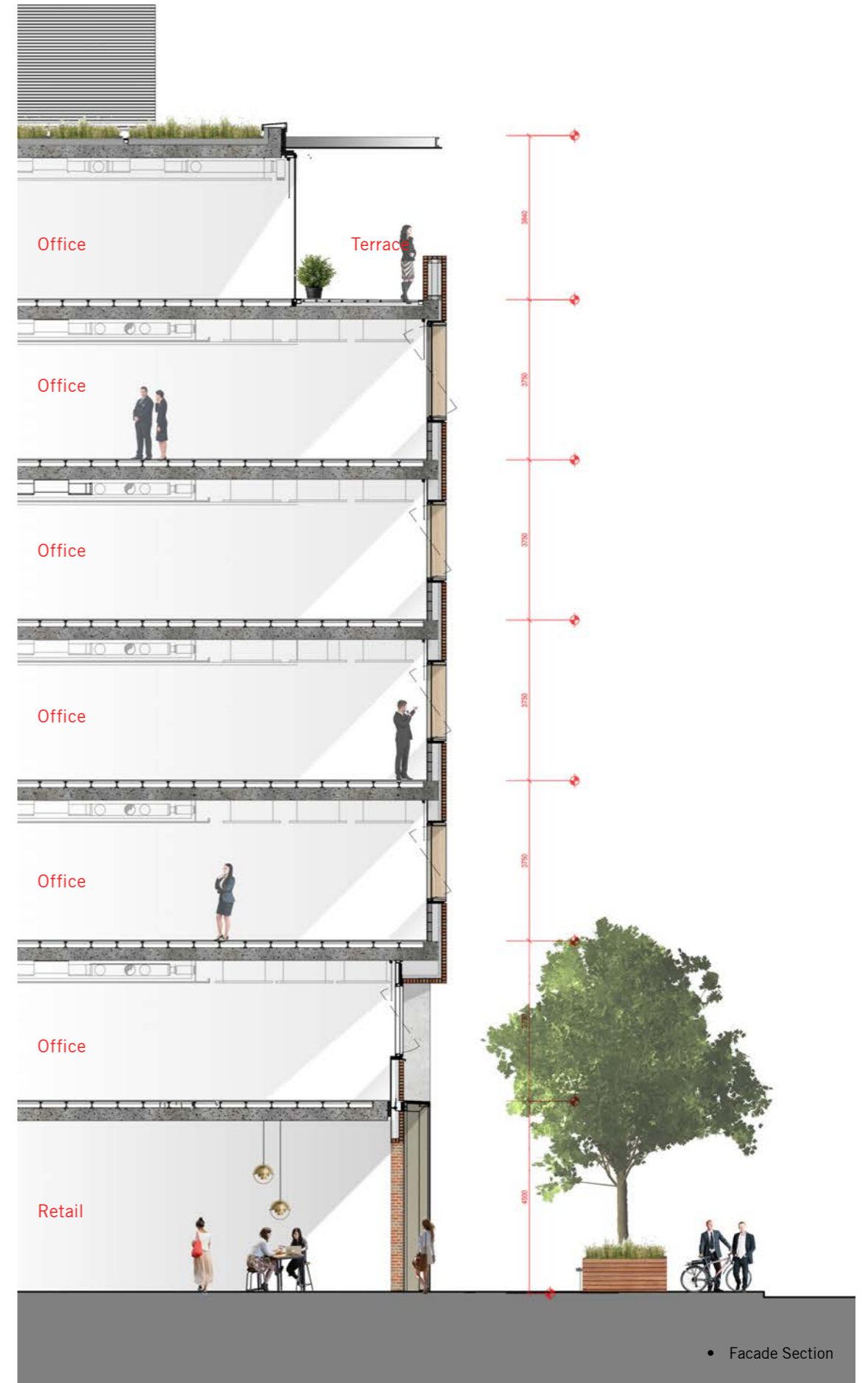
ONE, CAMBRIDGE SQUARE
JULY 2017

The scale of the building and public space has been calculated in relation to the scale of the square, the hotel, similar spaces at the CB1 development in Cambridge and the Market Square in Cambridge. This has been modelled physically and virtually to describe the space and assess the relationships between the buildings and the space.

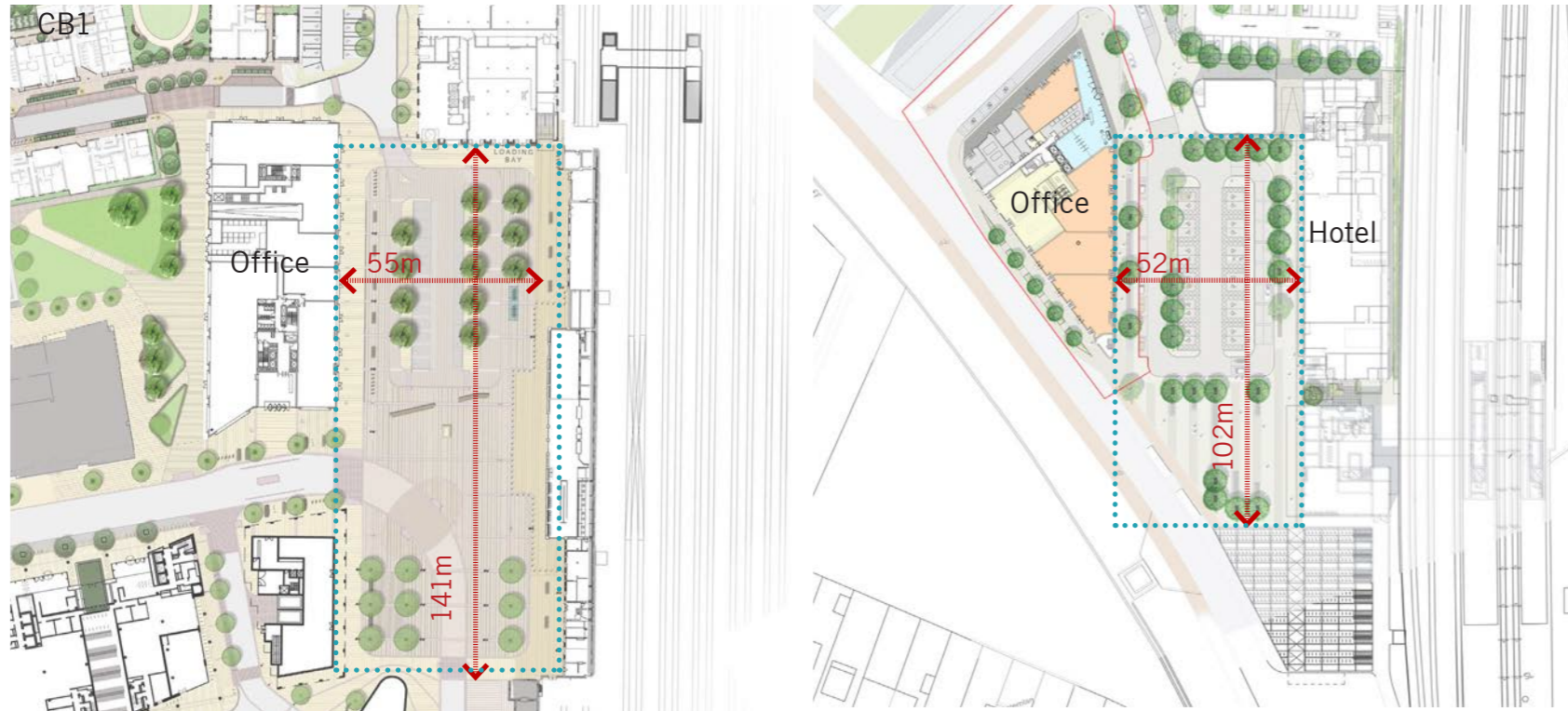
Images to show the relationships between the buildings and the public space.



• Scale massing Diagram



• Facade Section

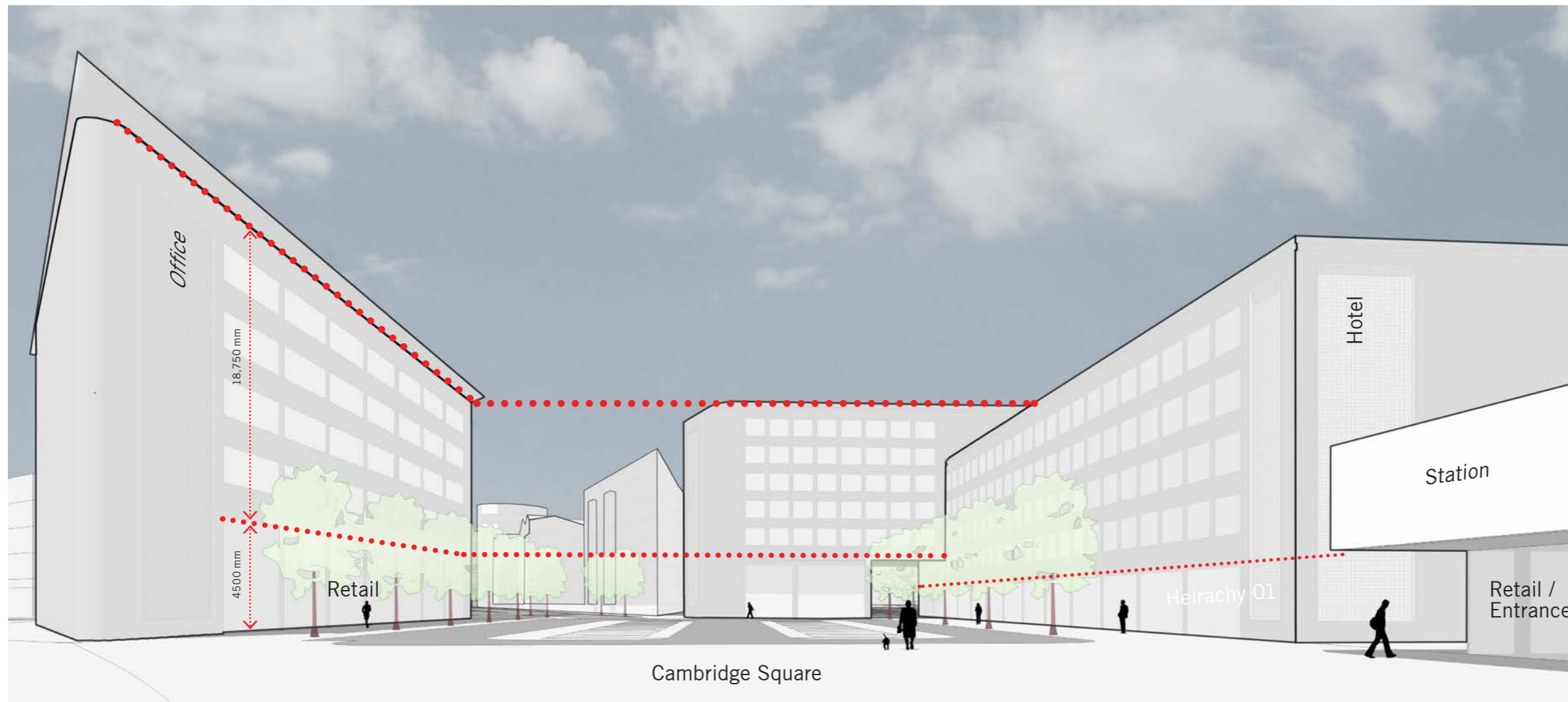


CONTEXTUAL /
SCALE COMPARISON

6
SCALE

CB4 - ONE, CAMBRIDGE SQUARE
DESIGN+ACCESS STATEMENT
MAY 2017

- One Station Square CB1 Scale Comparison vs One Cambridge Square



- Station Square Masterplan Height Comparison

07

APPEARANCE

- WHAT THE BUILDING AND SPACES WILL LOOK LIKE, FOR EXAMPLE, BUILDING MATERIALS AND ARCHITECTURAL DETAILS.

7

APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017

APPEARANCE /

Overall

The building maximises the opportunities to exploit the dramatic triangular form of the site. The shape of the site is also expressed through the truncated north east corner of the site and the canopy which completes the form of the site. The building is executed in brickwork, the brickwork is relieved by panels of perforated brickwork in strategic locations. E.g. where the brickwork enclosing an escape staircase.

The building is organised into three parts, base middle and top. The base relates to the ground floor and largely to the retail activity. The retail has an enhanced floor to ceiling height. In addition the retail is given an additional sense of height and scale due to the introduction of a series of retail boxes on the façade which are actually higher than the ground floor and incorporate a signage zone into the floor zone of the floor above. These give a sense of scale to the public realm and add animation to the ground floor of the building.

The central section of the building is composed of the offices and has a series of horizontal strip windows. These are the most efficient means of getting adequate levels of lighting on the working plane in either open plan or cellular office configurations. It allows us to maximise the thermal and solar insulation of the façade. We are using the depth of the mullions to provide further solar protection on the east and west facades. We have opening windows to allow for mixed mode ventilation and using the concrete structure to provide 'coolth' through thermal mass and night time cooling.

The upper section of the building

is set-back from the rest of the façade and is designed to give a 'top' to the building. The roof overhangs the façade to provide solar shading. The roof is designed to be a combination of a green roof and additionally provide areas of photovoltaic panels which provide some of the renewable energy for the building. At night the canopy and the roof overhang are illuminated with uplighters on the station square side of the building to provide illumination and a 'glow' at the top of the building.



• Night Shot across Square



• South / East Elevation



• North Elevation



• Brick Detailing

7
APPEARANCE

7 APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017

MATERIALS /

Overview

The images and material in these pages describe how the building is designed to have base, a body section and a top and the materiality is responsive to this approach.

The proposed materials for the building are primarily of warm and earthy characteristics such as brick, timber and bronze coloured aluminium while the concrete clad columns and roof canopy provide the contrast and the coolth. The entrance is proposed to be a vertically defined curtain wall to be open, revealing and welcoming in balance to the horizontal bands of the main elevations.

Materials get lighter as they rise and the canopy has a capping effect to frame the building as well as the view of the square as travellers and local exit the square.



• View Across Square

7 APPEARANCE



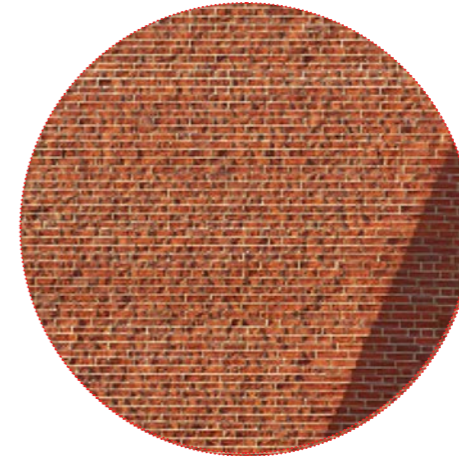
Green Roof



Silver Aluminium Canopy



Bronze Coloured Aluminum
Curtain Walling



Red Brick with Light Mortar Joints

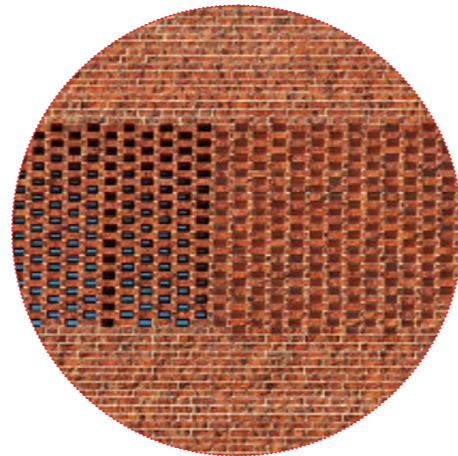
Levels 06-Roof



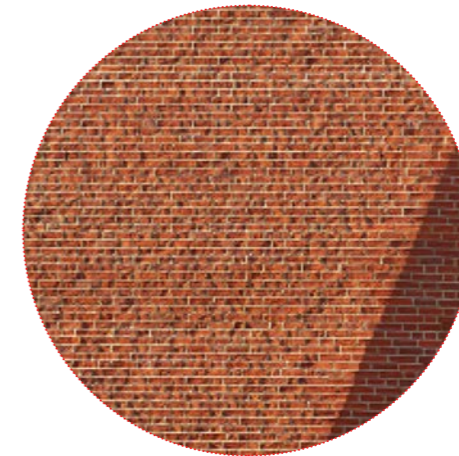
Timber Vertical Facade Shading Fins



Bronze Coloured Aluminum Window
Frames

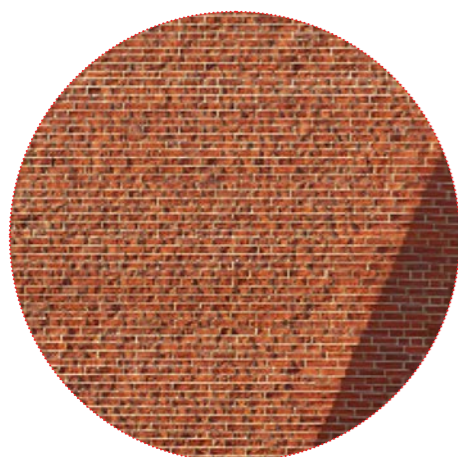


Perforated Staggered Brick



Red Brick with Light Mortar Joints

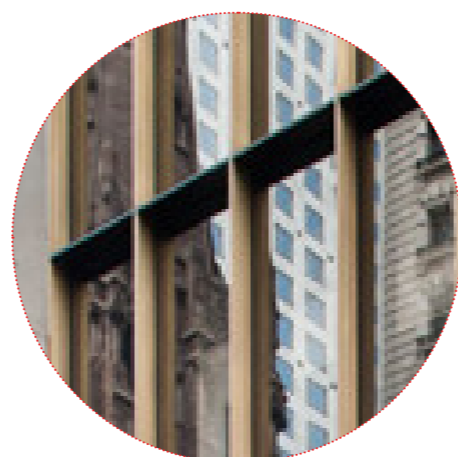
Levels 02-05



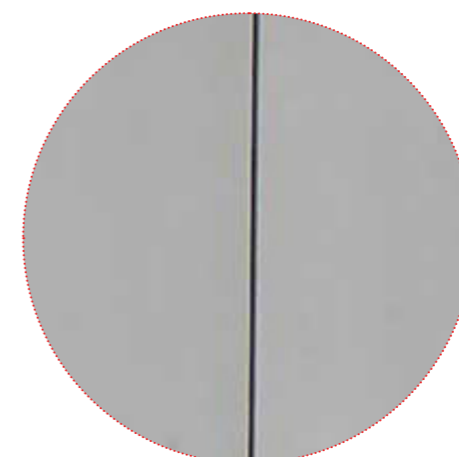
Red Brick with Light Mortar Joints



Slatted Timber Facade within Bronze
Aluminum Vitrine Boxes



Bronze Coloured Aluminum Framed Vitrine
Boxes with glass Facade



Concrete Columns

Levels 00 - 01

7 APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017

FACADE TYPES/

Typical Bay Details

The typical bay is a simple and functional representation of what an office façade needs to achieve. It is divided into three sections vertically the base, the middle and the top.

The base consists of two floor zones. The shopfront zone which is expressed with a 'vitrine' or box shopfront. This retail box extends across the floor zone of the first floor to give additional height and presence to the retail units. The additional height also provides a signage zone within the shop frontage. The shopfronts are set out between the structural concrete columns, which are expressed externally at this level of the building. Above the shopfronts is the continuous strip window relating to the first floor office accommodation.

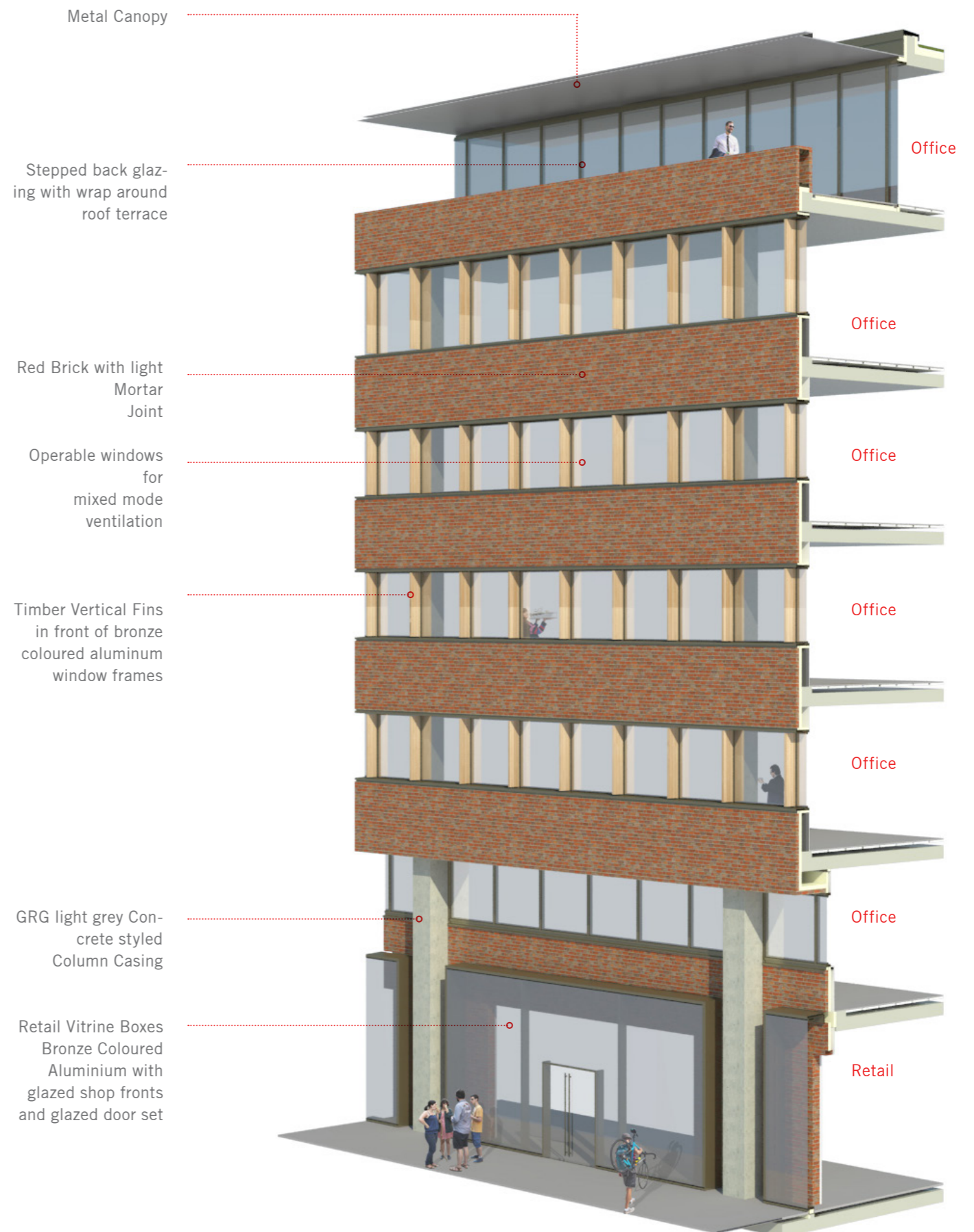
The middle section of the building relates to the middle four floors of the offices. The façade projects over the lower base of the building.

The expression for the façade is of very simple horizontal strip windows. This puts the glass in the most efficient position to light the interior of the offices. It also allows the maximum amount of insulation to the wall from solar gain and heat loss. The windows are recessed into the façade to allow for partitions to go flush to the wall and mullions if required. The recess to the windows allows some solar shading to the window, further shading to the façade is given by external fins which provide the most important solar shading on the east and west facades.

The top of the building is set back from the façade to provide a roof terrace and façade maintenance area. The projecting roof feature will provide solar shading to the top floor.

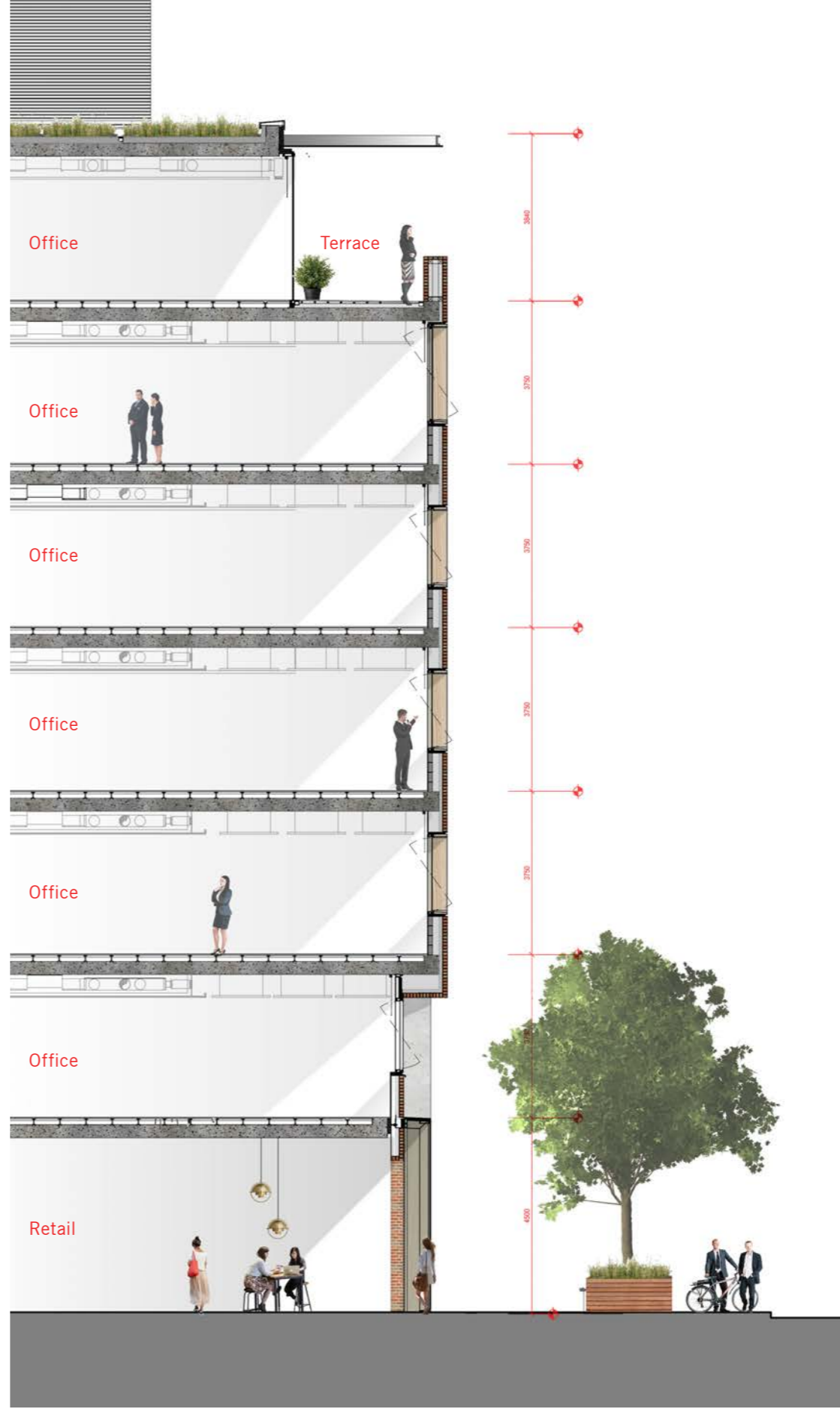
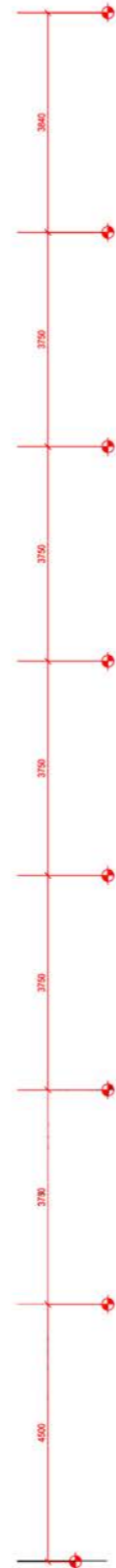
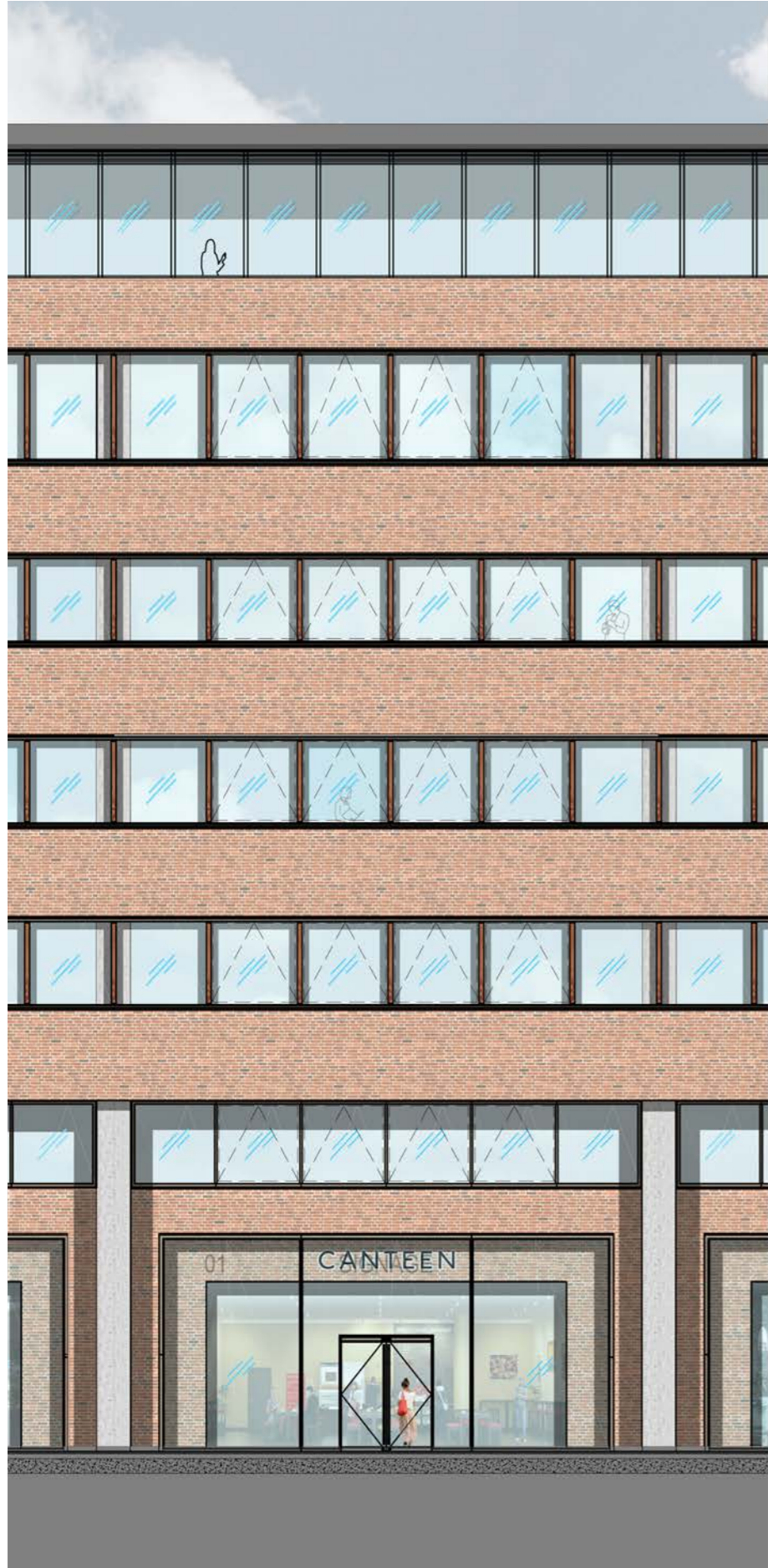


• Typical Facade Detail



• Typical Model Facade Section

7 APPEARANCE



• Typical Bay Elevation

• Typical Bay Section

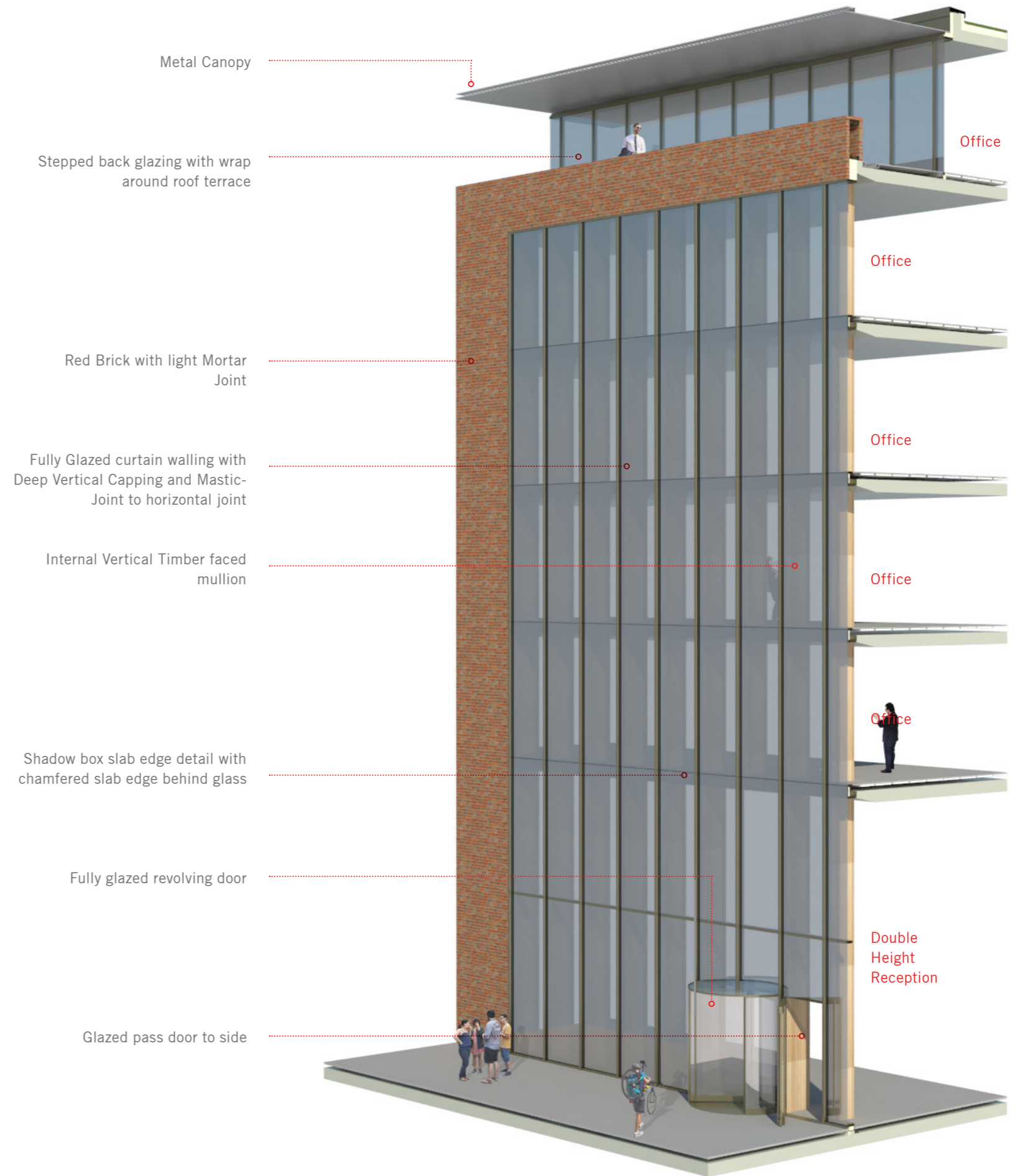
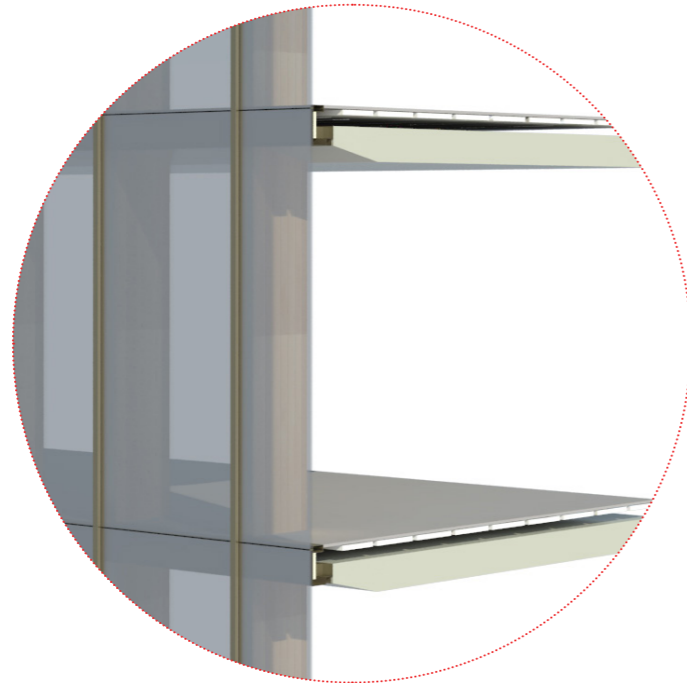
7 APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017

FACADE TYPES/

Entrance Facade Details

The entrance façade occurs on the north east corner of the building where the corner of the building has been truncated by the 'boulevard' entering station square. The north east corner of the building is one of the facades least exposed to solar gain. The façade is also symbolically connected to the office building. It is the only façade on the not to have any retail frontage. Instead it has a double height reception to the office accommodation. The façade has been conceived as a sheer glass façade almost as if the façade has been truncated by the boulevard to expose the office accommodation.



• Glazed Facade Detail

• Glazed Entrance Model Facade Section

7 APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017

GROUND FLOOR /

Vitrine Boxes

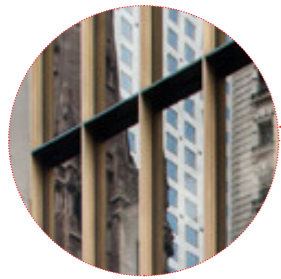
There are a total of fourteen vitrine boxes around the building on the ground floor. A total of nine of these are shopfronts which are typically glazed. The retail boxes give the facades to the retail accommodation additional height and presence and provide a retail signage zone. The remaining five boxes contain plant, service or bicycle storage areas and have a similar detail but are clad in timber rather than glass. The timber finish can be solid or louvered as required to provide ventilation or extraction to the plant areas as required and to provide some variation in the façade.



• Ground Floor Bay Type Plan



Type 02 - Aluminium Boxed vitrine with Timber BOH facade.



Type 01 - Aluminium Boxed vitrine with glass retail facade.



7 APPEARANCE

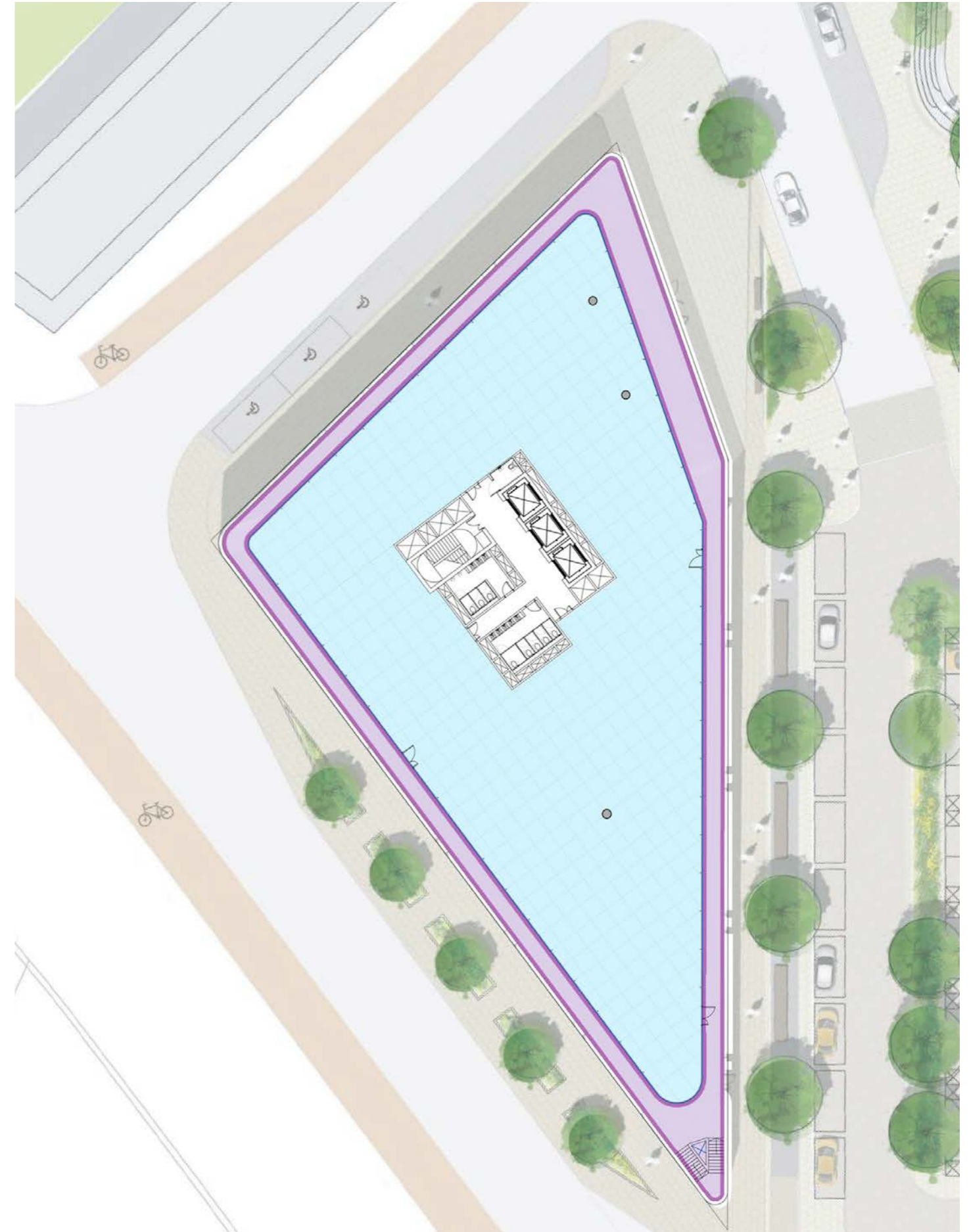
ONE, CAMBRIDGE SQUARE
JULY 2017

FIFTH FLOOR /

Roof Terrace & Step backed facade

Roof Terrace and set back façade.

The top floor of the building is set back around the perimeter. The depth of the setback varies between three meters on facades overlooking the square and one point five meters on the other facades. The terrace will be used to create amenity for the building and access to clean and maintain the façade on the sixth floor. The sixth floor façade is the only one to have floor to ceiling glass facades to maximise the benefit of the views from the building. Solar shading will be provided by the overhanging roof feature.

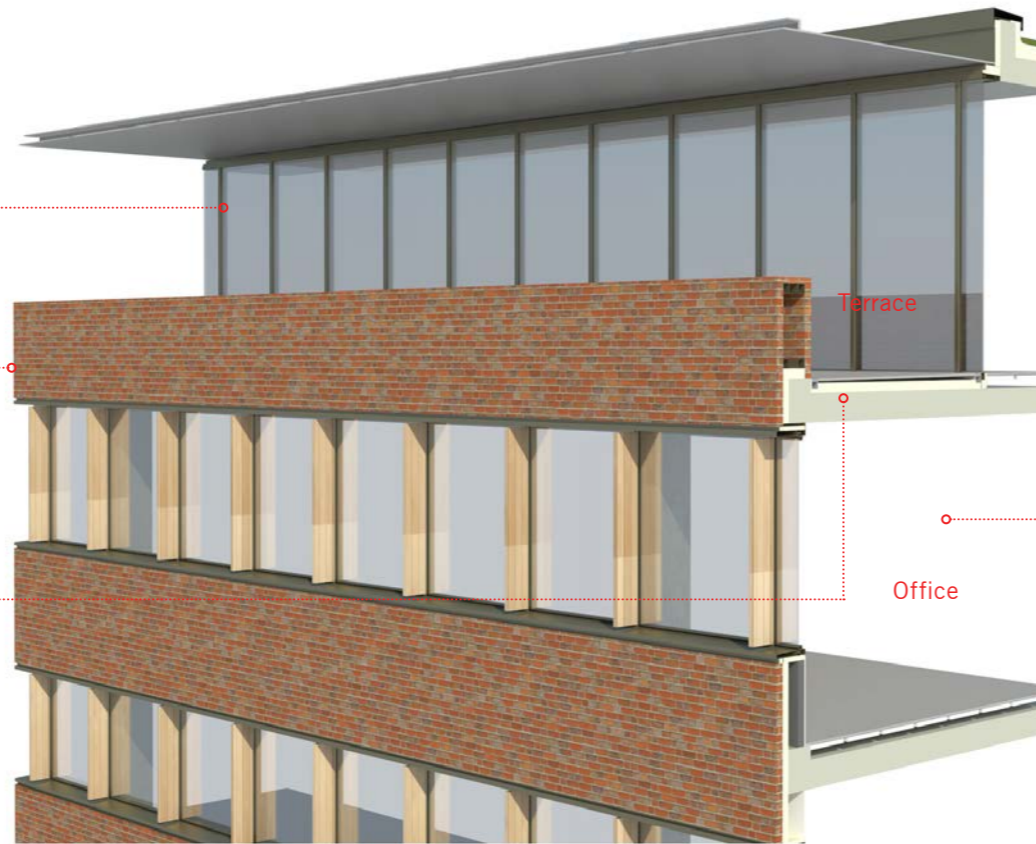


• Sixth Floor Office + Terrace Plan

Full Height Curtain walling with Bronze coloured aluminium frames

Brick upstand forming balustrade to terrace

Setback forming Terrace with pavers around whole building



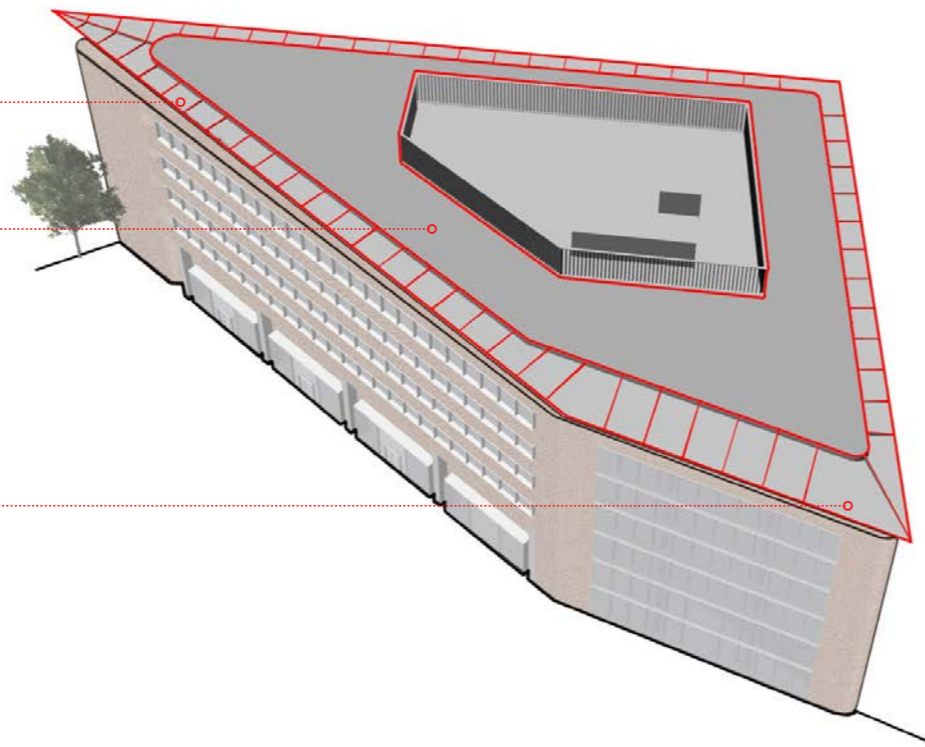
• Top Floor Set Back Model Section



• Accessible Roof Terrace

Silver Aluminium Canopy
with structure above

Green / Brown Roof
with PVs



• Roof Canopy Layout



• Eastern View - Roof Canopy



• Lighting strategy for Canopy

7 APPEARANCE

ONE, CAMBRIDGE SQUARE
JULY 2017





7
APPEARANCE

08

LANDSCAPE

- HOW OPEN SPACES WILL BE TREATED TO ENHANCE AND PROTECT THE CHARACTER OF A PLACE.

8 LANDSCAPE

ONE, CAMBRIDGE SQUARE
JULY 2017

LANDSCAPE DESIGN /

The office building defines the western edge of the new Station Square, where the active retail frontages at ground level will animate the spaces around the building. The landscape has been carefully designed to create a high quality piece of public realm, forming a setting for the building whilst tying into the Network Rail design of the Square itself, and catering for pedestrian and cycle movements through the space.

Office 1 will be surrounded by an apron of natural stone paving, which ties into the bands of York stone paving across the Square as a whole. Specimen trees will be planted along the east elevation between the building and the car drop-off, and to the west along the guided bus route. These trees will be set out to frame views of the building, create visual separation from vehicles, and shelter for the adjacent benches etc.

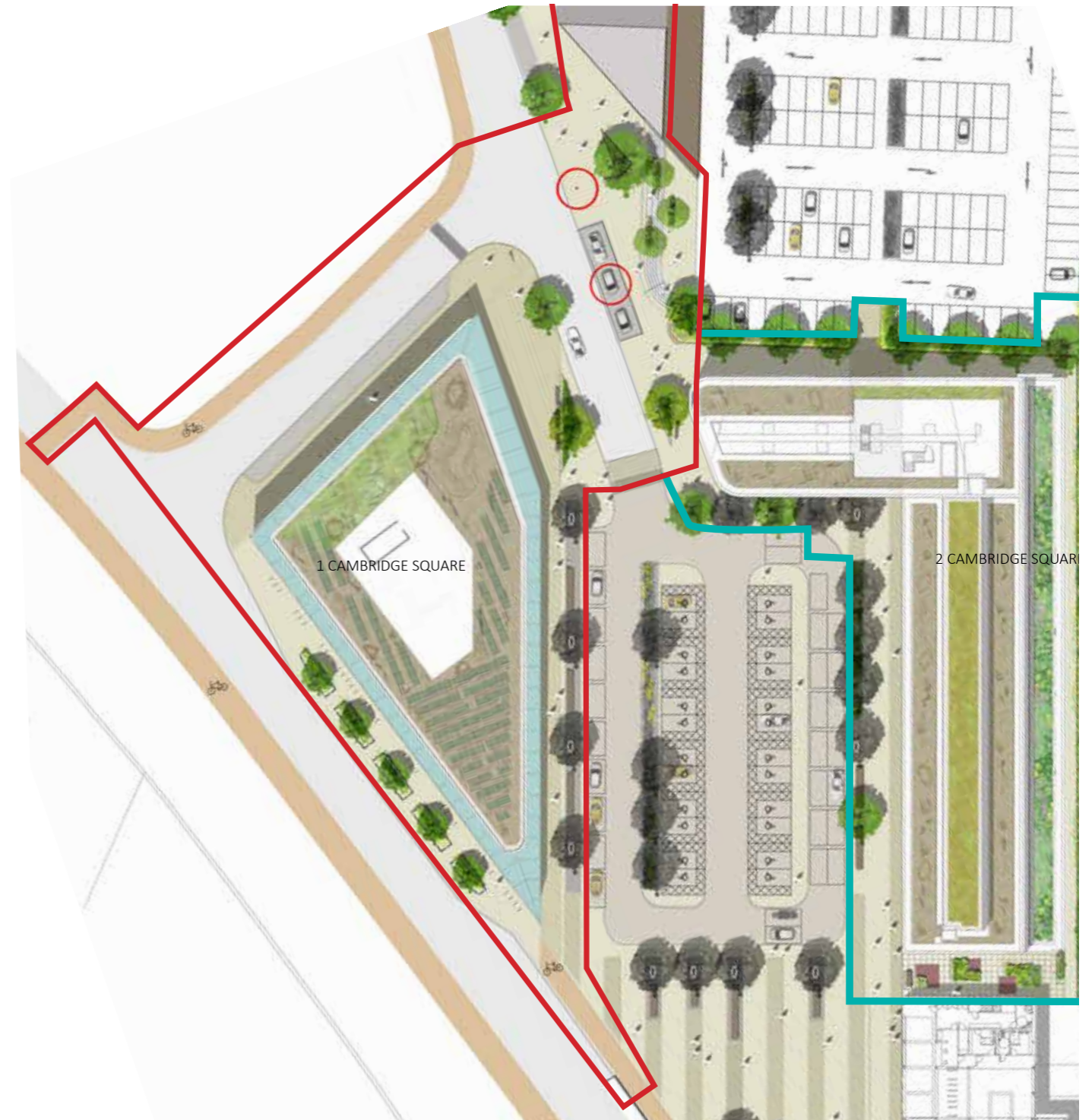
A specimen tree, under-planted with groundcovers with a linear bench in front, has been introduced outside the main Office entrance, to enclose and frame this sub-space and create a place to pause. This planting is mirrored on the opposite side of the road, forming a 'green gateway' when approaching the Square from the Boulevard. A 'raised table' is also proposed at this point, to moderate vehicle speeds and assist wayfinding around the Square. Disabled vehicle spaces and a dedicated servicing and delivery bay will be located on the link road to the immediate north of the Office building.

guided busway will consist of evergreen shrubs, grasses and low herbaceous planting, forming 'rain gardens' that will receive surface water run-off during storms, to help prevent local flooding and reduce heat island effects, whilst providing ecological connectivity with the adjacent wildlife corridor to the west.

Cycle routes are catered for in the landscape design, with an informal cycle route running on the shared paved surface to the east of the office, as well as a dedicated asphalt cycle path that connects the boulevard with the guided bus corridor, station cycle park and cycle routes to the south via the Chisholm Trail. A free-standing office cycle store is provided on the guided busway, easily accessible from the western cycle route. This small, linear building will house a green roof with climbers to soften the facade.

The roof of the Office, around the central plant space, will be laid out as an 'extensive' green roof. This will provide a range of wildlife habitats and food sources, and assist with rainwater attenuation. Undulating low-nutrient substrate will be laid in ridges and furrows, with plug-planted sedums, low alpines, and sempervivums requiring little maintenance. The substrate will also receive wildflower seed, to create a diversity of wildlife habitats.

Please refer to separate application by Robert Myers Associates for further detail.



• Plan from Robert Myers

The under-planting along the



8

LANDSCAPE

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DESIGN+ACCESS STATEMENT
MAY 2017

09

ACCESS

- ACCESS TO BUILDINGS, SPACES AND TRANSPORT

9 ACCESS

ONE, CAMBRIDGE SQUARE
JULY 2017

INCLUSIVE ACCESS/

Moving through and around the building

INCLUSIVE ACCESS

Providing more disabled spaces than the regulation provisions.

Bays conform to the BS 8300

Cycle parking arrangement to provide space for tricycles/modified bicycles for disabled cyclists.

APPROACH AND ENTRANCE

No steep gradients.

Materials in the entrance to facilitate wheel chair users' and visually impaired people's flow

Street furniture appropriately distanced to facilitate flow and use by everyone

Drainage channels flush and strategically positioned along the material change.

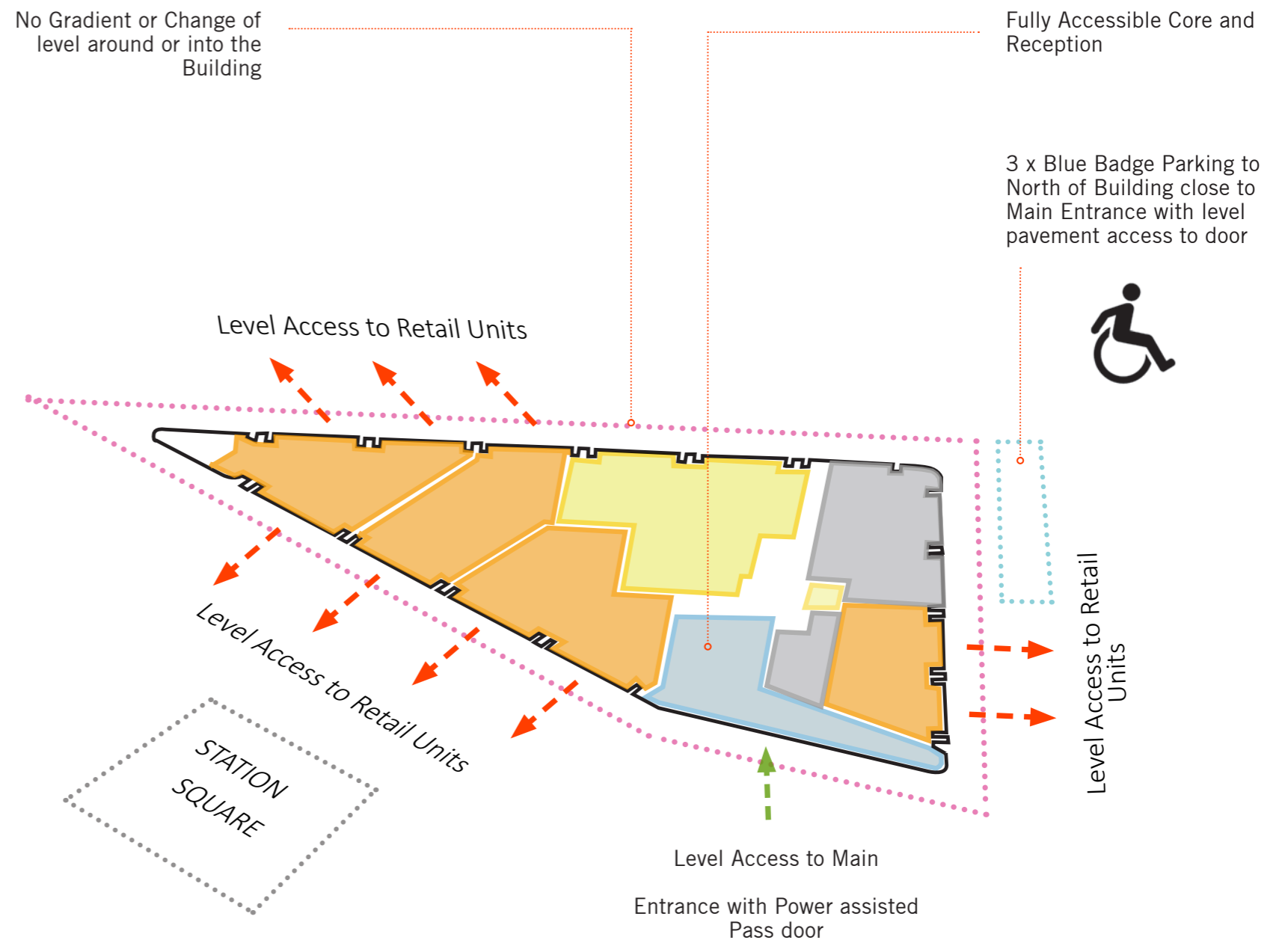
LOBBY/ENTRANCE

Pass door provided

Reception with lowered portion

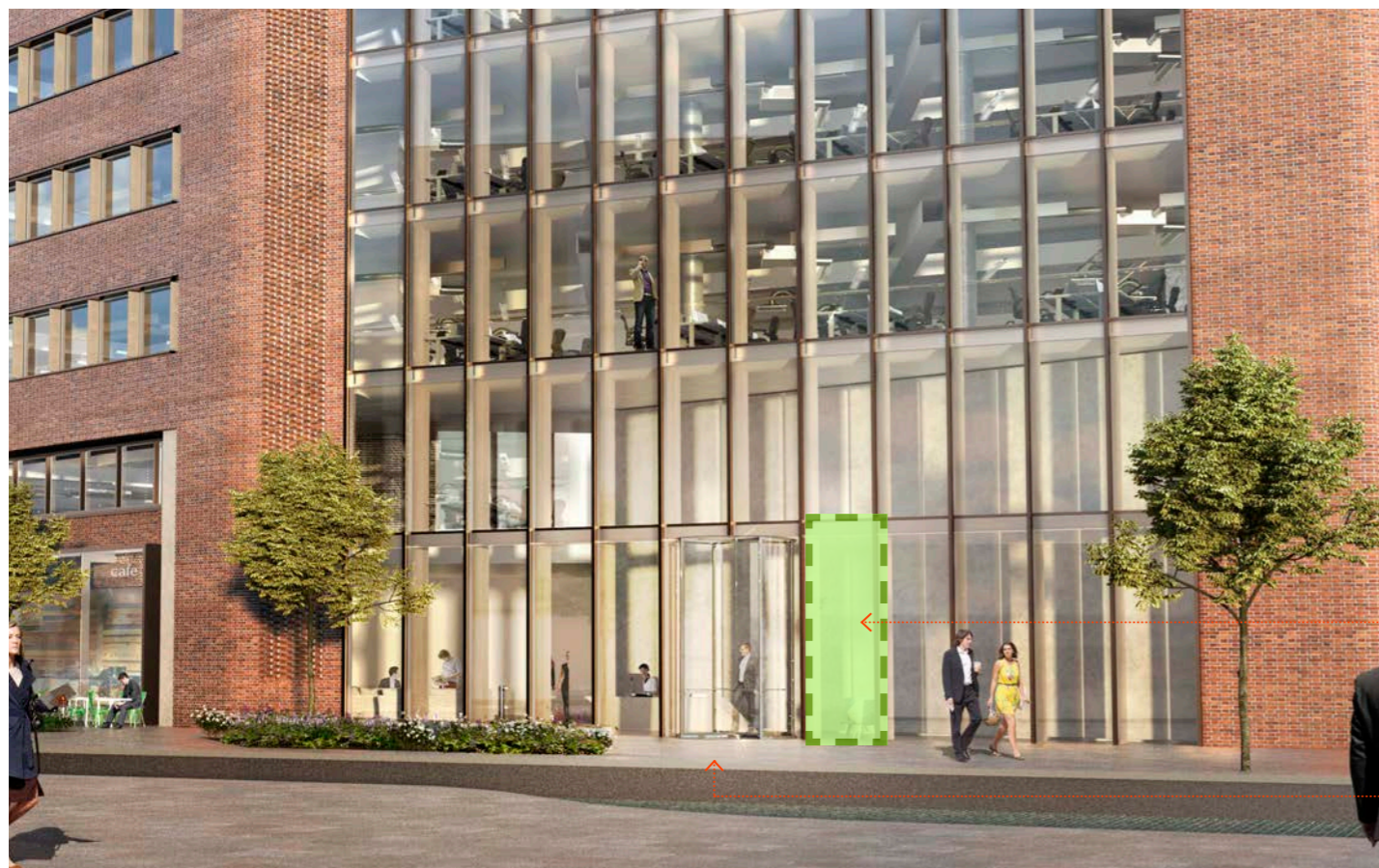
Wider gate for wheel chair users

Wheel chair compliant lifts and disabled facilities accessible at grade.



9 ACCESS

CB4 - ONE, CAMBRIDGE SQUARE
DESIGN+ACCESS STATEMENT
MAY 2017



Push Button Power assisted pass door to side of revolving door

Level Access around all building to all entrances



Level Access around all building to all entrances

- Access Views around the Building

10

VEHICULAR AND TRANSPORT LINKS

10 VEHICULAR + TRANSPORT LINKS

ONE, CAMBRIDGE SQUARE
JULY 2017

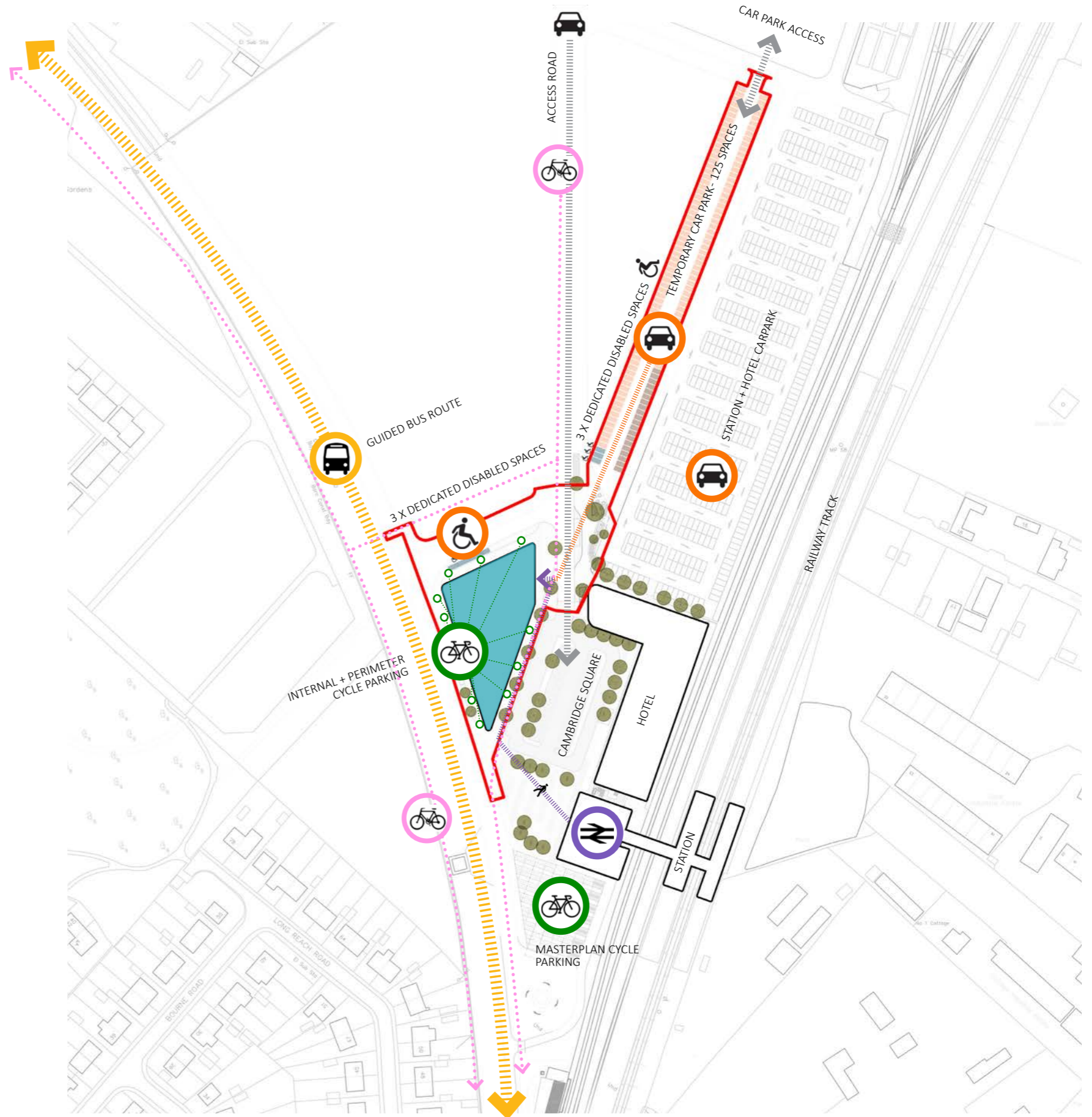
TRANSPORT AND SERVICING / Access and service for the building

The site is located next to the train station and the guided bus route. In addition the site benefits from the bicycle route which connects it with north and central Cambridge. For this reason the parking allocation for the site is half what has been approved for the Cambridge Business Park.

The site does have three accessible spaces located immediately to the north of the building on the Link Road. The building is serviced via a dedicated service bay located on the Link Road to the North of the building with direct access to the core and recycling storage area.

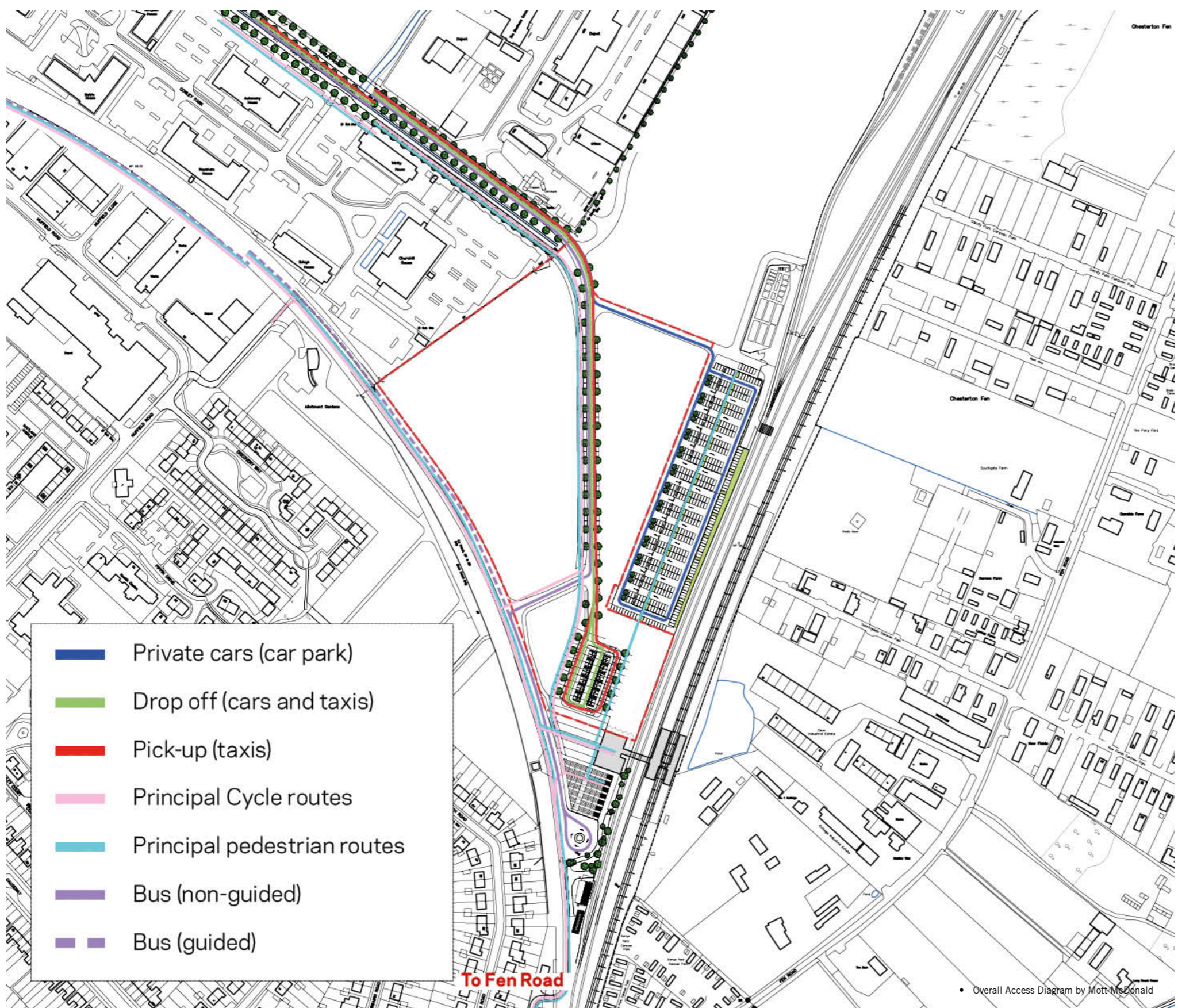
The building has a total of 365 cycle spaces. Of those 255 are accommodated within the building and an additional 70 are accommodated on Sheffield stands outside the building. Bicycles inside the building are accommodated on a mixture of Sheffield stands and stackers. No more than 25% of the overall number of bicycles are accommodated on the upper level of the stackers. A further 40 bicycle stands are provided outside the building for the retail accommodation.

Associated with the bicycle parking there will be seven showers including one accessible shower and 200 lockers for cyclists to change.



10 VEHICULAR + TRANSPORT LINKS

CB4 - ONE, CAMBRIDGE SQUARE
DESIGN+ACCESS STATEMENT
MAY 2017



11 SUSTAINABILITY

11 SUSTAINABILITY

ONE, CAMBRIDGE SQUARE
JULY 2017

ENVIRONMENTAL CONSIDERATIONS/

Policies and sustainability

The proposal has been designed in line with the requirements of existing and emerging planning policies of South Cambridgeshire.

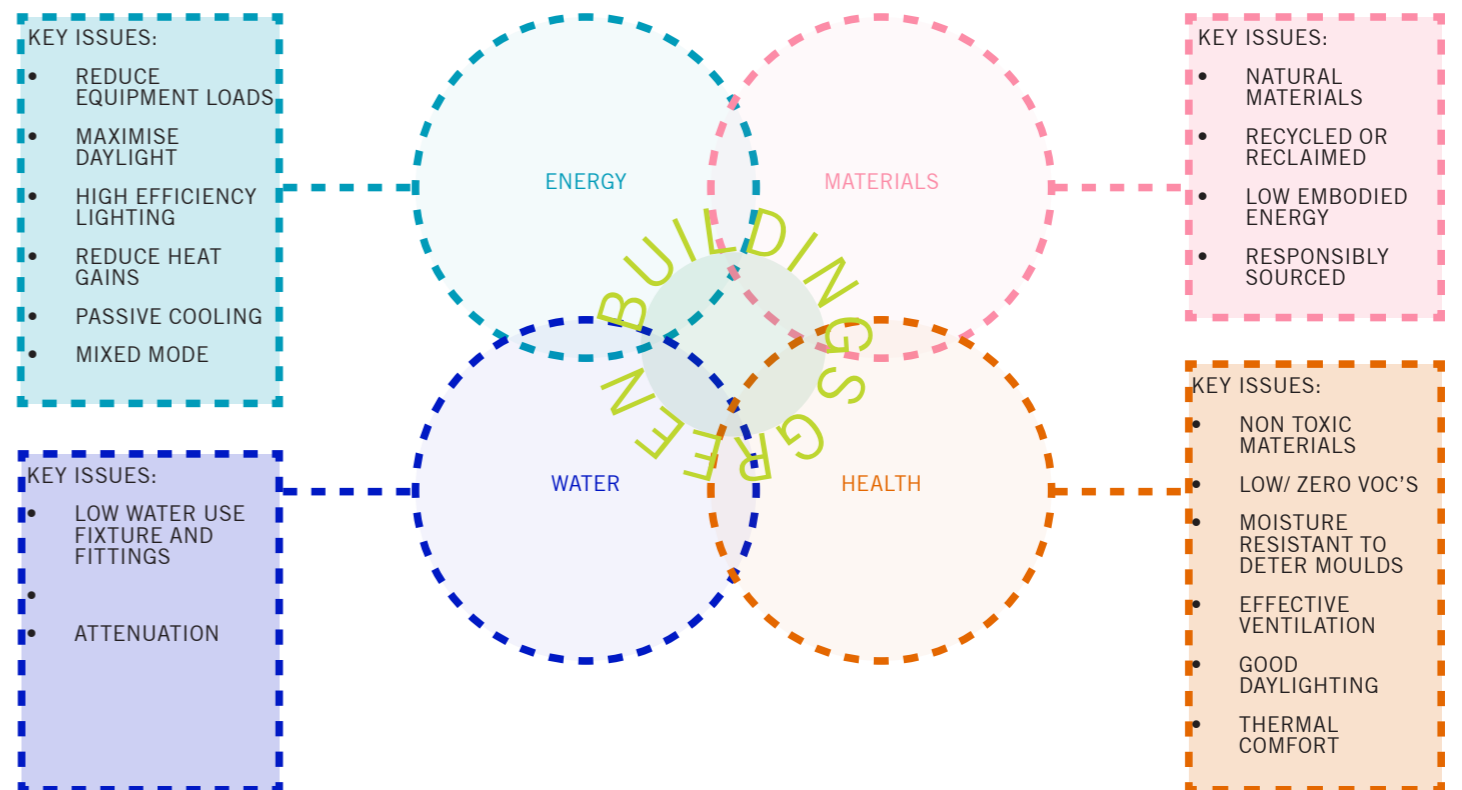
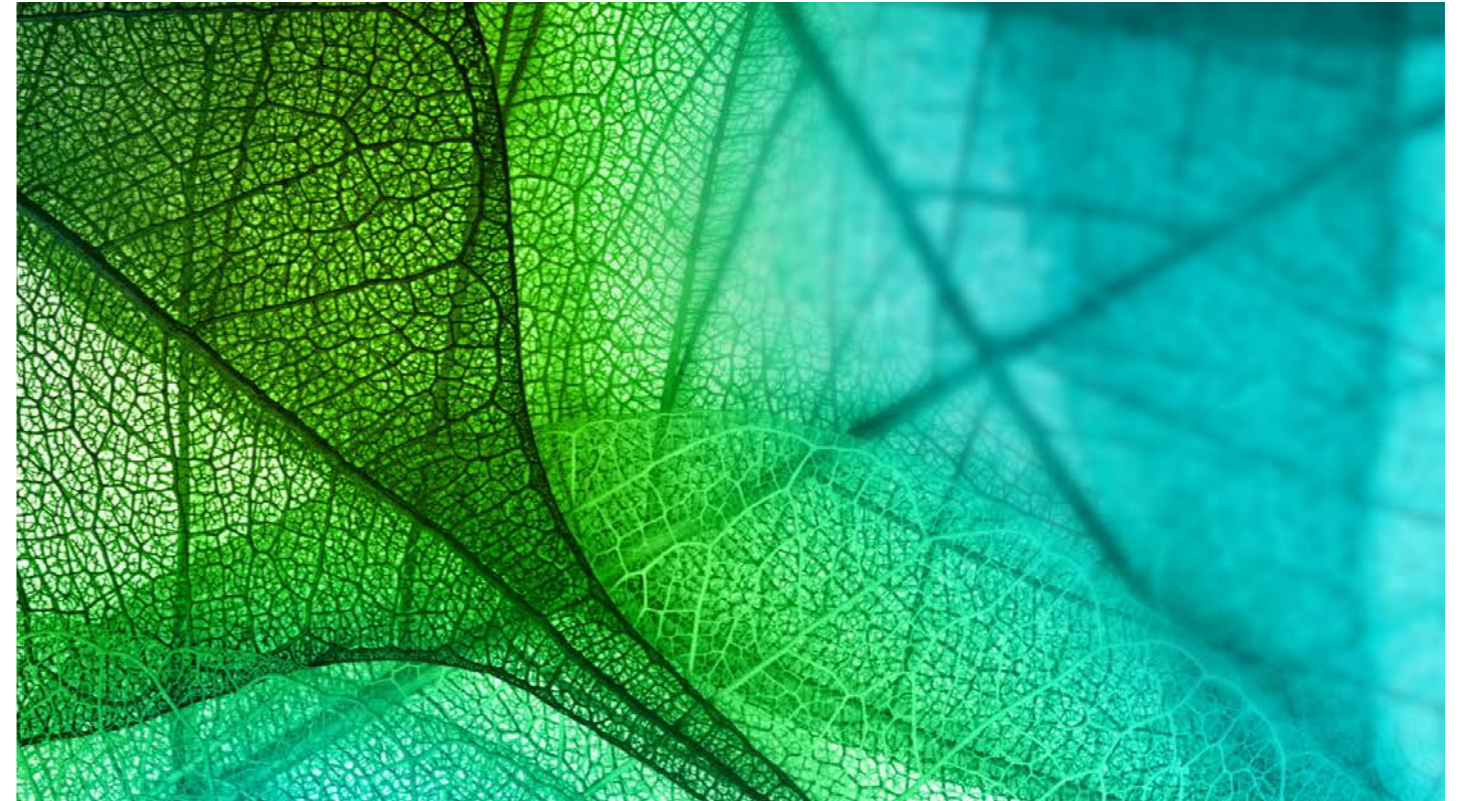
in the sustainability and Renewable Energy Statement prepared by Hilson Moran that accompanies this application.

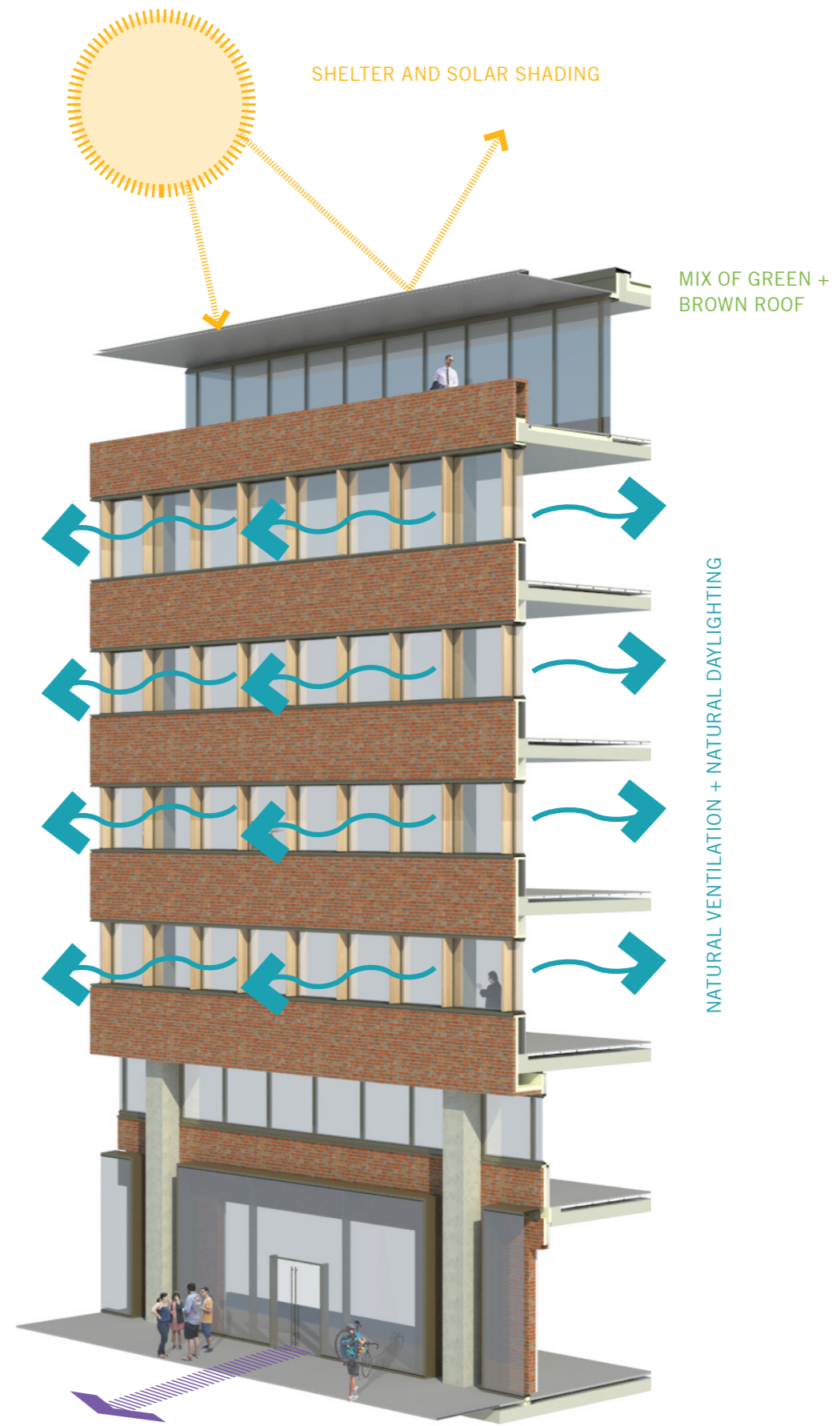
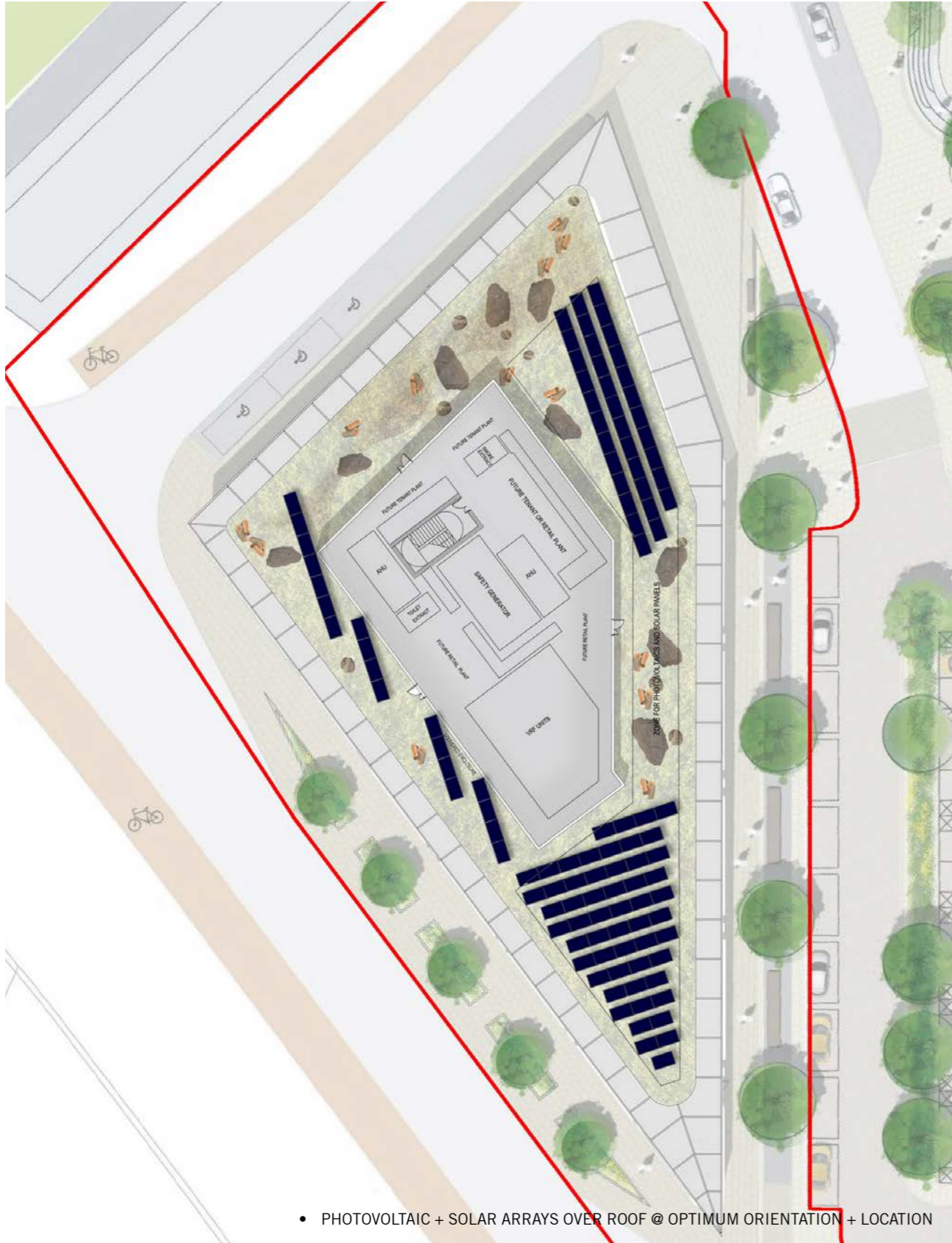
- Highly Efficient building fabric/ thermal mass
- Natural Ventilation/Mixed mode (subject to acoustic requirements)
- Energy control glazing
- Highly efficient building services
- PV panels located at roof level
- Heating and hot water by air source heat pumps

High efficiency plant with inverter drives

- Natural/Mixed mode ventilation supplement with mechanical heat recovery system
- 'Free' Cooling
- High CoP VRF with heat recovery
- BMS control
- Efficient low energy lighting
- Daylight control lighting
- Energy metering
- Photo voltaic panels & integrated solar glazing
- Green and brown roof
- BREEAM 'Excellent' rating with aspiration for 'Outstanding'

Further detail on the Sustainability credentials of the site are provided





11 SUSTAINABILITY

ONE, CAMBRIDGE SQUARE
JULY 2017

The White Chapel Building
10 Whitechapel High Street
London
E1 8QQ