



SHAPING OUR FUTURE

'Our challenge is to become a leading global university.'

Professor David Eastwood, Vice-Chancellor



Edgbaston Central Campus Development Hybrid Planning Application

March 2012

Design and Access Statement - Appendix G Pritchatt's Road Car Park Project 20



**UNIVERSITY OF
BIRMINGHAM**

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1.1 Introduction

Preface

This report supports a full planning application to Birmingham City Council for the expansion and remodelling of the existing University car park facility on Pritchatt's Road, within the University's Edgbaston campus.

This report describes the design philosophy for the scheme and also addresses Birmingham City Council's local area requirements. It forms part of the Hybrid Planning Application for the Edgbaston Central Campus Development, that incorporates a number of proposed projects across the campus.

This report should be read in alongside the following documents submitted as part of the hybrid application:

- Hybrid Planning Statement
- Campus Masterplan and Design and Access Statement
- Hybrid Transport Assessment

1.2 Introduction

Project Directory

Client

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1.3 Introduction

About the University of Birmingham

Page 6

Founded in Edgbaston in 1900, the University of Birmingham was the first 'Redbrick' university to gain an official royal charter.

With origins dating back to the Birmingham Medical School in 1825, the University now has a population of some 26,000 full-time students and is the largest university within the West Midlands region.

The University is currently looking to consolidate some of its parking provision within its Edgbaston campus, in order to make more efficient use of land and improve the overall environment of the campus.



Fig. 1 Edgbaston campus, University of Birmingham

1.4 Introduction

Client Requirements

The scope of this project is to both improve the quality and increase the capacity of an existing university car park on Pritchatt's Road for the University Birmingham. The site is located approximately 4km to the south west of Birmingham city centre.

The consolidation of the University's parking arrangements forms a key part of their sustainable travel plan strategy up until 2015. This process should allow land that is currently used as temporary parking elsewhere on campus to be put to better use, and is a key aspiration of the project. Following an evaluation of potential sites across the campus, an expansion of the existing car park at Pritchatt's Road has been identified as part of the overall changes to parking across the campus to enable the required level of parking to be achieved.

The proposal will see the existing car park on the site re-organised and expanded to provide a total of 456 standard parking spaces. All of these will be allocated as Pay & Display bays for the University. Fully accessible parking bays and motorcycle parking are provided in other University car parks located in areas of the campus, that are closer to the main teaching facilities.

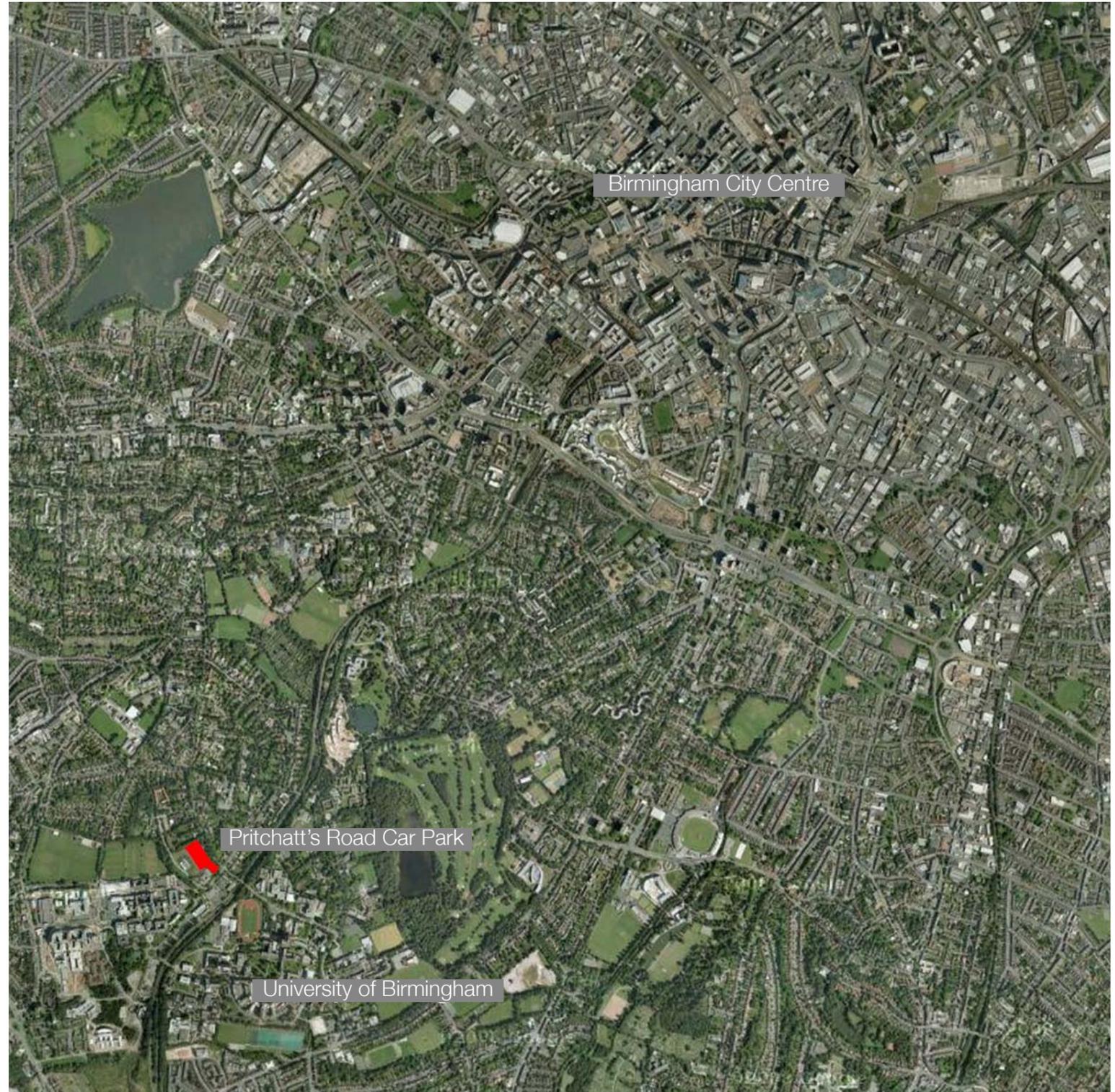


Fig. 2 Location plan showing the car park site within the context of the city of Birmingham

2.1 Assessment Location Analysis

Page 8

The following diagrams show the location and orientation of the proposed car park including sun paths, prominent views and end user points of access and egress.

A dense band of mature trees and bushes forms the border to the north west of the site. These effectively screen the car park from view along Pritchatt's Road and will be retained in the proposals.

The site is also situation adjacent to the Edgbaston Conservation Area (Refer to figure 4).

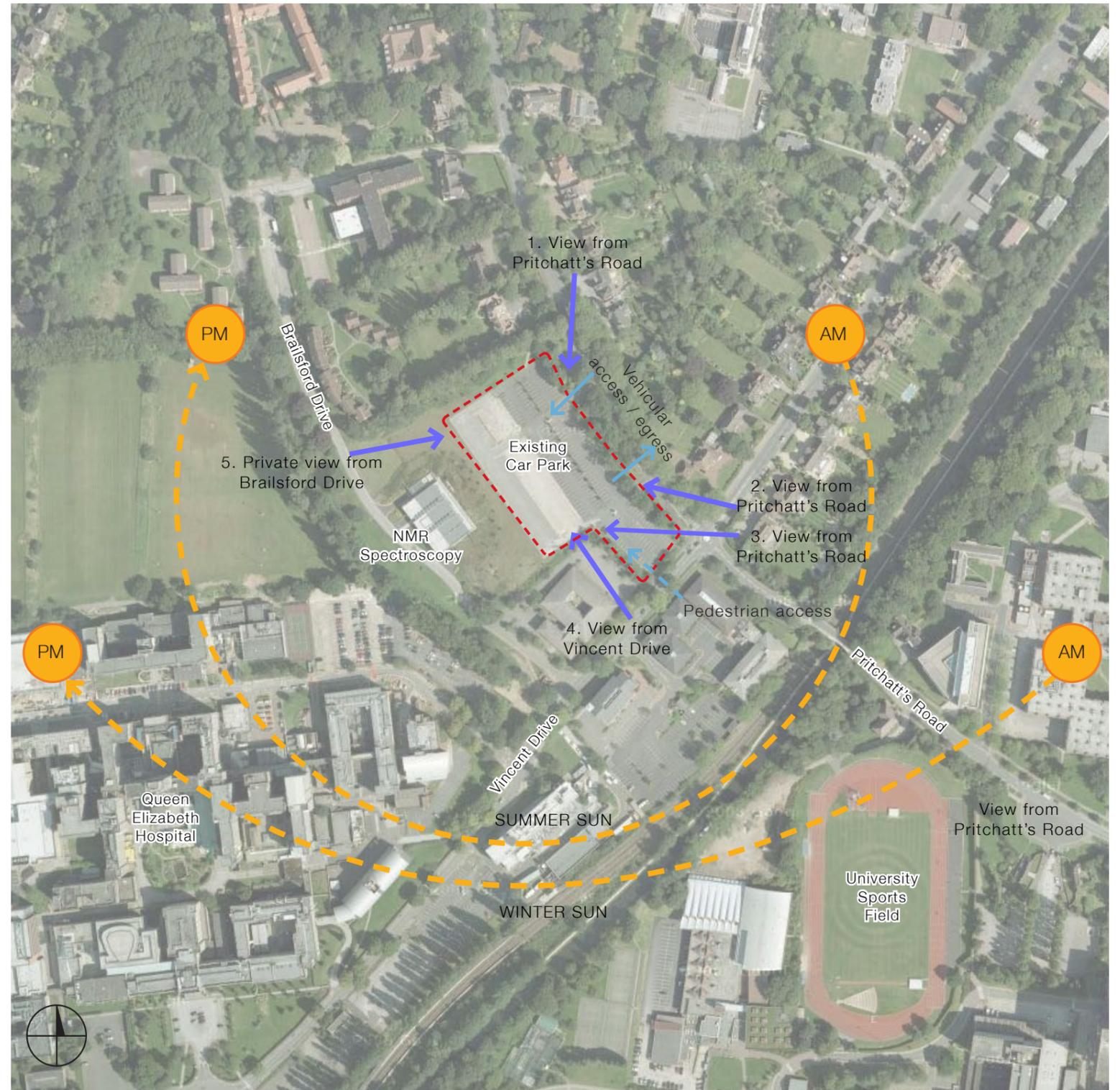


Fig. 3 (Left) Indication of both summer and winter solar paths, prominent views and site access / egress points

Fig. 4 (Opposite) Plan from Birmingham City Council showing the extent of the Edgbaston Conservation Area, with the car park site shaded in red

EDGBASTON CONSERVATION AREA NO.15



DATE OF DESIGNATION
4TH SEPTEMBER 1975
EXTENDED 13TH DECEMBER 1984
AND 17TH SEPTEMBER 1992 AND
10TH OCTOBER 1992
AREA 395.4 Ha. (976.9 Acres)

-  BOUNDARY OF CONSERVATION AREA
-  STATUTORILY LISTED BUILDINGS
-  LOCALLY LISTED BUILDINGS
-  PARKS AND GARDENS OF SPECIAL HISTORIC INTEREST
-  ARTICLE 4 (2) DIRECTION



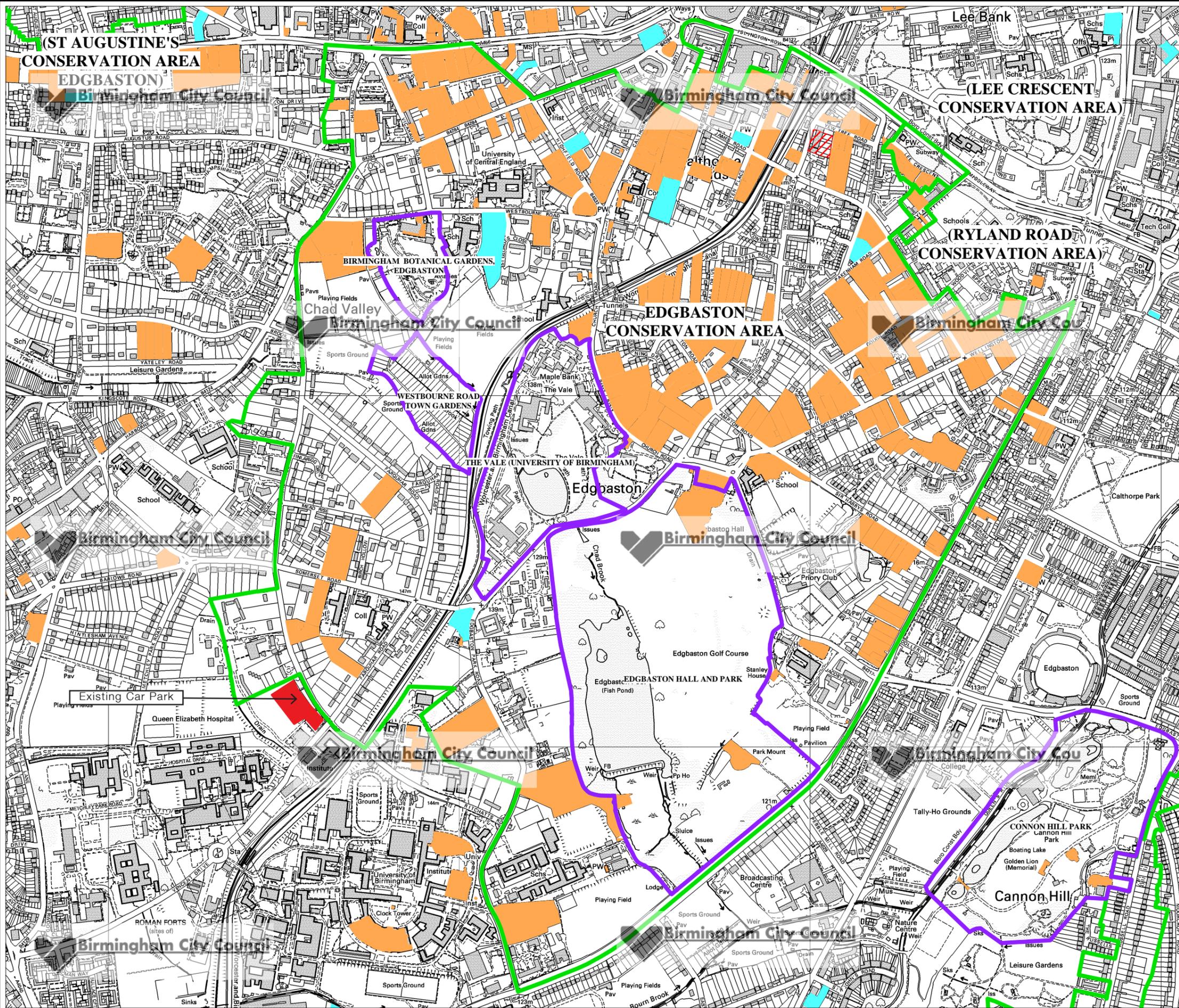
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Map produced by GIS Team, Planning Strategy



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2.1 Assessment

Location Analysis - View 1

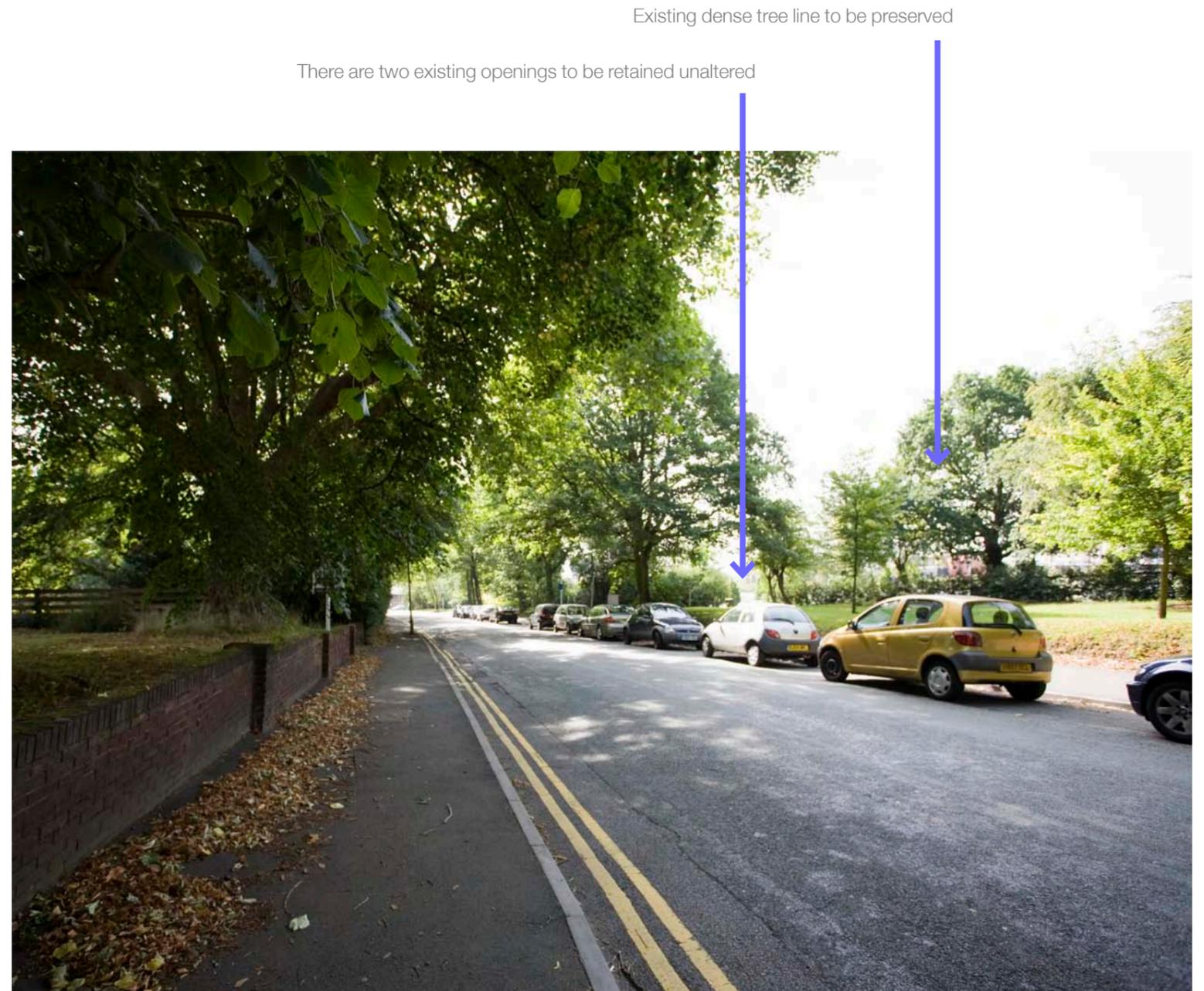
Page 10

Photograph of existing view looking south along Pritchatt's Road.

The existing vehicular routes, through the dense tree line, are to be retained. The mature trees and bushes which exist along the Pritchatt's Road boundary will also be preserved.



Fig. 5 View 1, looking south along Pritchatt's Road



2.1 Assessment

Location Analysis - View 2

Photograph of existing view looking north along Pritchatt's Road.

The existing vehicular routes, through the dense tree line, are to be retained. The mature trees and bushes which exist along the Pritchatt's Road boundary will also be preserved.



Fig. 6 View 2, looking north along Pritchatt's Road

Existing dense tree line to be preserved

There are two existing openings to be retained and unaltered



2.1 Assessment

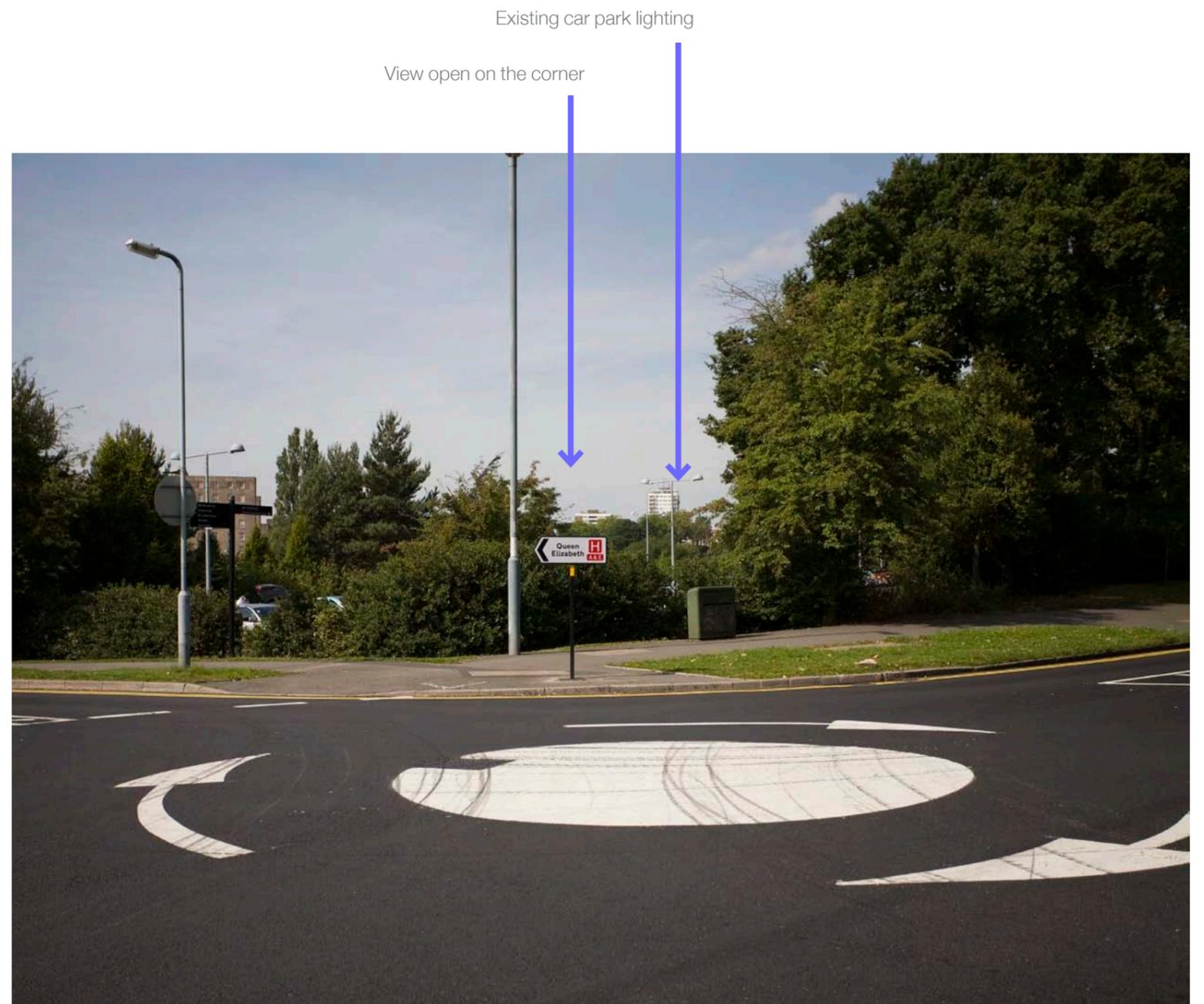
Location Analysis - View 3

Page 12

Photograph of existing view looking west at the junction of Pritchatt's Road and Vincent Drive.



Fig. 7 View 3, looking west at the intersection between Pritchatt's Road and Vincent Drive



2.1 Assessment

Location Analysis - View 4

Photograph of existing view looking north from Vincent Drive.



Fig. 8 View 4, looking north from Vincent Drive



Existing car park lighting

2.1 Assessment

Location Analysis - View 5 (Private View)

Page 14

Photograph of existing view looking west from Brailsford Drive.



Existing dense tree line fronting Pritchatts Road

Existing NMR Spectroscopy building



Fig. 9 View 5, looking west from the university campus / Brailsford Drive

2.2 Assessment

Economic

The proposed development will allow the University to consolidate its parking provision within its Edgbaston campus. It forms part of a wider parking strategy for the whole campus which will have economic benefits, as it will provide opportunities to redevelop land elsewhere within the campus that is no longer required for parking.

2.3 Assessment Planning Policy

Page 16

The Policy Map opposite, extracted from the Birmingham Unitary Development Plan, indicates policies and proposals in the vicinity of the proposed development.

The following policies are identified within the locality:

- Policy E76 Worcester-Birmingham Canal
- Policy I38 Adj Birmingham Research Park
- Policy M32 Selly Oak - between Metchley Lane Playing Fields and Selly Oak Hospital

In addition to the policies contained within the Unitary Development Plan, there are National Policies that affect and shape the design of the development. The following areas and their respective national policy drivers have been identified as relevant:

- PPS 4 Planning for Sustainable Economic Growth
- PPG 13 Transport
- PPS 23 Planning & Pollution Control
- Draft PPS Planning for a Natural & Healthy Environment
- Town & Country Planning Act 1990 (Section 197-198)

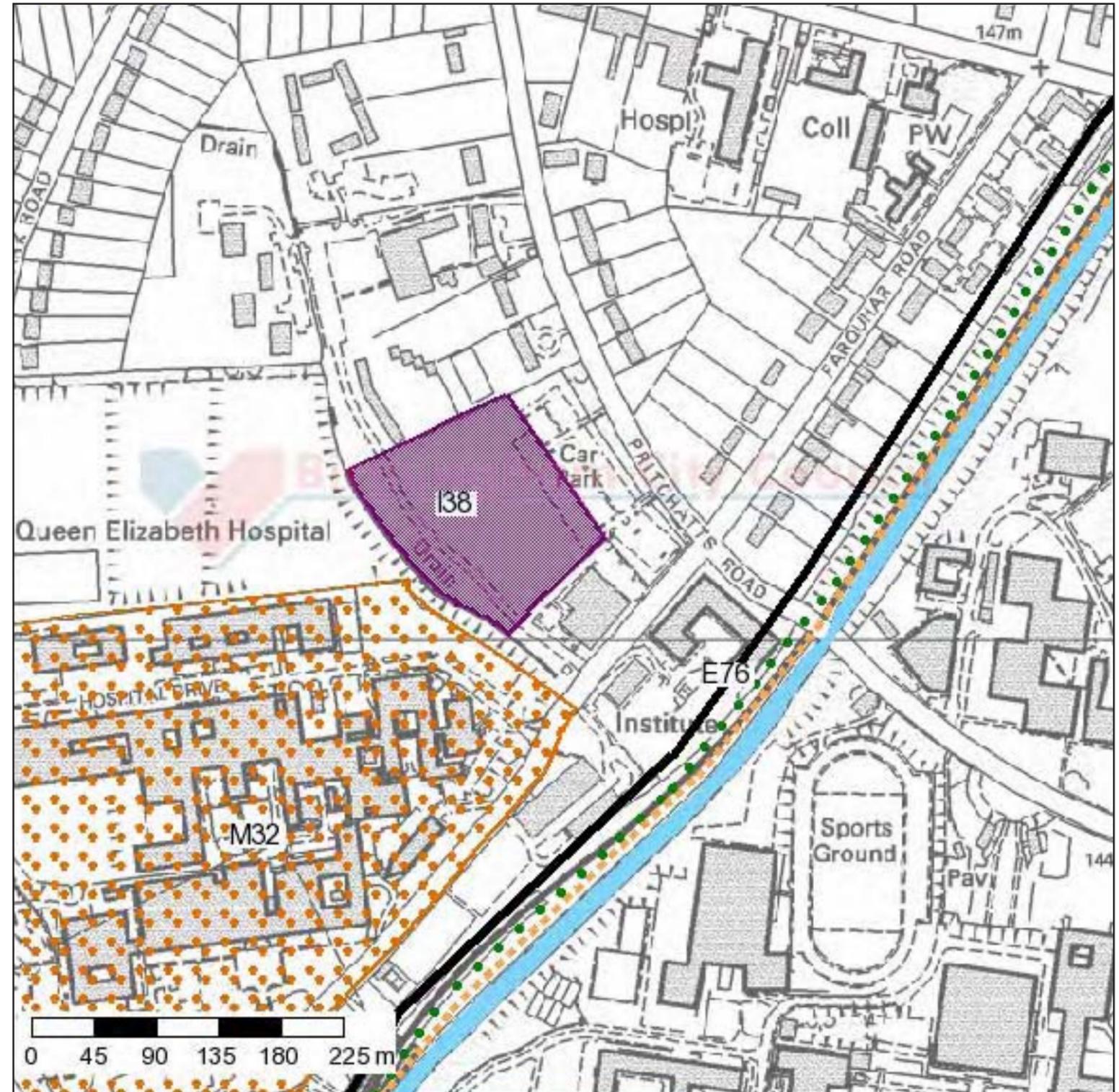


Fig. 10
Proposals Map showing policies and proposals contained within the Birmingham Unitary Development Plan 2005

3.1 Design Use

With regard to the site use, this will remain unchanged as it will continue to function as a car park. The proposal will increase the amount of usable space through the expansion plan and by forming a more efficient layout.

Through consolidating their current parking provision, the University will be able to remove a number of car park facilities across the campus. Following the closure of these car parks, the sites could then be redeveloped for different uses.

3.2 Design Amount

The existing car park provides 354 spaces.

Following re-organisation and expansion the car park will provide 456 standard car parking spaces. These will all be designated as Pay & Display bays for University use.

Motorcycle and accessible bays are provided in existing parking facilities elsewhere within the campus.

For full details of changes in the parking arrangements at locations across the campus, refer to figures 11 and 12 overleaf, together with the Transport Assessment.

Fig. 11 (Overleaf, left) Plan showing the location of current parking facilities within the Edgbaston campus that will be altered and removed, supplied by Arup

Fig. 12 (Overleaf, right) Plan showing the location of proposed parking facilities within the Edgbaston campus, supplied by Arup

A3

A B C D E F G

1

2

3

4

5

6

| Site | Spaces Lost |
|------------------|-------------|
| Informal Parking | 76 |
| Gun Barrels CP | 65 |
| A | 14 |
| B | 140 |
| C | 18 |
| D | 12 |
| E | 26 |
| F | - |
| G | 115 |
| H | 18 |
| J | 366 |
| K | 89 |
| L | 69 |
| M | 51 |
| N | 354 |
| Total | 1413 |

Key

- Car parks to be removed
- Car parks to be altered

| | | | | |
|------------------|----------|----|------|------|
| 02 | 19/01/12 | NS | PS | PS |
| Minor Amendments | | | | |
| 01 | 01/12/11 | LS | IC | IC |
| First Issue | | | | |
| Issue | Date | By | Chkd | Appd |

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Client
University of Birmingham

Job Title
**Edbaston Central Campus
 Development
 - Hybrid Planning Application**

Existing University Car Parks
to be Removed / Altered

| | |
|----------------|--------------------|
| Scale at A3 | N.T.S. |
| Discipline | Transport Planning |
| Job No | 216558-00 |
| Drawing Status | Information |
| Drawing No | Figure 4 |
| Issue | 02 |

A3

A B C D E F G

1

2

3

4

5

6

| Site | Spaces Added |
|--------------|--------------|
| P | 271 |
| Q | - |
| R | 62 |
| S | - |
| T | 456 |
| U | 400 |
| V | 58 |
| W | 4 |
| X | - |
| Y | 4 |
| Z | 89 |
| AA | 69 |
| Total | 1413 |

Key

- Multi storey car parking
- At grade parking
- Temporary Car Park north of Muirhead Tower

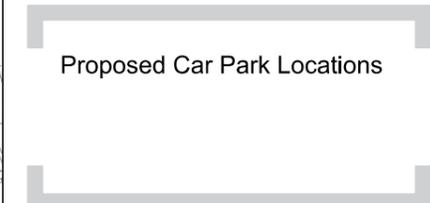
| | | | | |
|------------------|----------|----|------|------|
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| | |
|----------------|--------------------|
| Scale at A3 | N.T.S. |
| Discipline | Transport Planning |
| Job No | 216558-00 |
| Drawing Status | Information |
| Drawing No | Figure 5 |
| Issue | 02 |

3.3 Design Layout

Page 20

The proposed layout of the car park is broadly similar to the existing site arrangement, but the parking provision is intensified. The main parking rows are still orientated from the north-west to the south-east of the site.

The increase in parking provision will be achieved by rationalising the current layout and extending the footprint of the car park where feasible. Underutilised areas of grass to the west and south of the site will be adopted for use as part of the proposed car park. The existing car park arrangement also includes a series of landscaped strips that divide each run of parking bays. Parking provision will be intensified by omitting these from the new layout where they are not required.

The current site boundary and vehicular entrance and exit points to Pritchatt's Road are to be retained for use in the proposed development.

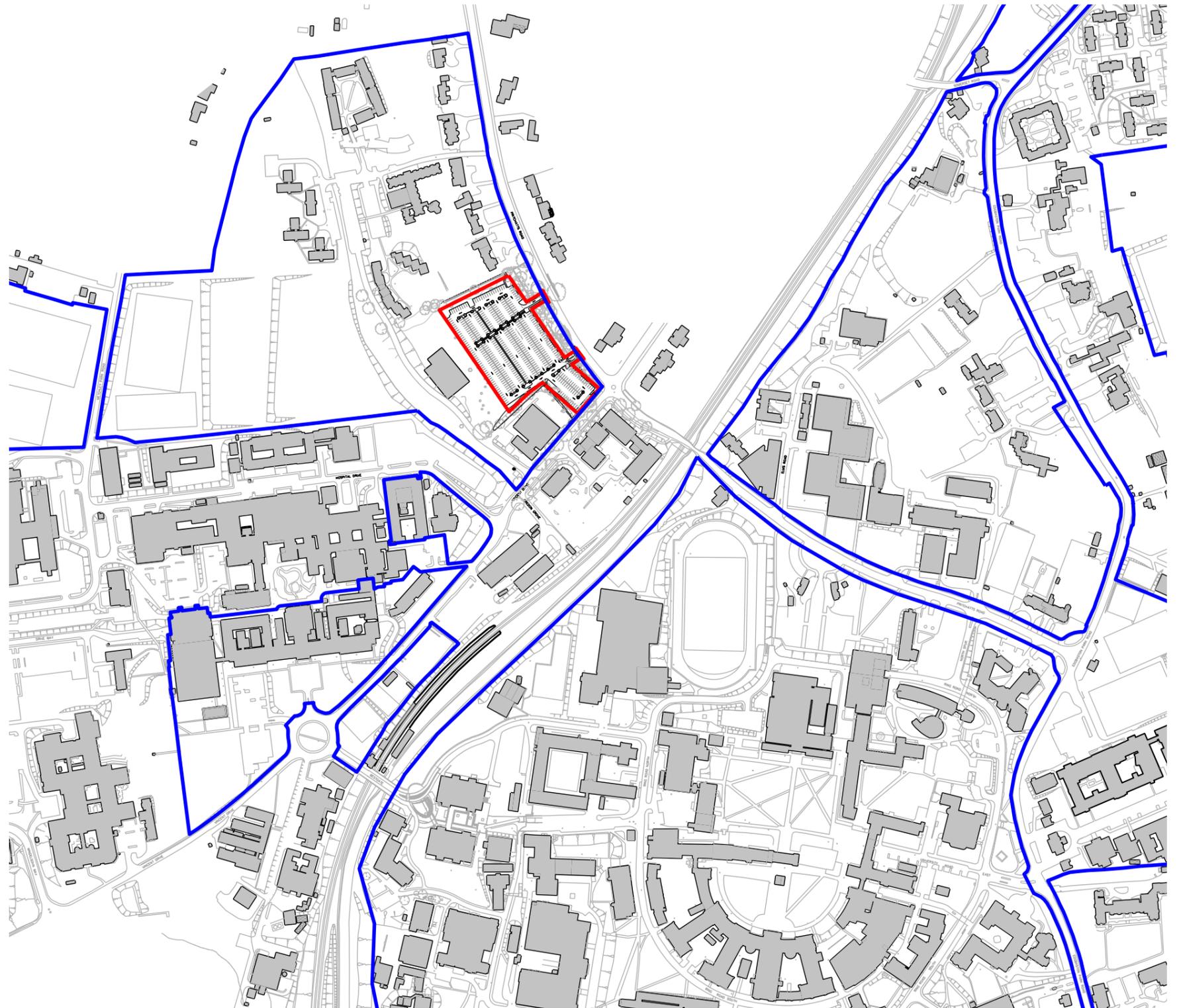


Fig. 13 Figure-ground plan showing the urban grain surrounding the site

3.4 Design Scale

The urban grain surrounding the site is generally coarse in its nature. Buildings vary significantly in their height and mass, and there is an absence of consistent street frontages.

Most of these buildings are large scale health, educational and recreational structures. They are typically separated by large open spaces, with many of the individual University department blocks separated by areas of landscaping. Several buildings, including those of the neighbouring Medical School, are arranged formally around a series of courtyards.

Smaller residential buildings to the north and east of the site are also detached from one another, with large private gardens. They are generally set back from the street, with established hedgerows against the pavement.

The proposed development will have limited effect on the urban grain, as the site will remain open as a car park and a single level facility at grade. The ground profile of the car park will follow the approximate 6 metre fall that exists across the site.



Fig. 14 Aerial photograph showing massing the around the site.

3.5 Design Landscaping

A full arboricultural survey of the surrounding trees has been undertaken by Midland Forestry Ltd. This data has been coordinated with the topographical survey.

As the new car park will mainly cover the site of the existing car park, the impact on existing landscaping is limited. Where the footprint of the car park is to be increased, there will be a reduction in the area of grass around the perimeter. In response to this, new islands of soft landscaping will be located throughout the car park. These will enhance the overall quality of the facility.

There are approximately 24 trees within and around the current car park that will need to be removed to make way for the proposed layout. They were planted about 7/8 years ago. These will be replaced with similar species along the south west boundary and within the landscaped islands throughout the car park.

In terms of ecological enhancements, the proposed ornamental planting can provide new habitat for wildlife. The existing trees along Pritchatt's Road have the potential for roosting bats, and these will be retained in the development. Much of the surrounding vegetation also provides a suitable habitat for nesting birds. This will be retained as far as possible, with any required clearances undertaken outside of the bird breeding season. Refer to the Ecological Statement prepared by RPS for further information.

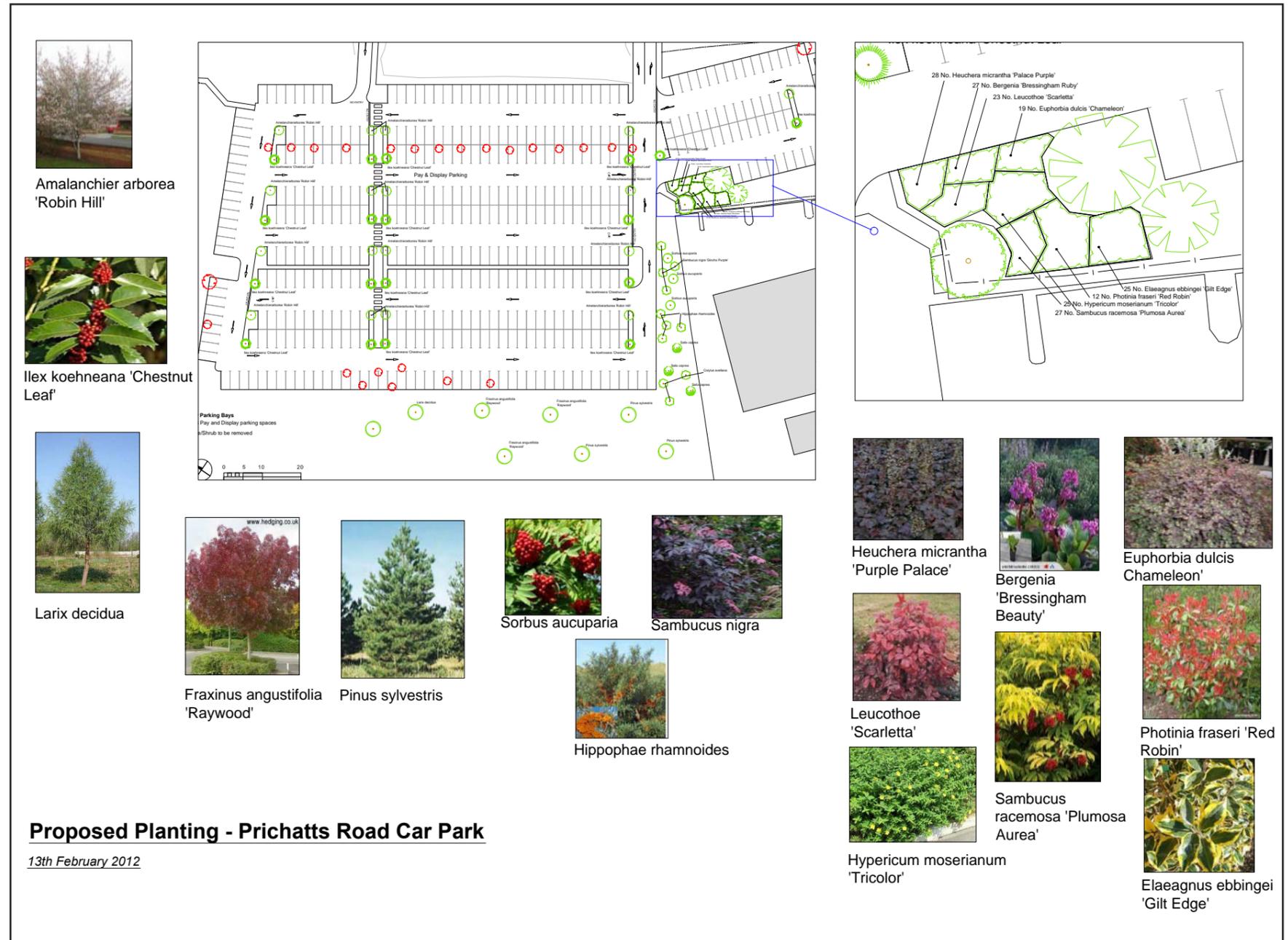


Fig. 15 Proposed Planting Plan supplied by University of Birmingham Estates Office

3.6 Design Appearance

Although the proposed development performs a simple function, that of a car park, the design must also be respectful to its surroundings. This is of notable concern to the immediate north and east of the site, where there is a conservation area. The south west section of the current car park is in a poor state of repair, with an uneven gravel finish and broken kerbstones. The project will enhance the overall appearance of the car park by improving surface treatments and soft landscaping.

The design rationale seeks to limit the visual impact of the development. Neutral finishes, such as tarmac, will be used throughout the car park. The areas of soft landscaping, which incorporate trees, will help to break up the parking area and integrate the scheme with its surroundings.

Lighting will be designed to ensure that safety is achieved whilst also minimising energy consumption and lighting pollution. Low level masts will be installed to lessen the impact of illumination in the surrounding area. For further information refer to figure 17 on page 24.



Fig. 16 The gravel section of the current car park will be upgraded through the works

3.6 Design Appearance

Pritchatts Road Car Park – External Lighting Proposals

This document is intended to serve as a design guide for the external lighting proposals for Pritchatts Road car park.

The car park is sited within Edgbaston and would be classified as an Environmental Zone E3 "medium district brightness; small town centre or urban location". Design calculations for the car park lighting will include impact analysis to ascertain the following:

- Direct sky glow from proposed car park.
- Lighting into windows at closest properties along each side boundary.
- Source intensity calculations as a measure of discomfort glare from the direction of perceived "worst-case" viewing directions at the site boundary.

Results of these calculations will be compared against the recommendations for Obtrusive Light Limitations as Published by the Institution of Lighting Engineers in relation to Environmental Zone E3.

Design lighting levels of the car park will conform to the following:

- general car park: 25 to 30 lux, average minimum 10 lux
- pedestrian crossings: 30 lux
- car park boundary: 5 lux maximum
- pedestrian walkways: 50 lux

Lighting Controls

The lighting to the car park will be controlled by a combination of photocell, synchronous timeclocks and movement sensors, feeding into a multizone lighting controller. Lighting controls will be mounted within a substantial cast iron feeder pillar installed adjacent to the car park.

The photocell will be commissioned to operate at 30 lux at ground level.

The car park lighting circuiting will be arranged from lighting controls zones, each controlled by its own contactor.

Perimeter columns will form one zone, central area columns will form another zone, pedestrian access routes and disabled parking areas will also be separately zoned.

Material Specification

Lighting columns will be naturally galvanised finished and generally no higher than 6 m.

Lighting columns will be installed with bollard protection, where the possibility of vehicular impact is likely. Bollards to be sited to prevent obstruction to the lighting column access panel.

New lanterns are to be dimmable LED-based (Indal WRTL 'Stella' range), to match existing lanterns installed on adjacent University controlled land and proposed new residential street lighting by Birmingham City Council.

3.7 Design Sustainability

The proposed development forms part of the University's Sustainable Travel Plan 2010 to 2015.

As discussed previously, one aspect of this Plan (page 44) is to constrain the amount of parking across the campus to current levels. By reducing the number of locations where University parking is provided, it will be more straightforward to manage. All the parking at Pritchatt's Road is to be controlled through a Pay and Display system.

The University's overall aim is to make more efficient use of land within the Edgbaston campus. By increasing the intensity of the use of the land on which the car park is sited, other areas of land closer to the heart of the campus can be brought into use for academic and sports facilities.

Transferring parking capacity from other areas to this site should also reduce the number of vehicles journeys through the main campus areas. In turn, this will create a more pleasant environment for pedestrians.

4.1 Access Transport & Pedestrian Links

A key reason for selecting this site is that it is ideally located for vehicular access as it is close to the junction of two key routes at the campus periphery: Vincent Drive and Pritchatt's Road. It is also approximately a ten minute walk from the centre of the Edgbaston campus.

The current vehicular access and egress points are to be adopted for the new car park development. The entrance point is located approximately 115 metres west of the junction of Pritchatt's Road and Vincent Drive junction. The egress is located some 70 metres further east of the entrance, and will be upgraded to allow for the provision of dedicated left and right turn lanes. Signage announcing the car park's presence is subdued due to this being a private University facility. Arup Transport Consulting have shown that the re-distribution of vehicle trips caused by the movement of parking capacity to this site will not have a significant impact on the operation of the local highway network. The lack of barriers will prevent queueing at the car park entrance which would otherwise impact on the public highway. The University has also acknowledged previous concerns from the local community relating to the increase in parking at the campus periphery, by reducing the extent of its expansion plans for Pritchatt's Road. Refer to the Transport Analysis report, for further information on traffic impact. Within the car park, a one-way system will be used to control traffic flow.

Pedestrian access to the site is provided by a number of existing footpaths that will be incorporated into the development. A series of bridges (over the canal and railway line), pavements and pedestrian walkways provide access to the central campus areas. The most direct route is south east along Pritchatt's Road to the North Gate entrance. An alternative route runs south-west along Vincent Drive and past the railway station. The BRPL Site and proposed Bio-incubator building are also easily served, both being in the same urban block. It is anticipated that a small number of people will use footpath links at the north and west of the site to access University buildings located further north along Pritchatt's Road. A footpath is provided across the car park to give pedestrian access to each group of parking bays and to the Pay & Display payment machines. Fully accessible parking spaces are provided at parking facilities elsewhere within the campus. The University also intends to carry out a number of improvements that will further strengthen both pedestrian and cycle links across the campus.

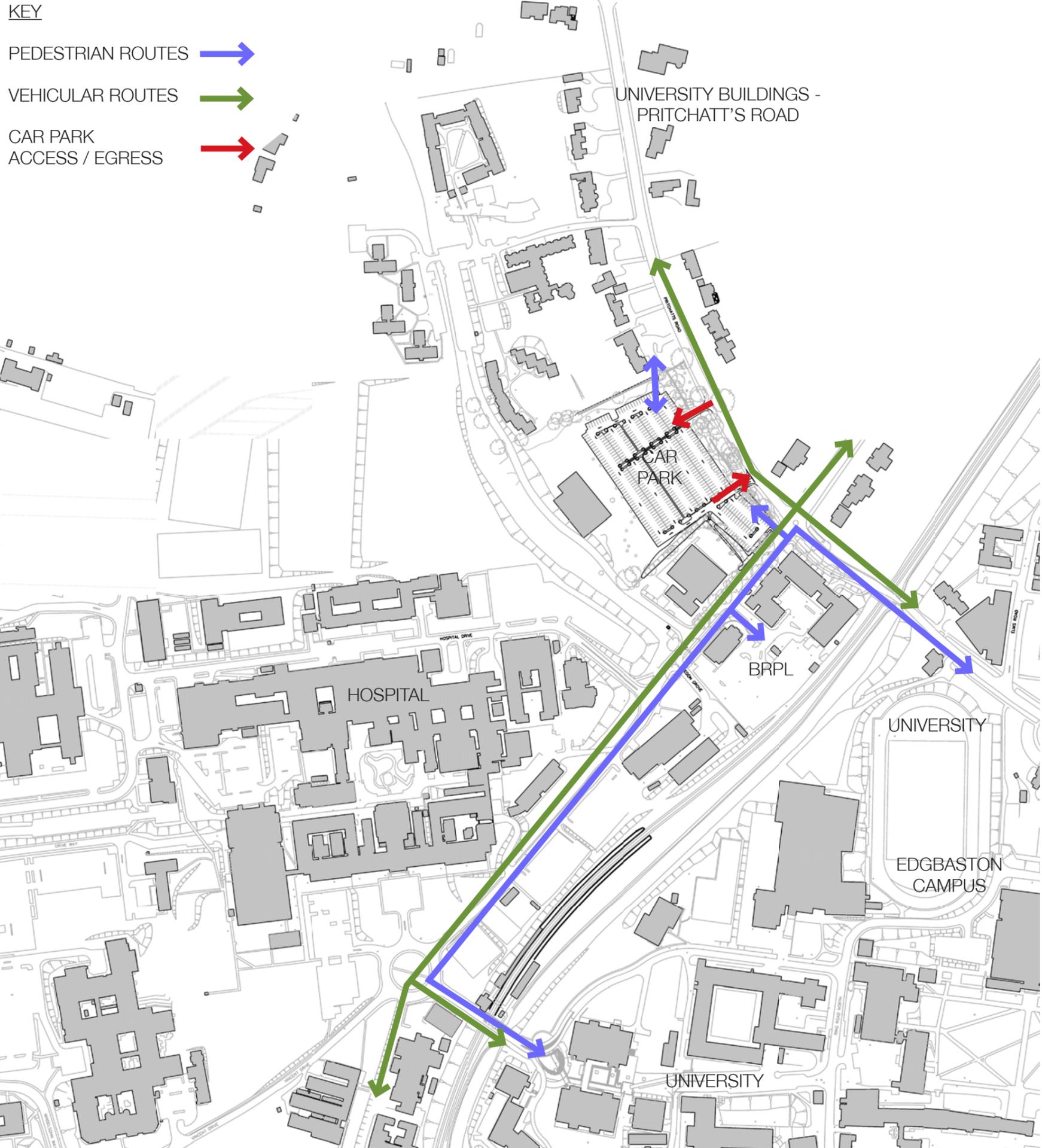


Fig. 18 Diagram showing key routes to and from the site