

1.0 SUMMARY OF APPLICATION DETAILS

Ref: 21/01785/FUL
 Location: 96-98 George Street, Croydon, CR0 1PJ
 Ward: Fairfield
 Description: Demolition of 96 George Street (Norwich Union House) and 98 George Street (St Matthew's House) and redevelopment to provide an 11 storey (Gross Internal Area 19,233sqm) building comprising (Class E) office and café space on the ground floor and (Class E) office use across basement and upper floors, with associated cycle parking and Blue Badge parking with works to the adjacent College Square (outside of the application boundary).
 Drawing No's: See Appendix 1
 Applicant: Metropolitan Properties Limited
 Agent: Guy Bransby, Montagu Evans LLP
 Case Officer: Shanali Counsell

96 and 98 George Street			
Use Class	Existing gross internal floor area (square metres)	Gross internal floor area lost (including by change of use) (square metres)	Gross internal floor area gained (including change of use) (square metres)
C3 (Dwellinghouses)	497	497	0
E(c) office with E(b) café	5,979	0	19,233
Total	6,476	497	19,233

96 and 98 George Street	
Number of car parking spaces	Number of cycle parking spaces
2 Blue Badge	264 long-stay 19 short-stay

1.1 This application is being reported to Planning Committee because the recommendation is for approval by the Director of Planning and Sustainable Regeneration, and the development is for the erection of a building or buildings with a gross floor space of 10,000 square metres or more.

2.0 RECOMMENDATION

2.1 That the Planning Committee resolve to GRANT planning permission subject to:

A. Any direction by the London Mayor pursuant to the Mayor of London Order

B. The prior completion of a legal agreement to secure the following planning obligations:

Public Realm

1. On-site public realm improvements – design and delivery of public realm within red line prior to occupation and management/maintenance strategy secured
2. Off-site public realm improvements to be secured under Section 278 of the Highways Act 1980 – to include College Square final design and payment for delivery, management/maintenance strategy and commuted sum secured (for standard items, with the developer to maintain bespoke items), design and delivery of upgraded footpaths to southern side of George Street and northern side of College Road, installation of road markings and associated traffic orders, improvements to public lighting and improvements to crossing facilities at the Dingwall Road/George Street junction (all costs borne by developer including public realm maintenance commuted sums).

Transport

3. TfL financial contribution of £50,000 towards improvements and upgrades to the local public transport network
4. Sustainable transport to include:
 - i. Financial contribution of £32,000
 - ii. Remove access for future occupiers to CPZ permits and season tickets for Council car parks
 - iii. Financial contribution to car club space improvements
 - iv. Membership to car club for occupiers for 3 years
 - v. Travel Plan monitoring for 5 years
5. Active Travel Zone improvements (secured under s.278 highways agreement)

Design

6. Retention of scheme architects
7. Public art on site

Environmental

8. Air quality financial contribution of £3,846
9. Carbon offsetting contribution of £331,645 (note this contribution could be reduced if at a later stage further carbon improvements are made)
10. Future district heat network connection
11. GLA 'Be Seen' Energy Monitoring
12. TV radio and cable signal mitigation

Employment and training

13. Local Employment and Training strategy (LETS)
14. LETS contributions of £132,500 for construction phase and £4,367 for operational phase
15. Monitoring fees
16. And any other planning obligations considered necessary

- 2.2 That the Director of Planning and Sustainable Regeneration has delegated authority to negotiate the detailed terms of the legal agreement, securing additional/amended obligations if necessary.

Conditions

Standard conditions

1. Commencement of the development within 3 years
2. Development to be carried out in accordance with the approved drawings

Pre-commencement

3. Thames Water – piling method statement
4. Construction logistics plan and method statement
5. Construction Environment Management Plan
6. Aviation warning lights (including construction)
7. Final Fire Strategy details (in consultation with London Fire Brigade)

Prior to commencement of superstructure

8. Typical façade materials and detailing 1:1 mock-up's, with 1:5/1:10 details to confirm following approval
9. 1:1 mock-up's of the Crown, showing interface, and of the amenity levels and window/sill details
10. External facing materials, including physical samples and detailed drawings of design elements 1:5/1:10
11. Public Art strategy, designs and implementation (brief and commissioned pieces for elevations including physical samples)
12. Details of public realm and landscape design including seating, ramp, stage and furniture
13. Tree planting and management strategy
14. Public realm and building lighting scheme and to include night-time illumination and wildlife sensitive lighting design
15. Details of fenestration of the ground floor, including shop fronts, glazing, signage zones and co-ordination and enhancement of the public realm
16. Lighting and CCTV of bin and bike stores, parking areas
17. Vehicle Dynamics Assessment with hostile vehicle mitigation and anti-terrorist measures
18. Thames Water – water infrastructure study
19. Sustainable urban drainage strategy (detailing any on and/or off-site drainage works)
20. Contamination reports and remediation if necessary
21. Secured by Design/engagement with the Police
22. Submission of air quality low emission strategy
23. Biodiversity enhancement strategy

Prior to practical completion

24. Landscaping and public realm management and maintenance strategy
25. Access routes and signage for pedestrians, cyclists and cars
Landscaping
26. Details of cycle parking and storage (including staff provision, changing facilities and short stay spaces)
27. Details of blue badge parking bay(s) including EVCP
28. Details of rooftop amenity
29. Café extraction details
30. Details of air handling units/plant/machinery and screening
31. Building maintenance strategy including window cleaning
32. Further Circular Economy details, including post completion reporting

33. Further details on Whole Life Cycle Assessment

Prior to first occupation

34. Refuse store and collection management plan including details of refuse management company appointed
35. Delivery and Servicing Plan
36. Wind mitigation to terrace secured

Compliance

37. Building fully accessible to all with step free access and evacuation lift provided
38. Restriction on hours of use
39. Restriction of use of building with Class E
40. Carbon dioxide reduction on site
41. BREEAM excellent
42. Potential connection to future heat network future scheme built into the development design
43. In accordance with submitted energy strategy
44. All features/materials comply with Building Regulations in relation to fire safety
45. Compliance with fire statement
46. Disabled car parking and cycle parking installed
47. Urban Greening Factor compliance
48. Accord with mitigation outlined in Noise Assessment
49. Noise from air and plant units should not increase background noise
50. In accordance with Air Quality Assessment
51. Any other planning condition(s) considered necessary by the Director of Planning and Sustainable Regeneration

Informatives

1. Granted subject to a Section 106 Agreement
 2. Community Infrastructure Levy
 3. Material/detailing conditions information
 4. Code of practise for Construction Sites
 5. Light pollution
 6. Requirement for ultra-low NOx boilers
 7. Thames Water informatives
 8. Site notice removal
 9. Environmental health
 10. Network Rail informatives for lighting, noise and vibration
 11. Any other informative(s) considered necessary by the Director of Planning and Sustainable Regeneration
- 2.3 That the Committee confirms that it has had special regard to the desirability of preserving the settings of listed buildings and features of special architectural or historic interest as required by Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990.
- 2.4 That the Committee confirms that it has paid special attention to the desirability of preserving or enhancing the character and appearance of Central Croydon Conservation Area as required by Section 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990.

- 2.5 That if by 17th February 2023 the legal agreement has not been completed, the Director of Planning and Sustainable Regeneration is delegated authority to refuse planning permission.

3.0 BACKGROUND

- 3.1 The scheme was first presented to PRP on May 2020 and then November 2020. The Panel were generally supportive of the proposal but thought different options should be tested to see how the building could better relate to its context. Key comments were made as follows:

- College Square could be an important public benefit, but not enough detail given. Learn from the meanwhile programme on College Square. *[Officer Comments: The applicant has revised the scheme to make a significant contribution to the public realm that will enhance its use, improve wellbeing of the people that use and pass through and connects the college in a positive way. The use of the 'stage' and 'outdoor room' would encourage social and cultural interaction. The stage is envisaged as a destination for local communities to use for events and celebrations. During design meetings Officers emphasised the success of the meanwhile space and subsequently observational studies were carried out and the positive attributes incorporated into the current design.]*
- The proposed design of College Square is generic, does not convey a sense of place and should offer back to Croydon. *[Officer Comments: As above, officers worked closely with the applicant on the revised public realm, with a focus on the importance of community and college engagement. This was successfully co-ordinated by the applicants' public realm team. The revised scheme has been designed to be more place specific and less generic along with encouraging a diverse group of people to use the space.]*
- The Panel were not given detailed information of wind and daylight conditions of College Square. *[Officer Comments: Details documents relating to microclimate have been submitted and discussed within the body of the report.]*
- Massing still does not respond well to existing habitable rooms; the design should mitigate for the impact on neighbouring amenity. *[Officer Comments: This piece of work has been completed by the applicant and a taller, slender building was modelled. The results are fully considered in the report below, however, in summary, it was found that an alternative scheme would result in a very similar impact. A full daylight and sunlight report for the proposed and alternative scheme have been submitted and assessed.]*
- George Street Walk needs to be a comfortable passageway and DDA compliant. *[Officer comments: The applicant has no entrances from George Street walk accessed from the raised Ten Degrees walkway. The cycle centre is accessed via a 1:21 slope from pavement level on College Road and the independent commercial unit on George Street is accessed from the pavement level.]*
- The Panel questioned if the public art should be on the building or as part of the public realm to add vibrancy to the square. *[Officer Comments: The public art offer is remaining on the building, but in addition the public realm has been improved and*

enhanced, with its delivery and maintenance to be secured through the s.106 legal agreement.]

- Ground floor use should be more integrated with the public realm. *[Officer Comments: The ground floor is essentially a working element of the building. Officers believe that this elevation does not need to open physically to the public realm but is suitably glazed and open to allow an active frontage onto College Square. Given the type of activity within the ground floor it is not considered feasible to have a completely openable side elevation.]*
- The Panel are encouraged by the accessible roof terrace however are not convinced by the plant and its negative impact on the visual amenity of the residents at 100a George Street (Ten Degrees). *[Officer Comments: The plant has been altered given the Panel's concerns and has been enclosed with an increase in green roof, such that it is considered these interventions improve on the previously proposed design iteration and is now acceptable.]*
- The Panel would like to see the suitability benefits of redevelopment (as opposed to refurbishment) presented in a more quantifiable and measurable way in order to ensure that the correct design approach is taken forward. *[Officer Comments: The sustainability of the development has been addressed within the main body of the report.]*

3.2 An earlier iteration of this proposal was presented to the Planning Committee at pre-application stage on 5th November 2020 for proposed demolition of the existing buildings and redevelopment to provide an 11-storey building comprising office (Class B1 use) with ground floor cafe/restaurant (Class A1/A3 use). Note both Use Classes have been updated since then to Class E.

The main issues raised were as follows:

- **Loss of residential:** Members were concerned how it would be justified and whether there should be financial contributions to justify the loss of residential homes. There were questions around the mixed-use development; overall the commercial use was welcomed by Members. *[Officer comments: The principle of development and key policies have been addressed in the body of the report.]*
- **Design:** There were positive remarks on the design, and the influence of the design including the weave was well received though requires further development. There were questions from Members for further detail on the footprint and height of the tower, and the proximity to 100a George Street (Ten Degrees), in relation to the adjoining neighbouring impact and demonstrating that it is acceptable. *[Officer Comments: A full daylight sunlight assessment has been submitted along with an alternative scheme to demonstrate that the proposed scheme has a tolerable impact on the amenity of the adjacent neighbours when weighed in the planning balance.]*
- **Ground floor use:** There were discussions for a requirement of an active ground floor use, with flexibility for space to incorporate other uses and activity and how it relates to the public square. Further questions around the marketing for alternative use such as NHS walk-in centre was discussed. *[Officer Comments: It was concluded that the café would be the most appropriate public use on the ground floor with the*

remainder of the floor plate used as a breakout space for informal meetings and gatherings for the office users. Given that there will be large, glazed windows on the elevation facing College Square and the updated design, Officers believe that there will be sufficient activation on this elevation with appropriate public access for the scale and nature of the scheme.]

- **Public Realm:** A requirement of flexibility; and the microclimate is required to be tested and activated. *[Officer Comments: the revised scheme shows flexibility in the proposed space and a full microclimate assessment has been submitted.]*
- **Trees:** There was a request for a lot of trees, greening of the space was encouraged; there was support for the roof garden, though more detail on how it would work as a space was required - the microclimate for the roof space was acceptable. *[Officer comments: The public realm space has evolved and includes trees, and the roof garden has been retained and further details provided.]*
- **Parking:** Following questions around this, it was confirmed that there were two blue badge parking spaces for this development. *[Officer Comments: The London Plan requires at least one disabled persons parking bay, whilst two have been provided. Details will be conditioned.]*
- **Art:** The inclusion of areas for art was welcomed with competition from a design brief adding historic elements. *[Officer Comments: This element to be conditioned and secure via s106 agreement.]*
- **Public consultation:** There was encouragement for public consultation. *[Officer Comments: Further public consultation has been carried out regarding the functionality and use of the public realm and the statutory consultation took place as part of the planning application processing before making this agenda.]*

3.3 The key changes as a result of PRP and Committee feedback are as follows:

- Justification for lack of residential as part of the scheme
- Ground floor amendments and justification
- College Square public realm improvements
- Daylight/sunlight and microclimate analysis
- Sustainability matters progressed
- Community engagement for public realm

4.0 PROPOSAL AND LOCATION DETAILS

Proposal

4.1 The application seeks full planning permission for the demolition of the existing buildings at No. 96 and No. 98 George Street and for the subsequent construction of an 11-storey building to provide 19,233sqm of commercial (primarily office) space, 2 Blue Badge car parking spaces, 264 long-stay and 19 short-stay cycle parking spaces and improvements to the public realm, namely College Square.

4.2 The key elements of the proposed development are as follows:

- Principal office entrance accessed from George Street;
- High quality and flexible office provision;
- Contextually responsive facade design;
- Maximised areas of frontage at ground floor and mezzanine levels;
- Activation of the Western facade onto College Square;
- College Square and public realm upgrades;
- Rooftop terrace providing urban greening elements to the development.



***Image 1: View looking south east of 96-98 George Street,
Ten Degrees in the background***

4.3 Ground floor: The ground floor would comprise a café and a business centre that would act as an atrium and open plan meeting space for the office above, accessed from an entrance onto George Street and from the corner of George Street and College Square. The café would be accessed off College Road, opposite Croydon College, as well as internally from the office. Servicing and associated access would be from College Road.

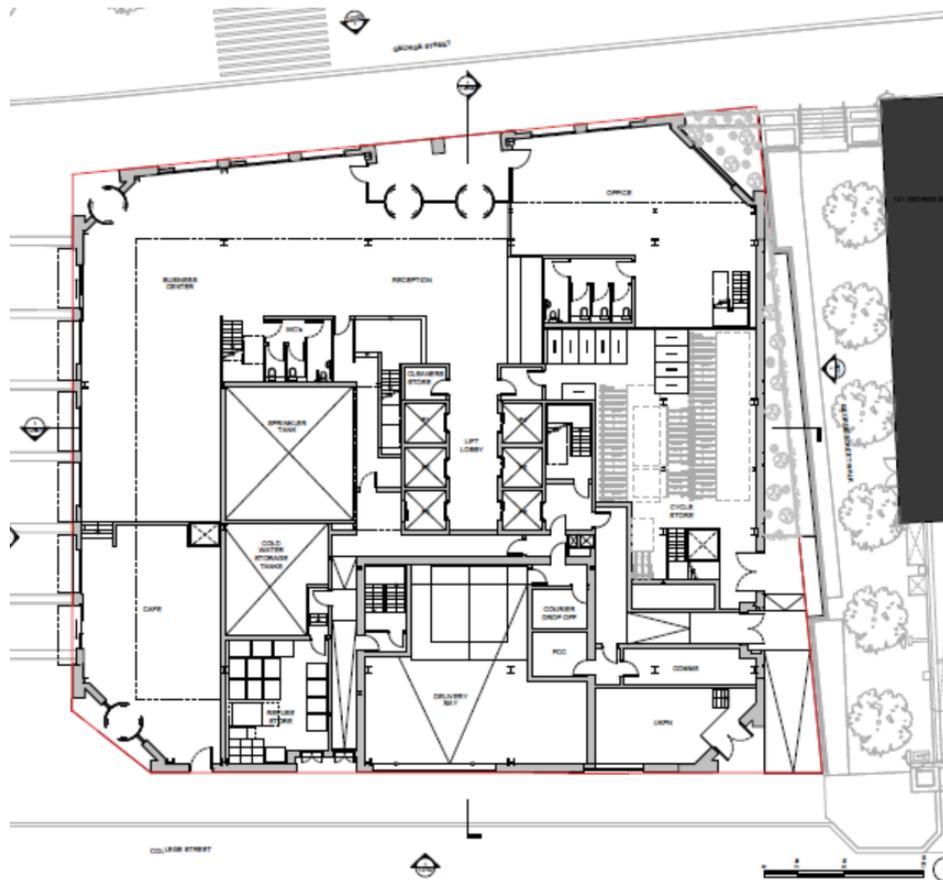
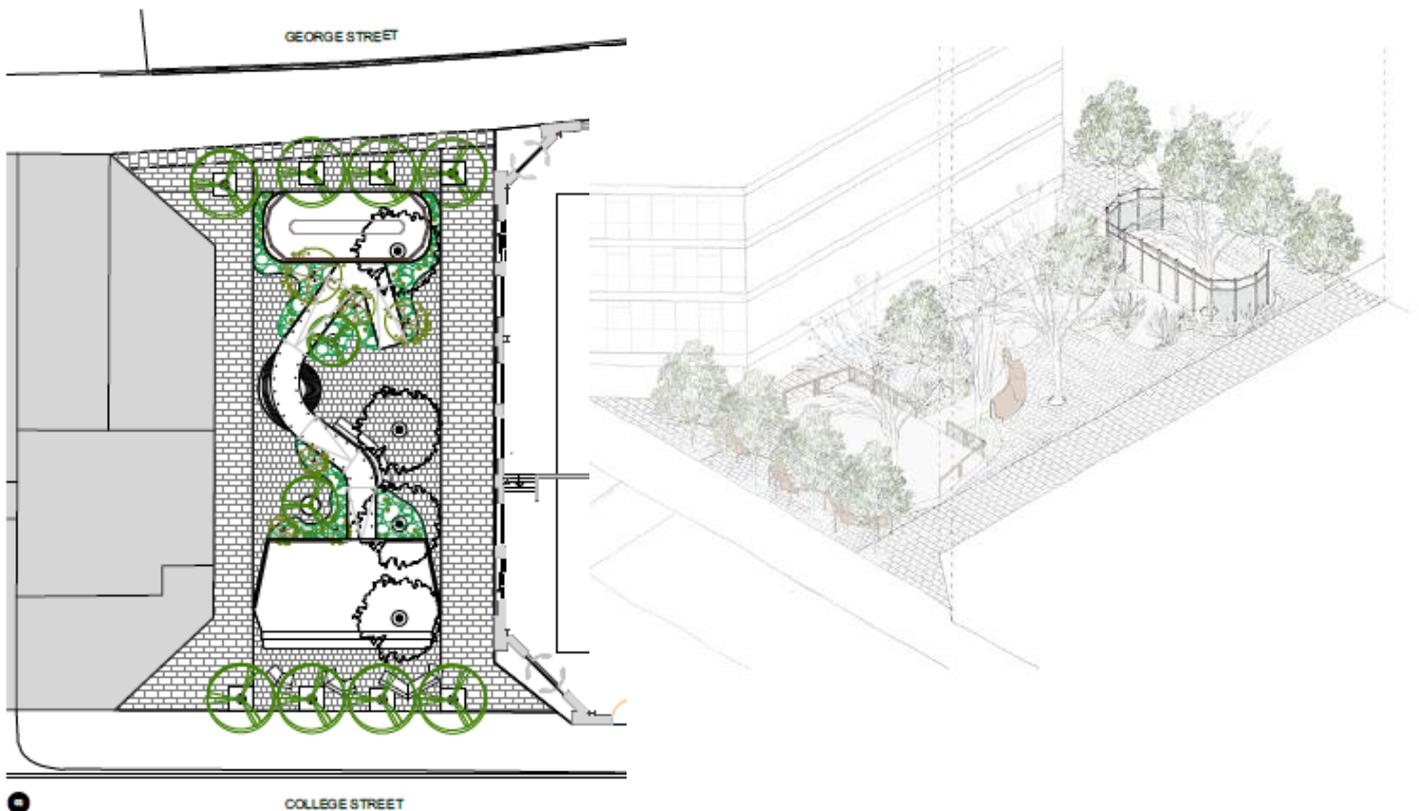


Image 2: Ground floor arrangement

- 4.4 Upper floors: Typically, the upper floors would have a large floor plate to accommodate open plan offices with a central core and toilets.
- 4.5 Roof plan: The roof would comprise the plant which would be obscured with horizontal louvres, photovoltaic (PV) panels, green roof and a rooftop terrace for the occupants of the building.
- 4.6 College Square Public Realm: The proposed public realm would comprise two spaces, distinct from each other; the 'outside room' and the 'stage' that is connected by a curving ramp and soft landscaping throughout. The public realm is outside of the red line however the public realm is integral to the delivery of the overall scheme. This would be secured through the s.106 legal agreement and s.278 highways agreement.



Images 3 and 4: Indicative public realm proposals for College Square

4.7 During the course of the application, amendments and additional information were provided by the applicant as follows:

- Redesign of the College Square public realm;
- Revised wind assessments to reflect the revised public realm works;
- Revised plant enclosure;
- Revised Design and Access Statement
- Lighting scheme
- Sustainable Urban Drainage (SuDS) plan

4.8 Re-consultation on the above amendments took place for 3 weeks in the same terms as the original consultation carried out.

4.9 A number of other documents have subsequently been provided and uploaded, including a Daylight and Sunlight Comparison Study, Daylight and Sunlight Addendum, updated Design and Access Statement, updated Planning Statement, updated Pedestrian Wind Environment Study, updated Fire Strategy, updated drainage details, updated landscaping drawings, café unit note and café demand note. A re-consultation was not undertaken as the documents were to further confirm the previous findings with more detail and would not have compromised any third party.

Site and Surroundings

4.10 The site is located on the southern side of George Street, with an additional street frontage to College Road. It is occupied by two buildings with a central raised

walkway/landscaped area. No. 96, also known as Norwich Union House, is in use as offices with basement level car parking below. No.98, also known as St Matthews House, is a three-storey building located to the eastern side of the site, adjacent to 100a George Street (Ten Degrees), with office space at ground floor and residential accommodation above. Both No. 96 George Street and No. 98 George Street are set on a plinth above the street level.



Image 5: Street view of existing buildings from George Street



Image 6: College Road looking north and College Square

4.11 The surrounding area is predominantly made up of commercial, educational, and most recently residential uses with the construction of Ten Degrees directly adjacent to the east. The Croydon College buildings (locally listed) lie to the south of the site, East Croydon Station (also locally listed) lies to the northeast on the opposite side of George Street.

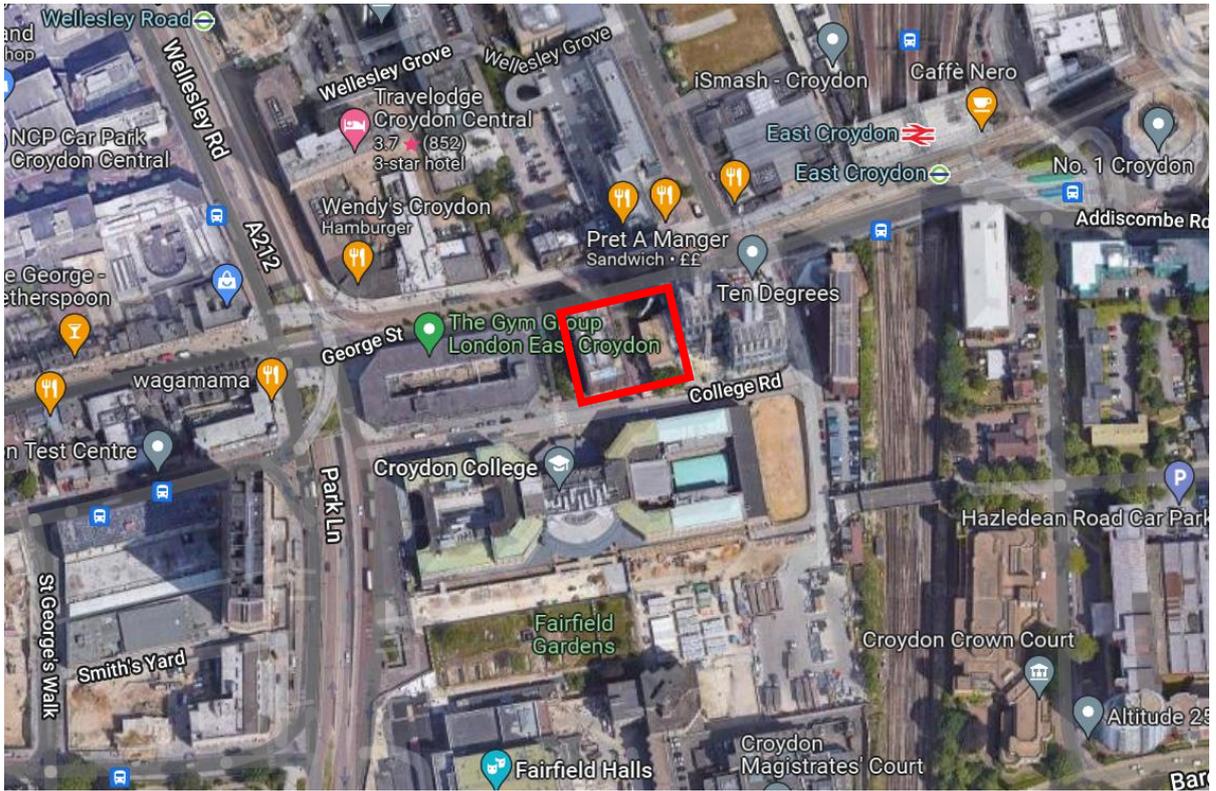


Image 7: Aerial view, site outlined in red

4.12 The surrounding area has a mixed character ranging from period architecture to mid-20th century and emerging new buildings. The present character of Croydon is a blend of domestic scale and appearance of the buildings built after the mid-19th century as townhouses and lodgings. The influence of the railway and World War II has created a landscape of Victorian architecture side by side with Brutalist modern, tower and slab buildings of varying quality. Croydon’s mid-20th century architecture is largely constructed using a limited palette of materials, predominantly concrete. There has been a significant amount of rebuilding to Croydon in recent years. Some of the key projects (consented, completed or under construction) are phases of Ruskin Square, Taberner House, Ten Degrees and St George’s House.



Images 8, 9 and 10: Examples of the emerging context, Ten Degrees (l) St Georges (c) and Ruskin Square (r)

4.13 The site forms part of the Fairfield Master Plan area where there have been several consented and proposed developments, with the closest neighbouring building at 100a George Street (Ten degrees). The site has excellent Public Transport Accessibility

(PTAL 6B) given its proximity to East and West Croydon train stations and numerous bus and tram links. George Street is a classified road.



Image 11: Fairfield Masterplan

4.14 The site is not in a Conservation Area (CA) and the buildings on the site are not listed; Central Croydon Conservation Area, however, is less than 150 metres to the west of the site. Within this CA are a number of listed structures, including Hospital of the Holy Trinity (Whitgift Hospital), with its Grade I listing, Grade II Segas Offices, Municipal Buildings, Union Bank Chambers, Ship Public House, Nat West Bank and Electricity Showrooms and Offices; and, the Grade II* Croydon War Memorial. Chatsworth Road CA is approximately 250m to the south of the site and there are several Locally Listed Buildings nearby. These include Croydon College, No. 1 Croydon, East Croydon Station, 71-79 George Street and Fairfield Halls. The Queen's Gardens is a Locally Listed Garden.

Constraints

4.15 The site is subject to the following designations:

- Croydon Metropolitan Centre
- Croydon Opportunity Area Edge Area (covered by policies DM38.1 and DM38.4)
- Primary Shopping Area
- Surface water flooding area
- The site lies directly to the side of the local designated view from Church Street of Whitgift Almshouses and No.1 Croydon
- 96 George Street (site 247) is allocated for “offices with residential development or hotel and/or retail (on George Street frontage)”.

247: Norwich Union House, 96 George Street

Place	Postcode	Size of site	Site description	Suburban, Urban or Central location?	Public Transport Accessibility of area	Local character of area	
Croydon Opportunity Area	CR0 1PJ	0.13ha	Office Building	Central	High	Large buildings with surrounding space	
Description of option		Justification for option			Anticipated phasing of development	Evidence of deliverability	Number of homes
Offices with residential development or hotel and/or retail (on George Street frontage)		In accordance with Policy SP3 of the Croydon Local Plan 2018, office refurbishment/redevelopment and mixed use should be explored fully. Site lies within a proposed extension of the Primary Shopping Area which would make all town centre uses acceptable in this location. The redevelopment of this site could help to meet the need for new homes in the borough. To assist sustainability the development must incorporate acoustic measures to reduce impact of noise on the development.			Post 2026	Site has no known developer interest and the Council will need to work with landowner to bring it forward	19 to 52

- 98 George Street (site 182) is allocated for “*redevelopment for residential and/or offices and/or retail (on George Street frontage)*”.

182: St Mathews House, 98 George Street

Place	Postcode	Size of site	Site description	Suburban, Urban or Central location?	Public Transport Accessibility of area	Local character of area	
Croydon Opportunity Area	CR0 1PJ	0.05ha	Residential building 2/3 storey brick built residential block	Central	High	Large buildings with surrounding space; Urban Shopping Areas	
Description of option		Justification for option			Anticipated phasing of development	Evidence of deliverability	Number of homes
Redevelopment for residential and/or offices and/or retail (on George Street frontage)		Residential development will help to meet the need for new homes in the borough. Site lies within Croydon Metropolitan Centre close to East Croydon station making it particularly suited to office use and the site lies within a proposed extension of the Primary Shopping Area which would make all town centre uses acceptable in this location.			Post 2026	Site has no known developer interest and the Council will need to work with landowner to bring it forward	7 to 20

Planning History

4.16 There is no planning history on either of the sites of relevance other than work associated with this scheme, namely:

19/03679/PRE – pre-application discussions in relation to the proposed demolition of existing buildings and redevelopment to provide 11-storey building comprising office (Class B1 use) with ground floor cafe/restaurant (Class A1/A3 use).

20/06610/ENVS - Environmental Impact Assessment (EIA) Screening Opinion Request for an urban development for demolition of no.96 and no.98 George Street and the erection of an approximately 11-storey building to provide office floorspace with cafe/breakout space at ground/mezzanine level. The decision was no EIA was required.

Planning history of adjoining and surrounding sites:

4.17 Land adjacent to Croydon College, College Road

19/04987/FUL – Planning permission was granted and is currently being implemented on site for the redevelopment of the site to provide a part 49 storey (+209.250m AOD) and part 34 storey (+165.15m AOD) building with basements, comprising 836 co-living units (Use Class Sui Generis) within Tower A and 120 residential units (Use Class C3) within Tower B, a cafe (Use Class A3), community use (Use Class D1), associated communal facilities for co-living residents, amenity spaces, cycle parking, disabled

parking spaces, refuse and cycle storage and associated landscaping and public realm works.

4.18 Land to the south-east side of Croydon College, College Road

19/04516/FUL – A committee resolution was made to grant planning permission, with the application subsequently withdrawn for the erection of five buildings ranging in height from 7 to 29 storeys to provide 421 residential flats (Use Class C3), flexible commercial space at ground floor of Building A (Use Class A1/A2/A3) and Buildings C and E (A1/A2/A3 and/or B1/D1 or D2) together with associated cycle parking, public realm and landscaping, basement car parking, refuse storage, servicing and access arrangements.

4.19 100a George Street (Former Essex House and now known as Ten Degrees)

17/04201/FUL – Planning permission was granted for the redevelopment of the site to provide a part 38 and part 44 storey building with 546 residential flats, with the ground floor to incorporate a flexible space including retail (Class A1), cafe (Class A3), business space (Class B1) and gallery space (Class D1) uses with basement accommodating parking spaces, cycle storage and refuse storage, and associated hard and soft landscaping. This permission has been implemented on site.

4.20 Land bounded by George Street, Park Lane, Barclay Road, and main London to Brighton Railway Line

16/00944/P – Permission was granted for outline planning permission for demolition and redevelopment to provide: flexible class A1 (shops) and/or class A2 (financial and professional services) and/or class A3 (food and drink); class B1 (business); class C1 (hotel); class C3 (dwelling houses); class D1 (non-residential institutions); class D2 (assembly or leisure); public realm and landscaping; and associated car and cycle parking, servicing, and access arrangements (with all matters reserved) and; Full planning permission for demolition including multi-storey car park and Barclay Road Annexe; extensions and alterations to Fairfield Halls including class A3 (food and drink); erection of buildings for flexible class A1 (shops) and/or class A2 (financial and professional services) and/or class A3 (food and drink) and/or class D1 (non-residential institutions) and/or class D2 (assembly and leisure) and class C3 (dwelling houses); change of use of basement car park (part) to class D1 (non-residential institutions); public realm and landscaping; and associated car and cycle parking, servicing, and access arrangements. The full part of this consent has been implemented in relation to works to Fairfield Halls.

5.0 SUMMARY OF KEY REASONS FOR RECOMMENDATION

- The principle of an office with commercial use at ground floor is supported and aligned with the desire for growth of the Croydon Opportunity Area and the site allocations.
- Significant weight is given to the loss of the 6 residential units; given the site allocation, quality of the units, neighbouring residential block and upcoming development in the nearby area, it is considered that in this instance the loss of residential floor space is off set in the planning balance by the benefits of the scheme.
- The application is situated within an appropriate location for a tall building; the height and mass has been assessed in relation to its impact from a wide range of viewpoints, from a townscape and heritage perspective, and found acceptable.

- The design, appearance, and detailed façade of the development is of high quality as required for tall buildings.
- The provision of public realm improvements, particularly to College Square, to be delivered and maintained (financially) by the applicant is supported.
- Whilst there would be some harm to the amenities of surrounding occupiers, these would not be so unduly harmful as to refuse planning permission on these grounds, particularly given that the existing condition is unneighbourly and would preclude any development on the site.
- The development would provide enhanced employment opportunities.
- The level of parking and impact upon highway safety and efficiency would be acceptable, subject to conditions and s.106 legal agreement.
- The environmental impacts, including wind, noise, air quality, biodiversity, trees, land contamination and flooding, are acceptable subject to mitigation proposed through a combination of conditions and s.106 legal agreement.
- Sustainability aspects have been properly assessed and their delivery can be controlled through planning obligations and planning conditions.

6.0 CONSULTATION RESPONSE

6.1 The views of the Planning Service are expressed in the MATERIAL PLANNING CONSIDERATIONS section below.

6.2 The following organisations were consulted regarding the application:

The Greater London Authority (Statutory Consultee)

6.3 The GLA have made the following comments:

- **Land Use Principles:** The redevelopment of this brownfield site within the Croydon Opportunity Area and Croydon Metropolitan Centre to provide an office-led scheme is supported, subject to an agreed payment in lieu of on-site replacement housing.
[OFFICER COMMENT: officers support the office-led scheme in accordance with the allocation. It is, however, important to note that officers are not recommending securing a payment in lieu of on-site replacement housing; this matter is covered in full below in the principle of development section]
- **Heritage and Urban Design:** No harm would be caused to the heritage assets or the local designated view near the site. Further consideration should be given to increasing activation along George Street Walk and revisiting the material palette of the rooftop enclosure and other elements of the design.
[OFFICER COMMENT: the rooftop enclosure and other elements of the design have progressed, with heritage aspects considered below]
- **Transport:** Completion of an Active Travel Zone assessment and further consideration of the impact of development on wind speed and concerns relating to public safety are required. The trip generation should be revised in order to determine an appropriate financial contribution towards public transport to mitigate capacity impacts.
[OFFICER COMMENT: an Active Travel Zone Assessment was subsequently provided, with details to be secured through the s.106 legal agreement and s.278 highways agreement, whilst updated wind modelling has been

undertaken to ensure public safety is achieved. An appropriate financial contribution has been agreed with TfL]

- **Sustainable development and Environment:** Further information on the energy strategy, circular economy statement and whole life cycle (WLC) carbon assessment is required. A carbon off-set payment, which is at present £331,645 should be secured, as well as commitment to 'Be seen' post-construction monitoring, post completion reporting for the circular economy and post construction assessment of the development's WLC emissions are to be secured.

[OFFICER COMMENT: further information on energy, circular economy and whole life cycle carbon are secured by condition. A carbon off-set payment of £331,645 is proposed to be secured through the s.106 agreement, as are 'be-seen' monitoring, and conditions on post completion reporting for circular economy and post construction assessment of WLC emissions]

[OVERALL OFFICER COMMENT: Engagement with the GLA has taken place throughout the application process. The applicant has proposed amendments and additional information has been sought to overcome the majority of the concerns raised.]

Transport for London (TfL) (Statutory Consultee)

6.4 TfL made the following comments:

- Active Travel Zone is required and improvement should be considered to support safe, active travel.
- Public realm improvements for College Square are welcomed.
- The Pedestrian Wind and Environment Study does not account for recent events occurring in high winds that have impacted public safety.
- Clarity on formal pedestrian crossing and cycle access.
- The trip generation and mode share to be revised and a contribution towards public transport enhancements should be secured.
- Details to be provided including for cycle parking, parking management plan, EVCPs, Delivery and Servicing Plan and Construction Logistics Plan.
- Financial contribution should be secured.

[OFFICER COMMENT: additional transport information has been provided in response to the comments made by TfL, seeking to address their concerns. The transport impacts are discussed in detail below, and conditions and s.106 obligations imposed as recommended by TfL. The contribution requested has been reduced during the course of the application assessment to £50,000 that has been agreed and is in the draft Heads of Terms above]

Lead Local Flood Authority (LLFA) (Statutory Consultee)

6.5 The LLFA have no objection (further information was received to address these initial concerns) and is satisfied that a detailed sustainable drainage scheme can be suitably secured through a condition.

[OFFICER COMMENT: condition imposed]

Historic England – Archaeology

- 6.6 Having considered the proposals with reference to information held in the Greater London Historic Environment Record and/or made available in connection with this application, they conclude that the proposal is unlikely to have a significant effect on heritage assets of archaeological interest. Given that the site is located within a Tier IV Archaeological Priority Area as defined by borough policy and that the majority of the site contains a basement, it is concluded that there is no discernible on-going archaeological potential.

[OFFICER COMMENT: accordingly, no conditions are recommended]

Historic England

- 6.7 No objection.

Thames Water

- 6.8 With regards to foul water and surface water network infrastructure capacity, Thames Water raised no objection subject to conditions. Given the proposed development is located within 15 metres of a strategic sewer, they requested a pre-commencement piling condition is imposed. Thames Water did identify an inability of the existing water network infrastructure to accommodate the needs of this development proposal and accordingly requested a pre-occupation condition.

[OFFICER COMMENT: conditions have been recommended regarding the piling method and water network. An informative has been recommended given that the development is within 15m of underground water assets.]

London Fire Brigade

- 6.9 The London Fire Brigade stated they were unable to comment on the suitability of the proposals as it was unclear whether Fire Brigade access, facilities and the provision/location of hydrants demonstrate compliance with the functional requirements of the building regulations. They stated they can provide a further response upon receipt of this information.

[OFFICER COMMENT: further to the comments from the LFB, an updated Fire Strategy was received from the applicant. Officers sought comment from LFB in July and at the time of drafting this report have not received any comment. The updated Fire Strategy covers Part B of the Building Regulations and Part B5 where the LFB were requesting more information. In the absence of further comment from LFB it is recommended that a pre-commencement condition is imposed to ensure final details are work through in advance of any works being undertaken. It is noted there are a number of fire hydrant locations in close proximity to the development on George Street and College Road]

Building Control

- 6.10 Building Control reviewed the application in relation to London Plan Policy D12 on fire, noting the comments of the London Fire Brigade above. Whilst it was noted the documents provided were relatively high level, the use as an office is less challenging than a residential building in managing means of escape and evacuation. The location of fire applicants could be from College Road to avoid George Street. The use of concrete, bricks and aluminium cladding raises no principal fire issues. An objection

was raised, however, on the lack of an evacuation lift as sought by the policy, while it is noted that two firefighting lifts proposed.

[OFFICER COMMENT: further to the comments from BC, the applicant has agreed to make provision for an evacuation lift which officers have secured via condition. The details proposed in the updated Fire Strategy and Fire Statement will be secured by condition]

7.0 LOCAL REPRESENTATION

7.1 The application has been publicised by way of letters of notification to neighbouring properties in the vicinity of the application site. Site notices were also erected in the vicinity of the site and a press notice published. A re-consultation on the same terms took place following submission of revisions to the scheme and additional documentation in support of the application (see above for full list). The number of representations received from neighbours in response to notification and publicity of the application are as follows:

No. of letters sent: 582

No of individual responses: 2

Objections: 2

7.2 The following issues were raised in representations. Those that are material to the determination of the application, are addressed in substance in the MATERIAL PLANNING CONSIDERATIONS section of this report:

Comment	Officer Comment
Objections (material)	
Proposed use, preferable if the building was a mix of commercial and residential.	<i>Acknowledged - the land use is discussed in para: 9.2-9.12</i>
Loss of ground floor commercial space of concern, new plans suggest residential at first floor.	<i>Acknowledged - the Planning Statement Addendum document explored options of residential refurbishment or replacement within the office building; this was to explore all options discounted by the applicant. The scheme remains as an office development with café at ground floor. No residential is proposed.</i>

8.0 RELEVANT PLANNING POLICIES AND GUIDANCE

8.1 In determining any planning application, the Council is required to have regard to the provisions of its Development Plan so far as is material to the application and to any other material considerations and the determination shall be made in accordance with the plan unless material considerations indicate otherwise. The Council's adopted Development Plan consists of the London Plan 2021, the Croydon Local Plan 2018 and the South London Waste Plan 2012.

8.2 The National planning Policy Framework (2021) and online Planning Practice Guidance (PPG) as well as the National Design Guide (2019) are material consideration which set out the Governments proprieties for planning and a presumption in favour of sustainable development. The following NPPF key issues are in particular relevant to this case:

- Building a strong, competitive economy
- Ensuring the vitality of town centres
- Promoting healthy and safe communities;
- Promoting sustainable transport;
- Making effective use of land;
- Achieving well designed places;
- Meeting the challenge of climate change, flooding and coastal change
- Conserving and enhancing the historic environment

8.3 The main policy considerations raised by the application that the Committee are required to consider are:

London Plan 2021

- GG1 Building Strong and Inclusive Communities
- GG2 Making Best Use of Land
- GG3 Creating a Healthy City
- GG5 Growing a Good Economy
- GG6 Increasing Efficiency and Resilience
- SD6 Town centres and high streets
- SD7 Town centres: development principles and Development Plan Documents
- SD8 Town centre network
- D2 Infrastructure requirements for sustainable densities
- D3 Optimising site capacity through the design-led approach
- D4 Delivering good design
- D5 Inclusive Design
- D7 Accessible Housing
- D8 Public Realm
- D9 Tall Buildings
- D11 Safety, Security and Resilience to Emergency
- D12 Fire Safety
- D13 Agent of Change
- D14 Noise
- H8 Loss of Existing Housing and Estate Redevelopment
- E1 Offices
- E3 Affordable workspace
- E11 Skills and opportunities for All
- HC1 Heritage Conservation and Growth
- HC3 Strategic and Local Views
- G5 Urban Greening
- G6 Biodiversity and access to nature
- G7 Trees and woodlands
- SI 1 Improving Air Quality
- SI 2 Minimising greenhouse gas emissions

- SI 3 Energy Infrastructure
- SI 4 Managing Heat Risk
- SI 5 Water Infrastructure
- SI 7 Reducing waste and supporting the circular economy
- SI 12 Flood Risk Management
- SI 13 Sustainable Drainage
- T1 Strategic approach to Transport
- T2 Healthy Streets
- T4 Assessing and mitigating transport impacts
- T5 Cycling
- T6 Car Parking
- T7 Deliveries, Servicing and Construction
- T9 Funding transport infrastructure through planning

Croydon Local Plan (CLP) 2018

- SP1 The Places of Croydon
 - SP3 Employment
 - SP4 Urban Design and Local Character
 - SP6 Environment and Climate Change
 - SP6.3 Sustainable Design and Construction
 - SP7 Green Grid
 - SP8 Transport and communications
-
- DM4 Development in Croydon Metropolitan Centre, District and Local Centres
 - DM10 Design and character
 - DM13 Refuse and recycling
 - DM14 Public Art
 - DM15 Tall and Large Buildings
 - DM16 Promoting healthy communities
 - DM 17 Views and Landmarks
 - DM18 Heritage assets and conservation
 - DM23 Development and construction
 - DM24 Land contamination
 - DM25 Sustainable drainage systems and reducing flood risk
 - DM27 Protecting and Enhancing our Biodiversity
 - DM28 Trees
 - DM29 Promoting sustainable travel and reducing congestion
 - DM30 Car and cycle parking in new development
 - DM38 Croydon Opportunity Area

Emerging Croydon Local Plan

8.4 The Croydon Local Plan is currently being reviewed. The review will update the vision and strategy for Croydon's growth up to 2039 and set out how the Council will continue to deliver much-needed new homes, jobs and community facilities. The emerging Croydon Local Plan was subject to regulation 19 consultation, which ran from the 6th January to the 17th February of this year. The Council are current reviewing the responses received. In officer's view, the emerging Croydon Local Plan, due to the

stage of adoption is has reached and need for further review, should carry very limited weight, and would not outweigh adopted policies.

Supplementary Planning Guidance:

- National Planning Practice Guidance (2021)
- Croydon Opportunity Area Planning Framework (2013)
- Croydon Council Fairfield Masterplan (2013)
- SPG 12: Landscape Design
- Mayor's Housing SPG (2016)
- Mayor's 'Be seen' energy monitoring LPG (2022)
- Mayor's Circular Economy Statement LPG (2022)
- Mayor's Whole Life-Cycle Carbon Assessments LPG (2022)

9.0 MATERIAL PLANNING CONSIDERATIONS

9.1 The main planning issues raised by the application that the Planning Committee are required are as follows:

1. Principle of Development
2. Townscape, Design and Visual Impact
3. Public Realm
4. Heritage and Local Views
5. Daylight Sunlight and Overshadowing
6. Microclimate
7. Quality of Office Accommodation
8. Highway Safety, Access and Parking
9. Waste, Delivery and Servicing
10. Trees, Landscaping and Biodiversity
11. Energy and Sustainability
12. Other Planning Matters
13. Conclusion

1. Principle of Development

Proposed uses

- 9.2 At the heart of the National Planning Framework 2021 (NPPF) is a presumption in favour of sustainable development which meets social, economic and environmental needs, and attaches great importance to significantly boosting the supply of new housing.
- 9.3 The site is within the Croydon Opportunity Area (OA) and Croydon Metropolitan Centre (CMC). London Plan Policies SD1, SD6 and EP1 support commercial development and intensification in opportunity areas and town centres. Furthermore, as stated within the Croydon Local Plan (CLP), one of the Council's strategic objectives is to establish Croydon as the premier business location in South London and the Gatwick Diamond.
- 9.4 Policy SP3 that encourages innovation and investment in the borough to support enterprise and increase employment. The proposed scheme would fit within this policy brief and would work towards the regeneration of the area and the employment of Croydon's people. SP3.11 goes on to state that the Council will promote and support measures to improve the quality of the borough's stock of office premises.

The proposed development would be high quality in terms of finish, use of materials, accessibility to public transport and wider public realm improvements. It is therefore considered acceptable and adheres to the Council’s vision and overarching strategic goals.

- 9.5 No. 96 George Street is allocated in the Local Plan for ‘*offices with residential development or hotel and/or retail (on George Street frontage)*’. No. 98 George Street is also allocated in the Local Plan, for ‘*redevelopment for residential and/or offices and/or retail (on George Street frontage)*’. Office use is therefore clearly supported, alongside the London Plan. The site allocations through the Local Plan give flexibility in terms of the combination of appropriate uses and it is considered offices with retail use (a café/restaurant/co-working space at ground floor) would comply with the allocation and are therefore acceptable in principle. This would also comply with the aspirations of the Fair Field Masterplan, which envisaged an active frontage onto George Street and College Square.

Loss of residential units

- 9.6 Policy SP2.2 if the CLP (2018) does not permit the net loss of residential units or residential land, in a similar way Policy H8 of the London Plan does not. The scheme would result in the loss of 6 existing residential units within St Matthew’s House (none within Norwich Union House so is not considered further). The units are privately owned, of poor quality and are currently unoccupied. The applicant has also advised that the units are not let due to their poor layout and quality and require full refurbishment. St Matthew’s House was constructed in the early 1970s, providing office use on the ground floor and residential accommodation on the 1st and 2nd floors. The existing residential accommodation is summarised in Table 1.

FLAT	BEDROOM COUNT	UNIT SIZE (sqm)
1	1	53
2	2	71
3	2	80
4	1	53
5	2	71
6	2	80
Ancillary	-	89
TOTAL	-	497

Table 1

- 9.7 In order to understand the potential for the existing flats to be refurbished, an Indicative Cost Model was provided. Whilst the report identifies the windows can be replaced (*at an estimated cost of £165,000*) to improve thermal efficiency the cost model makes it clear that this would not address the problems of poor daylighting, as the replacements would be “*within existing apertures due to constraints of existing fabric*”. It should be noted that officers have not been provided with daylight or sunlight values for the existing units, and therefore cannot corroborate this data and so give it limited weight. Similarly, the cost model makes it clear the allowance for fitting out the existing flats (*of £485,000*) will be unable to redress the deficiencies of the existing flat layouts “*due to constraints of existing fabric*”. It is also challenging to increase the floor to ceiling heights for the flats with the estimated likely costs exceeding £1m. The applicant states that the estimated cost makes refurbishment unviable (particularly given the uncertainty that the units would be capable of being let or sold at a reasonable market value even if the works are completed). The

argument put forward is that the existing residential units are not to current standards and refurbishment would not be a viable option. Officers see there is merit to this position and therefore give it weight as a material consideration.



Images 12 and 13: Internal images of flats

- 9.8 Further to comments from members at the Committee Developer Presentation and GLA Stage 1, officers raised concern about the lack of reprovision of residential floorspace. Therefore, the applicant has tested a potential mixed-use scheme incorporating residential. They have found it to create sub-standard units and compromise the office floor plates. The main findings were that the plan form would result in most of the units being single aspect, with a challenging mix of office and residential on the same floor plate. This has been illustrated below in Image 14. This would be undesirable and contrary to policy. Assuming a unit depth of 8 metres (to ensure suitable daylighting), this would require a full elevation and 2 partial 'return' elevations. The first-floor level would most likely be the most efficient level for any residential because of the need for extended circulation to reach higher levels. The southern elevation would seem most appropriate, but this would be above the commercial delivery and refuse area with a potential noise conflict if the residential is to have opening windows. As a result, it would also create approximately 150sqm of limited-quality, hard to access, windowless, commercial space adjoining the main core. Incorporating a residential entrance and lobby at ground floor would compromise the café and reduce the active frontage at ground level. Officers acknowledge that this exercise is limited to the form of office building proposed and that different site layouts could be explored that might work more successfully; however, officers give weight to the fact that providing a limited number of residential units within a predominantly office building is not without its challenges and could compromise aspects of the office element.

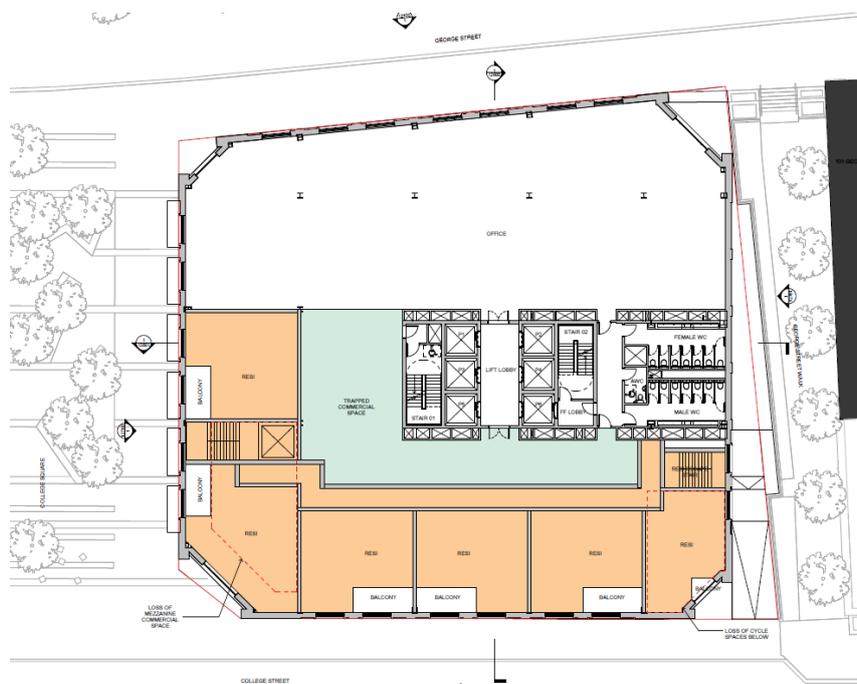


Image 14: Sketch arrangement of first floor residential plan

NOTE this is not currently proposed, merely testing an option to justify not re-providing residential units

- 9.9 Furthermore, it is critical to note that the allocation is for ‘offices with residential development or hotel and/or retail’ which gives a broad range of uses that this site can accommodate. Therefore, the site allocation does not require the re-provision of the residential units; the scheme coming forward can be offices with residential or hotel and/or retail. As a scheme for offices with retail it complies with the site allocation. As a consequence of compliance with the CLP allocation, officers are of the view a payment in lieu of on-site replacement housing is not justified, so it has not been secured in the s.106 legal agreement heads of terms above.
- 9.10 Although officers give significant weight to the loss of these 6 residential units, given the site allocation, quality of the existing units, neighbouring residential block, and upcoming development in the nearby area, it is considered that in this instance the loss of residential floor space is off set in the planning balance by the benefits of the scheme.

Loss of community facilities

- 9.11 Policy DM19.1 of the CLP (2018) protects community facilities, with their loss permitted where it can be demonstrated that there is no need for the existing premises or land or a community use and that it no longer can serve the needs of the community.
- 9.12 It has been confirmed that the ground floor was an office that was used by the Southwark Diocese. There is no planning history to suggest that it was a community facility and therefore no use to protect.

2 Townscape, Design and Visual Impact

Layout

- 9.13 The proposed layout has its main frontage off George Street with two further entrances off College Square. The main entrance is recessed and adds a sense of security, whilst appearing grand and welcoming onto the main frontage. There is a

further frontage onto College Square with double height glazing, awnings and a human scale leading to the public realm. The café looks out onto College Square along with having its entrance to the southwest of the building. The servicing and parking are tucked away to the rear of the site off College Road. The proposed layout is supported given its outward looking design interventions and suitable arrangement given the nature of the building. The proposed scheme is considered a significant improvement compared to the existing condition which, given land level changes, in effect has no active frontage to George Street or into College Square.

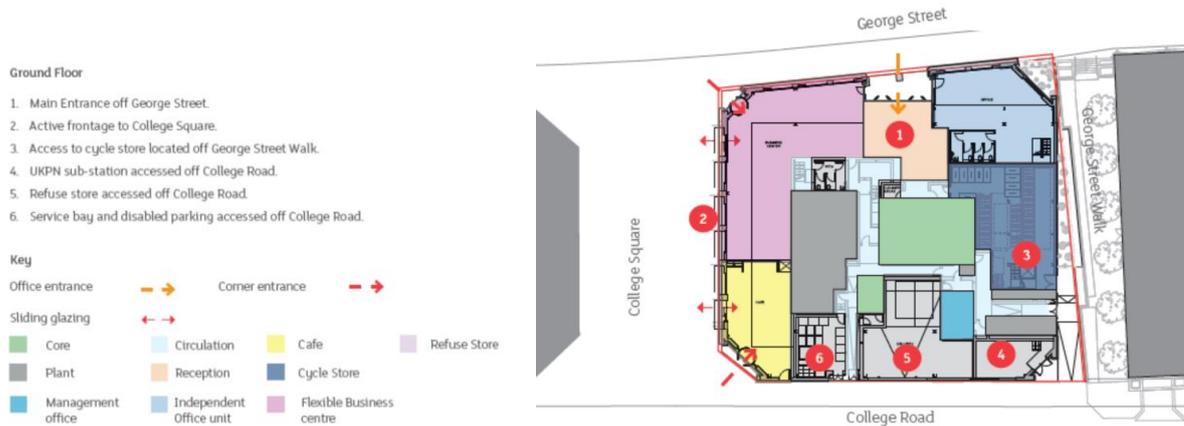


Image 15: Ground floor plan

9.14 The application site would be occupied by an 11-storey building with a central core, with College Square at its base (on the western side). The development almost entirely fills the site boundary, utilising chamfered corners for entrances, to encourage movement and reduces the perceived building mass. With the proposal broadly following the urban block set out in the Fairfield Masterplan, the principles that have been employed contribute to good urban design and place making.

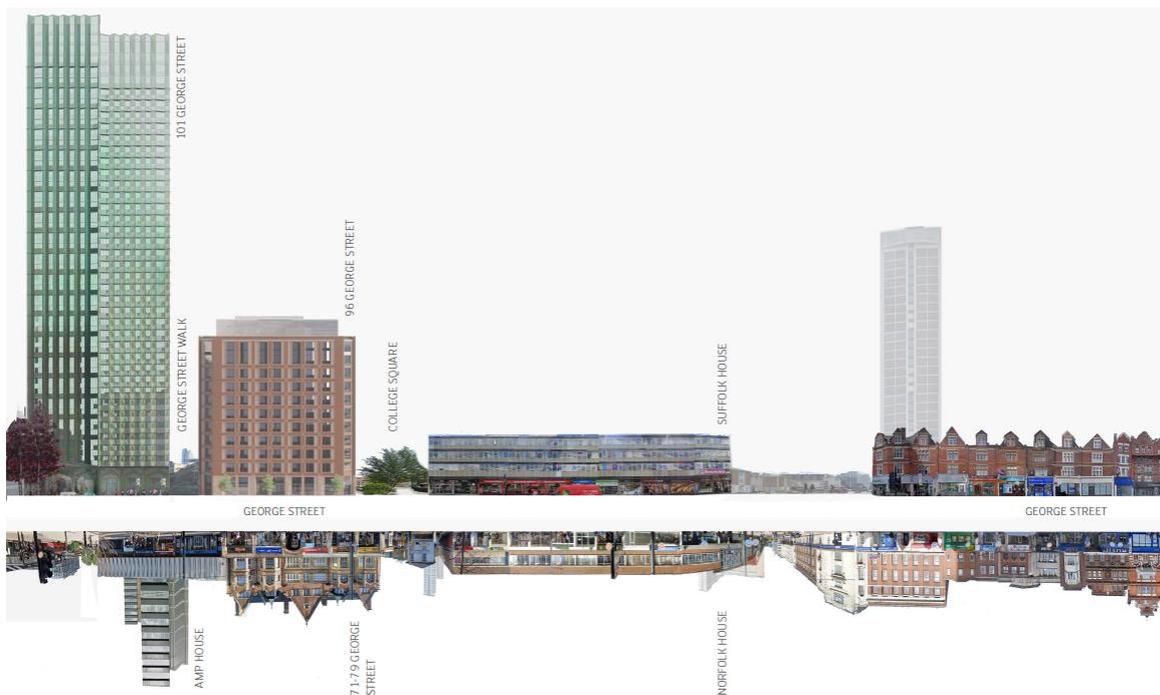


Image 16: Contextual North elevation

Height, Scale, Massing

- 9.15 London Plan Policy D9 is relevant as the scheme is for 11-storeys; it requires locations appropriate for tall buildings to be identified through the development plan (see below) and requires assessment of impacts from a visual, functional and environmental impact. All these aspects are considered throughout the various sections of this report. Policy SP4.5 of the Croydon Local Plan relating to tall buildings states that they will be encouraged only in the Croydon Opportunity Area, areas in District Centres and locations where it is in an area around well-connected public transport interchanges and where there are direct physical connections to the Croydon Opportunity Area, Croydon Metropolitan Centre or District Centres. The application site lies within the Croydon Opportunity Area and Croydon Metropolitan Centre and has an excellent PTAL, as such it is a site acceptable as a location for a tall building.
- 9.16 CLP Policy SP4.6 (and supported by DM15) states four criteria for tall buildings in order for them to be acceptable in these locations;
- a. Respect and enhance local character and heritage assets;
 - b. Minimise the environmental impacts and respond sensitively to topography;
 - c. Make a positive contribution to the skyline and image of Croydon; and
 - d. Include high quality public realm in their proposals to provide a setting appropriate to the scale and significance of the building and the context of the surrounding area.
- 9.17 The application site is located within the Edge Area of the Croydon Opportunity Area covered by policy DM38.4 of CLP (2018), where tall buildings can be acceptable subject to achieving a high-quality form, design and treatment and where negative impact on sensitive locations is limited. CLP Policy DM15 requires their location in PTAL4 and above, to be of exceptional quality, respond positively to nearby heritage assets and include active ground floor and inclusive public realm.
- 9.18 It is considered that the proposal building does comply with the above criteria, discussed in detail in the design and environmental impact sections of this report.
- 9.19 The building would be an intermediate height between the neighbouring Ten Degrees (100a George Street) and Suffolk House. The top 2 storeys are set back and accommodate the plant and rooftop communal amenity.
- 9.20 From a townscape perspective, the height, scale, and massing of the proposed building is appropriate for the evolving built environment of Central Croydon. The footprint and height have gone through several iterations during pre-application stage with officers and PRP. PRP requested the testing of an alternative model to justify the current scheme for its impact on the amenity of neighbouring buildings which has been submitted and is discussed further in this report. Officers conclude that the proposed building is appropriate and would enhance and enliven the immediate area.

Architectural design

- 9.21 The following comments will seek to focus on the composition, function, and fabric of the proposal in relation to the immediate and wider context, including response to heritage assets and the emerging Fairfield Cultural Quarter.

Composition

- 9.22 The applicant has demonstrated a good understanding of the site context and constraints in how the proposed building has been composed. The building has been arranged into three components: the plinth, middle and crown. This compositional structure responds to key contextual datum and wider townscape views to create an intermediate scale proposal.

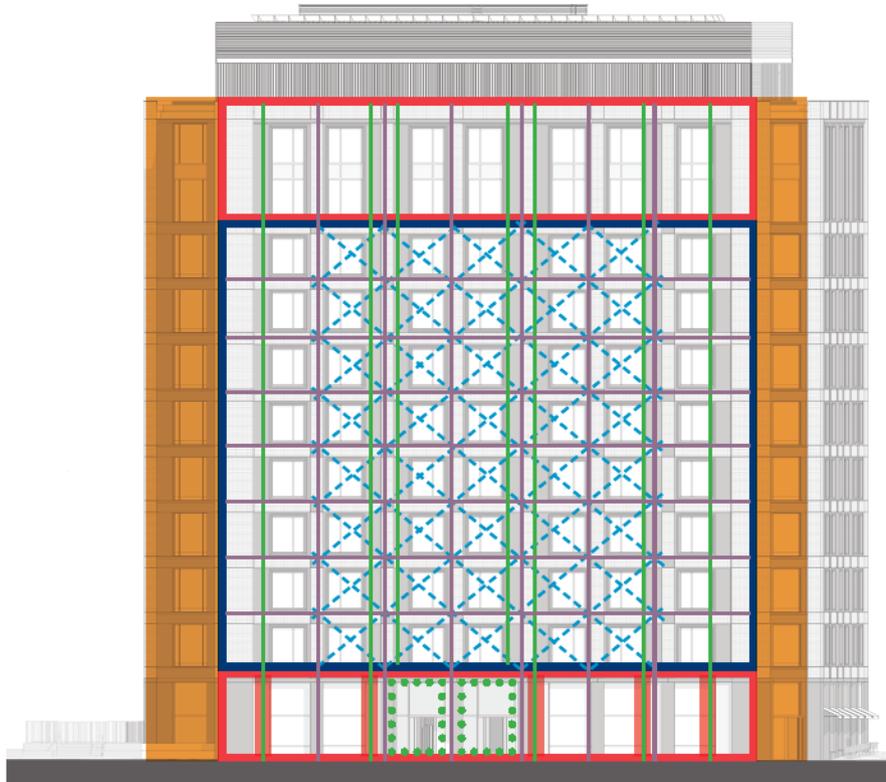


Image 17: 3 Key principles; Base, Middle and Top

- 9.23 The applicant has combined the ornamentation of the neighbouring 71-79 George Street and the rhythm of Croydon College with Croydon's mid-century modernism to create a 'weaved' façade. The weave is predominantly expressed through the 'middle' and is defined by a regular rhythm of windows and solid corners.

Function

- 9.24 The northern elevation has the main entrance from George Street, leading into the reception and business centre. The business centre would provide an overlap with the ground floor café which would enhance its activity and provide active frontages onto College Square. See image 2 above for a plan of the ground floor arrangement.
- 9.25 In the southwest corner of the ground floor layout, there is a café that opens into College Square. It is officers' ambition that the façade along College Square is as active as possible. Level changes across the site limit the number of accessible openings along the west façade, therefore the activities taking place internally are crucial. It is considered that the approach taken is acceptable to facilitate the main function of the building as an office space along with the ground floor as part publicly accessible.



Image 18: Indicative internal ground floor view

9.26 The core runs centrally through the building with facilities for the future occupiers. The layout is functional and organised into appropriate sections with informal break out space and the café towards College Square. The typical floors have a 'u-shaped' office plate, with the circulation core, services and toilets anchored to the eastern façade. The roof level has a communal garden on the south side and plant functions in the middle. Officers consider the arrangement and function acceptable.

Fabric

9.27 It is evident from the Design and Access Statement that the proposed materials and how they are being used has been given much consideration. Firstly, there are different treatments for the plinth, middle and crown each responding to a different function or context. The 'plinth' is grand yet simple, anchoring the building and creating a new sense of identity and quality, establishing an inviting surrounding for the new public realm space, College Square. The use of brickwork, concrete and window detailing gives a very human feel and scale to the office building, creating an inviting exterior.



Image 19: The Weave Base



Image 20: The Weave Middle



Image 21: The Weave Upper

- 9.28 The bays and material treatment of the 'middle' has been developed in line with this weaved concept and to offer depth to the façade. Weaving horizontal and vertical bands of brick around a precast concrete façade that is punctured by windows framed in a complementary tone of precast concrete. Finally, the crowning element is a simple form and material expression that encloses plant components to provide an elegant structure at the top of the lower elements.
- 9.29 The principal materials used are brick and precast concrete. The red brick would have subtle changes in tone and will vary from solid coursing in the horizontal banding to stretcher bonds use in the brick piers, where precast concrete nodes are used to give the weaving effect. The applicant has had discussions with officers at pre-application stage about the materials and the appropriate tonal palette. The window frames and crowning element are made up of anodised and stainless steel, in complementary tones.

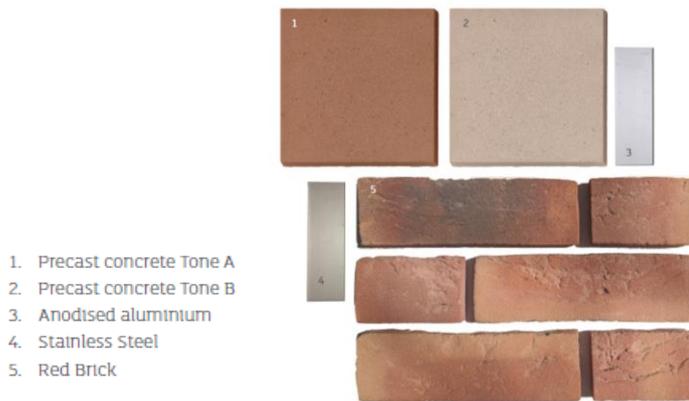


Image 22: Proposed Material Palette

- 9.30 As can be seen from image 19 above depicting the ‘The Weave Base’, where panels are proposed at the bottom of the building, public art options have been explored. The final public art scheme will require an in-depth selection process and for the applicant to write a public art strategy and implementation plan, before tendering to a selection of artists based on the criteria set. Officers request they are able to participate within this process and review final designs and samples of the selected artist. The lighting will have to work with and compliment all elements of the architectural expression and will be developed in collaboration with the emerging designs. Conditions are recommended accordingly, in addition to a minimum budget of £50,000 for the works being secured within the s.106 legal agreement.
- 9.31 Given the importance of the architectural approach being executed successfully and remaining compliance with London Plan policy D4, officers are recommending the ongoing involvement of the current scheme architects, secured through the s.106 legal agreement.

Summary

- 9.32 The design of 96-98 George Street brings together elements of the surrounding area and produces a successful addition within the Fairfield Master Plan and demonstrates good urban design principles. The resulting development has shown to adequately fulfil the Council’s tall buildings policy and contribute to the skyline, being mindful of the sensitive heritage assets in proximity of the application site (see section 4 below). The choice of materials, design detail, articulation and quality set a positive tone for future redevelopment in the area.

3 Public realm

- 9.33 The delivery of the public realm is integral to the overall success of the scheme given the building footprint maximises the site. High quality public realm helps to encourage future business, promotes wellbeing, encourages outdoor life, vitality, and cultural activity. CLP policy DM15 clearly stipulates that a tall building should be well integrated with the local area, should include at least an active ground floor and inclusive public realm. This is further supported by London Plan D8 that promotes high quality public realm and that the quality of public realm has a significant influence on quality of life and affects people’s sense of place, security and belonging. For this reason, the public realm, and the buildings that frame those spaces, should be attractive, accessible, designed for people and contribute to the highest possible standards of comfort, good acoustic design, security, and ease of movement.

- 9.34 During the course of the application officers requested a re-design of the public realm to better correlate with the brief that was given to the applicant at pre-application stage. The intentions were for the space to have a high-quality landscape design and materiality, to be playful and bold and to create an accessible space for all. The space would also be part of the Borough's 'green grid' network that nurtures and facilitates ecological/biodiversity corridors and networks, walking and cycling links and integrates public facilities, to create 'healthy streets' and lifestyles.
- 9.35 The re-design of College Square has been evolved with officers, with the final design aligned with the ambitious and high-quality public realm emerging within the Fairfield Cultural Quarter. The scale of College Square is relatively modest, but it is strategically important, offering a short cut and respite from George Street while also acting as an open-air foyer to Croydon College and the proposal. Its design has been generated through learning from the existing meanwhile use, observing how the square is currently used and in consultation with Croydon College management.

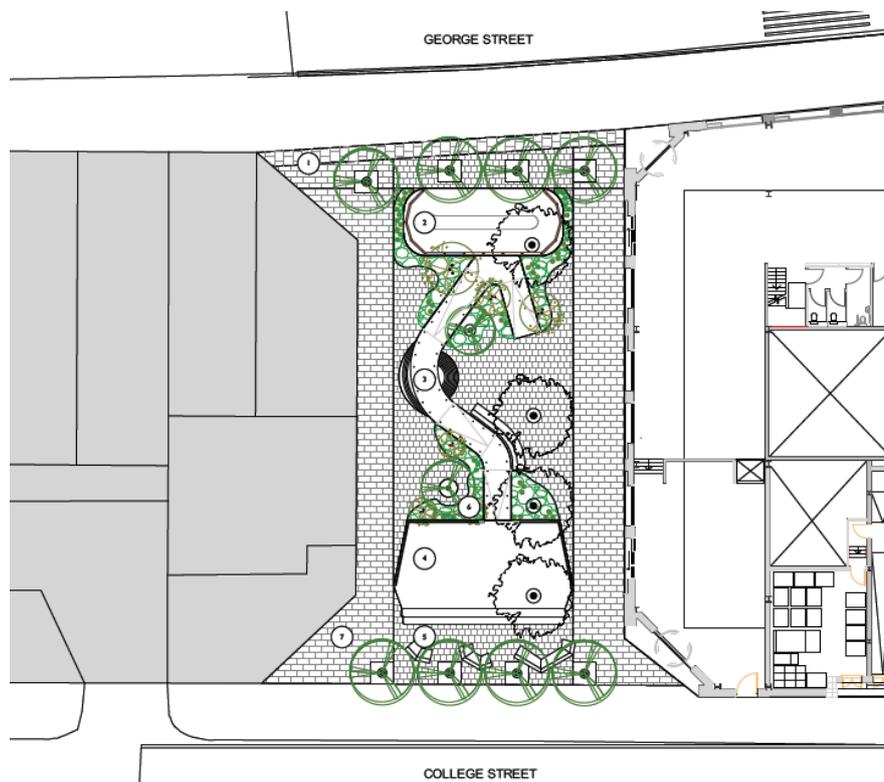


Image 23: College Square in plan, with the proposed building on the right

- 9.36 The public square now proposes three distinct but inter-linking areas, creating a north-south route whilst improving the setting for the proposed and existing buildings. Furthermore, the amenity for Croydon College would be enhanced by the new, inviting, and high-quality outdoor break out space.
- 9.37 College Square plays an important role by creating a pleasant route from George Street to the College but also enlivening the outdoor offer in the area. The key design elements were to create two outdoor 'rooms' with seating and a staged area that would be connected via a curving walkway. This aims to encourage formal and informal use for the community and the users of the buildings.

- 9.38 The existing trees would be retained (except for one failing tree) with the addition of new planting that would result in a biodiversity the enhancement. The ramped, middle section has been carefully designed to avoid anti-social behavior by understorey planting at the base. Overall, the materials, quality, and attention to detail within this relatively small space would contribute vastly to the immediate and surrounding area, whilst creating a key moment within the urban landscape for social interaction.



Image 24: View from College Road looking North towards George Street

- 9.39 The public realm works on College Square are outside of the red line boundary, within the Council's ownership (as highways land). These works would be secured through the s.106 agreement and subsequent s.278 highways agreement, which would need to be in place prior to the occupation of the building. Officers have had lengthy discussion over the delivery of the public realm and the applicant would be required to pay the Council the costs of delivery and ongoing maintenance costs. This would be dealt with through a s.278 highways agreement.

4 Heritage and Local Views

- 9.40 The Planning (Listed Buildings and Conservation Areas) Act 1990 requires (section 66) with respect to listed buildings, that special regard is paid to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. Regarding Conservation Areas (section 72), it requires special attention to be paid to the desirability of preserving or enhancing their character or appearance.
- 9.41 The NPPF (2021) places strong emphasis on the desirability of sustaining and enhancing the significance of heritage assets and affords great weight to the asset's conservation. At paragraph 199 it states that:

“great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be)... irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm”

- 9.42 Any harm to a designated heritage asset, including from development within its setting requires “clear and convincing justification”, with less than substantial harm weighed against the public benefits delivered by the proposed development.
- 9.43 Policy DM18 of the CLP permits development affecting heritage assets where the significance of the asset is preserved or enhanced. CLP Policy SP4 requires developments to respect and enhance heritage assets. Further to this London Plan Policy HC1 states that developments should conserve historic significance by being sympathetic of the assets’ significance and setting along with HC3 that protects strategic and local views. This policy goes on to state that new development can make a positive contribution to the views, and this should be encouraged. Both heritage assets and views are addressed in the following paragraphs.
- 9.44 There are no heritage assets on the site, but there are number of heritage assets in the area that could be affected. A thorough heritage analysis has been undertaken and this, in conjunction with the townscape and views analysis within the Heritage, Townscape and Visual Impact Assessment document, is sufficient to understand the likely impact on the setting of local heritage assets.

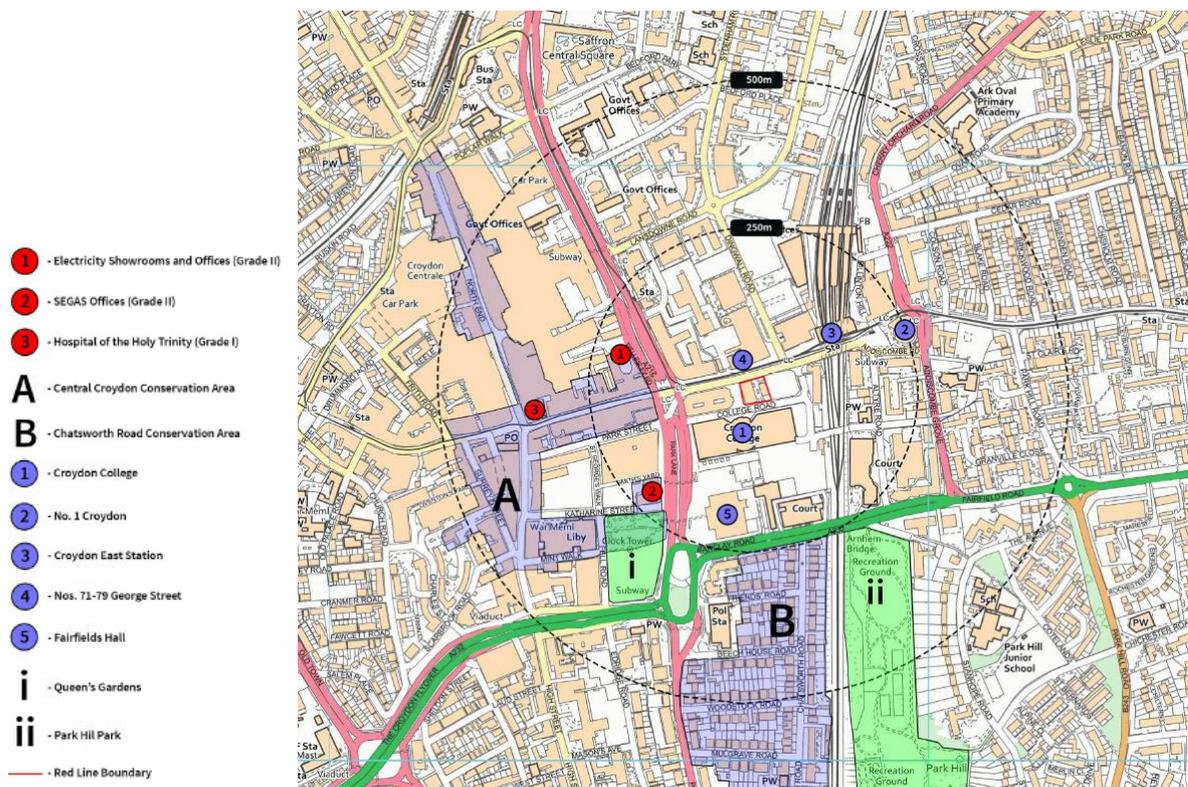


Image 25: Heritage Asset Plan

Conservation Areas (CA)

- 9.45 The most easterly boundaries of the Central Croydon CA are less than 250m to the west of the application site. The CA is the commercial and civic heart of Croydon and comprises five-character areas, with a significant number of statutory and locally listed buildings from several architectural period and styles. The Grade II Segas Offices, Municipal Buildings, Union Bank Chambers, Ship Public House, Natwest

Bank and Electricity Showrooms and Offices, as well as the Grade II* Croydon War Memorial are all within the CA.

- 9.46 Tall, contemporary buildings are already visible in views from the CA, and this is demonstrated in Viewpoint 6 (Whitgift Alms Houses), 7 (Park Street/Park Lane) and 10 (Queen’s Gardens). From Viewpoint 6 the proposal development would barely be visible as it is dominated by Ten Degrees (100a George Street). This is also the case for Viewpoints 7 and 10 where Ten Degrees is the more dominant structure.

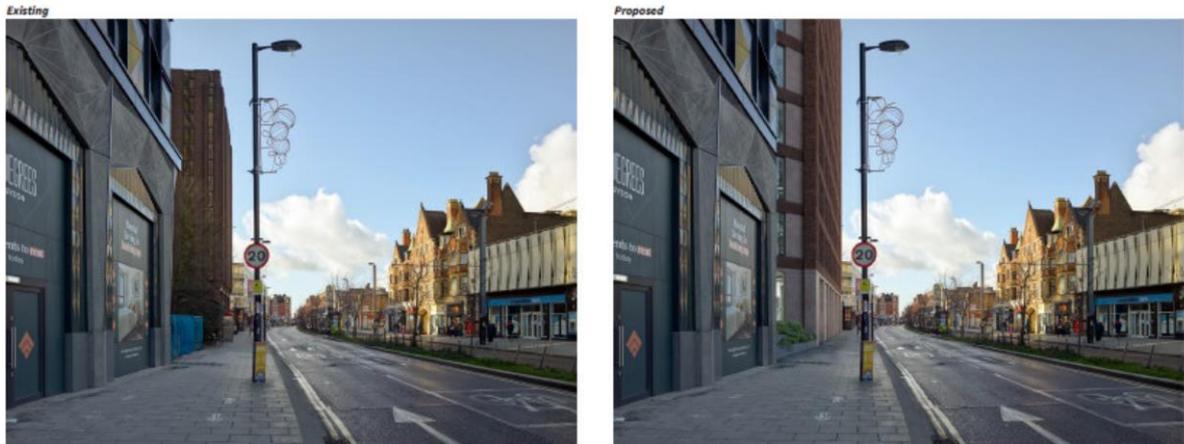


Image 26: View No. 2 - George Street looking west: Existing and Proposed

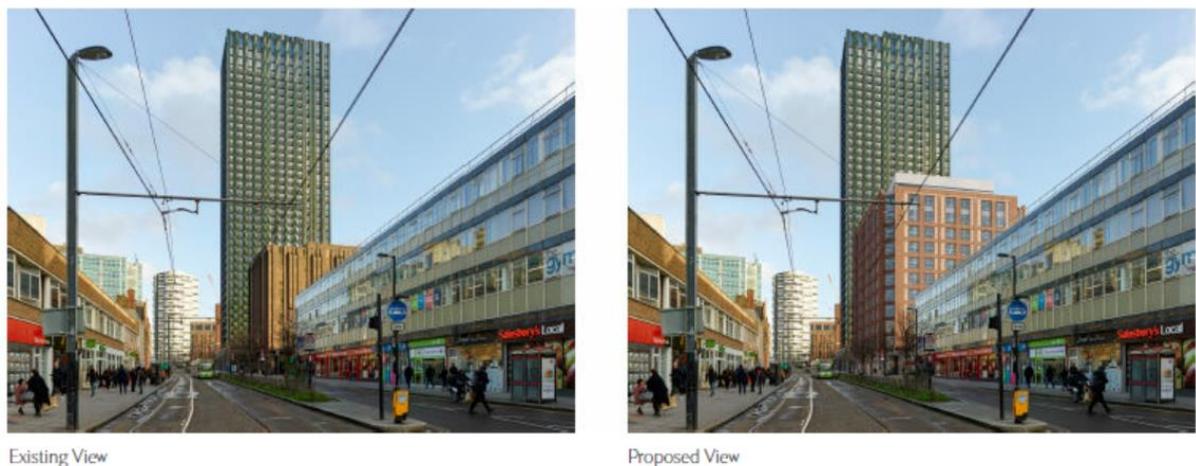


Image 27: View No. 5 – George Street looking east: Existing and Proposed

- 9.47 Queen’s Gardens is also within the Central Croydon CA and surrounded by several tall buildings. The proposed building would be to the northeast of the Garden’s as part of a cluster of existing buildings on George Street. It is considered that no harm would be caused to the setting or significance of the Gardens.
- 9.48 Chatsworth Road CA is approximately 250m to the south of the site, home to Victorian and Edwardian properties of which 15 are locally listed. As above, given that Ten Degrees (100a George Street) dominates the skyline the proposed building does not amount to any additional harm on the CA.

Statutory and locally listed buildings

- 9.49 The scale of the proposed building is modest in comparison to the directly adjacent tower at Ten Degrees (100a George Street), so it is concluded that the buildings

identified above would not be harmed in terms of their significance. Given the overall quality of the scheme is it considered that their setting would be enhanced.

- 9.50 When viewed from Viewpoint 11 (Barclay Road) over Croydon College, it shows that presently the existing building on the application site along with Ten Degrees (100a George Street) and others of varying heights appear in the background. When assessed with the new proposal, only Ten Degrees and the proposed building would be visible in the background which is thought of as improvement on the existing condition, giving the College a better backdrop. 71-79 George Street is not considered to be harmed by the proposed scheme. Notwithstanding the increase in height, no significant change to the setting would result.



Image 28: Viewpoint 11 Barclay Road

- 9.51 CLP Policy SP4.2 (b) and DM17 requires development to protect Locally Designated Views, Croydon Panoramas, the setting of Landmarks and other important vistas and skylines. This is reinforced by Policy HC3 of the London Plan where the Mayor stipulates that new development can make a positive contribution to the views and this should be encouraged, but where development is likely to compromise the setting or visibility of a key landmark it should be resisted. The Council will consider the proposed development in relation to its impact on protected Local Designated Views such that developments should not create a crowding effect around, obstruct, or appear too close or high in relation to any Local Designated Landmarks identified in the Local Designated View. As noted in image 26 and 27, the locally designated view is protected and enhanced by the high-quality development that is proposed. It is not anticipated that there would be a cumulative negative impact or create a sense of overcrowding.
- 9.52 It is concluded that there would be no harm on the significance of the nearby heritage assets and Conservation Area. Notwithstanding, were members to come to a different view, as per paragraph 202 of the NPPF (2021), where a development proposal will lead to less than substantial harm, this harm should be weighed against the public benefits of the proposed building. For the avoidance of doubt, the proposed scheme does offer several public benefits, redevelopment of an underutilised site, a new high-quality office building, creation of jobs, improvements to the transport network and

public realm, improved active frontage and realising the Council aspirations that align with CLP 2018 and Fairfield Master Plan.

5 Daylight, Sunlight and Overshadowing

9.53 CLP Policy DM10.6 states that the Council will not support development proposals which would have adverse effects on the amenities of adjoining or nearby properties or have an unacceptable impact on the surrounding area. This can include a loss of privacy, daylight, sunlight, outlook, or an increased sense of enclosure. There are several buildings surrounding the site requiring. This aligns with the requirements of Policy D9 of the London Plan in relation to tall buildings.

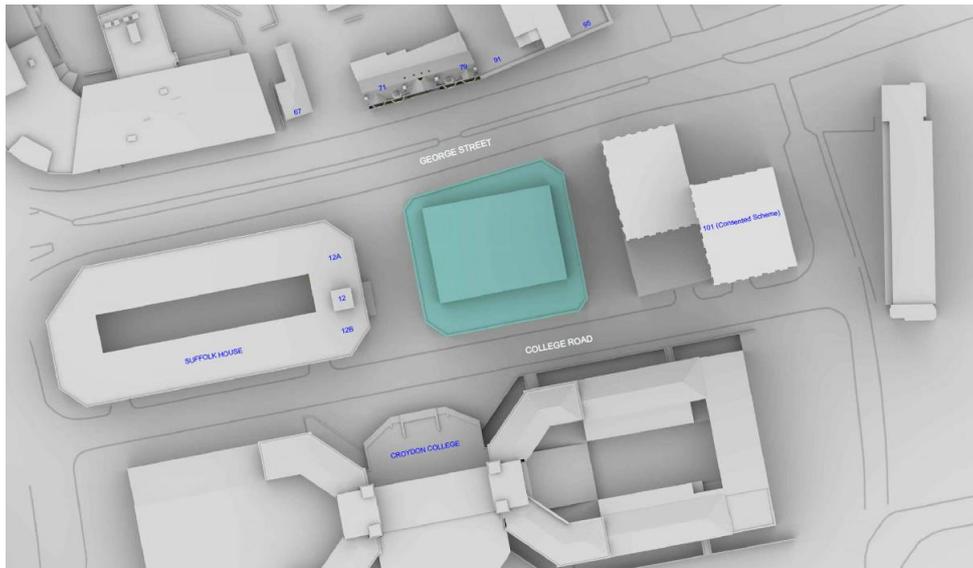


Image 29: Aerial CGI of the proposed site and buildings that have been assessed which include 67, 71, 73, 75, 79, 100a George Street (Ten Degrees)

9.54 Daylight impacts on the relevant neighbouring buildings have been assessed with tests for Vertical Sky Component (VSC) and No Sky Line (NSL). Average Daylight Factor (ADF) tests have been utilised where windows have not achieved BRE compliant VSC values to give a further indication of the daylight impact experienced. This has been carried out for Ten Degrees as this building would be the most affected. Sunlight has been assessed against the Annual Probable Sun Hours (APSH). See Appendix 2 for terms, in relation to the 2011 BRE 'Site Layout Planning for Daylight and Sunlight'.

9.55 Guidance suggests that if the VSC percentage difference is less than 27% and less than 0.8 times its former value then there would be an adverse effect. However, the BRE guidance allows alternative target values and an appropriate degree of flexibility particularly to higher density development, in opportunity areas, town centres, large sites, accessible locations and allocated sites. It is considered this is the case here and that the BRE standards should be applied flexibly, endorsed by the Mayor's Housing SPG (2016).

9.56 The Daylight, Sunlight and Overshadowing report covers the potential impacts of the proposed scheme on neighbouring buildings. The buildings that have been assessed are as follows and can be located on the image above:

- 67 George Street

- 71 George Street
- 73 George Street
- 75 George Street
- 77 George Street
- 79 George Street
- 100a George Street (referred to in this report as Ten Degrees and as 101 George Street within the planning documents)

67 George Street

9.57 67 George Street was in use as a funeral parlour with residential above and is located to the north of the application site. The property was granted permission to be demolished via prior approval on 07.02.2020. However, for completeness, all windows and rooms will meet the BRE criteria for VSC, NSL and APSH.

71-79 George Street

9.58 71-79 George Street are located to the north of the application site, with retail on the ground floor level and residential above. Nos. 71, 73, 77 and 79 have rooms that are served by bay windows. Paragraph 2.2.6 of the BRE guidelines state that *“for a bay window, the centre window facing directly outwards can be taken as the main window”*. Whilst the effect to the secondary windows has been assessed for completeness, the central panes should be considered the main windows.

71 George Street

9.59 It is noted that the proposed development will cause some changes to the daylight that do not meet guidance however this would be very marginal and are expected within an urban setting. The results of the VSC analysis demonstrate that 2 out of 7 habitable windows assessed will meet the BRE guidance. 3 of the remaining windows are main central panes of bay windows that experience minor adverse reductions of between 20.37-21.07% so only fall marginally short of the BRE criteria. The remaining 2 windows (W3/81 and W3/82) are secondary bay windowpanes that experience moderate adverse reductions of between 31.17-34.09%.

9.60 The NSL results demonstrate 1 out of 3 habitable rooms meet BRE criteria. The remaining 2 rooms are located at 1st and 3rd floor and experience minor reductions of between 20.2-26.7% so again, will only fall marginally below guidance.

9.61 For sunlight, all southerly oriented rooms will comfortably meet BRE criteria for APSH, retaining at least three times the BRE recommendations for winter sun and at least double the recommendations for annual sun.

73 George Street

9.62 The VSC results indicate that 3 out of 10 habitable windows assessed will meet the BRE criteria as a result of the development. 4 of these are central bay windowpanes that experience minor adverse changes of between 26.79-27.88% so are only marginally short of achieving the BRE criteria. The remaining three windows (W6/81, W6/82 and W5/83) are secondary panes that experience moderate adverse changes of between 33.56-34.57%.

9.63 The results of the NSL analysis demonstrate that each of the three rooms assessed will fall short of guidance. The relative reductions to these rooms are between 26.5-33.6% so are moderate adverse at worst.

9.64 For sunlight, all southerly oriented rooms will comfortably meet BRE criteria for winter and total APSH.

75 George Street

9.65 The results of the VSC analysis demonstrate that 4 of the 14 windows assessed meet the BRE criteria. The remaining 10 windows experience relative reductions that range from 32.18-40.07% (so between moderate and major adverse impact) with six of these retaining circa 15% VSC or more which is generally accepted in urban opportunity areas. The remaining four windows experience relative reductions of between 32.4-39.08% (moderate adverse impact) and retain slightly lower levels of VSC (12.34-14.17%). However, their access to daylight from an easterly direction is obstructed by the larger Ten Degrees development. This means these windows are more reliant on daylight from across the application site.

9.66 For NSL, 1 of the 7 habitable rooms assessed met the BRE guidance. Of the remaining rooms, 3 experience minor to moderate adverse changes of between 28.1-31.1%. The remaining 3 experience more noticeable major adverse changes (48.1-54.0%), however these are located in closer proximity to Ten Degrees so the limiting effect of this development is more pronounced.

9.67 For sunlight, all southerly oriented rooms meet BRE guidance for winter and total APSH.

77-79 George Street

9.68 77 and 79 George Street are in the closest proximity to Ten Degrees and therefore the limiting effect of this development is most noticeable to these properties. This can be demonstrated by considering the existing VSC levels which are each below the BRE recommended 27% VSC in the existing conditions, despite predominantly overlooking the lowest rise part of the Site.

9.69 The VSC assessment demonstrates that all 17 windows assessed will fall short of the BRE criteria with changes between minor to major adverse impact ranging from 22.02-53.2%. 10 of these windows are secondary windows within bay windows and are therefore not considered 'main' windows. The remaining 7 windows will retain between 10.24-13.74% VSC. As stated above Ten Degrees increases the burden and causes them to be disproportionately reliant on daylight from across the application site.

9.70 The NSL values in each room fall short of the BRE criteria and will experience changes of between 44.2-65.9%, so major adverse impacts. As above, Ten Degrees plays a critical role in the shortfall that is experienced as a result of the proposed development. It is evident that the proposed scheme is a far more modest scheme than its neighbour at Ten Degrees and that any tall building development on this allocated site is likely to result in similar reductions.

9.71 For sunlight, all southerly rooms will meet the BRE criteria for winter and total APSH.

9.72 Overall, whilst the development will give rise to some noticeable changes in daylight that do not meet BRE guidance, these are in part as a result of the recently constructed Ten Degrees development which blocks a large portion of the sky visibility from these windows, making them more sensitive to changes in massing on the application site. Considering the opportunity area location, evolving urban

context, the fact the site is allocated for redevelopment and the policy steer to apply application of the BRE guidance flexibly, no objection is raised.

Ten Degrees (100a George Street)

- 9.73 Ten Degrees has recently been constructed to the east of the application site. All tests have been carried out using planning application drawings found within application ref: 17/04201/FUL. The building is a residential development and is currently occupied. It is important to note that Ten Degrees has several single aspect units that overlook the application site and so it is clear that these units would bear the brunt of any impact from the proposed development. The rooms that officers have most concern for are those that are open plan living, kitchen, dining rooms that overlook the application site. It is also important to note that paragraph 2.2.3 of the BRE states that; *“another important issue is whether the existing building is itself a good neighbour standing a reasonable distance from the boundary and taking no more than its fair share of light”*. It is clear that as a result of the proximity, urban location and unneighbourly windows, single aspect units that face across the development site, there will be a considerable burden on these specific units.
- 9.74 Average Daylight Factor (ADF) has been assessed for Ten Degrees given the major failures found in VSC and NSL values as shown in Table 2. This is the most detailed of the daylight calculations and considers the physical properties of each room including room size, internal reflectivity, window transmittance and window size as well as external obstruction to skylight. A minimum ADF of 1% for bedrooms, 1.5% for living rooms and 2% for kitchens is recommended.
- 9.75 The assessment of Ten Degrees involved 182 rooms that directly face towards the application site. This is made up of 84 bedrooms, 84 living/kitchen/dining rooms (LKDs) and 14 living/dining rooms (LDs). With the application site in the existing condition, the assessment demonstrates that 168 of the rooms assessed (92%) will meet the minimum ADF criteria for their room uses. This can be broken down into all 84 bedrooms, 70 LKDs and all 14 LDs.
- 9.76 The construction of the proposed development would result in 158 of the rooms assessed (87%) meeting the minimum recommended ADF levels for their room use. This can be broken down into all 84 bedrooms, 67 LKDs and 7 LDs.
- 9.77 In total, 10 additional rooms will fall short of the ADF targets because of the proposal. 3 of these are LKDs that will experience absolute changes in ADF of 0.3% and will retain between 1.3-1.4% ADF so would only be left slightly below the recommended 1.5% ADF target for living rooms. This is noted as a good level of daylight for an urban context, particularly within designated development areas. It is also worth noting that the remaining LKDs that fall short of guidance will not experience any change from that experienced in the existing conditions. The remaining 7 additional rooms are single aspect LDs that directly overlook the site. These experience absolute reductions in ADF of between 1-1.2% and retain between 1-1.4% ADF. Whilst the changes to these rooms will be more noticeable, the retained daylight levels are relatively common for schemes in urban environments. Each of these rooms are heavily reliant on light from across the application site.
- 9.78 For sunlight, 157 of 182 southerly orientated rooms assessed will meet the BRE criteria for winter and total APSH. 9 of these rooms are in use as bedrooms which paragraph 3.2.3 of the BRE recognises are *‘less important’* for sunlight. A further 7

rooms are the single aspect LD rooms, however these would each meet the recommendations for winter sun (retaining at least 8%) but fall marginally short for total APSH, retaining between 17-22%. The remaining 9 rooms are LKDs that will fall slightly short of guidance, retaining 3% winter sun and between 19-28% annual sun.

9.79 The table below summaries compliance and failure in terms of VSC, NSL and APSH.

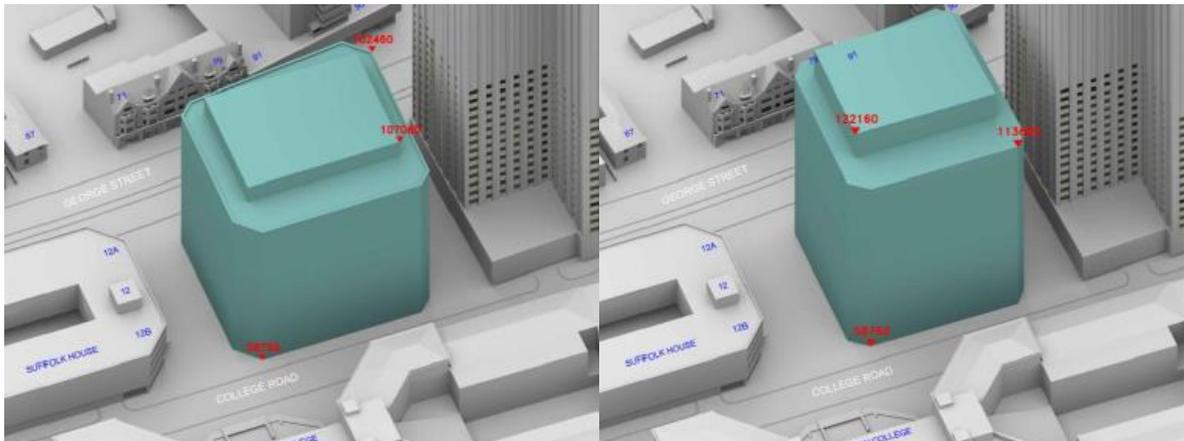
Address	VSC	NSL	APSH
67 George Street	Meets	Meets	Meets
71 George Street	2 of 7 Meets 3 Minor 2 Moderate	1 of 3 Meets 2 Minor	Meets
73 George Street	3 of 10 meets 4 Minor 3 Moderate	3/3 fall short 2 Minor 1 Moderate	Meets
75 George Street	4 of 14 Meets 9 Moderate 1 Major (40.07% loss)	1 of 7 Meets 2 Minor 1 Moderate 3 Major (48.1-54%)	Meets
77-79 George Street	17/17 fall short 3 Minor 2 Moderate 12 Major (42-53% loss)	6/6 fall short 6 Major (44.2-65.9%)	Meets
Ten Degrees (100a George Street)	193 of 294 meets 21 minor 14 moderate 66 Major 14 (above 70% loss reaching 75% decrease)	143 of 182 meets 9 minor 8 moderate 22 Major (16 above 60% loss)	158 of 182 meet Total APSH (174/182 meet Winter APSH) 10 bedrooms 7 single aspect rooms retain 17-22%

Table 2: Summary of Daylight, Sunlight impacts on neighbouring buildings

9.80 It is an important factor that the site is brownfield, allocated and within the OAPF, so there is a degree of expectation that a building of height would come forward. Compared to the Ten Degrees scheme adjoining, the 11-storey proposal is relatively modest. Officers challenged the applicant to explore whether a taller building set further from the boundary would have an improved daylight and sunlight impact to adjoining premises. This alternative scheme was discussed at pre-application stage, where the building was set further away from Ten Degrees with a smaller footprint, taller and slenderer.

Alternative Scheme

9.81 For completeness officers requested further assessment of all the affected habitable rooms within Ten Degrees with the alternative scheme, given that they are the worst affected units.



Proposed

Alternative

Images 30 and 31: Proposed scheme (l) with alternative scheme assessment (r)

9.82 In total 586 windows serving 311 habitable rooms have been assessed for daylight and 207 southerly oriented rooms assessed for sunlight within the neighbouring properties. The summary table below shows that the proposed scheme would result in more windows and rooms meeting the BRE criteria for each assessment. In summary, 62 additional windows meet VSC, 17 additional rooms meet NSL and 19 additional rooms meet APSH when compared against the alternative scheme. (NB: tables and images below references 'pre-app scheme' as it is the same as the proposed development being assessed).

Daylight

VSC	No. of Windows Tested	No. of windows meeting BRE	
		Pre-App Scheme	Alternative Scheme
	586	340 (58%)	278 (47%)

NSL	No. of Rooms Tested	No. of rooms meeting BRE	
		Pre-App Scheme	Alternative Scheme
	311	238 (77%)	221 (71%)

Sunlight

APSH	No. of Rooms Tested	No. of rooms meeting BRE	
		Pre-App Scheme	Alternative Scheme
	207	182 (88%)	163 (79%)

Table 3: Daylight/Sunlight comparison table

9.83 Officers main concerns (which were also raised at PRP and Committee) was the impact of the proposed scheme on Ten Degrees given the marked reduction in VSC and NSL. Given that the application site is identified for development, unneighbourly impacts from Ten Degrees must be given an on-balance assessment. Therefore, testing an alternative scenario provided a better evidence base to complete this assessment. The below diagram shows that the taller, slender building would have more of an impact on the living conditions of the occupants of Ten Degrees and it gives weight to the on-balance acceptability of the proposed scheme.

9.84 All windows/rooms that meet the BRE criteria are shown in green, those that fall marginally short of guidance (20% to 30% relative reduction) are shown in amber and reductions of greater than 30% are shown in red.

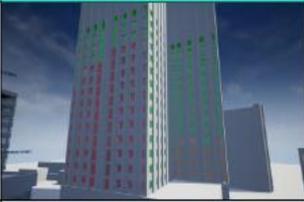
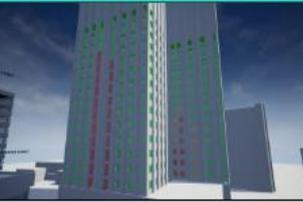
		VSC	NSL	APSH
Pre-App Scheme	Location of windows/rooms that meet or do not meet BRE criteria			
	No. meet BRE	193/294 (66%)	143/182 (79%)	157/182 (86%)
Alternative Scheme	Location of windows/rooms that meet or do not meet BRE criteria			
	No. meet BRE	133/294 (45%)	124/182 (68%)	138/182 (76%)

Image 32: Ten Degrees VSC, NSL and APSH

9.85 The image above shows that 60 additional windows would not meet VSC, 19 additional rooms would not meet NSL and 19 additional rooms would not meet APSH. The alternative scheme would affect more units compared with the proposed scheme.

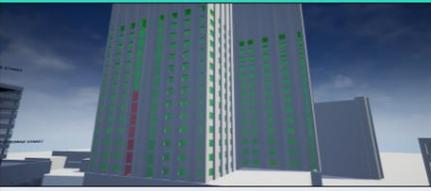
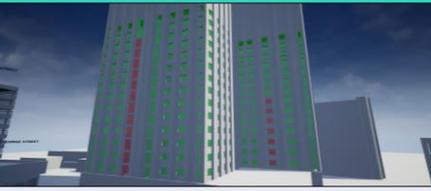
		Pre-App Scheme	Alternative Scheme
ADF	Location of rooms that meet or do not meet BRE criteria		
	No. meet BRE	175/182 (96%)	163/182 (90%)

Image 33: Ten Degrees ADF

9.86 In terms of loss of light, the alternative scheme should give rise to 12 additional rooms falling short of BRE guidance when compared to the proposed scheme. Given the scale of development proposed, it is important to note that Ten Degrees retains a good overall level of VSC, NSL and APSH and only a small proportion of the overall units are affected. It is therefore concluded that the proposed scheme is appropriate and is a more favourable form of development on the application site than a more slender, taller building.

9.87 The proposed development would clearly result in some daylight and sunlight impacts for surrounding properties, most notably for occupiers of 75-79 George Street and Ten Degrees. In the vast majority of instances where impacts beyond BRE guidelines occur, the impact would be considered to be minor adverse in nature, with daylight levels already challenging in the location given the existing situation and relationship with surrounding buildings. It should be noted that daylight impacts for surrounding properties beyond BRE guidelines are inevitable in an urban context such as this. Considering the opportunity area location, evolving urban context, the fact the brownfield site is allocated for redevelopment and the policy steer to apply application of the BRE guidance flexibly, when balancing the benefits against the harm of these impacts, officers raise no objection.

- 9.88 Officers note that an updated 2022 version of the BRE 'Site Layout Planning for Daylight and Sunlight' has recently been published. An addendum report was provided by the applicant, which confirmed there to be no change to the scope of assessment requirements for daylight and sunlight testing, with the principal focus remaining on residential amenity. Commercial office buildings remain excluded from assessments in line with industry standard practice. In terms of Ten Degrees, the daylight and sunlight assessments focused primarily on the ADF form of assessment, which was previously the principal daylight methodology for assessing new dwellings and has been superseded. Given the Ten Degrees development was consented on the basis of the ADF methodology in terms of the quality of light within those new units, officers agree that it remains a valid approach as it will enable a 'like for like' comparison to be made between the existing and proposed site conditions. Officers therefore accept that there is no requirement for any further technical analysis or alterations to the existing daylight, sunlight and overshadowing assessments.
- 9.89 Given the separation distances to the north, west and south, there would be no impacts in terms of overlooking, loss of privacy or visual intrusion. In terms of Ten Degrees to the east; the scheme would abut the boundary as the existing building at 98 George Street currently does, with a 7m separation and would contain the core on the eastern flank, located centrally. Furthermore, given the office use in the CMC location in the Fairfield Masterplan, the relationship would be appropriate.
- 9.90 The proposed public realm and office building is likely to result in some light pollution especially given its proximity to residential units. To avoid excessive light pollution, a condition is recommended requiring details of external lighting, including details of how it would minimise light pollution.

6 Microclimate

- 9.91 Paragraph 6.71 of the Croydon OAPF states that new buildings, in particular tall buildings, will need to demonstrate how they successfully mitigate impacts from micro-climate conditions on new and existing amenity spaces. In particular, new tall buildings in the COA will need to show how their designs do not have a negative impact on wind (downdrafts and wind tunnelling), aligning with Policy D9 of the London Plan 2021.
- 9.92 A wind tunnel assessment of the impact on the local microclimate was undertaken. The wind tunnel assessment was revised in light of the revised public realm scheme and to clarify matters in relation to the cumulative scenario. It tested four scenarios; existing site condition (scenario 1), existing site with future surrounds (scenario 2) proposed with existing surroundings (scenario 3) and proposed with future surroundings (scenario 4). This is needed given the number of consented and/or proposed developments in the vicinity of the site and to fully understand the implications of the scheme in conjunction with all surrounding built form.

9.94 The existing site with future surrounds indicate that wind conditions do exceed the safety criteria at three locations (points 36 to 38). This presents a safety risk for pedestrians, especially to more vulnerable members of the public. Away from these locations, the wind conditions are safe for pedestrian activities throughout the year. In terms of pedestrian comfort, the wind microclimate at points 32, 36, 38 and 53 exceed the comfort criterion for intended pedestrian activity of strolling during winter. All the remaining locations within the site and surrounds are suitable for intended pedestrian activities throughout the year. Apart from point 53, the wind conditions at neighbouring roads of the proposed site are suitable for cyclist and pedestrian use throughout the year. The wind conditions at the bus stop (point 34) are suitable for standing during the winter season. During the summer season, the wind conditions at College Square is suitable for stationary activities of standing and sitting.

Scenario 3 (proposed site with existing surroundings)

9.95 The proposed development with the existing surrounds and landscaping indicates that the wind conditions at all the locations are rated as safe for pedestrian use at the site and surrounds. It is important to note that the unsafe conditions that occurred for the existing site conditions are improved and are rated as safe by the presence of the scheme. All the areas of the site and surrounds are safe for pedestrians and cyclists use throughout the year. In terms of pedestrian comfort, at ground level the wind conditions at points 11, 34, 36, 37, 38, 39 and 50 exceed the comfort criterion for strolling during the worst season (winter). It should be noted that similar exceedances are also observed for Scenario 1 (existing site condition). The wind conditions at point 50 exceed the comfort criterion for strolling during the worst season, whilst noting similar exceedances are also observed for Scenario 1. Away from this location, the wind conditions on the neighbouring roads are suitable for cyclist use throughout the year.

9.96 In terms of the site itself, the wind microclimate outside the entrance (point 6) marginally exceeds the comfort criterion for entrance use by occupants/visitors during winter. The proposed revolving door for this location is expected to provide shelter at this entrance, so no additional mitigation is necessary. The wind microclimate outside the other proposed entrances (points 1, 2, 4, 5 and 7) are suitable for occupant/visitors use throughout the year. With the presence of the landscaping scheme, all areas in College Square are suitable for intended pedestrian activities of sitting and/or standing in the summer season. No further mitigation measures are therefore necessary. Wind microclimate conditions on the terrace (points 58 and 59) marginally achieve the comfort criterion for sitting during the summer season, so additional mitigation measures are beneficial. These would be secured through condition.

9.97 The wind conditions in the surroundings mostly remain the same as the existing site conditions. Whilst pedestrian comfort levels at points 34, 37 and 50 get marginally worse as a result of the development, the wind conditions at points 11, 12, 13, 18, 32, 36, 38, 39, 54, 63 and 66 are improved by the presence of the scheme.

Scenario 4 (proposed site with future surroundings)

9.98 The proposed site with future surroundings indicate that wind conditions do exceed the safety criteria at two locations (points 37 and 38). This presents a safety risk for pedestrians, especially to more vulnerable members of the public. Apart from these locations, the wind conditions are safe for pedestrian activities throughout the year. In terms of pedestrian comfort, wind microclimate at points 37 and 38 exceed the comfort criterion for intended pedestrian activity of strolling during the winter. It is

important to note that whilst point 37 gets marginally worse (0.05%), point 38 is improved by the presence of the scheme. All the remaining locations within the site and surrounds are suitable for intended pedestrian activities throughout the year. Apart from points 37 and 38, the wind conditions at the neighbouring roads are suitable for cyclist and pedestrian use throughout the year. The wind conditions at the bus stop (point 34) are suitable for standing during the winter season. During the summer season, wind conditions at College Square are suitable for stationary activities of standing and sitting.

- 9.99 In terms of the site itself, the wind microclimate conditions on the terrace (point 58) exceed the comfort criterion for sitting during the summer season. Additional mitigation measures are beneficial and would be secured by condition.
- 9.100 In conclusion, the four scenarios demonstrate that the exceedance of wind conditions are primarily within the existing site condition (Scenario 1) and existing site with future surrounds (Scenario 2), so without the application scheme modelled. In the proposed site with existing surroundings (Scenario 3), there are similar exceedances to those observed for scenario 1, with wind conditions at eleven points improved and at three points made worse by the presence of the proposed scheme. The proposed site with future surroundings (Scenario 4) results in the least exceedances, limited to only points 37 and 38 (which fail across all scenarios), with one showing a minor increase in failure and one showing an improvement against Scenario 2.

7 Quality of Office Accommodation

- 9.101 Policy SP3 of the CLP encourages innovation and investment into the borough to support enterprise and increased employment for the benefit of all Croydon residents. The Council will apply a presumption in favour of employment related development, provided it meets the standards of Policy SP3 and other applicable policies of the development plan. SP3.8 of the CLP states that the Council will promote and support the development of all B1 uses (including office, light industry and research and development) retail, leisure (including evening/night-time economy uses), visitor accommodation, and housing and community facilities within Croydon Metropolitan Centre, District Centres and Local Centres.
- 9.102 Policy E1 of the London Plan encourages improvements to the quality, flexibility and adaptability of office space of different sizes (for micro, small, medium-sized and larger enterprises) should be supported by new office provision, refurbishment and mixed-use development.
- 9.103 The building provides a double height entrance from George Street at ground floor level with an open mezzanine. The large flexible floor plate gives potential to subdivide for differing tenancy needs with a centralised core. The floorplate can be divided into a number of configurations providing flexibility. Each unit could have its own front door from the lift lobby and direct access to WC's. The floorplate is heated, cooled and ventilated via soffit mounted fan coil units and the floor to ceiling glazing provides good levels of natural light to the floorplate. Furthermore, all floors are fully accessible, with step free access at ground floor.

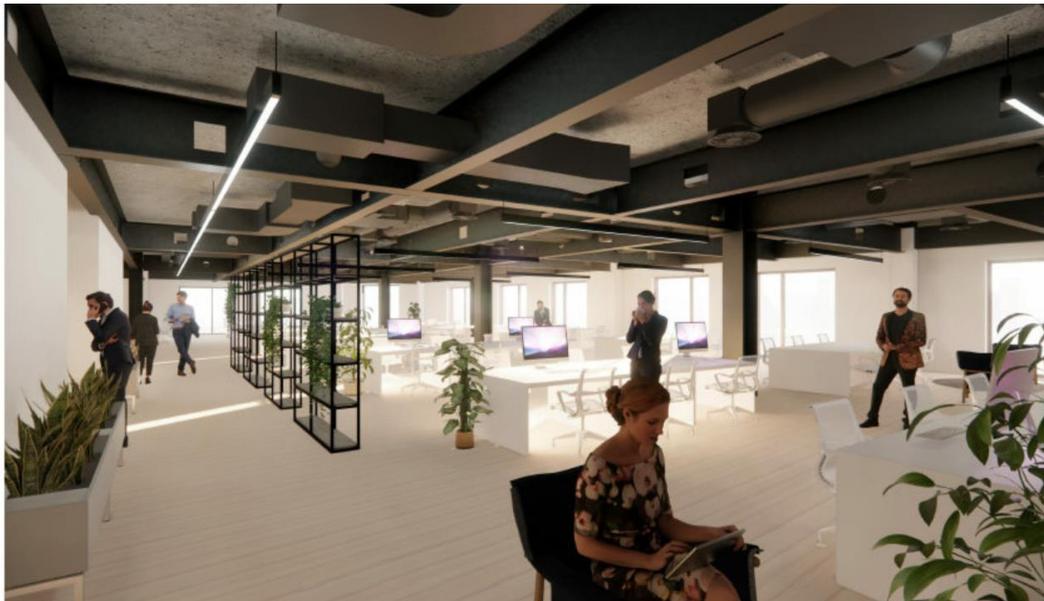


Image 34: CGI showing internal views of typical floor plan

- 9.104 The office provides for the amenities of its end user with such aspects as mezzanine level cycle facilities and storage, stair and platform lifts to provide access to the cycle parking, café, rooftop amenity areas and direct access to College Square, which would be an upgraded piece of public realm on the doorstep.
- 9.105 Policy DM4.3 requires mixed use development outside of main and secondary retail frontages, but within centres, to have occupied ground floor units. It requires either a specified end user or a free fitting out of all ground floor units for the eventual end occupier, with the unit capable of conversion to the same use as the remainder of the building if after two years, subsequent to completion, no end user has been found. This is particularly relevant for mixed-use development with residential above ground floor, where historically, some schemes have been left with vacant ground floor units. This scheme is for an office use, with the ground floor split into the office reception, business centre, office space, servicing/back of house and a café. This policy would only be applicable to the café; the appellant has provided information on case studies where similar spaces have been successfully delivered. The location for the café would be in a sunlit part of the public realm space, allowing café users to move in and out of the building to enjoy the adjoining public realm. The café can be accessed from inside the building by the office tenants, and by the public from outside the building entering directly via the public realm. Officers have confidence that the unit will not remain vacant, so the principle of the policy requirements have been achieved, and given the particular circumstances of the site, are acceptable without the need for a legal agreement.

Overheating and ventilation

- 9.106 The submitted energy statement goes into detail about overheating and ventilation of the proposed building. The proposed design incorporates high thermal mass in the external walls and walls adjacent to cores of the building. The building will comprise composite slabs which provide limited potential for exposed thermal mass. This construction type has been selected because it better serves the structural design of the building.
- 9.107 The scheme would incorporate mechanical ventilation with heat recovery system to provide fresh air throughout the development. The air handling Units would comprise

summer bypass to reduce the risk of overheating. Based on results of the dynamic thermal modelling, it was concluded that active cooling would be required to maintain acceptable thermal comfort levels and avoid the risk of overheating, thereby complying with the overheating risk criteria.

- 9.108 The results of the dynamic thermal modelling showed that the operative temperature in all assessed areas of the building will not exceed 26 degrees Celsius in the office areas for more than 3% of the occupied hours for the period between May to September, or the winter period (October to April). Therefore, it can be concluded that all spaces meet the overheating risk criteria for mechanically conditioned buildings. The overheating risk analysis that was undertaken shows the proposed development is considered to be at low risk when active cooling is applied.

Flexible and affordable workspace

- 9.109 Policy E2 and E3 in the London plan require developments to provide suitable business space and affordable workspace respectively. Part D of Policy E2 states developments greater than 2,500sqm should seek to provide flexible workspace or smaller units suitable for micro, small and medium sized enterprises. Officers have worked with the applicant to provide flexible floor space that can be split into smaller spaces.
- 9.110 In terms of affordable workspace, given that there are no current policies within the Local Plan 2018 and no evidence base for what is required in terms of affordable workspace within Croydon, officers have not sought to secure this within the development. Although this is regrettable, the London Plan Policy does state that the criteria for developments providing this is dependent on the necessary information provided by Borough Development Plans (particularly around evidence of need and viability). In the absence of this less weight was given to this policy requirement.

Designing out crime

- 9.111 Policy requires that development proposals should contribute to the minimisation of potential risks, and development should include measures to design out crime that, in proportion to the risk, deter terrorism, assist in the detection of terrorist activity, and help defer its effects. The Croydon SPD No. 3: Designing for Community Safety sets out guidance for minimising risk, including maximising natural surveillance; creating spaces which foster a sense of ownership; activity levels; and management and maintenance provisions.
- 9.112 The applicant has stated that security requirements have been considered through a Security Needs Assessment and consultation with Designing out Crime Officer. Full consideration of these measures in terms of security will require further discussion and resolution post determination. A condition is recommended to capture this and require the applicant to address these matters, along with a requirement to continue engagement with the Metropolitan Police prior to occupation in order to seek to achieve Secured by Design accreditation.

8 Access and Parking

- 9.113 The site has a Public Transport Accessibility Level (PTAL) of 6b on a scale of 0 – 6b, where 6b is the most accessible, so has an excellent level of accessibility to public transport links. The site has an existing vehicular access from College Road and is within the Central Croydon Controlled Parking Zone (CPZ) which is operational between Monday to Sunday 8am to midnight.

Access

- 9.114 The proposed development will continue to be accessed by vehicle from College Road with some modification. College Road is a no-through-road to vehicular traffic, approximately 200m long, accessed from its western end via a priority-controlled junction with the A212 Park Lane. The central part of College Road is covered by the zig-zag markings of the zebra crossing which is adjacent to the site. Pay and display on-street parking extends east and west of the crossing on both sides of College Road, across part of the site's south-eastern frontage. There is a loading bay on the northern side of the road at its western end approximately 60m from the site.
- 9.115 South of its junction with College Road, the A212 Park Lane connects with the A232 at a signal-controlled gyratory. The A232 forms part of the TLRN, providing a strategic route through the surrounding road network.
- 9.116 Pedestrian access to the development will be via the main entrance on the northern side of the site, from George Street, with a secondary entrance on the north-western corner of the building. There will be a separate access off College Square for the café and accesses off College Road for pedestrians, cycles, goods, blue badge holders, servicing and waste/recycling.
- 9.117 All accesses to the site, including fire escapes, will be step free with the surrounding public footway, meaning the development is accessible to wheelchair users and mobility-impaired visitors. The main external doors to the building are automatic sliding doors and are therefore accessible by all. All internal level changes have been addressed with either 1:21 gradient slopes, or by accessible lifts, making the development accessible to all.
- 9.118 The site ideal for the type of development proposed which is highly accessible by public transport. There will be a net reduction in the number of vehicular trips given the fact that the development is car free compared to the existing buildings on site.

Car parking

- 9.119 Currently there is basement car parking on site; there is no proposed car parking for the new development except for two blue badge spaces, accessed from College Road, which is supported by the Croydon Local Plan 2018 Policies SP8.15 and SP8.16 and the London Plan 2021 Policy T6. T6.5 of the London Plan 2021 states that disabled persons parking should be provided in accordance with the levels of parking that is set out in Table 10.6 of the London Plan. The table states that for workplace use 5% of the total parking provision should be blue badge spaces, however this is a car free development. T6.5 (A) goes on to state that all non-residential developments should provide access to at least one on or off-street disabled persons parking bay. Part E states that designated disabled persons parking bays and enlarged bays should be designed in accordance with the design guidance provided in BS8300: Vol 1. Following comments from the Council's internal Transport team, the two parking bays do not appear to follow BS guidelines and will have to be adjusted. However, given that two parking bays have been provided and the requirements is for a minimum of one bay, officers are confident that the issues can be resolved via condition.
- 9.120 Local Plan Policy DM30 states that 20% of parking bays should have EVCP with future provision available for the other bays. Given only two bays are proposed, one will be secured as an EVCP by condition. Furthermore, the Council will seek to keep this a car free development by restricting car permits for future business occupiers

and removing access to contracts in council run car parks. This will also be secured through the s.106 legal agreement.

- 9.121 Officers acknowledge the site servicing area limitations and that car club bays tend to need to be external located to be used by customers beyond an individual site. Accordingly, a car club space is not required on site, but a financial contribution towards off-site delivery and membership for future tenants will be secured through the s.106 legal agreement.

Cycle parking

- 9.122 Policy T5 of the London Plan states that development proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle. The cycle parking standards of Policy T5 of the London Plan require 256 long-stay spaces and 13 short-stay spaces. The development would provide 283 cycle spaces; 264 long-stay spaces and 19 short-stay spaces, which meets the policy requirement. Sheffield stands make up 5% of the total provision of cycle spaces with the remainder being provided by two tier cycle racks. The cycle parking spaces are accessed from College Road on the south-eastern side of the building with a split across the ground and mezzanine floor. Showers would also be provided for staff to further encourage cycling to work.
- 9.123 additionally, there are six Sheffield-type cycle stands on College Road, immediately opposite the site, and three on George Street adjacent to Suffolk House. These provide secure storage for a further total of 18 cycles within 40m of the site.
- 9.124 Concerns have been raised regarding the two-tier racks and the lack of a 2.5m aisle width to allow for the top tier rack to be lowered and bike removed. Given that there is an over provision of cycle storage, officers acknowledge that there is space to reconfigure the cycle storage and so a condition is recommended for final details of the cycle store and the specific arrangement for the two-tier racks.

Sustainable transport

- 9.125 Sustainable travel is a key policy consideration within Policies SP8, DM29 and DM30 of the CLP. Given that the development would be car-free (aside from blue badge spaces) and considering the nature of the development, increased walking, cycling and public transport use is expected. To mitigate against this and improve connections for all transport measures, improvements to the highways network immediately surrounding the site in line with the Council's future vision for the area surrounding East Croydon station are to be secured as part of the s.106 legal agreement and s.278 highway works. A contribution, as requested by TfL, will also be secured via the s.106 legal agreement.

Active Travel Zone

- 9.126 The Active Travel Zone (ATZ) is the 20minute cycling catchment surrounding the proposal site, as defined by TfL's WebCAT Tool. The applicant has identified some potential upgrades to the local highways network as part of their Active Travel Zone assessment to support the development. Improvements could potentially be made to the crossing facilities at the Dingwall Road / George Street junction. The main improvements will be to College Square, which is technically highways land, in terms of delivery of a high-quality public space.

Travel Plan

9.127 In order to ensure that the identified modal shift is adequately supported, and barriers to uptake of more sustainable transport modes can be addressed, a Travel Plan and monitoring for five years along with a financial contribution to allow this is to be secured through the s.106 legal agreement.

9 Waste, Delivery and Servicing

Waste

9.128 The application was submitted with a Delivery, Servicing and Waste Management Plan (DSWMP) which applies to all delivery vehicles, service vehicles, and waste collections from the future occupier(s) of the proposed office space, as well as to the proposed café on the ground floor of the development.

9.129 The objective of the plan is to manage the deliveries, servicing and waste collections to and from the site in order to ensure they are efficient and effective, thereby minimising disruption to the public highway as well as the proposed development occupier(s) and its neighbours. The plan aligns with Policy T4(B) of the London Plan 2021 and Policy DM13 of the CLP 2018.

9.130 The number and size of bins have been calculated based on occupancy and use. A total of nine general waste bins and four recycling bins are proposed. Paper/card recycling will be baled and compacted at a ratio of 7:1 to form 18 bales. A compactor providing a 3:1 ratio is also included. This allows for an anticipated weekly collection.

9.131 As per the Council's requirement the waste storage area has been located internally and can be accessed via College Road. Waste and recycling will be collected from the kerbside on College Road, as per the arrangements of the existing buildings on the site. The office management team, which will be appointed by the developer/occupier, will be responsible for presenting the bins for collection and returning the bins to the stores afterwards. It is expected that full details of the proposed collection arrangements, including agreement on the operator who will be carrying it out, will be specified within a condition in a detailed refuse management strategy. This strategy must also detail how refuse collection will be managed within the building by the operator.

Delivery and Servicing

9.132 Deliveries and other non-waste servicing will take place via the on-site loading bay on the ground floor, accessed from College Road. Swept path tracking of a long-wheelbase delivery van has been demonstrated, showing there is sufficient manoeuvring space for such a vehicle to enter and exit in a forward gear. The swept path tracking also demonstrates that 1.5m x 1.5m pedestrian visibility splays will be maintained while the service vehicle is manoeuvring. Delivery vehicles larger than a long-wheelbase van will be able to use the College Road on-street loading bay adjacent to the neighbouring Suffolk House, which is only 60m from the proposed on-site loading bay. Whilst this is not ideal, there is no room for this to be located on site and given the site constraints and location this has been deemed acceptable in this instance. It is anticipated that most deliveries and servicing will however take place on site. A robust, final Delivery and Servicing Plan will be conditioned, and officers will ensure the focus is on site usage as opposed to the College Road loading bay.

Construction Logistics Plan

9.133 A Construction Logistics Plan has been submitted. Most of the information provided is satisfactory. Given the scale of the development, a tailored condition requiring the

submission of a detailed Construction Logistics Plan is recommended to ensure that the construction phase of development does not result in undue impacts upon the surrounding highway network. This is of particular importance given that there are several developments consented, proposed, or being built out in proximity, and site logistics and build programmes will therefore need to be co-ordinated to manage the potential for schemes to be delivered simultaneously. This will be reviewed carefully by officers when the recommended condition is discharged to seek minimal disruption to the road network and surrounding residents.

10 Trees, Landscaping and Biodiversity

9.134 There are a small number of trees/shrubs across and adjoining the site. Urban greening and integration of soft landscaping is very important, particularly in the context of the climate emergency. Given the scheme seeks to maximise the footprint of the building across the site, the soft landscaping on the site currently would be removed. Officers have focussed on maximising greenery on the terraces/roof of the building and within College Square.

9.135 There are 6 individual trees and 4 groups in and adjacent to the proposed development. Of the trees surveyed 3 are Category B and 3 individual trees and 3 groups are Category C, with 1 group Category U. None of the trees on site are protected by a Tree Preservation Order. The image below shows that there are 3 individual trees on site and 3 groups. The additional trees surveyed lie outside of the redline boundary on College Square.

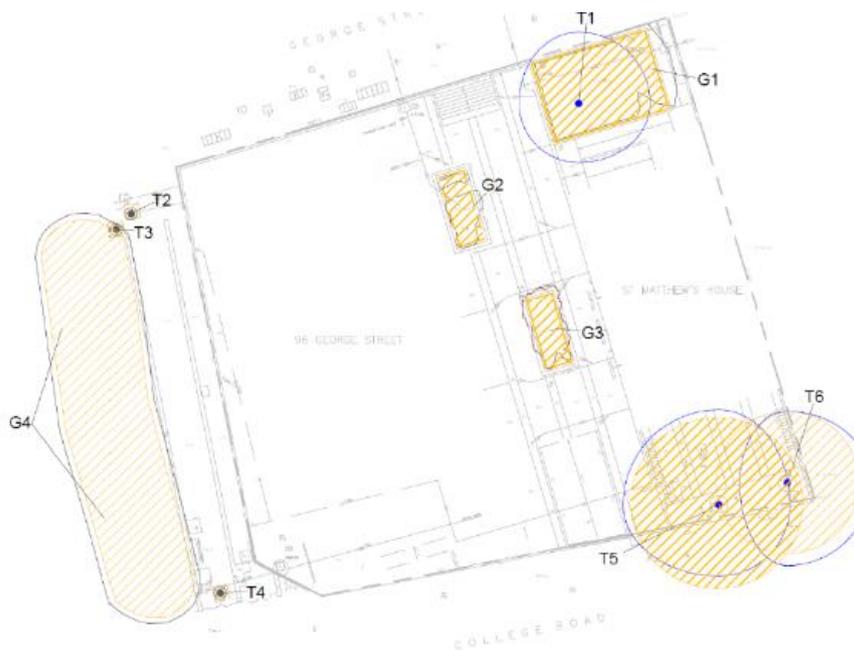


Image 35: Trees surveyed in and around the site

9.136 All trees within the red line would be removed to facilitate the proposed building, being 3 Category B individual trees, 2 Category C groups and a Category U group. It is regrettable that 3 Category B trees will be removed to facilitate the development.

9.137 The indicative proposals for College Square (to be secured through the s.106 legal agreement and s.278 highways agreement) involve the loss of 3 small individual C grade trees (the tallest being 2.5m in height), whilst the group of 5 C grade trees (G4) would have one tree removed. Within this space, 13 new trees are indicatively shown to be planted. Given the overall uplift in tree numbers, along with the delivery of the high-quality public realm, this is supported.

- 9.138 The new planting will be mixed species for visual interest, biodiversity and climate resilience. The NPPF and London Plan policy G6 requires that any development seeks to provide biodiversity net gain. The submitted ecological appraisal shows the site currently has some biodiversity value and there are opportunities for enhancement measures. This is met with planting (intensive green roof, perennial planting on the roof terrace and climbing plants) and habitat creation for birds, bats and insects incorporated into the landscape. A blue and green roof system is proposed at roof and podium level. Full details of specific measures and their locations are recommended to be secured through ecological and landscaping conditions, including design of a wildlife sensitive lighting scheme.
- 9.139 Policy G5 of the London Plan 2021 requires major development to contribute to greening of London with an interim target score of 0.3 for predominantly commercial development. Urban greening calculations have been carried out which demonstrate that the site achieves a score of 0.36 UGF which exceeds the target and is supported. The diagram below shows how this is achieved. This calculation is based on the red line application boundary; it is worthy of note that the College Square public realm upgrade (which the applicant would finance and be secured through the s.106 legal agreement and s.278 highways agreement) delivers further soft landscaping which would further enhance the urban greening.

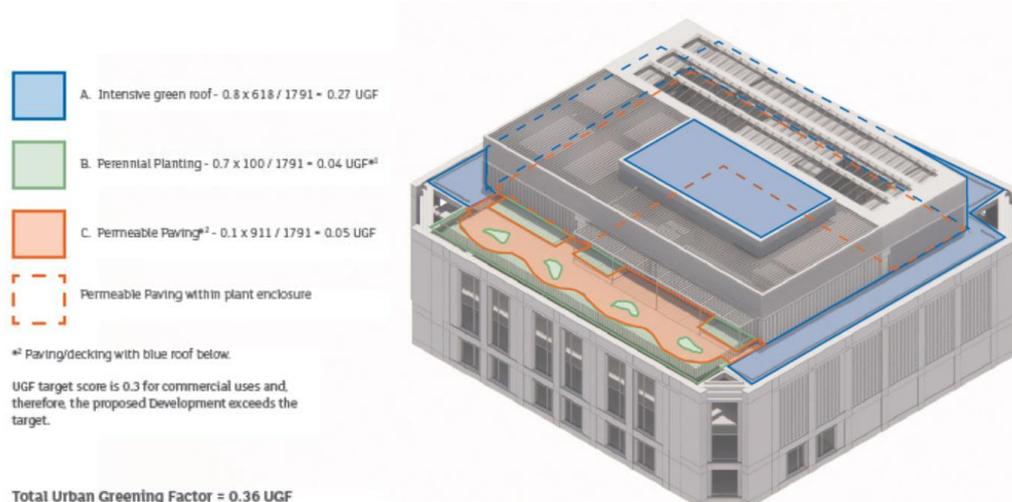


Image 36: Urban Greening Factor- Location and types of urban greening applied

11 Environment and Sustainability

Flooding and drainage

- 9.140 DM25 of the CLP 2018 requires Council to ensure development reduces flood risk and minimises the impact of flooding, aligning with SI 12 of the London Plan. The site is within Flood Zone 1 (low risk) and an area of very low risk surface water flood risk. There is limited potential for groundwater flooding to occur and so the risk of flooding from groundwater is considered to be low.
- 9.141 A Flood Risk Assessment has been submitted setting out a strategy for managing runoff from various parts of the site. A blue and green roof system is proposed at roof and podium level to attenuate surface water. The blue roofs are proposed on all roof areas where there is sufficient build-up depth available. These will attenuate surface water from the roof area and discharge it to the local network at a restricted rate. The green roofs comprise a multi-layered system; they have been proposed outside of

the plant area and would be approximately 390sqm, with an additional 50sqm of perennial planting. This would reduce both total and peak surface water discharge as well as providing benefits to biodiversity and water quality. The Lead Local Flood Authority assessed the proposed scheme and following submission of additional information raised no objection.

- 9.142 With regards to foul water and surface water network infrastructure capacity, Thames Water raised no objection. As the development is located within 15m of a strategic sewer they have requested a Piling Method Statement to be conditioned, which is recommended. Thames Water did identify an inability of the existing water network infrastructure to accommodate the needs of this development proposal and accordingly requested a pre-occupation condition, which is proposed. Informatives are recommended, including to advise the developer that Thames Water underground water assets are located within 15m of the development, and water mains crossing or close to the development.

Sustainability requirements

- 9.143 Policy SP6.3 requires new development to minimise carbon dioxide emissions and seeks high standards of design and construction in terms of sustainability in accordance with local and national carbon dioxide reduction targets. This requires new build, non-residential development of 1000sqm and above to achieve a minimum of 35% CO₂ reduction beyond the Building Regulations Part L (2013). Policy SP6.2 requires the development to incorporate a site wide communal heating system and to be enabled for district energy connection.
- 9.144 Policy SI 2 (A) minimising greenhouse gas emissions requires all major development to be net zero-carbon, reducing greenhouse gas emissions and minimise both annual and peak energy demand in accordance with the energy hierarchy: (1) Be Lean, (2) Be Clean, (3) Be Green and (4) Be seen. In line with SI 2 (C) of the London Plan (2021), major development should be net zero-carbon with a minimum on-site reduction of at least 35% beyond Building Regulations Part L (2013), with any shortfall to be offset through a financial contribution. Policy SI 2 (F) of the London Plan requires submission of a whole life-cycle carbon emissions which demonstrate actions taken to reduce life-cycle carbon emissions. Policy SI 7 requires schemes to promote circular economy outcomes and aim to be net zero-waste.

Zero carbon and energy hierarchy

- 9.145 The proposed scheme has prioritised passive design and energy efficiency measures to reduce the energy demand resulting from the building's operation. The proposed energy strategy has been developed as an all-electric solution, without any gas or other fossil fuels supplied on-site, to benefit the development from the low carbon intensity of the grid-supplied electricity and avoid adverse impacts on air quality. Considering that the electricity grid is expected to continue being decarbonised, further improvements are anticipated in the future. The proposed energy strategy meets and exceeds the targets set by Building Regulations and by the relevant planning policy requirements by incorporating a combination of energy efficiency measures and low/zero carbon technologies. The proposed energy strategy results in a 39.82% reduction of regulated CO₂ emissions. The remaining regulated CO₂ emissions shortfall would be covered by a carbon offset payment (£331,645) which would be secured through the s.106 legal agreement.
- 9.146 Whilst no existing district heating networks currently exist, the site is within an area where one is planned. The s.106 legal agreement will ensure the development makes

provision to facilitate the future connection to a proposed heat network, should one come forward. The obligation requires connection to the District Heating System if the Council has appointed an operator before commencement on site. On this basis, as the proposal complies with the above requirements regarding carbon reduction and a CO2 offset payment, subject to a condition requiring the above standards to be achieved and the financial contribution secured, the proposal is considered acceptable.

Whole Life-Cycle Carbon Assessment

- 9.147 A Whole-Life Cycle Carbon Assessment (WLCA) has been provided to capture the developments carbon impact, as required by Policy SI 2 of the London Plan (2021). A WLCA assesses the environmental impacts of a building over its life cycle. It includes activities from all stages of a building's life cycle, from the extraction of raw materials and their production and the distribution of energy, through the use, reuse, and final disposal.
- 9.148 The proposed design includes the following measures, intended to reduce the whole life carbon emissions:
- a. Use of recycled content in structural steel;
 - b. Use of prefabricated façade system;
 - c. Improvement of energy performance as outlined in the Energy Strategy Report which results in lower carbon emissions attributed to operational energy;
 - d. Use of Environmental Product Declarations for material selection, in order to identify suitable products and systems for the proposed development's design;
 - e. Selection of durable cladding materials with increased longevity, in order to reduce the embodied carbon emissions related to maintenance and replacement of the building's elements.
- 9.149 The results showed that the whole life cycle impact related with the development has been estimated to be 45,343.06 tCO₂e over a 60-year period. 61% of the overall impact is associated with the development's operational energy use (B6 and B7). The remaining 39% reflects the development's embodied carbon over the building's whole life cycle. The breakdown of the embodied carbon over the life cycle showed that the building's structure is the most carbon intensive category, which accounts for approximately 44%, followed by the building services which account for 24%.
- 9.150 A benchmark comparison of the WLCA results showed the proposal is expected to have a carbon impact 46% lower than the current GLA's WLC benchmark during stages A1-A5 (product sourcing and construction stage) and 22% lower than the GLA's WLC benchmark during stages B-C (in-use and end of life stage). Aspirational WLC benchmarks have been developed which are based on a 40% reduction in WLC emissions on the first set of WLC benchmarks. This is based on the World Green Building Council's target to achieve a 40% reduction in WLC emissions by 2030.
- 9.151 The proposal therefore seeks to meet the requirement of Policy SI 2 by demonstrating actions to be taken to reduce life-cycle carbon emissions and is acceptable, subject to a condition securing final details and a post construction assessment of the WLC emissions, as requested by the GLA.

Circular Economy

- 9.152 A circular economy statement has been provided to demonstrate how waste will seek to be minimised, meeting the requirements of Policy SI 7 of the London Plan (2021).

- 9.153 The applicant team explored the option of refurbishment and re-cladding of the existing 96 and 98 George Street building but concluded that there are significant constraints from doing so, especially because of the characteristics of its structural frame. This would limit the ability to deliver Grade A office space and officers accept this position.
- 9.154 The circular economy statement includes an independent pre-demolition audit (prepared by KpH Deconstruction Services Ltd) which states that of the approximately 10,000 cubic metres of predicted waste (from strip out and demolition), 54% would be reused and the remaining 46% recycled, hence 100% diversion from landfill. This is supported and exceeds the Policy SI 7 target of 95% reuse/recycling/recovery
- 9.155 The key aspects of the development which contribute to the Circular Economy aspirations are outlined below:
- Reduce the amount of materials used by utilising modern methods of construction (i.e. off-site manufacturing) for the building facades and retaining the existing foundations, reducing the materials used for substructure;
 - Reduce resources other than materials and including energy, water and land, as the proposed scheme utilises a pre-developed site;
 - Design for longevity, adaptability and flexibility, to keep building elements and materials in use for longer and enable flexible fit-out arrangements without significant alterations and waste generation;
 - Prioritise materials that are responsibly and sustainably sourced;
 - Manage waste sustainably and at the highest value, including demolition, construction, and municipal waste.
- 9.156 Officers consider the development has sought to promote circular economy outcomes and seeks to maximise opportunities for longevity, adaptability and flexibility. Recommended conditions will secure final details of the circular economy strategy, as well as post completion reporting as requested by the GLA.

Air Quality

- 9.157 The entire borough of Croydon is an Air Quality Management Area (AQMA) and therefore careful consideration to the air quality impacts of proposed development is required. The supporting Air Quality Assessment document finds the development to be Air Quality Neutral, both transport NOx emissions and transport PM10 emissions are below the transport emission benchmark, therefore no additional mitigation is required, and the development as a whole is considered to be Air Quality Neutral. However, in line with Guidance from DEFRA 'Low Emissions Strategies - using the planning system to reduce transport emissions' Croydon are adopting the following formula: all mixed use and commercial schemes of 500m² and above should contribute £100 per 500m² unit. Therefore, a contribution of £3,846 will be secured.

Contamination

- 9.158 A condition will be recommended to submit a risk assessment for contaminated land and a watching brief during works and notify the Council should any unexpected contamination be encountered during the demolition.

Environmental Impact Assessment

9.159 Prior to the application submission an Environmental Impact Assessment (EIA) screening was submitted. It was concluded that due to its nature, scale, and characteristics, in this location, the scheme would not be likely to have significant effects on sensitive nature conservation/ecology, cultural/historic, or landscape assets and designations as defined by the Regulations, or that there would be likely significant effects in these respects that would merit an EIA.

12 Other Planning Matters

Fire

9.160 London Plan (2021) Policy D12 Fire Safety requires all major developments to be submitted with a Fire Statement, which is an independent fire strategy, produced by a third party, suitably qualified assessor. The applicant has supplied a Fire Statement (that was subsequently updated), produced by Norman Disney and Young, and produced, reviewed and approved by Miller Hannah BEng (Hons), CEng, MIFireE and Megan Lillycrop Meng (Hones) AIFE and a Fire Strategy. The application has been reviewed by the Council's Building Control surveyor who, subject to a condition securing an evacuation lift, raises no objection. Whilst it was noted the documents provided were relatively high level, the use as an office is less challenging than a residential building in managing means of escape and evacuation.

9.161 It is noted above that the London Fire Brigade have not responded further to the submission of amended documents. Whilst our Building Control surveyor's opinion is the issues raised are resolvable, to safeguard this a pre-commencement condition is proposed to ensure final details are work through in advance of any works being undertaken. Finally, the development will also be required to comply with the relevant Building Regulations (outside the Planning System).

Health Impacts

9.162 DM16 of the Croydon Local Plan seeks to ensure promotion of healthy communities through the planning system. A health impact assessment was submitted to assess and identify the potential positive and negative impacts and likely effects of the proposed development on health and wellbeing in accordance with the National Planning Policy Framework, the London Plan 2021, and the Croydon Local Plan 2018.

9.163 The impact on health associated with the proposed development would be positive overall given a significant uplift in office floorspace and provision of new, flexible, and high-quality space, within a highly sustainable and distinctive new building, which is intended to improve the character and appearance of the area and help reinforce central Croydon as a key business destination. The proposed development seeks to provide activation on the ground floor frontage, with a café. A well-considered landscape design has been developed to upgrade College Square and provide an area of public realm that is accessible to all and provides a welcoming environment for students, office workers, shoppers, and other users. College Square will promote interaction with different groups of people and communities and allow for casual interaction which enhances well-being in line with Policy GG3 and Policy G4 of the London Plan which strives to make London a healthier city for all.

9.164 High priority has been given to helping improve the end occupier's health and enhance community cohesion, by conducting consultation events for the design of the public realm and analysing how these spaces are used by the community. The

scheme contributes where possible to promote sustainable development and travel, enhancing green spaces, reducing pollution, and protecting neighbourhood amenity.

- 9.165 Planning obligations and conditions are recommended to secure measures to avoid any potential for unacceptable health impacts, for example implementation of appropriate air quality mitigation measures during construction. The development is liable for a Community Infrastructure Levy (CIL) payment to ensure that development contributes to meeting the need for physical and social infrastructure, including educational and healthcare facilities.

Television and Radio Services

- 9.166 London Plan policy D9 states that tall buildings, including their construction, should not interfere with aviation, navigation, or telecommunication. A TV and radio desk-based study was submitted to investigate the potential impact of a proposed building development upon terrestrial and satellite television services, as well as radio, in the surrounding area. It was found that for terrestrial TV small to moderate losses may occur due to diffraction that may weaken the transmission signal. However, it was concluded that losses would be tolerable as it would affect the quality of the reception in the area. For satellite TV it was shown that as some tolerance is built into the receiving equipment, it is possible that a satellite signal may still be maintained even if line of sight is blocked, therefore it is possible that no noticeable effects would occur in practice.
- 9.167 Interference to radio signals are less likely than terrestrial or satellite signals. The s.106 legal agreement would secure a programme of reports to be conducted after construction to mitigate any disruption cause.

Local Employment and Training Strategy (LETS)

- 9.168 As required by SP3.14 of the Croydon Local Plan and E11 of the London Plan, developers will be required to produce a Local Employment and Training Strategy (LETS) for the Construction Phase and/or End-use Phase as appropriate, outlining the approach they will take to delivering employment, training and apprenticeship outcomes and engagement with schools and education providers for the development.
- 9.169 In order to ensure that the benefits of the proposed development (including those required to mitigate the harm caused) reach local residents who may be impacted directly or indirectly by the proposal's impacts, a skills, training and employment strategy (both operational and construction phases) will be secured through the s.106 legal agreement to target (among other matters) 34% of construction and end-users jobs that should be filled with local residents. The s.106 legal agreement will secure contributions of £132,500 for the construction phase and £4,367 for the operational phase.
- 9.170 An EIA Screening Opinion (20/06610/ENV) was issued prior to the submission of the planning application. The development was not considered to require an EIA, taking account of its location, nature, scale, and characteristics.

13 Conclusions

- 9.171 The proposed 11-storey building would offer a high-quality office building to Croydon, to further establish itself as the premier business location in South London and the

Gatwick Diamond. It is considered that the building has been designed with the needs of the end user and the surrounding context successfully, using high quality design, detailing and materials to enhance the street scene of George Street. The internal configuration is flexible and adaptable for the needs of the end user(s) and provides cycle and blue badge car parking spaces in line with policy. Furthermore, servicing has been integrated within the building to minimise any impact on the existing road network. The delivery of this public space is integral to the acceptability of the office building that maximises the development plot. Additional trees, soft and hard landscaping would ensure a high-quality outdoor space that would enhance a sense of place.

- 9.172 The proposed development would result in the loss of residential units that would not be re-provided within the new scheme. This clearly counts against the scheme, with the report going into detail as to why officers find this, on balance, acceptable given the allocation and a compromised scheme with refurbishment of the homes or with residential integrated into the office development. Although it is regrettable housing is not re-provided, the site allocation does allow for a fully commercial scheme to be on site, without the requirement for residential delivery. Officers have worked with the applicant to provide a public square that is of high quality to give back to the community and to enhance the public realm. Officers believe that the quality of the public realm, its inception through consultation with local people and the College, providing space that is created for social interaction is a public benefit of substantial weight in the planning balance.
- 9.173 The proposed building does impact on the amenity in terms of daylight and sunlight to some adjoining occupiers, particularly Ten Degrees. These units are single aspect and overlook the development site. Officers required the applicant to test a building that would be taller and slender as per the recommendations of PRP and Committee to confirm whether the correct massing approach was being taken. Having provided data for an alternative scheme it was concluded that more units would be adversely affected. Officers have taken an on-balance view on this aspect and have weighed up the benefits of the scheme to the immediate and surrounding area, along with the employment and regeneration potential that this development would have on Croydon.
- 9.174 With conditions and mitigation, the proposal would be considered to have economic, environmental, and social benefits. It is considered that the development would be sustainable and acceptable in terms of its impact on the highway network. Residual planning impacts would be adequately mitigated by the recommended s.106 legal agreement and planning conditions.
- 9.175 All other relevant policies and considerations, including the statutory duties set out in the Equalities Act 2010, the Human Rights Act, the Planning and Compulsory Purchase Act, and the Town and Country Planning Act, have been taken into account. Given the consistency of the scheme with the Development Plan and weighing this against all other material planning considerations, the proposal is considered to be acceptable in planning terms subject to the detailed recommendation set out in section 2 (RECOMMENDATION).

Appendix 1: Drawing numbers

A. Drawings

- Location Plan - GST-ORM-ZZ-ZZ-DR-A-12000 P03
- Existing Site Plan - GST-ORM-ZZ-ZZ-DR-A-12001 P03
- Proposed Site Plan - GST-ORM-ZZ-ZZ-DR-A-12002 P03
- Existing Block Plan - GST-ORM-ZZ-ZZ-DR-A-12003 P01

- Existing Basement Floor Plan - GST-ORM-ZZ-B1-DR-A-12199 P03
- Existing Ground Floor Plan - GST-ORM-ZZ-00-DR-A-12100 P03
- Existing First Floor Plan - GST-ORM-ZZ-01-DR-A-12101 P03
- Existing Second Floor Plan - GST-ORM-ZZ-02-DR-A-12102 P03
- Existing Third Floor Plan - GST-ORM-ZZ-03-DR-A-12103 P03
- Existing Fourth Floor Plan - GST-ORM-ZZ-04-DR-A-12104 P03
- Existing Fifth Floor Plan - GST-ORM-ZZ-05-DR-A-12105 P03
- Existing Sixth Floor Plan - GST-ORM-ZZ-06-DR-A-12106 P03
- Existing Roof Plan - GST-ORM-ZZ-RF-DR-A-12107-P03

- Existing East Elevation – GST-ORM-ZZ-EA-DR-A-12201 P03
- Existing South Elevation – GST-ORM-ZZ-SO-DR-A-12202 P03
- Existing West Elevation – GST-ORM-ZZ-WE-DR-A-12203 P03
- Existing North Elevation – GST-ORM-ZZ-NO-DR-A-12200 P03

- Demolition Basement Plan - GST-ORM-ZZ-00-DR-A-12399 P03
- Demolition Ground Floor Plan - GST-ORM-ZZ-00-DR-A-12300 P03
- Demolition First Floor Plan - GST-ORM-ZZ-01-DR-A-12301 P03
- Demolition Second Floor Plan - GST-ORM-ZZ-02-DR-A-12302 P03
- Demolition Third Floor Plan - GST-ORM-ZZ-03-DR-A-12303 P03
- Demolition Fourth Floor Plan - GST-ORM-ZZ-04-DR-A-12304 P03
- Demolition Fifth Floor Plan - GST-ORM-ZZ-05-DR-A-12305 P03
- Demolition Sixth Floor Plan - GST-ORM-ZZ-06-DR-A-12306 P03
- Demolition Roof Plan – GST-ORM-ZZ-RF-DR-A-12107 P03

- Demolition East Elevation – GST-ORM-ZZ-EA-DR-A-12401-P03
- Demolition South Elevation – GST-ORM-ZZ-SO-DR-A-12402 P03
- Demolition West Elevation – GST-ORM-ZZ-WE-DR-A-12403 P03
- Demolition North Elevation – GST-ORM-ZZ-NO-DR-A-12400 P03

- Below Ground Drainage Proposed Layout – 2190713-EWP-ZZ-00-SK-C-0001 P4
- Proposed Basement Plan - GST-ORM-ZZ-B1-DR-A-12599 P04
- Proposed Ground Floor Plan - GST-ORM-ZZ-00-DR-A-12500 P04
- Proposed Mezzanine Floor Plan drawing ref. – GST-ORM-ZZ-M0-DR-A-12580 P04
- Proposed First Floor Plan - GST-ORM-ZZ-01-DR-A-12501-P04
- Proposed Second Floor Plan - GST-ORM-ZZ-02-DR-A-12502 P04
- Proposed Third Floor Plan - GST-ORM-ZZ-03-DR-A-12503 P04
- Proposed Fourth Floor Plan - GST-ORM-ZZ-04-DR-A-12504 P04
- Proposed Fifth Floor Plan - GST-ORM-ZZ-05-DR-A-12505 P03
- Proposed Sixth Floor Plan - GST-ORM-ZZ-06-DR-A-12506 P04
- Proposed Seventh Floor Plan - GST-ORM-ZZ-07-DR-A-12507 P04
- Proposed Eighth Floor Plan - GST-ORM-ZZ-08-DR-A-12508 P04
- Proposed Ninth Floor Plan - GST-ORM-ZZ-09-DR-A-12509 P06
- Proposed Tenth Floor Plan - GST-ORM-ZZ-10-DR-A-125010 P05

- Proposed Eleventh Floor Plan - GST-ORM-ZZ-11-DR-A-12511 P04
- Proposed Roof Plan - GST-ORM-ZZ-RF-DR-A-12512 P05

- Proposed Section AA – GST-ORM-ZZ-AA-DR-A-12600 P04
- Proposed Section BB – GST-ORM-ZZ-BB-DR-A-12601 P04
- Proposed East Elevation – GST-ORM-ZZ-EA-DR-A-12701 P05
- Proposed South Elevation – GST-ORM-ZZ-SO-DR-A-12702 P05
- Proposed West Elevation – GST-ORM-ZZ-WE-DR-A-12703 P05
- Proposed North Elevation – GST-ORM-ZZ-NO-DR-A-12700 P05
- Proposed Typical Chamber Bay Study - GST-ORM-ZZ-ZZ-DR-A-12996 P03
- Proposed Typical Top Bay Study - GST-ORM-ZZ-ZZ-DR-A-12997 P04
- Proposed Typical Bay Study - GST-ORM-ZZ-ZZ-DR-A-12998 P03
- Proposed Typical Ground Bay Study - GST-ORM-ZZ-ZZ-DR-A-12999 P03
- Proposed Model - GST-ORM-ZZ-ZZ-M3-A-00001 P17

B. Documents and Statements

- | | |
|---|--------------------------|
| 1. Design and Access Statement | (Version: December 2021) |
| 2. Planning Statement | (Version: March 2021) |
| 3. Planning Statement Addendum | (Version: May 2022) |
| 4. Covering Letter | (Version: March 2021) |
| 5. CIL Form | (Version: March 2021) |
| 6. HTVIA | (Version: March 2021) |
| 7. Daylight and Sunlight Report | (Version: March 2021) |
| 8. Daylight and Sunlight Addendum | (Version: July 2022) |
| 9. Air Quality Assessment | (Version: March 2021) |
| 10. Health Impact Assessment | (Version: March 2021) |
| 11. TV and Radio Desk Based Report | (Version: March 2021) |
| 12. Transport Statement | (Version: March 2021) |
| 13. 11a. Active Travel Zone Assessment | (Version: October 2021) |
| 14. 11b. Proposed Development Travel Mode Share | (Version: October 2021) |
| 15. Delivery, Servicing and Waste Management Plan | (Version: March 2021) |
| 16. Healthy Streets Report | (Version: March 2021) |
| 17. Travel Plan | (Version: March 2021) |
| 18. Statement of Community Involvement | (Version: February 2021) |
| 19. Construction Logistics Plan | (Version: March 2021) |
| 20. Sustainable Procurement Plan | (Version: March 2021) |
| 21. Acoustic Report | (Version: March 2021) |
| 22. Arboricultural Impact Statement | (Version: March 2021) |
| 23. Energy Statement | (Version: March 2021) |
| 24. Sustainability Statement | (Version: March 2021) |
| 25. Whole Life Cycle Statement | (Version: March 2021) |
| 26. Circular Economy Statement | (Version: January 2021) |
| 27. Preliminary Ecological Appraisal | (Version: March 2021) |
| 28. Flood Risk Assessment | (Version: March 2021) |
| 29. Drainage Strategy | (Version: March 2021) |
| 30. Fire Safety Statement | (Version: March 2021) |
| 31. Fire Safety Statement Addendum | (Version: July 2022) |
| 32. Wind Assessment | (Version: February 2022) |
| 33. Pedestrian Wind Environment Study | (Version: August 2022) |
| 34. Café Unit Note | (Version: October 2022) |
| 35. Café Demand Note | (Version: October 2022) |
| 36. Landscape Statement | (Version: December 2021) |

- MUF Architecture

- Drawing 1.76-100: ground floor plan drawing.
 - Drawing 1.76-101: section drawing.
 - Drawing 1.76-101: typical section ramp drawing.
 - Landscape Drawing 1.76-102: typical section ramp drawing.
 - The DAS (for the landscaping scheme only).
 - CGI of the lighting scheme in axonometric.
 - CGI of the lighting scheme in axonometric.
- Rob Bray Associates:
 - Plan RBA-CSC-201: planting species plan.
 - Plan RBA-CSC-301: SuDs plan.

Appendix 2: BRE Guidance Terms

from 2011 BRE 'Site Layout Planning for Daylight and Sunlight'

Daylight to existing buildings

The BRE Guidelines stipulate that the diffuse daylighting of the existing building may be adversely affected if either:

- the vertical sky component (VSC) measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value (or reduced by more than 20%), known as the "VSC test" or
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value known as the "NSL test" (no sky line).

Sunlight to existing buildings

The BRE Guidelines stipulate that the sunlight of an existing window may be adversely affected if the centre of the window:

- receives less than 25% of annual probable sunlight hours (APSH), or less than 5% of annual winter probable sunlight hours between 21 September and 21 March (WPSH); and
- receives less than 0.8 times its former sunlight hours (or a 20% reduction) during either period; and
- has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

If one of the above tests is met, the dwelling is not considered to be adversely affected.

Daylight to new buildings

The Average Daylight Factor (ADF) test calculates the average illuminance within a room as a proportion of the illuminance available to an unobstructed point outdoors, under a sky of known illuminance and luminance distribution.

The BRE Guidelines stipulate that kitchens should attain at least 2% ADF, living and dining rooms at least 1.5% ADF and bedrooms at least 1% ADF.

Sunlight to new buildings

The BRE Guidelines stipulate that a building with a requirement for sunlight will appear reasonably sunlit provided:

- at least one main window wall faces within 90 degrees if due south and
- the centre of at least one window to a main living room can receive 25% of annual probable sunlight hours (APSH), including at least 5% of annual probable sunlight hours in the winter months between 21 September and 21 March (WPSH).

Sunlight to gardens and outdoor spaces

The BRE guidelines look at the proportion of an amenity area that received at least 2 hours of sun on 21st March. For amenity to be considered well sunlight through the year, it stipulates that at least 50% of the space should enjoy these 2 hours of direct sunlight on 21st March.