



FEWER HARRINGTON & PARTNERS MULTIDISCIPLINARY ARCHITECTURE

DESIGN STATEMENT

*Apartment Development at
Speaker's Corner, Co. Limerick*

*Our ref: 21007
3rd August 2022*

 Comhairle Cathrach
& Contae **Luimnigh**
Limerick City
& County Council

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Introduction

01

1.1 Fewer Harrington and Partners

Fewer Harrington & Partners is dedicated to creating vibrant residential environments that promote enjoyment, safety and sense of place; crucial elements for achieving the success of any residential development.

FHP has over 35 years of residential experience both locally and internationally. We provide innovative design solutions that tailor to each specific project & client.

FHP is involved in all aspects of the residential sector, from affordable housing to private, luxury and one-off schemes.

Our clients are some of the most prestigious and well-known brands in the world. Our projects rank amongst the most complex and highly serviced facilities all around the globe. We have delivered over 3,500 houses in Ireland for various developers, local authorities and housing agencies and are currently working with numerous projects across the country.

FHP teams of experienced architects, planners & project managers that have successfully delivered many large-scale residential projects on time and on budget.

Our team of Architects, Urban Designers, Planners and DEAP & BER Assessors provide our clients with an all-inclusive service required to meet all current statutory regulations within the residential sector. With no two projects being the same, we have adopted a flexible response to design and the procurement of construction work.

Our office is organised as a single team with each person's key strengths being fully utilised. Our Centre Group supports project teams with advice on detail and technical design. It also assists with value engineering and quality control – as well as maintaining our extensive design and technical databases.

Our starting point is to make sure that we understand our clients and local authorities requirements. We then work hard to help the client to achieve their goals.

Our success is based on understanding our client's needs by providing innovative design solutions from our team of experts. We add real value to our client's projects by creating well-design sustainable neighbourhoods that will stand the test of time and so future proofing our clients investments.

FEWER HARRINGTON & PARTNERS MULTIDISCIPLINARY ARCHITECTURE



1.2 Development Standards

The 2022-2028 Draft Limerick Development Plan has been used as the document which outlines the development standards for this development. We did have consideration to the Limerick City Development Plan 2010-2016, however the Development Plan is out of date since 2016 and the LAP is out of date as of last year, and both documents were written as far back as 2010/2013. Given the significant National changes and directive it is not possible to adhere to all of the Development Plan management standards. We have made a very strong case for the acceptance of our design in what is a very strong urban location in Limerick City. Our design standards adopt, reflect the advice and planning decisions we are seeing coming through ABP and we believe we have delivered a design which conforms with National Policy yet is in keeping with the character of the area that provides a mix of high and medium density residential development that is reflective of the location and community it fits within.



1.3 Purpose of the Document

This report is prepared by Fewer Harrington and Partners (FHP) to accompany the Part 8 planning application to Limerick City & County Council for 36 residential apartment units in a single block at Speaker's Corner, Limerick City, and forms part of the suite of drawings and reports to be submitted to the Local Authority. This report is an Architectural Design Statement prepared by FHP to provide background to the design process and the intent of the Architectural design team in their design of this new residential community. The document proceeds with the site context followed by a description and analysis of the proposed development. The Architects have adhered closely to all relevant legislation and guidance documentation, including the following publications:

- National Planning Framework 2040
- Quality Housing for Sustainable Communities 2007
- Urban Design Manual - A best Practice Guide 2009
- Sustainable Urban Housing - Design Standards for New Apartments 2018
- Design Manual for Urban Roads and Streets (DMURS) 2019
- Limerick City Development Plan 2010-2016

1.4 Design Team

Project Manager: Carron & Walsh

Architect: Fewer Harrington and Partners

Planning Consultants: Fehily Timoney

Quantity Surveyors: Carron & Walsh

Civil/Structural Engineering: Garland Consultancy

Traffic Consultants: Coakley Consulting Engineers

Mechanical & Electrical: CSD Engineering

Fire Safety & Disability Access: GSP Fire

Archaeological Consultants: Aegis

Ecology: Fehily Timoney

Project Supervisor Design Process:

Fewer Harrington and Partners

Landscape Architect:

Kevin Fitzpatrick Landscape Architecture





Context

02



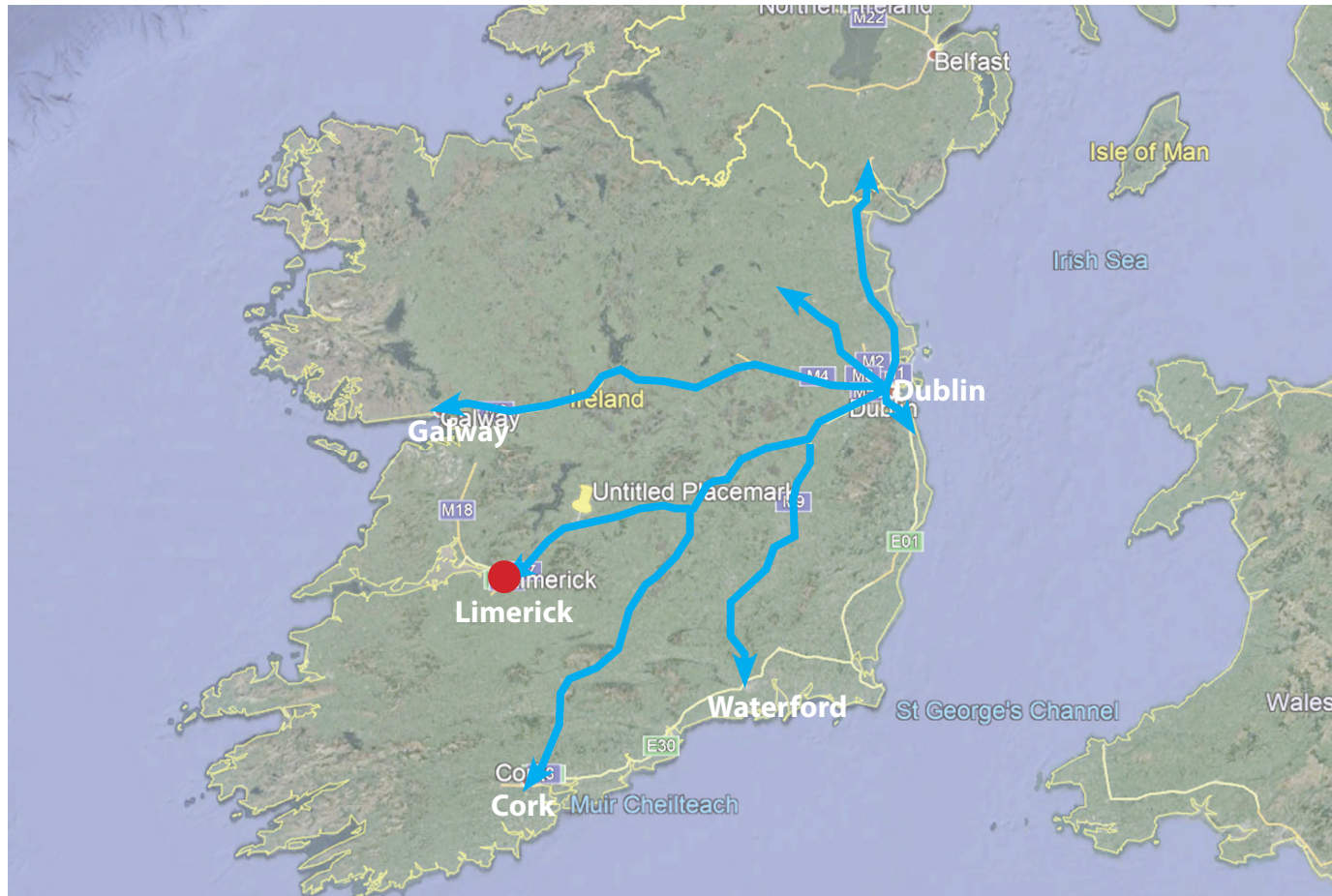


FIG. 1. NATIONAL CONNECTION

2.1 National Connection

The site is located in Limerick City Centre, the largest city on the west coast of Ireland. It is connected to Dublin via the M7 motorway and Galway via the M18 motorway. A proposed expansion to the M20 motorway will improve its connectivity to Cork city in the near future.

● Site Location



FIG. 2. REGIONAL CONNECTION

2.2 Regional Connection

The site lies in the centre of Limerick City. The site is within close walking proximity to The People's Park, Limerick Train Station, Saint Joseph's Hospital and Limerick College of further Education. The main connector road to the site is the R858 which has a direct connection to the M7 Motorway.

● Site Location



FIG. 3. LOCAL CONNECTION

2.3 Local Connection

The subject site are located within the centre of Limerick City. The main Road access to the site are the R858, the R527 and the R511. The site is well connected to local and regional roads that connect the city centre with the M7.

● Site Location



FIG. 4. PUBLIC TRANSPORT

2.4 Public Transport

The site is in close proximity to a regional transport hub serviced by Bus Eireann and Iranrod Eireann with the train/bus station less than a 2min walk from the site.

● Site Location



FIG. 5. TYPOLOGIES

2.5 Typologies

The site is generally surrounded by city centre, social and public, commercial, business and employment and industrial areas. All of these areas are well connected by the existing road network. These areas provide excellent job opportunities for the development and are within a walking/cycling distance from the site to encourage less dependence on vehicles.

- Site Location
- Town Centre
- Social and Public
- Commercial
- Business and Employment
- Industrial

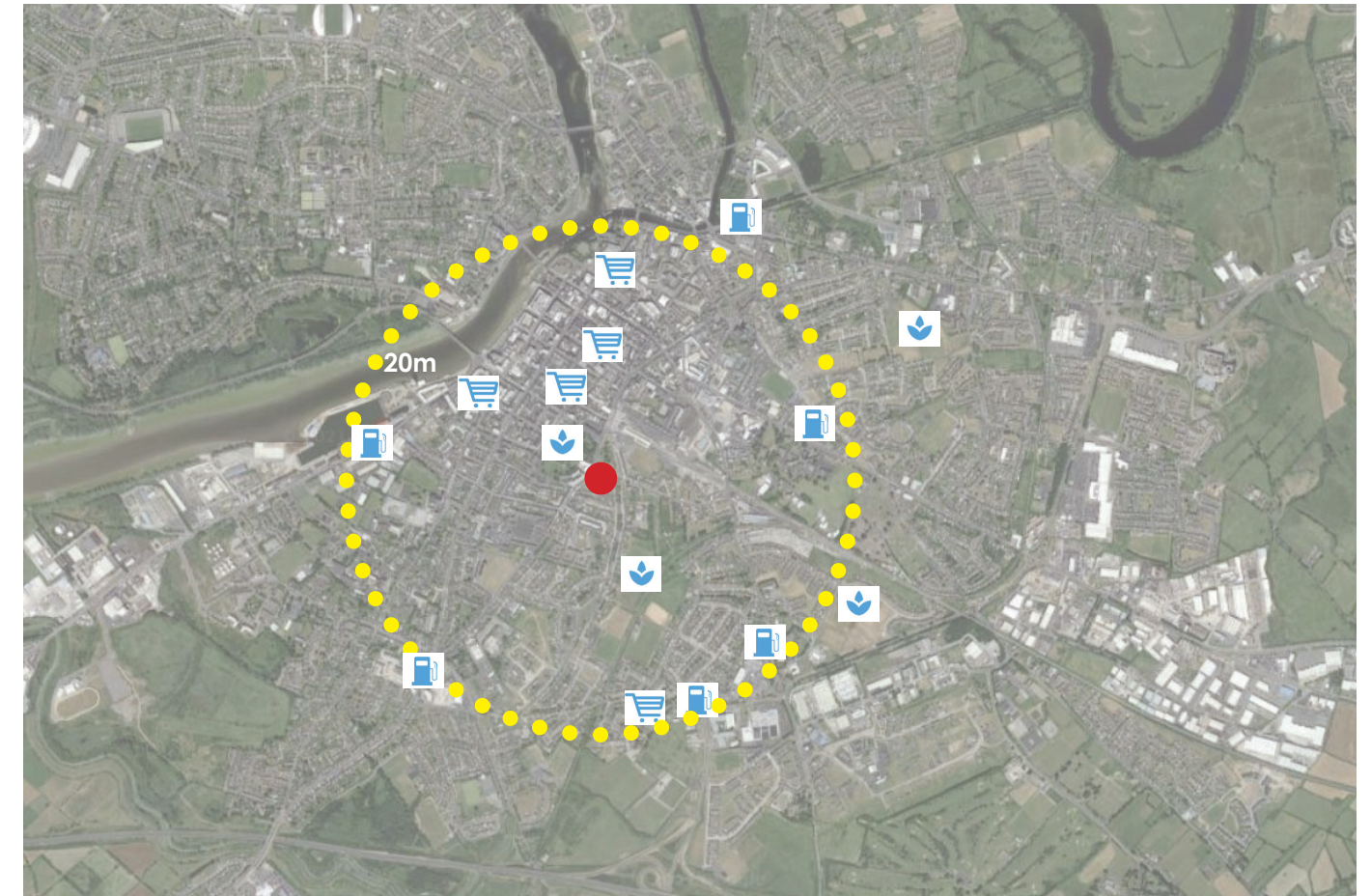


FIG. 6. SERVICES

2.6 Services

The site is in the city centre and is in close proximity to the following to a number of services to support the wellbeing of the development's occupants:

- Site Location
- Supermarkets
- Service Stations
- Parks



FIG. 7. EDUCATIONAL FACILITIES

2.7 Educational Facilities

There are a number of special education, youth services and third level institutions in the immediate area which provides good educational support to the proposed development.

- Site Location
- Special**
- ① Saint Augstines Special School
- Secondary**
- ② Youth Reach
- ③ Limerick Educate Together Secondary
- Third Level**
- ④ Limerick College of Further Education
- ⑤ Kilmartin Education Services
- ⑥ Birchwater Education
- ⑦ Mary Immaculate College

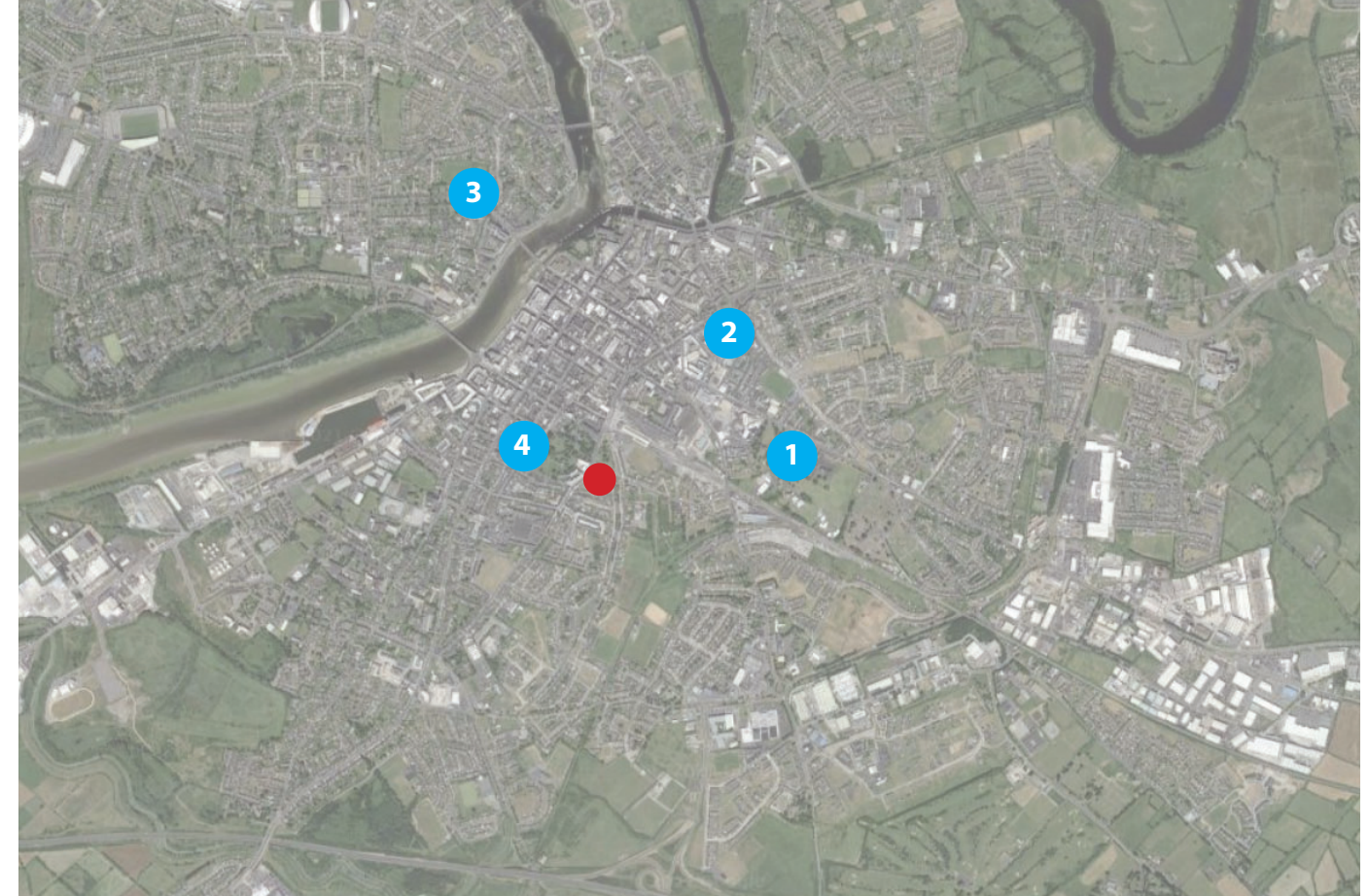


FIG. 8. HEALTH CARE FACILITIES

2.8 Health Care Facilities

Quality health care services is important for promoting and maintaining health, preventing and managing diseases. The site is situated in a prime location for access to/from healthcare services. There are also a number of pharmacy's for health supplies in Limerick City Centre.

- Site Location
- ① Saint Joseph's Hospital
- ② Saint John's Hospital
- ③ University Maternity Hospital Limerick
- ④ GP Surgery

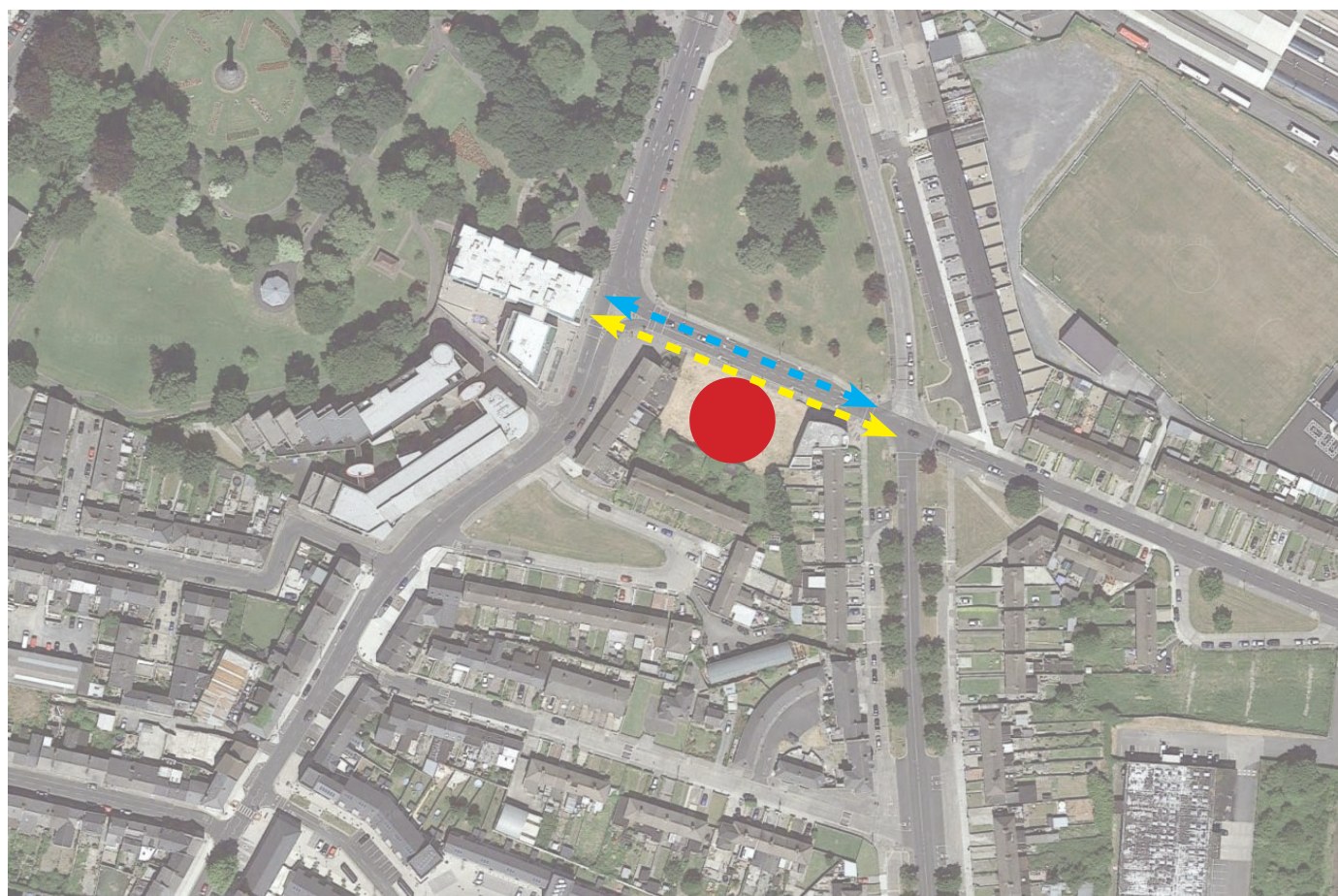


FIG. 9. SITE SERVICES

2.9 Site Services

The proposed lands have public foul and surface water sewers and public watermains adjoining the site. The engineers have liaised with Irish Water and Limerick Council services department and can confirm that all services are readily available to the lands and there is adequate capacity in these services to facilitate the proposed development. Please refer to Engineering drawings as part of this application.

- ■ ■ ■ ■ Existing surface and foul water sewer
- ■ ■ ■ ■ Existing watermains

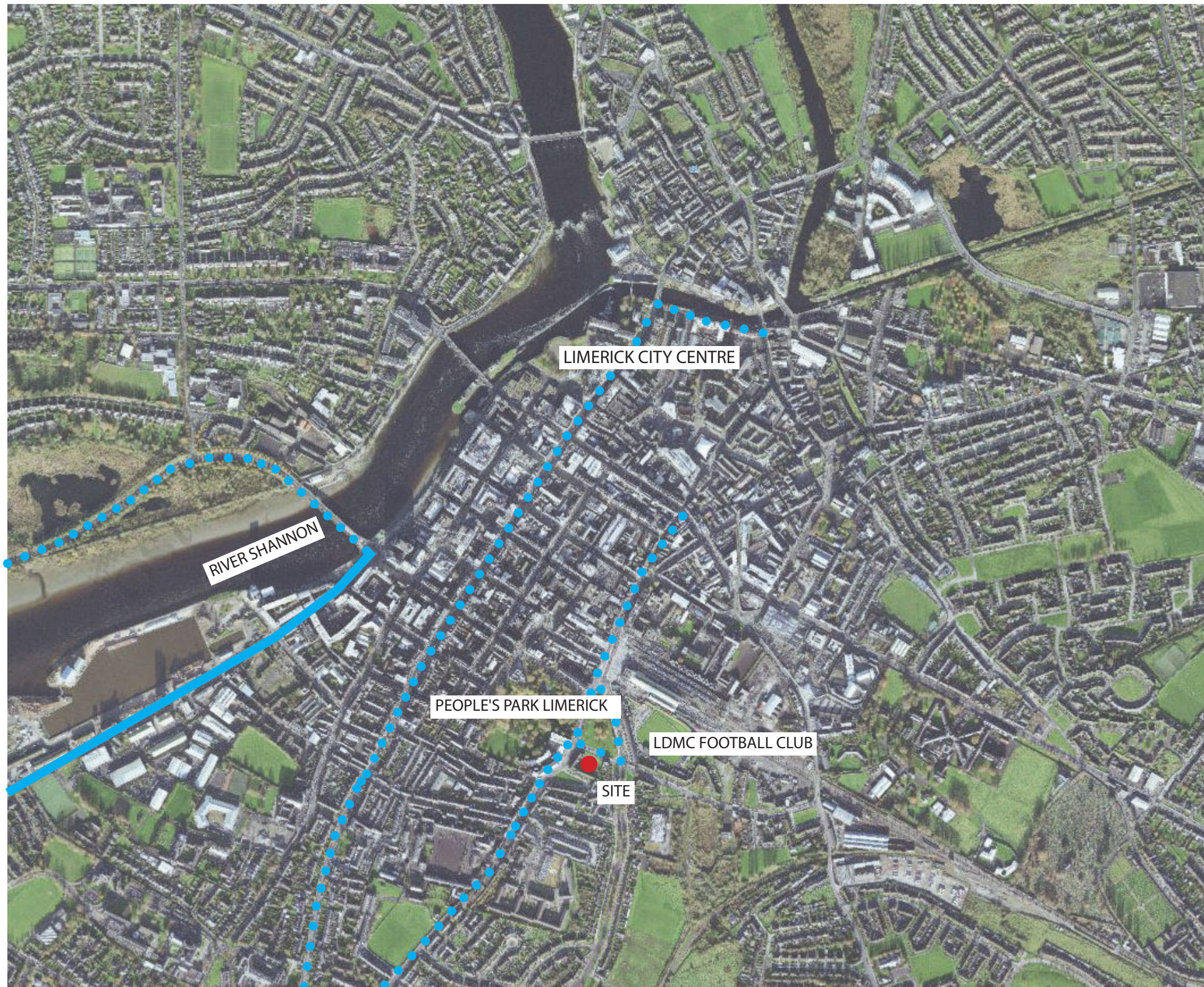
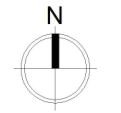


FIG. 10. SITE FABRIC

2.10 Site Fabric

The Public green area is located to the North, 3 storey housing is located directly to the South, 2 storey buildings are located to the West with 5 storey buildings across the road adjacent to the People's Park and 2 storey buildings and housing are located to the East.

2.11 Site Location

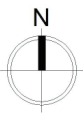


The site is located to the south of Limerick City Centre and to the east of the River Shannon. The site was previously part of a former residential area, which has now been demolished and is currently a brownfield site. The site is situated in an inner-city area which provides a great opportunity for an urban residential scheme.

- SITE LOCATION
- NATIONAL ROAD
- REGIONAL ROAD

FIG. 11. SITE LOCATION

2.12 Aerial View

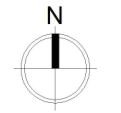


The site is located at the corner of Lower Careys Rd. and the R858 Rd. The site has excellent access to public open space in the immediate area. The site lies adjacent to People's Park Limerick and Hyde Road Park is located directly opposite. The site is situated on the outskirts of the inner town center area and is less than a minute walk to Colbert bus and train station.

● SITE LOCATION

FIG. 12. AERIAL VIEW

2.13 Site Description



The site is approximately .16 ha and is rectangular in shape. The entrance to the site is accessed from Lower Careys Rd and is a brownfield site which is relatively flat. The site is surrounded by buildings on all boundaries apart from Lower Carey's Rd. It is bounded on the east by a 3 storey commercial unit, to the south, by 3 storey residential units, to the west, by 3 storey commercial and residential units.

There is a 4/5 storey apt. building adjacent to the site to the west. The site has a single north facing aspect which fronts onto Hyde Road Park. The site is completely empty, with no significant architectural features within the site. There are no connections or paths through the site.

This site has an opportunity to create a contemporary residential block onto Hyde Road Park which will create attractive street frontage, something which this site is currently lacking.

 SITE BOUNDARY LINE

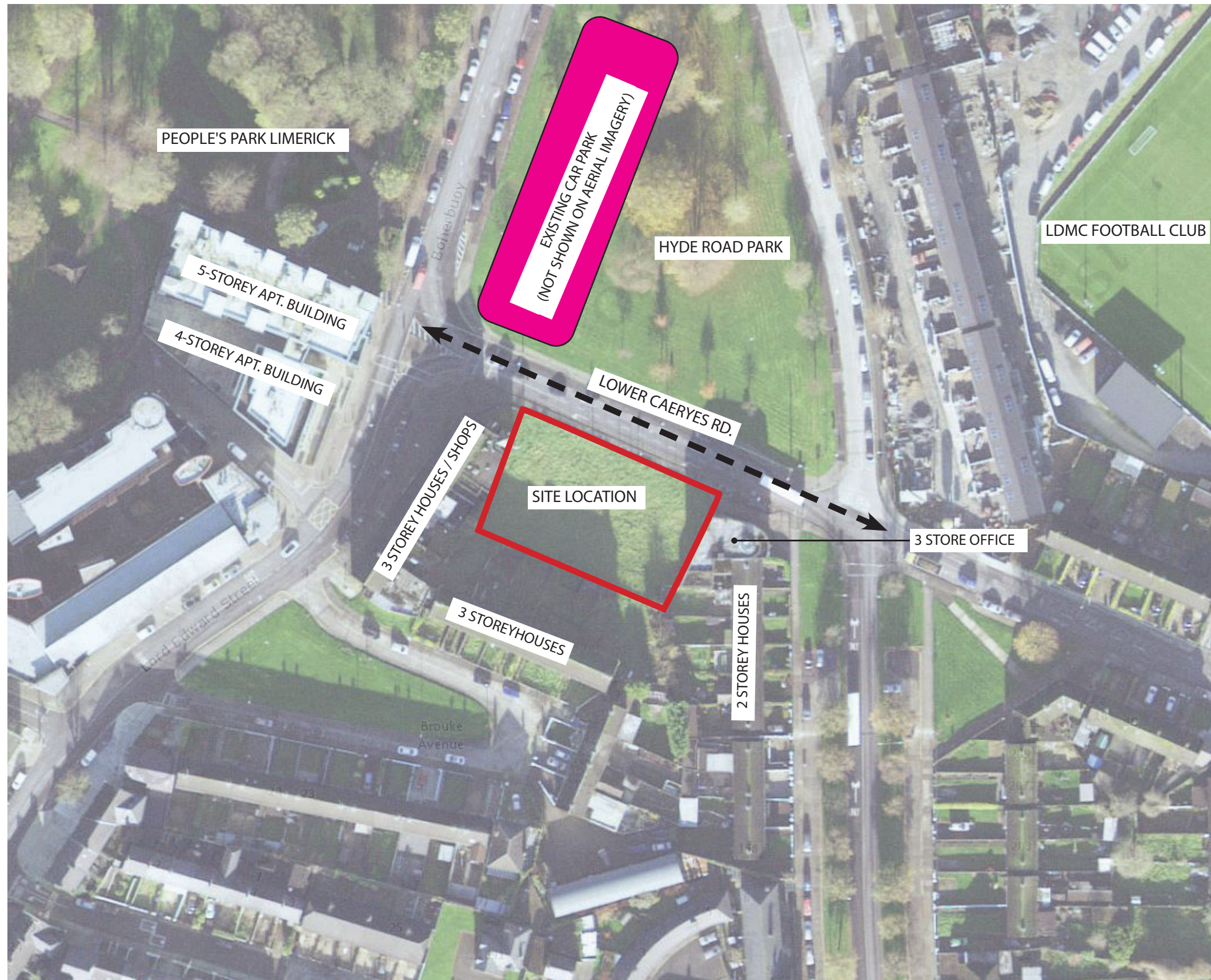
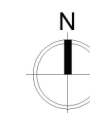


FIG. 13. SITE DESCRIPTION

2.14 Site Zoning



The site is located in Limerick City Centre and is part of the Draft Limerick City & County Development Plan 2022-2028. The site is zoned 'Existing Residential' as per the Draft Limerick Development Plan 2022-2028. Chapter 12 of the Draft Limerick Development Plan 2022-2028 set out the zoning objectives and states; 'Objective Existing Residential - To provide for residential development, protect and improve existing residential amenity.'

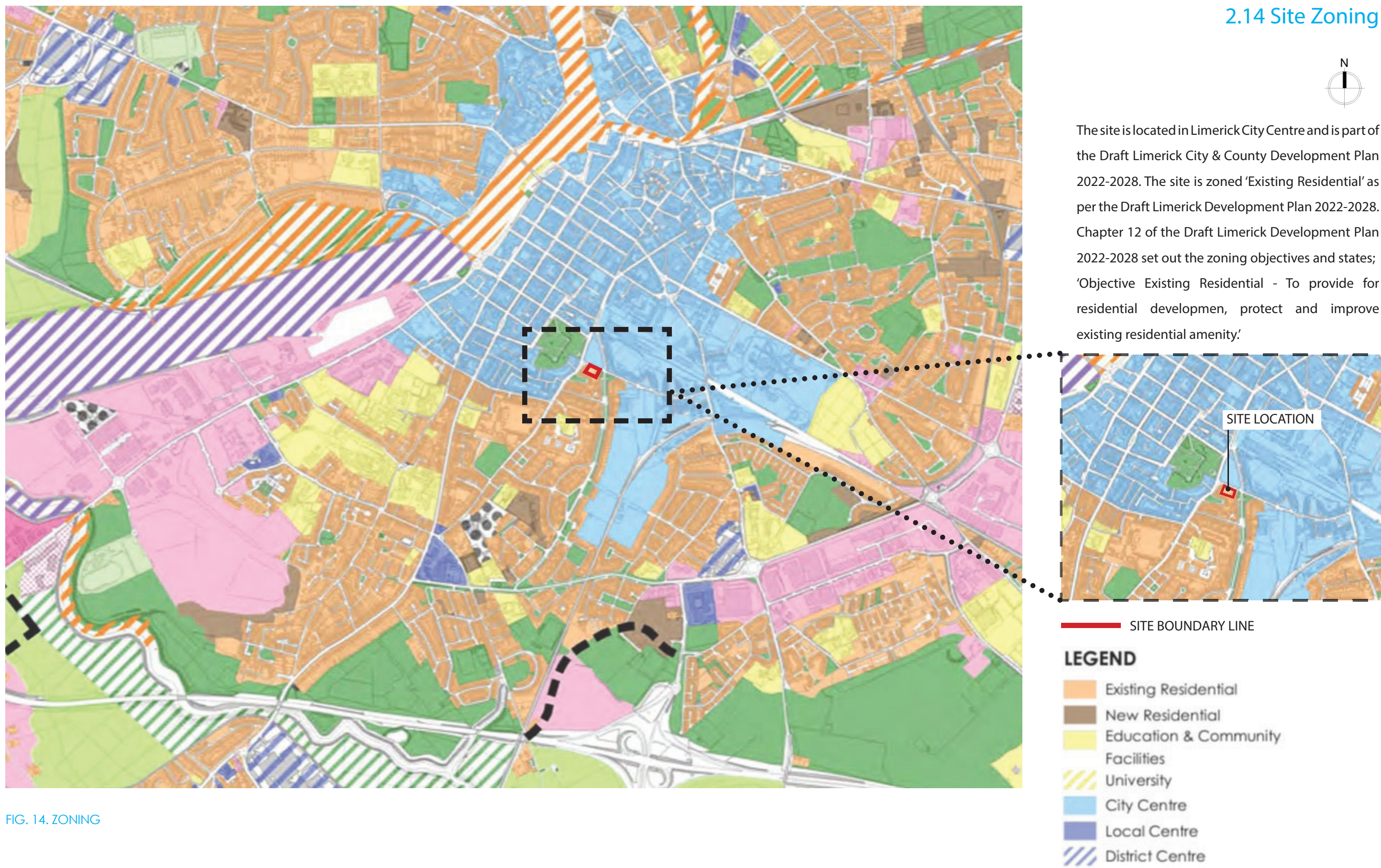


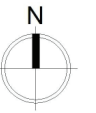
FIG. 14. ZONING



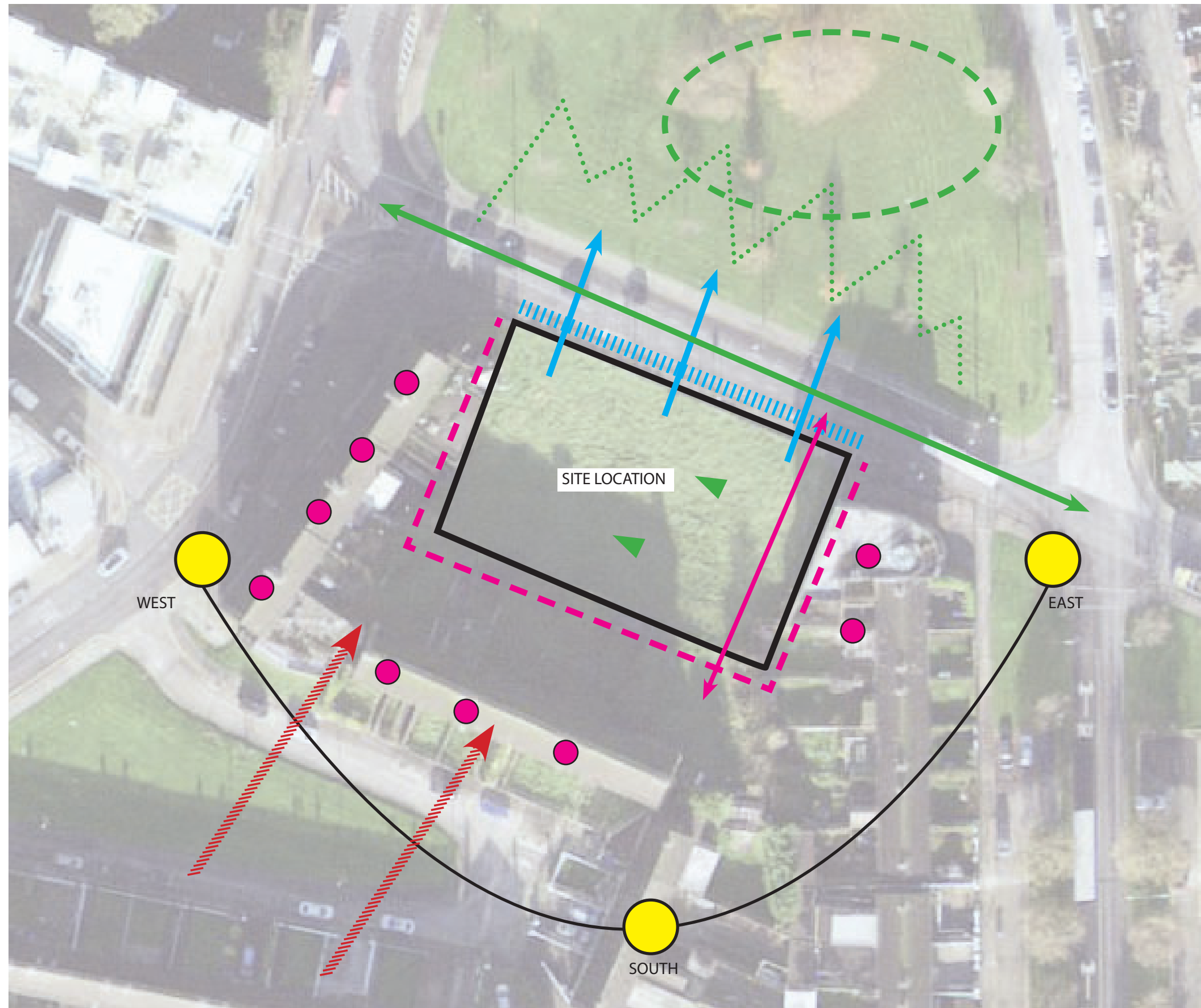
SWOT ANALYSIS

03


3.1 SWOT ANALYSIS






We have undertaken a SWOT analysis to identify the sites strengths, weaknesses, opportunities and threats. This influenced our set of design objectives and overall design and layout of the scheme.




STRENGTHS

-  TOPOGRAPHY
-  EXISTING ROAD
-  EXISTING OPEN SPACE
-  SHADOW CASTING

WEAKNESSES

-  UNKNOWN PIPELINE
-  SITE LIMITATIONS
-  ADJACENT BUILDINGS

OPPORTUNITIES

-  VIEWS
-  STREET FRONTAGE

THREATS

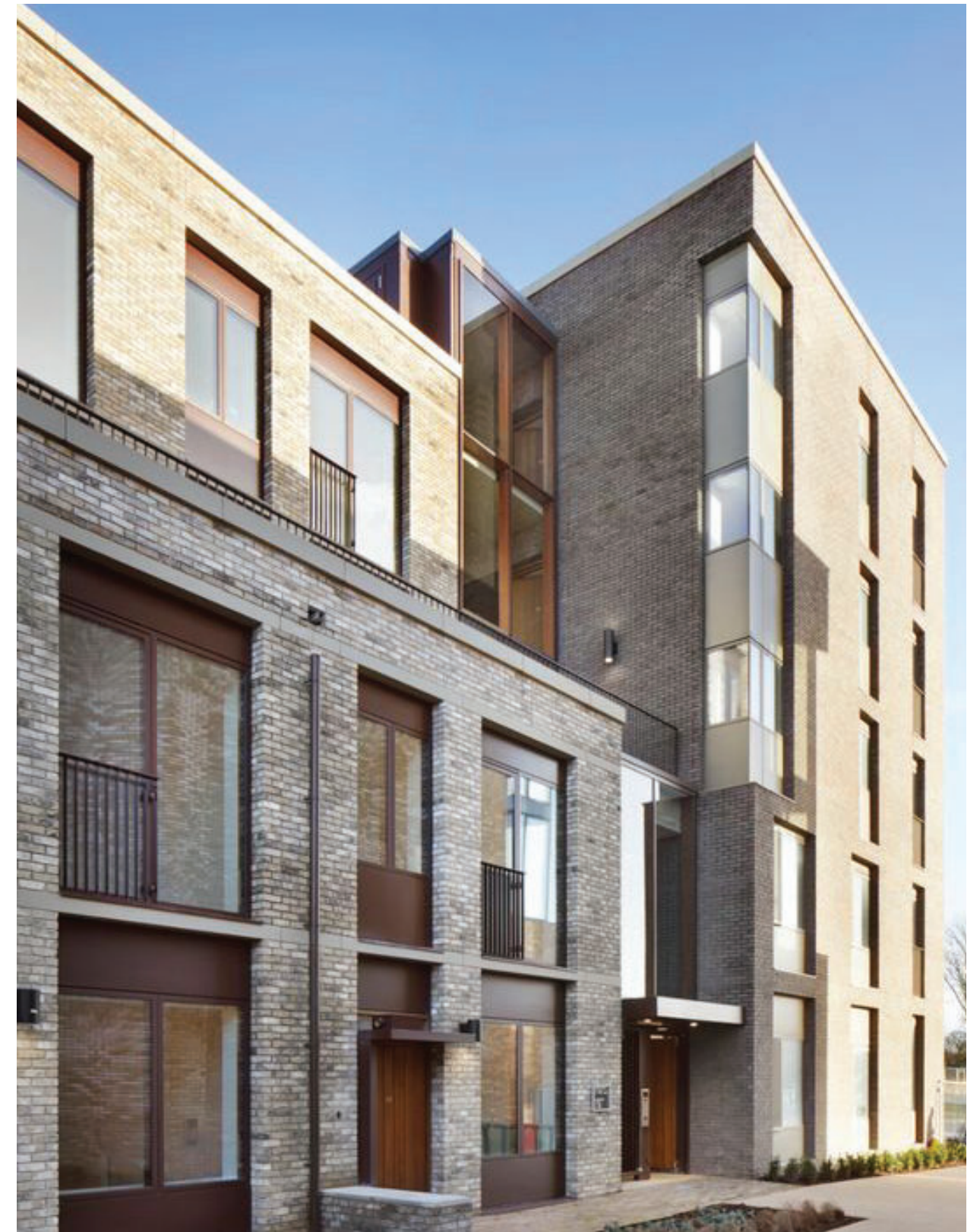
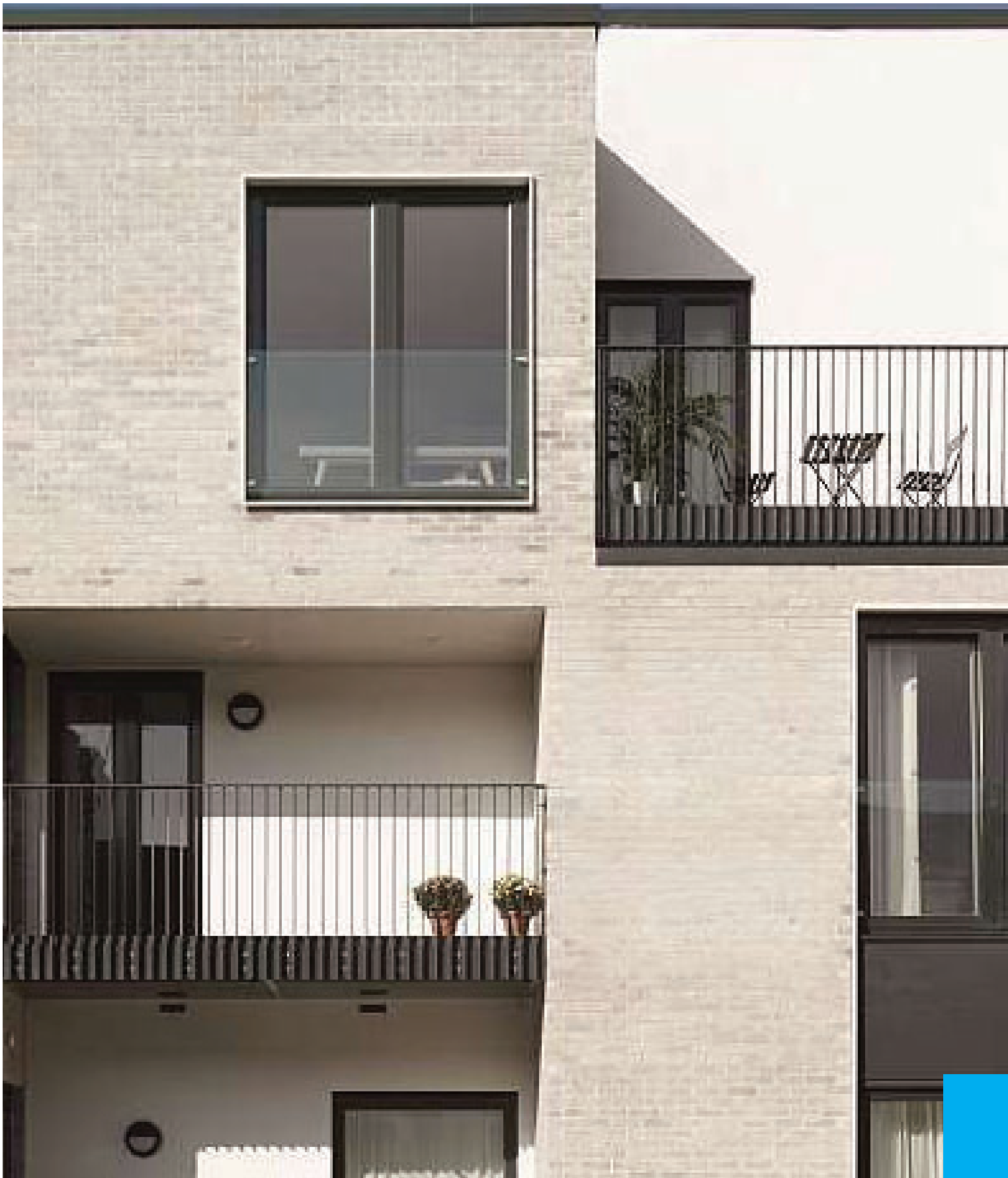
-  PREVAILING WINDS

FIG. 15. SWOT ANALYSIS



PRECEDENT IMAGES

04



EXCELLENT PROPORTIONS

- NARROW / VERTICAL PROPORTIONS
- WELL DESIGNED SOLID VS VOID





BULK AND FORM

- TOP FLOOR SET BACK
- STEP IN FACADE



COMMUNAL OPEN SPACE
• HARD VS SOFT MATERIALS
• URBAN LANDSCAPE



Design Objectives

05

5.1 Design Objectives



Access

Assess the most suitable main entrance location for the development.



Street Frontage

Create a strong street frontage along the existing road to the front of the site.



Over Looking and Shadowing

To minimize over shadowing and omit over looking.



Connections

To create a number of key connections through the development.



Open Space

To create a number of open spaces which would 'flow' through the scheme.



Passive Surveillance

To create strong passive surveillance across the open spaces.



Views

To create striking views from the scheme to the open spaces.



Landscape

To create a positive looking landscape across the scheme by using street trees, shrub areas and grass verges.



Orientation

To assess the most suitable orientation for the proposed apartment block.



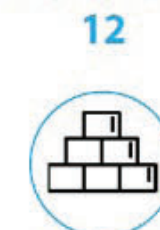
Distinctiveness

To create a sense of place and belonging within the scheme by using a distinct apartment block.



Bulk and Form

To create a contemporary architectural style throughout the scheme.



Materials and Finishes

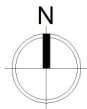
To use a modern palette of materials to create a unique and positive looking apartment scheme.



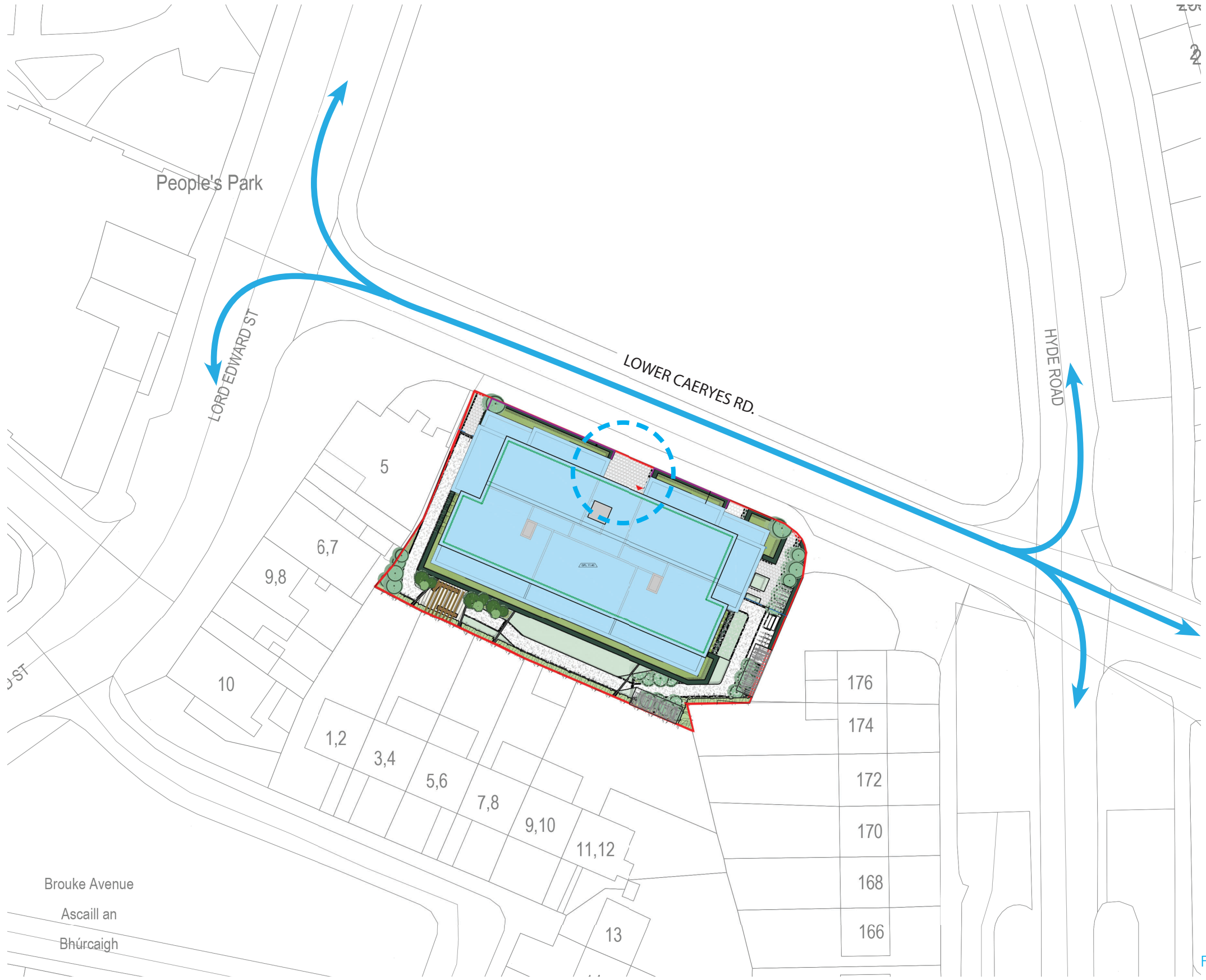
Design Process

06

6.1 Access



The main entrance to the apartments was located onto Lower Carey's Rd. for ease of access.





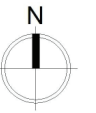
-  PROPOSED ENTRANCE LOCATION
-  PROPOSED ENTRANCE ROUTE

FIG. 16. ACCESS

6.2 Street Frontage



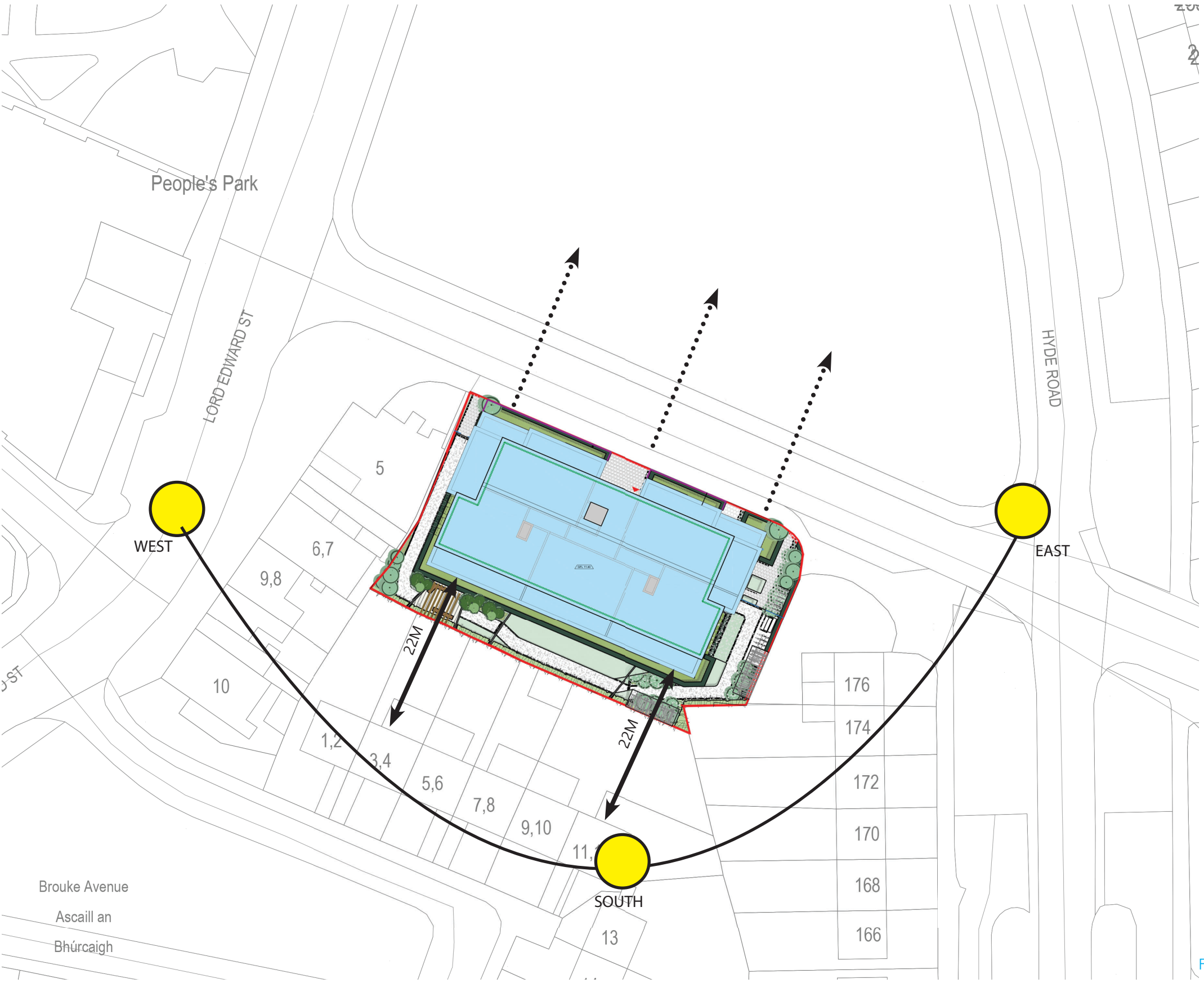
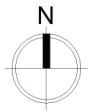
The apartment block is stepped back from the road to create a strong street frontage which will help integrate the proposal into the setting. The elevation is also stepped back to break up mass and allow the apartment complex to relate to the surrounding context also giving the proposal an attractive street frontage.



-  EXISTING ROAD
-  STREET FRONTAGE

FIG. 17. STREET FRONTAGE

6.3 Over Looking and Over Shadowing



The apartment complex is located 22m from the adjacent dwellings to the rear of the site. Over shadowing will be limited on the existing residential units as the top floor of the apartment block is stepped back. Additionally, the majority of the over shadowing will be casted onto Hyde Rd. Park Rd. as opposed to private open areas of neighboring dwellings.

FIG. 18. OVERSHADOWING

6.4 Connections



The scheme is well connected with a number of connections nodes throughout the scheme.

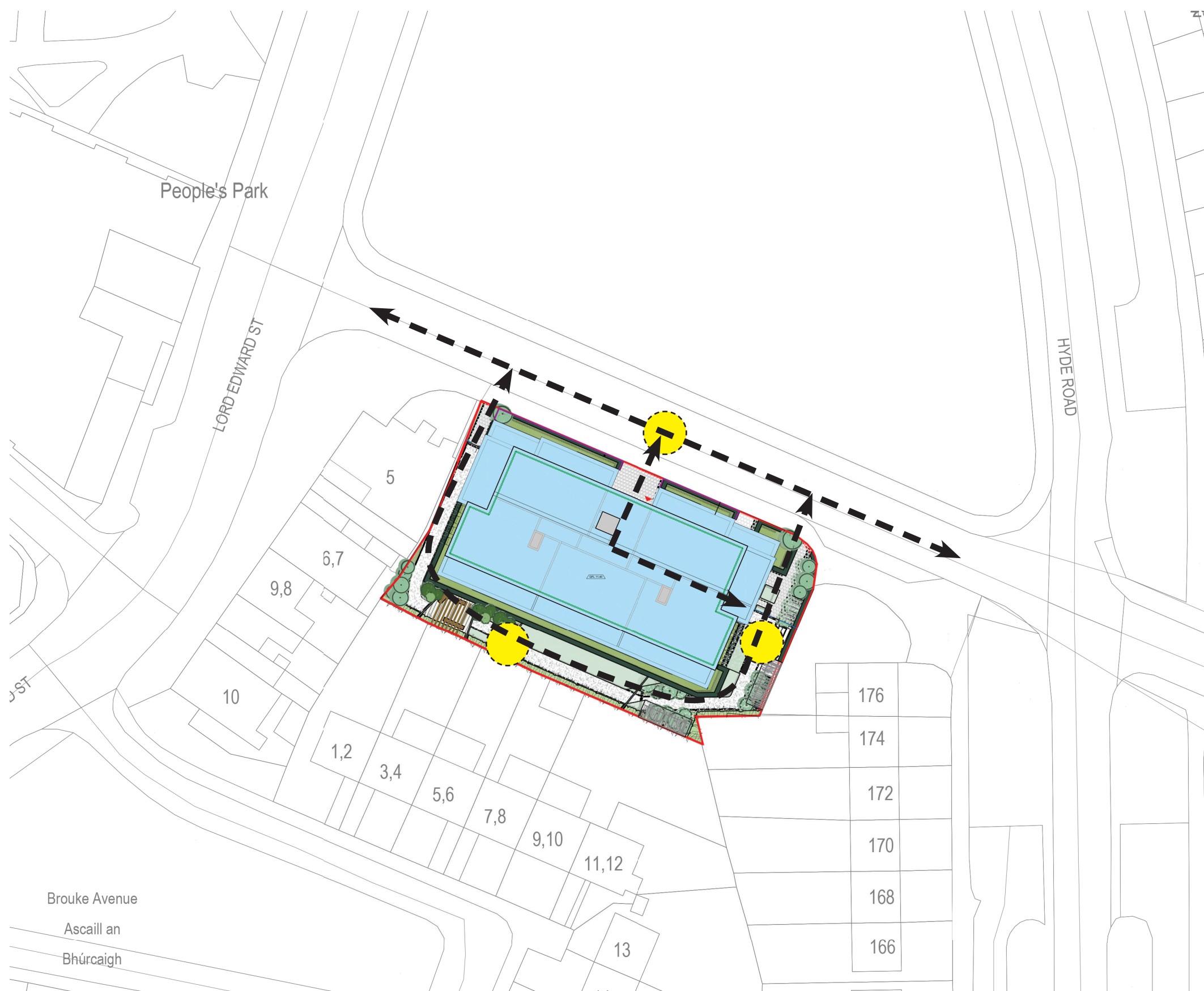
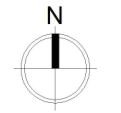


FIG. 19. CONNECTIONS

6.5 Open Space



The scheme consists of a large communal open space area to the rear of the apartment block. The scheme utilizes the existing Hyde park area as a large public open space.






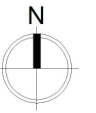
-  PUBLIC SPACE NODE
-  COMMUNAL SPACE NODE
-  MOVEMENT

FIG. 20. OPEN SPACE

6.6 Passive Surveillance



The open spaces are provided with passive surveillance from the apartments.





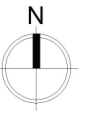
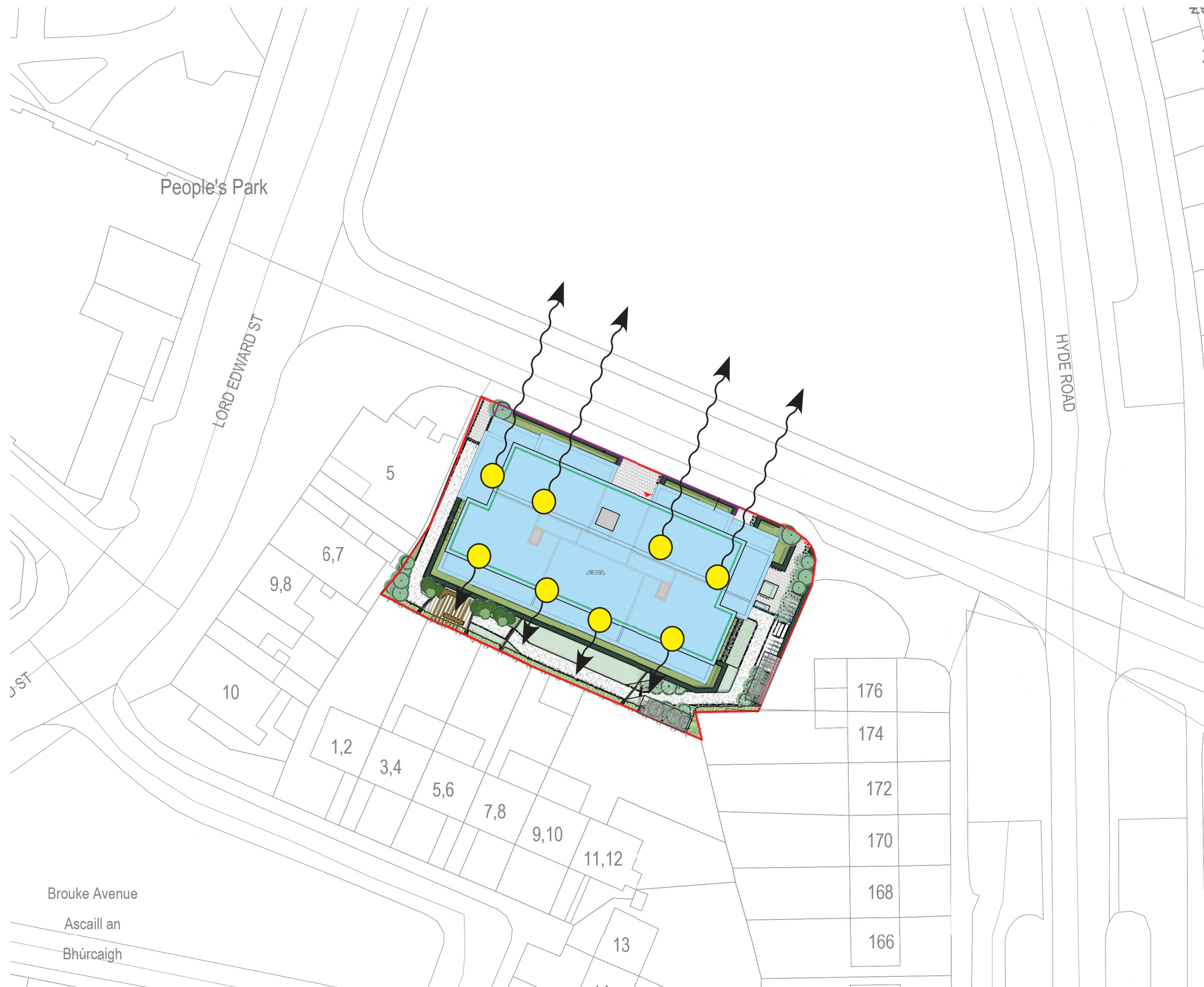
-  PRIMARY ROUTES
-  PASSIVE SURVEILLANCE

FIG. 21. SURVEILLANCE

6.7 Views



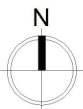
A number of views have been created throughout the development looking towards Hyde Road Park and the communal open space.



 VIEWS TOWARDS OPEN SPACE

FIG. 22. VIEWS

6.8 Landscape



The proposed trees and landscape route will help to create a positive and attractive looking scheme.

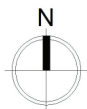
- EXISTING TREES
- PROPOSED TREES
- LANDSCAPE ROUTE



PRECEDENT IMAGE

FIG. 23. LANDSCAPE

6.9 Orientation



The apartment complex is orientated northeast/southwest to avail of the views and sun path.

The orientation was limited due to the surrounding buildings.

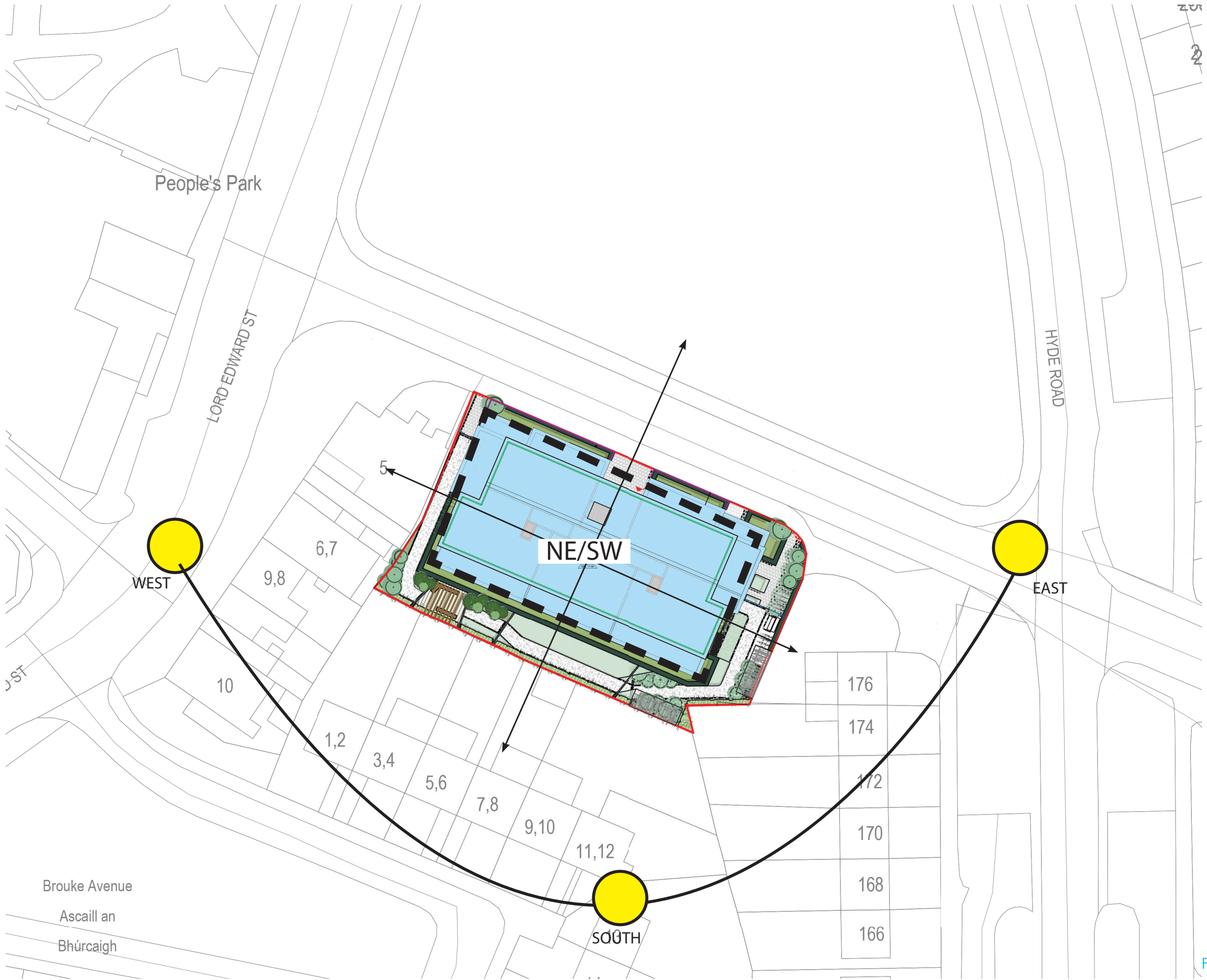


FIG. 24. ORIENTATION

6.10 Distinctiveness



FIG. 25. FRONT ELEVATION

The scheme is distinct in character as it will use a number of contrasting brick tones and a kingspan paneling on the top floor.

The character of this new development will enrich the urban qualities of the city. The apartment complex will create a distinctive neighborhood which will sit appropriately into the context of the surrounding area. The front facing facade will create a sense of identity and place and is linked by a number of communal and public open spaces. The form of the apartment complex will harmonize with and not clash with the city's traditional forms.



6.11 Bulk and Form

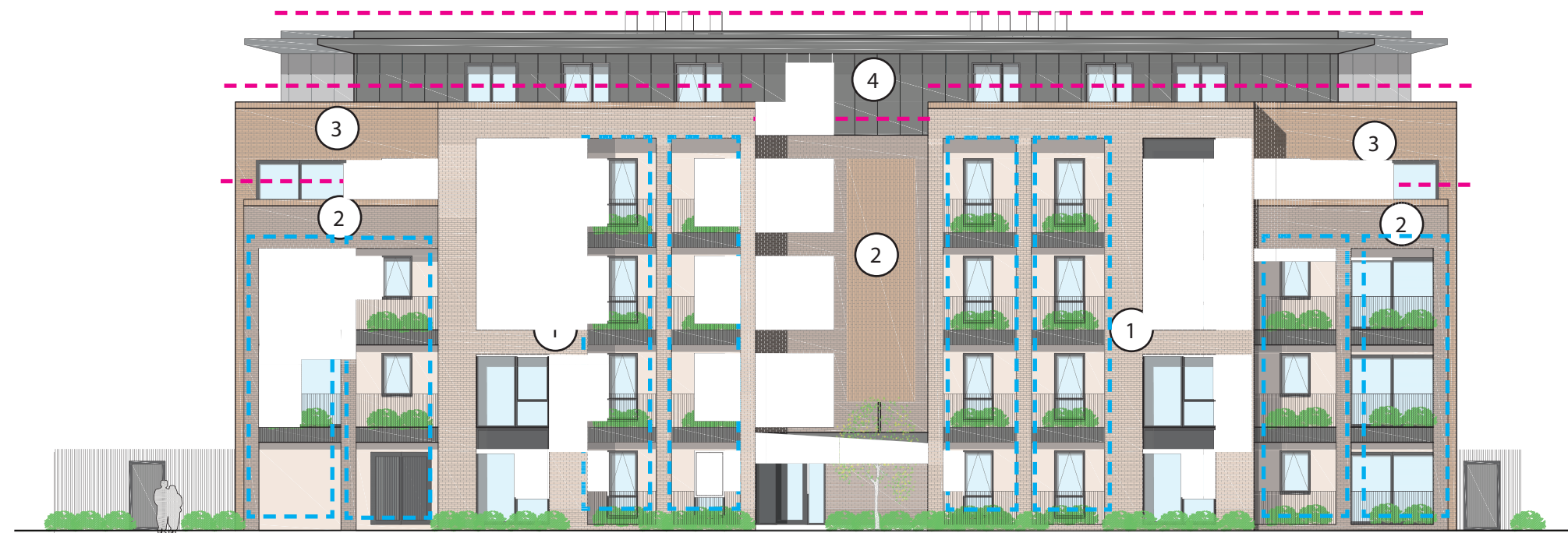
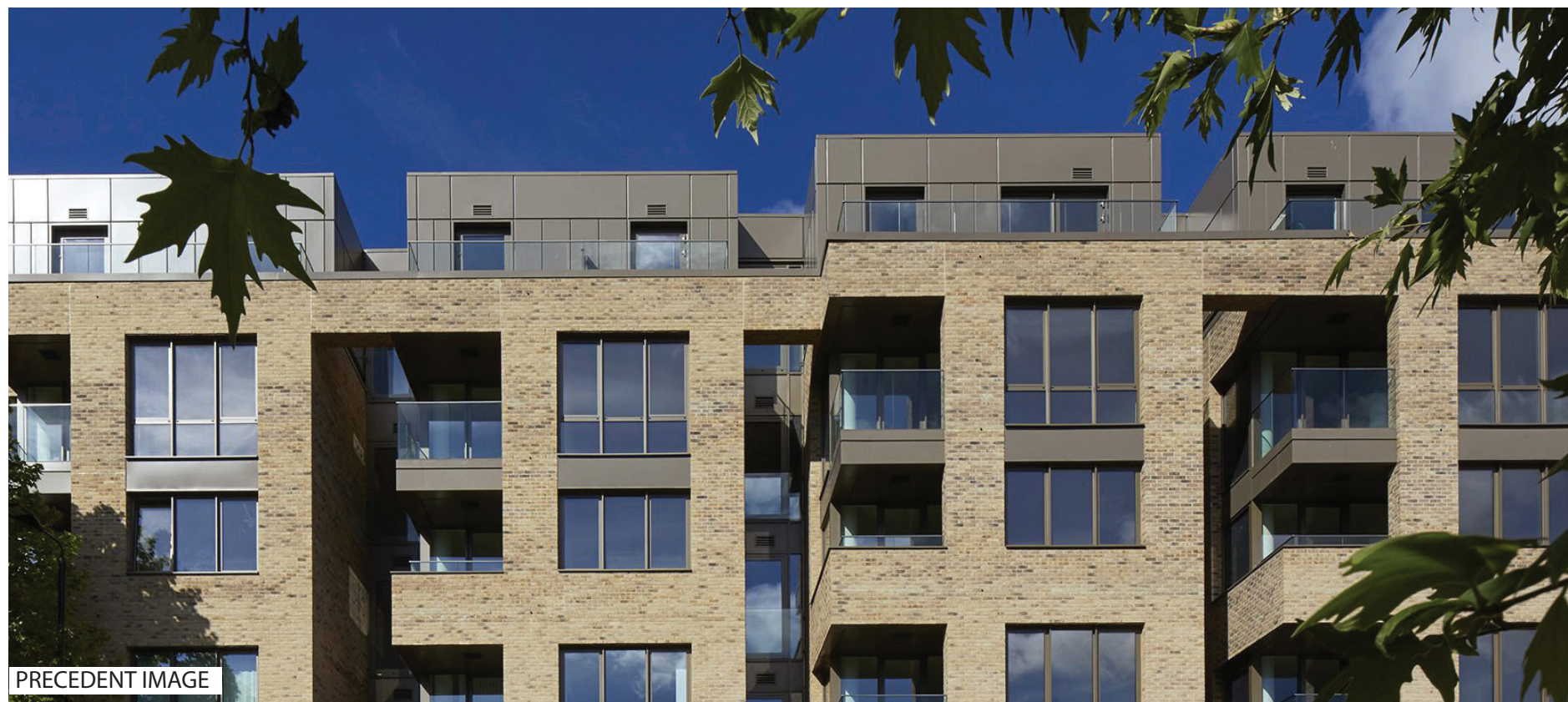


FIG. 26. FRONT ELEVATION

The apartment complex will be no more than 5 storeys, similar to the adjacent 5 storey apartment block across Carey's Rd. The bulk and form of the building will be broken up as follows:

- The elevation of the apartment building will be stepped **(1 - 4)**.
- The apartment block will be stepped in height to break up the mass of the roof line.
- - - - -
- The balconies will be recessed into the building to avoid an over dominating mass and so that the observer will read the massing as 'one'.
- - - - -
- The contrasting brick tones will break up the massing of the building **(1 - 4)**.



6.12 Materials and Finishes

SAMPLE BOARD

OPTION 1

BUILDING FINISHES

1. Painted Knapp plaster finish
2. Munster joinery Future-proof PVC windows Mouse grey - RAL 7005
3. EPC metal balcony railings Graphite black - RAL 9011
4. Tobermore- Lansdowne Gold
5. Kingspan-Primo soffit panel Graphite black - RAL 9011
6. Kingspan-Primo soffit panel Graphite black - RAL 9011
7. Kingspan Quad-Core Architectural wall panel Flat KS600-1000 FL - RAL Grey 7015



MOOD BOARD

COLOURS



TEXTURES



CONTEXT



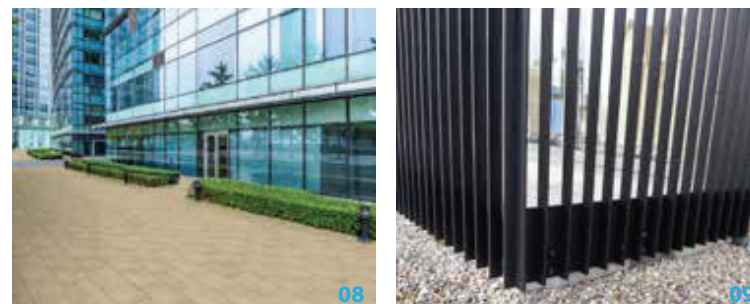
Two palletes of materials were considered for this project. The palletes were considered for how they sat in their context of the surrounding buildings, overall clarity of colour, grade and quality of finish and legibility.

After carefully considering the two options against each other, sample board one was chosen as the preferred choice due to how it matched in with its context and reflected the material choices of the surrounding developments.



LANDSCAPE FINISHES

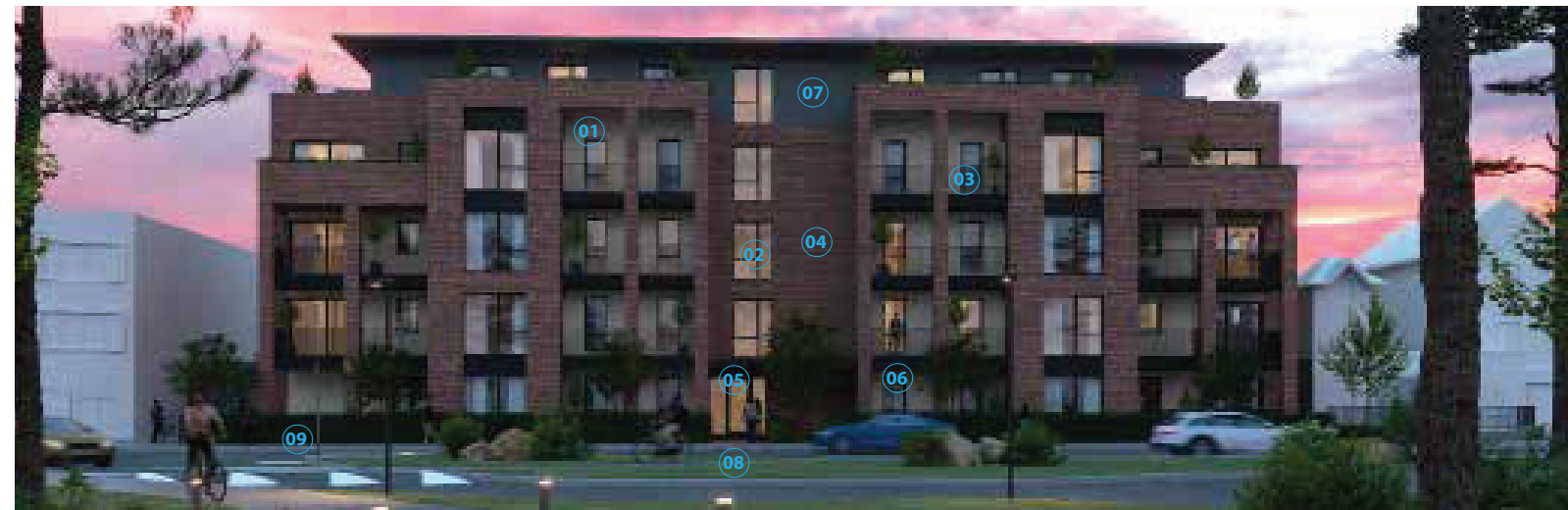
8. Tobermore- Fusion - Standstone
9. EPC metal railings Graphite black - RAL 9011



SAMPLE BOARD

BUILDING FINISHES OPTION 2

1. Painted Knapp plaster finish
2. Munster joinery Future-Proof PVC windows RAL - Grey 7015
3. EPC metal balcony railings Graphite black - RAL 9011
4. Tobermore- Warm Red
5. Kingspan-Primo soffit panel Graphite black - RAL 9011
6. Kingspan-Primo soffit panel Graphite black - RAL 9011
7. Kingspan Quad-Core Architectural wall panel Flat KS600-1000 FL- RAL Grey 7015



LANDSCAPE FINISHES

8. Tobermore- Fusion - Standstone
9. EPC metal railings Graphite black - RAL 9011



MOOD BOARD

COLOURS



TEXTURES



CONTEXT



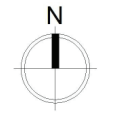


PROPOSED LAYOUT

07



7.1 Site Layout



SITE AREA
1,405sq.m.

DENSITY
257 units/ Ha

TOTAL FLOOR AREA
3,198 sq.m

TOTAL NO. UNITS
36

COMMUNAL OPEN SPACE
439sq.m / 31%

FIG. 28. SITE PLAN



FIG. 29. NORTH VIEW



FIG. 30. NORTH WEST VIEW



FIG. 31 NORTH-EAST VIEW

7.2 Schedule of Accommodation

SCHEDULE OF ACCOMMODATION		
APARTMENT BLOCK	Type	GFA
GROUND FLOOR		
APT. 1	1 bed	53.9 sq.m
APT.2	2 bed	76.5 sq.m
APT.3	2 bed	76.5 sq.m
APT.4	2 bed	80.0 sq.m
APT.5	2 bed	82.8 sq.m
APT.6	1 bed	49.9 sq.m
APT.7	2 bed	80.0 sq.m
FIRST FLOOR		
APT. 8	1 bed	53.9 sq.m
APT.9	2 bed	76.5 sq.m
APT.10	2 bed	76.5 sq.m
APT.11	1 bed	53.9 sq.m
APT.12	2 bed	80.0 sq.m
APT.13	2 bed	82.8 sq.m
APT.14	1 bed	49.9 sq.m
APT.15	2 bed	80.0 sq.m
SECOND FLOOR		
APT.16	1 bed	53.9 sq.m
APT.17	2 bed	76.5 sq.m
APT.18	2 bed	76.5 sq.m
APT.19	1 bed	53.9 sq.m
APT.20	2 bed	80.0sq.m
APT.21	2 bed	82.8 sq.m
APT.22	1 bed	49.9 sq.m
APT.23	2 bed	80.0 sq.m
THIRD FLOOR		
APT.24	1 bed	53.9 sq.m
APT.25	2 bed	76.5 sq.m-
APT.26	2 bed	76.5 sq.m
APT.27	1 bed	53.9 sq.m
APT.28	2 bed	80.0 sq.m
APT.29	2 bed	82.8 sq.m
APT.30	1 bed	49.9 sq.m
APT.31	2 bed	80.0 sq.m
FOURTH FLOOR		
APT.32	2 bed	79 sq.m
APT.33	2 bed	79 sq.m
APT.34	2 bed	91 sq.m
APT.35	2 bed	79.7 sq.m
APT.36	2 bed	91 sq.m
TOTAL NO.	25 no. 2 bed	
	11 no. 1 bed	
TOTAL NO. APARTMENTS		
36 no. units		

2 bed apt. 2, 3, 9, 10,17, 18, 25, 27	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	76.4 sq.m	32.1sq.m	13.1 sq.m	11.4 sq.m	24.5 sq.m	6 sq.m	7.8 sq.m	1827 sq.m (refer to site plan)
1 bed apt. 6, 14, 22, 30	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	45 sq.m	23 sq.m	13 sq.m		13 sq.m	3 sq.m	5 sq.m	1827 sq.m (refer to site plan)
Provided	49.9 sq.m	23.1 sq.m	13.2 sq.m		13.2 sq.m	3.1 sq.m	8.6 sq.m	1827 sq.m (refer to site plan)
1 bed apt. 1, 8, 11, 16, 19, 24, 27	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	45 sq.m	23 sq.m	13 sq.m		13 sq.m	3 sq.m	5 sq.m	1827 sq.m (refer to site plan)
Provided	53.9 sq.m	23.2 sq.m	13 sq.m		13 sq.m	3 sq.m	12.3 sq.m	1827 sq.m (refer to site plan)
2 bed apt. 5, 13, 21, 29	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	82.8 sq.m	35.2 sq.m	13.2 sq.m	12.1 sq.m	25.3 sq.m	6.3 sq.m	7.7 sq.m	1827 sq.m (refer to site plan)
2 bed apt. 4, 7, 12, 15, 20, 23, 28, 31	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	80 sq.m	31.7 sq.m	13.1 sq.m	12.4 sq.m	25.5 sq.m	7.2 sq.m	7.6 sq.m	1827 sq.m (refer to site plan)
2 bed apt. 35	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	79.8 sq.m	30.2 sq.m	13.5 sq.m	13.3 sq.m	26.8 sq.m	6.9 sq.m	24.6 sq.m	1827 sq.m (refer to site plan)
2 bed apt. 34, 36	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	91.2 sq.m	34.7 sq.m	15.2 sq.m	12.7sq.m	27.9 sq.m	7.4 sq.m	25.4 sq.m	1827 sq.m (refer to site plan)
2 bed apt. 32, 33	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities							
	GFA	Aggregate Floor Area	Minimum Bedroom Area		Aggregate Bedroom Area	Minimum Storage Area	Minimum Private Amenity Space	Minimum Communal Amenity Space
Required	73 sq.m	30 sq.m	Double 13 sq.m	Double 11.4 sq.m	22.4 sq.m	6 sq.m	7 sq.m	1827 sq.m (refer to site plan)
Provided	79.1 sq.m	31.9 sq.m	13.5 sq.m	11.4 sq.m	24.9 sq.m	6 sq.m	40.6 sq.m	1827 sq.m (refer to site plan)

FIG. 32. SCHEDULE OF ACCOMODATION

7.3 Ground Floor Plan Not to Scale



FIG. 33. GROUND FLOOR PLAN

7.4 First and Second Floor Plan
Not to Scale



FIRST FLOOR PLAN
1:100 @ A1

First Floor Area = 671 sq.m

Second Floor Area = 671 sq.m



SECOND FLOOR PLAN
1:100 @ A1

FIG. 34. FIRST & SECOND FLOOR PLANS

7.5 Third and Forth Floor Plan
Not to Scale

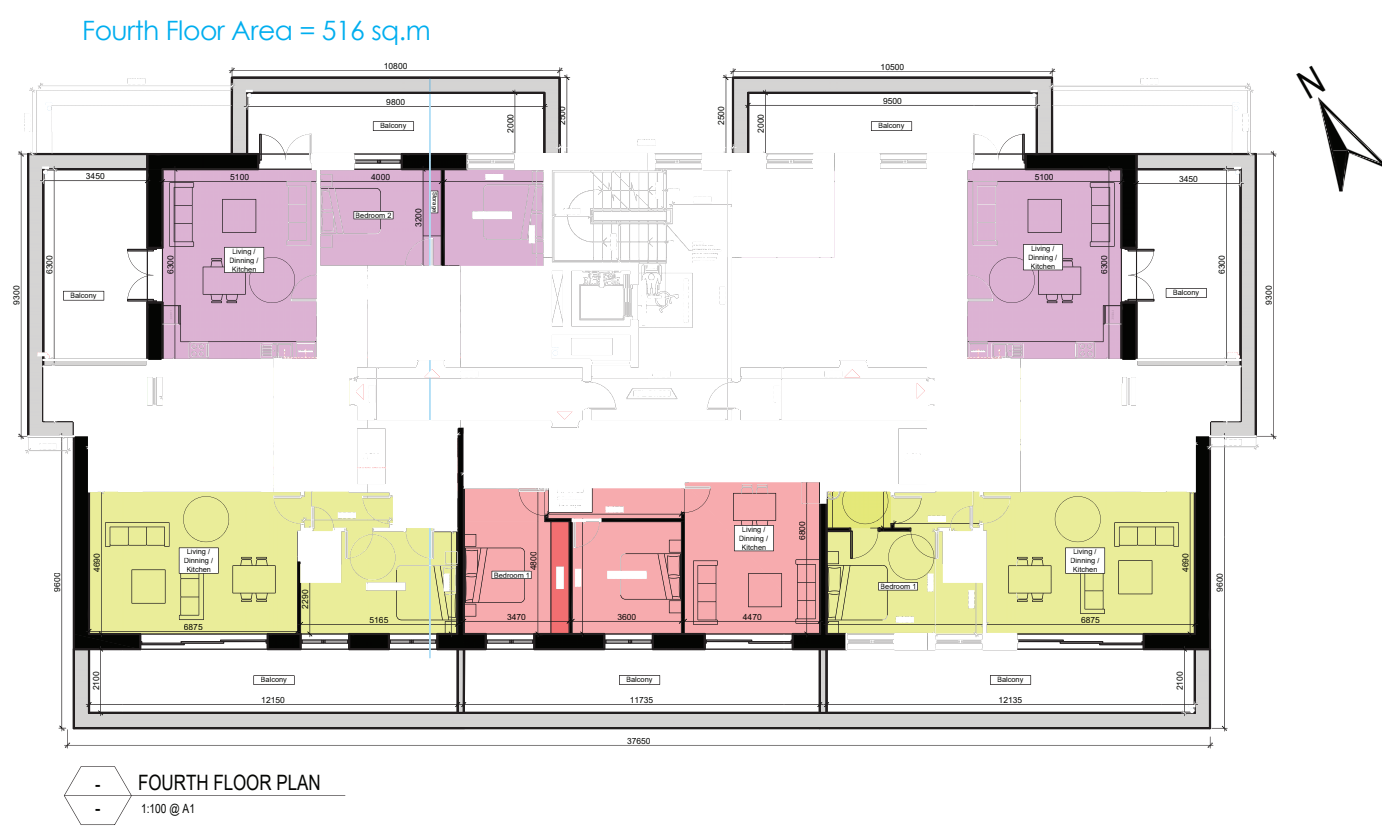


FIG. 35. THIRD & FOURTH FLOOR PLANS

7.6 Front and Rear Elevations
Not to Scale



FIG. 36. FRONT & REAR ELEVATIONS

7.7 Side Elevations and Section
Not to Scale

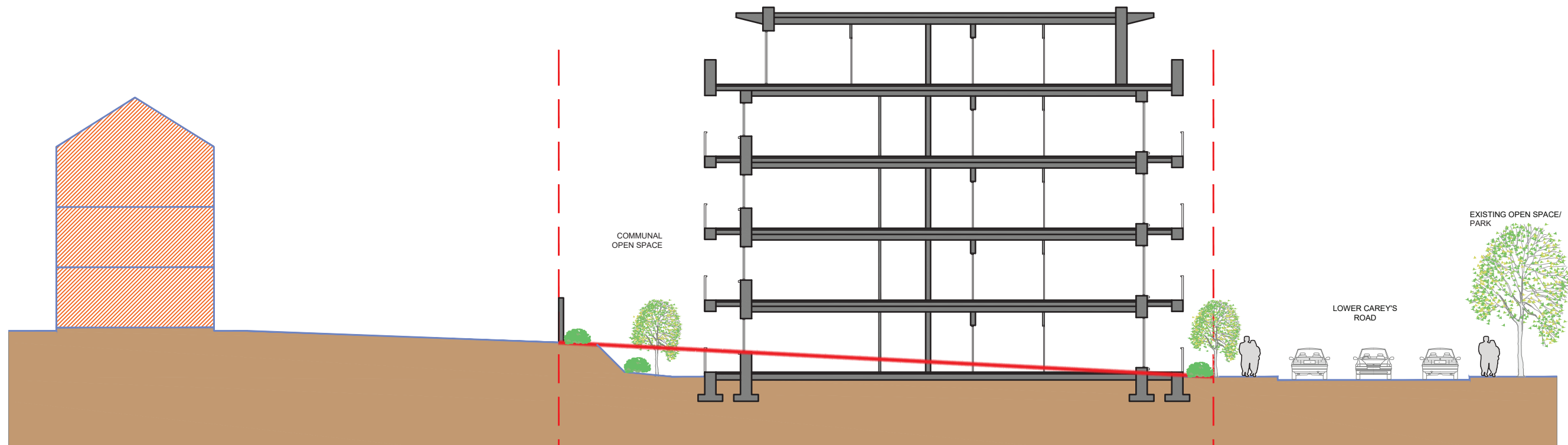


FIG. 37. SITE SECTION



FIG. 38. LEFT ELEVATION

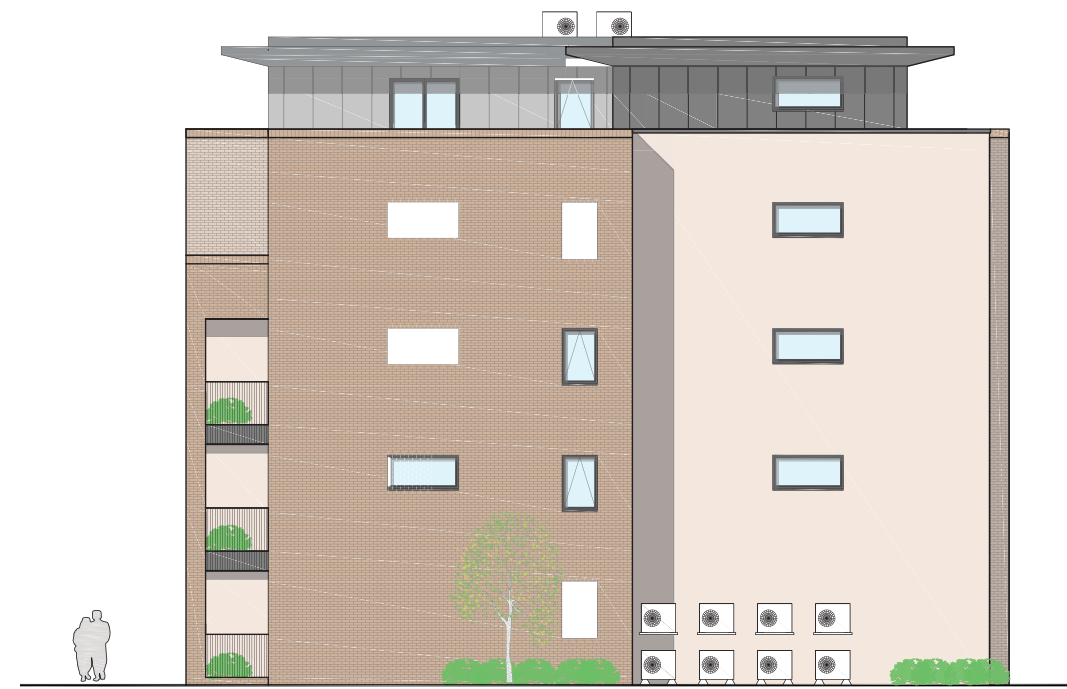


FIG. 39. RIGHT ELEVATION



National Planning Framework

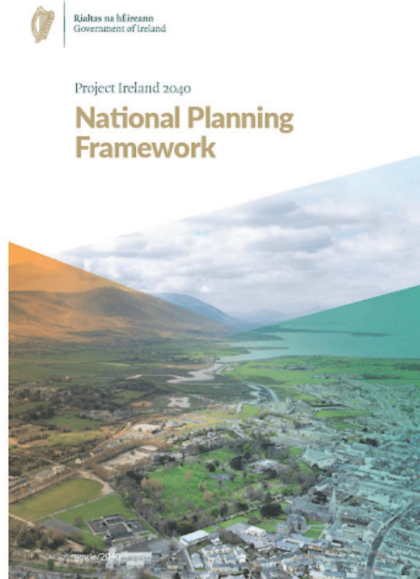
08



8.1 National Planning Framework

The purpose of this section is to demonstrate how the proposed scheme has been designed in accordance with the objectives set out in the National Planning Framework 2040.

This document has been used at the beginning of the design process to ensure that the scheme would deliver the appropriate density to adhere to National Policy Objective 32 - to target the delivery of 550,000 additional households on 2040.



The National Planning Framework is the government's long term plan for what Ireland aims to achieve by 2040.

It seeks to answer questions like:

Where will we live?

Where will we work?

And how will we get around?

Between now and 2040, the government wants to pull together all its action plans to ensure that it has national and regional strategies in place as Ireland's population grows and as political challenges appear on our front step.

Ireland's population is set to grow by one million people in the next 20 years. By then, new 550,000 homes and 660,000 jobs will be needed. This raises a series of important questions for consideration, like where all these people will live and work, what kind of quality of life will we they enjoy, and how will living in a country with a growing population of almost six million people will be affected by and through our built and natural environment.

Key future growth strategies for Limerick are stated in the National Framework Plan as follows: "Progressing the sustainable development of new greenfield areas for housing and the

development of supporting public transport and infrastructure”

“Identifying infill and re-generation opportunities to intensify housing and employment development throughout city centre and inner suburban areas”

At the early stages of design, this project has responded to these strategies by creating a place that provides high-quality of life through healthy, diverse, inclusive and age friendly communities; key elements described in the National Framework Plan.

At early stages, a number of other considerations were taken into account for the design of the development, such as the location of homes and their re-use, adaptability and accessibility potential, ensuring their social integration in order to deliver vibrant sustainable communities and by providing a high standard quality of life for future residents and establishing environmentally and socially sustainable placemakings through integrated planning and consistently excellent design.

In addition, FHP have designed in tangent with existing services ensuring a more efficient use of land and allowing for greater integration with existing infrastructure. The scheme appropriately balances the provision of good quality residential units that meet the needs of a diverse population, in a way that makes our cities, towns, villages and rural areas good places to live now and in the future.



Precedent Image



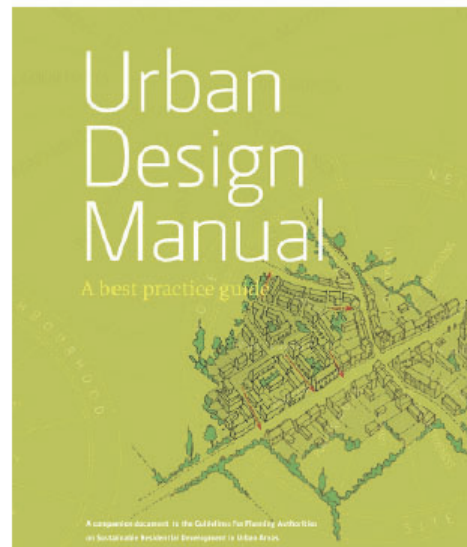
Urban Design Compliance

09

9.1 Introduction

The purpose of this section is to demonstrate the compliance of the proposed development with all the statutory requirements and recommendations stipulated in the document *Urban Design Manual: A Best Practice Guide* (2009).

This document has been used at all stages of the design process for the development as a main guidance and reference. Efforts have been made to ensure compliance with all points expressed in this publication.



9.2 Context

How does the development respond to its surroundings?

The proposed scheme makes the most positive contribution possible to its neighbourhood and landscape.

We have ensured that the proposed development will not turn its back on the local community and that the scheme does not stand out as development that is too different to the surrounding estates. The scheme integrates with its surroundings. We have used similar materials and forms to the surrounding developments in the area, therefore ensuring the scheme blends in.

We have also created a place of distinction, by using modern building materials drawn from the local context and thereby strengthening the identity of the scheme.

The proposed scheme does not intrude on the existing topography of the land, there is very minimal fill and cut into the ground, thereby working with the contours of the land.

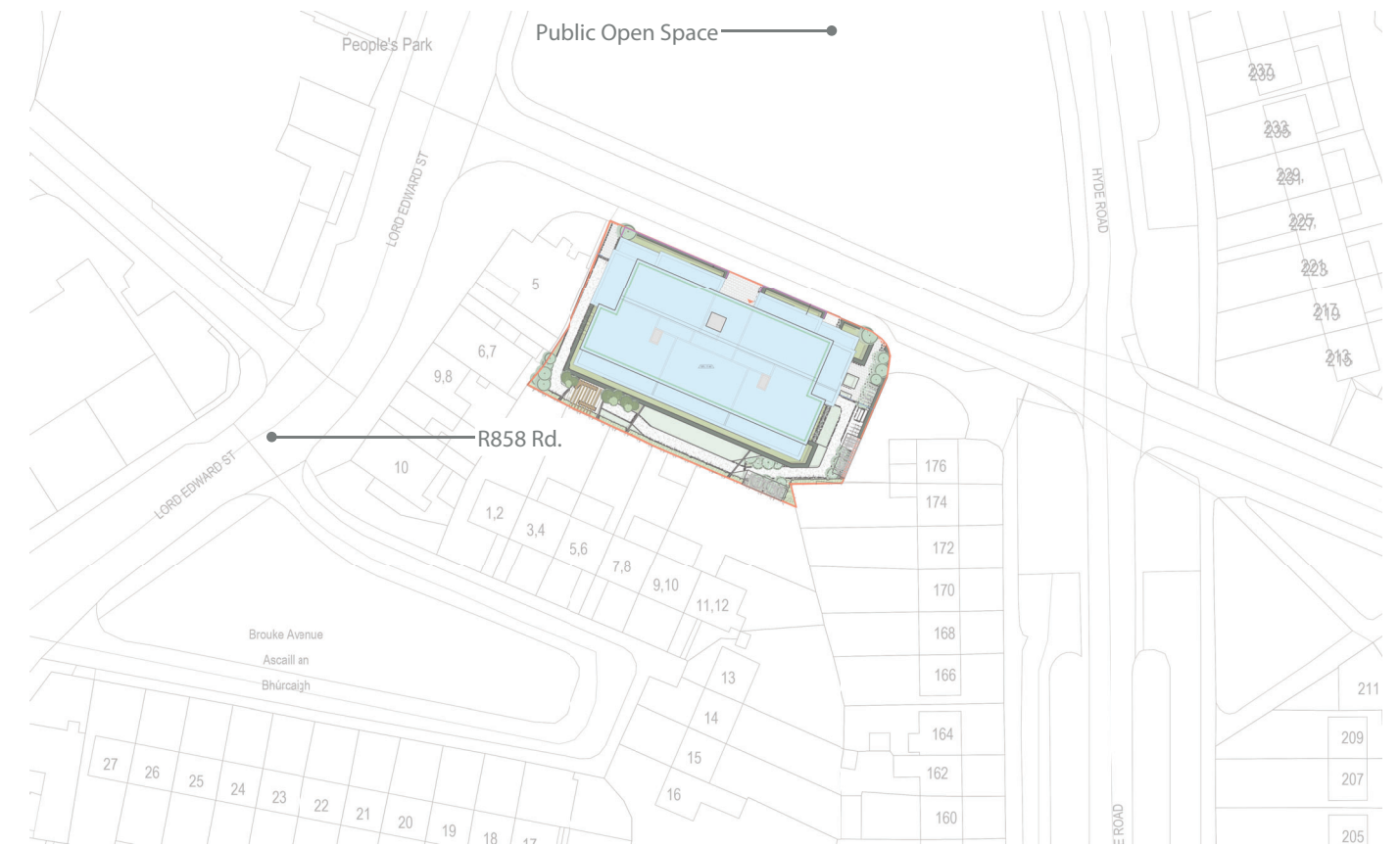


FIG. 40. PROPOSED SITE LAYOUT

9.3 Connectivity

How well connected is the new neighbourhood?

The site is in a city centre location. This gives it prime access to city centre services and transport. It is located a 5 minute walk from Limerick Train station which also serves as a Bus Eireann station.

The building has been stepped back from the road to allow for a wide footpath allowing safe travel to areas around the city. As well as this a secure bicycle shelter has been provided allowing users easy access to environmentally friendly transport to all areas of the city.

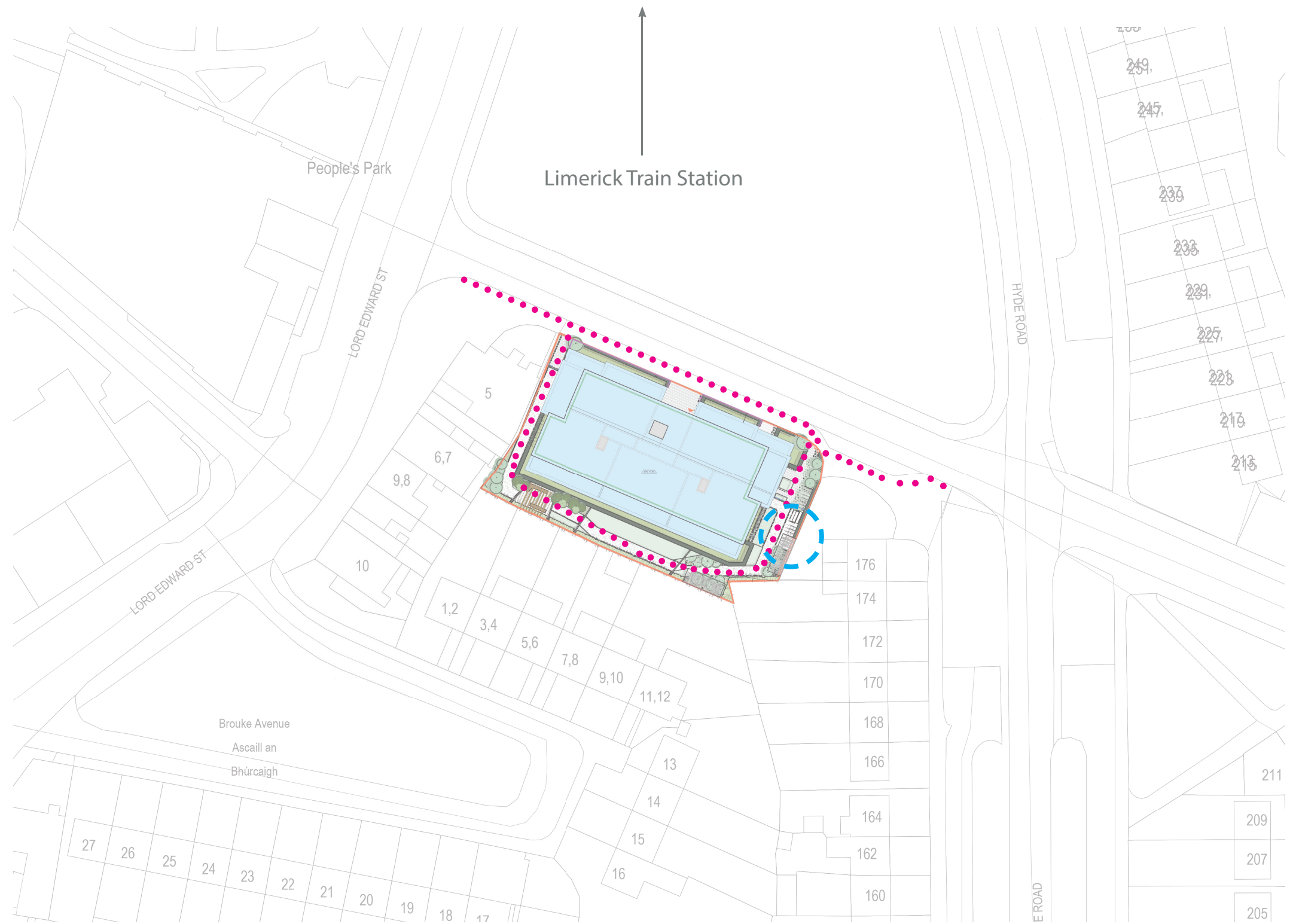
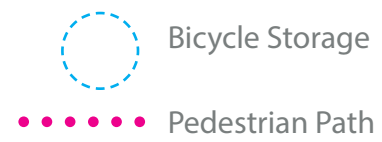


FIG. 41. PROPOSED SITE LAYOUT

9.4 Inclusivity

How easily can people use and access the development?

Inclusive design is defined as that which meets the needs of all users, regardless of age, gender, race or sensory and mobility abilities. In the broadest sense, it also means creating places that can be enjoyed by people from all cultural and socio-economic backgrounds.

The proposed development is legible and easy to navigate by all users. The street frontage is defined by the building front. There is also good street frontage, natural surveillance and good quality hard landscaping will be used.

We have ensured that a compact and easily walkable form of development is created and will make walking and cycling, especially for local trips, more attractive than using the car. The design team has followed the applicable policies and legislations relating to Universal Access Design in Ireland. The designers have referred to the technical guidance document - Part M (Access and Use) to comply with the requirements of the Building Regulations in order to ensure that the universal access and use will be provided throughout the development.



Precedent Image



Precedent Image

9.5 Variety

How does the development promote a good mix of activities?

According to the Design Manual, activities generated by the development contribute to the quality of life in its locality. This objective is primarily associated with higher density schemes.

We believe that the proposed development will help create a balanced, sustainable community in that the overall mix of house units and typologies in the neighbourhood will be conducive to maintain a healthy, balanced community. Open spaces contained within the scheme will facilitate both passive and active recreation, that will further develop a sustainable development for mixed activities with different options for recreation and leisure.

The building uses the brick and render in different locations on their front elevations. This helps create a variety in the elevation. Additionally, apartment types are single bed while others are two bed which helps provide a variety of users throughout the scheme.

9.6 Efficiency

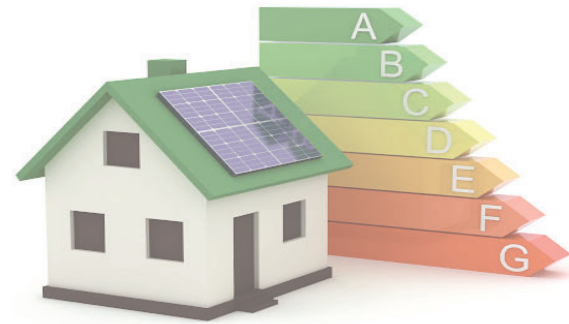
How does the development make appropriate use of resources, including land?

One of the objectives of the recommendations stipulated on the document Sustainable Residential Development in Urban Areas: Guidelines for Planning Authorities Guideline is to make an efficient use of urban lands, which is identified as a scarce resource.

In this regard, the proposed development scheme has been designed to respect the zoning objectives of the lands and the amenity of adjoining neighbourhoods. The proposed apartment units have been specifically designed having regard to their future energy requirements with the aim of providing modern, low-carbon use dwellings in order to ensure that the proposed developments is anticipating and incorporates the future needs regarding use of energy and waste management.

These building will be 'A' rated and will be fully compliant with the statutory requirements regarding the use of energy and CO2 emissions, as per the recent amendments to building regulations in reference to the NZEB requirements.

The proposed density makes an efficient use of the residential zoned lands and provides a large amount of communal open space, while taking into account the topography and orientation of the site, in order to maximise the potential views and day-light orientation along the site.



9.7 Distinctiveness

How do the proposals create a sense of place?

The proposed development will be easily identifiable by all citizens as all future residents will be able to describe their community and their place belonging by referring to its distinctive materials and an attractive entrance setting.

The most lasting impression of any residential development is likely to be created by the external spaces between buildings and not just the buildings themselves. These spaces are defined by the buildings, landscaping, gardens, boundary treatments, roads, footpaths, street lighting, furniture and signage. All these elements are instrumental in creating a distinct sense of place.

Where there are many apartments of consistent design it is important to make it easy for everyone to identify their own home, for example by using distinctive design features such as door colours, boundary treatments, and planting. In the same way a neighbourhood should have character, the buildings should also have a positive distinctive character. Traditionally the architectural style in a region was dictated by local materials and

building skills, local climate conditions, topography etc.

The scale and shape of the building is proportionate to the immediate area. We have limited the amount of materials on the building to a simple brick and render facades. We have considered local materials and regional details such as rooflines and window proportions. We have also considered how the individual building sits with its neighbourhood rather than a separate entity.



9.8 Layout

How does the proposal create people friendly streets and spaces?

According to the design guidelines issued by the respective authorities, the way that a residential scheme is laid out along the site, is one of the key determinants of successful neighbourhoods.

The layout of a neighbourhood can help to determine an area's character and sense of place, and can define whether a residential development is sustainable or not.

The prospective development will provide an addition to the neighbourhood and community where people and future residents will feel comfortable, safe and secure. The proposed layout has been designed incorporating the recommendations and requirements stipulated in the document Design Manual for Urban Roads and Streets (DMURS), ensuring consistency with national and local policies.

The building was set back from the road front of the site to ensure that the scale of the development was uniform and that the surroundings would not be over dominated in terms of scale/height by the apartment block.



FIG. 42. PROPOSED SITE LAYOUT

9.9 Public Realm

How safe, secure and enjoyable are the public realms?

As previously mentioned, the prospective proposal will provide a good quality open space.

The proposed open space is located to the rear of the site. The open space will become a central element within the scheme and will provide residents with a pleasant area to enjoy amenities. The open space also separates the larger five storey building from the three storey buildings to the south so this acts as a buffer and transition zone.

In conclusion, the open space will be designed to be inviting, safe and conveniently located to be accessed not only by the residents, but by the people living in the surrounding neighbourhoods.

9.10 Adaptability

How will the buildings cope with change?

Adaptability design features for apartments include:

- room for family to sit together comfortably
- room to entertain family and friends
- the plan caters for activities requiring privacy and quiet
- bedrooms are segregated to reduce noise transmission
- dining spaces and bedrooms can be used for study purposes
- the dining spaces are located in close proximity to the kitchen area
- the apartment can be circulated with convenience
- bathroom and WC can be accessed from bedrooms without entering into another room
- there is protection from cold and wet weather
- there is sufficient room for visitors at the entrance
- each room/space can accommodate the required furniture, leaving sufficient space to circulate
- each room/space is appropriately orientated and has adequate provision for lighting, heating, ventilation and sound insulation
- each room/space is satisfactory for its intended use in terms of location, floor area and shape

9.11 Privacy and Amenity

How do buildings provide a decent standard of amenity?

The proposed apartments will be provided with their own private open space, that will comply with the minimum space requirements stipulated by the national standards. Additionally, all apartments will be provided with adequate internal and external storage space that will be easily accessed.

The apartment complex will also be provided with adequate storage facilities that will cater for all potential needs, including refuse and bicycle storage located in close proximity and adequately accessible to all apartment residents.



Precedent Image

9.12 Parking

How will the parking be secure and attractive?

Given the city centre location, site restrictions and after discussions on the matter with Limerick City & County council it was decided not to provide any vehicle parking for this scheme. This is done to encourage the use of bicycles and the nearby public transport systems as well as making the site more viable for development. Should the need to park a vehicle arise there is an existing set down area to the east of the site frontage and existing public parking can be found across the road from the development in the public open space

Additionally, the proposed scheme will also provide adequate secure bicycle parking as illustrated in the drawings that accompany this application.

9.13 Detailed Design

How well thought through is the building and landscape design?

The proposed development is the result of a design-led process in which the choice of materials and exterior aesthetics of the proposed buildings were one of the fundamental aspects taken into account.

If planning is granted, the respective building will be constructed with an attractive combination of robust materials like brickwork and render finishes.

In addition to this, the landscape design of the prospective development has also been a key feature for this proposal. As it has already been stated before, the topography of the subject site, has been used as a design-benefit to the scheme, as it has provided the opportunity to design and propose a quality open space that will be easily and comfortably accessed by all future residents, and enjoyed in many different ways and for different purposes.

Pedestrian routes can be carefully designed to provide a high-quality of pedestrian connectivity.

If granted, the overall landscape and building design will contribute in a substantially positive way with the consolidation of the surrounding residential area.



Precedent Image





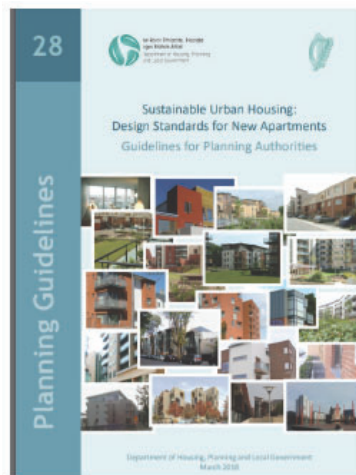
Apartment Guidelines Compliance

10

10.1 Introduction

The following section of this document will demonstrate the design-compliance of the proposed development with all the requirements stipulated in the following guidelines:

- Sustainable Urban Housing: Design Standards for New Apartments (2018)



10.2 Design Approach

Sustainability and Community have been the main concepts and the design fundamentals that define this design-led proposal. The layout of the apartment block and external areas, has been carefully planned so that this scheme can provide, if granted permission, a high-quality and attractive apartment complex to different sectors of the population. We believe that the design intentions are clearly reflected within this proposal, providing a sustainable and full of character neighbourhood for future communities.

10.3 Apartment Provision

The scheme provides 1 no. apartment block. The apartment block is 5 storeys which consists of 25 no. 2 bedrooms units and 11 no. 1 bedroom units. This achieves a site density of 257 units per hectare.

10.4 Apartment Standards

The space standards of the apartment block fully comply with Appendix 1 of the Sustainable Urban Housing: Design Standards for New Apartments (2018). Please refer to Appendix B of this document and the table provided on the apartment drawings.

10.5 Apartment Floor Area

There are minimum apartment floor areas set out in Appendix 1 of the Sustainable Urban Housing: Design Standards for New Apartments (2018).

10.6 Dual Aspect

The Sustainable Urban Housing: Design Standards for New Apartments (2018) generally requires a minimum of 50% of apartments be dual aspect.

For building refurbishment schemes on sites of any size or urban infill schemes on sites of up to 0.25ha, Limerick City and County Council may exercise discretion to consider dual aspect unit provision at a level lower than the 50% minimum outlined above on a case-by case basis, but subject to the achievement of overall high design quality in other aspects.

10.7 Floor to Ceiling Height

The floor to ceiling height of the apartment block is 2.7m. Floor-to-ceiling height affects the internal amenities of apartments, in terms of sunlight / daylight, storage space, and ventilation. This is most significant at ground level, where the potential for overshadowing is greatest. Ground level floor to ceiling height

will also influence the future adaptability of individual apartments for potential alternative uses, which will vary depending on location.

10.8 Stair Cores

There are 1 no. of ambulant stair cores complying with Part M of the Building Regulations.

10.9 Refuse Storage

Roller high top bins are provided within a separated space on the ground floor of the apartment block for the collection of mixed dry recyclables, organic waste and residual waste. The bins can be easily be collected by refuse vehicles as it is located in a suitable location for collection. The waste storage area will be adequately ventilated so as to minimise odours and potential nuisance from vermin/flies and taking account the avoidance of nuisance for habitable rooms nearby. The refuse storage area is also located in a convenient location for occupants to ensure ease of access and to avoid long distances especially for disabled persons. The refuse storage area will be well lit and is not visible to the public street.

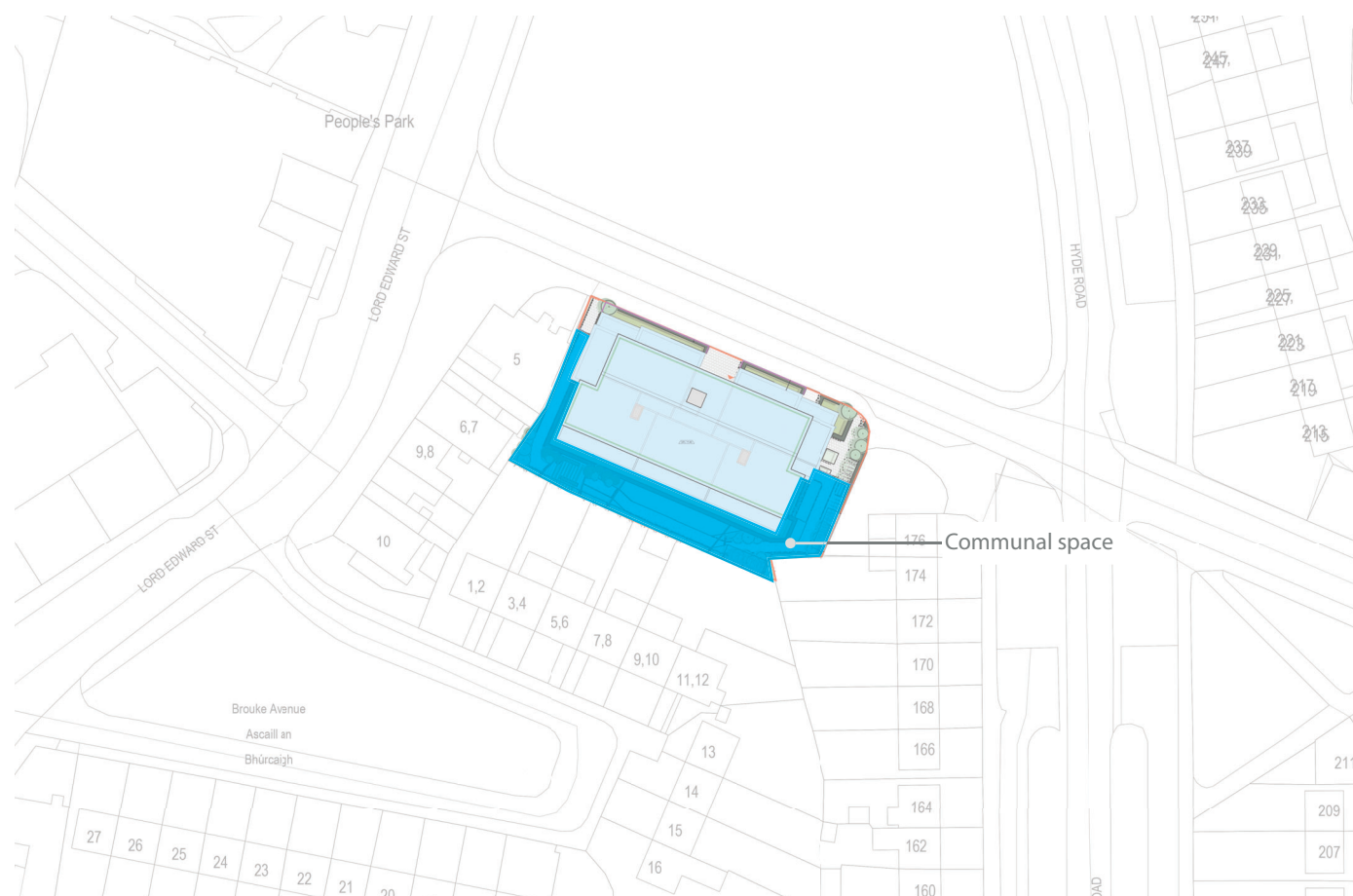


FIG. 43. COMMUNAL OPEN SPACE

10.10 Private and Communal Amenity Space

The Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, Appendix 1 requires minimum floor areas for communal and private amenity space. Please refer to apartment drawings for compliance.



FIG. 44. INTERNAL STORAGE

10.11 Internal Storage

The Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, Appendix 1 requires minimum storage areas for apartments. Please refer to apartment drawings for compliance.



FIG. 45. CIRCULATION AND LAYOUT

10.12 Circulation and Layout

All apartments will be accessed off a central circulation corridor which will be serviced by a single stairwell. The circulation areas will be segmented for fire safety reasons and at ground floor will be accessible via the front main entrance but also an additional side entrance which will be used to access the communal amenity space to the rear of the building.

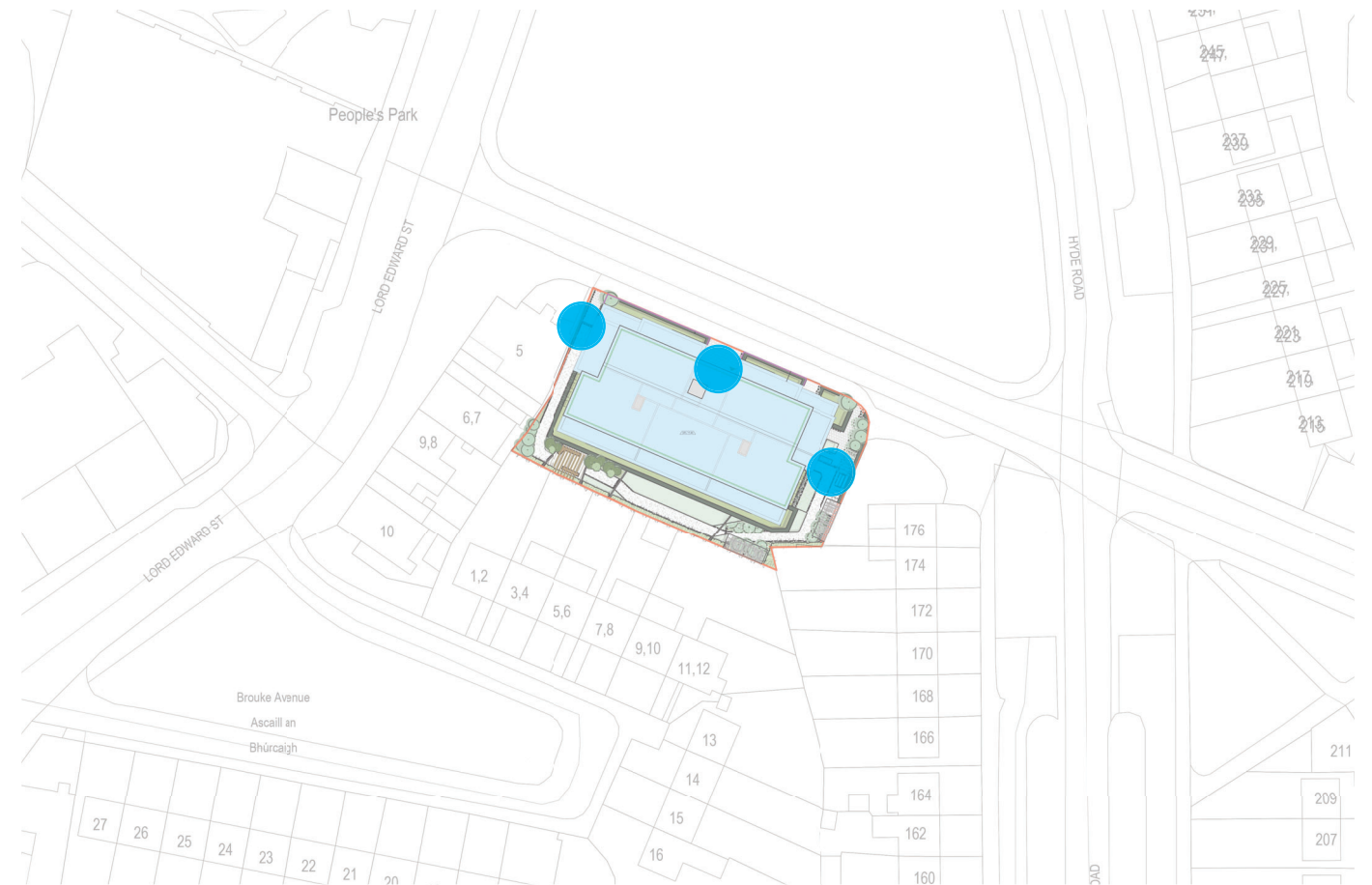


FIG. 46. SAFETY AND SECURITY

10.13 Safety and Security

Entry points will be securely well lit and over looked. The external communal area will be accessed via a controlled access gate. All windows will have an adequate amount of defensible open space between public areas in order to ensure a level of security.

The private amenity areas will also be adequately screened to ensure privacy in these locations. The external communal open space and the bike storage area will be overlooked by the apartment block.



FIG. 47. KITCHEN LAYOUT

10.14 Kitchen Layout

The provided kitchen will comply with the minimum requirements stipulated in the Quality Housing for Sustainable Communities. All kitchen areas are provided with natural lighting and ventilation. The kitchen is designed to ensure safe working conditions such as:

- there is no through traffic through the kitchen and does not interfere with the working area
- the cooker position is located away from doors, windows and circulation routes and has a side worktop space available
- storage space is located within easy reach with sufficient room for door openings
- cupboards are not directly located over cookers



FIG. 48. SANITARY FACILITIES

10.15 Sanitary Facilities

All sanitary facilities are designed as ambulant disabled bathrooms to comply with Part M of the Building Regulations and all bathrooms are located off the internal corridor for ease of access. Baths are provided in all bathrooms with a wash hand basin and WC. All apartments on the ground floor and the end terrace apartment units on the first floor will have external windows which will ensure adequate ventilation to comply with Part F of the Building Regulations. The bathrooms without any external windows will be ventilated by mechanical vents internally.



RESIDENTIAL QUALITY ASSESSMENT

11

Residential Quality Assessment

21007 - Speaker's Corner
Revision - May 21

11.1 Residential Quality Assessment

Summary Residential Schedule of Accommodation

1 Bed units	11	30.55%
2 Bed units	25	69.44%
Total	36	100%

The proposed apartments have been designed to meet and exceed current standards. The apartments are designed to comply with "Sustainable Urban Housing: Design Standards for New Apartments", March 2018. The relevant data is set out in the following schedule.

Detailed Residential Schedule of Accommodation

	Unit name	No. Bedroom	No. person	Aspect	Orientation	Layout type	Floor Area Apartment (sqm)		Unit over 10%	Aggregate Floor area, Kitchen/ Dining/ Living		Aggregate floor area Bedroom (sqm)		Aggregate floor area Storage (sqm)		Aggregate floor area Private amenity space (sqm)		Width of Living/ Kitchen/ Dining (m)		Width of Bedroom (m)	
							Required	Provided		Required	Provided	Required	Provided	Required	Provided	Required	Provided	Required	Provided	Required	Provided
Ground	Apt 01	1 Bed	2	Single	N/E	Simplex	45	53.9	YES	23	23.2	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 02	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 03	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 04	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
	Apt 05	2 Bed	4	Duel	S/W	Simplex	73	82.8	YES	30	35.2	24.4	25.3	6	6.3	7	7.7	3.6	4	2.8+2.8	2.8+2.8
	Apt 06	1 Bed	2	Single	S/W	Simplex	45	49.9	YES	23	23.1	13	13.2	3	3.1	5	8.6	3.3	3.3	2.8	3
	Apt 07	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
First	Apt 08	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.2	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 09	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 10	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 11	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.1	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 12	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
	Apt 13	2 Bed	4	Duel	S/W	Simplex	73	82.8	YES	30	35.2	24.4	25.3	6	6.3	7	7.7	3.6	4	2.8+2.8	2.8+2.8
	Apt 14	1 Bed	2	Single	S/W	Simplex	45	49.9	YES	23	23.1	13	13.2	3	3.1	5	8.6	3.3	3.3	2.8	2.8
	Apt 15	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
Second	Apt 16	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.2	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 17	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 18	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 19	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.1	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 20	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
	Apt 21	2 Bed	4	Duel	S/W	Simplex	73	82.8	YES	30	35.2	24.4	25.3	6	6.3	7	7.7	3.6	4	2.8+2.8	2.8+2.8
	Apt 22	1 Bed	2	Single	S/W	Simplex	45	49.9	YES	23	23.1	13	13.2	3	3.1	5	8.6	3.3	3.3	2.8	2.8
	Apt 23	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
Third	Apt 24	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.2	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 25	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 26	2 Bed	4	Duel	N/E	Simplex	73	76.5	NO	30	32.1	24.4	24.5	6	6	7	7.8	3.6	4	2.8+2.8	2.8+2.8
	Apt 27	1 Bed	2	Duel	N/E	Simplex	45	53.9	YES	23	23.1	13	13	3	3	5	12.3	3.3	3.6	2.8	2.8
	Apt 28	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
	Apt 29	2 Bed	4	Duel	S/W	Simplex	73	82.8	YES	30	35.2	24.4	25.3	6	6.3	7	7.7	3.6	4	2.8+2.8	2.8+2.8
	Apt 30	1 Bed	2	Single	S/W	Simplex	45	49.9	YES	23	23.1	13	13.2	3	3.1	5	8.6	3.3	3.3	2.8	2.8
	Apt 31	2 Bed	4	Duel	S/W	Simplex	73	80.3	YES	30	31.7	24.4	25.5	6	7.2	7	7.6	3.6	4	2.8+2.8	2.8+2.8
Fourth	Apt 32	2 Bed	4	Duel	N/E	Simplex	73	79	NO	30	31.9	24.4	24.9	6	6	7	40.6	3.6	5.08	2.8+2.8	4+3.3
	Apt 33	2 Bed	4	Duel	N/E	Simplex	73	79	NO	30	31.9	24.4	24.9	6	6	7	40.6	3.6	5.08	2.8+2.8	4+3.3
	Apt 34	2 Bed	4	Duel	S/W	Simplex	73	91	YES	30	34.7	24.4	27.9	6	7.4	7	25.4	3.6	4.69	2.8+2.8	3.4+3.3
	Apt 35	2 Bed	4	Single	S/W	Simplex	73	79.7	NO	30	30.2	24.4	26.8	6	6.9	7	24.6	3.6	4.47	2.8+2.8	3.6+3.4
	Apt 36	2 Bed	4	Duel	S/W	Simplex	73	91	YES	30	34.7	24.4	27.9	6	7.7	7	25.4	3.6	4.69	2.8+2.8	3.4+3.3

FIG. 49. RESIDENTIAL QUALITY ASSESSMENT

THANK YOU

ON BEHALF OF FEWER HARRINGTON AND PARTNERS