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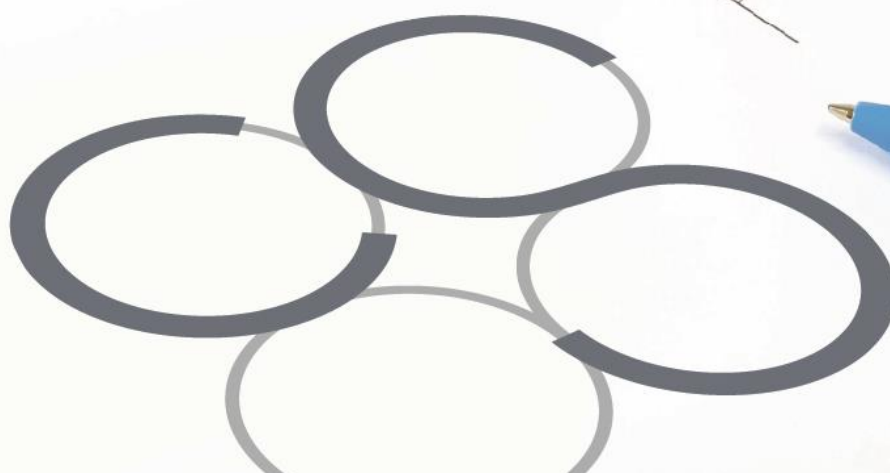
LIMERICK
LONDON
DUBLIN

Traffic and Transport Statement
Proposed Residential
Development
31 & 31A Raven's Rock Road,
Sandyford, Dublin

Client: Ravensbrook Limited

Job No. Q004

March 2022



TRAFFIC AND TRANSPORT STATEMENT

PROPOSED RESIDENTIAL DEVELOPMENT, 31 & 31A RAVEN'S ROCK ROAD, SANDYFORD, DUBLIN

CONTENTS

1.0	INTRODUCTION	1
2.0	SITE LOCATION AND PROPOSED DEVELOPMENT	2
3.0	RECEIVING ENVIRONMENT	5
4.0	TRAFFIC GENERATION & TRIP DISTRIBUTION	6
5.0	CAR PARKING & SERVICING	8
6.0	DEVELOPMENT OPERATIONS AND SERVICING	19
7.0	CONCLUSION	21

Appendix A: TRICS Information

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BS 1192 FIELD		RR-CSC-ZZ-XX-RP-C-0003-TTS_20220301			
Job Ref.	Author	Reviewed By	Authorised By	Issue Date	Rev. No.
Q004	LJ	FB	NB	01.03.2022	P5
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Q004	FB	FB	NB	03.11.2021	P3
Q004	DS	DS	NB	28.05.2021	P2
Q004	PS	DS	NB	30.04.2021	P1
Q004	DS	NB	NB	23.03.2021	-

1.0 INTRODUCTION

Cronin & Sutton Consulting Engineers (CS Consulting) have been commissioned by Ravensbrook Limited, in conjunction with a multi-disciplinary design team, to develop a Traffic & Transport Statement to accompany a planning application for a proposed residential development at 31 & 31A Raven's Rock Road, Sandyford Business Park, Dublin 18.

The proposed scheme is designed in compliance with the following:

- Design Manual for Urban Roads and Streets (2019);
- Dun Laoghaire-Rathdown County (DLRCC) Development Plan 2016–2022;
- Draft Dun Laoghaire-Rathdown County (DLRCC) Development Plan 2022–2028;
- Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) December 2020;
- Dún Laoghaire-Rathdown Standards for Cycle Parking 2018;
- Sandyford Small Area Plan Urban Framework 2016-2022;
- Department of Transport, Tourism and Sport Smarter Travel guidelines; and
- NRA Traffic and Transport Assessment Guidelines (2014).

2.0 SITE LOCATION AND PROPOSED DEVELOPMENT

2.1 Site Location

The proposed development site is located in Sandyford, Dublin 18. The site is located in the administrative jurisdiction of Dún Laoghaire-Rathdown County Council and has a total area of approximately 0.31ha.

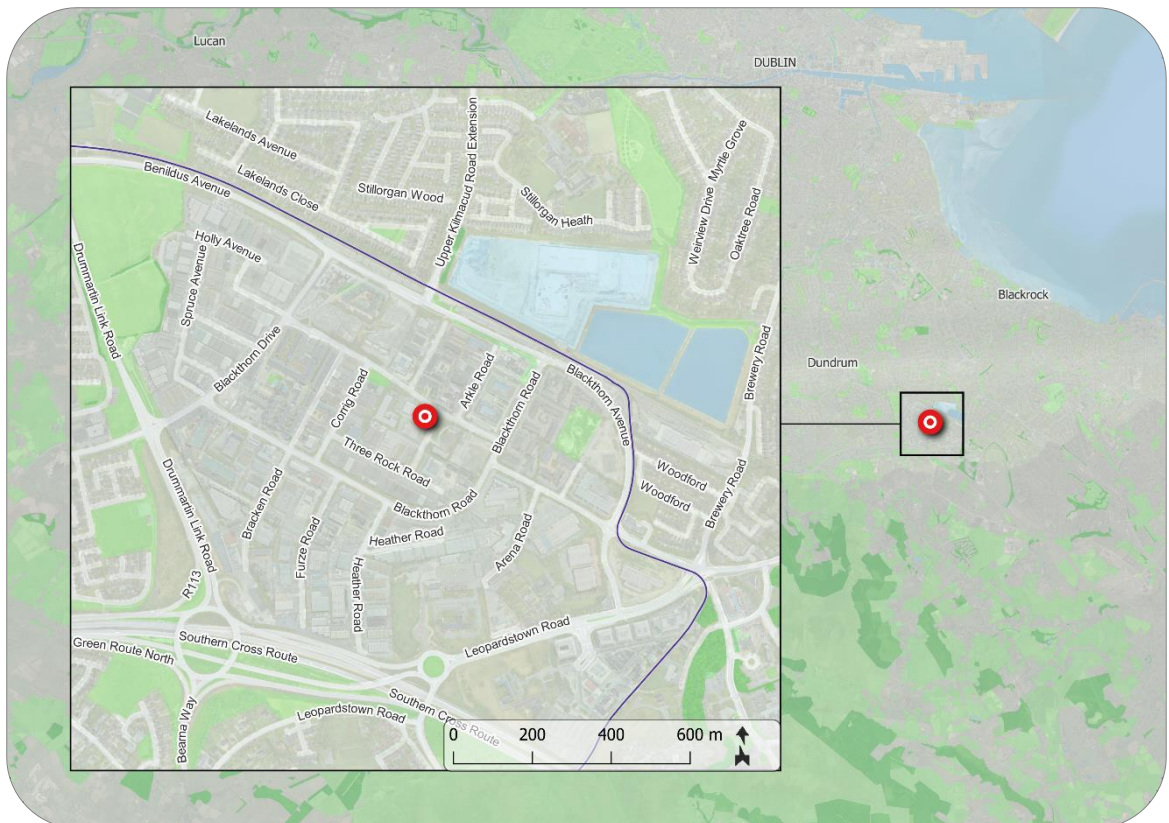


Figure 1 – Site Location
(map data: EPA, NTA, OSM Contributors)

The location of the proposed development site is shown in Figure 1 with the indicative extents of the development site, as well as relevant elements of the surrounding road network, shown in more detail in Figure 2.

The development site is bound by Carmanhall Road to the north, Ravens Rock Road to the east and industrial buildings to the south and west.



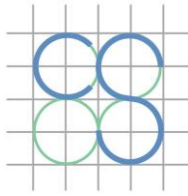
Figure 2 – Site Environs
(map data: NTA, OSM Contributors, Google)

2.1 Existing Land Use

The development site is at present occupied by industrial and commercial units and generates minimal amount of vehicular traffic associated with the industrial and commercial units.

2.2 Proposed Development

The development will consist of the demolition of the existing 2 no. storey building (c.717sqm) and hard surface parking area on the site and construction of a Build to Rent residential development comprising 101 no. residential apartments as follows:



- 101 no. build to rent apartments within a part 5, part 6 to part 11 no. storey building over partial basement comprising 65 no. 1 bedroom apartments and 36 no. 2 bedroom apartments (balconies on all elevations);
- 734 sqm of external communal amenity space provided in the form of a podium courtyard at first floor level and a series of rooftop terraces at fifth, sixth and tenth floor levels, c. 514sqm of public open space provided fronting Carmanhall Road;
- 511 sqm of resident support facilities/ services and amenities space provided at ground and first floor levels;
- Vehicular access to the development will be from the upgraded existing access from Ravens Rock Road;
- Provision of 10 no. car parking spaces [1 no. accessible] at surface level, 2 no. motorcycle spaces; and 234 no. cycle parking spaces;
- Provision of 4 no. Ø0.3m Microwave link dishes to be mounted on 2 No. steel support pole affixed to lift shaft overrun, all enclosed in radio friendly GRP shrouds, together with associated equipment at roof level;
- Provision of an ESB substation, switch room and plant room at ground floor level, hard and soft landscaped areas, public lighting, attenuation, service connections and all ancillary site development works.

3.0 RECEIVING ENVIRONMENT

3.1 Existing Road Network Characteristics

3.1.1 Raven's Rock Road

- Single carriageway road with a total pavement width approx. 6m in the vicinity of the subject site.
- Single carriageway road with a north-east to south-west alignment connecting to Three Rock Road to the south-west and Carmanhall Road to the north-east.
- Subject to a 30km/h speed limit.
- Raised footpaths are present along both sides of the street.
- No cycle lanes are present on the street.
- On-street parking is available on one-side of Raven's Rock road in the vicinity of the subject development.

3.1.2 Carmanhall Road

- Single carriageway road with a total pavement width of approx. 7.5m in the vicinity of the subject site.
- Single carriageway road with an east-west alignment connecting to Blackthorn Road to the east and Blackthorn Dr to the west respectively.
- Subject to a 50km/h speed limit.
- Raised footpaths are present along both sides of the street.
- No cycle lanes are present on the street.
- On-street parking is available on one-side of Carmahall Road in the vicinity of the subject development.

4.0 TRAFFIC GENERATION & TRIP DISTRIBUTION

Trip generation factors from the TRICS database have been used to predict the overall trip generation to and from the proposed development, for both the AM and PM peak hour periods.

The subject development comprises the following elements:

- 101no. apartment units including 61no. 1-bed units and 36no. 2-bed units;

The TRICS sub-category '03 Residential / C – Flats Privately Owned' has been employed. This is described in the TRICS land use category definitions as follows:

“Housing developments where at least 75% of households are privately owned. Of the total number of units, 75% must also be flats (sum of flats in blocks and "split" houses), with no more than 25% of the total units being "non-split" houses. Includes properties that are privately owned and then privately rented. Note that "Help to Buy" dwellings or any other where residents have equity in a property are considered to be privately owned. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.”

The TRICS trip rates for the proposed development have been selected from the above categories, restricted insofar as possible to similar suburban locations, and further refined with reference to 2016 CSO census data on the basis of:

- the population within 1 mile of the development site (22,000 approx.);
- the population within 5 miles of the development site (352,000 approx.);
- the aggregate mean car ownership rate within 5 miles of the development site (1.21 cars per household).

The trip rates selected are given in Table 1

Table 1 – TRICS Residential Trip Generation Rates

	Arrivals per hour per dwelling	Departures per hour per dwelling
	Apartments	Apartments
AM Peak	0.064	0.169
PM Peak	0.153	0.068

Residential trip numbers in this instance have been calculated as a function of the TRICS trip rates given in Table 1 and the total numbers of dwellings (101no. apartments) within the proposed development. The resultant TRICS-derived trip generation figures obtained are given in Table 2.

Table 2 – Residential Trip Generation from TRICS

	Arrivals	Departures
AM Peak	6	17
PM Peak	15	7

As mentioned in sub-section 6.3 of the Residential Travel Plan report it is suggested that the initial car trips from the subject development shall be 5%. Subsequently it is expected that only 2no. car trips shall be generated in the peak hours. These trips shall be made by the proposed car club vehicles within the development.

The TII *Traffic and Transport Assessment Guidelines* (PE-PDV-02045) advise that Transport Assessments should generally be applied where traffic to and from a development is predicted to exceed 10% of the existing background traffic on the adjoining road (or 5% at sensitive locations). The subject development shall result in minimal volumes of vehicular traffic. As such, it is not expected to result in an increase of more than 5% in total traffic flows at any adjoining roads, in either peak hour period due to the minimal level of vehicular traffic forecasted. As such, further assessment is not required.

5.0 CAR PARKING & SERVICING

5.1 Overall Car Parking Provision

The proposed development shall include a total of 10no. car parking spaces. These comprise:

- 1no. disabled accessible spaces in close proximity to the proposed building entrance;
- 9no. car share spaces within the subject development's undercroft car park.

The car parking provision of the proposed development has been assessed with respect to the *Dún Laoghaire-Rathdown County Development Plan 2016–2022 (DLRCDP)*, the draft *Dún Laoghaire-Rathdown County Development Plan 2022-2028* and the policy document *Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities)*, published by the Department of Housing, Planning and Local Government in December 2020, which define the standard car parking provision for new residential developments by dwelling type. Table 3 below shows the car parking standards applicable to the proposed development.

Table 3 – Overall Car Parking Provision (DLRCDP 2016-2022)

Land Use	Car Parking Standard ¹	Quantum	Standard Provision ¹	Proposed Provision
Apartment (1-Bedroom)	1 space per unit	65 units	65 spaces	10 spaces
Apartment (2-Bedroom)	1.5 spaces per unit	36 units	54 spaces	
Totals			119 spaces	10 spaces

The total car parking provision for the proposed development thereby does not exceed the standard provision derived from the Local Authority development plan.

The draft *Dún Laoghaire-Rathdown County Development Plan 2022-2028* defines a maximum car parking provision for new residential developments within the Sandyford Urban Framework Plan Area.

Table 4 – Overall Car Parking Provision (draft DLRCDP 2022-2028)

Land Use	Car Parking Standard	Quantum	Maximum Provision	Proposed Provision
Apartment (1-Bedroom)	0.6 space per unit	65 units	39 spaces	10 spaces
Apartment (2-Bedroom)	0.8 space per unit	36 units	29 spaces	
Totals			68 spaces	10 spaces

The total car parking provision for the proposed development thereby does not exceed the maximum provision derived from the draft Local Authority development plan for residential developments within the

¹ Including visitor parking spaces for apartments

Sandyford Urban Framework Plan Area. The proposed development is proposed as a car-free development where no parking spaces are allocated to individual residential units (with the exception of the proposed disabled accessible space). 9no. car share spaces are proposed within the proposed development, exceeding the minimum 2no. required by the draft *Dún Laoghaire-Rathdown Development Plan 2022-2028*.

The policy document *Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities)*, published by the Department of Housing, Planning and Local Government in December 2020, gives the following guidance on the provision of residential car parking in 'Central and/or Accessible Urban Locations' such as the subject development site:

"In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in close proximity.

"These locations are most likely to be in cities, especially in or adjacent to (i.e. within 15 minutes walking distance of) city centres or centrally located employment locations. This includes 10 minutes walking distance of DART, commuter rail or Luas stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services."

Table 5 – Overall Car Parking Provision (Apartment Guidelines)

Land Use	Car Parking Standard	Quantum	Minimum Provision	Proposed Provision
Apartment	0 spaces	101 units	0 spaces	10 spaces

As noted in the section 4.0 of the Residential Travel Plan the development site is situated within 5 minutes' walk of stops on the Luas Green Line, which are served by frequent trams into and through Dublin city centre. In addition, the site benefits from proximity to Sandyford Centre (within approx. 10 minutes' walk or less than 5 minutes' bicycle journey), which includes a range of key amenities such as supermarkets, medical clinics, pharmacies and banks, as well as a significant number of further retail, leisure, and dining facilities.

The proposed development is therefore considered an appropriate candidate for a reduction in car parking provision, in accordance with the standards and guidelines set out by Dún Laoghaire-Rathdown County Council and by the Department of Housing, Planning and Local Government.

In respect to the provision of car parking spaces with the subject development site, the '*Sustainable Urban Housing: Design Standards for New Apartments*' 2020 guidelines for all types of location, where it is sought to eliminate or reduce car parking provision, states "*it is necessary to ensure, where possible, the provision of an appropriate number of drop off, service, visitor parking spaces and parking for the mobility impaired. Provision is also to be made for alternative mobility solutions including facilities for car sharing club vehicles and cycle parking and secure storage. It is also a requirement to demonstrate specific measures that enable car parking provision to be reduced or avoided*".

As an alternative to private car ownership for residents, it is proposed to establish a car-sharing club for residents of the development. Cycle parking for the residents of the proposed development has been provided in accordance with the requirements of the policy document '*Sustainable Urban Housing: Design Standards for New Apartments*'. Please refer to sub-section 0 for further detail of cycle parking within the proposed development.

Furthermore, the proposed reduction in car parking provision aligns with measures outlined within the *Project Ireland 2040 – National Development Plan 2018-2027* policy document, which aims to encourage a significant modal shift away from private car usage and towards more active and sustainable modes such as walking and cycling.

Government policy in this area is given force by the Climate Action and Low Carbon Development (Amendment) Act 2021, which was passed by the Dáil on the 16th of June 2021. This legislation:

- places an obligation on the State to pursue the transition to a climate-neutral economy by the end of 2050;
- introduces a system of successive 5-year, economy-wide carbon budgets starting in 2021, which are to be set on a 15-year cycle (in the form of ceilings on how much CO₂ may be emitted by certain sectors of the economy);
- strengthens the role of the Climate Change Advisory Council in proposing carbon budgets;
- introduces a requirement to annually revise the Climate Action Plan (Ireland's first such plan was published in 2019) and prepare a National Long Term Climate Action Strategy at least every decade; and

- introduces a requirement for all Local Authorities to prepare individual Climate Action Plans, which will include both mitigation and adaptation measures.

The Act contains an explicit requirement for the first two carbon budgets proposed by the Climate Change Advisory Council to provide for a reduction of 51% in total greenhouse gas emissions over the course of the first two budget periods ending on the 31st of December 2030 (from the annual greenhouse gas emissions reported for the calendar year 2018). This will entail an average annual reduction of 7% in carbon emissions across all sectors of the Irish economy.

In recent years, Ireland has consistently failed to meet annual emissions targets set under the EU Effort Sharing Decision, thereby incurring financial penalties of several hundred million euro. The agriculture and transport sectors remain the largest contributors to the State's overall CO₂ emissions.

5.1.1 Car Ownership

Analysis of car ownership levels in the vicinity of the subject development has been undertaken based on data extracted from the 2016 Census. Figure 3 outlines the car ownership levels in the immediate surroundings of the subject development.



Figure 3 – Average no. of cars per household
(map data & imagery: EPA, OSi, OSM Contributors, Google)

Figure 3 illustrates the average level of car ownership within Census small areas in the surrounding area (0.6 - 1.8 private car per household). Car ownership in the subject development small area is 0.718 cars per household.

Please refer to sub-section 4.3 of Residential Travel Plan submitted under separate cover within this planning application for details of public and shared transport facilities which benefit the proposed development and reduce reliance on the private car.

5.2 Residential Car-Share Scheme

A residential car sharing club shall be established within the development, allowing residents the common use of a small vehicle pool based permanently within the site. Private cars are parked for the vast majority of

the time, whereas shared cars are in use far more frequently and therefore make more efficient use of parking spaces. A recent study of car clubs in Scotland, commissioned and published by CoMoUK, concluded that a single shared car may replace ownership of 14 private cars. On this basis, the 9no. shared car parking spaces may therefore be considered to reduce parking demand within the development by the equivalent of 117no. spaces.

With the advent of publicly-accessible car sharing schemes, residential and office developments now have the opportunity to 'host' a number of shared cars from a larger fleet, the use of which is restricted to development occupants. In this model, vehicle supply and maintenance, as well as driver insurance, are all organised by an external car-sharing company and do not need to be arranged by the development's management company.

5.3 Disabled-Accessible Car Parking Requirements

The *Dún Laoghaire-Rathdown County Development Plan 2016–2022* sets out the minimum requirement for the provision of disabled-accessible parking in new developments, as a proportion of the total development car parking provision. Table 6 applies this requirement to the proposed development.

Table 6 – Accessible Car Parking Provision

Proposed Car Parking Provision	Minimum Required Proportion	Accessible Spaces Required	Accessible Spaces Proposed
10 spaces	4%	1	1

2no. disabled-accessible car parking spaces shall be located at surface level within the development. The development's provision of disabled-

accessible car parking therefore meets the requirements of the development plan.

5.4 Electric Vehicle Charging Provision

The *Dún Laoghaire-Rathdown County Development Plan 2016–2022* requires that new residential developments provide a minimum of at least 1no. fully functional electric vehicle (EV) charging point per ten residential units. Table 7 applies this requirement to the proposed development.

Table 7 – Electric Vehicle Charging Provision

EV Charging Standard	Quantum	Standard Provision	Proposed Provision
1 charge point per 10 units	101 units	10 charge points	10 charge points

10no. car parking spaces within the proposed development shall be equipped with functional EV charging points.

All remaining car parking spaces within the development shall be 'future-proofed' by the inclusion of ducting and/or cabling to permit the rapid future installation of EV charging points, as defined in the ESB ecars specification document no. 18017 (Public Charge Points, last reviewed February 2012).

5.5 Motorcycle Parking

3no. motorcycle parking spaces shall be provided within the development. The *Dún Laoghaire-Rathdown County Development Plan 2016–2022* requires that new developments include motorcycle parking spaces "at a minimum of four or more spaces per 100 car parking spaces". Table 8 applies this requirement to the proposed development.

Table 8 – Motorcycle Parking Provision

Proposed Car Parking Provision	Minimum Motorcycle Parking Provision	Motorcycle Spaces Required	Motorcycle Spaces Proposed
10 car parking spaces	1 space per 25 car parking spaces	1	2

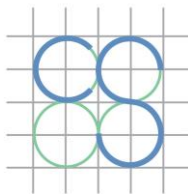
5.6 Cycle Parking

The proposed development has provision for 234 no. cycle spaces. 184 no. cycle spaces are provided within the ground floor cycle parking area, accessed via the proposed parking access from Ravens Rock Road with an additional 50 no. visitor spaces located on the surface level in form of Sheffield type stands along the building frontage on Carmanhall Road and adjacent to the development pedestrian and vehicular access off Ravensrock Road.

Since we are proposing a reduction in car parking it is recommended that an increased quantum be provided within the development. The DLRC Development Plan proposes a minimum of 121 spaces be required within the development. The Development Plan states that “provision should be made for future demand (estimated at 20%) and thus a higher provision than the minimum standards may be required.” This brings the DLRC recommended cycle provision to 145 spaces.

Table 9 – Bicycle Parking Provision (DLR Standards for Cycle Parking)

Land Use	Car Parking Standard	Quantum	Standard Provision	Proposed Provision
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Long-term	1 space per unit	101 units	101 spaces	184 spaces
Visitor	1 space per 5 units	101 units	20 spaces	50 spaces
Totals			121 spaces	234 spaces

The policy document '*Sustainable Urban Housing: Design Standards for New Apartments*' proposes a minimum of 187no. spaces be required. 184no. long-term spaces (1 space per bedroom) shall be provided within the development's internal secure cycle store. 50no. visitor spaces shall be provided at surface level within the proposed development in proximity to building entrances.

Table 10 – Bicycle Parking Provision (Apartment Guidelines)

Land Use	Car Parking Standard	Quantum	Standard Provision	Proposed Provision
Long-term	1 space per bedroom	137 bedrooms	137 spaces	184 spaces
Visitor	1 space per 2 units	101 units	50 spaces	50 spaces
Totals			187 spaces	234 spaces

6.0 DEVELOPMENT OPERATIONS AND SERVICING

6.1 Vehicular Access

The proposed development provides vehicular, pedestrian and cyclist access from the surrounding road network to/from Raven's Rock Road, located on the eastern side of the subject site. The area is predominantly an industrial and commercial area.

Raven's Rock Road is a single carriageway road with a pavement width of approx. 6m, with a tree lined verge approx. 4m wide. Raven's Rock Road junction with Carmanhall Road acts as a northern access point to the wider internal road network to Three Rock Road, with a further access located off Corrig Road to Three Rock Road, located to the south west of the subject site.

6.2 Internal Layout, Pedestrians and Cyclists

The proposed access consists of a single shared carriageway 6.0m in width in accordance with the *Design Manual for Urban Roads and Streets*. The proposed access will lead to the proposed undercroft parking area for the development.

Pedestrian and cyclist access to the development shall be accommodated at 2no. points;

- 1no. pedestrian and cyclist access shall be accommodated via the proposed access junction on Ravens Rock Road
- A secondary pedestrian access to the development shall be available from Carmanhall Road, on the northern boundary of the development site. Access to visitor bicycle parking spaces shall also be provided from Carmanhall Road.

6.3 Servicing and Refuse Collection

The collection of municipal waste generated by the proposed development shall be conducted via the existing loading bay on Raven's Rock Road, located to the south of the development access. Refuse bins shall be collected by the waste contractors directly from the development's internal bin stores and promptly returned to the bin stores after collection.

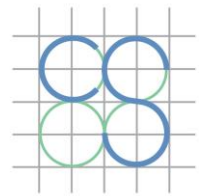
6.4 Swept Path Analysis

Swept path analyses have been conducted of delivery vehicles and private cars accessing the development and maneuvering within it. These analyses, provided on CS Consulting drawings **RR-CSC-XX-XX-DR-C-0007** indicate that the development access design and internal roads layout can accommodate these vehicle movements where required, and that any vehicle accessing the site shall be able to turn within it and exit in a forward direction.

7.0 CONCLUSION

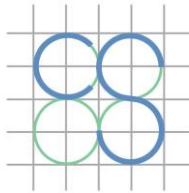
- The proposed provision of car parking and bicycle parking within the development has been assessed with reference to Local Authority standards. The proposed car parking includes 9no. car share clubs and 1no. accessible car space.
- The development site is situated within 5 minutes' walk of stops on the Luas Green Line, which are served by frequent trams into and through Dublin city centre. In addition, the site benefits from proximity to Sandyford Centre. The proposed development is therefore considered an appropriate candidate for a reduction in car parking provision.
- Swept path analyses have been conducted for a delivery vehicles and private cars. These indicate that the design of the development's internal layout can accommodate these vehicle movements where required.

In summary, the assessment indicates that the proposed development shall provide an appropriate quantum of car parking, and that the internal road layout of the proposed development is fit for purpose and in compliance with the Design Manual for Urban Roads and Streets.



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Appendix A: TRICS Information



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Calculation Reference: AUDIT-656801-220204-0243

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON HO HOUNSLOW	1 days
02	SOUTH EAST HF HERTFORDSHIRE	3 days
04	EAST ANGLIA NF NORFOLK SF SUFFOLK	1 days 1 days
05	EAST MIDLANDS DS DERBYSHIRE	1 days
11	SCOTLAND EB CITY OF EDINBURGH	1 days
15	GREATER DUBLIN DL DUBLIN	1 days
17	ULSTER (NORTHERN IRELAND) AN ANTRIM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 20 to 203 (units:)
 Range Selected by User: 6 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 30/06/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	4 days
Thursday	1 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 10 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

20,001 to 25,000 6 days

25,001 to 50,000 4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000 6 days

250,001 to 500,000 4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0 7 days

1.1 to 1.5 3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes 4 days

No 6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 9 days

3 Moderate 1 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions Yes At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	AN-03-C-02 BLOCKS OF FLATS SUMMERHILL AVENUE BELFAST KNOCK Edge of Town Residential Zone Total No of Dwellings: 22 <i>Survey date: FRIDAY 28/11/14</i>	ANTRIM	<i>Survey Type: MANUAL</i>
2	DL-03-C-15 BLOCKS OF FLATS MONKSTOWN ROAD DUBLIN MONKSTOWN Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 20 <i>Survey date: WEDNESDAY 01/10/14</i>	DUBLIN	<i>Survey Type: MANUAL</i>
3	DS-03-C-03 BLOCKS OF FLATS CAESAR STREET DERBY Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 30 <i>Survey date: WEDNESDAY 25/09/19</i>	DERBYSHIRE	<i>Survey Type: MANUAL</i>
4	EB-03-C-01 BLOCKS OF FLATS MYRESIDE ROAD EDINBURGH CRAIGLOCKHART Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 32 <i>Survey date: TUESDAY 26/05/15</i>	CITY OF EDINBURGH	<i>Survey Type: MANUAL</i>
5	HF-03-C-01 BLOCKS OF FLATS HAYLING ROAD WATFORD SOUTH OXHEY Edge of Town Residential Zone Total No of Dwellings: 22 <i>Survey date: WEDNESDAY 09/06/21</i>	HERTFORDSHIRE	<i>Survey Type: MANUAL</i>
6	HF-03-C-04 BLOCKS OF FLATS OXHEY DRIVE WATFORD SOUTH OXHEY Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 84 <i>Survey date: THURSDAY 10/06/21</i>	HERTFORDSHIRE	<i>Survey Type: MANUAL</i>
7	HF-03-C-05 BLOCKS OF FLATS FERNDOWN ROAD WATFORD SOUTH OXHEY Edge of Town Residential Zone Total No of Dwellings: 26 <i>Survey date: MONDAY 07/06/21</i>	HERTFORDSHIRE	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

8	HO-03-C-04 LONDON ROAD ISLEWORTH	BLOCKS OF FLATS	HOUNSLOW
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 203 <i>Survey date: TUESDAY 03/07/18</i>		<i>Survey Type: MANUAL</i>
9	NF-03-C-02 HALL ROAD NORWICH LAKENHAM	MIXED FLATS & HOUSES	NORFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 82 <i>Survey date: MONDAY 18/11/19</i>		<i>Survey Type: MANUAL</i>
10	SF-03-C-04 SAINT MARY'S ROAD IPSWICH	BLOCKS OF FLATS	SUFFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 56 <i>Survey date: WEDNESDAY 16/09/20</i>		<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	58	0.033	10	58	0.123	10	58	0.156
08:00 - 09:00	10	58	0.064	10	58	0.163	10	58	0.227
09:00 - 10:00	10	58	0.080	10	58	0.087	10	58	0.167
10:00 - 11:00	10	58	0.062	10	58	0.092	10	58	0.154
11:00 - 12:00	10	58	0.064	10	58	0.057	10	58	0.121
12:00 - 13:00	10	58	0.081	10	58	0.101	10	58	0.182
13:00 - 14:00	10	58	0.047	10	58	0.068	10	58	0.115
14:00 - 15:00	10	58	0.071	10	58	0.068	10	58	0.139
15:00 - 16:00	10	58	0.094	10	58	0.071	10	58	0.165
16:00 - 17:00	10	58	0.130	10	58	0.069	10	58	0.199
17:00 - 18:00	10	58	0.153	10	58	0.068	10	58	0.221
18:00 - 19:00	10	58	0.109	10	58	0.090	10	58	0.199
19:00 - 20:00	1	203	0.113	1	203	0.064	1	203	0.177
20:00 - 21:00	1	203	0.069	1	203	0.049	1	203	0.118
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.170			1.170			2.340

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected: 20 - 203 (units:)
 Survey date range: 01/01/13 - 30/06/21
 Number of weekdays (Monday-Friday): 10
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.