

Project:
Development at
Gowan House, Carriglea
Business Park, Naas
Road, Dublin 12

# DOCUMENT CONTROL

Project: Development at Gowan House, Naas Road, Dublin 12

Project No: 22.219

Document Title: Traffic Assessment Report

Document No: 22.219-TA-01

## **DOCUMENT STATUS**

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### 1. INTRODUCTION

#### 1.1 PROJECT DESCRIPTION

Malclose Limited intend to apply to Dublin City Council for a 7-year permission for a large-scale residential development principally comprising student accommodation at this 0.962 Ha site at Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4.

Works to upgrade of the access road to the west of the site on an area measuring c. 0.081 Ha are also proposed comprising new surfacing to the carriageway, the provision of inbound and outbound bicycle lanes from the development entrance to the Naas Road, the provision of a controlled pedestrian crossing on the access road at the Naas Road junction, and the provision of a further uncontrolled pedestrian and bicycle crossing linking the subject site with the approved Concorde SHD development (ABP Ref: TA29S.312218) to the west.

On the Naas Road, works are proposed on an area measuring c. 0.086 Ha comprising the realignment and widening of the existing pedestrian footpath along the westbound carriageway of the Naas Road and the provision of linkages from the realigned footpath to the development site, and the provision of new controlled pedestrian crossings across the eastbound and westbound carriages of the Naas Road and the provision of a new uncontrolled crossing of the Luas tracks.

The development site area and roadworks areas will provide a total application site area of c. 1.13 Ha.

The proposed development will principally consist of: the demolition of the existing two-storey office/warehouse building and outbuilding (5,172 sq m); and the construction of a development in two blocks (Block 1 (eastern block) is part 2 No. storeys to part 15 No. storeys over lower ground floor and basement levels with roof plant over and Block 2 (western block) is part 9 No. storeys to part 11 No. storeys over basement with roof plant over) principally comprising 941 No. Student Accommodation bedspaces (871 No. standards rooms, 47 No. accessible studio rooms and 23 No. studios) with associated facilities, which will be utilised for short-term lets during student holiday periods. The 871 No. standard rooms are provided in 123 No. clusters ranging in size from 3 No. bedspaces to 8 No. bedspaces, and all clusters are served by a communal living/kitchen/dining room.

The development also provides: ancillary internal and external communal student amenity spaces and support facilities; cultural and community floor space (1,422 sq m internal and 131 sq m external) principally comprising a digital hub and co-working space with ancillary cafe; a retail unit (250 sq m); public open space; the daylighting of the culverted River Camac through the site; an elevated walkway above the River Camac at ground floor level; a pedestrian bridge link at first floor level between Blocks 1 and 2; vehicular access at the south-western corner; the provision of 7 No. car-parking spaces, 2 No. motorcycle parking spaces and 2 No. set down areas; bicycle stores at ground and lower ground floor levels; visitor cycle parking spaces; bin stores; substations; hard and soft landscaping; green and blue roofs; new telecommunications infrastructure at roof level of Block 1 including antennas and microwave link dishes, 18 No. antennas and 6 No. transmission dishes, together with all associated equipment; boundary treatments; plant; lift overruns; and all associated works above and below ground.

The gross floor area of the development is c. 33,140 sq m comprising c. 30,386 sq m above lower ground and basement level.



Figure 1-1: Site Location Bluebell, Dublin 12.



Figure 1-2: Site Layout Plan.

#### **1.2** PURPOSE OF THE REPORT

 To estimate the volume of traffic generated by the proposed development at peak times, and

• To demonstrate the imperceptible impact these flows will have nearby major junctions.

#### 1.3 STRUCTURE OF THE REPORT

Section 2 of the report details the car and cycle parking proposed (greater detail exists in the Residential Trael Plan document).

Section 3 predicts the volume of trips generated by the proposal.

Section 4 details the impact of the development flows on adjacent major junctions within the local road network.

Section 5 makes some concluding comments on the traffic impact of the proposed development.

#### CAR PARKING & BICYCLE PROVISION AT THE PROPOSED DEVELOPMENT:

## Car parking provision:

- 1. 7 No. car parking spaces are proposed.
- 2. EV spaces; In accordance with the DP Appendix 5 Section 5, 50% of car spaces shall be equipped with car charging stations and the remaining 50% will be provided with ducting to allow for the future provision of EV charging.

## Cycle Parking Provision:

- 1. 1159 no. bicycle parking spaces provided. This exceeds the requirement of the DP.
- 2. Bicycle parking spaces are accommodated principally internally at ground level with stackers. 210 no. spaces for visitors, for the retail space and for the cultural/community spaces. These are typically accommodated externally at ground level with Sheffield stands; however three internal and secure spaces are provided for staff of the retail and cultural / community spaces.
- 3. Cargo bikes and electric bike charging will also be accommodated.

## 3. TRIP VOLUMES GENERATED BY PROPOSED DEVELOPMENT

The TRICS Database plays a central role in the process of trip and modal split estimation within both the UK and Ireland. It utilizes traffic survey information from 121 separate land use categories of land use in the database system, and allows its users to establish potential levels of trip generation and modal choices for a wide range of development and location scenarios.

The TRICS evidence base contains over 7,150 transport surveys. The individual site records within the database contain comprehensive, detailed information on a site's local environment and surroundings; the composition and functions of a site; its on-site and off-site parking facilities; and hourly, directional transport count results covering a wide range of transport modes. Annual data

collection programmes ensure that new transport surveys are added to the database every three months.

Because of the TRICS system development and its frequent updating, TRICS has become the industry standard both within the UK and Ireland for assessing trip generation for major development projects.

Using the student accommodation sites within the database, as detailed within Appendix 1, Table 3-1 details the following trip rates as follows:

		Weekday A peak (8AM		Weekday PM Networ peak (5PM to 6PM)	
		IN	OUT	IN	OUT
Student accommodation	Trips/student	0.005	0.009	0.009	0.010
	room				

Table 3-1: Peak hour trip rates for apartments within development site

On the basis of 941 No. students, the above typical TRICS trip rates give rise to the following weekday morning peak, evening peak and all-day trip rates for the proposed student accommodation development in Table 3-2:

		Weekday A peak (8AM		Weekday PM Networ peak (5PM to 6PM)		
		Units (No.)	IN	OUT	IN	OUT
Stud	ent accommodation	941	5	9	8	9
			2-way 14 veh/hr		2-way 17 veh/hr	

Table 3-2: Peak hour flows generated by proposed development site

(See Appendix 1 for more detailed information on the above TRICS rates).

The above trip generation estimates predict a car entering or leaving every 4.2 minutes during the network morning peak hour, with a car entering or leaving every 3.5 minutes during the network evening peak hour.

These figures are consistent with the limited provision of 7 No. on-site car parking spaces.

# 4. IMPACT OF DEVELOPMENT FLOWS ON ADJACENT MAJOR INTERSECTIONS WITHIN THE LOCAL ROAD NETWORK

Figure 4-1 details the two major junctions close to the proposed development, analysed within the 2021 Carriglea planning submission. (Residential Development at Carriglea, Muirfield Drive, Dublin 12).

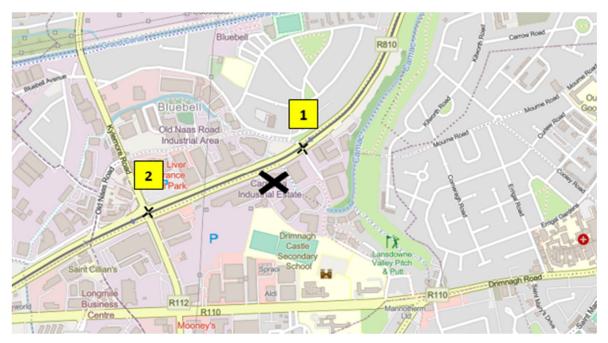


Figure 4-1: 2 major sites close to the proposed development

Table 4-1 details the 2024 projected flows for the two junctions during the morning and evening peak hours, together with the development flows as estimated in section 3 above, assuming 100% of development flows are incident on the access junction (No. 1) and 60% on the Naas Road junction (No. 2).

		) NETWORK C (2024)	GENERATED TRAFFIC FROM SUBJECT SITE		
	AM PM AM P				
Muirfield Drive / Naas Road access junction (Junction No. 1)	2214	2134	14 (0.63%)	17 (0.80%)	
Naas Road / Kylemore Road /	3443	3415	9	10	
Walkinstown Avenue (Junction No. 2)			(0.26%)	(0.29%)	

Table 4-1: Network flows based on traffic survey information within 2021 Carriglea submission, and comparisons with projected student accommodation vehicular flows

The TTA Guidelines (2014) stipulate that increases should be in the order of 5% at a congested junction to warrant a traffic assessment. The increased detailed within Table 4-1 range from one-twentieth to one-sixth of this threshold.

The above figures within Table 4-1 demonstrate the imperceptible impact the proposal will have on both major junctions.

## 5. CONCLUDING COMMENTS

The proposed student accommodation development provides very limited on-site car parking facilities, with no spaces allocated to the student population, having regard to the high quality public transport options in the vicinity of the site.

This limited provision is reflected in the TRICS database trip generation figures for the proposed development, indicating very low flows into and out of the subject site at peak network times.

This report also demonstrates the insignificant impact these generated flows will have both on the Muirfield Drive / Naas Road junction which provides access from the site to the local road network, and the Naas Road / Walkinstown Avenue located immediately west of the site.



APPENDIX

TRICS OUTPUT



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Calculation Reference: AUDIT-306901-230726-0727

TRIP RATE CALCULATION SELECTION PARAMETERS:

: 03 - RESIDENTIAL

Category : G - STUDENT ACCOMMODATION
TOTAL VEHICLES

Land Use

Selected regions and areas: 01 GREATER LONDON CN CAMDEN 1 days HK HM HACKNEY HAMMERSMITH AND FULHAM 1 days 1 days IS ISLINGTON 1 days KINGSTON 2 days ΚI TH TOWER HAMLETS 1 days 03 SOUTH WEST BATH & NORTH EAST SOMERSET DEVON BA DV 1 days 2 days WEST MIDLANDS WM WEST MIDLANDS NORTH 06 1 days 09 DURHAM 1 days DH **SCOTLAND** 11 FIFE 1 days 13 MUNSTER LIMERICK 1 days **ULSTER (NORTHERN IRELAND)** DE DERRY 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.

Number of residents Parameter: Actual Range: 72 to 571 (units: ) Range Selected by User: 15 to 1700 (units: ) All Surveys Included Parking Spaces Range:

<u>Public Transport Provision:</u> Selection by: Include all surveys

01/01/11 to 25/06/21 Date Range:

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.

<u>Selected survey days:</u> Monday Tuesday 1 days 2 days Wednesday 4 days Thursday 5 days

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

Selected survey types: Manual count

15 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 undertaking using machines.

<u>Selected Locations:</u> Edge of Town Centre Suburban Area (PPS6 Out of Centre) 7 5 Edge of Town 3

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

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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.

<u>Inclusion of Servicing Vehicles Counts:</u> Servicing vehicles Included Servicing vehicles Excluded 7 days - Selected 11 days - Selected

#### Secondary Filtering selection:

# Use Class: C3

15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

1 days 1 days 2 days 2 days 7 days

1 days

1 days

#### Population within 500m Range:

All Surveys Included
Population within 1 mile:
1,001 to 5,000
5,001 to 10,000
10,001 to 15,000
15,001 to 20,000
25,001 to 50,000

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

#### Population within 5 miles:

50,001 to 100,000

100,001 or More

5,001 to 25,000	1 days
25,001 to 50,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days
500,001 or More	3 days

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

#### Car ownership within 5 miles:

2 days
7 days
6 days

## Travel Plan:

Yes	2 days
No	13 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	8 days
2 Poor	1 days
3 Moderate	1 days
4 Good	2 days
6a Excellent	2 days
6b (High) Excellent	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

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LIST OF SITES relevant to selection parameters

BA-03-G-01 STUDENT FLATS **BATH & NORTH EAST SOMERSET** LOWER BRISTOL ROAD

Suburban Area (PPS6 Out of Centre)

291 *04/10/18* Survey Type: MANUAL CAMDEN

No Sub Category
Total Number of residents:
Survey date: THURSDAY
CN-03-G-01 STUDENT FLATS
SAINT PANCRAS WAY

KING'S CROSS

Edge of Town Centre
Built-Up Zone
Total Number of residents:
Survey date: TUESDAY
DE-03-G-01
STRAND ROAD
STRAND ROAD

571 14/11/17 Survey Type: MANUAL

HALLS OF RESIDENCE DERRY

LONDONDERRY

Suburban Area (PPS6 Out of Centre)

No Sub Category Total Number of residents:

72 17/10/12 Survey Type: MANUAL DURHAM

Survey date: WEDNESDAY
DH-03-G-01 STUDENT FLATS

ASHWOOD DURHAM GILESGATE

Suburban Area (PPS6 Out of Centre)

Residential Zone Total Number of residents:

Survey date: THURSDAY
DV-03-G-02 STUDENT FLATS
COWLEY BRIDGE ROAD 18/10/18 Survey Type: MANUAL

DEVON

EXETER

Edge of Town

No Sub Category Total Number of residents: 110

Survey date: WEDNESDAY 05/10/.
DV-03-G-04 STUDENT ACCOMMODATION 05/10/11 Survey Type: MANUAL

DEVON

BONHAY ROAD EXETER

Edge of Town Centre

Residential Zone Total Number of residents: 241

28/11/13 Survey date: THURSDAY Survey Type: MANUAL

FIFE . .. FI-03-G-01 STUDENT FLATS

BUCHANAN GARDENS ST ANDREWS

Edge of Town

Residential Zone Total Number of residents: 300

24/05/12 Survey date: THURSDAY Survey Type: MANUAL

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TRICS 7.10.1 230323 B21.29 Database right of TRICS Consortium Limited, 2023. All rights reserved Wednesday 26/07/23 OFF-LINE VERSION martin Rogers Consulting Ltd 7 Butterfield Avenue Dublin 14 LIST OF SITES relevant to selection parameters (Cont.) HK-03-G-01 STUDENT FLATS HACKNEY GREEN LANES STOKE NEWINGTON Suburban Area (PPS6 Out of Centre)

09/03/20 Survey date: MONDAY
HM-03-G-02 STUDENT FLATS
PADDENSWICK ROAD Survey Type: MANUAL HAMMERSMITH AND FULHAM HAMMERSMITH

103

Residential Zone
Total Number of residents:
Survey date: FRIDAY
IS-03-G-01 STUDE 217 25/06/21 Survey Type: MANUAL ISLINGTON STUDENT FLATS OLD STREET

Residential Zone Total Number of residents:

Edge of Town Centre

ST LUKE'S

Edge of Town Centre Built-Up Zone Total Number of residents:

Survey Type: MANUAL KINGSTON Survey date: FRIDAY
KI-03-G-01 STUDENT FLATS 07/12/12 PENRHYN ROAD KINGSTON UPON THAMES

Edge of Town Centre Built-Up Zone Total Number of residents: 200 Survey Type: MANUAL KINGSTON Survey date: WEDNESDAY 12/06/19

KI-03-G-02 STUDENT FLATS CAMBRIDGE ROAD KINGSTON UPON THAMES NORBITON Edge of Town Centre Residential Zone
Total Number of residents:
Survey date: WEDNESDAY
LI-03-G-01 STUDENT FI 300 26/06/19

Survey Type: MANUAL LIMERICK STUDENT FLATS SOUTH CIRCULAR ROAD LIMERICK

Edge of Town Residential Zone Total Number of residents: Survey date: TUESDAY 265

05/11/13 Survey Type: MANUAL

14 TH-03-G-01 STUDENT FLATS TOWER HAMLETS KING DAVID LANE SHADWELL

Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Number of residents:

07/12/12

Survey Type: MANUAL WEST MIDLANDS Survey date: FRIDAY WM-03-G-02 STUDE STUDENT FLATS RAGLAN STREET COVENTRY

Edge of Town Centre Built-Up Zone Total Number of residents: 197 17/10/13 Survey date: THURSDAY

Survey Type: MANUAL

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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

TOTAL VEHICLES

Calculation factor: 1 RESIDE

Estimated TRIP rate value per 980 RESIDE shown in shaded columns BOLD print indicates peak (busiest) period

	ARRIVALS					DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated 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	1	241	0.000	0.000	1	241	0.000	0.000	1	241	0.000	0.0	
7:00 - 08:00	14	213	0.003	3.287	14	213	0.003	2.959	14	213	0.006	6.2	
8:00 - 09:00	14	213	0.005	5.260	14	213	0.009	9,205	14	213	0.014	14.4	
9:00 - 10:00	14	213	0.007	7.232	14	213	0.010	9,862	14	213	0.017	17.0	
0:00 - 11:00	14	213	0.012	11.506	14	213	0.013	13.150	14	213	0.025	24.6	
1:00 - 12:00	14	213	0.014	14.136	14	213	0.019	18.410	14	213	0.033	32.5	
2:00 - 13:00	14	213	0.009	9.205	14	213	0.011	10.849	14	213	0.020	20.0	
3:00 - 14:00	14	213	0.011	10.849	14	213	0.013	12,492	14	213	0.024	23.3	
4:00 - 15:00	14	213	0.014	14.136	14	213	0.013	12.492	14	213	0.027	26.6	
5:00 - 16:00	14	213	0.017	17.095	14	213	0.012	12.164	14	213	0.029	29.2	
6:00 - 17:00	14	213	0.017	16.437	14	213	0.012	11.835	14	213	0.029	28.2	
7:00 - 18:00	14	213	0.009	8.876	14	213	0.010	9.862	14	213	0.019	18.7	
8:00 - 19:00	14	213	0.007	7.232	14	213	0.008	8.219	14	213	0.015	15.4	
9:00 - 20:00	8	249	0.005	4.930	8	249	0.005	4.437	8	249	0.010	9.3	
0:00 - 21:00	8	249	0.007	6.901	8	249	0.007	6.901	8	249	0.014	13.8	
1:00 - 22:00	3	202	0.008	8.086	3	202	0.012	11.320	3	202	0.020	19.4	
2:00 - 23:00													
3:00 - 24:00	$\overline{}$												

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: 72 - 571 (units: ) Survey date date range: Number of weekdays (Monday-Friday): 01/01/11 - 25/06/21

0.145

15 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 0 Surveys manually removed from selection:

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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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