

Rosemount, Northern Cross – Public Transport Capacity Study

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1. Introduction

1.1. Overview

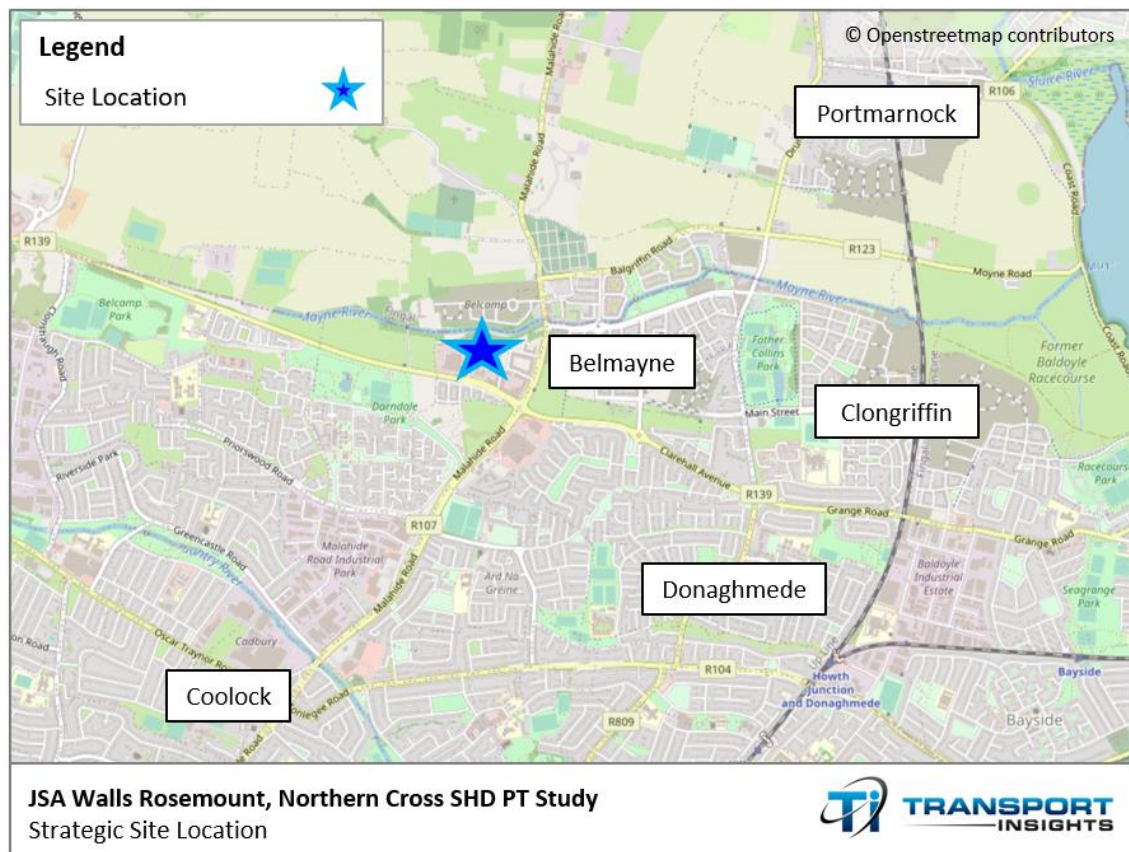
Transport Insights has been appointed by John Spain Associates on behalf of Walls Construction Ltd to undertake a public transport capacity study in relation to a proposed development at Rosemount, Mayne River Avenue, Northern Cross, Malahide Road, Dublin 17.

The information outlined within this Report has been informed by the following documents furnished to Transport Insights by John Spain Associates:

- Traffic and Transport Assessment (TTA) including Framework Mobility Management Plan (MMP) produced by DBFL Consulting Engineers;
- Proposed Development Site Location Map produced by Plus Architecture – dwg. no 487-487_01_00; and
- Schedule of Accommodation produced by Plus Architecture.

1.2. Proposed Development Location and Overview

The proposed development site is located at Rosemount, Mayne River Avenue, Northern Cross, Malahide Road, Dublin 17. The strategic site location is illustrated in Figure 1.1 (overleaf).

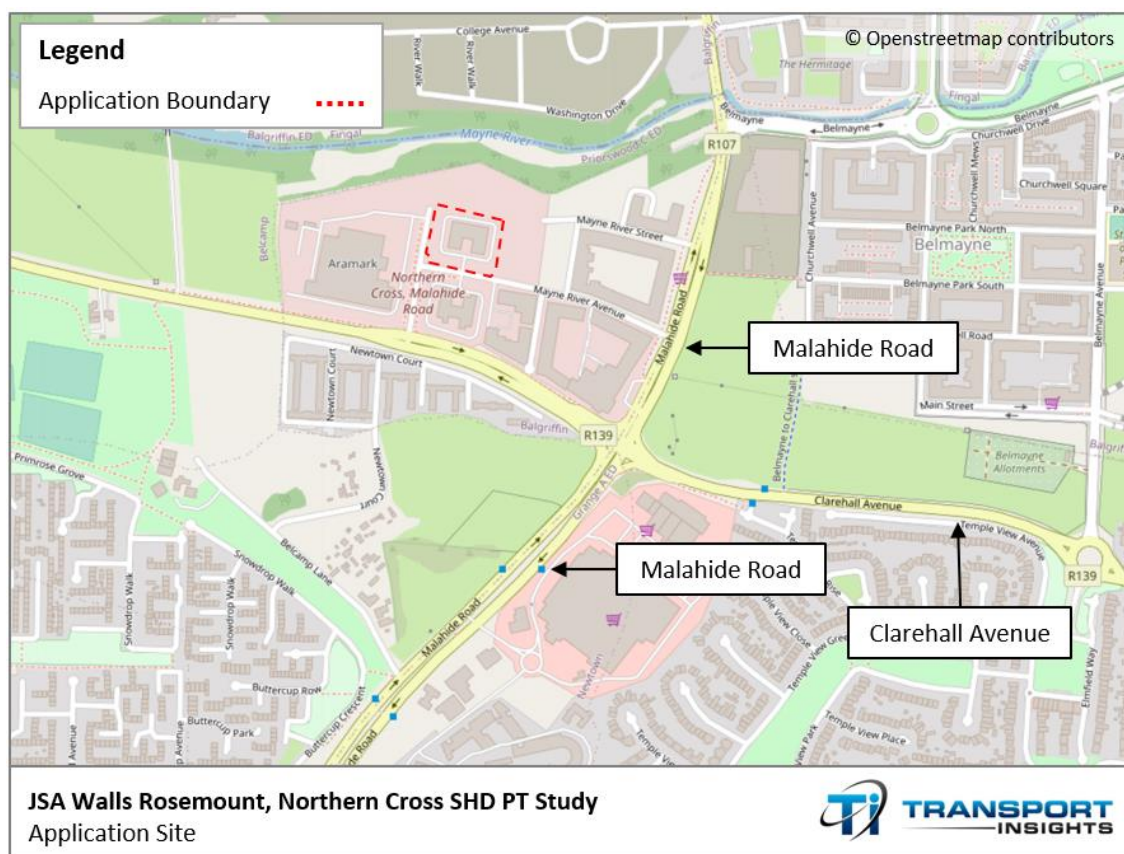
Figure 1.1 Strategic Site Location

The site measures ca. 0.65 ha. and currently comprises approximately 3,300sqm of office space. The site is bounded to the north by an existing car park, to the south by Mayne River Avenue, by the road known as Priorswood and the Bewley factory to the west and by the development site of a permitted scheme under ABP Reg. Ref: ABP 307887-20. The site's location is illustrated in Figure 1.2 (overleaf).

The proposed development consists of:

- 176 no. residential units, of which 72 no. are 1 bed units, 57 no. are 2 bed units and 47 no. are 3 bed units;
- a ca. 1,051 sqm office;
- a ca. 144 sqm café;
- 134 no. car parking spaces;
- 6 no. motorcycle spaces; and
- 424 no. bicycle parking spaces.

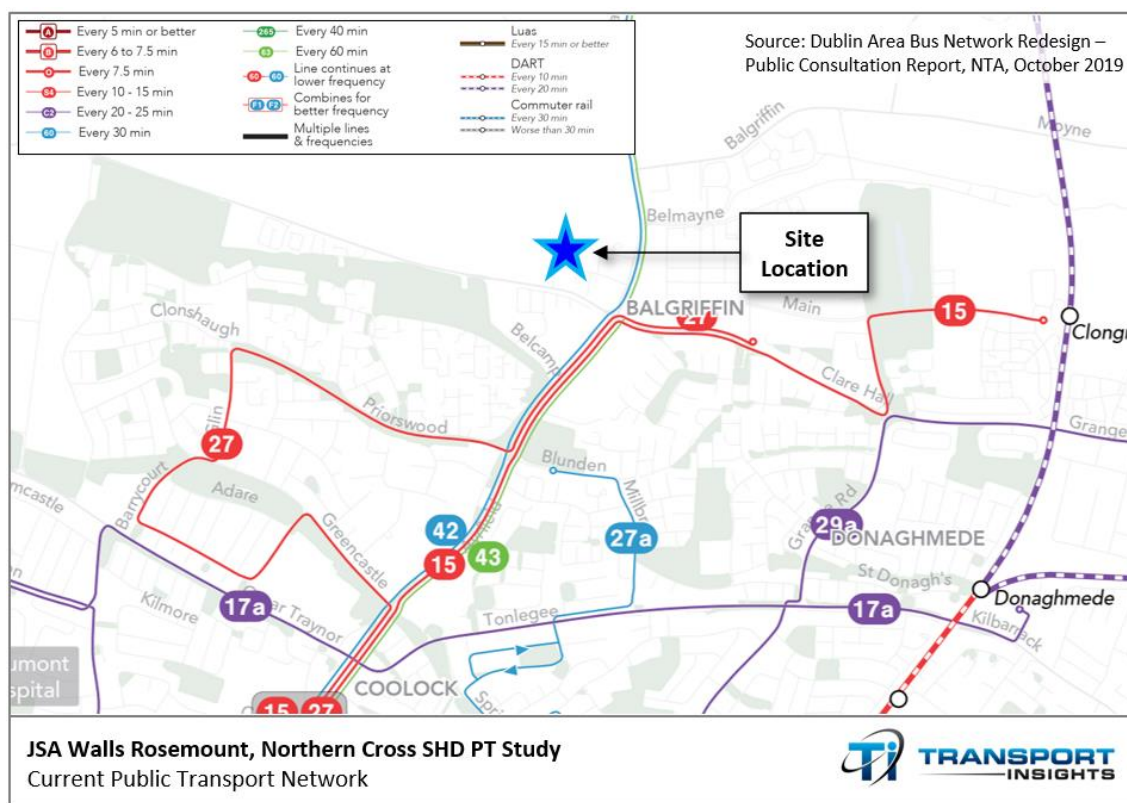
Access to the development is provided from Mayne River Avenue to the south.

Figure 1.2 Application Site – Local Context

2. Local Public Transport Provision and Commuting Patterns

2.1. Existing Public Transport Provision

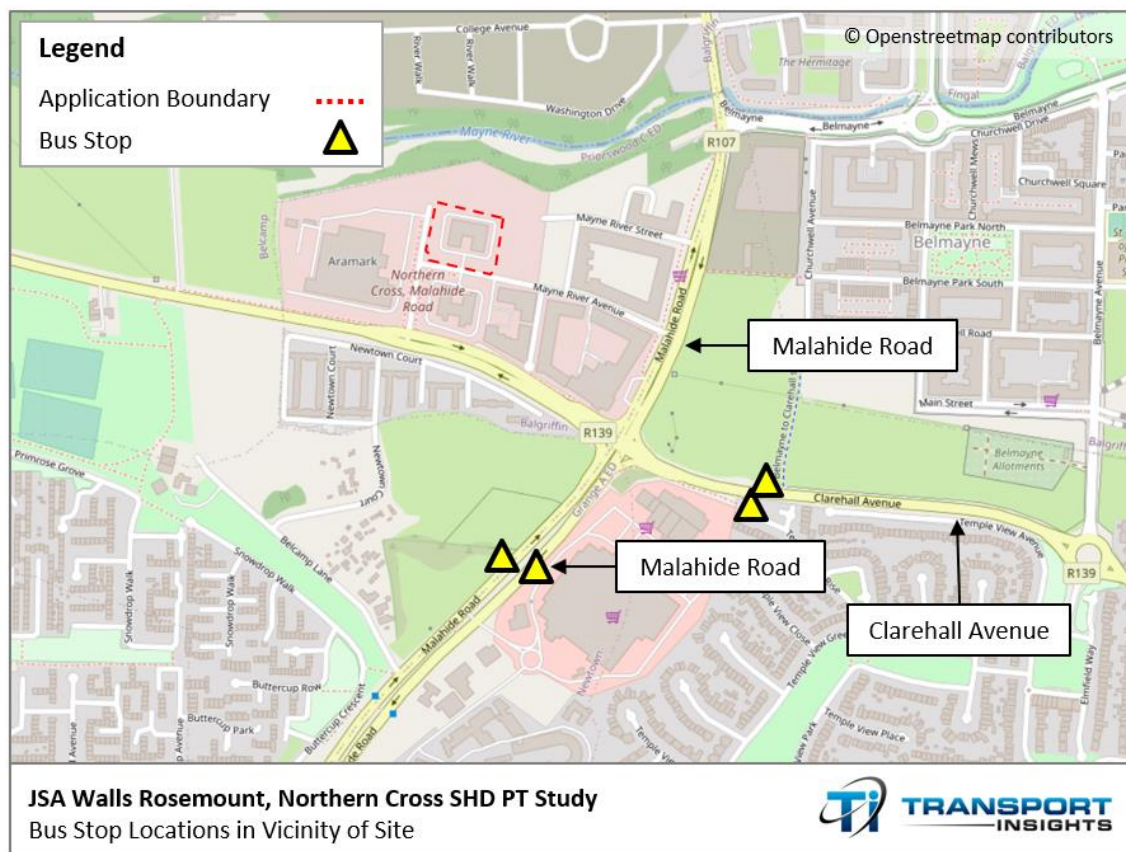
The proposed development site is served by a number of bus routes serving stops located on Clarehall Avenue and Malahide Road, namely the 15, 27/27C, 42 and 43. It should be noted that both the 15 and 27/27C are deemed to be high-frequency bus routes i.e. have a peak frequency of 10 minutes or less. Furthermore, it is noted that the 15 service operates 24 hours a day. Currently available services are presented in Figure 2.1 (overleaf), with details in relation to their proximity to the site and peak/ off-peak frequencies set out in the subsequent Table 2.1.

Figure 2.1 Current Public Transport Network**Table 2.1 Current Public Transport Services in Application Site's Vicinity**

Route No.	Route	Weekday Off-Peak Frequency	Average Weekday Peak Frequency
15	Ballycullen Road – Clongriffin	8-12 minutes	8-12 minutes
27/C	Clare Hall – Jobstown / City Centre	20 minutes	10 minutes
27X*	Clare Hall – UCD Belfield	No Service	30 minutes
42	Sand's Hotel (Portmarnock) – Talbot St.	30 minutes	20 minutes
43	Swords Business Park – Talbot St	60 minutes	10 minutes

*Peak Hour Only Service

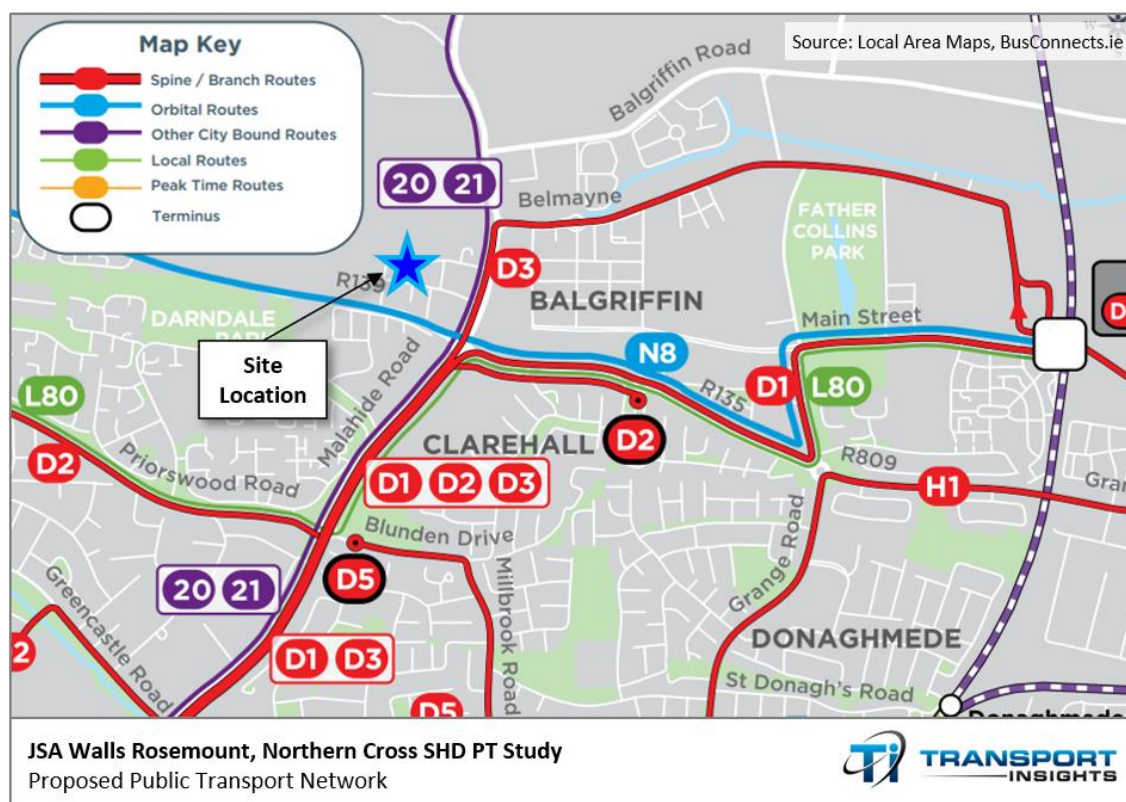
As outlined above, the subject site is well served by frequent bus routes operating in its vicinity. Together, these bus routes offer a cumulative peak frequency of one bus every 3 minutes. Bus stops in the vicinity of the subject site are illustrated in Figure 2.2 (overleaf), with 2 no. to the east of the site on R139 Clarehall Avenue and 2 no. to the south of the site on Malahide Road.

Figure 2.2 Bus Stop Locations in Vicinity of Site

2.2. Proposed Public Transport Provision

Final proposals from the New Dublin Area Bus Network Project, developed as part of the broader BusConnects programme, were published by the National Transport Authority in September 2020 after considerable public consultation. The revised network includes substantial changes in the bus network within the application site's vicinity, as illustrated in Figure 2.3 (overleaf).

As can be seen in Figure 2.3, in the application site's vicinity, routes D1, D2 and D3 will operate on the Malahide Road to the southeast of the site forming the high-frequency 'D-Spine'. Routes 21 and 20 will also operate on the Malahide Road to the east of the site. Local route L80 is also proposed to run on Malahide Road and Clarehall Avenue while the northern orbital route N8 will operate to the immediate south of the site (providing a new bus connection between Clongriffin Train Station and Dublin Airport). It should be noted that it is assumed that the routes proposed as part of the BusConnects programme will serve the existing bus stops within the vicinity of the application site.

Figure 2.3 Proposed Public Transport Network in Vicinity of Site

Details of the proposed routes are presented within the following Table 2.2.

Table 2.2 BusConnects: Proposed Bus Services in Application Site's Vicinity

Route No.	Route	Weekday Peak Frequency
D1	Clongriffin - City Centre - Grange Castle	15 minutes
D2	Clare Hall - City Centre – Citywest	15 minutes
D3	Clongriffin - City Centre - Clondalkin	15 minutes
N8	Blanchardstown SC - Dublin Airport - Clongriffin	30 minutes
20	Malahide - Kinsealy - City Centre	30 minutes
21	Swords Business Park - Kinsealy - City Centre	30 minutes
L80	Clongriffin - Beaumont Hospital – DCU	20 minutes

Together, the planned bus routes set out above offer a cumulative peak frequency of one bus every 2.85 minutes while also offering opportunities for transfer to DART and Commuter Rail services at Clongriffin Train Station to the east of the site. It should be noted that the BusConnects network redesign is being delivered on a phased basis with routes currently being rolled out

across the network. Timelines for the delivery of future phases is somewhat unclear, however, at the time of writing, it is understood that D-spine services, which comprise the high-frequency radial services within the applications site's vicinity, are expected to be delivered in 2023 and are likely to operational before the subject site's expected occupation date of 2025.

2.3. Existing Commuting Patterns in the Vicinity of the Subject Site

An assessment of Central Statistics Office (CSO) Census 2016 data was undertaken in order to understand potential commuting patterns associated with residents of the proposed development site. This assessment was undertaken using the CSO Small Area Population Statistics tool and was based on characteristics of Small Areas "268119010" (which includes the proposed development site) and "268119015/268119016" and "268119017" (to the immediate east of the proposed development site), as per Census 2016¹, which are deemed to represent an appropriate baseline for establishing residential peak travel times from the proposed development. As such, the following Table 2.3 presents the identified travel times of the population of these small areas aged 5 years and over by time leaving home to travel to work, school or college.

Table 2.3 Population Aged 5 Years and Over by Time Leaving Home To Travel To Work, School Or College

Time Period	CSO 2016 Small Area ID			Total	% Share
	268119015/ 268119016	268119017	268119010		
Before 6:30	18	18	11	47	9%
06:30 - 07:00	13	25	8	46	9%
07:01 - 07:30	11	21	12	44	9%
07:31 - 08:00	18	39	26	83	17%
08:01 - 08:30	13	37	44	94	19%
08:31 - 09:00	14	19	37	70	14%
09:01 - 09:30	3	4	0	7	1%
After 09:30	19	26	13	58	12%
Not Stated	17	15	18	50	10%
Total	126	204	169	499	100%

¹ At the time of undertaking the analysis, detailed data from Census 2022 was unavailable.

As shown in the preceding Table 2.3, 17% and 19% of the resident population of these Small Areas aged 5 years and over commence their trip from these Small Areas during the periods 07:31-08:00hrs and 08:01-08:30hrs. Together these periods represent 36% of all commuting trips undertaken by those resident in the Small Areas assessed.

3. Public Transport Survey Data Collection and Analysis

3.1. Survey Overview

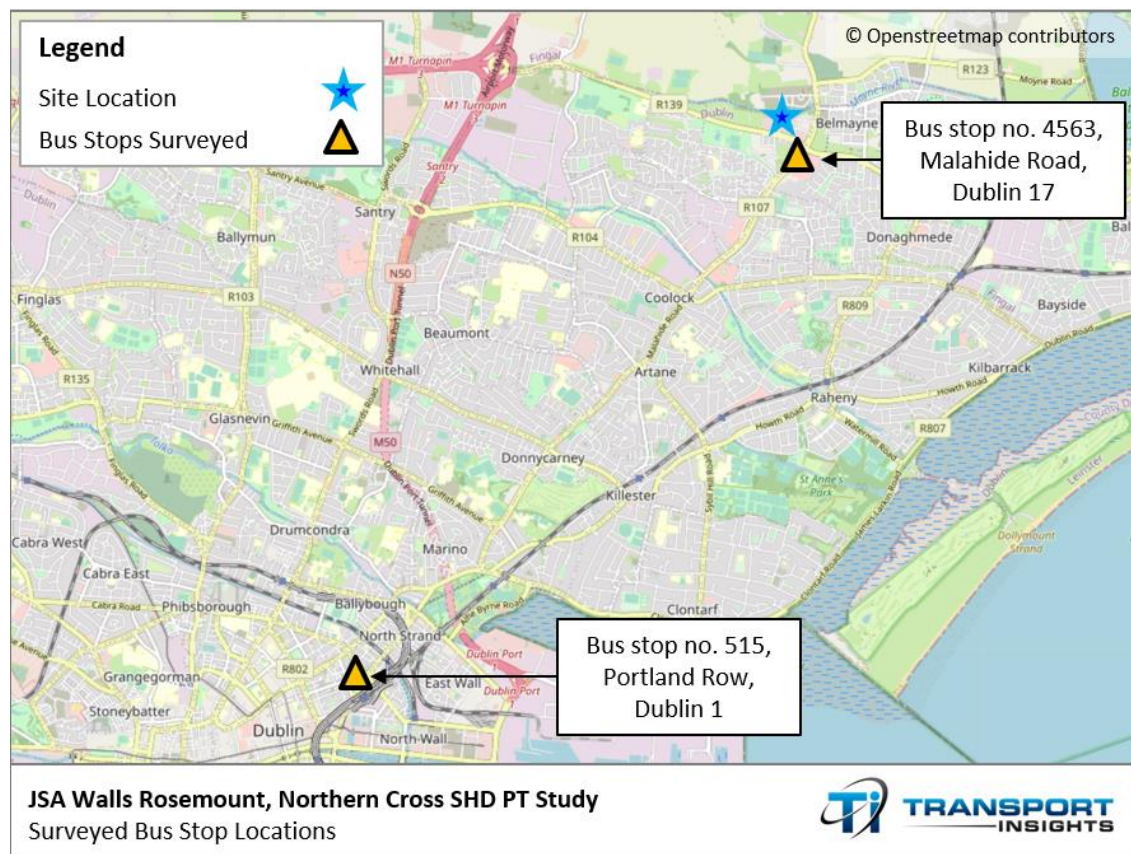
In order to determine baseline public transport capacity, an occupancy survey was undertaken at 2 no. bus stops served by routes 15, 27/27C, 42 and 43. These surveys were undertaken on Wednesday 25 May 2022. This is deemed to be a representative day of typical bus operations and loadings throughout the year as it falls within the academic year of both primary and secondary schools. The surveys sought to collect the following information:

- Time of each bus passing;
- Bus service route no.;
- Estimated capacity (seating and standing); and
- Bus occupancy count (total passengers seating and standing).

The surveys were undertaken at the following bus stops over the following periods:

- AM Peak Period (07:30-10:00hrs) – bus stop no. 4563, Malahide Road, Dublin 17 – buses heading southbound towards Dublin City.
- PM Peak Period (16:30-19:00hrs) – bus stop no. 515, Portland Row, Dublin 1 – buses heading northbound towards development site from Dublin City.

Figure 3.1 (overleaf) illustrates the location of the surveyed bus stops outlined above. It should also be noted that the siting of the PM survey at bus stop no. 515 at Portland Row, Dublin 1 has been undertaken in order to provide a conservative estimate of outbound bus capacity as, at this location, which is outside Dublin City Centre, is deemed to be the location at which bus services are at their maximum loading.

Figure 3.1 Bus Stop Locations in Vicinity of Site

3.2. Survey Results

Inbound AM Peak

Within the following Table 3.1, the survey results for the AM peak period (07:30-10:00hrs) at bus stop no. 4563, Malahide Road, Dublin 17 are shown. It should be noted that all buses identified by the survey were found to be double-decker buses with a capacity of 64 no. seats passengers and 30 no. standing passengers, giving a total capacity of 94 no. passengers.

Table 3.1 Survey Results – AM Period (07:30-10:00hrs), Bus Stop No. 4563, Malahide Road

Route No.	Time	No. Occupants on Arrival	No. Alighters	No. Boarders	No. Occupants on Departure	Excess Capacity	Excess Capacity (%)
27	07:31	5	1	1	5	89	95%
15	07:34	32	1	16	47	47	50%
27x	07:35	5	0	2	7	87	93%
27c	07:35	5	0	1	6	88	94%

Route No.	Time	No. Occupants on Arrival	No. Alighters	No. Boarders	No. Occupants on Departure	Excess Capacity	Excess Capacity (%)
43	07:46	72	0	27	99	-5	-5%
42	07:54	27	0	8	35	59	63%
27	07:42	5	0	3	8	86	91%
15c	07:51	5	0	10	15	79	84%
15	07:53	90	3	14	101	-7	-7%
43	07:58	23	2	2	23	71	76%
15	07:58	32	1	2	33	61	65%
27	08:01	5	0	3	8	86	91%
27x	08:06	2	0	1	3	91	97%
27x	08:07	5	0	1	6	88	94%
43	08:07	9	0	7	16	78	83%
27	08:12	5	0	6	11	83	88%
15	08:13	81	2	13	92	2	2%
42	08:15	9	0	13	22	72	77%
15	08:16	9	0	3	12	82	87%
27c	08:22	9	1	6	14	80	85%
15	08:26	72	2	14	84	10	11%
27	08:32	18	1	7	24	70	74%
43	08:33	18	4	17	31	63	67%
15	08:35	14	5	1	10	84	89%
42	08:37	14	0	8	22	72	77%
27	08:41	18	0	16	34	60	64%
15	08:43	32	0	7	39	55	59%
43	08:49	27	6	2	23	71	76%
27	08:51	5	0	3	8	86	91%
15	08:56	9	5	3	7	87	93%
42	08:59	18	0	3	21	73	78%
27	09:04	11	0	1	12	82	87%
15	09:05	23	3	9	29	65	69%
43	09:08	14	2	4	16	78	83%

Route No.	Time	No. Occupants on Arrival	No. Alighters	No. Boarders	No. Occupants on Departure	Excess Capacity	Excess Capacity (%)
27	09:11	5	0	3	8	86	91%
15	09:14	23	1	7	29	65	69%
42	09:18	9	0	2	11	83	88%
27	09:21	9	0	3	12	82	87%
43	09:24	18	2	4	20	74	79%
15	09:25	18	2	0	16	78	83%
27	09:32	23	0	12	35	59	63%
42	09:36	18	0	6	24	70	74%
15	09:42	18	0	12	30	64	68%
27	09:43	5	0	1	6	88	94%
15	09:47	18	3	5	20	74	79%
42	09:51	23	2	9	30	64	68%
27	09:53	18	0	10	28	66	70%
15	09:57	9	2	4	11	83	88%
Total		931	51	312	1,203	3,309	73%

As can be seen from the preceding Table 3.1, during the survey period all buses with the exception of 2 no. (the no. 43 bus which arrived at 07:46hrs and the no. 15 bus which arrived at 07:53hrs) were found to have excess capacity. During the survey period (07:30-10:00hrs), the average occupancy of the buses surveyed was found to be 25 no. passengers. Average excess capacity across the 2.5hrs survey period on the buses surveyed was found to be 69 no. passengers (73%).

As set out in Section 2.3, an analysis of Census data demonstrated that the peak hour for local residents commuting to their place of work or education was found to be 07:31-08:30hrs. During this time period, the average occupancy of buses surveyed was found to be 31 no. passengers and average excess capacity was found to be 63 no. passengers (67%).

Outbound PM Peak

Within Table 3.2 (overleaf), the survey results for the PM peak period (16:30-19:00hrs) at bus stop no. 515, Portland Row, Dublin 1 are shown. Similar to the AM peak survey, all buses identified by the survey were found to be double-decker buses with a capacity of 64 no. seats passengers and 30 no. standing passengers, giving a total capacity of 94 no. passengers.

Table 3.2 Survey Results – PM Period (16:30-19:00hrs), Bus Stop No. 515, Portland Row

Route No.	Time	No. Occupants on Arrival	No. Alighters	No. Boarders	No. Occupants on Departure	Excess Capacity	Excess Capacity (%)
27	16:34	90	0	0	90	4	4%
42	16:38	27	0	1	28	66	70%
15	16:40	23	0	0	23	71	76%
15	16:41	81	0	1	82	12	13%
43	16:43	54	0	1	55	39	41%
27	16:57	45	0	2	47	47	50%
42	16:57	63	0	1	64	30	32%
15	16:58	90	1	0	89	5	5%
43	17:07	18	0	5	23	71	76%
15	17:13	18	0	0	18	76	81%
42	17:14	18	0	0	18	76	81%
43	17:25	90	0	4	94	0	0%
15	17:28	5	0	0	5	89	95%
27	17:30	9	0	0	9	85	90%
27	17:34	18	0	0	18	76	81%
15	17:37	63	1	1	63	31	33%
42	17:38	54	1	1	54	40	43%
27x	17:39	36	0	0	36	58	62%
27	17:47	9	0	0	9	85	90%
43	17:48	18	0	0	18	76	81%
15	17:53	90	0	0	90	4	4%
42	17:58	27	1	2	28	66	70%
15	18:01	90	2	2	90	4	4%
43	18:10	54	0	5	59	35	37%
42	18:16	45	0	1	46	48	51%
15	18:17	90	0	0	90	4	4%
27	18:18	68	0	1	69	25	27%
15	18:20	90	1	0	89	5	5%

Route No.	Time	No. Occupants on Arrival	No. Alighters	No. Boarders	No. Occupants on Departure	Excess Capacity	Excess Capacity (%)
15	18:23	81	0	0	81	13	14%
27	18:26	86	4	0	82	12	13%
27	18:27	72	0	0	72	22	23%
15	18:33	86	3	0	83	11	12%
27	18:35	81	0	0	81	13	14%
42	18:39	81	0	1	82	12	13%
15	18:42	77	0	0	77	17	18%
15	18:56	90	3	2	89	5	5%
Total		2,034	17	34	2,059	2,076	39%

As can be seen from the preceding Table 3.2, during the survey period all buses with the exception of 1 no. (the no. 43 bus which arrived at 17:25hrs) were found to have excess capacity. During the survey period, the average occupancy of buses surveyed was found to be 57 no. passengers. Average excess capacity on the buses surveyed was found to be 37 no. passengers (39%).

The busiest hourly period during the PM peak survey was found to be 18:01-19:00hrs. During this time period, the average occupancy of the buses surveyed was found to be 78 no. passengers and average excess capacity was found to be 16 no. passengers (17%). These lower figures (compared to the AM peak hour survey results) are as to be expected due to the conservative siting of the PM peak period survey and somewhat lower service frequency.

3.3. Existing Peak Hour Bus Service Capacity

The AM and PM peak hours have been identified through CSO and bus occupancy survey data to be 07:31-08:30hrs and 18:01-19:00hrs respectively. Table 3.3 (overleaf) details the number of services, 15, 27, 27X, 42 and 43, operating to each of the surveyed bus stops along with the capacity (passengers per hour per direction [pphpd]) of these bus services for both the AM and PM peak hours.

As shown within Table 3.3, based on the capacity of a typical bus operating on these routes i.e., 94 no. passengers, bus service capacities have been estimated as 1,974 pphpd in the AM and 1,316 pphpd in the PM peak hours. As set out in Section 3.2, excess capacity on bus services in the AM and PM peak hours has been determined to be 67% and 17% respectively.

Table 3.3 Existing AM and PM Peak Hour Bus Service Capacity

	AM Peak Hour (07:31-08:30hrs)	PM Peak Hour (18:01-19:00hrs)
No. Services	21	14
Capacity (pphpd)	1,974	1,316

4. Public Transport Demand

4.1. Proposed Development Modal Splits

In support of the SHD application, a TTA including Framework Mobility Management Plan (MMP) was produced by DBFL Consulting Engineers. As part of this MMP, DBFL have proposed modal split targets for residents of the proposed development. Modal splits for the commercial portion of the development have also been provided by DBFL. These modal split targets are outlined in Table 4.1 below.

Table 4.1 Proposed Modal Splits

Mode	Residential			Commercial
	Census 2016	1 st Year Target (2023)	5 th Year Target (2028)	Office Modal Splits
On foot	11%	13%	15%	18%
Bicycle	4%	5%	7%	11%
Bus, minibus or coach	28%	30%	32%	37%
Train, DART or Luas	3%	3%	4%	7%
Motorcycle or scooter	1%	1%	1%	1%
Car driver	35%	32%	28%	8%
Car passenger	15%	12%	9%	2%
Van	2%	1%	1%	2%

Mode	Residential			Commercial
	Census 2016	1 st Year Target (2023)	5 th Year Target (2028)	Office Modal Splits
Work mainly at or from home	1%	3%	3%	4%
Car Share	-	-	-	9%

4.2. Proposed Development Public Transport Demand

In order to determine whether the modal splits outlined in Section 4.1 above are achievable in relation to existing public transport (i.e. bus services) provision in the vicinity of the site, an analysis of the daily public transport demand has been undertaken. This analysis is based on the modal splits set out above, the number of residents and staff expected to occupy the proposed development, data from the National Transport Authority's latest *National Household Travel Survey (NHTS) 2017 Final Report* (December 2018), and the public transport capacities determined in the preceding Section 3.

The following Table 4.2 provides an overview of residential travel demand based on the proposed no. of units within the development, the assumed average occupancy of these units and the average no. of trips per person per day taken within the Greater Dublin Area, as set out within the *NHTS 2017*.

Table 4.2 Daily Residential Public Transport Demand

No. of units proposed	176	units
Assumed no. of residents per unit	2.07	persons
Total residents	364	persons
No. Trips per person per day within GDA (as per NHTS 2017)	1.87	trips/person/day
Trips per day	681	trips

Based on the above, it is estimated that 364 no. persons may occupy the residential portion of the development, and based on evidence provided within the *NHTS 2017*, it is assumed that each

one of these residents will generate 1.87 trips per day, equating to a total daily production of ca. 681 no. trips.

An estimation of the number of staff expected to occupy the commercial portion of the development has been undertaken. Table 4.3 below is an extract from the *Employment Density Guide (UK) 3rd Edition* which details typical employment densities for different types of office spaces.

Table 4.3 Extract from Employment Density Matrix (Source: Employment Density Guide 2015)

Use Class	Sub-Category	Sub-Sector	Density (Sqm/Staff)
B1a Offices	General Office	Corporate	13
		Professional Services	12
		Public Sector	12
		Technology, Media and Telecoms (TMT)	11
		Finance & Insurance	10
	Call Centres		8

The preceding Table 4.3 illustrates that the density for offices typically ranges between one staff member per 8-13 sqm of office space. The expected staff numbers within the proposed development have calculated as per the *Employment Density Guide* for an office development of 1,051 sqm for each sub-sector set out above, with the results illustrated in the following Table 4.4.

Table 4.4 Expected Staff Numbers Per Employment Density Guide 2015.

Sub-Sector	Predicted Staff Numbers
Corporate	81
Professional Services	88
Public Sector	88
Technology, Media and Telecoms (TMT)	96
Finance & Insurance	105
Call Centres	131
Average	98

As can be seen from the preceding Table 4.4, depending on the type of businesses which might occupy the proposed development, the number of staff could range between 81 and 131, with the average number of staff predicted to occupy the proposed development being 98.

The total public transport demand of the proposed development has calculated based on the preceding information, with the findings presented in Table 4.5 below. Of the 681 no. daily resident trips, 30% are assumed to travel by bus in Year 1 (2023), as per the proposed modal splits outlined in Table 4.1. It should be noted that this is proposed to increase to 32% in the development's fifth year of occupation (2028). It should also be noted that it has been conservatively assumed that 80% of public transport resident trips will take place in the direction of peak demand (i.e. in the direction to Dublin City Centre in the AM peak hour and from Dublin City Centre in the PM peak hour).

For staff of the proposed development, a 37% bus modal split target has been assumed as per Table 4.1 and applied to the average staff no. of 98 as per Table 4.4. Furthermore, reflecting the large resident population in Dublin City to the south, it has been assumed that 20% of all public transport staff trips will be in the direction of peak demand, i.e. southbound in the AM peak hour, and northbound in the PM peak hour.

Table 4.5 Daily Public Transport Demand

Year	Total No. Daily PT Trips To/ From Development			No. of Daily PT Trips in Direction of Peak Demand To/ From Development		
	Resident Trips	Staff Trips	Total Trips	Resident Trips	Staff Trips	Total Trips
2023	204 (=681*0.3)	36 (=98*0.37)	241	163 (=204*0.8)	7 (=36*0.2)	170
2028	218 (=681*0.32)	36 (=98*0.37)	254	174 (=218*0.8)	7 (=36*0.2)	181

As demonstrated by Table 4.5 above, 241 no. trips are estimated to be taken by public transport from the development in 2023, with 170 no. of these occurring in the direction of peak demand. This rises to 254 no. total trips from the development in the year 2028 with 181 no. expected to occur in the direction of peak demand.

4.3. Impact of Proposed Development on Existing Services

Using CSO data, the proportion of resident trips set out above undertaken during each hour of the day can be estimated. As set out in Section 2.3, 07:31-08:30hrs represents the AM peak hour

in which 36% of morning commuting trips by local residents are undertaken. In order to provide a robust assessment, it is assumed that a further 36% of all daily resident commuter trips are undertaken in the period 18:01-19:00hrs, i.e. the hour in which bus services were identified to be at their busiest, which is deemed to represent the PM peak hour. For staff of the office unit, it is conservatively estimated that half of all public transport trips may be made in each of the AM and PM peak hours.

Within Table 4.6 below, the number of trips to and from the development in the AM and PM peak hours in the direction of peak demand are calculated for each of the assessment years. The percentage of new users with respect to existing bus capacity in the AM and PM peak hours has also been estimated. It should be noted that it has been assumed that there will be no change in the capacity of existing bus services in order to provide a robust assessment.

Table 4.6 Existing Bus Service Capacity

Year	No. of Peak Hour PT Trips in Direction of Peak Demand	Southbound AM Peak Hour Bus Service Capacity (pphpd)	% New PT Users/ AM Capacity	Northbound PM Peak Hour Bus Service Capacity (pphpd)	% New PT Users/ PM Capacity
2023	62 ²	1,974	3.1%	1,316	4.7%
2028	66 ³	1,974	3.4%	1,316	5.0%

As set out in Table 4.6 above, in the development's assumed year of opening (2023), 62 no. trips are expected to be undertaken by public transport in the direction of peak demand during the 07:31-08:30hrs and 18:01-19:00hrs. These numbers represent 3.1% and 4.7% of the total capacity of existing AM and PM peak hour bus service capacities respectively. These figures rise to 3.4% and 5.0% respectively in 2028, due to the proposed increase in public transport mode share as per the MMP. As set out in Section 3.1, during the AM and PM peak hours, bus service excess capacities were found to be 67% and 17% respectively. As such, it is apparent that current public transport capacity is sufficient to accommodate the small additional demand generated by the proposed development.

It should also be noted with the improvements in bus services being implemented as part of the BusConnects network redesign of the Dublin Bus network as set out in Section 2.2, public

² = 163*0.36 resident trips + 7*0.5 staff trips

³ = 174*0.36 resident trips + 7*0.5 staff trips

transport capacity will further improve in the short-medium term. At the time of writing, it is understood that D-spine services are expected to be delivered in 2023 and are likely to be fully delivered before the subject site's expected occupation date of 2025.

5. Conclusion

Transport Insights has been appointed by John Spain Associates on behalf of Walls Construction Ltd to undertake a public transport capacity study in relation to a proposed development at Rosemount, Mayne River Avenue, Northern Cross, Malahide Road, Dublin 17.

The information outlined within this Report has been informed by the following documents furnished to Transport Insights by John Spain Associates:

- Traffic and Transport Assessment (TTA) including Framework Mobility Management Plan (MMP) produced by DBFL Consulting Engineers;
- Proposed Development Site Location Map produced by Plus Architecture – dwg. no 487-487_01_00; and
- Schedule of Accommodation produced by Plus Architecture.

Based on the findings of public transport occupancy surveys, mode share targets set out within the MMP, and analysis contained within this Report, it was found that the residents and staff of the proposed development would utilise 3.1% and 4.7% of the total capacity of existing AM and PM peak hour bus service capacities respectively in the proposed development's assumed year of opening (2023). These figures rise to 3.4% and 5.0% respectively in 2028, due to the targeted increase in bus mode share as per the MMP. During the AM and PM peak hours, bus service excess capacities were found to be 67% and 17% respectively. As such, **it is apparent that current public transport capacity is sufficient to accommodate the small additional demand generated by the proposed development.**