Observations and submissions on the proposed Buckley/Chadwick's development by Dwyer Nolan.

Frank Keoghan,

25 Shanowen Crescent, Dublin 9.

08792308330

Case reference: TA29N.314019.

Location: At the junction of Santry Avenue and Swords Road, Santry, Dublin 9.

(www.santryavenueshd2.ie)

Public transport.

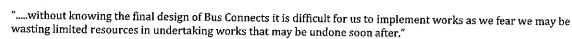
"Urban Development and Building Height Guidelines 2018", enables increased building height and residential densities on sites adjacent to quality public transport routes and within existing urban areas. It is not possible at this point to determine whether Bus Connects will successfully run in the area. Metro North fell through over a decade ago after a lot of preparatory ground works had been completed. For this justification to be used, the Bus Connects would have to be operating successfully.

If it does operate efficiently, then there will be increased uptake and as all buses serving Swords Rd in the vicinity of the development originate in towns in Fingal, they would be full – as they are at the moment, during rush - hour on reaching Santry –and would suffer delays on this stretch of road. **See Appendix 3.**

Swords according to the last census (2016), was the second fastest growing town in the country – after Saggart. A growing town has a predominantly younger population who are heavy users of public transport and as can be seen from the attached bus timetables, 41, 41c, 33 all pass through or are destined for Swords Village and are invariably full on reaching the stop at the proposed development. The 41b provides a single service at rush hour passing through Swords village. A large proportion of travellers on these routes between 8:00 and 9:00 are students of the various schools and colleges along the route south of Santry.

Even if there is an increase in capacity, the likely demographic in the proposed development, the adjacent Santry Place and the Omni site in development will put further pressure on that capacity. The 16 route from the airport can be expected to return to its crowded state when the pandemic regulations are relaxed. It was impossible to board that bus at Santry during rush hour and indeed – currently – after midday.²

Subject: RE: Works in Santry



² Despite Covid restrictions, this bus was full to capacity (all seating and standing room) on the three occasions I sought to use it after midday last week!!

¹ From: Coilin O'Reilly (former DCC Local Area Manager) Date: Mon, Mar 8, 2021 at 9:22 AM

The No 1 bus originates in the Shanard area, reaching the Swords Road at the Shanowen Road junction. This is the best option to ensure boarding a bus during rush hour but involves a walk of about 1Km and could not be considered 'adjacent' as expressed in the Guidelines but is the only bus originating in Santry. These statements can be verified by reference to the accompanying extracts from Dublin bus timetables which demonstrate a relatively high frequency (the applicant submits 'every ten minutes' and it should be noted that the Apartment Guidelines categorise these as 'reasonably frequent') at rush hour but in the experience of residents, a low capacity on reaching Santry Ave. and further south.

When addressing the issue of 'scale' the applicant makes the unsupported assertion that "The site <u>is considered</u> to be very well served by high capacity, frequent, public transport services, with excellent links to the wider Dublin area and therefore compliant with the above criteria. This can only be a personal opinion on the part of the applicant and would be contested vigorously by commuters and residents in the area.

No final decision has been made on Bus Connects; its eventual operation is currently thrown in doubt by a related industrial dispute and I submit that the consideration of permission for the development be postponed pending the initiation and operation of Bus Connects, as a major justification for the development and particularly for the conflict with DCC height guidelines, is the presence of a quality public transport route.

Neither is Santry close to a transport hub. If Metro North should eventually be built, the nearest station would be over 1.5km away, which couldn't be considered walking distance, particularly in inclement weather or in winter conditions along Santry Ave.

Splashing from passing trucks which use this as a peripheral route to the M1 and M50, threats of anti-social behaviour, the isolated nature of the route, particularly for women and the narrowness of the footpath all militate against the station being a transport option (hub) for residents in the proposed development. The 17a cross city service does provide a service every 20 mins during rush hour for part of the route to the proposed Metro station but the above caveats also apply to the remainder of the route.

Paragraph 3.2 of the Building Height Guidelines states that: "the site *is* well served by public transport *with high capacity*, frequent service *and* good links to other modes of public transport" (my emphasis). Thus, the site must currently be so served.

It should be noted that in the case of Rita O'Neill Vs An Bord Pleanala³, Judge Meenan stated; 'that the site must be currently well served by public transport' currently meaning 'present tense.' I submit that this crucial point made by the judge demonstrates that this proposed development contravenes the regulations as set for the SPPR3 height regulations.

This is supported by a similar judgement of Justice McDonald in [2020 No. 45 J.R.], "For this provision of paragraph 3.2 to be satisfied, I contend that the site must be currently well served by public transport as I note that the provision in paragraph 3.2 is expressed in the present tense."

³ https://www.casemine.com/judgement/uk/5fa90b7b4653d019e70a17fb

SPPR2.

In addressing SPPR2 the applicant asserts that 'The CDP's vision for Z3 lands seeks to develop such lands for the provision of local facilities, accessible via walking, with a limited range of services.'

Objective Z3 proposes in excess of twenty permissible uses, which I contend are presented as a range of desirable options, supported by a further number of 'open for consideration' options. Most of the foregoing, if provided, would create employment in the area and obviate the need for commutes. National Policy Objective 11 of the NPF states that - "In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages,....." This objective is addressed by the provision of five commercial (retail) units and a cafe at ground floor level in a development of 350 apartments with an average occupancy of 2.5. These six units could hardly be construed as providing a meaningful level of employment given the scale of the proposed development.

The applicant has opted for a minimalist approach that will not address the employment needs of the occupants nor of the area, does not satisfy Objective 11 and interprets Z3 to provide a veneer to justify excessive heights. The applicant states that: "It is therefore considered that the proposed development caters for an appropriate mix of uses, in compliance with SPPR 2 of the UD&BHG" The residential units provided are disproportionate to the services proposed in the development and the mix of uses so restricted as to render the term meaningless – though the proposed building heights are justified on this basis. I submit that the application should be rejected on this basis alone.

SPPR3.

In addressing SPPR3, the applicant asserts that "The site is well served by public transport with high capacity, frequent service and good links to other modes of public transport" and continues: "The subject site is also easily accessibility to the M50/M1 motorways, providing wider connectivity to other public transport options in the city". I have already dealt with the capacity issue but the applicants proposing that connectivity be achieved through use of the M50/M1 is not in accordance with National Policy Objective 64 of the NPF - "...spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car," and suggests that this may be used as a selling point for the development should it be completed.

Height.

At 3.2, the guidelines state that 'development proposals incorporating increased building height, should successfully integrate into/enhance the character and public realm of the area, having regard to topography, its cultural context, setting of key landmarks, protection of key views.' In the latter instance, the view south from Santry Demesne Public Park would be interrupted, if a 14 storey block were to be built on the edge of the proposed development while the block would be overbearing for motorists approaching uphill towards it from the north.

I submit that the development would not integrate into nor enhance the public realm in the area. The predominant housing type in the extended area is two-storey and while accepting that in the immediate vicinity, recent permissions have led to construction up to seven storeys, I submit that the heights on the

applicant's proposed development not exceed this and be of similar construction, (the applicant developed the adjacent site referred to) 'having regard to the topography'.

The applicant states on page 29/30 Statement of Consistency: The proposed mix of uses is considered to be appropriate and compliant with the Z3 zoning attached to the site which seeks to cater for a variety of convenience type units at ground floor level, with high density residential development above - seeking to place his own definition on Z3 zoning.

Z3 states: Neighbourhood centres <u>may</u> include <u>an element</u> of housing, particularly at higher densities, and above ground floor level. It is not prescriptive and refers to an <u>element</u> of housing, 'element' being defined by the OED as 'a necessary or typical part of something.' At no point is it suggested that housing be the dominant element even if it is clear that the intention is that housing be included 'at higher densities above ground floor.' These higher densities can only refer to; in excess of the predominant two storey housing in the area. Z3 is associated with the CDP which restricts height in neighbourhood centres to 16m.

It is worth recalling that during the last decade, similar tower blocks only a kilometre or so away in Ballymun were demolished as untenable, having given rise to multiple social problems. They were replaced by two/three storey residences. Serious mental health problems have been related to building height.⁴ In an English study, mothers who lived in flats reported more depressive symptoms than those who lived in houses (Richman, 1974). Rates of mental illness rose with floor level in an English study (Goodman, 1974). Psychological symptoms were more often present in high rises (Hannay, 1979).

The original plans placed the 14 storey at the back centre of the site where its imposing height would have been somewhat attenuated by the surrounding 7 and 10 storeys. However, at the pre-planning consultation meeting of 03/12/20 the planning authority stated that it would be 'preferable' – without giving a reason – that it be located in the corner of the site at the road junction though they demanded a 'rationale' from the applicant if it were not placed there. Their rationale seems to be that it is a good site for a 'gateway' building. In the Planning Authority's Opinion 1/10/20 it was referred to as a 'landmark building signalling the entrance to DCC area and Santry village.' This concept was repeated in the Consultation Opinion and the Inspector's Report – no doubt, prompted by the Planning Authority.

The corner is at the junction of Santry Ave and Swords Road. The latter was formerly the main northerly route into the city but now is a main route only for busses and local traffic as the M1 is used by traffic from Swords and to the North and effectively is the entrance to DCC area from those regions. The boundary of DCC area is likely to change in the future and the vanity gateway project will be stranded. It is difficult to envisage how motorists will know it is DCC area and even locals disagree regarding the location of Santry village, the old village having been demolished. For these reasons alone, I submit that the 14 storey be scaled back as the reasons advanced by the Planning Authority

⁴ Professor Robert Gifford: "<u>The Consequences of Living in High-Rise Buildings.</u>" in the journal *Architectural Science Review*. Dr. Gifford reviewed the literature on the psychological impacts of tall buildings on their occupants. His manuscript surveys nearly 100 studies that investigate whether high rises improve or diminish well-being and mental health.

are spurious and at best self – serving. And I would concur with the opinion of APB that the developer should consider "a reduction in height of Block A from 14 storeys to 11 storeys / maximum of 35 metres (with the top floor set back) - A reduction in height of Blocks D and E from 10 storeys to 7 storeys / maximum of 23 metres (with top floor set back)" while the taller building should be moved to the back of the site. However, the developer has ignored the APB request and made no attempt to comply.

This proposed development of 350 units, would join 120 at the Swiss Cottage, 200 at Santry Place, 324 at Omni Living; a total of 994 over a road frontage of less than 500m. With an average occupancy of 2.5 per unit, these developments would add just 2,500 people to this small area. The likely demographic suggests an increased pressure on schools, crèches and medical facilities, none of which are expanding near the location.

There is no primary school in Santry and the nearest boy's secondary school is Aidan's on Collins Ave. where you must have a sibling as a student if you are to gain admittance and Margaret Aylward on Thatch Rd for girls. In fact, there is no school with a Santry address! I am aware from a submission arising from a recent re-zoning application in the area that the Dept of Education is both aware of and concerned about this situation. Driving to schools merely adds to congestion at rush hour and parents in the development will have little choice given the present lamentable state of transport infrastructure – which I experience every day.

When the applicant got 'no response' from half the crèches contacted, it was left at that even though they may have gone out of business due to the current insurance pressures etc. I submit that the proposal to omit a creche from the development is not supported and should be rejected. This brings the whole community audit into question and I submit that it is not credible and should be rejected.

A holistic approach to development in the area requires an infrastructural plan to include transport and community facilities and though this is not the responsibility of ABP, its absence should be taken into consideration when assessing this application. *See Appendix 1*

At Santry Ave. density is proposed to be 233 Units per Hectare (UPH), in comparison to densities of 121 UPH in London, up to 150 UPH in Amsterdam, 200 UPH in Copenhagen and 225 UPH in Paris. (Dublin: 2.5 persons per dwelling 2016 census). Santry Ave. density is 650 people per hectare, compared to maximum slum densities of 450 people per hectare 2.47 acres) in Dublin in 1926.

The density of these buildings in the applicant's proposed development presents a level of massing totally out of proportion to the adjoining recently completed development and also in relation to the surrounding area. It will present a canyon – like entrance to Santry with no continuity and conflicting designs.

Traffic/parking.

The Apartment Guidelines (2018) state: that for apartment developments "the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances."

The proposed development provides for 209 car parking spaces which results in a ratio of 0.6 spaces per dwelling, which the applicant considers to be appropriate given the locational context of the application site.

Total new car parking spaces on this 458m of 2 lane road - This proposed development 209; adjacent Dwyer Nolan development - 273; Omni Living - 162 and Swiss 32 **Total = 698**

I submit that in making a locational assessment, a holistic view of traffic and vehicle density in the area must be considered, aside from the fact that 0.6 spaces per dwelling seems high given what the applicant claims is a high frequency/capacity bus service at the location and where national policy favours elimination of car parking. The adjacent Dwyer Nolan development has 273, Omni Living 162 and Swiss Cottage 36. These when combined with this development's provision will result in a total of potentially, 698 extra cars on this 458 m of already congested road, perhaps twice a day. **See Appendix 4.**

The road reaches a single lane squeeze point – which will not be rectified if Bus Connects is implemented - at Shanowen Road traffic lights about 200 meters beyond Omni with traffic tailing back to the Omni traffic lights. Part of this tailback joins the tail-back from Shanowen Road traffic lights and often, the tail – back from Omni will reach the Santry Ave/Village junction causing problems for those coming off the motorway. This can be verified even through casual observation.

If we take the applicants figures of 140 (66% of possible maximum) arrivals and 160 (77%) departures at peak and extrapolate those proportions onto the 698 total for the location, the result in 448 arrivals and 514 departures. An additional 106 cars am peak and 114 at pm peak will be generated by the Omni Living development alone, which is about 300m away. These are the developers figures already accepted by ABP and may be found in *Appendix 2*.

Santry, and in particular the stretch of road from the junction of the R104 with the Swords Road down to the Flyover, cannot sustain this increase in traffic without infrastructural changes- given its current congested state, both North and South-bound. Major works are required on the Santry Ave junction and on Santry Ave itself – a narrow heavily trafficked road with heavy truck traffic off the M1/M50. This frequently results in traffic backup from the junction up to Aldi supermarket. The result is a rat-run through Shanliss/Shanard/ Shanowen down to Collins Ave. These cars travel very fast through the estate notwithstanding traffic calming and pose a traffic and pollution hazard. This situation can only be exacerbated by increased traffic generated by this development.

The Apartment Guidelines note that "quantum of car parking or the requirement for any such provision forapartment developments will vary, having regard to the types of location in cities and towns that may be suitable for apartment development, broadly based on proximity and accessibility criteria".

Furthermore, Section 16:38 of the CDP setting parking place standards (2016) explicitly states that they are "not intended to promote the use of the car within the city"

If the applicant's claims regarding the availability of public transport are accepted, it is my contention that given the current locational traffic situation, that all car parking at the development be dispensed with as a condition of granting permission and if the applicants claims are correct, and I contend they aren't, then a condition demanding elimination of parking spaces would support the concept of a 15 minute city.

Fire safety

National Policy Objective 4 of the National Planning Framework seeks to: "Ensure the creation ofthat are home to diverse and integrated communities that enjoy a high quality of life and well-being."

According to Phil Murphy, co-author of <u>The Fire Risks of Purpose-Built Blocks of Flats</u> — one of many such studies, particularly in the wake of the Grenfell Towers disaster - says that it takes a fire brigade 20 minutes longer to begin to tackle blazes that break out at 20 storeys, than those on the ground floor. In England, the average time to get to the address is 7 minutes and 45 seconds. In Cork, fire brigades reach blazes within 10 minutes in just 40% of cases. Swords Road suffers from severe traffic congestion and Santry Avenue is even worse.

If we accept 10 minutes as a probable response time to a fire in the 14 storey or a 10 storey and another 15 mins to tackle the blaze, (in England, its 20 mins for a 20 storey) then if you are at the top of the block, you could be waiting up to 30 or more minutes after the fire has been notified. To compound this situation, the tallest ladders that the Dublin Fire Brigade has are 30 metres, which only allows them to rescue people at seven or eight storeys.

Dublin Fire Brigade has first to evacuate all apartment complexes because they cannot be certain that the building materials used were sufficiently fireproofed but if there are people trapped more than eight floors up; the highest ladder won't reach them.

Aerial appliances are machines with baskets that people can climb into. They are 33 metres tall and can rescue people from the eighth floor or below. There are only three in Dublin and only two are currently operational. The 14 storey would be 48.3m tall and therefore inaccessible using the equipment available to Dublin Fire Brigade. If engagement 'with the appropriate fire services authorities' was carried out as required, there is no evidence that this engagement is 'reflected in the design approach proposed.'

The Fire Safety in Ireland guidelines from the Department of Housing say that a crew of 11 to 13 fire fighters is needed for a high-rise fire with people inside. There would normally be 15 fire fighters at an ordinary house fire and high-rise fires are much more complex and labour-intensive.

While I understand that adherence to the fire regulations is not within the remit of ABP, ensuring compliance with the National Planning Framework is, and I therefore submit that given the current fire – fighting capabilities of Dublin Fire Brigade, the well – being of the future residents living above eight storeys cannot be assured and the requirement of National Policy Objective 4 is not satisfied.

Floods.

During the last week there has been flooding on Swords Rd and Santry Ave. The proposed development is on a raised site relative to the Swords Rd but not currently towards Santry Avenue. A number of premises in the area including the Community Resource Centre across the road required water pumps to be fitted in their basements. This suggests that the water table is high and there are culverted/underground rivers in the area. The Naniken originates in the industrial area south of Santry Ave., before crossing the Swords Rd under the site of the old Garda Station to skirt the north boundary of Magenta and Burnside. This route is in close proximity to the southern boundary of the proposed development.

No evaluation of the effect of runoff in this context seems to have been undertaken-notwithstanding the use of passive alleviation measures - which would be significant from this site and would exacerbate the current situation. It is proposed to replace the existing 225mm diameter public surface water sewer located on the Swords Road with a new one of the same diameter originally designed to service the adjacent development. The intention is to 'share' this facility with the proposed development. I submit that this plan be rigorously evaluated in the context of the foregoing, prior to consideration of the application, as the area from Santry Ave to Magenta is frequently subjected to flooding, overflowing onto Santry Ave. The location is precisely in the area of this river. *See Appendix 5.*

Size mix

The initial application for permission for this development was rejected because – amongst other issues - the apartment size mix did not meet requirements. The developer has made no effort to address this issue and seems to rely on ABP to overturn the decision.

Heat mitigation

Global warming has been a recurrent feature of discourse during the past years as record – breaking temperatures have become a feature of our summers. This article from *Urban Climate* and particularly the map on pages 13/14 suggest that the site is within an area of high risk. Though there are many factors involved such as education level etc and these proposed buildings are oriented roughly N-S, the development could, under settled conditions, become a heat island. The developer should address the issue and it should become a requirement as part of the EIA for all future developments.

The bat survey.

https://www.batconservationireland.org/irish-bats/lifecycle states that

'An Irish bat typically becomes active in late spring and early summer.'

Met Eireann at: https://www.met.ie/climate-of-ireland states that:

'.. seasons are regarded as three – month periods as follows: December to February – winter, March to May – spring, June to August – summer and September to November – autumn. This is a common grouping in the meteorological practice of many countries in the middle and northern latitudes.' It is reasonable to expect that the term 'late' in a chronological or a meteorological context would indicate sometime in May for the commencement of bat activity. We also experienced a 'late spring' in 2021- by a number of weeks - and this would not have been conducive to the emergence of bats.

However, a bat survey of the site of the proposed development was undertaken by Ash Ecology and Environmental on the 28th of April 2021, which I would contend provides a marginal opportunity to observe bat activity. The Assessor quotes a manual <u>published in 2006</u> as reference, which states that: 'Bat activity and emergence surveys are best carried out from mid-March' i.e. early spring – at variance with the position of Bat Conservation Ireland!

The last official survey of which I am aware identified three species of bat in the adjacent Santry Demesne and bat roosting boxes are still to be seen on trees there. http://www.fingalbiodiversity.ie/resources/fingal countryside/2006%20Woodland%20Mammals.pdf – the year in which the Assessor's reference manual was published. This was not identified in the desktop survey conducted by Ash ecology.

It suggests the likelihood of the presence of bats in close proximity to the site – if not on the site. The landscape suitability index of 25.89 just inside the northern boundary of the site and the Assessor's opinion under the heading General Activity Survey that: "it is a live retain site which would discourage most bats" but not all bats, would seem to support this likelihood. This is supported by the applicant's statement of consistency: It is therefore concluded that the overall impact on bats, arising from the proposed development, will be most likely negligible if the general recommendations and specific lighting mitigation measures are implemented.

The implication is that there may be bats that would be impacted.

The website (www.nbdc.ie) was accessed on 22/04/2021 to establish any previous bat records. This records the presence of bats in a 10km2 Grid Square – a huge area relative to the area under consideration.

Evidence of bat activity to the immediate north; Santry Villas, emanating from the area of St Pappin's Church and derelict sack factory and immediately south of the site at the northern perimeter of Magenta Hall Estate, has been observed during the past week. This suggests that flight paths could be disrupted by the proposed development – in contravention of the EU Habitats Directive. These observers, whom I have spoken to, are willing to engage with ABP on the issue.

While not qualified to question the competency of Assessor, the discrepancies noted here coupled with evidence proffered by locals regarding the presence of bats, suggests that a single visit to the site only provided evidence that bats were not present on that night, which despite the temperature parameters being optimal, may not, in general be the case. A more comprehensive study is required to establish flight paths and verify or discount the local evidence and I submit that consideration of the application be postponed until this is completed.

Conclusion:

In view of the foregoing observations, I submit that this application be rejected.

Five Appendices are attached below.

Appendix 1.

Current and pending developments within less than 2km of the proposed development – the distance used for the community audit.

Swiss Cottage	112	336	
Dwyer Nolan - opposite Swiss	207	621	
Circle social housing - Coolock Lane - Mulhalls	32	96	
Shanowen road - Milners Sq	147	441	
Former Auto Glass site - Coolock Lane	5	15	
Royal Oak - Lilmar site	53	159	
Omni Living	324	972	

Totals based on an occupancy of three per apartment

Total apartments - 880. Total extra residents -2640.

In Northwood, there is extensive development nearing completion

Bridgetown	216	648
Cedarview	104	312
Northwood Avenue	55	165
Westhill	198	594
Metro	608	1824
Northwood Green - houses	32	96
Northwood - Santry Avenue	332	996

Total apartments - 1545. Total extra residents @3 per unit - 4635.

These developments are within 2km of the proposed development and will add a potential ca. 7,000 residents to this small area centred on the junction of Swords Rd. And Santry Ave.

To this must be added the planned development of 1,000 units on the Oscar Traynor lands just around the corner, bringing another ca 3,000. A recent rejected rezoning of Shanowen lands @14Ha would have resulted in a huge number of additional new residents to the area with no additional infrastructural development. These are just some of the developments in Santry and I submit that the decision regarding the permission for the proposed development should be taken in this context, adopting a holistic perspective, as well as on the merits of the application itself

Appendix 2

Table 3.1: TRICS Data Summary, 324 Apartments - Proposed Scheme

324 Apartments	Car Arrivals		Car Departures		Total 2-Way
Network Hour	Per Unit	324 Units	Per Unit	324 Units	Car Traffic Generated
Weekday AM Peak Hr	0.048	16	0.193	63	78
Weekday PM Peak Hr	0.175	57	0.063	20	77

Table 3.2: TRICS Data Summary, 175m2 GFA Restaurant/Café - Proposed Scheme

175m ² GFA Café	Car Arrivals		Car Departures		Total 2-Way
Network Hour	Per 100m ²	175m² GFA	Per 100m ²	175m ² GFA	Car Traffic Generated
Weekday AM Peak Hr	0.000	0	0.000	0	0
Weekday PM Peak Hr	1.753	3	0.862	2	5

Table 3.3: TRICS Data Summary, 260m² GFA Créche - Proposed Scheme

260m ² GFA Creche	Car Arrivals		Car Departures		Total 2-Way
Network Hour	Per 100m ²	260m² GFA	Per 100m ²	260m ² GFA	Car Traffic Generated
Weekday AM Peak Hr	3.270	9	2.513	7	15
Weekday PM Peak Hr	2.326	6	2.842	7	12

Table 3.4: TRICS Data Summary, 81 Room Apart-Hotel - Proposed Scheme

81 Bed Apart-Hotel	Car Arrivals		Car Departures		Total 2-Way
Network Hour	Per Unit	81 Units	Per Unit	81 Units	Car Traffic Generated
Weekday AM Peak Hr	0.115	9	0.168	14	23
Weekday PM Peak Hr	0.136	11	0.106	9	20

Their traffic survey revealed that Swords Rd is relatively heavily trafficked; with a weekday AM Peak Hour Traffic Flow of 1,595 Passenger Car Units (PCUs) and a weekday PM Peak Hour Traffic Flow of 1,596 PCUs. This, on a two - lane road prior to the influx of traffic from Dwyer Nolan's development; Swiss development; Omni living and this Santry Ave. development.

Appendix 3

All busses passing the site leave from Swords or further north.

41 -8 busses pass the site during peak morning – Four of those during a 30 min period. (7:00 -9:00)

Times given are times leaving Swords.

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Monday - Friday
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```
07:00 07:05
       d
07:15 07:30 07:40 07:50
       d
               a
08:05 08:20
Route Variations
a Via Glen Ellen not serving Dublin Airport (Route 41a)
f From Dublin Airport
d Does not serve Dublin Airport
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38 Mins to Omni

Swords Manor >> 12mins >> Swords Village >> 16mins >> Dublin Airport >> 10mins >> Omni Shopping Centre >> 15mins >> Drumcondra Rail Station >> 12mins >> Upr. Gardiner St. >> 3mins >> Lwr. Abbey St.

41C

Monday to Friday

07:00 07:15 07:25 07:45 08:12 С ¢

Five busses pass the site during morning peak - four during a 45 min period.

Route Variations

c From CBS school via River Valley -

33 -two pass the site during morning peak hours (7:00 - 9:00)

Journey time from Balbriggan - 1Hr 45Mins: Balbriggan » 15mins » Skerries » 15mins » Rush » 10mins » Lusk » 20mins » Swords Village » 10mins » Airport Roundabout » 10mins » Omni Shopping Centre » 15mins »

Buses leave terminus at

Monday to Friday

Balbriggan 04:45 06:35

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16 -Dublin Airport >> 10mins >> Santry >> 10mins >> Skylon Hotel >> 10mins >> Drumcondra Raii Station >> 10mins >> O'Connell St. >> 12mins >> Kelly's Corner >> 12mins >> Harold's Cross >> 12mins >> Terenure >> 12mins >> Grange Rd. >> 12mins >> Ballinteer (Kingston)
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Route Variations 16

Five busses pass the site during peak morning (7:00 -9:00) Three of those during a period of 20 mins. Thereafter; one during a one hour period.

Monday - Friday 07:00 s 07:10 07:20 07:30 07:40 f s f s 07:50 08:00 08:00 08:00 a h s

08:10 08:20 08:20 08:30

1 s 08:40 08:40

Route Variations 16

- s From Shanard Road via Swords Rd. (Whitehall Church) Does not pass site
- f From Collins Avenue via Beaumont Rd. and Shantalla Rd. to Ballinteer as 16 Does not pass site
- h From Larkhill Does not pass site
- b To City Centre only Does not pass site
- a From Collins Avenue via Beaumont Rd. and Shantalla Rd. to City Centre as 16c Does not pass site
- c From Larkhill to City Centre as 16c Does not pass site
- d From Dublin Airport, departs O'Connell St.at 23:30

Appendix 4:





These pictures are from Google maps and were taken by an unbiased source with no interest in exaggerating the traffic situation. They were taken in 2020 presumably at a random time of day and prior to any development on the west side of Swords Road, as evidenced by the photo on bottom left.

Appendix 5



Flooding on Santry Ave.





Another day opposite the proposed development

