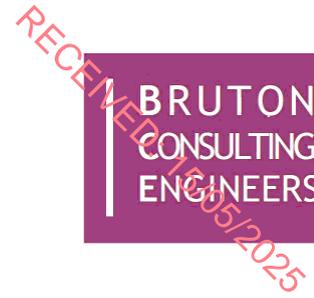


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**Stage 1 Quality/Safety Audit (& Designer
Feedback Form)**



Title: **QUALITY AUDIT**

INCLUDING

Stage 1-2 Road Safety Audit, Access Audit, Cycle Audit & Walking Audit

For;

Proposed Large Scale Residential Development, Greenhills, Dublin 24.

Client: **NRB Consulting Engineers**

Date: **January 2025**

Report reference: **2042R02**

VERSION: **FINAL (21-2-2025)**

Prepared By:

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1.0 Introduction

This report was prepared in response to a request from Mr. Brian McMahon, NRB Consulting Engineers, for a Stage 1-2 Quality Audit of a proposed large scale residential development (LRD) at Greenhills in Dublin 24.

The Quality Audit has been carried out in accordance with the guidance in the Design Manual for Urban Roads and Streets (DMURS), produced by Department of Transport Tourism and Sport in March 2013 and as updated in June 2019 including advice notes.

This portion of the Quality Audit is a design stage audit and includes a Stage 1-2 Road Safety Audit (in accordance with TII Publication GE-DTY-01024, dated December 2017), an access audit, a walking audit and a cycling audit. (i.e. aspects of a quality Audit carried out independent of the Design Team)

The Road Safety and Quality Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

TII Road safety Auditor approval number: NB 168446

Team Member: **Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI

TII Auditor Approval no. OO 1291756

This portion of the Quality Audit involved the examination of drawings and other material and a site visit by the Audit Team, on the 24th of October 2023. The weather at the time of the site visit was wet and the road surface was also wet.

The problems raised in this Quality Audit may belong to more than one of the categories of Audit named above. A table has been provided at the start of Section 3 of this report detailing which category of audit each problem is associated with.

Recommendations have been provided to help improve the quality of the design with regard to the areas described above. A feedback form has also been provided for the designer to complete indicating whether or not he/she will accept those recommendations or provide alternative recommendations for implementation.

The information supplied to the Audit Team is listed in **Appendix A**.

The feedback form is contained in **Appendix B**.

A plan drawing showing the problem locations is contained in **Appendix C**.

A previous quality on a slightly different layout was carried out by the Audit Team in November 2023. Issues that were raised in that audit which have been addressed in the design development and no longer provide safety concerns are not repeated in this report.

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2.0 Background

It is proposed to construct a large scale residential development (LRD) at the former Chadwicks site, Greenhills Road, Walkinstown, Dublin 12.

Vehicular access from the development will be onto the R819 Greenhills Road. Pedestrian and cyclist access will also be onto Greenhills Road. There are advisory cycle lanes on both sides of Greenhills Road.

A number of access points would also be provided off the industrial road (Estate Road) to the south of the site including car park access.

An uncontrolled and a controlled pedestrian crossing are proposed on Greenhills Road.

Greenhills Road is a bus route (27 and 77a).

There is a proposed BusConnects scheme which realigns Greenhills Road and includes for bus lanes in both directions and a bus stop in close proximity to the development. Drawings have been provided to show how the scheme has been developed to tie-in with those proposals.

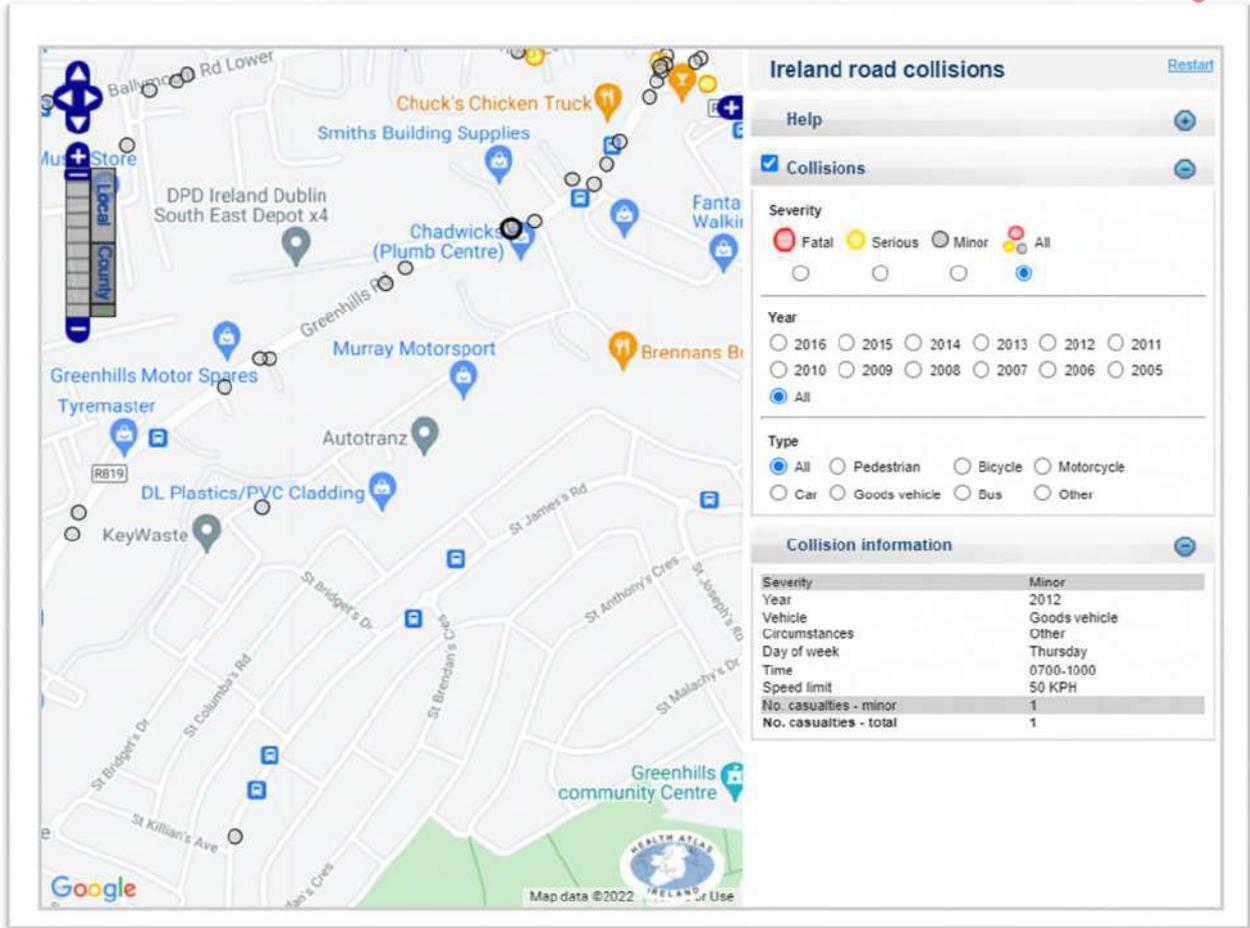
The site location is shown below.



Image courtesy of openstreetmap.org

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The Road Safety Authority’s website www.rsa.ie shows that there have been a number minor injury collisions along Greenhills Road in the 12 year period 2005 to 2016. There is no evidence of trends or clusters of collisions.



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3.0 Issues Identified in this Quality Audit

Summary Table of Problem Categories

Problem Reference	Access Audit	Walking Audit	Cycling Audit	Road Safety Audit	Quality Audit
3.1		✓	✓	✓	✓
3.2				✓	✓
3.3		✓		✓	✓
3.4				✓	✓
3.5		✓		✓	✓
3.6				✓	✓
3.7				✓	✓

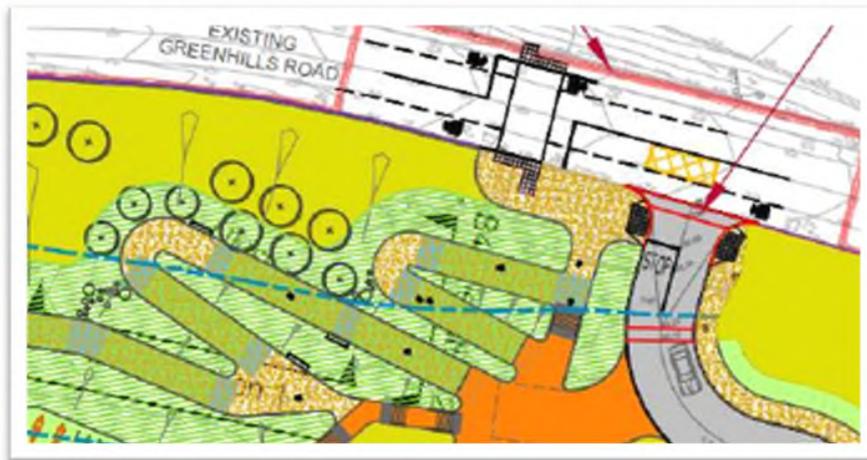
3.1 Problem

LOCATION

Drawing NRB TA-001 Rev C

ISSUE

There is a large level difference between some parts of the site and Greenhills Road. There is a risk that an errant vehicle on Greenhills Road could descend the embankment leading to injury for the vehicle occupants or collisions with pedestrians or cyclists within the site.



RECOMMENDATION

It is recommended that a suitable Clear Zone be provided to avoid the need for a safety barrier.

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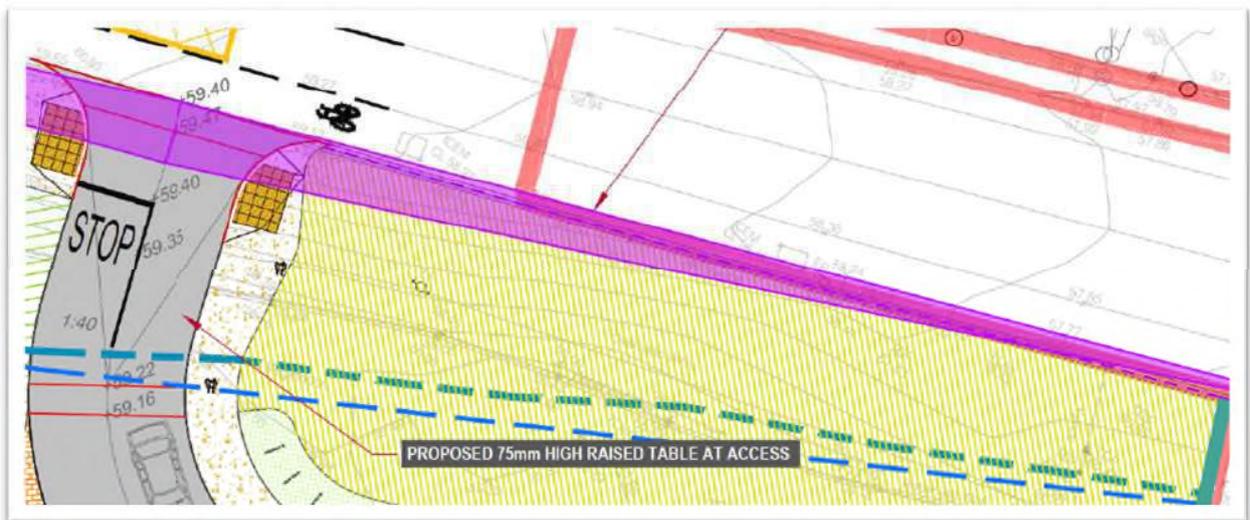
3.2 Problem

LOCATION

Drawing NRB TA-002 Rev C

ISSUE

It is unclear if boundary fencing and or landscaping is proposed along Greenhills Road. This could lead to the sightlines being obscured from the proposed access to the development resulting in side-impact or rear-end collisions.



RECOMMENDATION

It is recommended that the visibility splays be kept free from obstacles.

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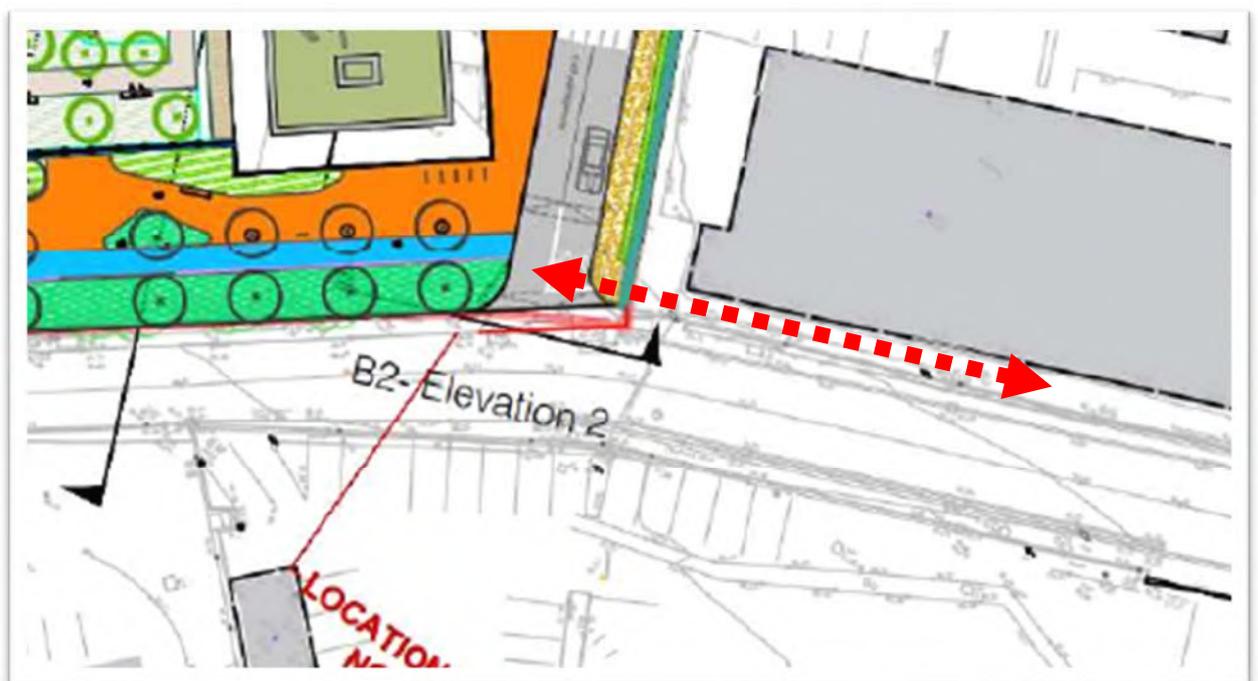
3.3 Problem

LOCATION

Drawing NRB-TA-001 Rev C.

ISSUE

There is no existing footpath on the northern side of Estate Road leading to the junction. This discontinuity in pedestrian facilities could lead to pedestrians travelling in the carriageway which would increase the likelihood of a collisions with industrial traffic.



RECOMMENDATION

It is recommended that a pedestrian crossing be provided to the footpath on the opposite side.

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3.4 Problem

LOCATION

Drawing NRB-TA-001 Rev C

ISSUE

The visibility to the left from the car park of Block A may be obstructed by a retaining wall (red coloured in the drawing) This could lead to collisions especially if slow moving vehicles are being overtaken.



RECOMMENDATION

It is recommended that the visibility splay be unobstructed.

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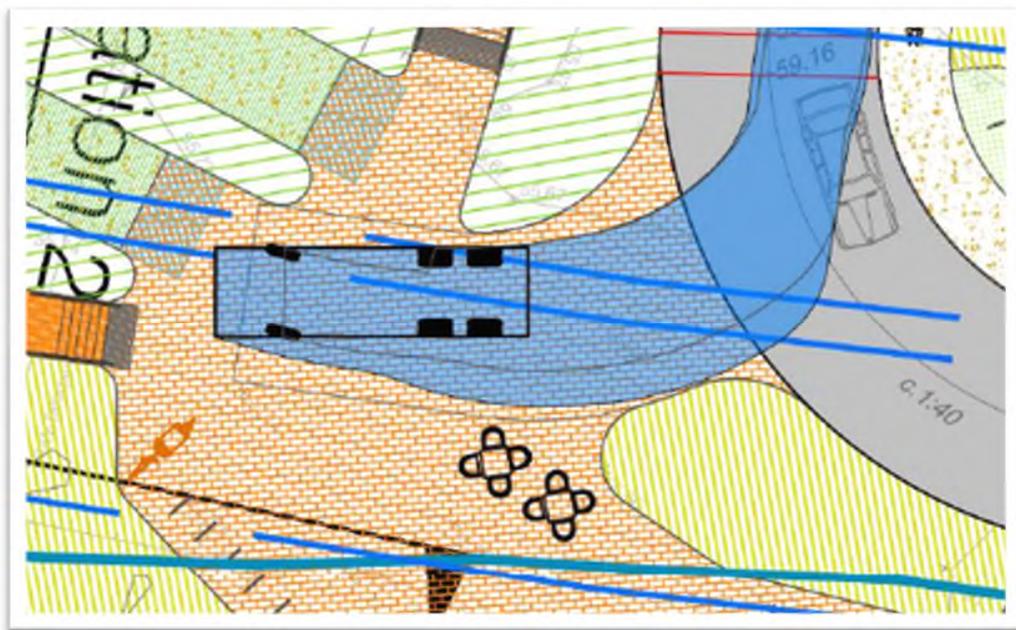
3.5 Problem

LOCATION

Drawing NRB-TA-004 Rev C.

ISSUE

The swept path of a refuse vehicle is shown on the drawing. It is unclear where the refuse bins will be stored prior to collection and prior to being brought back to their storage area. It is also unclear what routes will be taken to get bins to their collection point given the amount of steps, street furniture and landscaping proposed.



RECOMMENDATION

Ensure that refuse collection is taken into account and that refuse bins are not hazards for pedestrians or cyclists before and after collection.

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3.6 Problem

LOCATION

Drawing NRB-TA-001 Rev C.

ISSUE

The visibility to the left for drivers entering onto Estate Road to the south is not shown on the drawings. A lack of visibility could lead to collisions with oncoming vehicles.



RECOMMENDATION

It is recommended that adequate visibility be provided.

RECEIVED: 15/05/2025

3.7 Problem

LOCATION

Drawing NRB-TA-001 Rev C.

ISSUE

The visibility to the right for drivers entering onto Estate Road from the car park at the western side of the scheme is not shown on the drawings. A lack of visibility could lead to collisions with oncoming vehicles.



RECOMMENDATION

It is recommended that adequate visibility be provided.

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4.0 Quality Audit Statement

This portion of the Quality Audit has been carried out in accordance with the guidance given in DMURS and takes into consideration the principles approaches and standards of that Manual.

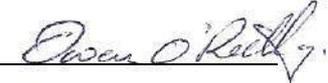
The quality audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton

Signed: 

(Quality Audit Team Leader) Dated: 21-2-2025

Owen O'Reilly

Signed: 

(Quality Audit Team Member) Dated: 21-2-2025

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Appendix A

List of Material Supplied for this Quality Audit;

- Drawing NRB-TA-001 Rev C
- Drawing NRB-TA-002 Rev C
- Drawing NRB-TA-003 Rev C
- Drawing NRB-TA-004 Rev C
- Drawing NRB-TA-005 Rev C
- Drawing NRB-TA-006 Rev C
- Drawing NRB-TA-007 Rev C
- Drawing NRB-TA-008 Rev C
- Drawing NRB-TA-009 Rev C

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Appendix B

Feedback Form

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QUALITY AUDIT FORM – FEEDBACK ON QUALITY AUDIT REPORT

Scheme: Greenhills Road LRD

Quality Audit: Stage 1&2 (Planning)

Date Audit (site visit) Completed: 24-10-2023

Paragraph No. in Quality Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes – A suitable Clear Zone will be provided, in accordance with TII’s DN-GEO-03036. This will include a more level section close to the road edge. This slight change to the design will be undertaken during the Detailed Design Stage.		
3.2	Yes	Yes – Boundary fencing is not proposed within the sightline. A grass verge is proposed adjacent to the road edge.		
3.3	Yes	Yes – however, the lands to the south are outside the applicant’s control. To be agreed at detailed design stage in consultation with South Dublin County Council.		
3.4	Yes	Yes – the building / retaining wall has been designed to ensure appropriate visibility is achievable.		
3.5	Yes	Yes		
3.6	Yes	Yes – Appropriate visibility is provided.		
3.7	Yes	Yes – Appropriate visibility is provided.		

Signed..... *Brian M. Mahan*
Design Team Leader

Date: 07/02/2025

Signed..... *Norman Bruton*
Audit Team Leader

Date: ...21-2-2025.....

Signed..... *[Signature]*
Employer/Developer

Date: 07/02/2025

RECEIVED: 15/05/2025

Appendix C

Problem Location Plan.



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Public Transport Demand/Capacity Study

consulting
engineers

NRB

**Public Transport
Capacity Assessment
Report
(Appendix M)**

RECEIVED: 15/05/2025

For

**Proposed Green Vale
Large Scale Residential
Development**

At

***Former Chadwicks Builders
Merchant Development,
Greenhills Rd,
Walkinstown,
Dublin 12.***

FINAL ISSUE

RECEIVED: 15/05/2025

Contents

Page	Section	Description
1	1.0	Introduction
3	2.0	Bus Locations & Services (Current/Proposed)
7	3.0	Bus Use Predictions, Capacity & Demand
10	4.0	Conclusions

Appendices.....

A	Bus Timetable Information <i>(Correct at Time of Collating Data & Writing Report)</i>
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1.0 INTRODUCTION

- 1.1 NRB Consulting Engineers Ltd were appointed to address the Bus Demand and capacity associated with a planning application by Elkstone for a Large Scale Residential Development (LRD) on lands at Greenhills Road, Walkinstown, Dublin 12.
- 1.2 The development consists of a mixed-use residential & commercial development comprising 588 apartment units (291 one-beds, 238 two-beds and 59 three-beds), 1 childcare facility and 6 commercial units in 4 blocks. Vehicular access is proposed via a simple priority junction on the Greenhills Road.
- 1.3 The NRB commission on the project included an assessment of current & future Public Transport capacity (effectively a 'Bus Capacity Assessment Report').
- 1.4 Whilst this Report contains an assessment of Bus Capacity and demand, it should be remembered that Transport Service Providers are commercial in nature, running their businesses based on current demand rather than medium to longer term future demand. In simple terms, transport services are generally provided based on actual existing footfall rather than potential future possible demand. If there is an increased demand for services with full or over-capacity services in place, Operators then generally react to improve facilities if it makes commercial sense to do so. More customers means more revenue generated by the services.
- 1.5 Notwithstanding the above, the purpose of this Study is to review the potential impact of the development upon the existing & future bus services in the vicinity of the site.
- 1.6 The analysis of the existing and future services is based on an assessment methodology which includes trip generation assessment, modal split assumptions, and assignment/distribution. These assumptions have been based on real data extracted from the Central Statistics Office (CSO) Local Area Map Data, available through the SAP online mapping tool. This data was used to quantify the anticipated demand for services as a result of the proposed development locally, based on the local population in the Local Electoral Area.
- 1.7 The first step was to review the current and future planned services. The bus stops within an easy walking distance of the subject site were identified, with the current bus services, bus frequency and capacity studied and assessed.
- 1.8 *Bus Connects* is expected to be fully implemented within a relatively short timeframe. This initiative will reconfigure the bus services for the Greater Dublin Area completely. This

Study therefore considers a demand that includes both the existing bus network and the planned *Bus Connects* Network.

- 1.9 The Study focuses on the peak commuter periods for the development, and in particular the busiest weekday AM commuter peak demand for services – this represents the period of highest demand on the network consistent with the TII Traffic & Transport Assessment Guidelines (May 2014). The methodology assumes that the trips will be assigned to the nearest available bus stops.

2.0 BUS LOCATIONS & SERVICES (CURRENT & FUTURE)

CURRENT SERVICES

- 2.1 For commuting, a walk distance to/ from Bus Stops of up to 1km is generally considered to be acceptable. For the purposes of this assessment, we have assumed a 5-7min walk time as being appropriate, reflecting a distance of 500-600m depending on speed of walking.
- 2.2 The site is well served by frequent Bus Services, and this is illustrated below within **Figure 2.1** which illustrates the existing bus services and stops within acceptable walking distance of the site. Clearly, the #27 and #77a bus services pass the site directly on Greenhills Road.

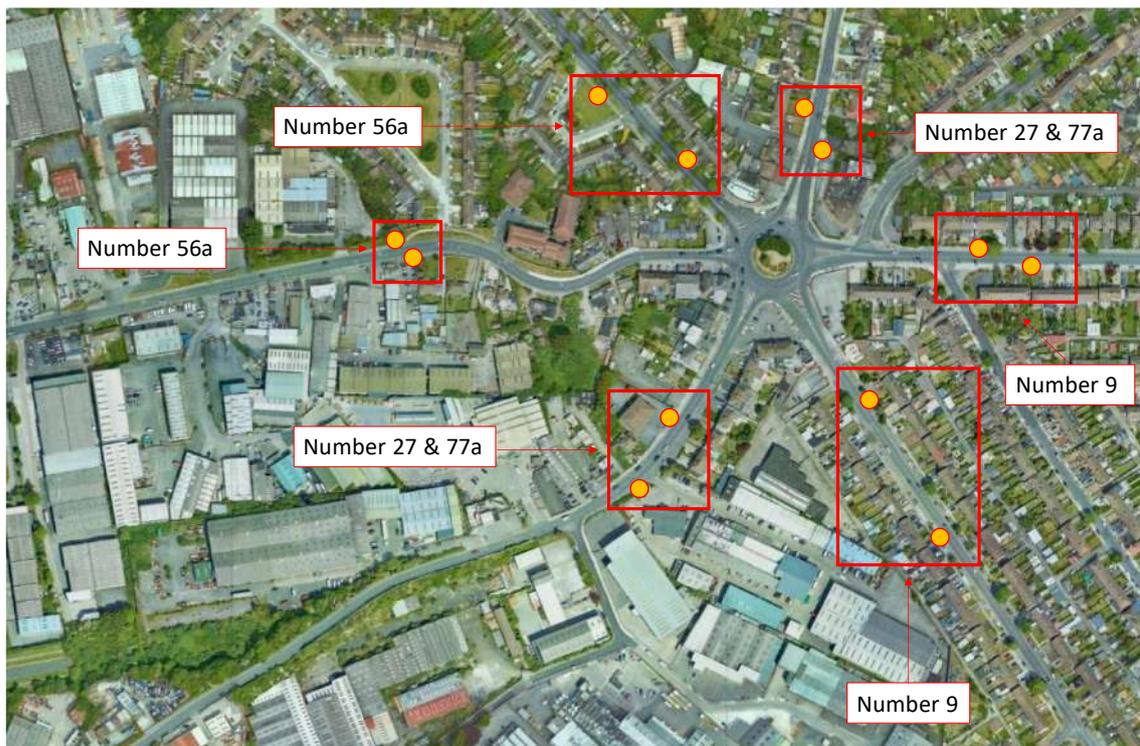


Figure 2.1 – Existing Bus Stops adjacent the Site

- 2.3 In terms of the Existing Bus Service Provision and Service Frequency, for completeness the Timetables in place for each existing Service within a generally-acceptable walking distance are included herein as **Appendix A**. These details have been collated and are summarised below as **Table 2.1**, extracting information relating to the busy 7-9am weekday AM Commuter Period.

Table 2.1; - Buses within Easy Walk Distance, 7-9am Approx Capacity.

Service #	Route (& Return)	No. Buses 7-9am (Mon - Fri)	Total Person Capacity (7-9am)	Thru City Core (Y/N)
9	From/To Charlestown to/from Limekiln Avenue	10	910	Y
27	From/To Jobstown to/from Clare Hall	12	1,092	Y
56a	From/To Tallaght (The Sq.) From/To Ringsend Rd	2	182	Y
77a	From/To Citywest From/To Ringsend Rd	9	819	Y
NOTE - The Above are based on a Standard DD Bus having a Capacity of 91 Persons				
Total (7-9am) All Routes, within Easy Walk		33	3,003	Seats
Total (7-9am) Routes Via City Centre, within Easy Walk		33	3,003	Seats

- 2.4 The above demonstrates that the site is clearly accessible to a significant and high capacity existing bus provision, with a capacity of c. 3,003 bus seats (Each Way) during the 7-9am commuter peak period, all within an 5-7 minute walk-distance of the site.
- 2.5 And of course, the majority of these bus services provide for connectivity to Public Transports Hubs and Interchanges (Rail, Intercity Bus Services, LUAS etc) located within the City Core.
- 2.6 The Transport for Ireland, Dublin Bus & Go Ahead websites (and Mobile Phone Apps) now provide a service that allows customers access up to date real information for arrivals and departures on a stop-by-stop basis. This information on Arrivals and Departures allows customers to plan their arrivals and departures & associated walk/cycle times accurately, facilitating efficient journey planning (and minimising congestion on platforms or stops).
- 2.7 Almost all of Dublin Bus & Go-Ahead Bus Services consist of fleets of high quality comfortable 'Double Decker' Buses, being accessible buses with 'low-floor' technology incorporated into their design.
- 2.8 Transport for Ireland also provides an interactive online tool that enables the user to plan journeys, with real time information on Bus & Rail services on a nationwide basis.
- 2.9 We have also set out below details of the proposed bus service improvements locally as part of Bus Connects.

FUTURE BUS SERVICES

- 2.10 In terms of **Future Planned Services**, the NTA are pursuing plans for the overall bus network for the GDA, the 'New Dublin Area Network' - showing Spine Routes, Feeder and Orbital Routes. An extract from the NTA Plans showing the site location is included below as **Figure 2.2**.

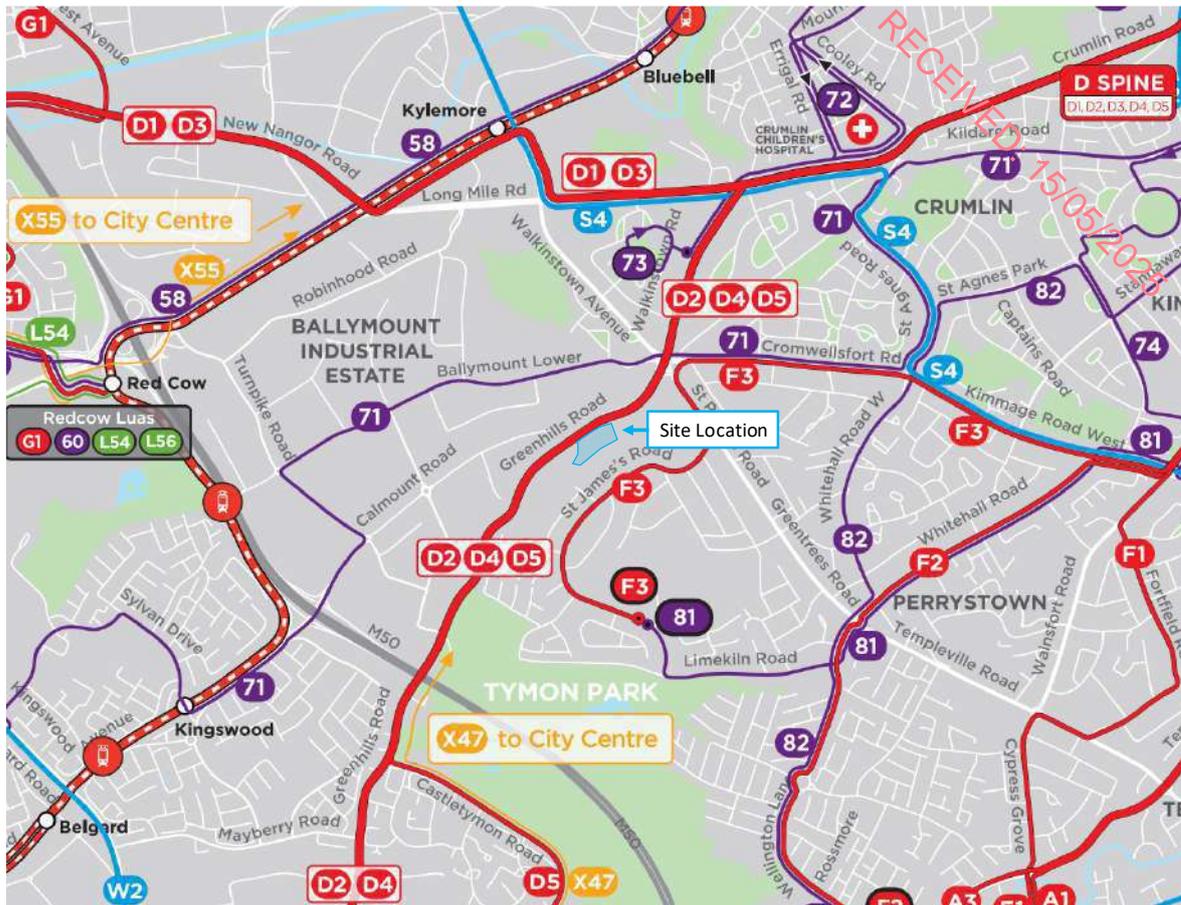


Figure 2.2 – Extract Current NTA Network Plans & Site

- 2.11 This future network shows that the site’s accessibility to bus services will be further enhanced, with a high frequency and permeable service to be provided. This Core Bus network plan shows that the site’s accessibility to bus services will be further enhanced. The site will be served by very frequent services, with Spines D2 D3 and D4 passing the site. In addition to Spine Route F3 & Feeder Service 71 which are planned to cross the nearby Walkinstown Roundabout.
- 2.12 An extract from the NTA Bus Spine Frequency Tables is included below as **Figure 2.3** (“The number in each box is the expected time in minutes between buses”). The planned frequency of service for the D Spine Routes passing directly past the site is a bus every 7.5 minutes.

Spine frequency tables

The number in each box is the expected time in minutes between buses. It is subject to adjustment in

Spines & Branches		Weekday																		
Route no.	To and From	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
D-SPINE	Malahide Rd - City Centre - Crumlin	8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	8
D1	Clongriffin - City Centre - Grange Castle	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	30
D2	Clare Hall - City Centre - Citywest	20	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	20
D3	Clongriffin - City Centre - Clondalkin	30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	30
D4	Swords Road - City Centre - Killinarden	60	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
D5	Edenmore - City Centre - Tallaght	60	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60
F-SPINE	Finglas - City Centre - Kimmage	10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10
F1	Charlestown - Finglas Bypass - City Centre - Tallaght	30	15	10	10	15	15	15	15	15	15	10	10	10	15	15	15	15	15	30
F2	Charlestown - Finglas NW - City Centre - Templeogue	30	15	10	10	15	15	15	15	15	15	10	10	10	15	15	15	15	15	30
F3	Charlestown - Finglas SW - City Centre - Greenhills	30	15	10	10	15	15	15	15	15	15	10	10	10	15	15	15	15	15	30

Radial Routes		Weekday																		
Route no.	To and From	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
71	Tallaght - Ballymount - Warrenmount - East Wall		30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60

Figure 2.3 – Extract NTA Core Bus Network GDA, Route Frequencies

2.13 The site is therefore also ideally placed in terms of future high frequency bus availability, based on the NTAs published Plans, with significantly more frequent services than currently available.

2.14 In terms of **Bus Passenger Capacity**, a typical double decker bus has a capacity to accommodate ~91 passengers. However, it should be noted Dublin Bus are introducing new hybrid buses, some of which have extra capacity e.g. the new Wrightbus StreetDeck HEV 96 double-decker buses.

3.0 BUS USE PREDICTIONS, CAPACITY & DEMAND

3.1 We have used the CSO Local Small Area Mapping tool, extracting data for the Electoral Area of Rathfarnham Templeogue, to establish the proportion of Bus Users within the local area surrounding the site in order to estimate the additional demand for services (utilising real data rather than estimations of modal split). An annotated extract from the CSO Database Small Area Mapping used for this purpose is included below as **Figure 3.1**.

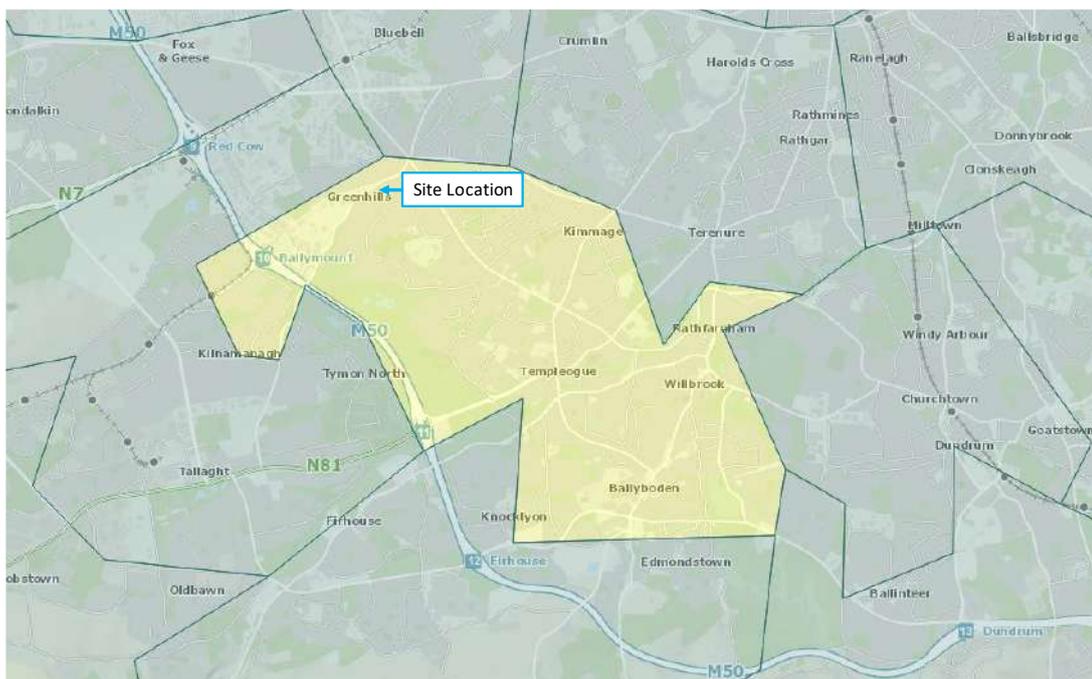


Figure 3.1 – Collated CSO Local Area Data (Rathfarnham-Templeogue)

3.2 We have extracted information from the Census Data for the Electoral Area to calculate the additional demand for Buses during the busy weekday AM Commuter period, and this is illustrated below as **Table 3.1**.

Table 3.1 – Bus Demand Based on CSO Data & Expected Population

Electoral Area	Total Population	Total Commuters Age 5+ to Work, School or College	No. of Bus Users	No. of Commuters Leaving Home 7-9am to Work/Schl or College
Rathfarnham-Templeogue	52,805	35,795	4163	22,587
CALCULATION OF BUS DEMAND DUE TO DEVELOPMENT				
Percentage of Total Population in Area Commuting =				67.8%
Percentage of Total Population in Area Commuting By Bus =				7.9%
Percentage of Commuters Leaving Home 7-9am =				63.1%
1,425	New Residents in Proposed Development			
113	Bus Commuters (Consistent with the Local Area Census Data)			
71	Total Additional Bus Commuters Between 7am and 9am Due to Development			

BUS CAPACITY & DEMAND

- 3.3 Based on exiting travel patterns in the locality, the above confirms that the Development will create an additional worst-case demand for approximately 71 seats on bus services between 7am and 9am. Of course, it is not possible to accurately predict the commuting destination of future residents at this planning stage.
- 3.4 The predicted increased service demand should be considered in terms of the seating capacity locally for existing Buses.
- 3.5 In terms of **Buses**, the demand is illustrated in **Table 3.2** below - with c3,276 bus seats available during the weekday AM commuter peak period, all within an 5-7 minute walk of the subject site. (There are a similar number of services and seats during the weekday PM Peak period 4pm-6pm, however demand is greater during the weekday AM Peak. This is due to 'peak spreading' that occurs in the evenings, with much more significant staggered departure times from work or College locations during evenings).

Table 3.2; Total Peak Demand for Bus Seats Due to Development

Details	Buses	People/Seats
Total Number of Buses (7-9am) All Routes	33	3,003
Total Number of Buses (7-9am) Routes Via City Centre	33	3,003
Total Demand for Seats Created by Proposed Development (7-9am)		71
Percentage Impact Upon Existing Services Adjacent Site (All Routes)		2.4%
Percentage Impact Upon Existing Services Adjacent Site (Routes Via City)		2.4%

- 3.6 The resulting increased demand for bus seats is less than 2.5% of the total available seat capacity locally. This is considered negligible, and we believe it can easily be accommodated within the current service provision. To this end we undertook a sample observation survey of occupancy over a number of days during November 2023 and this revealed that the majority of buses passing the site between 7-9am had 70% occupancy on average.
- 3.7 We conclude that this very small additional demand for Bus services (i.e. 71 seats) can easily be accommodated within the existing services. In future, there are additional services to be created as part of Bus Connects as set out within Section 2.0 above. There will also be more than adequate capacity on the further improved services locally.
- 3.8 The analysis is based on CSO travel patterns, and whilst the development seeks to encourage modal shift, given the small increase in predicted bus demand, any possible future changes in demand due to improved active travel & modal shift (walking, cycling, increased working from home and public transport etc) is still likely to have a negligible impact on bus capacity here.

4.0 CONCLUSIONS

- 4.1 NRB Consulting Engineers Ltd were appointed to address the Bus Demand and capacity associated with a proposed Residential Development on lands at Greenhills Road, Walkinstown, Dublin 12.
- 4.2 The development consists of a total of 588 residential apartments, and a mix of commercial & communal units over 4 blocks within the site development area, with a total person capacity of 1,425 People (for the purposes of this assessment).
- 4.3 The analysis of the existing and future Bus services has been undertaken based on an assessment methodology which includes trip generation assessment, modal split assumptions, and assignment/distribution. These assumptions have been based on real data extracted from the Central Statistics Office (CSO) Local Area Map Data, available through the CSO online mapping tool. This data was used to quantify the anticipated demand for Bus use as a result of the proposed development in this particular location, utilising current local modal shift patterns & statistics for the Rathfarnham-Templeogue Local Electoral Area.
- 4.4 This Report contains details of current and future Bus Services and Bus Capacity serving the site and the local area.
- 4.5 The assessment confirms that the completion and full occupation of the development will result in an increased demand for Bus seats, with an additional 71 Bus customers during the weekday AM Commuter Peak 7-9am (and less during the PM Commuter peak period). This represents a total of less than 2.4% of the Bus seating capacity available locally during this AM Period. We conclude that the additional demand for Bus trips as a result of the proposed development can be accommodated on the existing and future improved services in the area without any noticeable effect.
- 4.6 Whilst this Report contains an assessment of current capacity, it should be remembered that service providers are commercial in nature, running their businesses based on existing demand, rather than medium to longer term future demand. If there is an increased demand for services, or indeed if there is a deficit in a service provision, operators generally react to improve facilities if it makes commercial sense to do so. More bus customers means more revenue generated.

APPENDICES A

RECEIVED: 15/05/2025

A	Bus Timetable Information <i>(Correct at Time of Collating Data & Writing Report)</i>
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From Limekiln Avenue Towards Charlestown



Ascaill na Tinleach, An Cuarbhóthar Theas, Sráid Uí Chonail,
Bóthar Gharraithe na Lus, Bóthar Bhinn Aoibhinn, Baile Séarlais

Buses leave
terminus at

Monday – Friday				Saturday				Sunday			
06:20	06:35	06:50	07:05	06:50	07:05	07:20	07:35	09:30	09:55	10:20	10:45
07:15	07:25	07:35	07:45	07:50	08:10	08:30	08:50	11:10	11:35	12:00	12:15
07:55	08:05	08:15	08:30	09:10	09:30	09:50	10:10	12:30	12:45	13:00	13:15
08:45	09:00	09:12	09:24	10:30	10:50	11:10	11:30	13:30	13:45	14:00	14:15
09:36	09:48	10:00	10:12	11:45	12:00	12:15	12:30	14:30	14:45	15:00	15:15
10:24	10:36	10:48	11:00	12:45	13:00	13:15	13:30	15:30	15:45	16:00	16:15
11:12	11:24	11:36	11:48	13:45	14:00	14:15	14:30	16:30	16:45	17:00	17:15
12:00	12:12	12:24	12:36	14:45	15:00	15:15	15:30	17:30	17:45	18:00	18:15
12:48	13:00	13:12	13:24	15:45	16:00	16:15	16:30	18:30	18:50	19:10	19:30
13:36	13:48	14:00	14:12	16:45	17:00	17:15	17:30	19:50	20:10	20:30	20:50
14:24	14:36	14:48	15:00	17:45	18:00	18:15	18:30	21:10	21:30	21:50	22:10
15:12	15:24	15:36	15:48	18:45	19:00	19:20	19:40	22:30	22:50	23:10	23:30
16:00	16:10	16:20	16:30	20:00	20:15	20:45	21:15				
16:40	16:50	17:00	17:10	21:45	22:15	22:45	23:15 ^c				
17:25	17:40	17:55	18:10								
18:25	18:40	18:55	19:10								
19:20	19:40	20:00	20:20								
20:40	21:00	21:20	21:40								
22:00	22:20	22:40	23:00								
23:20											

Route Variations
c To city centre

Limekiln Ave. » 15 mins » South Circular Rd. » 14 mins » O'Connell St. » 12 mins » Botanic Rd. » 8 mins » Beneavin Rd. » 10 mins » Charlestown

All times are off peak estimates



Areas served

Limekiln Ave.

St. James's Rd. (St. Joseph's Rd.)

Cromwellsfort Rd. (St. Peter's Rd.)

Cromwellsfort Rd. (St. Agnes Rd.)

Kimmage Rd. West (Whitehall Rd.)

Kimmage Cross Rd.

Lwr. Kimmage Rd. (Ravensdale Park)

Lwr. Kimmage Rd. (Sundrive Rd.)

Harold's Cross Green West

Leonard's Corner

Kelly's Corner (Camden St.)

Aungier St. (Bishop St.)

South Great George's St.

O'Connell St.

Western Way

Broadstone

Phibsboro Shopping Centre

Hart's Corner

Mobhi Rd. (Botanic Ave.)

Ballymun Rd. (The Rise)

Ballymun Rd. (Church)

Glasnevin Ave.

McKee Rd. (Clune Rd.)

Jamestown Rd.

Charlestown

From Charlestown Towards Limekiln Avenue



Baile Séarlais, Bóthar Bhinn Aoibhinn, Bóthar Gharraithe na Lus, Sráid Uí Chonaill, An Cuarbhóthar Theas, Ascaill na Tinleach

Buses leave terminus at

Monday – Friday				Saturday				Sunday			
06:25	06:40	06:55	07:10	06:40	07:00	07:20	07:40	09:00	09:25	09:50	10:15
07:25	07:35	07:45	07:55	08:00	08:20	08:40	09:00	10:40	11:00	11:20	11:40
08:05	08:15	08:30	08:45	09:20	09:40	10:00	10:15	12:00	12:15	12:30	12:45
09:00	09:12	09:24	09:36	10:30	10:45	11:00	11:15	13:00	13:15	13:30	13:45
09:48	10:00	10:12	10:24	11:30	11:45	12:00	12:15	14:00	14:15	14:30	14:45
10:36	10:48	11:00	11:12	12:30	12:45	13:00	13:15	15:00	15:15	15:30	15:45
11:24	11:36	11:48	12:00	13:30	13:45	14:00	14:15	16:00	16:15	16:30	16:45
12:12	12:24	12:36	12:48	14:30	14:45	15:00	15:15	17:00	17:15	17:30	17:45
13:00	13:12	13:24	13:36	15:30	15:45	16:00	16:15	18:00	18:15	18:30	18:50
13:48	14:00	14:12	14:24	16:30	16:45	17:00	17:15	19:10	19:30	19:50	20:10
14:36	14:48	15:00	15:12	17:30	17:45	18:00	18:20	20:30	20:50	21:10	21:30
15:24	15:36	15:48	16:00	18:40	19:00	19:20	19:40	21:50	22:10	22:30	22:50
16:12	16:24	16:36	16:48	20:00	20:20	20:40	21:00	23:10	23:30		
17:00	17:15	17:30	17:45	21:30	22:00	22:30	23:00				
18:00	18:15	18:30	18:45	23:30 ^c							
19:00	19:20	19:40	20:00								
20:20	20:40	21:00	21:20								
21:40	22:00	22:20	22:40								
23:00	23:20										

Route Variations
c To City Centre

Charlestown » 10 mins » Beneavin Rd. » 8 mins » Botanic Rd. » 12 mins » O'Connell St. » 14 mins » South Circular Rd. » 15 mins » Limekiln Ave.

All times are off peak estimates



Areas served

Charlestown
Jamestown Rd.
McKee Rd. (Clune Rd.)
Glasnevin Ave.
Ballymun Rd. (Church)
Ballymun Rd. (The Rise)
Mobhi Rd. (Botanic Ave.)
Hart's Corner
Phibsboro Shopping Centre
Broadstone
Western Way
O'Connell St.
South Great George's St.

Aungier St. (Bishop St.)
Kelly's Corner (Camden St.)
Leonard's Corner
Harold's Cross Green West
Lwr. Kimmage Rd. (Sundrive Rd.)
Lwr. Kimmage Rd. (Ravensdale Park)
Kimmage Cross Rd.
Kimmage Rd. West (Whitehall Rd.)
Cromwellsfort Rd. (St. Agnes Rd.)
Cromwellsfort Rd. (St. Peter's Rd.)
St. James's Rd. (St. Joseph's Rd.)
Limekiln Ave.



Baile na Miontáin, Tamhlacht (An Chearnóg), Crois Bhaile Bhailecín,
An Carnán, Cé Éidin, Fionnradharc, Timpeallán Ard Aidhin, Halla Chláir

Buses leave terminus at

Route Variations

- v Via Crumlin Village to city centre
- e From Eden Quay to Clare Hall
- c To city centre
- t From Jobstown via Cookstown Rd., Kingswood Heights, Belgard Rd., Castletymon Rd. and Tallaght Community College during term time only

Monday – Friday	Saturday	Sunday
05:15 ^c 05:35 05:55 ^v 06:00	05:30 06:00 06:30 07:00	08:00 08:30 09:00 09:20
06:05 ^e 06:10 06:20 06:30	07:30 08:00 08:20 08:40	09:40 10:00 10:20 10:40
06:40 06:50 07:00 07:10	09:00 09:10 09:20 09:30	11:00 11:15 11:30 11:45
07:20 07:30 07:40 07:45 ^t	then every 10 minutes until	then every 15 minutes until
07:50 ^t 07:50 08:00 08:10	19:00	19:00
then every 10 minutes until	19:20 19:40 20:00 20:20	19:20 19:40 20:00 20:20
19:30	20:40 21:00 21:20 21:40	20:40 21:00 21:20 21:40
19:50 20:10 20:30 20:50	22:00 22:20 22:40 23:00 ^c	22:00 22:20 22:40 23:00 ^c
21:10 21:30 21:50 22:10	23:30 ^c	23:30 ^c
22:30 22:50 ^c 23:10 ^c 23:30 ^c		

Jobstown » 12 mins » Tallaght (The Square) » 13 mins » Walkinstown Cross (The Kestrel) » 17 mins » Dolphin's Barn Cross » 14 mins » Eden Quay » 10 mins » Fairview » 14 mins » Artane Roundabout » 16 mins » Clare Hall

All times are off peak estimates

Areas served



Jobstown

Blessington Rd. (Raheen Rd.)
Tallaght (The Square)
Greenhills Rd. (Airton Rd.)
Greenhills Rd. (Mayberry Rd.)
Greenhills Rd. (Cuckoo's Nest)
Greenhills Rd. (Ballymount Rd. Upr.)
Greenhills Rd. (Green Park)
Greenhills Rd. (O'Malley's)
Walkinstown Cross (The Kestrel)
Drimmagh Rd. (Halfway House)
Crumlin Rd. (Cooley Rd.)
Crumlin Rd. (Bangor Drive)
Crumlin Rd. (Loreto Convent)
Dolphin's Barn Cross
Cork St. (Coombe Hospital)
Cork St. (Donore Ave.)
Cork St. (Ardee St.)

Kevin St. (Patrick St.)/Patrick St.
Werburgh St./Lord Edward St.
Eden Quay
Connolly Rail Station
Newcomen Bridge
Annesley Bridge Rd.
Fairview (St. Joseph's School)
Malahide Rd. (Griffith Ave.)
Malahide Rd. (Donnycarney Church)
Malahide Rd. (Killester Park)
St. Brigids Rd. (Roundabout)
Brookville Rd. (Ascal Measc)
Greencastle Rd./Greencastle Ave.
Glin Rd./Greencastle Rd.
Priorswood Rd.
Malahide Rd. (N32)
Clare Hall



Halla Chláir, Timpeallán Ard Aidhin, Fionnradharc, Cé Éidin, An Carnán,
Crois Bhaile Bhailcín, Tamhlacht (An Chearnóg), Baile na Miontáin

Buses leave
terminus at

Monday – Friday				Saturday				Sunday			
05:15	05:30 _r	05:45	05:55 _r	05:30	06:00	06:30	07:00	08:00	08:30	09:00	09:20
06:00	06:10	06:15 _r	06:20	07:30	08:00	08:20	08:40	09:40	10:00	10:20	10:40
06:30	06:30 _r	06:40	06:50	09:00	09:10	09:20	09:30	11:00	11:15	11:30	11:45
then every 10 minutes until 19:30				then every 10 minutes until 19:00				then every 15 minutes until 19:00			
19:50	20:10	20:30	20:50	19:20	19:40	20:00	20:20	19:20	19:40	20:00	20:20
21:10	21:30	21:50	22:10	20:40	21:00	21:20	21:40	20:40	21:00	21:20	21:40
22:30	22:50	23:10 _c	23:30 _c	22:00	22:20	22:40	23:00	22:00	22:20	22:40	23:00
				23:30 _c				23:30 _c			

Route Variations

c To city centre
r From Ringsend to Jobstown

Clare Hall » 16 mins » Artane Roundabout » 14 mins » Fairview » 10 mins » Eden Quay » 14 mins » Dolphin's Barn Cross » 17 mins » Walkinstown Cross (The Kestrel) » 13 mins » Tallaght (The Square) » 12 mins » Jobstown

All times are off peak estimates



Areas served

Clare Hall
Malahide Rd. (N32)
Priorswood Rd.
Glin Rd./Greencastle Rd.
Greencastle Rd./Greencastle Ave.
Brookville Rd. (Ascal Measc)
St. Brigid's Rd. (Roundabout)
Malahide Rd. (Killester Park)
Malahide Rd. (Donnycarney Church)
Malahide Rd. (Griffith Ave.)
Fairview (St. Joseph's School)
Annesley Bridge Rd.
Newcomen Bridge
Connolly Rail Station
Eden Quay
Werburgh St./Lord Edward St.
Kevin St. (Patrick St.)/Patrick St.
Cork St. (Ardee St.)

Cork St. (Donore Ave.)
Cork St. (Coombe Hospital)
Dolphin's Barn Cross
Crumlin Rd. (Loreto Convent)
Crumlin Rd. (Bangor Drive)
Crumlin Rd. (Cooley Rd.)
Drinnagh Rd. (Halfway House)
Walkinstown Cross (The Kestrel)
Greenhills Rd. (O'Malley's)
Greenhills Rd. (Green Park)
Greenhills Rd. (Ballymount Rd. Upr.)
Greenhills Rd. (Cuckoo's Nest)
Greenhills Rd. (Mayberry Rd.)
Greenhills Rd. (Airton Rd.)
Tallaght (The Square)
Blessington Rd. (Raheen Rd.)
Jobstown

56a

From Ringsend Rd. Towards Tallaght (The Square)



Bóthar na Rinne, An Carnán, Crois Bhaile Bhaicín,
Bothar Bhaile an Chócaigh, Tamhlacht (An Chearnóg)

Buses leave
terminus at

Monday – Friday				Saturday				Sunday			
06:10	07:20	08:30	09:45	06:10	07:20	08:30	09:45	09:45	11:00	12:15	13:30
11:00	12:15	13:30	14:45	11:00	12:15	13:30	14:45	14:45	16:00	17:15	18:30
16:00	17:15	18:30	19:45	16:00	17:15	18:30	19:45	19:45	21:00	22:15	23:30
21:00	22:15	23:30		21:00	22:15	23:30					

Ringsend Rd. » 22 mins » Dolphin's Barn » 22 mins » Walkinstown Cross » 15 mins » Cookstown Rd. » 15 mins » Tallaght (The Square)

56a

From Tallaght (The Square) Towards Ringsend Rd.



Tamhlacht (An Chearnóg), Bothar Bhaile an Chócaigh,
Crois Bhaile Bhaicín, An Carnán, Bóthar na Rinne

Buses leave
terminus at

Monday – Friday				Saturday				Sunday			
06:20	07:20	08:30	09:45	06:20	07:20	08:30	09:45	11:00	12:15	13:30	14:45
11:00	12:15	13:30	14:45	11:00	12:15	13:30	14:45	16:00	17:15	18:30	19:45
16:00	17:15	18:30	19:45	16:00	17:15	18:30	19:45	21:00	22:15	23:30	
21:00	22:15	23:30		21:00	22:15	23:30					

Tallaght (The Square) » 15 mins » Cookstown Rd. » 15 mins » Walkinstown Cross » 22 mins » Dolphin's Barn » 22 mins » Ringsend Rd.

All times are off peak estimates



Areas served

Ringsend Rd. (Barrow St.)
Pearse St. (Macken St.)
Pearse St./Townsend St.
College St./Townsend St.
Werburch St./Lord Edward St.
Kevin St. (Patrick St.)/Patrick St.
Cork St. (Ardee St.)
Cork St. (Donore Ave.)
Cork St. (Coombe Hospital)
Dolphin's Barn Cross
Crumlin Rd. (Loreto Convent)
Crumlin Rd. (Bangor Drive)
Crumlin Rd. (Cooley Rd.)

Drimnagh Rd. (Halfway House)
Walkinstown Ave.
Ballymount Rd. Lwr. (Musgrave's)
Sylvan Drive
Ballymount Rd. (Kingswood Heights)
Cookstown Rd. (Belgard Inn)
Cookstown Rd. (Scoil Ard Mhuire)
Cookstown Rd. (Ambervale)
Cookstown Rd. (St. Mark's School)
Maplewood Rd. (Shopping Centre)
Maplewood Rd. (Fettercairn Rd.)
Fettercairn
Tallaght (The Square)



Iarthar na Cathrach, Tamhlacht (An Chearnóg), Baile an Ridire,
Crois Bhaile Bhailcín, An Carnán, Bóthar na Rinne

Buses leave
terminus at

Route Variations

t From Kilinarden
Community School
via Mayberry Rd.,
St. Peter's Rd.,
and St. Paul's
school Limekiln
Ave during term
time only

Monday – Friday				Saturday				Sunday			
06:00	06:20	06:40	07:00	06:20	06:50	07:20	07:50	08:00	08:30	09:00	09:30
07:20	07:30	07:30t	07:40	08:10	08:30	08:50	09:10	10:00	10:30	11:00	11:30
07:50	08:00	08:10	08:20	09:30	09:50	10:10	10:30	12:00	12:30	13:00	13:30
08:30	08:40	09:00	09:20	10:50	11:10	11:30	11:50	14:00	14:30	15:00	15:30
09:40	10:00	10:20	10:40	12:10	12:30	12:50	13:10	16:00	16:30	17:00	17:30
11:00	11:20	11:40	12:00	13:30	13:50	14:10	14:30	18:00	18:30	19:00	19:30
12:20	12:40	13:00	13:20	14:50	15:10	15:30	15:50	20:00	20:30	21:00	21:30
13:40	14:00	14:20	14:40	16:10	16:30	16:50	17:10	22:00	22:30	23:00	23:30
15:00	15:20	15:40	15:55	17:30	17:50	18:10	18:30				
16:10	16:20	16:30	16:45	18:50	19:20	19:50	20:20				
17:00	17:15	17:30	17:45	20:50	21:20	21:50	22:20				
18:00	18:20	18:40	19:00	22:50	23:20						
19:30	20:00	20:30	21:00								
21:30	22:00	22:30	23:00								
23:30											

Citywest » 12 mins » Tallaght (The Square) » 15 mins » Balrothery » 15 mins » Walkinstown Cross » 22 mins » Dolphin's Barn
» 22 mins » Ringsend Rd.

All times are off peak estimates



Areas served

Citywest

De Selby Quarries

Jobstown

Blessington Rd. (Raheen)

Tallaght (The Square)

Old Bawn Rd.

Seskin View Rd.

Balrothery (Castle Park)

Castle Lawns

Tymon Park

Greenhills Rd. (Cuckoo's Nest)

Greenhills Rd. (Ballymount Rd. Upr.)

Greenhills Rd. (Green Park)

Greenhills Rd. (O'Malley's)

Walkinstown Cross (The Kestrel)

Drimnagh Rd. (Halfway House)

Crumlin Rd. (Cooley Rd.)

Crumlin Rd. (Bangor Drive)

Crumlin Rd. (Loreto Convent)

Dolphin's Barn Cross

Cork St. (Coombe Hospital)

Cork St. (Donore Ave.)

Cork St. (Ardee St.)

Kevin St. (Patrick St.)/Patrick St.

Werburgh St./Lord Edward St.

College St./Townsend St.

Pearse St. (Lombard St.)

Pearse St. (Macken St.)

Ringsend Rd. (Barrow St.)



Bóthar na Rinne, An Carnán, Crois Bhaile Bhaicín, Baile an Ridire,
Tamhlacht (An Chearnóg), Iarthar na Cathrach

Buses leave
terminus at

Monday – Friday				Saturday				Sunday			
05:40	06:00	06:20	06:40	05:55	06:30	07:00	07:30	07:00	07:30	08:00	08:30
07:00	07:20	07:40	08:00	08:00	08:20	08:40	09:00	09:00	09:30	10:00	10:30
08:20	08:40	09:00	09:20	09:20	09:40	10:00	10:20	11:00	11:30	12:00	12:30
09:40	10:00	10:20	10:40	10:40	11:00	11:20	11:40	13:00	13:30	14:00	14:30
11:00	11:20	11:40	12:00	12:00	12:20	12:40	13:00	15:00	15:30	16:00	16:30
12:20	12:40	13:00	13:20	13:20	13:40	14:00	14:20	17:00	17:30	18:00	18:30
13:40	14:00	14:20	14:40	14:40	15:00	15:20	15:40	19:00	19:30	20:00	20:30
15:00	15:20	15:40	16:00	16:00	16:20	16:40	17:00	21:00	21:30	22:00	22:30
16:20	16:40	16:55	17:10	17:20	17:40	18:00	18:30	23:00	23:30		
17:25	17:40	17:55	18:10	19:00	19:30	20:00	20:30				
18:30	18:50	19:10	19:30	21:00	21:30	22:00	22:30				
20:00	20:30	21:00	21:30	23:00	23:25						
22:00	22:30	23:00	23:25								

Ringsend Rd. » 22 mins » Dolphin's Barn » 22 mins » Walkinstown Cross » 15 mins » Balrothery » 15 mins » Tallaght (The Square)
» 12 mins » Citywest

All times are off peak estimates



Areas served

Ringsend Rd. (Barrow St.)
Pearse St. (Macken St.)
Pearse St. (Lombard St.)
College St./Townsend St.
Werburgh St./Lord Edward St.
Kevin St. (Patrick St.)/Patrick St.
Cork St. (Ardee St.)
Cork St. (Donore Ave.)
Cork St. (Coombe Hospital)
Dolphin's Barn Cross
Crumlin Rd. (Loreto Convent)
Crumlin Rd. (Bangor Drive)
Crumlin Rd. (Cooley Rd.)
Drimnagh Rd. (Halfway House)
Walkinstown Cross (The Kestrel)

Greenhills Rd. (O'Malley's)
Greenhills Rd. (Green Park)
Greenhills Rd. (Ballymount Rd. Upr.)
Greenhills Rd. (Cuckoo's Nest)
Tymon Park
Castle Lawns
Balrothery (Castle Park)
Seskin View Rd.
Old Bawn Rd.
Tallaght (The Square)
Blessington Rd. (Raheen)
Jobstown
De Selby Quarries
Citywest

RECEIVED: 15/05/2025

Construction Traffic Management Plan

consulting
engineers

NRB

**Outline
Construction & Traffic
Management Plan**

For

**Proposed Green Vale
Large Scale Residential
Development**

at

**Former Chadwicks Builders
Merchant Development,
Greenhills Rd,
Walkinstown,
Dublin 12.**

PLANNING STAGE

1.0 INTRODUCTION

This Preliminary Construction Traffic Management Plan includes a description of the proposed construction works and how Traffic will be managed for the duration of the demolition and construction works on site. The methodology set out in this report, follows the methodology as will be set out in the Site Specific Construction Stage Management Plan which will be prepared and submitted when a Contractor is appointed for the works.

When the contractor is appointed to undertake all site clearance, they will prepare a detailed method statement having regard to their own operating procedures, the agreed construction programme, site conditions, and any relevant planning conditions that SDCC may apply in the event of a grant of planning permission.

In addition to the Contractors Construction Stage Management Plan, any works on the public road (e.g. for services connections) will require an application for a Road Opening Licence and will be submitted by the contractor to the Local Authority. Any such application will include a full detailed Construction Traffic Management Plan prepared in accordance with Chapter 8 of the Traffic Signs Manual for pre-approval by the Local Authority. This CTMP Report should be considered Preliminary in these terms.

It should be noted that the issues covered within this document are preliminary in nature and may be amended or added to by the appointed contractor for the works.

2.0 PROJECT DESCRIPTION

The demolition of the former Chadwicks Builders Merchant development comprising 1 no. two storey office building and 9 no. storage/warehouse buildings ranging in height from 3m – 9.9m as follows: Building A (8,764 sq.m.), Building B (1,293 sq.m.), Building C (two-storey office building) (527 sq.m.), Building D (47 sq.m.), Building E (29 sq.m.), Building F (207 sq.m.), Building G (101 sq.m.), Building H (80 sq.m.), Building I (28 sq.m.), and Building J (44 sq.m.), in total comprising 11,120 sq.m.;

The Proposed Development, as set out on the Architects layout Plans, comprising a mixed-use residential and commercial development comprising 588 no. residential apartment units (291 no. one-beds, 238no. two-beds and 59 no. three-beds), 1 no. 570.91sqm (443sqm indoor space) childcare facility and 6no. no. commercial/retail units in 4 no. blocks (A-D) ranging in height from 5 to 12 storeys as follows:

- Block A comprises 170 no. apartments (103 no. 1 bed-units, 59 no. 2 bed-units and 8 no. 3- bed units) measuring 8 storeys in height.
- Block B comprises 197 no. apartments (89 no. 1 bed-units, 92 no. 2 bed-units and 16 no. 3 bed-units) measuring 10 storeys in height.
- Block C comprises 81 no. apartments (44 no. 1-bed units, 16 no. 2-bed units and 21 no. 3-bed units) measuring 12 storeys in height.
- Block D comprises 140 no. apartments (55 no. 1 bed-units, 71 no. 2 bed-units and 14 no. 3 bed-units) measuring 8 storeys in height.

3.0 CONSTRUCTION PROGRAMME & PHASING

It is anticipated that the proposed development will be constructed in phases with a 30 month construction duration.

The construction works associated with the development will be undertaken in three phases (A - C). There will also be excavation phases associated with excavating for site services, along with reprofiling spoil on site. The proposed phasing plan can be seen in Figure 3.1 below.

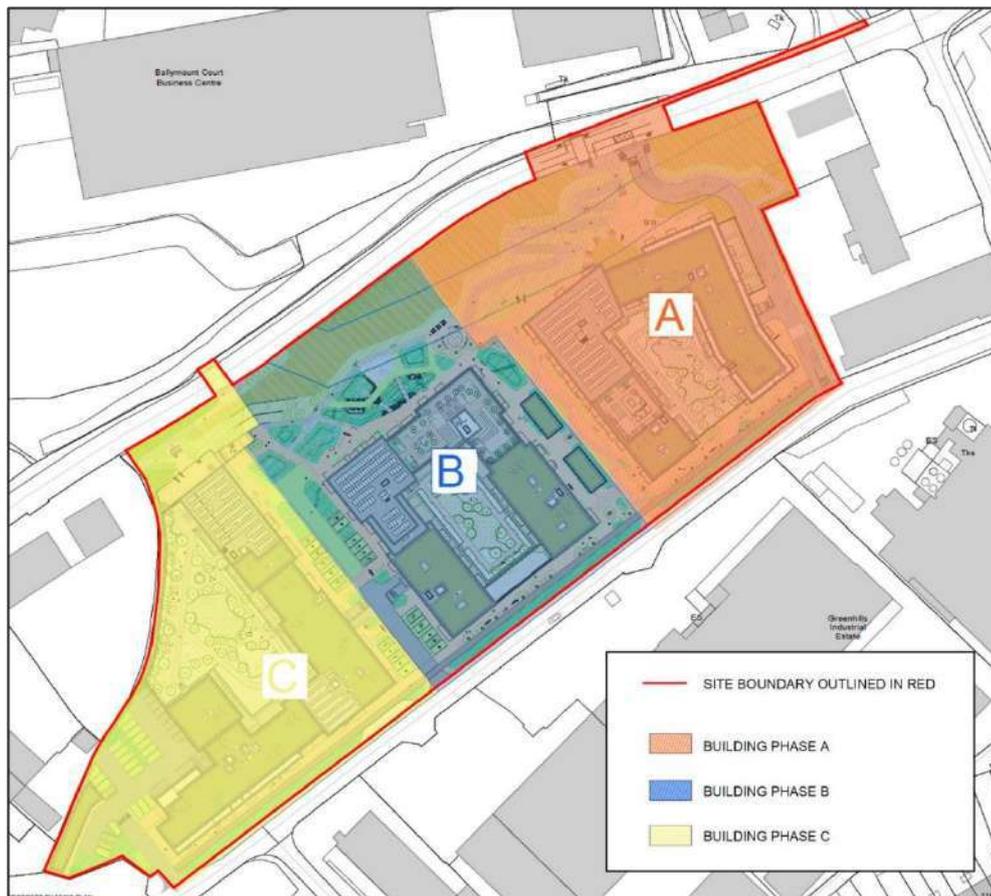


Figure 3.1 – Proposed Phasing

4.0 SERVICE DIVERSIONS & DEMOLITION

The application site involves the Former Chadwick's site which is located south of Greenhills Road. The site forms part of the Greenhill Industrial Estate. There are existing low-rise disused warehouse units on the subject site which are proposed for demolition as part of the subject proposal.

A ground penetrating radar survey will be carried out to establish the location of any potential services. Any existing piped or cabled underground services will be verified on site and will be made safe within the boundary of the site.

There is some demolition and removal of existing site contents and landscaping, and this work will be carried out in accordance with a programme and construction-stage Health/Safety Plan to be prepared by the successful Demolition contractor.

5.0 SITE ESTABLISHMENT

The site fronts directly onto Greenhills Road, which is a wide single carriageway 2-way road. Construction access to the site will be from Greenhills Road directly in the proposed site access location.

The first activity to be carried out at the site will be the establishment of site facilities and security. It is anticipated that site establishment works will take approximately four weeks. The site office and welfare facilities will be confirmed in advance of the commencement of site works and agreed with South Dublin County Council. **Figure 5.1** shows the proposed locations of the site compound and staff parking.

All of the sub-contractors as well as the main contractor and project managers will occupy offices within the construction compounds. The site parking for all staff, contractors and visitors will also be located in this area.

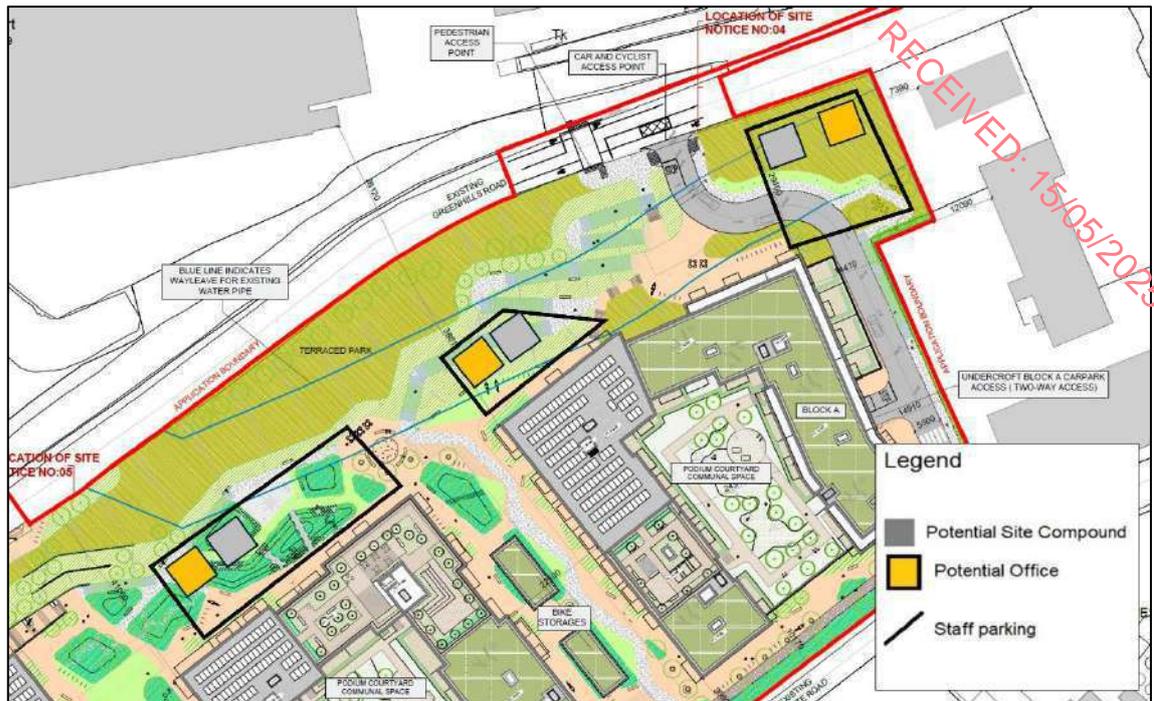


Figure 5.1 – Potential site construction compound locations

The above image shows the proposed site compounds located to the north of the site, which allows easy delivery of construction materials.

6.0 PERIMETER HOARDING

Perimeter hoarding will be provided around the entire site to provide a barrier against unauthorised access from public areas. All areas of construction will be fenced / hoarded off to prevent unauthorized access. This fencing shall remain closed at all times during construction works and closed and locked after construction work hours / break times.

This fencing shall be erected in accordance with good practice and the Construction Regulations 2013. Fencing arrangements shall be reviewed as the life of the project progresses.

Access/Egress to site for site operatives and visitors shall be via biometric gates. Site security fencing/ Hoarding up to a height of 2.4 M will be erected in line with the Construction Regulations 2013 that will clearly separate the work site from the surrounding public. It is not envisaged that the fencing will impinge upon the safe passage of pedestrians during the construction phase.

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7.0 HOURS OF OPERATION

The site and building works required to implement the development shall only be carried out between the hours of:

- Mondays to Fridays - 8.00am to 7.00pm
- Saturday - 8.00 a.m. to 2.00pm
- Sundays and Public Holidays - No activity on site.

Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from SDCC. Such approval may be given subject to conditions pertaining to the particular circumstances being set by SDCC.

The construction shift times, will ensure that any construction traffic will have an insignificant impact upon the traditional peak commuter traffic periods as it is envisaged that most construction workers will be at work before 8am in the morning and will leave after 6pm.

8.0 CONTROL OF NOISE AND DUST

The main contractor will obtain the necessary construction noise limits from any associated contract documentation, and will adhere to any limitations imposed by way of normally applied planning condition. However, the noise from any demolition operations will be minimised. Noise levels will comply with BS5228-1; 2009 Code of Practice for Noise & vibration Control on Construction and Open Sites: Vibration; Environmental Protection Agency Act 1992 Sections 106-108, any specific Local Authority requirements and Safety, Health & Welfare at Work (Control of Noise at Work) Regulations 2006 SI 371 (2006).

With specific reference to fears that may arise in terms of rock breaking and associated noise, if rock were to be encountered, the rock can be broken out using what's called "chemical fracturing". This is a process by which holes are drilled in the rock and chemicals inserted which expand and fracture the rock. There is virtually no noise or vibration from the process apart from drilling the rock itself which is not a significant noise nuisance.

The main contractor will ensure that any dust caused by the construction activities will be kept to a minimum as required in accordance with normal and best practice for construction in urban areas. Dust generated from construction operations will be controlled by water spray where required. In order to control the dust on site, the Main Contractor will be required to ensure the following conditions are adhered to:

- Dust suppression equipment shall be used on drilling and cutting machines,

- All loaded vehicles will be adequately covered before entering/leaving the site,
- Use of off-site fabrication to minimise dust generation on site.

9.0 COMMUNICATON

The main contractor will engage with adjoining sites to keep them informed of proposals for site establishment & compound, start dates, timing for vehicular movements associated with the works and an outline programme. Contact details for a senior member of the Site Management will be provided to allow any queries or issues to be promptly addressed in a proactive manner.

10.0 TRAFFIC MANAGEMENT PLAN/CONSTRUCTION TRAFFIC

Site Access

Traffic management will be undertaken for the site works in accordance with the principles outlined below and shall comply at all times with the requirements of:

- Department of Transport Traffic Signs Manual 2010 – Chapter 8 Temporary Traffic Measures and Signs for Roadworks
- Department of Transport Guidance for the Control and Management of Traffic at Road Works (2010)
- Any additional requirements detailed in Design Manual for Urban Roads & Streets (DMURS)

All construction materials (incoming and outgoing) will arrive and depart to/from Greenhills Road. During and demolition / site clearance, and for the duration of construction, all traffic will enter and leave via the Greenhills Road. Advanced warning signs will be placed at sufficient distances to taper off the entry and exit points. Pedestrian marshals will be used as and when required

Any long duration parking of delivery vehicles will not be permitted on the adjoining roads and in this regard, it is proposed that all deliveries and removals from the site will be off peak, managed and marshalled to minimise the risk of conflicting with other traffic movements on the local streets.

Unfettered and unobstructed access will be maintained at all times to neighbouring properties adjacent the site, and no vehicle will be left unattended, meaning that they will be moved immediately upon request.

Access to the site will be controlled and a person in a high-visibility jacket will be designated to assist construction vehicles to enter/exit the site at busy times to avoid conflict between pedestrian movements, main road traffic on Greenhill Road, and construction activities.

Approved traffic mitigation measures requested by SDCC will be submitted with the updated CEMP, prior to the commencement of works.

Construction Traffic Routing

The proposed construction vehicle routes for the site will require a traffic management plan to be agreed upon with SDCC and TII prior to site workings beginning. Two-way traffic will be maintained throughout the project.

All construction traffic will be required to use the primary roads in the vicinity of the site.

The route for any HGVs will depend on the location from where concrete & other materials will be sourced and the end destination for surplus demolition and excavation materials not reused on site. The locations of selected concrete batching plants and suitable waste recovery/waste disposal facilities have yet to be determined and will be identified when the contractor is appointed and when more detail on the material to be handled becomes available.

Although none are envisaged at this stage, the routes for any oversized construction vehicles required will be agreed with the Local Authority before commencement of works on site.

Construction Parking

Staff will be encouraged to walk, cycle and use public transport. All of the sub-contractors as well as the main contractor and project managers will occupy offices within the construction compounds. The site parking for all staff, contractors and visitors will also be located in this area.

Vehicle Movement During Construction

Excavated/demolished material will be removed off-site for recovery at an authorised facility in accordance with the waste hierarchy and relevant waste legislation. Transportation of the material will be by licensed hauliers. It is expected that there will be minimal and unnoticeable impact on the local roads.

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11.0 MITIGATION MEASURES

Construction vehicle movements would be minimised through:

- Consolidation of delivery loads to/from the site and managing larger deliveries to occur outside peak periods,
- Use of precast/prefabricated materials where possible,
- Adequate storage space on site will be provided as set out above,
- A 'just in time' approach to deliveries to avoid potential conflicts and unnecessary storage & handling.

The Contractor will adhere to best practice mobility management measures for the site staff to encourage access to the site by means other than the private car. This will be considered by the Contractor prior to works commencing on site.

On-Site Accommodation

On site accommodation will consist of:

- Staff welfare facilities
- Adequate materials drop-off and storage area
- The site offices will have integrated welfare facilities including toilet and kitchen facilities for staff.

12.0 PUBLIC ROAD MAINTENANCE

The following measures will be implemented as required to ensure that surroundings are kept clean and tidy:

- It is proposed that a pre and post commencement condition survey and photographic record of the roads and footpaths will be undertaken in consultation between the appointed Contractor and Local Authority,
- A regular programme of site tidying will be established to ensure a safe and orderly site,
- Scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind,
- Food waste will be strictly controlled on all parts of the site,
- Any spillages on roads & footpaths outside the site will be cleaned regularly and not be allowed to accumulate,
- Wheel-checking and wheel-cleaning facilities will be provided for vehicles exiting the site,

- In the unlikely event of any solid waste being deposited on the public roads or road gullies any such waste will be removed and disposed of immediately.
- In the event of unintentional damage to road markings or road signage, these will be remediated to the satisfaction of the Local Authority.
- 'Site Entrance Ahead' Signage will be provided on the approaches to the site.

Any works on the public road will require an application for a Road Opening Licence submitted by the contractor to the Local Authority which will include a full detailed Traffic Management Plan prepared in accordance with Chapter 8 of the Traffic Signs Manual for approval by the Local Authority.

APPENDIX O

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**Letter to NTA 16th June 2023
- Proposed Access Strategy**

16 June 2023
22087/BM

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By Email Only

Dear All,

GREENHILLS ROAD RESIDENTIAL DEVELOPMENT – PROPOSED ACCESS STRATEGY

We set out below the proposed access strategy for the residential scheme, the alternative access locations considered, and how the now-proposed revised design and layout addresses the original concerns highlighted in the NTA's submission, SDCC and ABP comments. Furthermore, pedestrian access is also addressed.

The access locations considered for this scheme include the following:

- Access off Greenhills Road to the east of the site.
- Access off Greenhills Road to the west of the site; and
- Access from the Greenhills Industrial Estate Road.

It is now proposed that the access is provided to the east of the site, via a simple priority junction access. This access junction has been designed to facilitate access off the current Greenhills Road, with appropriate visibility provided, while also facilitating the proposed BusConnects Scheme in the future scenario.



An access road is proposed on the eastern section of the site, which connects to the Greenhills Industrial Estate Road, with two entrances provided on this existing road (as shown in **Figure 1**). The Greenhills Industrial Estate Road will be widened to 6m, with cycle and pedestrian facilities provided on the northern side of the road, within the site boundary.

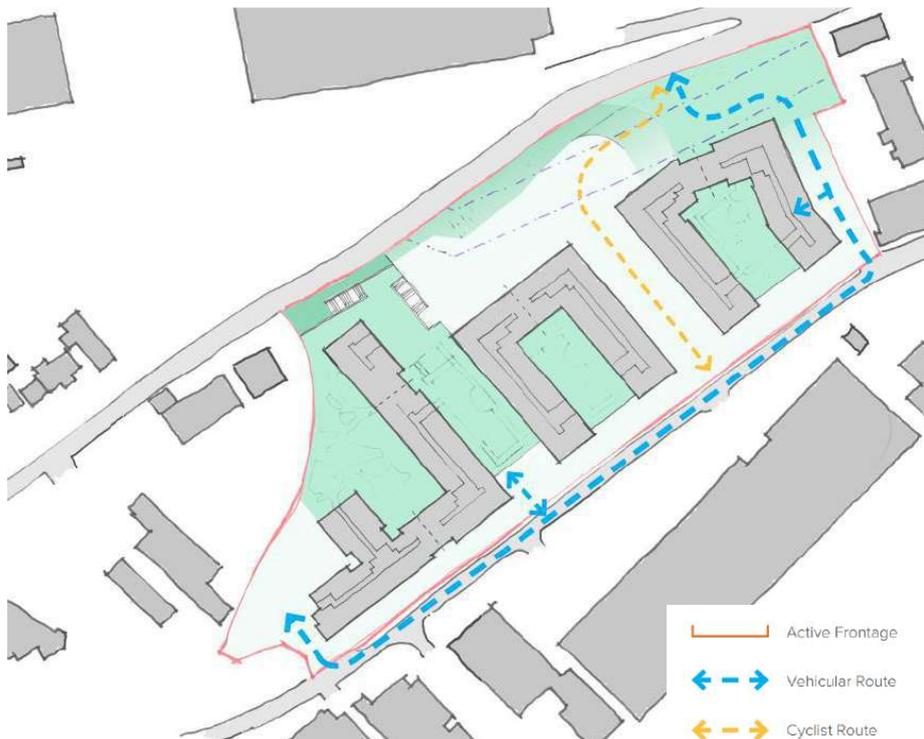


Figure 1 – Proposed Access Strategy

1 - Proposed Greenhills Road Site Access Junction (East of Site)

The proposed site access junction, shown below in **Figure 2**, is a simple priority junction off the Greenhills Road. The proposed access road has a proposed dwell area being a flat section at the junction 12m long. This will also facilitate the proposed land take required by the BusConnects scheme, which will require 5m of land take past the site frontage, so in the future situation, there will be a dwell area of 7m at the development access, which is in accordance with TII standards (which require this length). The design includes for this.



Figure 2 – Proposed Access on the Existing Greenhills Road

Figure 3 below shows the proposed site access junction in the future situation, with the BusConnects Scheme in place.

The proposals show how the proposed cycle track and footpath will be accommodated along the site and at the development access. This design will be developed further prior to submission to the Local Authority.

The access junction has, and will, be designed in accordance with DMURS, the National Cycle Manual and the BusConnects design standards and will be to the same standard and design as all the other priority junctions along the BusConnects route.

A raised table is proposed for pedestrians and a raised cycle track is proposed for cyclists passing the site access. These road safety features will provide an increased level of protection for vulnerable road users (VRUs) past the site and will provide a safe junction layout.

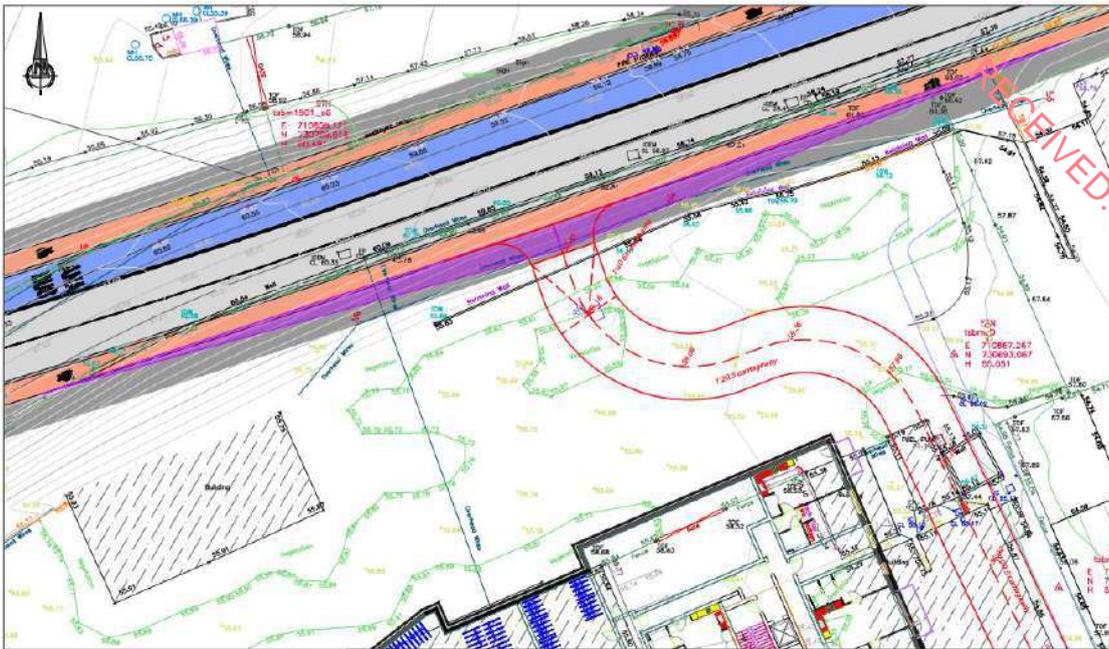


Figure 3 – Proposed Access with BusConnects Design in Place

1a. Proposed Greenhills Road Site Access Junction - Traffic Capacity Analysis

We have used the TII-approved software package 'Junctions 10' PiCADDY' (Priority Intersection Capacity And Delay) software package (as part of the TRL Package 'Junction 10') to assess the capacity of the junction. PiCADDY produces results based on a ratio of flow to capacity (RFC) and queue length. An RFC greater than 1.00 indicates that a junction is operating at or above capacity, with 0.85 considered to be the optimum RFC value.

We have undertaken the detailed assessment of the capacity of the site access junction, with the entire subject development in place and fully occupied, and with the BusConnects proposals in place. The detailed output of the models are included herein as Appendix A and is summarised below as Table 1.



Table 1; Greenhills Road / Site Access Junction - Summary PICADDY Results

Modelled Scenario	Minor Arm Max RFC	Minor Arm Mean Max Q (PCUs)	Right Turners Max RFC	Right Turners Mean Max Q (PCUs)
Opening Year 2026 AM Peak Hr	0.54	1.1	0.15	0.4
Opening Year 2026 PM Peak Hr	0.37	0.6	0.24	0.9
Design Year 2041 AM Peak Hr	0.63	1.6	0.18	0.6
Design Year 2041 PM Peak Hr	0.46	0.8	0.28	1.2

The results of the modelling clearly show that the junction will have more than adequate capacity to accommodate the worst-case traffic associated with the fully complete and occupied scheme in opening and design years. In particular, the RFCs for the right turning movements from the Greenhills Road into the proposed development are very low, with a max RFC of 0.28 and a queue of 1.2 vehicles in the 2041 Design Year PM Peak Hour. There are natural breaks in the traffic flow due to the proximity to Walkinstown Roundabout and the associated platooning effect of traffic through it, also aided by driver courtesy which give further reassurance in terms of the modelling.

2 Site Access - Alternatives Considered

2a. Alternative Western Greenhills Road Site Access Junction

The alternative site access junction off the Greenhills Road was situated on the western side of the site. Therefore, prior to the delivery of the BusConnects scheme, the proposed site access junction would have been located off the main Greenhills Road. However, following the delivery of the BusConnects scheme, the site access junction would have been located in a cul-de-sac section of the diverted Greenhills Road.

A site layout plan showing the development arrangement in relation to the alternative access and existing Greenhills Road is shown below. This demonstrates the level of detail considered when accessing this alternative access location.

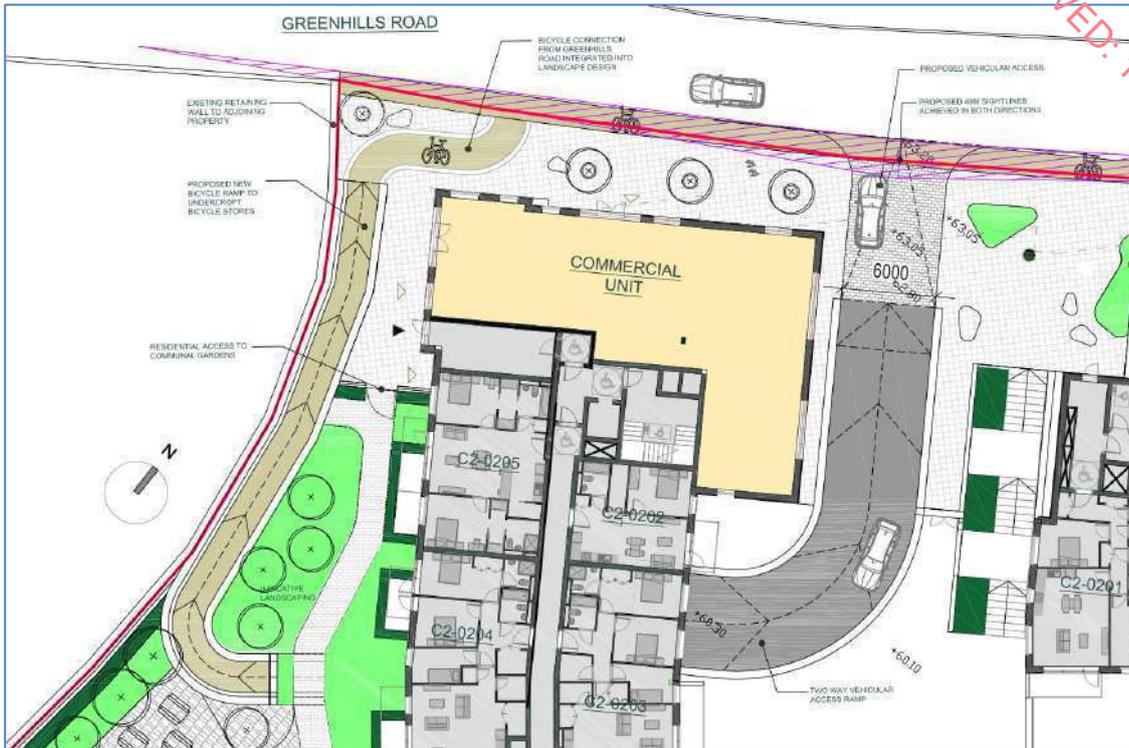


Figure 4 – Proposed Alternative Western Greenhills Road Site Access Junction

However, the proposed alternative junction was not considered viable due to a number of reasons, including commercial, design complexity, levels differences, constructability, and phasing of the development.



The following has been provided by the Structural Engineer on the Design Team.

Vehicular Entrance Ramp & Multi-Storey Car Park

The difference of levels in-between the existing Greenhills Road/ future Greenhills Road Cul-de-Sac and the bottom of the proposed vehicular entrance ramp (circa 6m level difference between existing Greenhills Road level and existing ground level) situated at the north-west corner of the site is substantial and the largest level difference when compared to other areas along the northern site elevation, parallel to the existing Greenhills Road/ future Greenhills Road Cul-de-Sac. To structurally design the internal ramp and reach compliance with the relevant codes of practice and building regulations entails a great deal of difficulty, ingenuity and co-ordination.

Furthermore, a multi-storey car park will be required, which adds an additional layer of complexity. As structural walls/columns below & above the multi-storey car will not align, a transfer slab will be required to transfer the load from the apartments above the carpark to the foundations below the car park. Having to consider that all the driving aisles and the two levels of vehicular ramps will have to be fully unobscured (i.e., no structural columns will be permitted in these areas), it will likely result in a deeper ground floor apartment transfer slab above the car park and more frequently spaced columns throughout the car park. This would ultimately increase the difficulty in navigating through the car park and manoeuvring in & out of car parking spaces, which in some cases may require to have columns either side of the parking space.

Associated Parking Requirement (parallel to Existing Greenhills Road/ Future Greenhills Road Cul-de-Sac)

Existing Greenhills Road/ Future Greenhills Road Cul-de-Sac does not have sufficient space to incorporate new car parking spaces / commercial drop off spaces at the north-west corner of the site. As provisions at the design stage of existing Greenhills Road have not been made to accommodate car parking spaces for the extent of the site in question, it would prove extremely

difficult & costly to implement at this moment in time due to level differences between the existing Greenhills Road and the Existing site ground levels. The works involved to achieve this would result in a temporary closure of Greenhills Road to enable piling works, creating the necessary substructure for the car parking spaces. Therefore, for reasons of buildability and the associated cost, the parking spaces in question are deemed not feasible in this scenario.

Therefore, this Alternative Access Solution via the Greenhills Industrial Estate Road was not considered viable.

2b. Alternative Site Access Junction via the Greenhills Industrial Estate Road

The NTA submission noted that, from a BusConnects perspective, it would be preferable to provide vehicular access/egress to this development from the Greenhills Industrial Estate Road. Please note that this road is in private ownership and has not been taken in charge by the local authority.

Therefore, we assessed the existing roads and junctions from a road safety perspective. In particular there is a sharp turn on the Greenhills Industrial Estate Road at the existing junction to the southeast, at the TC Matthews Corner, which has a poor sightline around the corner, as shown in **Figure 5** below.

While this is an existing junction, with no known record as being unsafe, there is limited forward visibility around the existing junction as you are driving from the west to the north of the junction. This would very likely be picked up and become a problem during the planning process – and Traffic Safety is often a determining factor in applications of this nature. Furthermore, a footpath is only provided on one side of the junction.



Figure 5 – Existing Greenhills Industrial Estate Road / TC Matthews Junction

NRB presented two alternative junction options to South Dublin County Council.

- change the priorities; and
- provide a mini-roundabout.

Both have some slight road safety problems which are outlined further below.

Change of Priority

Figure 6 shows a marked-up potential layout to change the priority from the main estate road to the side road. This has the benefit of improving the sight line around the TC Matthew corner, however the sightline from the new Stop line to the right is only in the order of 17m which is the required DMURS sight line for only a 20km/h speed limit. The existing speeds on this road are very likely to exceed 20km/h, so we suggested to SDCC to incorporate ramps or a speed table on the realigned road to reduce speed at the junction to 20km/h.

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Figure 6 – Change of Priorities at Industrial Estate Road / TC Matthews Junction

However, SDCC noted that sightlines should be provided for the existing speed of the existing road, rather than using traffic calming measures to reduce speeds (which we anticipated).

Mini-roundabout

Figure 7 shows a marked-up potential mini-roundabout option. This has the benefit of improving the sight lines at all junctions/stop lines here. NRB noted that the roundabout is only c.12.5m in diameter which is not ideal in terms of providing u-turning and is of lesser diameter than would ordinarily be acceptable. U-turning is not envisaged at this location, and if deemed appropriate such a junction would only be a short-term measure before the adjacent lands are developed.



Figure 7 – Mini-Roundabout at Industrial Estate Road / TC Matthews Junction



However, SDCC noted that any junction designed would have to be considered a long-term intervention. As the proposed mini-roundabout is less than normally acceptable on the road network, it was considered that upgrading this junction to a mini-roundabout and using the Greenhills Industrial Estate Road as the only access route was less favourable compared to other access options for the development.

Therefore, this Alternative Access Solution via the Greenhills Industrial Estate Road was not considered viable.

3. NTA SHD Submission

We have considered the previous submission by the NTA dated 28th April 2022 on the refused application on the site. We set out below the Design Team response, setting out how the current now-proposed revised design and layout addresses the original concerns. We include below direct extracts from the NTA Submission under individual headings, with the Design Team response to each following-on thereafter.

NTA - Access; Issue #1

The applicant is proposing a new access off Greenhills Road in close proximity to other entrances which will be intensive in terms of vehicular trips. This has the potential to result in significant traffic increase on the Greenhills Road which could negatively impact on cycle and bus operations along this proposed core bus corridor.

The proposed access has now been moved west by 20m which provides separation between the proposed access and the existing entrances to the north, as shown in **Figure 8** below. There will be no conflicting traffic movements between vehicles turning into the proposed site access junction and the three small entrances on the northern side of the Greenhills Road. There is nearly 100m separation between the proposed site access and the existing Greenhills Industrial Estate Site Access.



Figure 8 – Proposed Site Access Distance to Adjacent Entrances

The traffic analysis presented in this note (Section 1), shows that the proposed simple priority junction will have enough capacity to cater for all the development trips in the AM and PM peak, which will not result in a negative impact on either bus or cycle operations. The Right Turning movements into the site has very low RFCs and queue length values.

The proposed site access junction will be designed with cycle facilities as per the National Cycle Manual or the BusConnects design manuals. The Design Team will work closely with the NTA to ensure that the proposed layout responds to cycle needs and safety, for both the current existing road condition, and the future bus connects condition.

NTA - Access; Issue #2

It is noted that a junction traffic analysis has not been provided within the applicants Transport Assessment for the proposed priority junction off Greenhills Road. Therefore, no evidence has been provided to demonstrate that the proposed design caters for the proposed trip generation i.e., to demonstrate that the entrance does not require a signalised junction / dedicated right-turn lane such that bus priority is not compromised.

A full assessment and analysis of affected junctions, including the proposed vehicular access from Greenhills Road (for both short term and longer-term conditions) will be undertaken and included as part of a new Transportation Assessment Report.

The traffic analysis presented in this note (Section 1), is an assessment of the longer-term conditions with BusConnects in place. The results of the modelling clearly show that the junction

will have more than adequate capacity to accommodate the worst-case traffic associated with the fully complete and occupied scheme in opening and design years.

A signal-controlled junction, or a right turn lane is not required to facilitate a junction that operates within capacity limits.

NTA - Access; Issue #3

From a BusConnects perspective, it would be preferable to provide vehicular access/egress to this development from the Greenhills Industrial Estate Road. Consideration should be given to a cycling and pedestrian access only off Greenhills Road which may be more favourable in terms of providing safe access to the development for cyclists and pedestrians.

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NRB engaged with SDCC traffic department regarding facilitating access via the Greenhills Industrial Estate Road. However, it was not considered viable, given the road safety concerns at the TC Matthews Junction, as noted in Section 2.

NTA - Access; Issue #4

In connection with the above, it is considered that a development proposal of this scale may necessitate provision of a new Bus Stop to serve the growing population. Further consideration of safe and convenient access to public transport stops should be demonstrated including providing for a bus stop.

In the **short term** there are bus stops located immediately at the site, with service numbers 27 and 77a passing the site. For reference, Service No. 27 is a cross-city service (Clarehall-Jobstown-Clarehall), with a commuter peak hour frequency of c10 mins. Service No.77a (Ringsend-Citywest-Ringsend) also has a commuter peak hour frequency of c10 mins. These bus services combined represent a high frequency service. The location of Bus Stops for these services are illustrated below as **Figure 9**.

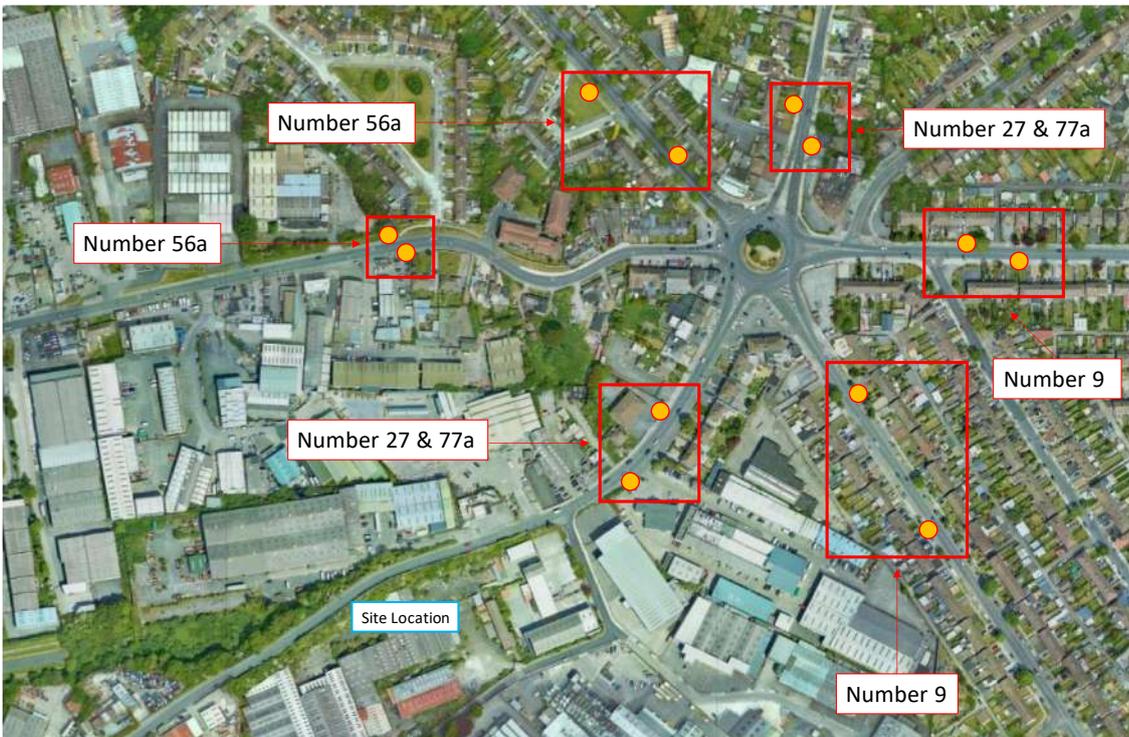


Figure 9 – Location of Bus Stops in close proximity to the site

In addition, the Site is within an approximate 500m distance of Walkinstown Roundabout, which is a transport node crossed by a number of additional existing bus services.

In the longer term, the site is ideally placed to both benefit from, and contribute to, services on Corridor 9 Greenhills to City Centre, and we include below an extract from the Bus Connects Dublin Network Plan as **Figure 10**.

The site will be served by very frequent services, with Spines D2 D3 and D4 passing the site (in addition to Spine Route F3 & Feeder Service 71 which are planned to cross the Walkinstown Roundabout).

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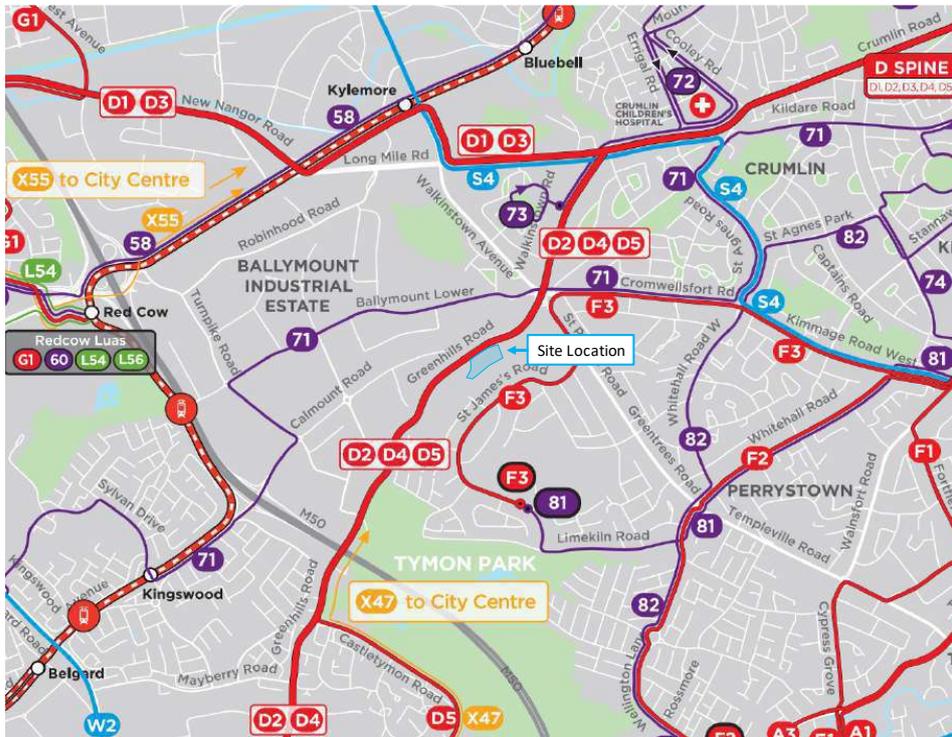


Figure 10 – Annotated Extract from Bus Connects Dublin Network Showing Site

NTA - Widening; Issue #1, Issue #2 & Issue #3

It is not clear that sufficient consideration has been given to accommodate the future widening of Greenhills Road in line with the current proposals for the Tallaght/Clondalkin to City Centre CBC scheme. Similarly, any associated retaining infrastructure required within the boundary as part of proposed the new priority junction off Greenhills Road do not appear to have been incorporated to reflect the future CBC Scheme. (See Foundations Structure and Key Plan Drawing 20189-LDE-ZZ-ZZ-DR-SC-3S01 submitted as part of the planning application)

Clarification is required regarding proposed boundary treatments and the extent of proposed retaining structures. The potential impact of construction revised loading in conjunction with the BusConnects proposals over the existing 1200mm diameter watermain should also be considered.

The proposed SHD should not compromise the Tallaght / Clondalkin to City Centre BusConnects Scheme shown for the Third Public Consultation from November 2020 (<https://busconnects.ie/wpcontent/uploads/2022/03/09-greenhills-to-city-centre-preferred-route-221120fa-web.pdf>) where the proposed CBC road cross-section requires widening to accommodate works at this location. (Figure 2-7, Map 17 of NTA Greenhills to City Centre Preferred Route report)

The revised design will consider this in detail and the proposed scheme will facilitate the BusConnects proposals.

The following has been provided by the Structural Engineer on the Design Team.

It is proposed to extend the embankment which is currently retaining the existing Greenhills Road to cater for the future widening required to complete the future CBC scheme. This will be captured and elaborated on in greater detail within the Engineering Services Report and drawings which are going to be submitted as part of the planning lodgement pack. Drawing 20189-LDE-ZZ-ZZ-DR-SC-3S01 was used in the previous SHD application and will be invalid for the current LRD application.

It is proposed to maintain and extend the existing embankment currently retaining the existing Greenhills Road to accommodate the road widening required for the future CBC scheme. There is no deviation in method of retaining the road in question for both the existing (i.e. Greenhills Road) and future (i.e. CBC scheme) scenarios. The existing 1200mm diameter watermain is currently traversing the existing Greenhills Road which in turn indicates that the watermain has been designed to cater for the traffic loading imposed upon it, for both present and future scenarios. The future CBC scheme and the proposed widening of the existing Greenhills Road will therefore not compromise the structural integrity of the existing watermain. No 'retaining structures' (e.g. retaining walls, secant pile walls, etc.) are proposed to be used at the intersection of the northern site boundary & future CBC scheme.

NTA - Parking; Issue #1

The NTA notes the proposed provision of 398 car parking spaces plus 21 no. disabled spaces to serve the 633 residential units, giving a ratio of 0.66 per unit. While this quantum would fall within the development plan standard of a maximum 0.75 per 1 bed unit and 1 per 2 bed unit (Zone 2), the NTA requests that An Bord Pleanála consider the appropriateness of providing such a number, in particular in the context of section 4.21 of the *Design Standards for New Apartments* guidelines which states that for proposed residential development in 'Intermediate Urban Location', 'the Planning Authority must consider a reduced overall car parking standard.' Given the location close to a high frequency bus corridor in the region, and the associated low level of demand for car use anticipated, a more restrictive provision could be applied. This would also reduce the negative impact of traffic generated by the development on the surrounding road network.

The proposed layout is currently being redesigned with a reduced parking provision. A revised reduced total of ~300 private car parking spaces will be provided as part of the development. With ~600 apartments, this represents a car parking 'Ratio' of 0.50 parking spaces per unit.

Cycle Parking is being provided in accordance with the requirements of the National Apartment Guidelines.

NTA- Recommendations; Issue #1

It is recommended that the assessment of the application gives consideration to the concerns raised above and that, in the event of a grant of permission, these concerns are addressed by way of conditions. In particular, the applicant should be required to liaise with the NTA and reach agreement on the design of the road layouts, boundary treatments and associated infrastructure, in order to support the implementation of the CBC.

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We believe that the revised design addresses all of the concerns raised by the NTA.

4. SDCC SHD Comments

We have considered the previous submission by the SDCC set out in its Chief Executive Report, for An Bord Pleanála. We set out below the Design Team response, setting out how the current now-proposed revised design and layout addresses the original concerns. We include below direct extracts from the SDCC Roads Department under individual headings, with the Design Team response to each following-on thereafter.

SDCC - Access; Issue #1

It is not clear whether the developer intends to upgrade the existing southern link road (unnamed). The existing southern link road currently of substandard quality.

It is proposed to upgrade the Southern Link Road, with a 6.0m wide road carriageway, car parking / loading, a 2.0m wide cycle track with a 0.75m buffer to the parking, and 2.0m minimum pedestrian path. The road widening will be facilitated by widening the existing road carriageway into the proposed site.

SDCC - Access; Issue #2

Following the construction stage; the applicant will be required to submit a pavement condition survey, to assess the condition of the surrounding roads prior and post construction, the applicant will be required to reinstate the roads to an acceptable standard.

A Pavement condition survey will be undertaken as part of any pre-commencement in the event of planning approval.

SDCC - Access; Issue #3

The applicant will be required to maintain the road pavement at the accesses and along existing road to a 6.0m width.

A 6.0m wide road will be provided at the site access junction on the Greenhills Road and the Southern Industrial Road.

SDCC – Traffic and Transport Assessment; Issue #1

The TTA did not give a detailed analysis of Noyek's Roundabout as the generated flow from the proposed development was less than 1%. The Roads Department is concerned that this does not take into account that the Calmount Road link, once opened, will carry traffic towards this junction and remove the majority of traffic from this section of the Greenhills Road.

A revised TTA should be submitted to reflect this future traffic pattern.

A full assessment and analysis of Noyek's roundabout junctions, for both short term and longer-term conditions will be undertaken and included as part of a new Transportation Assessment Report.

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SDCC – Car Parking; Issue #1

The proposed development shall make provision of future charging points for electric vehicles. In the case of surface car parking spaces and basement car parking spaces, 100% of spaces must be provided with electrical ducting and termination points to allow for the provision of future charging points. Details of how it is proposed to comply with these requirements including details of the design of, and signage for, the electric charging points (where they are not in areas to be taken in charge) shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. REASON: In the interest of sustainable transport.

Details of how it is proposed to comply with these requirements for the electric charging points shall be submitted to and agreed with the planning authority.

SDCC – Car Parking; Issue #2

b. Mobility Impaired parking

It is proposed to provide 21 No. disabled spaces for the residential parking component which equates to 5% of the overall vehicular parking spaces for mobility impaired users. The applicant should provide 1 No. disabled parking space for the commercial parking component to comply with the minimum rate of 5% of the overall vehicular parking spaces for mobility impaired users.

Mobility Impaired parking spaces for the commercial parking components will be provided as part of the new application.

SDCC – Mobility Management Plan; Issue #1

8. Mobility Management Plan

A preliminary Parking and Mobility Management Plan has been submitted by the applicant. Within 6 months of the development opening the applicant will be required to submit a developed Mobility Management Plan for agreement with the SDCC planning department.

Within 6 months of the development opening the applicant will submit a developed Mobility Management Plan for agreement with the SDCC planning department and a Preliminary MMP will be included with the application.

SDCC – Construction and Demolition Waster Management Plan; Issue #1

9. Construction and Demolition Waste Management Plan

The applicant has submitted a Construction and Demolition Waste Management Plan for the proposed development but has not provided details of specific haul routes and the daily volumes of materials. Prior to commencement of development the applicant shall submit a developed Construction and Demolition Waste Management Plan which will have to be agreed with SDCC.

Prior to commencement of development the applicant will submit a developed Construction and Demolition Waste Management Plan which will have to be agreed with SDCC.

SDCC – Taking in Charge; Issue #1

10. *Taking In Charge:*

The applicant has submitted a plan identifying the areas to be taken in charge by the local authority. There are also details of the road construction and specification. Prior to commencement the applicant shall submit a construction detail drawing to taking in charge standards as per SDCC TIC standards Appendix 6”.

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Prior to commencement the applicant will submit a construction detail drawing to taking in charge standards as per SDCC TIC standards Appendix 6.

We believe that the revised design addresses all of the concerns raised by SDCC.

5. ABP Board Order

Road and Greenhills Road and the potential traffic hazard adjacent to the childcare facility at the southern side of the development, it is considered that

It was noted in the ABP Board Order that there were concerns regarding a potential traffic hazard adjacent to the childcare facility. It must be noted that the majority of these using the Childcare facility are expected to live in the proposed new development and these will be expected / encouraged to walk or cycle with their children to the creche. In order to reduce/remove any potential traffic hazard, the proposed childcare drop off car parking spaces are to be relocated off the Greenhills Industrial Estate Road and moved to an internal access road, where there will be no conflicts between motorists dropping off their children and existing Industrial Estate traffic, as shown in Figure 11.

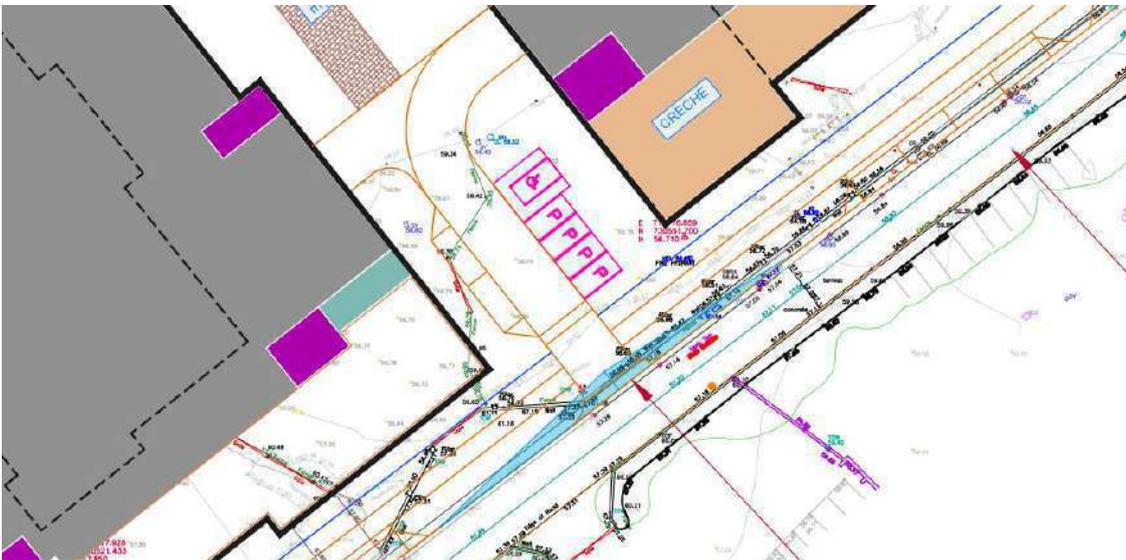


Figure 11 – Proposed Creche and Drop Off Facilities



We believe that the revised drop off location addresses this traffic concerned raised by An Bord Pleanála.

6. Proposed Pedestrian Access

Pedestrian access to the site will be facilitated via two uncontrolled pedestrian crossings from the existing footpath on the northern side of the road carriageway, to a small pedestrian landing area/footpath on the southern side (with appropriate visibility). The uncontrolled crossing at the site access will provide access to a pedestrian public realm which will be a terraced landscape with planting. The uncontrolled crossing on the western side of the site will provide access to pedestrian steps which will provide access to the site which is on a lower level.

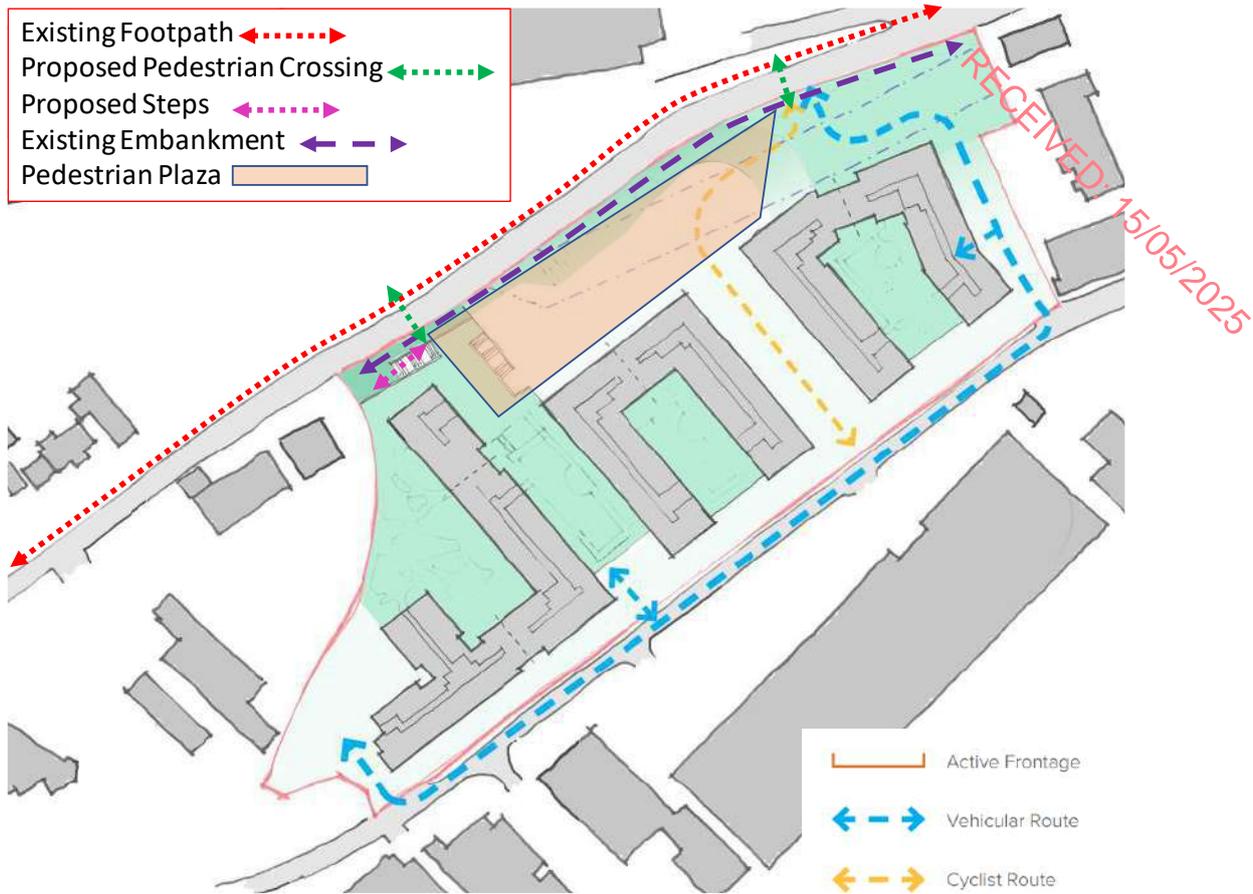


Figure 12 – Proposed Pedestrian Facilities

A pedestrian footpath is not proposed along the full length of the site boundary, as there is a large level difference between the existing road edge and the site (approximately 6.4m), and this would require significant structures to provide a footpath in the short term. This short-term footpath would have no pedestrian connectivity to the east or west of the site, as there are no footpaths on the southern side of the road either side of the site and would serve little purpose. However, it is proposed to accommodate pedestrians along the site boundary in the long term. It is proposed to accommodate the BusConnects pedestrian and cycle facilities within the applicants site boundary, as shown in Figure 13, which also facilitates the additional road width required for the proposed BusConnects scheme.

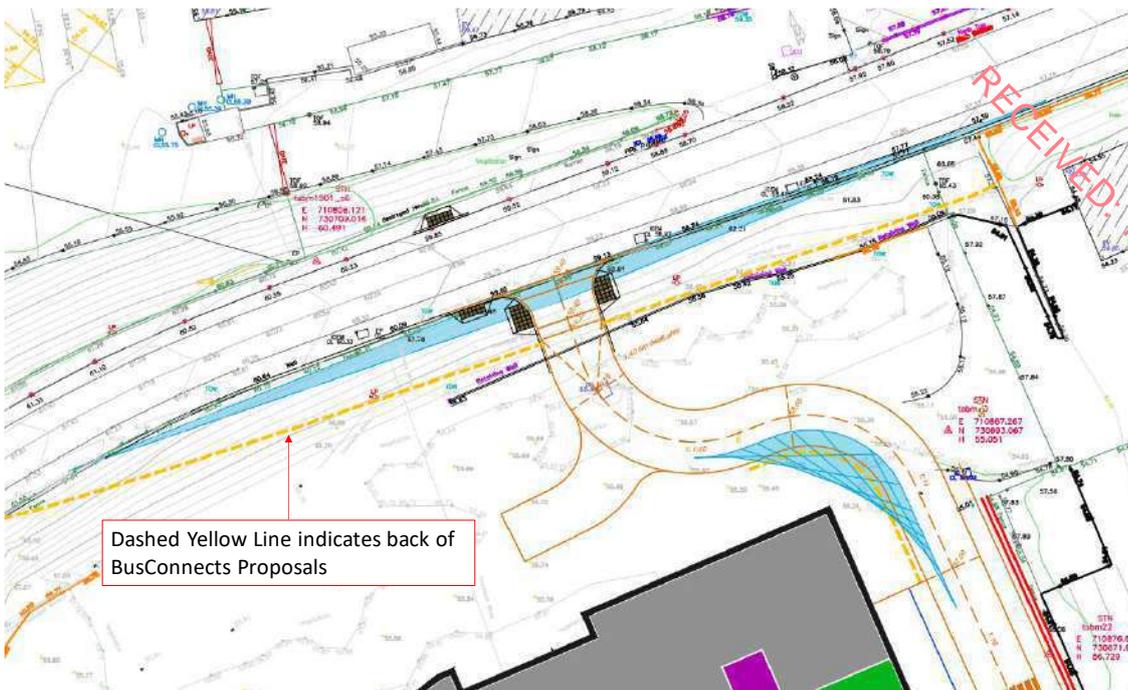


Figure 13 – Proposed Set Back for BusConnects Proposals

With the BusConnects proposals in place, pedestrian and cycle facilities can then be continued on the Greenhills Road carriageway, as per the existing BusConnects Proposals, shown in Figures 14 and 15 below.

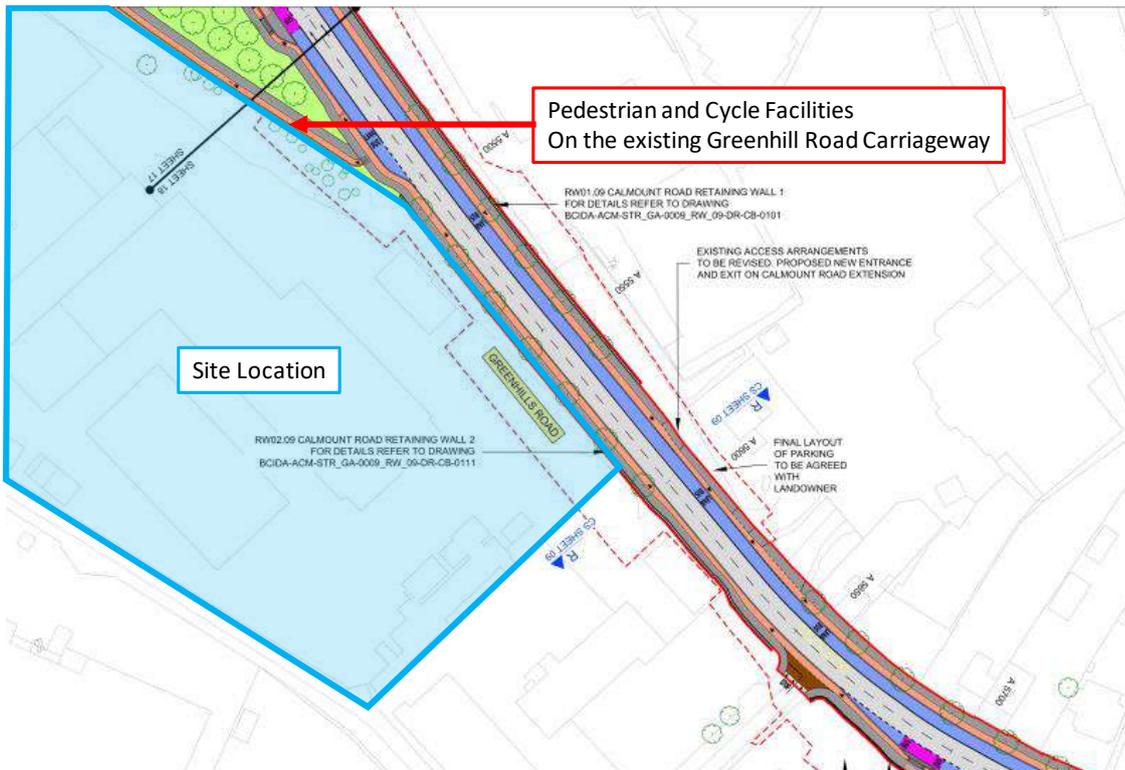


Figure 14 – BusConnects Proposals GA 18 of 56 (Source: <https://tallaghtclondalkinscheme.ie/>)

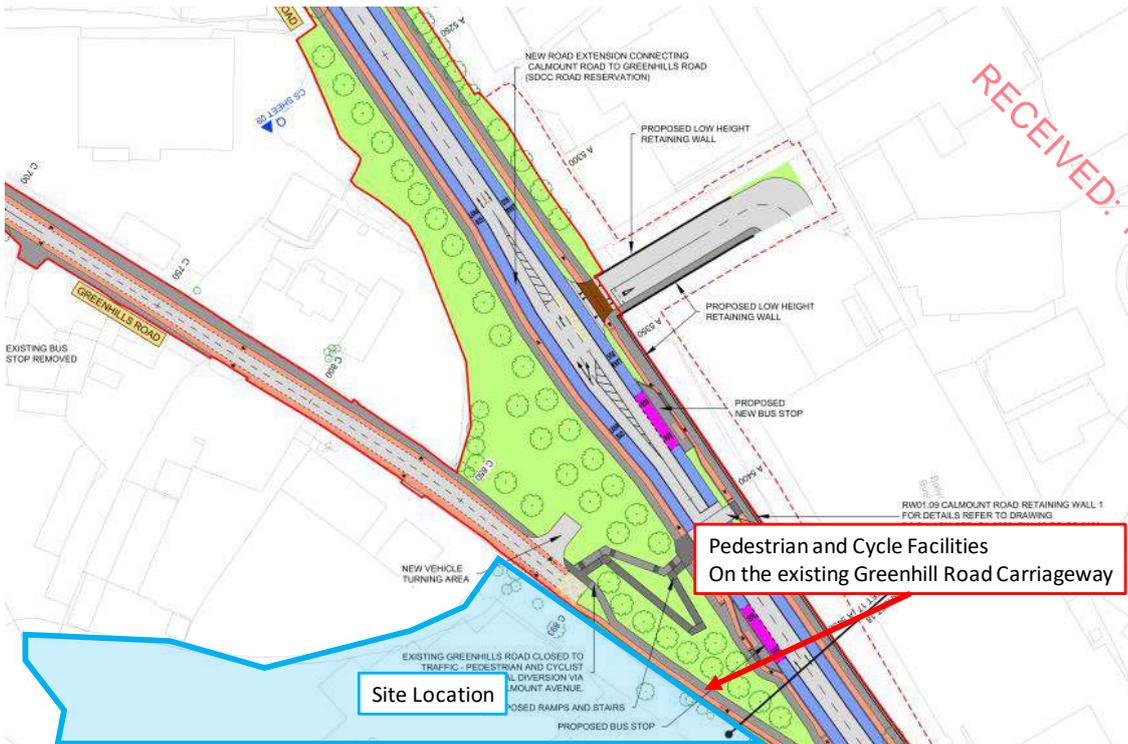


Figure 15 – BusConnects Proposals GA 17 of 56 (Source: <https://tallaghtclondalkinscheme.ie/>)

Therefore, we consider that there will be adequate and safe pedestrian facilities provided at the site in both the short-term and long-term scenarios.

We would be grateful for comments from the NTA regarding the revised design to allow us to address any outstanding concerns with the residential scheme.

Yours sincerely,

Brian McMahon

Brian McMahon
Chartered Engineer
Director



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**Letter to NTA 08th December 2023
- Response to the NTA's Email**

RECEIVED: 15/05/2025

08 December 2023
22087/BM

National Transport Authority
Dún Scéine
Harcourt Lane
Dublin 2
D02 WT20

By Email Only

Dear All,

RESPONSE TO THE NTA'S EMAIL RECEIVED ON THE 21st JUNE 2023

Following NRB's letter to the NTA, dated the 16th of June 2023, titled Greenhills Road Residential Development – Proposed Access Strategy, the NTA had 6no. issues regarding the proposed scheme. An image from the NTA's email is set out below for convenience.

We have reviewed the attached document relating to revised proposals for the Chadwicks site and, in the context of the Bus Connects proposals for this location have the following observations to make at this time:

- There is an opportunity to continue the outbound bus lane alongside the Chadwicks site as an extension of this part of the Corridor 9 scheme. In this regard the NTA request that the boundary on the Greenhills Road is set back in order to facilitate the future extension of the bus lane at this location.
- In relation to boundary treatments and retaining walls it is noted that *'It is proposed to extend the embankment which is currently retaining the existing Greenhills Road to cater for the future widening required to complete the future CBC scheme'*. The design should demonstrate that it could fully support the extension of the bus lane at this location into the future. The NTA would like to review detailed proposals as further pre-planning if possible.
- A opportunity to review a fully worked up drawing(s) of the Greenhills Road boundary including set back as noted above, pedestrian crossing and Bus Connects CBC scheme would be useful
- The NTA would appreciate it if the full junction capacity analysis (that forms the basis of the summary section 1a. of the report) that was undertaken including assumptions informing this, could be provided for review as further pre-planning
- The NTA notes the proposals to reduce the car parking associated with the development to a ratio of 0.5 spaces per unit and would be supportive of this approach given the location of the development and the potential for walking, cycling and public transport.
- The NTA notes that CBC Corridor 9 is currently with ABP and therefore may be subject to future change

Please let us know should you require further clarification on any of the points raised.



We set out our response to the NTA's concerns below.

Item 1 – Opportunity To Continue the Outbound Bus Lane.

The access junction, the access road and the landscaping has been designed to future proof for a proposed bus lane, cycle track and footpath across the applicant's land. This is set out in the TA drawings being submitted to SDCC. **Figure 1** below shows the proposed site layout, with the existing Greenhills Road, while **Figure 2** shows the proposed site layout with the BusConnects scheme.

Note that the applicant has shown an extended bus lane past the site, which was not in the NTA planning drawings submitted to An Bord Pleanála. This is a significant improvement for the BusConnects scheme.

The applicant has demonstrated a major commitment to helping deliver the proposed BusConnects scheme. The Applicant has agreed to allow the bus, cycle and pedestrian facilities within their development site boundary, in order to deliver the required road width, and we have designed the access road, pedestrian & cycle infrastructure to tie into the future BusConnects Scheme.



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Figure 1: Proposed Site Layout with Existing Greenhill Road (NRB-TA-001)



Figure 2: Proposed Site Layout with BusConnects Scheme (NRB-TA-011)

Figure 3 shows the proposed site access with the existing Greenhills Road in place, while **Figure 4** shows the proposed site access with the BusConnects scheme in place.



Figure 3: Proposed Site Access with Existing Greenhill Road (NRB-TA-002)

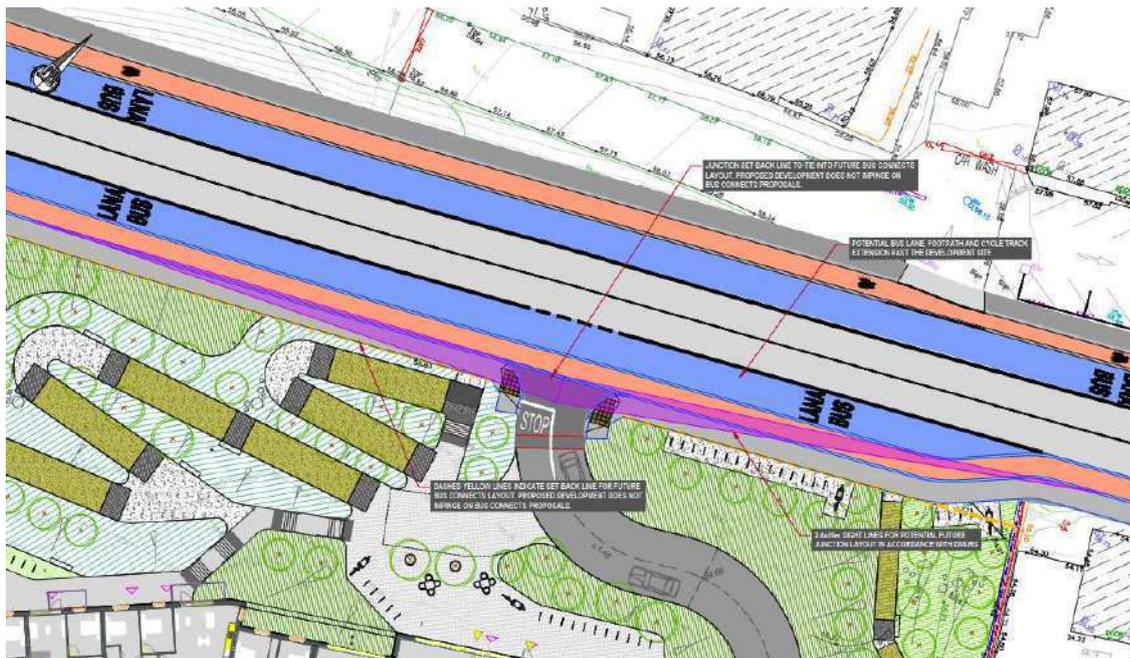


Figure 4: Proposed Site Access with BusConnects Scheme (NRB-TA-012)



As noted above, we have extended the bus lane past the site, which was not in the NTA planning drawings submitted to An Bórd Pleanála. **Figure 5** shows the NTA proposals on the Greenhills Road adjacent to the proposed site. As can be seen from the NTA's submitted drawings, no bus lane was shown past the applicant's site. However, a bus lane can be facilitated.

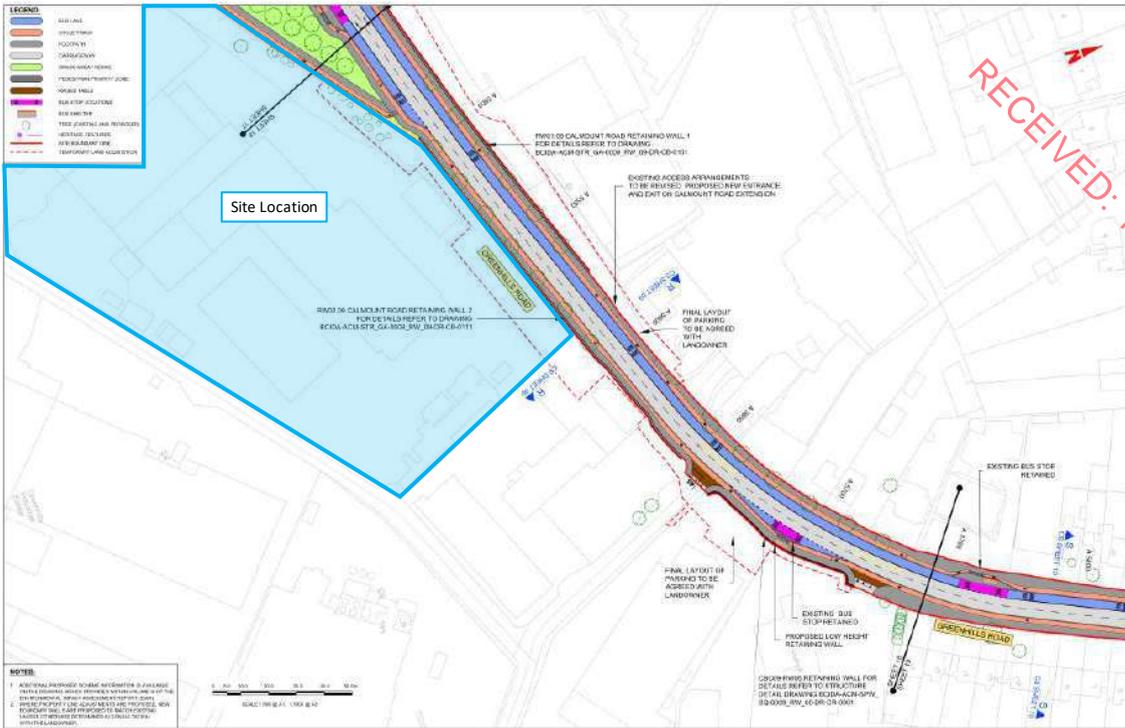


Figure 5: Proposed Tallaght to City Centre Core BusCorridor (With Site Highlighted)

Item 2 – Boundary Treatments

As shown in **Figures 1 to 4**, the proposed site access and the proposed landscape design has been set back to facilitate the widening of the Greenhills Road, so that a bus lane can be accommodated, and the proposed residential development is not negatively impacted in the future. The proposed footpath and cycle parking have also been set back.

As shown in **Figure 6 and 7**, it is proposed to provide a new ~1:3.4 slope back from the existing road edge. There are no retaining walls or structures in place which would impede or affect the future delivery or development of the BusConnects Route.

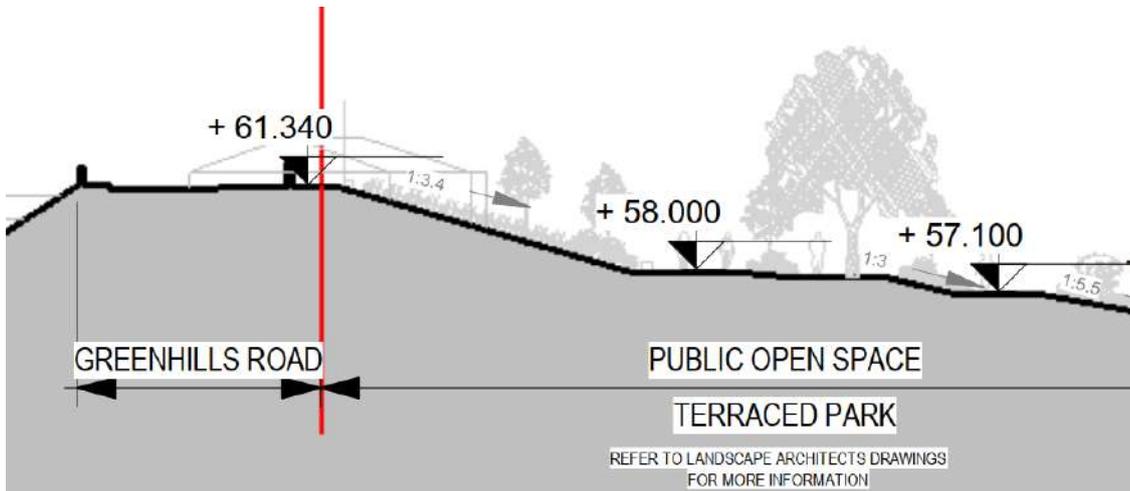


Figure 6: Proposed Contextual Section 3-3 (Refer to C+W O'Brien Drawing no. PE18001-CWO-ZZ-ZZ-DR-A-001300 Section 3-3)

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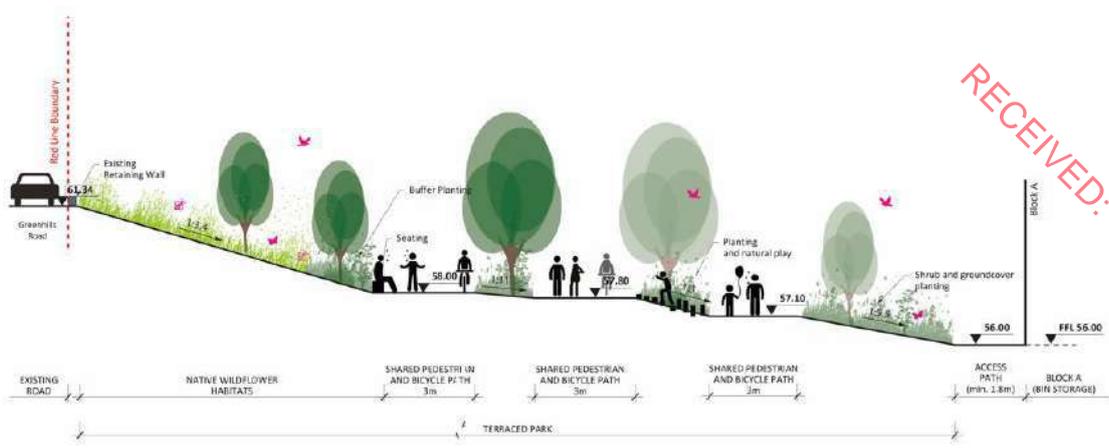


Figure 7: Proposed Landscape Cross Section (Parkhood Boundary treatments_Terraced Park - Shared Path)

The typical cross section, as submitted by the NTA and shown in **Figure 8**, can be facilitated through the applicant's site.

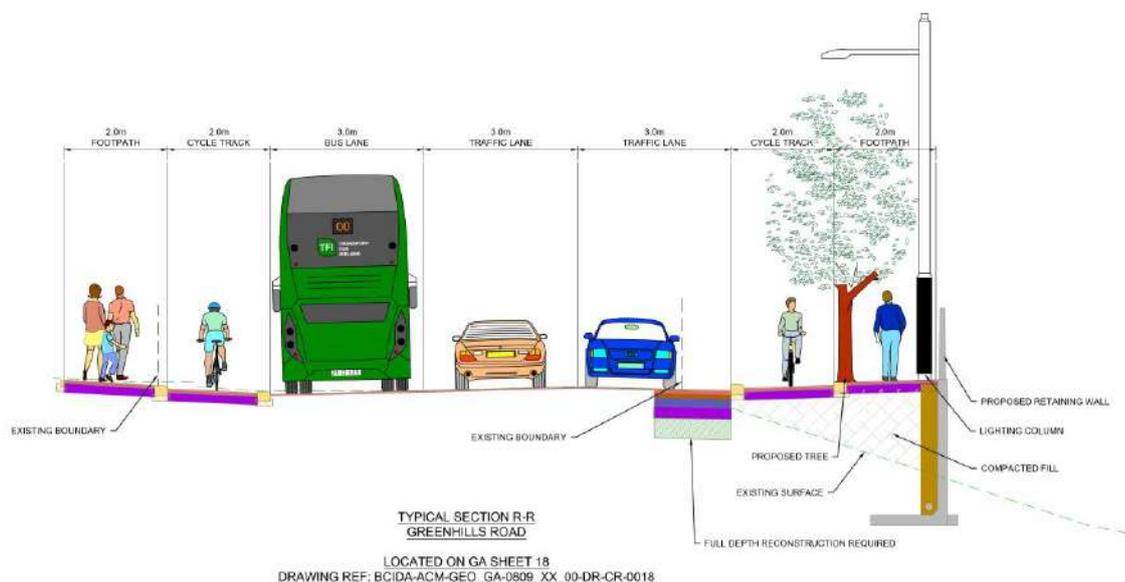


Figure 8: Proposed NTA Indicative Cross Section (NTA Drawing no. BCIDA-ACM_GEO_CS-0809_XX_00-DR-CR-0009)



Item 3 – Drawings

All drawings are provided in an Appendix to this note. If additional information or drawings are required by the NTA this can be facilitated.

Item 4 – Traffic Analysis

Full details of the Traffic Analysis are provided as part of the Traffic and Transport Assessment (TTA) report which forms part of the application. Detailed modelling out, including PICADY and LinSig analysis, are provided in **Appendix F to I** of the TTA Report being submitted to SDCC.

Item 5 – Car Parking

A total of 297 private car parking spaces are being provided as part of the development for the residential units. With 594 apartments, this represents a car parking 'Ratio' of 0.50 parking spaces per unit. This level of parking is considered appropriate given the highly sustainable location characteristics of the apartment scheme, and in consideration of National Guidance.

For further information regarding the proposed car parking, please refer to the TTA Report being submitted to SDCC.

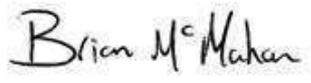
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Item 6 – An Bórd Pleanála

We note that the planning application is now with ABP and that further changes to the scheme may be required.

We would be grateful for comments from the NTA regarding the revised design to allow us to address any outstanding concerns with the residential scheme.

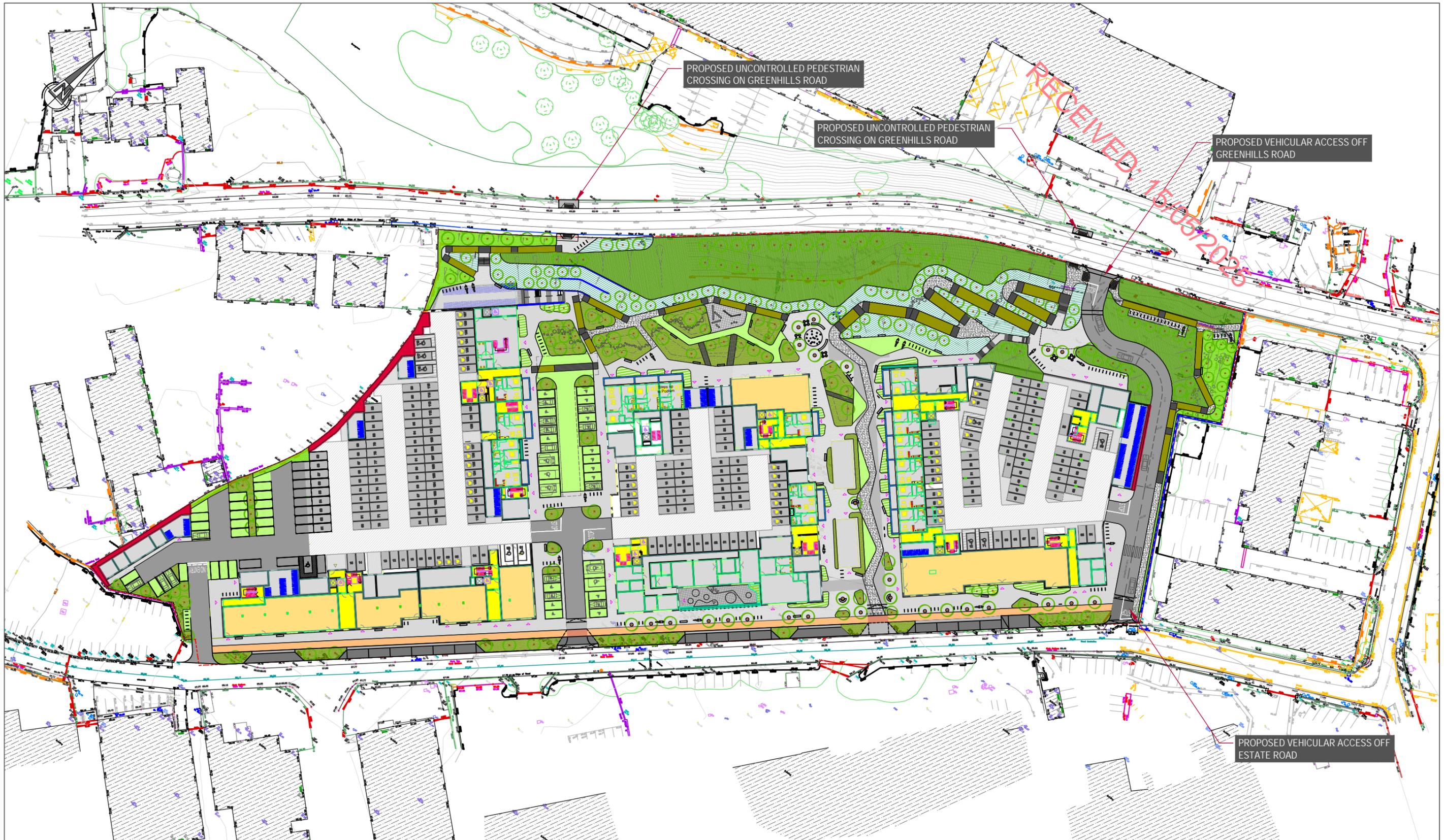
Yours sincerely,



Brian McMahon
Chartered Engineer
Director

Enclosures: Drawing No. NRB-TA-001
 Drawing No. NRB-TA-002
 Drawing No. NRB-TA-011
 Drawing No. NRB-TA-012
 C+W O'Brien Drawing No. PE18001-CWO-ZZ-ZZ-DR-A-001300
 Parkhood Image - Boundary treatments_Terraced Park - Shared Path
 NTA Drawing no. BCIDA-ACM_GEO_CS-0809_XX_00-DR-CR-0009





NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client.
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Client	Project No.	Drawing No.
	22-087	NRB-TA-001
Project	Drawn	Checked
Greenvale LRD Dublin	PB	BMcM 05/12/23
Title	Date	Approved
Proposed Site Layout	5-Dec-23	BMcM 05/12/23
	Purpose of Issue	Rev
	<input type="checkbox"/> Draft <input type="checkbox"/> As Built	A
	<input type="checkbox"/> Information <input type="checkbox"/> Tender	<input type="checkbox"/> Approval <input type="checkbox"/> Construction

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REV	DATE	AMENDMENTS	DRAWN	CHK	APP

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Client	Project	Title
Greenvale LRD Dublin	Proposed Greenhills Road Access Sightlines	
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Project No.	Drawing No.	
22-087	NRB-TA-002	
Drawn	Checked	Approved
PB	BMcM 05/12/23	BMcM 05/12/23
Date	Scale @ A3	Rev
5-Dec-23	1:250	A
Purpose of Issue		
<input type="checkbox"/> Draft	<input type="checkbox"/> Information	<input type="checkbox"/> Approval
<input type="checkbox"/> As Built	<input type="checkbox"/> Tender	<input type="checkbox"/> Construction

REV	DATE	AMENDMENTS	DRAWN	CHK	APP

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