
Appendix A3.2

PC2 Findings Report

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1. INTRODUCTION

1.1 Dart+ Programme

The DART+ Programme is a key element of the national public transportation network. The project will provide a high-capacity transit system for the Greater Dublin Area and improved regional connectivity for those living in and commuting from surrounding areas. It's delivery of economic and societal benefits will benefit all current and future public transport users.

The current electrified DART network is circa 50km long, extending from Malahide / Howth to Bray / Greystones, and the DART+ Programme seeks to increase the capacity and electrified network to 150km. The DART+ Programme is required to facilitate increased train capacity to meet current and future demands, which will be achieved through a modernisation of the existing railway corridors. This modernisation includes electrification, re-signalling and targeted interventions to remove constraints across the four main rail corridors within the Greater Dublin Area, as per below:

- DART+ South West – circa 16km between Hazelhatch & Celbridge Station to Heuston Station and also circa 4km between Heuston Station to Glasnevin, via the Phoenix Park Tunnel Branch Line.
- DART+ West – circa 40km from Maynooth & M3 Parkway Stations to the City Centre.
- **DART+ Coastal North (this project) – circa 50km from Drogheda to the City Centre, inclusive of the Howth Branch line.**
- DART+ Coastal South – circa 30km from Greystones to the City Centre.
- DART+ Fleet – purchase of new electric and battery-electric fleet to serve new and existing routes.

Delivery of the DART+ Programme will promote transport migration away from the private car and on to public transport. This transition will be achieved through the provision of a more frequent and accessible electrified service, resulting in reduced road congestion, especially during peak commuter periods.

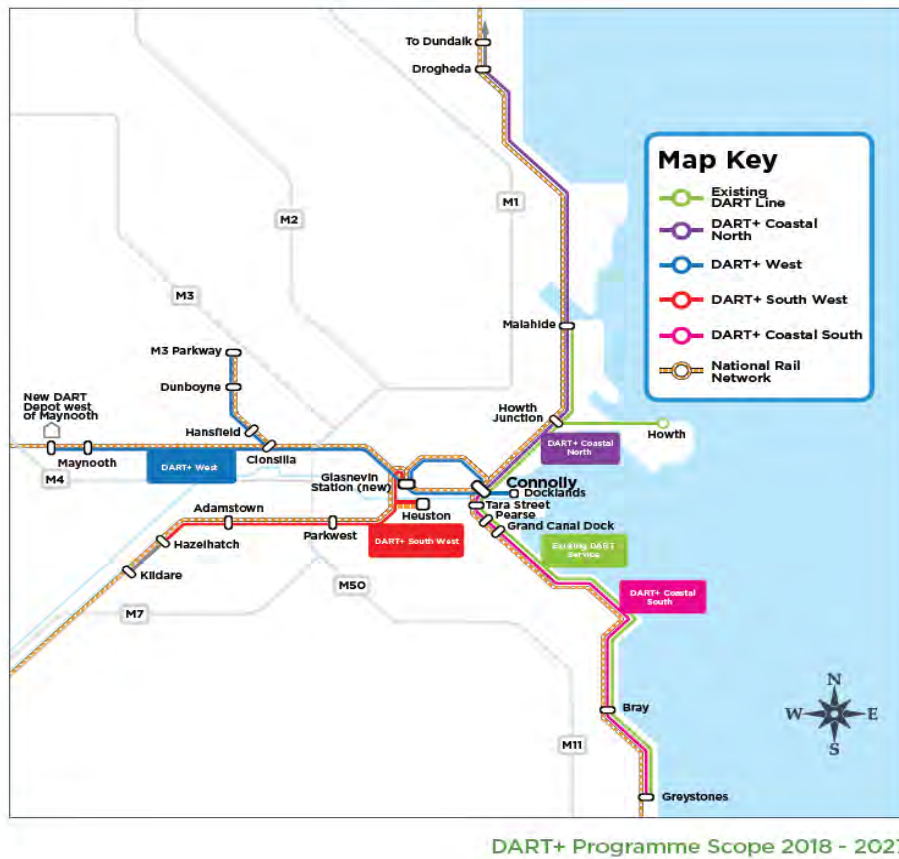


Figure 1 Schematic diagram of DART+ Programme extent

1.2 DART+ Coastal North

The delivery of the DART+ Coastal North project will form the third infrastructural project of the DART+ Programme in addition to DART+ West and DART+ South West.

The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved and extended electrified rail network and will enable increased passenger capacity and an enhanced train service between Dublin City Centre and Drogheda, including the Howth Branch. This increased rail capacity will be achieved by implementing an extended electrified railway network with high-capacity DART trains and an increased frequency of rail services. In addition, the DART+ Coastal North project requires that some track modifications are implemented, including the provision of turnback facilities at Malahide, Clongriffin and Howth Junction & Donaghmede Stations. These modifications are essential to facilitate the increase in train services by improving operational flexibility, allowing trains to be turned back clear of continuing services and allow for a higher frequency and a more reliable service.

To achieve the peak capacity increases proposed by the DART+ Programme, the DART+ Coastal North project will seek a reconfiguration of Howth Junction and Donaghmede Station and the removal of train crossing conflicts at the station which currently contribute to limiting both capacity and frequency of services on the Northern and Howth Branch Lines. Ultimately, the overall capacity of the Northern Line, inclusive of the Howth Branch, is limited by the existing capacity of the railway

line between Dublin Connolly and Howth Junction & Donaghmede Station. Services to/from Drogheda and Howth currently must share this available capacity. To maximise the available capacity and frequency of services to/from both Drogheda and Howth, DART+ Coastal North is seeking to deliver the infrastructure at Howth Junction and Donaghmede Station that will enable the operation of both a DART shuttle service on the Howth Branch Line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern and Howth Branch lines to be maximised and to help future-proof the rail network.

Proposed changes to the Howth Branch, as defined in the Train Service Specification TSS1C, will see both the service frequency and capacity increase, as well as delivering improvements to the reliability of services. The reliability of services on the Howth Branch will increase as the proposed shuttle service, if implemented, would mean that trains operating on this branch would operate independently of the Northern Line, reducing the potential for delays to scheduled services. Further assessments on the four Howth Branch level crossings have indicated that, even with the proposed DART service uplift, the existing level crossings can continue to operate and provide an appropriate level of cross connectivity and accessibility to surrounding communities and thus will remain open.

Should future passenger demand warrant the operation of a DART shuttle service on the Howth line, passengers travelling to/from Dublin City Centre will be required to interchange between services at Howth Junction and Donaghmede Station. As a direct result of feedback received during PC1, a variety of significant modification works are proposed at the station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the station entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. The works will include upgrades to the existing footbridge, connections to the centre platforms, the provision of additional sheltered areas along platforms, as well as general improvements to lighting, signage, and finishes throughout.

Delivery of the DART+ Coastal North project will support existing communities along the railway and support future sustainable development. The project will serve all stations along the railway corridor between Dublin City Centre and Drogheda MacBride Station, including those located on the Howth Branch. The proposed extension of electrification between Malahide and Drogheda will facilitate the operation of electric powered trains between Dublin City Centre and Drogheda that have a lower carbon footprint than the existing diesel trains. The frequency and quality of service will provide a viable transport alternative to communities along the route and help encourage people to migrate from private car use. This will assist Ireland in reducing greenhouse gas emissions from transport and help combat climate change.

The extended electrification of the Northern Line will predominantly follow the existing railway corridor. However, works outside of Iarnród Éireann lands will be required at several locations for some of the scheme elements such as:

- Bridge modifications/improvements to facilitate extended electrification;
- Construction of substations (to facilitate the provision of power to the line); and
- Use of land for temporary construction/storage compounds.

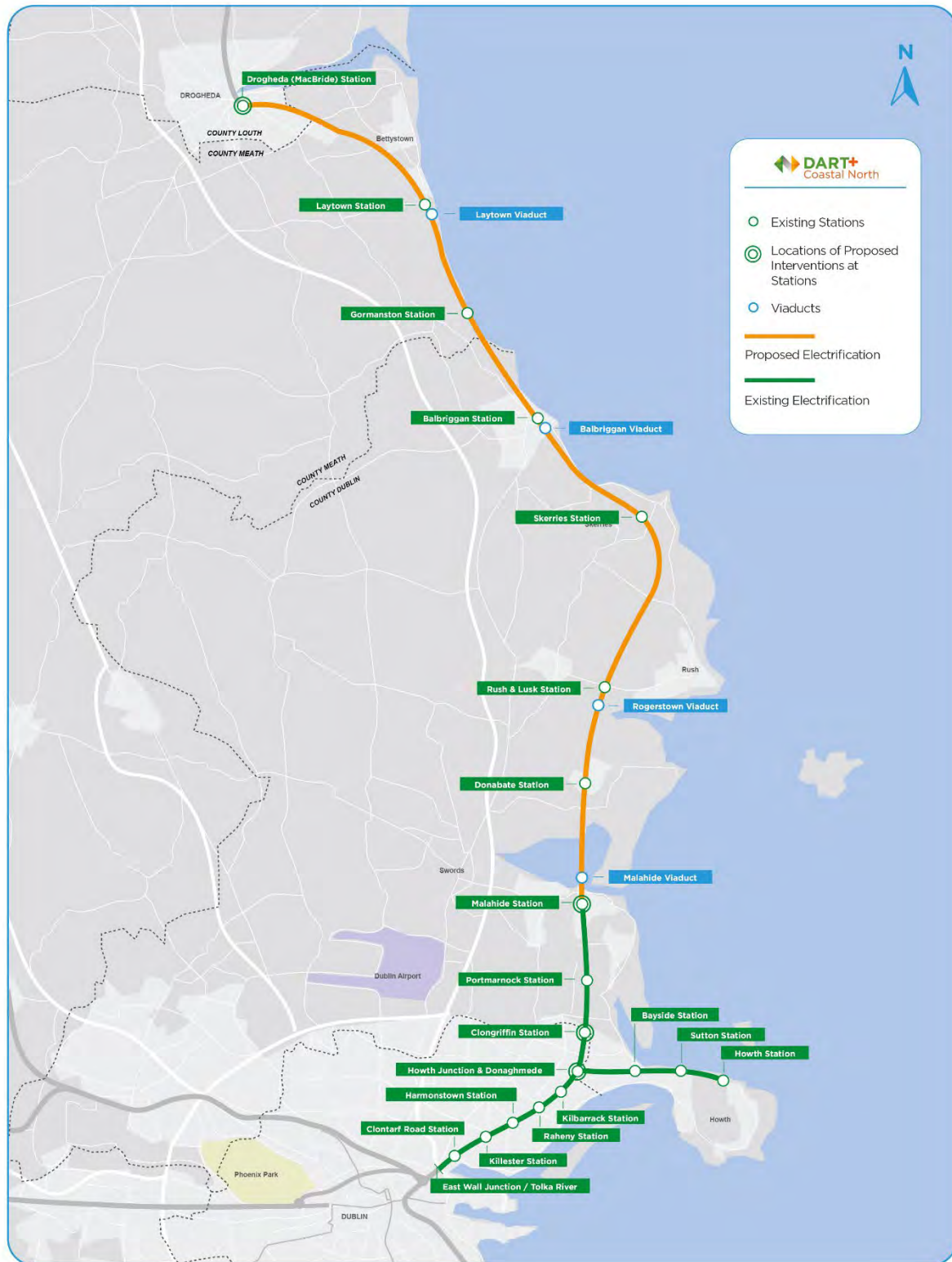


Figure 2 Map of proposed DART+ Coastal North project extents

1.2.1 Capacity increases associated with DART+ Coastal North

The DART+ Coastal North project will provide the infrastructure to enable improved performance and increased DART frequencies along the Northern and Howth Branch Lines, providing enhanced capacity from the city centre to and from both Drogheda and Howth.

Additionally, through the delivery of the DART+ Coastal North project, the current AM and PM peak hours will become extended peak periods, with maximum service level being provided for a projected 3-hour peak period as opposed to the current 1 hour. The DART+ Coastal North project customers can look forward to these enhanced frequencies commencing earlier and ending later, both in the morning and evening peak periods. This extension of enhanced peak service frequencies will take advantage of infrastructure enhancements and new rolling stock, providing more flexibility, comfort, and capacity to DART customers.

DART+ Coastal North customers will benefit from enhanced reliability, with a service designed to incur fewer delays and robust enough to recover from delays if and when they do occur. The project will include additional turnback facilities located at Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede which will allow for additional operational flexibility on the Northern line and allow for services to commence/terminate at various locations. DART services commencing at Malahide & Clongriffin will ensure sufficient capacity on receiving trains if, and when, it is necessary to operate a DART shuttle service on the Howth Branch line to maximize capacity.

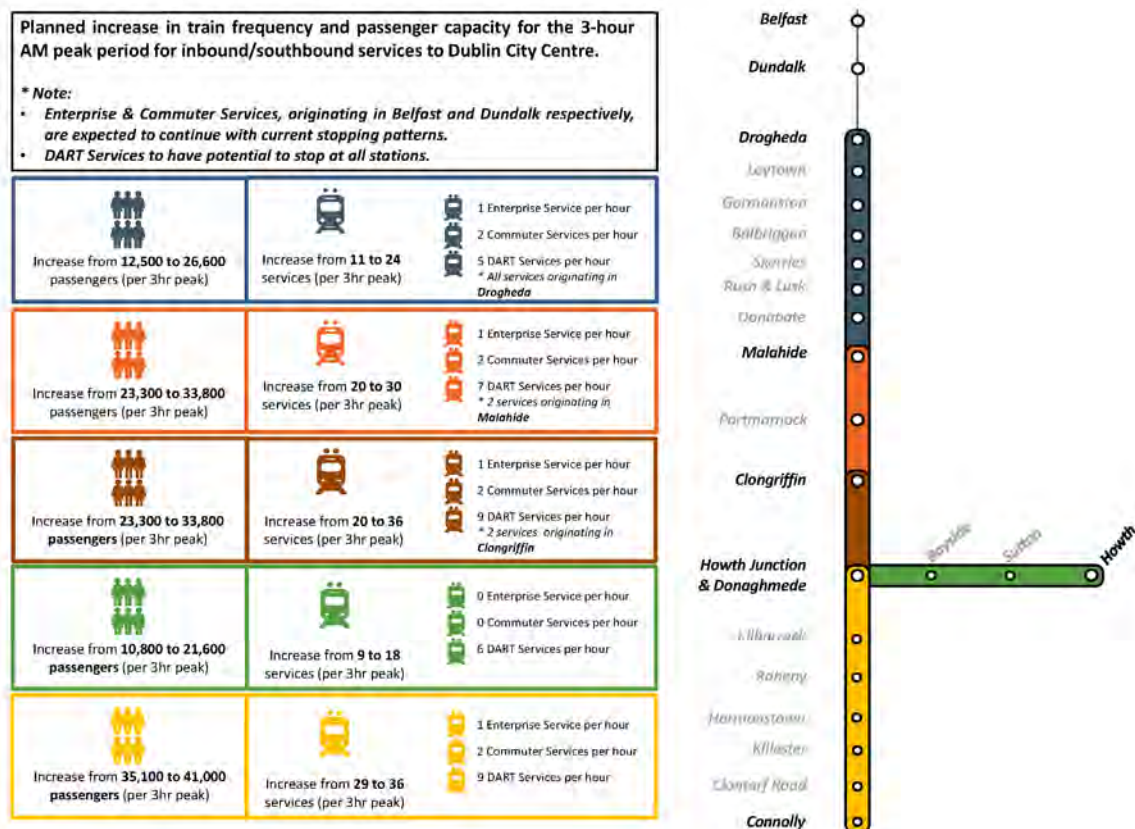


Figure 3 DART+ Coastal North Capacity Increases

1.2.2 Key Infrastructural Elements of DART+ Coastal North

The key infrastructural elements of the DART+ Coastal North project include:

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users;
- Undertaking upgrades to existing signalling, telecoms, and power supplies to support the planned increase in train services, including the introduction of new electrical substations at key locations alongside the railway line;

• Drogheda	• Gormanston	• Skerries North	• Rush & Lusk
• Bettystown	• Balbriggan	• Skerries South	• Donabate

- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.

1.3 Public Consultation

Public participation during the design process is a key element in the delivery of major infrastructure projects such as DART+ Coastal North. The purpose of these consultations is to engage the public in the scheme delivery process, inform the public of the statutory process and the likely timescales, seek the public's cooperation and understanding of the project and to capture local knowledge to inform the Environmental Impact Assessment (EIA) and Railway Order (RO) process.

Public participation is welcomed and encouraged throughout the design development process. There will be three main project consultation stages which will provide the opportunity to learn about

the design development and provide feedback which may inform the development of the design. The main public participation stages as part of the project development are listed below:

- Non-Statutory Public Consultation No.1 Emerging Preferred Option (Q1 2022, completed);
- Non-Statutory Public Consultation No.2 Preferred Option (Q2 2023, completed);
- Statutory Consultation Period as part of the Railway Order application process (Q1 2024*).

* Dates to be confirmed.

This report details the process, and records and analyses the feedback, from the second of the non-statutory Public Consultation events, Public Consultation No.2 The Preferred Option.

1.3.1 Public Consultation No.2 – Format

Due to the COVID-19 pandemic and restrictions in place in the lead up to Public Consultation No.1, the consultation strategy focused predominantly on digital / online consultations.

Despite the lifting of Covid 19 restrictions, some elements and learnings from PC1, specifically the use of digital and online forums, were applied during PC2. These online forums were also supplemented in PC2 by the hosting of 3 in person events located in the Sutton, Malahide and Drogheda vicinities. A general online webinar was also staged to allow those people who were not able to attend the in-person events to discuss DART+ Coastal North with the project team.

2. PUBLIC CONSULTATION NO.2: THE PREFERRED OPTION

2.1 Overview of Public Consultation Process

This Public Consultation No.2 Findings Report has been prepared to summarise and assess the feedback received during Public Consultation No.2, on the Preferred Option for the DART+ Coastal North Project. The consultation period commenced on 09th May 2023 and continued for a duration of 6 weeks. The public consultation period concluded on 23rd June 2023. Any submissions that were received beyond this closing date have been accepted and their contents given all due consideration.

As described in the public consultation project brochure, the consultation was an opportunity for potential users of the improved services, those likely to be affected by its development and all members of the public, to express their views on the project plans at an early stage in the design process. On projects such as DART+ Coastal North local knowledge communicated through submissions of all types, positive or negative, informs the option selection process and the design development.

The feedback and engagement summarised in this report will ultimately assist Iarnród Éireann in improving the DART+ Coastal North Project and ensure the successful delivery of a project that best meets the needs of its users and the local communities. Throughout Public Consultation No.2, the project team responded to queries raised in a timely manner. The objective was to assist the public in gaining a better understanding of the project and to encourage engagement in the consultation process. The following sections describe the various channels of communication used to notify and inform the public of the public consultation.

2.2 Public Consultation No. 2 Launch & Media Coverage

Public Consultation No. 2 was launched on 09th May 2023. The Iarnród Éireann Corporate Communications and Media team issued a press release to all major media outlets. The launch was well covered both nationally and locally throughout the consultation period, including mentions in The Irish Times, The Northside People, and The Dublin People, among others.

A selection of press clippings in relation to the public consultation are provided in **Appendix A1**.

2.2.1 Advertising

A print advertising campaign was run across 4 different publications circulated in the vicinity of the project area to raise awareness of Public Consultation No.2. These publications included the following, and details are included in **Appendix A2**:

- Drogheda Independent (10th May 2023, Page 13)
- Dublin Gazette (11th May 2023, Page 9)
- Northside People East (15th May 2023, Page 13)
- Drogheda Leader (16th May 2023, Page 11)

A social media campaign using Facebook, Instagram and Twitter platforms was carried out, targeting all adults in areas within a 3km radius of DART stations including Malahide, Clongriffin, Drogheda (extending to Navan), Donaghmede (Howth Junction), Sutton, Bayside & Howth. This campaign played an integral part in raising awareness of Public Consultation No.2. Details of the social media campaign are included in **Appendix A2**.

As a result of feedback received during Public Consultation No.1, the level of in-station advertising for Public Consultation No.2 was comprehensively increased to ensure a broader and more extensive range of commuters was reached. Advertising posters were placed in stations route wide. These posters were printed in both Irish and English languages and samples are as per the images included below in Figure 4. The advertising campaign also utilised digital screens at a variety of locations including commuter thoroughfares and station screens.



Figure 4 DART+ Coastal North Station Advertising Posters

Furthermore, a newsletter detailing the public consultation was sent to Iarnród Éireann subscribers as per Figure 5. The newsletter was delivered to 35,859 people and targeted to those that travel by DART & Commuter services and have addresses along the DART+ Coastal North route. 30% of those subscribers opened the mail (10,951 people) and 1.3% of those subscribers who opened the mail went on to click through a link to the public consultation information which was provided in the email.

DART+ Coastal North Public Consultation - Information Evenings for Residents

The second public consultation on the Preferred Option for [DART+ Coastal North](#) is now live.

[DART+ Coastal North](#), as part of the DART+ Programme, will deliver an increased and improved electrified network, with increased passenger capacity and enhanced train services between Drogheda and Howth and Dublin City Centre. As well as enhancing access to sustainable public transport for new and existing communities, DART+ Coastal North will alleviate road congestion and build a more connected, efficient, and safe rail network, supporting our transition to a low carbon and climate resilient society, less reliant on private cars.

Residents can speak to the project team and hear more about the preferred option for DART+ Coastal North by attending an in person information evening on the following dates:

Tuesday 16th May, Marine Hotel, Sutton 16:00 – 20:00

Thursday 18th May, D Hotel, Drogheda 16:00 – 20:00

Tuesday 23rd May, St Sylvesters GAA club, Malahide 16:00 – 20:00

Figure 5 DART+ Coastal North CIE Newsletter Notification

2.3 Elected Member Briefings

On the afternoon of 09th May 2023, following the launch of Public Consultation No.2, a series of online briefing sessions were held with elected representatives from Dublin City Council (DCC), Fingal County Council (FCC), Meath County Council (MCC) and Louth County Council (LCC).

The briefings were split into two online briefings (DCC & FCC combined and MCC & LCC combined) held via MS Teams. 15 nationally elected representatives and 33 local elected representatives were engaged with and invited across the 4 county and city councils. These briefings acted as a basis for the DART+ Coastal North project team to encourage the elected representatives to use their platforms to inform their constituents of the upcoming public briefings and to encourage their constituents to make a submission in relation to the proposals in Public Consultation No.2. The presentations provided during the online briefing sessions can be found in **Appendix B**.

2.4 Public Consultation No. 2 Leaflet

An 8-page information leaflet was distributed via mail drop and postage to c. 17,000 properties during the opening week of the consultation. The mail drops targeted areas within 100m of the railway line, and extended areas surrounding those project areas where interventions, such as turnback facilities or compounds, are proposed. The information leaflet, written in both the English and Irish languages,

highlighted the key elements of the project and notified the local community of the commencement of the Public Consultation. A copy of the DART+ Coastal North leaflet can be found in **Appendix C**.

Feedback from Public Consultation No.1 indicated that some respondents believed the leaflet distribution coverage area was not appropriate, or extensive enough. This was particularly clear from the feedback received from residents and businesses on the Howth Peninsula, many of whom noted that they were not aware of the DART+ Coastal North project proposals. A decision was taken prior to Public Consultation No.2 to extend the leaflet distribution area and to include the entire extents of the Howth Peninsula to ensure better coverage.

2.5 Public Consultation No. 2 Brochure

A 76-page non-technical Public Consultation brochure presenting the key details of the DART+ Coastal North project, the benefits, the option selection process, the Preferred Option for the project, schematic maps, and drawings, was developed and published in both the Irish and English languages. The brochure was made available on the dedicated project webpage and hard copies were issued to the elected representatives following the launch of Public Consultation No.2 on the 09th May 2023. The English brochure can be found in **Appendix D**.

2.6 Letters to Potentially Affected Landowners

Letters were sent, via registered post, to the registered owners of properties likely to be affected by the permanent footprint of the Preferred Option (44 in total), notifying them in advance of the commencement of Public Consultation No. 2.

The letter contained a brief overview of the project, a notification that the property had been identified as likely to be impacted by the Preferred Option and an invitation for the recipient to contact the project team to arrange a meeting and receive further information. Engagement with the potentially affected landowners is ongoing.

Furthermore, as several potentially affected landowners did not respond to initial correspondence, follow up calls, emails and letters have been made/issued as necessary to ensure their awareness of the proposals – this engagement remains ongoing.

2.7 Project Website

A project webpage (<https://www.dartplus.ie/en-ie/projects/dart-north>) was established which presented all of the project supporting information published as part of Public Consultation No.2 for website visitors to navigate through project information, the project brochures (English and Irish), the project leaflet (English and Irish), the project feedback form, the Option Selection Report and associated supporting annexes and drawings. A list of Frequently Asked Questions (FAQ) was also developed prior to the launch of the public consultation, and these were updated on the website as necessary following the initial submissions received as part of the consultation process. The final FAQ's can be found in **Appendix E**.

2.7.1.1 Project Webpage Analytics

The webpage analytics measure the hit rate on the Public Consultation webpage as well as the areas of the webpage where the most traffic was recorded. The determination of these analytics is fully GDPR compliant.

The analytics demonstrate that the www.dartplus.ie project webpage had a total of **14,007** separate page views during Public Consultation No.2 with the largest audience viewing on the launch day of the 09th May 2023.

The project brochure had 176 downloads and the Preliminary Option Selection Report: Main Report had 103 downloads. The total number of public consultation material downloads from the project webpage is shown in Table 2-1.

Table 2-1 Website Downloads

Material	Number of Downloads
DART+ Coastal North Options Selection Report: Annexes	336
DART+ Coastal North Public Consultation No.2 Project Brochure	176
DART+ Coastal North Public Consultation No.2 Project Leaflet	100
DART+ Coastal North Options Selection Report: Volume 1: Preferred Option	103
DART+ Coastal North Options Selection Report: Volume 2: Technical Report	75

The results from the webpage analytics, in conjunction with feedback and queries received during the public consultation, ensured that the webpage was continually updated and improved throughout the consultation period. The improvements implemented during the course of the consultation period include:

- FAQs updated and added to a dedicated FAQ page as necessary;
- Links to published material added to FAQ's; and
- Web-user experience improvements to ensure all documents and drawings could be opened promptly.

2.8 Direct Correspondence via Emails, Online Forms and Project Helpline

A project email address (DartCoastalNorth@irishrail.ie) and a project postal address was provided on all project material. An online feedback form was provided on the project webpage to allow the public make submissions on the project. The online feedback form asked the respondents specific questions relating to the project, to provide comments, suggestions, ideas and to detail what aspects of the project are of interest to the respondents.

A project helpline (01-2334515) was established to ensure that all calls received during the consultation period were answered, documented, passed to the dedicated Community Liaison Officer (CLO), and responded to in a timely manner.

All the above measures were promoted to ensure a variety of engagement options were available to members of the public, and to make it as simple as possible for people to voice their opinions on the project.

2.9 Meetings

2.9.1 Public Information Events

In-person and webinar events were scheduled for the second and third weeks of the public consultation period to allow potential attendees sufficient time to digest the information presented in the leaflets, brochures and online prior to the events.

Three in-person public consultation meeting events were held during Public Consultation No.2. These events were held in Sutton, Malahide, and Drogheda. They were spread across the extents of the project with a view to offering members of the public an opportunity to attend an information event in their area.

Each of the in-person events included the presentation of a range of information boards displaying supporting information relevant to DART+ Coastal North and the Preferred Option. The information boards displayed at the three events are included in **Appendix F**. The DART+ Project Team were available for the duration of each of the in-person events to provide further clarifications on the project proposals as required.

A general online webinar meeting was also held via MS Teams between Iarnród Éireann and potentially affected residents, community groups, elected representatives and interested parties. Invitations and links to the webinars was issued to individuals wishing to attend upon request. The webinar was held following on from the in-person events to allow members of the public who may have been unable to attend the in-person events to interact with the project team and to raise any queries or issues with the team. Following the public information webinar, each attendee was issued with a pdf copy of the presentation via email. The content of the general webinar presentation was similar to the information provided at the in-person events and is included in **Appendix G**.

Attendees of all events were encouraged to make submissions or raise queries as part of the consultation process. Questions raised during the in-person events and webinar, were addressed and participants were encouraged to make a formal submission as part of the consultation process. Each in-person event was scheduled for a minimum duration of four hours, and the events and general webinar were allowed to continue to ensure, to the extent possible, that all attendees were provided with adequate time to raise their comments, queries and/or observations.

The feedback received as part of the public consultation events and webinar has been considered along with all other feedback and submissions as part of this public consultation.

Table 2-2 provides a list of public information events held as part of Public Consultation No.2 including attendance figures at each event. Attendees at each of the in-person events were invited to sign an attendance register upon arrival at the venues. A proportion of attendees did not wish to sign in and the attendance figures are highly likely to be greater than what was recorded.

Table 2-2 Public Consultation No.2 Information Events

Date	Venue	Number of Attendees (Signed In)
16/05/2023	The Marine Hotel, Sutton. (4pm – 8pm)	296

18/05/2023	The D Hotel, Drogheda. (4pm – 8pm)	48
23/05/2023	St. Sylvester's GAA Club, Malahide. (4pm – 8pm)	7
30/05/2023	Online Webinar (7pm, via MS Teams)	42 (101 invitations issued)

2.9.1.1 Feedback Raised

A summary of the main points / elements of feedback raised during the public information events is provided below. As noted above, the DART+ Coastal North project team were available to engage with attendees to provide clarification where necessary, and attendees were also encouraged to formally submit their feedback in writing as part of the public consultation period.

Marine Hotel Sutton

- Perception that any introduction of a shuttle service would be considered a downgrading of existing services between Dublin City Centre and Howth Station.
- Opposition to potential loss of direct service to Dublin City Centre.
- Increase in frequency and capacity noted as a positive, although not favourable over a potential loss of direct services to Dublin City Centre.
- Concerns raised relating to the proposed interchange at Howth Junction & Donaghmede Station in the event that a shuttle is brought into operation.
 - o Lack of security and in person staff at stations.
 - o History of violence and anti-social behaviour at Howth Junction & Donaghmede Station.
 - o Poor signage, lighting provision & shelter.
 - o Lack of adequate consideration of those with disabilities or mobility issues.
 - o History of lift failures at Iarnród Éireann stations.
- Concerns relating to impact on journey times.
- Concerns for safety of youths and the elderly.
- Negative impact on carers, nurses and hospitality staff.
- Negative impact on students.
- Concerns relating to the impact of increased frequency and duration of level crossing closures and effects on traffic on the Howth Peninsula, including on the emergency services.
 - o Associated impacts on both existing bus services and pedestrians/cyclists.
- Concerns raised relating to future population growth and the associated impact on traffic.
- Potential for negative impact on Howth Tourism.
- Support for proposed interventions at Howth Junction & Donaghmede Station.
 - o Improvements considered necessary regardless of potential introduction of a shuttle service.

D Hotel Drogheda

- General support for extension of DART services to Drogheda
 - o Approval of proposed increases in frequency and capacity
- Concerns raised relating to reconstruction of OBB080 and impacts on residents on McGraths Lane and Railway terrace.

- Concern relating to both construction traffic and future traffic linked to potential housing development to east of Drogheda MacBride.
- Concern with future use of McGraths Lane / Railway Terrace.
- Concerns relating to proposed impact on landscape bund adjacent to the Drogheda depot.
- Concerns relating to impacts of increase rail activity at Drogheda MacBride including noise, vibration, air quality, light pollution, and quality of life for those residents living in proximity to Drogheda MacBride.
- Concern with proximity of proposed Junction 4 to existing residential properties.
- Potential to widen Dublin Road Bridge to allow for active travel queried.
- Concerns raised in relation to biodiversity and impact on trees and natural screening in areas surrounding Drogheda MacBride.
- Concerns relating to depot operation going forwards.
- Lack of carparking facilities and need to consider this as capacity and frequency of services increase.
- Potential impact of DART services on existing Enterprise and Commuter Services.
- Queries around journey times and stopping patterns.
- Concerns around integration with existing and future public transport and links to stations.

St Sylvesters GAA Club, Malahide

- Support for proposed increase in DART frequency and capacity.
- Support for more sustainable public transport.
- Concerns raised over proposed location of Malahide turnback.
 - Impacts on properties.
 - Impacts on visual amenities.
 - Impact on noise, vibration, light, air quality.

These main points / themes are expanded upon further in section 4 of this report.

2.9.2 Potentially Affected Landowner Interaction

Meetings were arranged with any potentially affected landowners (permanent / temporary) who required further discussion on the proposals. These were attended by the CLO, the design team and CIÉ Group Property Representatives. Meetings were held both in-person and via MS Teams.

In addition to outgoing phone calls made to and incoming calls received from affected landowners, a total of 12 landowner interactions took place during Public Consultation No. 2. Meetings with landowners remains ongoing while the design development continues.

2.9.3 Interaction with residents and community groups

The DART+ Coastal North project team engaged with members of local resident and community groups both during PC2 and following the event. These meetings have allowed groups from specific localities to voice their concerns and feedback relevant to their communities directly to the project team, allowing for those issues of particular importance to their locality to be raised. The DART+ Coastal North project team shall continue to engage with interested parties, groups, and/or individuals while the project development continues.

Resident's groups consulted with to date include:

- Railway Terrace Residents;
- Malahide Marina Village Residents;
- Donaghmede Estate Residents Association;
- Howth Sutton Community Council.

Concerns and feedback received as part of these interactions and consultations are addressed under relevant headings through this report.

3. FEEDBACK RECEIVED IN PUBLIC CONSULTATION NO. 2

3.1 Assessment Methodology

All submissions received either via post, telephone communication, email or online feedback form have been logged and analysed. As part of the analysis, all issues, trends, themes, comments, and suggestions/recommendations have been logged in a project database for further consideration. Any hard copy submissions such as letters or feedback forms received by mail have been scanned, filed, and treated as per submissions received by email or through the project website.

The online feedback form posed specific questions in relation to DART+ Coastal North. These questions allowed for a wide range of feedback to be received, as well as some tailored questioning to inform the project development.

3.2 Overview of Submissions Received

A total of **1,748 submissions** were received by Iarnród Éireann via the communication channels provided. Submissions received after the close of the public consultation period (23rd June 2023) continued to be accepted and are taken into consideration as part of an overall body of feedback on the content of Public Consultation No.2.

Table 3.1, below, includes submissions that were received up until the 07th July 2023 (allowing for two weeks of submissions post PC2 to be considered in this report).

Table 3-1 Public Consultation No.2 Submissions

Channel	Number of Submissions
Feedback Forms	1,304 (1295 digital* & 9 hard-copy forms)
Emails	407 (123 containing queries)
Phone Calls	19
Letters	18
Total	1,748

* A limited number of digital feedback forms submitted contained limited or no actual information.

The feedback received ranges from personal submissions from affected residents and commuters to detailed proposals from public bodies and various associations.

3.3 General Themes Raised During Consultation Process

Feedback received during the consultation has been collated into 15 themes in order to present the information in an accessible manner. Table 3.2 below provides an overview of the themes that arose in stakeholders' feedback, and the number of references to each theme.

The stakeholder feedback received under each theme is summarised in Section 4 of this report.

Table 3-2 General themes / issues raised during Public Consultation No.1

Themes / Issues	Comment Frequency
Operational Themes	1287
Stations	666
Environmental Impact Assessment	546
Project Need	1005
Project Scope	104
Public Realm	6
Climate Change	331
Landownership	34
Safety	29
Communications & Public Consultation	67
Structures	29
Construction Implications	32
Electrification	41
Planning & Policy	38

3.4 Specific Responses from the Feedback Form

An online feedback form was provided which requested the following information:

- Respondent's contact details;
- Respondent's relationship to the project (property owner/occupier/other);
- Respondents support of, or opposition to, the principles of the project;
- Aspects of DART+ Coastal North of interest to respondents;
- Respondent's comments on the Preferred Option and the project in general;
- Whether respondents felt the improved services will encourage a modal shift;
- The means by which respondents had heard about the Public Consultation; and
- Whether respondents wanted to be added to a mailing list for future correspondence.

Question 4 & question 5 in the feedback form requested the respondent to list aspects of interest and comments/suggestions on the Preferred Option. The responses to these questions are considered in detail as part of the key issues and/or concerns in Section 4 of this report. A summary of the responses to the remaining questions is presented below.

Questions 7 & 8 relate to the means by which people have heard about the public consultation and whether they wish to be contacted about the project going forwards. The responses to these questions will be used to inform the planning of future consultations and ensure that all members of the public who have expressed a continued interest in the project are informed of any upcoming events or publications relevant to DART+ Coastal North.

3.4.1 Question 1: Do you own or occupy property located within the immediate vicinity of the proposed development?

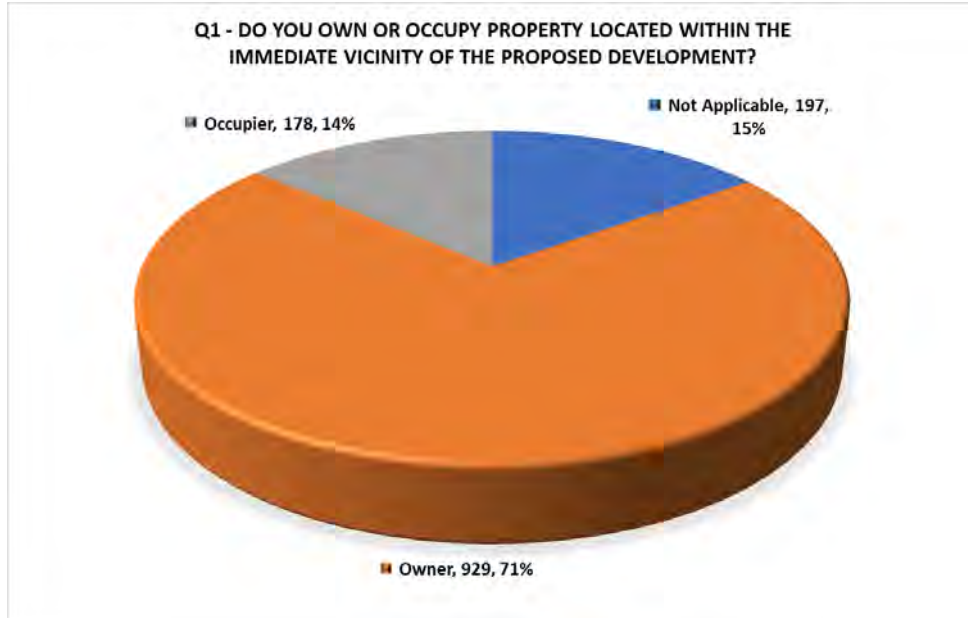


Figure 6 Response to Feedback Form, Question 1

Based on the feedback from **Question 1**, it is clear that the majority of respondents to the online feedback form are owners of properties in relatively close proximity to the proposed project works. The information gathered under this question will allow the project team to continue to build upon and update a landowner database and ensure that contact details are current and up to date going forward.

3.4.2 Question 2: Do you support the principle of the DART+ Coastal North Project?

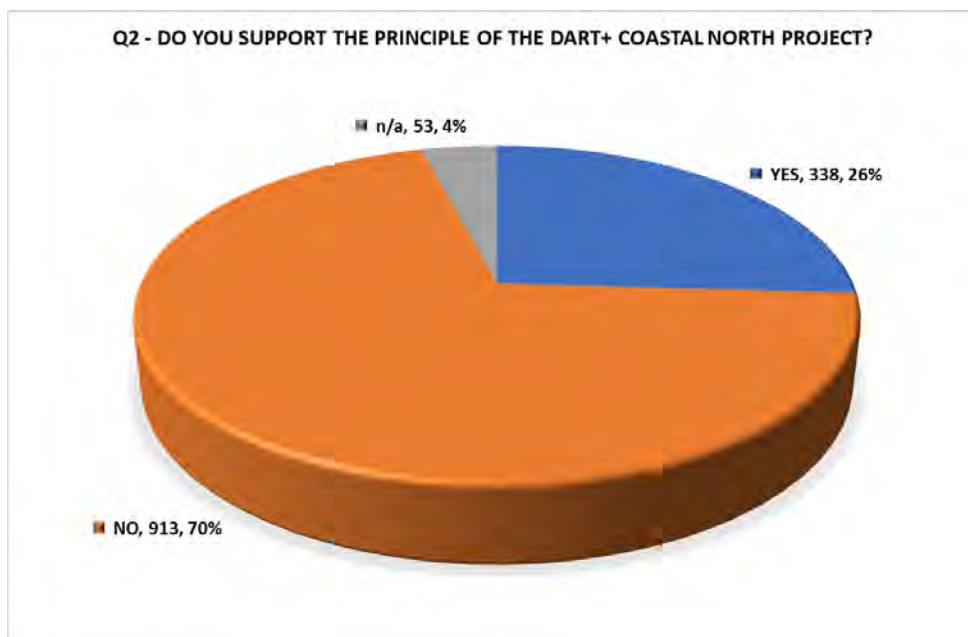


Figure 7 Response to Questionnaire, Question 2

The feedback received from **Question 2** provides a clear indication that the majority of the respondents do not support the principle of the DART+ Coastal North project as it is currently presented. 4% of respondents did not provide a response to this question.

Many of those respondents who support the principle of the project cite reasons such as improved reliability, frequency, and capacity as reasons to support the project. The provision of extended DART services as far as Drogheda was seen as providing great benefit to those areas added to the DART catchment area. Environmental and sustainability benefits were also significant factors in people's reasons for supporting the project with the move to more electrically powered trains from diesel power being of particular benefit. This breakdown of positive and negative feedback is broken down further, by area, in Figure 9 where it is clear that much of the projects support comes from areas surrounding the Northern Line, while much of the opposition to the project comes from the areas along the Howth Branch line.

The proposals relating to the Howth Branch were cited as being significant factors in people opposing the principle of the DART+ Coastal North project. The possible introduction of a future DART shuttle service, the need to change trains at Howth Junction & Donaghmede Station, security concerns relating to the change of trains, and level crossing closure times & frequencies were significant factors in people's decisions to oppose the principles of the project.

3.4.3 Question 3: Are you an existing rail user?

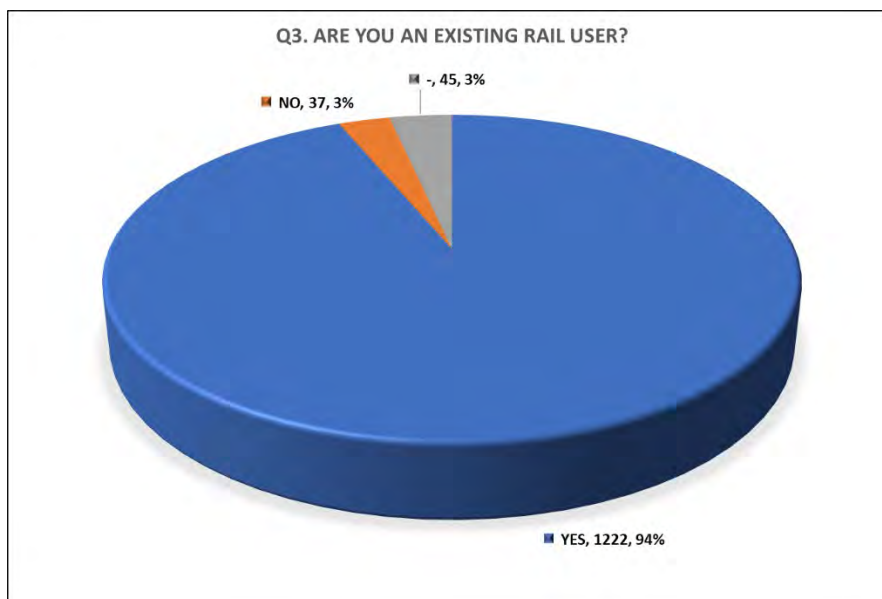


Figure 8 Response to Questionnaire, Question 3

It was clear that the majority of respondents to this question are existing DART service users who are very familiar with the existing DART services.

3.4.3.1 Question 3a: If you currently travel by private car, will the proposed improved services encourage you to change from travelling by private car to rail transit?

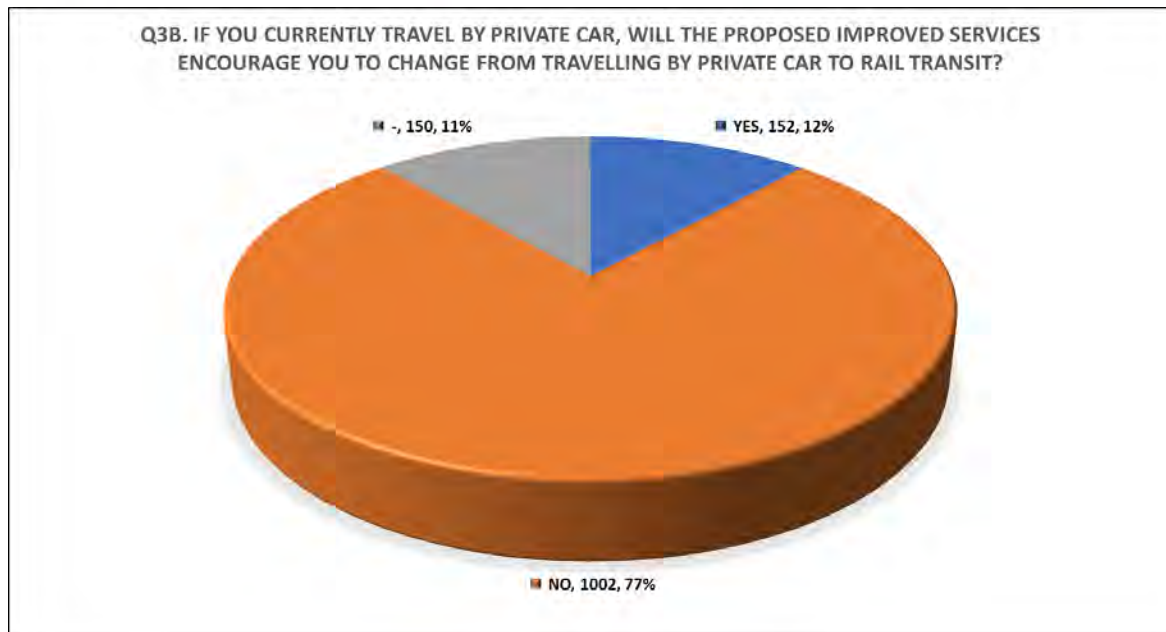


Figure 9 Response to Questionnaire, Question 3b

The feedback received from **Question 3a** provides a clear indication that the majority of the respondents who currently travel by private car will not make a modal shift to public transport as a result of the improved services resulting from DART+ Coastal North.

The positive feedback in relation to this question was largely from respondents from areas that will be served by the DART extension to Drogheda with the bulk of negative responses being received from respondents from the Howth Peninsula locality.

The majority of negative responses cited the need to interchange at Howth Junction & Donaghmede Station and the associated issues such as perceived impacts on journey times, inconvenience, uncertainty and security as their main reasons for not being encouraged to change from private car use to public transport. This feedback is discussed further in Section 4 of this report.

3.4.4 Question 4: Please detail the geographical location of where the project is closest to you?

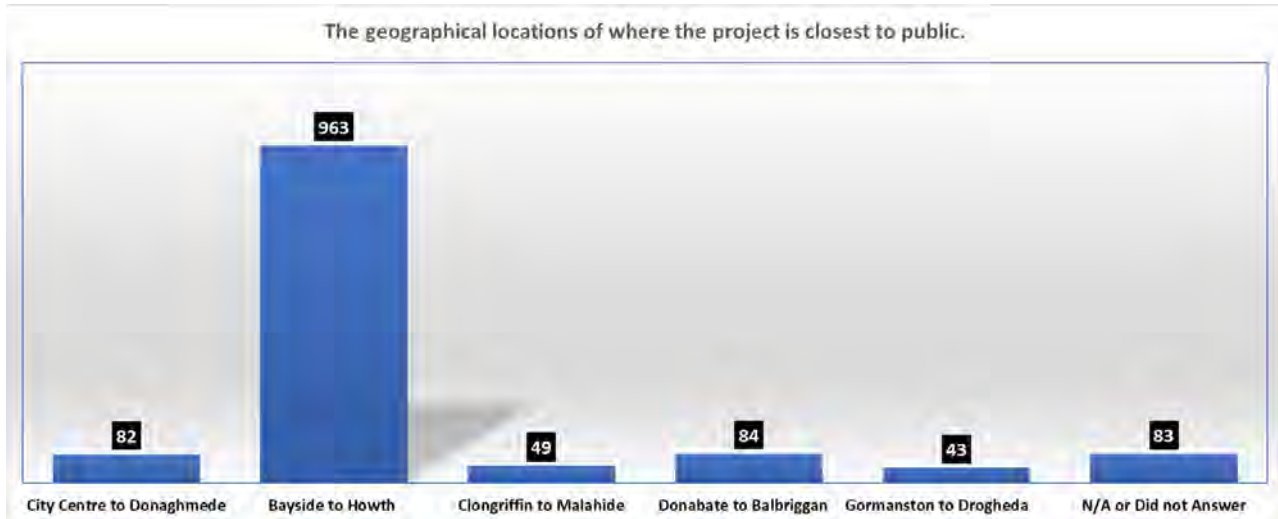


Figure 10 Response to Questionnaire, Question 4

The feedback from **Question 4** has provided a clear indication of where the DART+ Coastal North project has registered the greatest levels of interest in the project. 74% of responders indicated that they were closest to the DART+ Coastal North project in the Bayside to Howth area with the remaining 26% being split between the rest of the project localities or not providing a response to this question. 6% of respondents did not provide a response to this question.

Overall, when the feedback from **Question 2 and Question 4** are considered in tandem, the level of support or opposition for the project is quite consistent with the split of localities from which feedback was received.

The information received from **Question 4** is further broken down in Figure 11 below. It is clear that the bulk of negative responses to this question have come from respondents from the Howth Branch Line locality. Respondents from the localities surrounding the railway line between Dublin City Centre and Drogheda are mostly positive in response to this question.

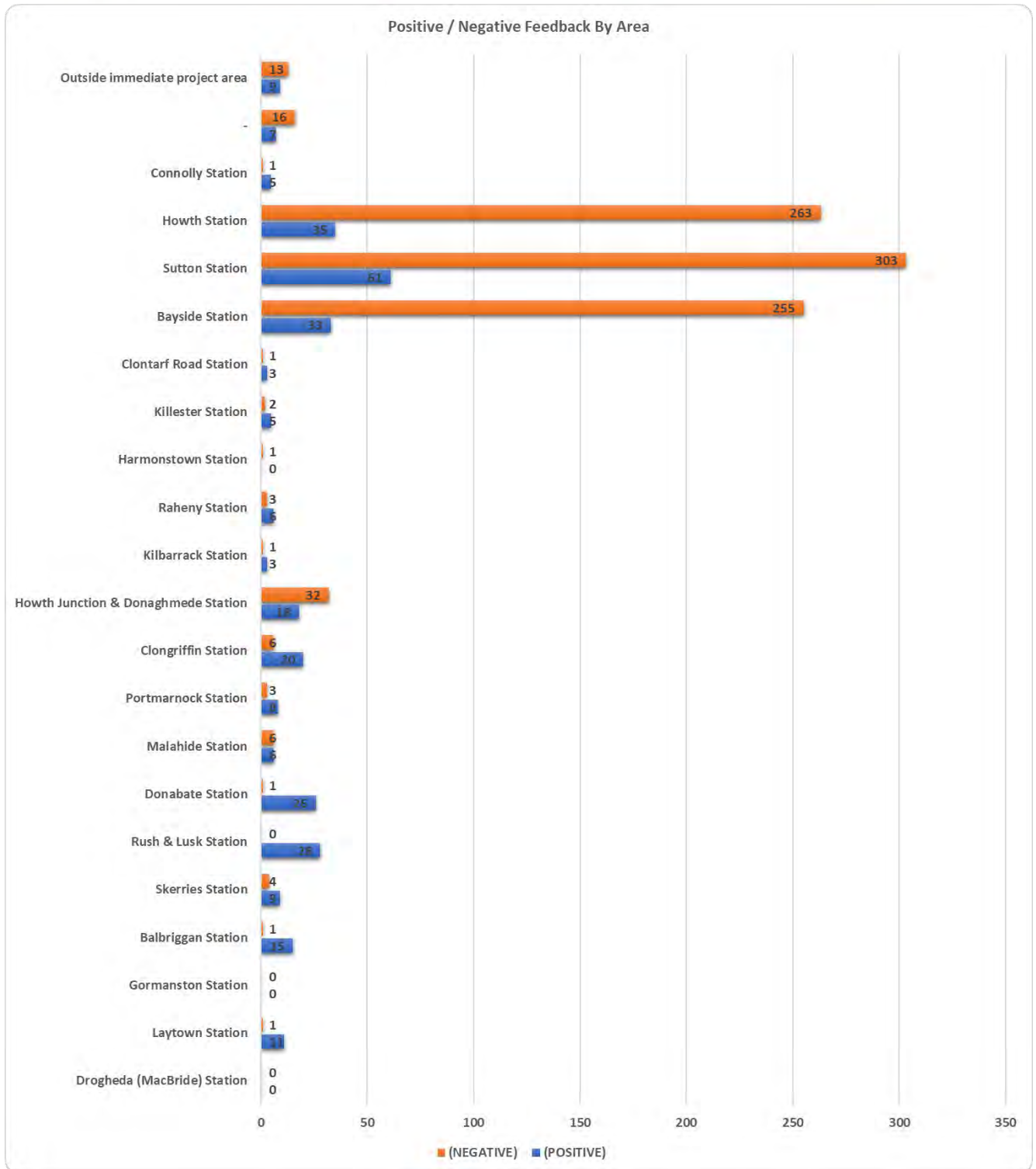


Figure 11: Positive / Negative Feedback by Area

3.4.5 Question 7: How did you hear about this current round of the Public Consultation?

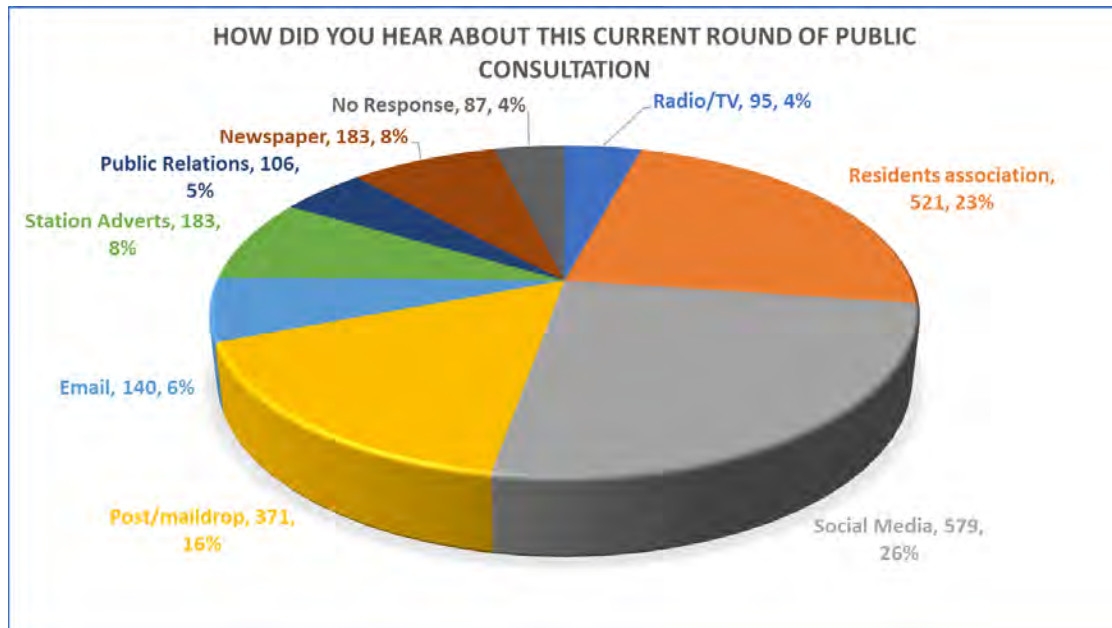


Figure 12 Response to Questionnaire, Question 7

The feedback received from **Question 7** indicates that the main means by which people were informed of Public Consultation No.2 was via social media advertising, through resident associations, and from the postal mail drop that was carried out as part of the consultation launch. While every effort was made to ensure that notification of Public Consultation No.2 was circulated to all relevant persons, the means of communication will now be reassessed and where appropriate, improved upon going forwards. In order to ensure that all further consultations and communications are received by as wide a range of recipients as possible the findings from this question will be considered further. 4% of respondents did not provide a response to this question.

3.4.6 Question 8: Do you wish to be added to our mailing list for periodic Project updates?

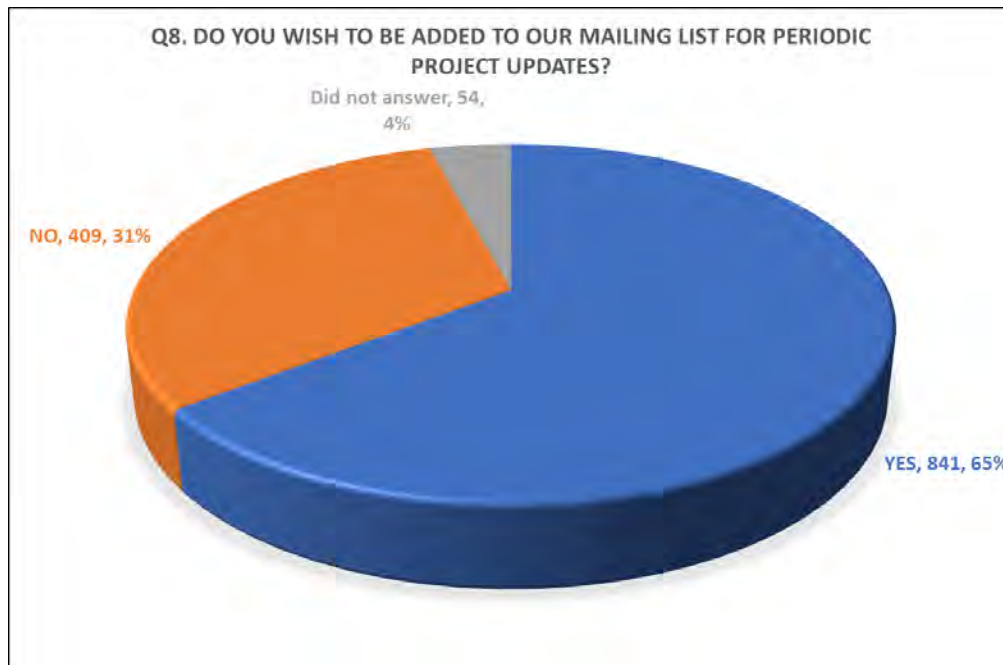


Figure 13 Response to Questionnaire, Question 8

The feedback from **Question 8** has indicated that two-thirds of respondents wish to be added to the DART+ Coastal North mailing list. Those respondents who have provided an email address and indicated that they wish to be added to the project mailing list will receive email notification of project updates and upcoming project events. 3% of respondents did not provide a response to this question.

3.5 Issues Raised Outside Project Scope

While reviewing the feedback received it was clear that there were several issues raised in the submissions that are outside of the scope of this project or which were not directly related to the proposals. These are detailed below and include the following topics:

- Car & Bicycle Parking at Stations;
- Inclusion of additional stations at Drogheda North, Skerries, Balbriggan, Bettystown;
- Extending DART services to Navan / Dundalk South / Dublin Airport / Swords Area;
- Fares and future inclusion of extension to Drogheda within LEAP Card zone;
- Provision of Toilets on New DART Fleet;
- Provision of 4-tracking or underground to improve rail network;
- Night-time services.
- Lack of public transport options from Howth to areas such as Dublin Airport

3.5.1 Car & Bicycle Parking at Stations

A number of submissions received queried if improvements to existing car and bicycle parking facilities will form a part of the DART+ Coastal North Project. Many submissions cited a lack of existing parking as an issue with the current and proposed services. Some respondents noted that park & ride facilities should be included as part of the project to increase the volume of commuters choosing to avail of the improved DART services.

Response

Additional parking facilities at stations, or park & ride services, are not included as part of DART+ Coastal North's project scope, which is focussed on the development of infrastructure to facilitate the increase in train frequency on both the Northern and Howth Branch lines. However, separately to the DART+ Coastal North project and outside the railway order, Iarnród Éireann are progressing a number of projects including the Multimodal Interchange Project, DART Station Enhancement Project and, Carparks Programme aimed at developing stations to support future needs.

The Multimodal Interchange Project will assess all stations throughout the network with a view of implementing its strategy at stations where there is need for modifications that will have an impact on multimodal travel and station access. The project will assess a variety of multimodal options at stations including but not limited to the provision of secure bicycle parking and shared mobility services. Iarnród Éireann are working to progress and finalise the Multimodal Interchange Strategy before the end of Q4 2023 with a view to developing an implementation plan subject to funding constraints.

Additionally, the DART Station Enhancements Project, currently out to tender for consultant support, will review the future requirements at DART stations and the first phase of this project (design principles guidelines and strategy and implementation plan) is scheduled for completion in Q2 2024. Further stages and roll out of the project will be subject to funding.

3.5.2 Inclusion of additional stations, or platforms, as part of DART+ Coastal North

A number of submissions called for the DART+ Coastal North Project to include for additional stations at a variety of locations along the Northern Railway Line. These locations include:

- Drogheda North;
- Bettystown;
- Dunleer;
- Castlebellingham;
- Laytown; and
- Reopening the station at Mosney.

In addition to calls for additional stations to be included, a number of respondents suggested either extending existing platforms, or construction of new platforms at the following stations:

- Drogheda;
- Skerries;
- Malahide;
- Donabate;

- Rush & Lusk
- Clongriffin; and
- Howth Junction & Donaghmede.

Response

The delivery of new stations is not included as part of the DART+ Coastal North project but will be considered by Iarnród Éireann as required, under separately funded projects. The 'Preferred Option' will not preclude the future development of any potential new stations, such as that proposed at Bettystown in the East Meath Local Area Plan.

A variety of works aimed at delivering the project objectives are proposed as part of the DART+ Coastal North Project at stations including Drogheda, Malahide, Clongriffin, and Howth Junction & Donaghmede Stations. Further information on all these interventions can be found in the published material through the DART+ Coastal North project website: www.DARTplus.ie

3.5.3 Extending DART services to Navan / Dundalk South / Dublin Airport / Drogheda North

A number of submissions called for the DART+ Coastal North project to include for an extension of DART services to service locations including Navan, Dundalk, Dublin Airport and/or Drogheda North. Particular focus of submissions was placed on Drogheda North & Dundalk as possible extension destinations based on current population predictions and the volume of residents from these areas commuting to Dublin by private car on a daily basis.

An Area Based Transport Assessment was noted as being carried out between Meath and Louth County Councils to coincide with the publication of a joint urban area plan for Drogheda in due course. The assessment notes potential to make better use of a 3.5km stretch of the existing Navan-Drogheda rail line which extends west of the main Dublin – Belfast line and which currently is only used for limited freight services between Tara Mines and Dublin Port. This stretch of track was noted as possibly facilitating the running of DART Services between Navan and Drogheda and to expand the catchment area for passengers to access public transport.

Response

No such extensions are included as part of the DART+ Coastal North project, however, the 'Preferred Option' will be compatible with any future extensions and/or additional links/branches that may be added to the Northern Line as part of any future Iarnród Éireann projects.

3.5.4 Alternatives to DART+ Coastal North

Investments in alternative solutions to the DART+ Coastal North Project were raised in a limited number of submissions. Alternatives such as greater investment in cycle routes and/or park and ride bus facilities were noted. Greater interaction with existing and proposed cycle routes and/or greenways was encouraged.

Response

The DART+ Coastal North project is being progressed to help cater for the public transport needs of communities along the Northern Line, and within the Greater Dublin Area. The extension of DART

services to provide for communities along the 37km extension of electrified railway will bring a range of benefits to communities and help Ireland to achieve its climate targets by encouraging a modal shift in transport from private cars to public transport.

The project will seek to interact with other infrastructure projects to provide an effective and reliable transport system. Consultation remains ongoing with local authorities over interfaces with other transport projects including but not limited to the Fingal Coastal Way, the Rogerstown Greenway, and active travel developments in Drogheda.

3.5.5 Provision of Toilets on New DART Fleet

Concerns have been raised in relation to the lack of toilet facilities being provided on the new DART+ Fleet carriages. Respondents raised a need for toilet facilities to be provided largely due to the expected journey time from areas such as Drogheda to Dublin City Centre and some passenger requirements for such facilities to enable them to use public transport as a means of travel.

Response

The DART+ Coastal North Project, as noted previously, is responsible for the delivery of rail infrastructure to enable an increased frequency and capacity of rail services between Drogheda, Howth, and Dublin City Centre. The initial order of carriages for the new DART+ Fleet which will operate on the Northern Line was made at the end of 2021 and does not include onboard toilet facilities. The feedback received during Public Consultation No.2 relating to the need for toilets has been shared with the DART+ Fleet team and consideration will be given to onboard toilet facilities in advance of any future fleet orders.

It should be noted that the existing DART fleet does not currently provide passenger toilets onboard. The existing DART journey from Greystones to the city centre is comparable to the future DART journey from Drogheda to the city centre. Given that this is the case, a decision was made that in order to maximise passenger and bike capacity onboard these new trains, toilets would not feature on the new fleet. Furthermore, Iarnród Éireann do not envisage that there will be any toilet availability at stations between Drogheda and Connolly stations when DART+ Coastal North comes into operation, however, this may be considered in future, separately to the progression of the DART+ Coastal North project.

3.5.6 Provision of 4-tracking or underground to improve rail network.

Submissions have questioned the potential for the inclusion of 4-tracking, or underground rail construction, as a potential upgrade to the existing Northern Line. These proposals focus on the extent of the Northern Line between Howth Junction & Donaghmede Station and Connolly, are suggested to address the existing issues with capacity and train delays on approach to Dublin Connolly.

Response

Increasing the number of tracks, or tunnelling the rail line, is not proposed as part of the Preferred Option for the DART+ Coastal North project. The main objective of the DART+ Coastal North project is to maximise the existing assets in the short-medium term, to deliver a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between

Drogheda and Dublin City Centre. It is currently considered possible to deliver these objectives without the introduction of these much more significant interventions. Upgrades to telecommunication and signalling infrastructure along the Northern Line will also contribute to meeting the project objectives.

In the future, should the need for additional capacity beyond what will be delivered by DART+ Coastal North be established, it may be necessary/desirable to investigate the possibility of additional tracks and/or an underground solution as part of separately funded projects.

3.5.7 Fares & the future inclusion of Drogheda in LEAP card zone

Numerous queries related to future fares that will be applicable for the DART extension to Drogheda and queries as to whether the potential exists for the LEAP travel zones to be extended to Drogheda as part of the DART+ Coastal North project.

Response

The potential extension of the LEAP card zones to include Drogheda is not included in the DART+ Coastal North project remit. The regulation of fares and fare structures is the responsibility of the NTA for all rail services and indeed all Public Service Obligation (PSO) public transport services. This feedback has been passed to the NTA for their consideration.

3.5.8 Night-time Services

A limited number of submissions referred to the need for extended and more frequent night-time services.

Response

The DART+ Coastal North project is tasked with the delivery of the infrastructure that will enable a higher frequency, higher capacity service, between Dublin City Centre and Drogheda, inclusive of the Howth Branch Line. Any potential amendments to existing timetables will be considered separately to the DART+ Coastal North project at the appropriate time and will fall under the remit of the NTA. Any future changes to timetables will be linked to future demand and operational requirements. All substantial timetable changes go through their own public consultation process, organised by the NTA and carried out by Iarnród Éireann, known as the 'Timetable Customer Consultation Process'.

3.5.9 Lack of public transport options to areas such as Dublin Airport

Respondents noted that due to a lack of viable public transport services from the Howth Area to locations such as Dublin Airport or Swords, there is already a need for residents of the Howth Peninsula to somewhat rely on private car use. It was noted that 'no amount of increased frequency of DART services will address a persons need to travel from Howth to areas other than Dublin City Centre'.

The wider public transport options which are available to residents of the Howth Peninsula are not considered to be of an acceptable standard to encourage people to make trips by bus over private cars.

Response

This issue falls under the remit of the NTA and shall be passed on to the NTA for their further consideration.

The DART+ Coastal North Project will result in increased connectivity and frequency of Northern Line services which will make it easier for passengers to travel north and to connect with Belfast Enterprise services at Drogheda. Upgrades as part of DART+ West at Connolly will also make switching to other DART+ routes and intercity services more accessible at Connolly Station.

The provision of enhanced capacity and frequency of rail services between Howth & the Northern Line will be developed as part of DART+ Coastal North and will be directly linked to passenger demand going forward.

4. SUMMARY OF FEEDBACK FROM PUBLIC CONSULTATION NO. 2

Key Issues or Concerns Raised

While a wide variety of issues were raised in the submissions received during Public Consultation No.2, this section provides a summary of the principal issues or main concerns across the entire project under the general themes identified in Section 3.

- Operational Themes
- Stations
- Environmental Impact Assessment
- Project Need
- Project Scope
- Public Realm
- Climate Change
- Landownership
- Safety
- Communications & Public Consultation
- Structures
- Construction Implications
- Electrification
- Planning & Policy

The feedback presented in Section 4 of this report reflects the comments and broad nature of feedback provided during Public Consultation No.2.

4.1 Operational Themes

Operational themes associated with DART+ Coastal North post-construction accounted for a significant volume of the feedback received as part of PC2. It should be noted that the DART+ Coastal North project is primarily an infrastructure project and will deliver the infrastructure to enable the capacity and frequency increases being proposed as part of the DART+ Programme. Operational details will be progressed by Iarnród Éireann in parallel with this project.

Further to the above, it is also important to note that many operational decisions are yet to be made and, in the future, when any significant changes are made to the existing DART services, the public will again be invited to share their thoughts and opinions on the proposals as part of a separate statutory public consultation process. Future operational decisions will be based on future operational requirements linked directly to passenger demand.

4.1.1 Howth Branch Shuttle Service.

Submissions relating to the potential operation of a DART shuttle service on the Howth Branch, either during peak periods or as required by Iarnród Éireann, raised a significant volume of objections to the DART+ Coastal North Project proposals.

Submissions generally acknowledged the benefits associated with increased capacity and DART service frequency but questioned whether these benefits outweigh the associated impacts to the existing passenger experience that would result, by the interventions needed to achieve this, such as the possible need to interchange at Howth Junction & Donaghmede Station and the impacts on traffic surrounding the Howth level crossings.

There was minimal feedback received in respect of the proposed rail infrastructural changes, with almost all feedback relating to the future possible operational changes, including in particular the potential introduction of a DART shuttle service.

Response

It is again important to stress that DART+ Coastal North is primarily an infrastructure project. This project is not looking to downgrade the quality of service to the Howth Branch DART users, in fact the doubling of service frequency and capacity over the coming years, based on passenger demand, will provide passengers from the Howth Peninsula with services that are both more frequent and more reliable.

The project is proposing infrastructure that would enable the operation of both a DART shuttle service on the Howth Branch line as required by future passenger demand, and/or a direct through service to/from Dublin City Centre. The proposals allow for the capacity and frequency of DART+ services on both the Northern and Howth Branch lines to be maximised. The proposals have been developed to remove train crossing conflicts currently experienced at Howth Junction & Donaghmede Station which contribute to limiting the frequency and capacity that can be achieved on the Northern and Howth Branch lines. The project is seeking to maximise the available service frequency that can operate between Howth Junction & Donaghmede Station and Dublin Connolly, currently shared between those services to/from the Northern Line and to/from Howth, which acts as a significant constraint to the level of service frequency that can be achieved on the Northern and Howth Branch Lines.

Final operational decisions, relating to the potential for the operation of a shuttle service on the Howth Branch in future, will be made at a later stage and are subject to future passenger demand on the Northern and Howth lines. The operation of a DART shuttle service is not something that would be expected to come into effect immediately upon the delivery of the DART+ Coastal North project. When the infrastructure is in place (circa 2028/29 – fully dependent on completion of statutory processes, funding allocation & construction), it is expected that Iarnród Éireann would incrementally introduce new services and enhanced timetables across DART+ in response to growing passenger demand. As such, the proposed peak level of service in effect will be delivered over an extended period of time and will not come into effect in one single timetable change. There will be different phases of timetable development that will be gradually introduced as the project builds towards maximum level of service. The operational detail behind each of these phases has not been worked through at this early stage in the project planning and will ultimately be progressed in consultation between Iarnród Éireann and the NTA.

4.1.1.1 Loss of direct service to Dublin City Centre / Interchange at Howth Junction & Donaghmede Station

The potential loss of a direct service to Dublin City Centre from the Howth Branch, even if only during peak periods, was noted as one of the most common themes arising during PC2. The loss of direct services to Dublin City Centre was regularly cited in submissions as grounds for existing DART users from the Howth Peninsula to revert from DART usage to private car usage.

Many respondents noted that the original railway link between Dublin and Howth has been in existence since 1947 and they oppose any removal of this link, or reduction in level of service between Dublin and Howth.

Respondents also noted the following sub-themes and raised concerns in relation to the loss of the existing direct service from Howth Station to Dublin City centre.

i) Safety & Security concerns at Howth Junction & Donaghmede Station

Respondents noted serious concerns in relation to passenger safety & security should interchanging at Howth Junction & Donaghmede Station be necessary in future. Submissions cited these concerns as a reason to avoid using the DART service completely should the existing direct service between Howth and Connolly not be retained into the future.

Respondents referred to a history of anti-social behaviour and drug issues associated with Howth Junction & Donaghmede Station as grounds to oppose the current preferred option proposals. A history of incidents such as when a girl was pushed onto the tracks in 2021 were cited as examples of reasons for concern as well as a lack of in person security (something which was called for by many respondents). Ongoing issues with gangs of youths loitering around the station and harassing station users were raised. Respondents noted that they would be intimidated by the prospect of an interchange at Howth Junction & Donaghmede Station and would not feel comfortable with their loved ones needing to interchange at the station.

Some submissions raised concerns over the potential for injury associated with a rush, and/or crush, of passengers attempting to disembark from one DART service to join a connecting service – concerns for elderly passengers and those travelling with young children were particularly prominent.

The proposed upgrades to Howth Junction & Donaghmede Station were acknowledged as a positive step but were also often noted as not being significant enough to instil confidence that interchanging at Howth Junction & Donaghmede could be done safely.

Response

Security concerns have been raised by many respondents as part of this public consultation and Iarnród Éireann are fully aware of the ongoing issues with anti-social behaviour at Howth Junction & Donaghmede Station. Anti-social behaviour is a blight that affects all areas of society and Iarnród Éireann is part of an NTA led Public Transport Security Forum, where all operators work together to reduce the incidents of anti-social behaviour onboard public transport and at stations. Safety & security, including at northside DART & commuter stations, is always high up the agenda of the forum and that will continue to be the case. If it is deemed necessary, Iarnród Éireann can apply for additional funding to the NTA for additional security. Separate to this, Iarnród Éireann has rapid

response hubs with An Garda Síochána at Raheny & Coolock, so if an incident does occur the dedicated security will have the back up of An Garda Síochána quickly when necessary. Iarnród Éireann will continue to work with both the NTA and An Garda Síochána to ensure that the safety of passengers remains the no.1 priority.

Howth Junction & Donaghmede Station is an Iarnród Éireann hub-station for accessibility purposes and as a result it retains an in-person presence at the station, within the stations ticket office area, during operational hours. Iarnród Éireann remains open to reviewing an enhanced level of in-person security presence patrolling throughout the station as part of the delivery and operation of DART+ Coastal North as well as remaining open to a review of the deployment of contracted security officers across the Greater Dublin Area in response to hot spot areas of anti-social behaviour such as Howth Junction & Donaghmede Station. Should it be considered necessary, Iarnród Éireann can also present to the NTA a business case to increase the level of security coverage. Iarnród Éireann is also developing a dedicated command and control centre within the newly opened NTCC facility at Heuston Station. Experience would suggest that the NTA are typically supportive of initiatives to mitigate against instances of antisocial behaviour including the provision of additional resources where required.

The significant upgrades proposed at Howth Junction & Donaghmede Station as part of the DART+ Coastal North project are aimed at both improving the passenger experience generally and developing the station to better serve as an interchange station going forward. The works will involve modifying the station entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. The works will include upgrades to the existing footbridge, connections to the centre platforms, the provision of additional sheltered areas along platforms, as well as general improvements to lighting, signage, and finishes throughout. The station modifications shall also include the provision of a new CCTV security system to supplement security measures at the station.

Iarnród Éireann has been, and continues to, engage extensively with the community in the area of Howth Junction & Donaghmede Station. Murals at the station, have been created in conjunction with local youth groups telling the story of the area, which have done much to brighten up the station.

In relation to concerns with the passage of passengers between services a station capacity assessment has been undertaken to ensure adequate space on platforms and within station confines is available and is in line with current standards. All proposed upgrades at Howth Junction & Donaghmede Station have been developed with a view to making an interchange at this station as smooth a process as possible for all rail users.

ii) Frequency and available capacity of receiving trains on Northern Line

Respondents raised concerns with a lack of certainty presented in PC2 relating to the frequency of DART services arriving at Howth Junction & Donaghmede Station, expected wait times for receiving services, and availability of adequate space/capacity on receiving DART services being sufficient to cater for the Howth Branch passengers.

Existing DART users raised concerns as to whether they would be able to get a seat on receiving services, having become accustomed to boarding empty trains commencing in Howth and having a

fully seated journey to Dublin City Centre. Concerns raised often related to vulnerable or elderly passengers but were also directed towards young children using DART services.

Concerns over adequate space on platforms, walkways, and in lifts were noted.

Response

As noted above, at this stage in the development of DART+ Coastal North, future timetables have not yet been developed. These will be developed in future and will be based on passenger demand. During periods when the DART shuttle service would be in operation on the Howth Branch, an interchange would be required at Howth Junction & Donaghmede Station, and this will be facilitated by an increase in Northern Line stopping trains which will minimise wait times for connecting services. Ensuring adequate capacity on receiving trains will be a key consideration in the development of future timetables.

Iarnród Éireann currently operates a number of shuttle type services, for example Clonsilla to M3 Parkway, which involve passengers interchanging between services and platforms via a station footbridge. Iarnród Éireann will ensure that connectivity between services will take into consideration the time needed for passengers to interchange between services when developing future timetables.

When considering the availability of adequate space/capacity on receiving DART services to cater for the Howth Branch passengers connecting with Northern Line services it is important to note that the DART+ Coastal North project will facilitate an increase in frequency of DART services on the Northern Line to nine services each way per hour between Howth Junction & Donaghmede Station and Dublin Connolly, subject to future demand. The inclusion of turnback infrastructure as part of the DART+ Coastal North project, ensures that services can originate/terminate more easily at various points along the Northern Line. In this regard, it is important to note that not all services shall operate between Drogheda and Dublin City Centre, and it is anticipated that two of the nine services per direction per hour referred to above will originate/terminate from/at Malahide and an additional two services will originate/terminate from/at Clongriffin (and not Drogheda). As a result it is expected that there will be ample capacity on receiving trains arriving at Howth Junction & Donaghmede Station to cater for passengers connecting from services on the Howth Branch. A summary of DART frequencies and capacities when operating at maximum capacity is presented in Figure 3 earlier in this report.

At this stage it is too early to say exactly what wait times for receiving services would be, when interchanging at Howth Junction & Donaghmede Station, or indeed what the exact journey time from stations on the Howth line into Dublin City Centre will be. It is expected that sectional journey times (e.g. Bayside to Howth Stations) along the Howth line will remain similar to current journey times experienced by DART passengers, and that any adjustment to journey times from the Howth Branch line into the city centre will be as a result of the interchange between services at Howth Junction & Donaghmede Station which is expected to be minimal. Changes to journey times will be somewhat offset by increased service frequency resulting in more choice for passengers and reduced wait times to commence DART journeys in the first instance.

Further to the above, and as a direct result of feedback received during PC1, a variety of significant modification works are proposed Howth Junction & Donaghmede Station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station.

The works will involve modifying the station entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. The works will include upgrades to the existing footbridge, connections to the centre platforms, the provision of additional sheltered areas along platforms, as well as general improvements to lighting, signage, and finishes throughout.

Station capacity assessments have been carried out to ensure that the platforms and walkways within the station are adequate for the volumes of passengers expected to flow through the station. All assessments have been carried out in line with current standards and best practice guidelines.

iii) Compromised experience of Howth Branch DART users for the benefit of other passengers on the Northern Line.

Submissions received from members of the Howth Peninsula community noted the negative impacts on their passenger experience and associated inconvenience of an interchange at Howth Junction & Donaghmede. This was particularly relevant to those respondents commencing their journeys at Bayside Station who would need to interchange after just one stop along their journey.

Respondents also noted significantly reduced passenger experience and potential discomfort of interchanging during wet & windy or wintery weather conditions. A lack of shelter and general exposure to the elements was noted as a reason to object to the proposals. Many respondents noted that they would likely seek to drive to either Clongriffin or Howth Junction & Donaghmede Stations, to commence their journeys, rather than to board trains on the Howth Branch and interchange shortly after.

The overall benefits of the DART+ Coastal North Project were largely acknowledged, however, many respondents stated that the overall benefits delivered along the Northern Line would be to the detriment of those DART users from the Howth area. Respondents noted that the associated benefits of the proposed increases in service frequency and capacity would not outweigh the potential inconvenience associated with an interchange at Howth Junction & Donaghmede Station.

Response

It should be noted that the DART+ Coastal North project proposals will result in a greatly enhanced level of service on both the Northern Line and Howth Branch Line. The DART+ Coastal North project team acknowledge the concerns of respondents regarding the potential for the introduction of an interchange at Howth Junction and Donaghmede in the future (subject to future passenger demand). Every effort will be made to ensure that the upgrades at Howth Junction & Donaghmede Station deliver a seamless interchange between services, and that the commutes of passengers from the Howth Branch remain of an acceptable standard.

It is important to note that the interchange at Howth Junction & Donaghmede Station will not necessarily be required at all times and the operation of a DART shuttle service would only come into effect when passenger demand requires the Northern & Howth lines to be operated at maximum capacity. The project is proposing infrastructure that would enable the operation of both a DART shuttle service on the Howth line as required, and/or a direct through service to/from Dublin City

Centre, and the decision to operate a shuttle service will be a future operational decision and will be fully dependent on passenger demand.

It should be remembered that the DART+ Coastal North project will deliver the benefits of a doubling in service capacity and frequency over time on the Howth Branch, as well as delivering a more reliable and robust service overall.

iv) Access & Mobility

Respondents raised concerns in relation to access and mobility issues relevant to the proposed interchange at Howth Junction & Donaghmede Station.

Details of these concerns, and detailed responses, are expanded upon in section 4.2.1 of this report under the theme of 'Stations'.

v) Impact on Howth Tourism / Howth Businesses

Respondents noted that the proposals involving the operation of a shuttle service would have negative effects on the volumes of tourists and/or visitors travelling to the Howth Area.

The need to change services at Howth Junction & Donaghmede Station is seen as making a visitor's daytrip or visit to Howth a less appealing prospect and many respondents noted that they expect many tourists to choose to visit other seaside towns in the area, such as Portmarnock or Skerries, going forwards due to a direct service to these areas from Dublin being available.

Many submissions referred to Howth as the second most visited attraction in the Greater Dublin Area, after the Guinness Storehouse, with approximately 1.8 million visitors each year and raised concerns for the local economy if these volumes of visitors were to be impacted.

Potential impacts on local businesses in Howth were cited in submissions as well as greater inconvenience for the staff employed in these businesses related to the loss of direct services to Howth. Existing issues with recruiting staff to jobs in the Howth area were raised and the proposals of DART+ Coastal North are seen by many respondents as exaggerating these issues.

Response

The DART+ Coastal North Project is not expected to result in a negative impact on the volume of tourists visiting Howth. As noted above, the proposals for DART+ Coastal North include a potential doubling of DART services to/from Howth in response to passenger demand. The proposals at Howth Junction & Donaghmede Station are intended to develop the station to better serve as an interchange station, as required, when the DART shuttle service is in operation. Many overseas tourists will be well used to interchanging between services as this is relatively common practice in many European and other countries. Outside of periods when a DART shuttle service is required to maximise the frequency and capacity on the Northern and Howth Lines, direct service between Dublin City Centre and Howth will continue to operate.

Further to the above, there is a potential benefit to operating the shuttle service to Howth in that it makes Howth more accessible from the Northern line stations due to the proposed greater frequency of service from these areas. Iarnród Éireann's operational experience is that Howth as a location comes under severe pressure during the summer months in terms of people wishing to go there for recreational purposes. In response to this increased demand, Iarnród Éireann provides auxiliary services and the possibility of a higher frequency or service including a shuttle can assist in moving large numbers of people into and out of Howth when necessary.

4.1.1.2 Impacts resulting from increased level crossing closure frequency on Howth Branch

The implications of increased frequency on the Howth Branch level crossings were raised in a significant volume of submissions received. Many respondents noted issues with the existing traffic conditions on the Howth Peninsula and the potential worsening of these issues as a result of DART+ Coastal North. Respondents noted a general lack of understanding as to why, under current conditions, the barriers need to remain down for such an extended period in advance of and following a DART crossing.

Respondents also noted the following sub-themes and concerns in relation to the increased train frequency and impacts on the Howth Branch Level Crossings.

- i) **Increased likelihood of delays and increased wait times at level crossings**
Respondents noted concerns that the increased frequency of DART trains will result in traffic chaos on the Howth Peninsula. Submissions from residents in close proximity to the level crossings noted the current issues experienced in exiting their estates and concerns over the potential worsening of these already challenging conditions.
- ii) **Impacts on Emergency services**
Submissions noted concerns that Emergency Services may be negatively impacted by the increased DART frequency. Concerns that emergency services may be delayed as a result of traffic queues at level crossings were raised.
- iii) **General Safety**
Further to the safety concerns relating to the Emergency Services, a variety of general safety concerns were raised in submissions. These included concerns that the increased frequency of level crossing closures may prompt an increase in the volume of drivers taking risks and attempting to 'run' the barrier closures and avoid delays. Other concerns raised related to pedestrians potentially 'jumping' the barriers and crossing the tracks to avoid waiting at barriers.
- iv) **Cross-rail access to Burrow Beach, Sutton Golf Club, Howth Lodge**
A number of respondents noted specific locations they believe to be negatively impacted by the increased DART frequency. These include Burrow Beach where a large volume of visitors are attracted during periods of summer weather, Sutton Golf Club where golfers are required to cross the railway line twice (over & back) during the course of a round of golf, and Howth Lodge where residents are concerned with a reduced duration of time where they can cross the railway and enter/exit their residential area.

Response

The current level crossing barrier opening and closing timings have been used to inform a traffic model assessing the effects on vehicles, cyclists, and pedestrians. Detailed assessment of the four existing level crossings along the Howth line has concluded that these level crossings can continue

to operate and provide an appropriate level of cross connectivity and accessibility whilst still meeting the increased DART service frequency requirement. The proposed increased frequency of level crossing closures resulting from the operation of additional DART services will result in a greater likelihood of vehicles, pedestrians and cyclists being required to queue at the crossings, however, the traffic modelling and sensitivity analysis has shown that queue lengths are likely to remain within the available queueing road space in all cases. Based on the assessments carried out to date, additional infrastructural interventions at the four level crossings are not considered necessary.

As future timetables have yet to be designed, and are subject to future operational decisions, it is not possible at the current time to provide definite closure times upon delivery of DART+ Coastal North. Further information relating to expected future closure times is included as part of the Environmental Impact Assessment Report (EIAR) and Traffic Impact Assessment (TIA) submitted with the Railway Order Documentation for DART+ Coastal North.

Currently, barriers at the four level crossings are configured to only close as needed. Barrier closure times are heavily linked to the proximity of approaching train services. The close proximity of the 4 Howth Branch level crossings to each other over a relatively short distance, coupled with the proximity of level crossings to stations along the branch, further complicates the timing of these barrier closures. Further details relating to the operation of the level crossings is provided in **Section 4.1.1.3** below.

Following its completion, DART+ Coastal North will allow for DART shuttle services to operate independently from Northern Line services which will allow for improved service reliability and operational improvements on the Howth Branch going forward. Future timetable developments for the purposes of increasing frequency will be cognisant of the impact of an increased number of level crossing barrier closures and as a result will seek to maximise the opportunity for two trains to operate through the crossings from both directions simultaneously in an effort to minimise the number of level crossing closures. The effects of any changes to traffic patterns linked to level crossing closures will be fully assessed as part of the Environmental Impact Assessment Report (EIAR) and Traffic Impact Assessment (TIA) and it should also be noted that the EIAR accompanying the Railway Order application will include a comprehensive assessment of potential air quality and climate impacts resulting from the proposed DART+ Coastal North development. We expect that we will lodge a Railway Order application for this project with An Bord Pleanála by Spring of 2024. The project will then be subject to a period of statutory public consultation.

Implications relating to Emergency Services are fully considered as part of the ongoing traffic modelling to ensure that these vital services remain able to operate at an acceptable level. Emergency Service access routes have been considered and based on current modelling the increase in frequency of level crossing closures is unlikely to negatively impact on the Emergency Services. Consultation with Emergency Services remains ongoing, and any concerns raised during consultations will be subject to detailed appraisal.

4.1.1.3 Level Crossing Operations and Potential for Efficiencies?

A variety of queries were received in submissions querying the processes involved in the operation of the Howth Branch level crossings and whether there are opportunities to introduce any operational efficiencies going forwards as part of DART+ Coastal North?

Response

Howth Branch Level Crossings - Operational Process.

The level crossings at Howth, Sutton and Baldoyle are all 'DART only' level crossings and as such are designated as CCTV Remotely Monitored Level Crossings, meaning operation of the crossings is monitored from the Central Traffic Control (CTC) at Connolly Station, Dublin. The crossings are automatically activated by the CTC suburban signalling system and the lowering sequence is initiated at programmed 'strike-in' points based on an approaching trains' location and stopping pattern. The strike-in points are specifically located to ensure public safety and the efficient operation of the level crossing in terms of train operation and level crossing closure times.

When a train arrives at the strike-in point, the CTC suburban signalling system requests the level crossing to commence its lowering sequence, at which point the road traffic signals illuminate yellow followed by alternating flashing red lights. The level crossing barriers then commence the lowering sequence, the two entrance barriers first, followed by the two exit barriers. This lowering process is monitored by a level crossing controller in CTC Connolly, who when satisfied that the area between the lowered level crossing barriers is free of any person or obstruction, indicates this to the signalling system, which in turn sets the railway signal to allow the train to approach and pass over the crossing.

Strike-in points relevant to the Howth Branch are located in the following locations:

Level Crossing – Trains towards Howth	Approximate Location of Train
Baldoyle Road / Kilbarrack	Shortly after departing Howth Junction
Sutton Station	About 20 to 30 seconds after the train arrives at Bayside
Cosh / Lauder's Lane	About 20 to 30 seconds after the train arrives at Bayside
Claremont	Front passes through Sutton Station LC
Level Crossing – Trains towards City	Approximate Location of Train
Claremont	When the signal at Howth is set to allow the train to depart.
Cosh / Lauder's Lane	Passing Claremont LC
Sutton Station	Passing Claremont LC
Baldoyle Road / Kilbarrack	About 550 metres on Howth side of Sutton Station

The normal method of operation for trains through the DART level crossings is for the signalling system to allow a maximum of two train movements through the crossing, (1 in each direction) at which point the barriers will raise to allow road users traverse the railway.

Potential for additional efficiencies

When considering level crossing closures it is important that there is a balance between closing a level crossing to allow a train to approach without delay and waiting until the train gets to a point where it cannot proceed further with the crossing open without introducing unacceptable risks. The current arrangements on the Howth Branch Line are based on delaying the closing of the crossings to improve the road open times and triggering a closure to reduce the delay to approaching trains – this is expected to remain the case going forwards.

DART trains are fitted with an Automatic Train Protection System which both regulates and limits the speed of the train when approaching a red signal, the speed is reduced in four steps (100kph to 50kph to 30kph to 15kph). In recent times an extra signal has been installed on each line between Baldoye Road LC and Sutton Station LC for the purposes of improving road opening times. Prior to this both crossings had to be requested to close at the same time as both had to be clear to allow a train through the first in each direction. Iarnród Éireann believe that the present system is providing the best balance and ensures that the level crossings operate in as an efficient manner as possible based on the current situation.

4.1.1.4 Alternatives to Howth Branch Shuttle Service

Submissions called for alternatives to the DART+ Coastal North proposals to be considered which could remove the need for a shuttle service on the Howth Branch line.

Some respondents queried if a DART shuttle service could operate between Howth Junction & Donaghmede Station and Drogheda so that the direct service to Howth could be retained.

Other submissions called for alternative sequencing of services to allow for continuous services between Howth and Dublin.

Some submissions suggested underground sections of railway or the inclusion of 4-tracking south of Howth Junction & Donaghmede as possible solutions.

Response

Increasing the number of tracks, or tunnelling the rail line, is not proposed as part of the Preferred Option for the DART+ Coastal North project. The main objective of the DART+ Coastal North project is to maximise the existing assets in the short-medium term, to deliver a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between Drogheda and Dublin City Centre. It is currently considered possible to deliver these objectives without the introduction of these much more significant interventions. Upgrades to telecommunication and signalling infrastructure along the Northern Line will also contribute to meeting the project objectives.

Options such as developing sections of four-tracking or introducing underground sections of railway are seen as being overly impactful on the surrounding areas and environment, being extremely costly, and as being unnecessary to allow for DART+ Coastal North to achieve its objectives. As noted above, the DART+ Coastal North Project would not prohibit the development of these types of projects being developed in the future under separately funded projects should the need be identified.

When considering options such as the operation of DART services in an alternating sequence of services or operating a shuttle between Howth Junction & Donaghmede and Drogheda there are three main elements to consider:

(1) The existing track layout at Howth Junction & Donaghmede Station would not be able to accommodate the required frequency of trains approaching from the Northern line, for turnback purposes – whereas the proposed frequency of DART shuttle service on the Howth Branch can be delivered in an efficient manner with the proposed revised layout and new turnback facility.

(2) The project team are confident that the available onboard capacity coupled with the additional train frequency of passenger services that originate from Dundalk, Drogheda, Malahide and Clongriffin will be more than adequate to accommodate passengers arriving at Howth Junction & Donaghmede from the three stations on the Howth Branch. On the other hand, based on a frequency of 6 trains per hour per direction originating in Howth, there would not be sufficient onboard capacity to cater for those passengers alighting from stations along the Northern line at Howth Junction & Donaghmede station for interchange purposes.

(3) Should Howth Junction & Donaghmede Station be utilised to accommodate a DART shuttle service for those passengers arriving from the Northern line (Drogheda) to interchange onto a service originating from Howth, the frequency of train service on the Howth branch would need to effectively go beyond the proposed 6 trains per hour per direction to meet expected passenger demand and growth. The consequence that such an increase in train frequency would have on the operation of the level crossings along the Howth branch when considering the interface between rail / road traffic is significant.

4.1.1.5 Shuttle Bus Mis-Interpretation

Some respondents referred to a 'shuttle-bus' in their submissions on the Preferred Option presented in Public Consultation No.2. There was some confusion as to what is meant by the 'DART shuttle service' that is referred to in Public Consultation No.2 documentation as part of the Howth Branch infrastructural interventions forming part of the DART+ Coastal North project.

Response

Any DART+ Coastal North Public Consultation No.2 documentation referring to a 'DART shuttle service' or 'Shuttle' are referring to the potential operation of a DART shuttle service, or shuttle train service, on the Howth Branch Line and not a bus service as suggested by some respondents.

Following on from similar confusion raised in PC1, the wording used in PC2 documentation referred to a DART shuttle service as opposed to a 'shuttle' which was used in PC1. The volume of respondents referring to a bus service in PC2 was considerably lower than in PC1 although it is apparent that some confusion still remains, largely due to people's familiarity with shuttle services typically being in bus form.

4.1.2 Journey Times & Future Timetables

Respondents noted a lack of clarity around future timetables and journey times. The following sub-themes were raised by a number of respondents:

i) Future Journey times

Journey times from Drogheda, Rush & Lusk, Skerries, Clongriffin and Howth were queried. Feedback noted a lack of clarity relating to future timetables.

ii) Impacts on existing services.

Feedback noted concerns that DART+ Coastal North may result in negative impacts on existing Enterprise and Intercity Commuter services on the Northern Line.

Response

It is important to note that the DART+ Coastal North Project will deliver rail infrastructure which will enable the proposed increased frequency and capacity of rail services between Drogheda, Howth, and Dublin City Centre. The project will also deliver improved reliability of services on the Northern and Howth Branch Lines.

Actual journey times, and timetables, for DART services originating from Drogheda, and/or Howth, have yet to be determined. These will vary depending on operational decisions on the stopping patterns of DART services in the future, of which there are many variations and options to consider.

Timetables will be developed based on some DART trains stopping at all stations between Drogheda and Dublin City Centre, and others operating on a skip stopping pattern, similar to the existing stopping pattern on Northern Commuter services. Also, there will be different phases of timetable development that will be gradually introduced as the project builds towards the maximum level of service. The operational detail behind each of these phases will be determined through the timetable decisions at those times. Any substantial timetable change will go through a public consultation process of its own organised by the NTA known as the Timetable Customer Consultation Process.

The operation of commuter services, or Enterprise services, during a peak period may result in an extended journey time for these services. This does however allow Iarnród Éireann to maximise the Northern Line track capacity, through the implementation of the DART+ Coastal North project. Factors including the output from the ongoing Enterprise Fleet Replacement Project, the improved acceleration and braking provided by the new DART+ Fleet, and the stopping patterns of DART services implemented on the Northern Line will all influence and inform future journey times for all rail services.

Modelling completed to date suggests expected DART journey times between Drogheda and Dublin Connolly during peak periods would take circa 53 minutes. Again, as described previously, it is worth noting that the DART+ Coastal North project will deliver the infrastructure to enable the maximum level of service on the Northern Line and future journey times and timetables have yet to be developed and will be sensitive to a variety of influencing factors.

Further to the above and relevant to journeys to and from Howth, it is too early to say exactly what wait times would be when interchanging at Howth Junction & Donaghmede Station, or indeed what the exact journey time from stations on the Howth Branch into Dublin City Centre will be. It is expected that sectional journey times (e.g., Bayside to Howth Stations) along the Howth Branch Line will remain similar to current journey times experienced by DART passengers, and that any adjustment to journey times from the Howth Branch into the city center will be as a result of the interchange between services at Howth Junction & Donaghmede Station which is expected to be minimal. Changes to journey times will be somewhat offset by increased service frequency resulting

in more choice for passengers and reduced wait times to commence DART journeys in the first instance.

4.2 Stations

A significant proportion of submissions providing feedback relating to the theme of ‘Stations’ was in relation to the proposed interchange at Howth Junction & Donaghmede Station and specifically in relation to access & mobility, security and general facilities at that station. Submissions also contained some valuable feedback on general station related themes which is expanded upon further below.

It is important to note that the DART+ Coastal North project is predominantly concerned with the provision of infrastructure that will enable the enhanced levels of service proposed to be achieved and that many of the concerns noted in relation to stations may be progressed as separately funded projects should it be considered appropriate to do so by Iarnród Éireann.

The proposed upgrades to Howth Junction & Donaghmede Station that were included as part of the Preferred Option for DART+ Coastal North were generally well received. Respondents did feel however, that the proposals do not go far enough to address a number of existing issues at the Station – particularly relating to security, lifts, and passenger experience at the station.

4.2.1 Access & Mobility

4.2.1.1 General

Particular focus from PC2 submissions was placed on a need to address access and mobility issues as part of the Howth Junction & Donaghmede Station upgrades, although similar concerns were raised in relation to Iarnród Éireann stations on the Northern Line in general.

Response

Accessibility is an important aspect of the design of the DART+ Programme. Where new interventions are made as part of the DART+ Programme, Iarnród Éireann will ensure that step free access is provided at platforms and that all current access & mobility standards and guidelines are followed in the designs. Furthermore, Iarnród Éireann will continue its rollout of its accessibility programme under separately funded projects. Together, DART+ and the Accessibility Programme will improve access to persons with reduced & impaired mobility and passengers with sensory impairments including visual impairments.

A variety of significant modification works are proposed to Howth Junction and Donaghmede Station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station into the future. The proposed works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades to the existing footbridge and connections to the centre platforms will also be carried out, as well as upgrades to lighting, signage, and finishes throughout. The provision of lifts to cater for those passengers with mobility issues is included in the proposed upgrades, and further details of queries and responses specifically relating to lifts is provided in Section 4.2.1.3 of this report.

Further to the above it should be noted that the new DART+ Fleet which will operate on the Northern and Howth Branch Lines will provide DART trains that are better equipped to cater for the needs of any passengers who may suffer from mobility issues. One of the primary objectives of the design of the DART+ Fleet is to provide improved accessibility for train users. Spacious entrances and aisles will ease passenger flow throughout the train while strategically placed and plentiful grab handles help passengers balance and wait safely for the train to stop. Low level flooring and entrance doors reduce the stepping height for passengers and improve access for persons with reduced mobility. A retractable step at every doorway is deployed automatically before the doors open, it moves outwards to minimise the horizontal gap between the train and the platform. This will greatly improve access for persons with reduced mobility and minimise the risk of people falling. Inductive hearing loops will be placed strategically throughout the new DART+ Fleet trains and 4 PIS displays in each carriage will provide transformed customer information on-board, with real-time updates and information from other public transport systems in the Transport for Ireland network. These are designed for sensory impaired customers.

4.2.1.2 Equality

Large volumes of submissions called for all passengers to be treated fairly and equally. Some submissions questioned whether passengers with mobility issues may be discriminated against in the current proposals that require an interchange at Howth Junction & Donaghmede Station. Submissions called for any developments to be considered in line with the Disability Act, 2005, and all relevant equality guidance and legislation. Submissions called for further consideration of those with mobility issues, and engagement with accessibility and disability groups to understand the varied range of DART passenger needs to be considered.

Response

The provision of facilities that cater for the needs of those with access & mobility needs is at the forefront of thinking when developing solutions such as those proposed at Howth Junction & Donaghmede Station. The proposed upgrades have been designed in accordance with all current design standards and guidelines to ensure all passengers are catered for in an equitable and appropriate manner.

Iarnród Éireann is committed to serving the needs of older customers and those with accessibility challenges. The company has a dedicated Accessibility Users Group, which meets quarterly to discuss current and future plans for the organisation and the impacts that these plans have on those that find using the services more difficult than others. For those that travel with Iarnród Éireann and need assistance, a dedicated Accessibility officer is available and is happy to provide assistance. For more details see [Iarnród Éireann Accessibility \(irishrail.ie\)](https://www.irishrail.ie/en/accessibility)

4.2.1.3 Lifts

Concerns have been raised in relation to the condition of lifts at stations and the regularity that lifts are found 'out of service'. These concerns were particularly relevant to the proposed interchange at Howth Junction & Donaghmede Station where submissions raised a lack of confidence in the availability of working lifts which passengers with mobility issues will be forced to rely on in order to move between platforms as part of their future journeys. The capacity of these lifts to cater for the volumes of passengers interchanging between services was questioned.

A number of respondents proposed the introduction of ramped subway type connections between platforms, or escalators between platforms and the footbridge, as alternatives to relying on lifts and/or stairs to move between platforms.

Response

Any concerns raised in relation to station facilities, or otherwise, as part of this public consultation will be noted and given appropriate consideration by Iarnród Éireann.

The potential for lift failure has been taken in to consideration as part of the design development of the Howth Junction & Donaghmede Station upgrades. Two lifts are provided to serve the central platform, as well as a lift at each of the two upgraded station entrances, so that continued accessibility will be provided in the event of a single lift failure.

Iarnród Éireann's lift improvement programme has seen significant improvement in lift availability since 2020 and investments continue to be made in station lifts. The funding for the fifth and final year of the Big Lift Programme has been secured for 2024 which will see lifts replaced or upgraded in more than 50 stations by the end of 2024. Iarnród Éireann lift improvement measures include a Lift Passenger Call system which ensures lifts are monitored by CCTV to prevent access to those who seek to vandalise or damage equipment. Many lift faults arise from misuse, which in turn impacts on ongoing reliability. Results of installation to date have been very positive with a considerable reduction in the lifts being out of service due to persistent antisocial behaviour. Benefits of the system include higher availability of lift services for customers with reduced mobility, reduction in vandalism, remote fault & alarm status of lifts in service, and visual monitoring of lifts 24/7 during normal and emergency situations.

The option to include subway type connections was considered during the development of the proposals for DART+ Coastal North and the upgrade of Howth Junction & Donaghmede Station. A lack of adequate space to allow for the development of subway connections, as well as a history of issues with lighting, drainage and antisocial behaviour resulted in a solution of this type not being progressed as part of the preferred option. The introduction of escalators at stations is not something typically progressed at stations in Ireland largely due to the significant space required for their installation as well as ongoing maintenance issues.

4.2.2 Station Security

Respondents noted very significant concerns for their safety, and for the safety of more vulnerable passengers, as a result of being required to interchange at Howth Junction & Donaghmede Station. The concerns are founded on a history of anti-social behavior and the presence of gangs, assaults, and thefts, which have occurred at the station over the past number of years.

Respondents raised serious concerns with a lack of in-person security at stations in general, and specifically at Howth Junction & Donaghmede Station and Clongriffin Station. Submissions stated that unless the concerns relating to safety & security are addressed as part of the DART+ Coastal North proposals that passengers will not be comfortable using DART services and will revert to private car use.

Respondents noted the inclusion of additional CCTV in the Howth Junction & Donaghmede upgrade proposals but expressed dissatisfaction with Iarnród Éireann's approach to station security in

general. Respondents called for an increase in both security and station personnel presence across the DART network with a particular focus on areas with a reputation for anti-social behavior such as Howth Junction & Donaghmede or Clongriffin Stations.

Response

The security concerns raised as part of this public consultation are taken extremely seriously by Iarnród Éireann. Iarnród Éireann are fully aware of the ongoing issues with anti-social behaviour at Howth Junction & Donaghmede Station and elsewhere on the DART network.

Anti-social behaviour is a blight that affects all areas of society. Iarnród Éireann is part of an NTA led Public Transport Security Forum, where all operators work together to reduce the incidence of anti-social behaviour onboard public transport and at stations.

Safety & security, including at northside DART & Commuter stations is always high up the agenda of the forum and that will continue to be the case. Security at stations is extremely important and in future, should it be deemed necessary, Iarnród Éireann can apply for additional funding to the NTA for additional security at Howth Junction & Donaghmede Station and elsewhere. Separate to this, Iarnród Éireann has rapid response hubs with An Garda Síochána at Raheny & Coolock, so if an incident does occur the dedicated security will have the back up of An Garda Síochána quickly when necessary.

Iarnród Éireann has been, and continues to, engage extensively with the community in the area of Howth Junction & Donaghmede Station. Murals at the station, have been created in conjunction with local youth groups telling the story of the area, which have done much to brighten up the station.

4.2.3 Station Facilities

4.2.3.1 General

Respondents noted a general disapproval of current station facilities. Submissions cited a need for stations to be modernised, including improvements to general station cleanliness, lighting, shelter, and signage.

Submissions called for a general improvement in the types of facilities provided as part of station infrastructure including the provision of toilets and/or restaurants/café facilities at stations. A lack of toilet facilities was noted as being of particular concern in relation to passengers undertaking longer journeys, as well as a lack of onboard toilet facilities.

Respondents noted that the provision of these types of facilities would make the prospect of an interchange at Howth Junction & Donaghmede Station a more appealing prospect than it currently is perceived to be.

Response

The maintenance and upkeep of existing stations is an important element of Iarnród Éireann's ongoing works. Maintenance of station cleanliness, lighting and signage is ongoing and the proposed upgrades at Howth Junction & Donaghmede Station will include the provision of adequate shelter as well as upgrades to lighting, signage and finishes throughout.

Toilet facilities are provided at Connolly & Pearse Stations, in Dublin City Centre. Ongoing issues with anti-social behaviour and vandalism have led to the closure of toilet facilities at stations elsewhere along the DART+ Coastal North route. The provision of toilets at both Connolly & Pearse Stations is considered sufficient for the short-haul nature of DART trips which typically have a duration of less than 1hr (Greystones to Pearse, duration of approximately 52mins). The maintenance of, and accessibility to, both toilet and lift facilities at stations is managed by Iarnród Éireann's accessibility group and the management and maintenance of these facilities is an ongoing process that is operated separately to the DART+ Programme.

The provision of facilities such as eateries at stations is not something that falls within the scope of DART+ Coastal North. The calls through submissions for such facilities can be taken onboard and given further consideration by Iarnród Éireann as part of separately funded projects. All feedback relating to provision of eateries, or similar, has been passed to CIÉ group property who look for retail opportunities at stations across the network.

4.2.3.2 Parking

Respondents expressed concern relating to the provision of adequate parking facilities at stations (Drogheda, Rush & Lusk, Clongriffin, Howth Station, Howth Junction & Donaghmede Stations) or park and ride facilities near stations (Clongriffin and Sutton Stations), largely in relation to the proposed increase of rail users resulting from DART+ Coastal North. Stakeholders, including local authorities highlighted the need for secure, well-lit and covered bicycle parking at stations. Submissions urged the project team to work closely with pedestrian and cycling groups when designing any future stations.

Response

The objectives of the DART+ Coastal North project is to increase capacity and extend the electrification of the Northern Line. The provision of additional car parking facilities is not within the scope of the project. However, Iarnród Éireann's Network Enhancement Division and the National Transport Authority's Park & Ride Development Office are working on other projects to deliver enhanced parking at stations, for cars and bicycles in parallel to DART+ Coastal North.

Further information on ongoing Iarnród Éireann projects relating to the provision of parking facilities is provided in Section 3.5.1 of this report.

4.2.4 Bottleneck at Connolly Station

Connolly Station was cited as an existing bottleneck for rail services which is only likely to be exaggerated as a result of the increased level of services proposed by DART+ Coastal North. Regular delays to services experienced at Connolly Station were cited as a cause of frustration for DART users. Submissions questioned how Connolly Station will cater for the increased volume and frequency of services resulting from DART+ Coastal North.

Response

It is important to note that the maximum level of service proposed by DART+ Coastal North is not something that would be expected to come into effect immediately upon the delivery of the project. When the proposed infrastructure is in place (circa 2028/29 – fully dependent on completion of

statutory processes, procurement & construction), it is expected that Iarnród Éireann would incrementally introduce new services and enhanced timetables across the DART+ Programme in response to growing demand. As such, the proposed peak level of service in effect will be delivered over a period of time and will not come into effect in one single timetable change. There will be different phases of timetable development that will be gradually introduced as the project builds towards maximum level of service. The operational detail behind each of these phases has not been worked through at this early stage in the project planning and development.

As part of DART+ West, capacity enhancements at Dublin Connolly are proposed. These enhancements include modifications to junctions and the station itself to facilitate increased train and passenger numbers.

Operational details relevant to Connolly Station and relating to the enhanced levels of services on the Northern Line, delivered as part of DART+ Coastal North, will be developed over time as part of the development of future timetables. The maximum level of service proposed on the Northern Line has been developed based on constraints such as the future capacity of Connolly Station to cater for such increases.

4.3 Environmental Impact Assessment

4.3.1 Air Quality

Stakeholders stated that the shift in transportation usage from private cars to public transport will help reduce air pollution and that the electrification of the line will aid this further. However, some stakeholders noted that they have concerns about air quality from construction and post-construction and that every effort should be made to mitigate against any associated air quality impact.

Submissions stated that a survey of the current air pollution created by trains should be carried out in relation to residential areas; and that this should be monitored and any impact from increased numbers of trains identified.

Respondents noted that the potential increase in buildup of traffic at the Howth Level Crossings as a result of increased train frequency will result in negative impacts on air-quality and emissions in the surrounding areas. Health concerns of pedestrians and cyclists also caught at level crossings were raised and calls for further assessments of these impacts were raised.

Respondents from the Malahide Marina Village locality raised concerns relating to the impact of traffic from both construction compounds and the Malahide Wastewater Treatment Plant being diverted through this residential area, with a particular emphasis on the potential for harmful fumes to be discharged from vehicles utilising the wastewater treatment plant.

Respondents from the Drogheda MacBride area raised concerns relating to the spreading of dust from construction activities relating to interventions at the station and the associated air quality impacts.

Response

A comprehensive air quality assessment will be undertaken as part of the EIAR, and where any potential significant effects are identified during the construction or operational phases of the DART+

Coastal North project, suitable mitigation where required, will be designed, to minimise such effects. This could include measures, such as dust control during construction.

Every effort will be made to avoid, reduce, and/or mitigate negative impacts through the construction and operational phases. This will include the application of best practice construction methodology.

A reduction in the volume of diesel trains operating on the Northern Line, replaced by cleaner and greener trains, should have a positive impact on rail related air quality when compared to the existing situation.

4.3.2 Archaeology, Cultural and Architectural Heritage

A limited number of submissions raised concerns relating to possible impacts on existing structures in relation to Archaeology, Cultural, and Architectural Heritage. Structures noted as being of significant importance included Drogheda MacBride Station and the four existing viaducts along the route.

Response

The potential impacts of the DART+ Coastal North proposals on archaeological, architectural and cultural heritage have been assessed and considered in the multi-criteria assessment (MCA) undertaken to identify the Preferred Option and a more detailed impact assessment will be presented in the Environmental Impact Assessment Report (EIAR) which will be submitted to An Bord Pleanála as part of the Railway Order application.

Consultation with all relevant authorities is ongoing and will inform the design development process.

4.3.3 Biodiversity

Respondents have stated concerns over the impact of the DART+ Coastal North Project on biodiversity and the ecological landscape in a variety of locations within the project area. Areas of concern raised in submissions include areas surrounding the Laytown Viaduct, the landscape bund in Drogheda MacBride Station, the Malahide Estuary, Rogerstown Estuary, the grassy bank adjacent to the proposed Malahide Turnback, and hedgerows and streams project wide. Impacts on wildlife such as breeding birds, bats, badgers & otters were raised as additional concerns.

Response

The level of impact on flora and fauna within the project extents has been assessed and considered under the biodiversity heading in the MCA, in identifying the Preferred Option. This was informed by detailed ecological surveys of the study area where access was arranged. A very detailed assessment will be undertaken to inform both the EIAR and the Appropriate Assessment (AA) documentation which will accompany the Railway Order application. Details of any potential impacts of the proposed development on biodiversity and on European sites (Natura sites) as well as any mitigation measures proposed to reduce impacts will be presented in the EIAR and AA documentation.

4.3.4 Human Health

Potential impacts relating to human health were raised in submissions across a range of aspects. These include the following:

Passengers

Impacts on passenger safety, including women and elderly passengers, resulting from the proposed interchange at Howth Junction and Donaghmede Station were raised in many submissions, as cause for concern, including the history of antisocial behavior at Howth Junction & Donaghmede. The pushing of a young woman onto the tracks in 2021 was also very prominent in submissions as an example of safety concerns that respondents have.

Concerns were voiced over a lack of onboard toilets in relation to journey lengths and how this may affect those with underlying health conditions. A lack of welfare facilities at stations was noted as a significant concern, heightened by the corresponding lack of onboard toilets.

The potential for a lack of availability of seating for the elderly or less able in relation to longer journeys from the northern extents of the project, and in relation to passengers joining already full connecting services at Howth Junction & Donaghmede Station, were raised in submissions.

Residents

Residents living in proximity to the rail line have raised a variety of human health related concerns, including the following more prominent concerns:

- Noise & vibration during construction and operational phases of the project;
- Air Quality;
- Impacts relating to substations and extended electrification;
- Visual impacts and impacts to views from properties;
- Loss of biodiversity and environmental concerns.

Submissions received from residents in areas surrounding proposed intervention locations including Drogheda MacBride Station (Railway Terrace & McGraths Lane), Malahide (Malahide Marina Village), substation locations, were particularly prominent and concerns primarily related to visual, noise, light, vibration, air quality and disturbance impacts.

Response

Potential Human Health impacts resulting from both the construction and operational phase of the DART+ Coastal North Project will be fully considered as part of the EIAR. The project team remains committed to continued engagement with residents and stakeholders to ensure that any potential impacts have been identified and fully considered within the Railway Order documentation.

Concerns relating to both construction and operational phases have been raised which are discussed in detail in section 4.3.12.

4.3.5 Hydrogeology

Stakeholders stated that where any instream works are proposed, or where any works are proposed within the vicinity of a watercourse, it is essential that all such works are managed appropriately and are scheduled for the appropriate time of year to minimize any potential for impact. Works around estuaries & rivers forming part of Special Protection Areas (SPA's) were noted to be of particular relevance.

Response

An assessment of all relevant watercourses is included in the Hydrogeology chapter of the EIAR. All proposed works within the vicinity of watercourses are considered in detail within the construction strategy and considered further in the EIAR. A detailed assessment of potential effects on European sites (Natura sites such as SPAs) is also being undertaken and detailed Appropriate Assessment documentation will be submitted with the Railway Order application.

4.3.6 Hydrology

Submissions from stakeholders, including local authorities and the Office of Public Works, raised hydrology as an important matter to be appropriately considered by the project team.

Consultation with local authorities and OPW was encouraged to ensure that any aspects of hydrology that may be impacted are addressed in an appropriate manner at this early stage of the DART+ Coastal North project development.

Potential impacts on existing drainage systems are to be fully considered as well as all proposals with the potential to impact on flood risk.

Furthermore, it was noted that any works that may impact existing drainage infrastructure should be agreed with Local Authority Drainage Divisions. All necessary applications and consultations with the relevant authorities shall be completed prior to any such works commencing.

A submission from the Office of Public Works stated that their comments made to the consultation should be considered as part of the Flood Risk Assessment. The OPW noted that 'surface water management should be given appropriate consideration at early design stage'. It was further requested that 'details of measures included to contribute to a more sustainable environment along the new route, for example, SuDS measures should be provided' and that 'surface water shall be managed so that discharge to public sewers is avoided whenever possible'.

Response

All proposals with a potential to impact on hydrology are being developed and designed in accordance with relevant design standards and guidelines. Consultation with relevant authorities will continue through the design process to ensure that all aspects of the design are discussed and designed accordingly. A detailed hydrological assessment is being undertaken as part of the EIAR and a project specific standalone flood risk assessment is also being undertaken. The EIAR and Flood Risk Assessment (FRA) will accompany the Railway Order application.

4.3.7 Landscape & Visual

A number of respondents raised concerns over the potential impacts of DART+ Coastal North in relation to Landscape and Visual aspects. Particular concerns were raised in relation to the visual impact of the proposals on existing structures, the landscape bunds around Drogheda MacBride Station, the visual impact of the retaining wall required as part of the Malahide Turnback works and impacts of overhead electrification on views of areas such as the Malahide Estuary. General concerns were raised in relation to the visual impacts of the extension to electrification and associated substations on the existing landscape.

Response

The DART+ Coastal North project is seeking to improve and modernise the existing railway whilst protecting, in so far as possible, the existing heritage and landscape associated with the railway within the project extents.

In order to extend the electrification from Malahide to Drogheda, certain interventions are required that will impact on existing structures. The project team have considered the architectural heritage of all structures in the options assessments and physical interventions to these heritage structures will only be undertaken where absolutely necessary. An architectural heritage assessment of the proposed development and all protected structures impacted by the proposed works will be undertaken as part of the Environmental Impact Assessment Report.

The EIAR will also contain a landscape and visual impact assessment and will include photomontages to help the public understand how the proposed development will sit into the receiving environment. Where necessary, an appropriate level of screening will be included in the design to ensure that any impacts on the exiting landscape are kept to an acceptable level, this may be of particular relevance to substation design and to the more significant interventions such as the introduction of turnback facilities.

4.3.8 Material Assets

A limited number of responses referred to potential impacts on existing utilities along the project extents. Where existing or future electrical and/or water/sewer services cross the extents of railway to be electrified there will be a need to divert these services.

Response

Consultation with utility providers has been ongoing through the development of the DART+ Coastal North project and will continue through to the project completion.

Potential impacts to existing utility services have been identified as part to the project development to date. Sufficient space has been allowed for within the extents of the project to ensure any required diversions of utilities can be accommodated. Any impacts on 3rd party lands have been identified and consultation with landowners is ongoing to ensure they are kept abreast of project proposals.

Interfaces with existing utilities, boundary treatments, drainage works, vegetation management and other ancillary works will be required along the length of the project. Upon appointment of a construction contractor a dedicated Community Liaison Officer will be put in place to communicate

details of upcoming works and every potential mitigation will be put in place to minimise the disruption that may occur.

4.3.9 Noise & Vibration

Stakeholders raised concerns regarding the impact of noise and vibration during both construction and operation of the DART+ Coastal North project. It was outlined in submissions that Iarnród Éireann need to consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and consider the impacts on those living in close proximity to the railway during both construction and operation of DART+ Coastal North.

Noise and vibration concerns were particularly prominent from respondents in relation to proposals at Drogheda MacBride Station and at Malahide where there will be a significant volume of construction activity as well as significant increases in regularity of train movements as a result of the project.

4.3.9.1 Construction Noise & Vibration

Stakeholders raised concerns over the impact of noise and vibration during the construction phase of DART+ Coastal North. Submissions queried potential noise levels that will result from construction works, frequency of construction noise & vibration impacts, and the timeline/duration of construction. Respondents queried whether advance surveys will be carried out to determine a baseline level for noise & vibration.

Local residents in the Drogheda MacBride surrounding area (Railway Terrace, McGraths Lane, Wheaton Hall), the Malahide area (Malahide Village) as well as the Clongriffin and Baldoyle areas raised frustrations that they will be required to endure significant noise disruption during construction. Residents noted that further information will be required in advance of any works commencing. Some respondents noted that all future notifications of upcoming activities should be directed to individual landowners and not as a result of landowners seeking information due to hearing of proposals through word of mouth as was the case for some during PC2.

Respondents noted that maximum effort is needed to put noise mitigation measures into place during construction. Stakeholders suggested that the project team research measures used in other European countries during construction. It was noted that mitigations put in place for past works were not adequate and that these measures should be improved for the construction of the DART+ Coastal North project.

Submissions noted the potential impacts on livestock and equestrian businesses in the areas in close proximity to planned works where the potential for livestock and/or horses to be startled by loud unexpected noises such as piling exists, potentially resulting in potential injuries to animals and/or farmers/riders.

Response

A detailed construction strategy has been prepared, which includes programming, phasing and construction methodologies for the proposed DART+ Coastal North project works. This strategy has been developed in close consultation with the Environmental Impact Assessment (EIA) team, to ensure that construction impacts are clearly identified and avoided or minimised where possible. A

Construction Environmental Management Plan and Traffic Impact Assessment shall be prepared to accompany the RO application, setting out the measures to be taken during construction to ensure potential significant effects on the environment, including in relation to noise & vibration are minimised where possible. The construction impacts will be comprehensively analysed and assessed in the Environmental Impact Assessment Report (EIAR) and in the Appropriate Assessment (AA) documentation, to provide sufficient information for the competent authority to reach its reasoned conclusions on the potential effects of the project on the environment, and on European sites.

A detailed noise and vibration assessment will be undertaken as part of the EIAR, and if deemed necessary, the design may include noise mitigation measures in locations where acceptable noise impacts are exceeded, e.g., natural screening, noise fences/barriers and landscaping.

Potential construction impacts (given the limited number of proposed interventions) will likely be minimal to the south of Malahide given that the line between Connolly and Malahide, including the Howth Branch, is already electrified. Some site-specific interventions will be required between Howth Junction & Donaghmede and Drogheda stations, associated with increasing the rail capacity and the specific upgrades now proposed to Howth Junction and Donaghmede Station. Between Malahide and Drogheda, DART+ Coastal North will involve the erection of overhead electrical infrastructure to facilitate the future running of electric trains. In order to maintain services for customers during the day, the majority of the construction works along the railway line itself will take place at night. Works outside of the live railway corridor can progress during the day i.e., modifications to bridges, construction of substations and construction compounds. Every effort will be made to avoid, reduce, and/or mitigate negative impacts through the construction and operational phases.

4.3.9.2 Operational Noise & Vibration

Submissions outlined concerns regarding the impact of noise and vibration when the project is operational. Concerns mostly relate to the increased frequency of DART services on the Northern and Howth Branch lines, and increased frequencies of train movements in the areas where turnbacks are proposed.

Respondents from the Malahide Village locality raised concerns in relation to the introduction of a turnback at Malahide and the resulting shift of the southbound track towards their properties. Respondents from the Drogheda MacBride Station locality raised concerns over modifications to operating hours of the station and depot, as well as impacts to an existing bund which currently provides noise mitigation.

Stakeholders stated that mitigation measures need to be put in place and requested additional information on what is being proposed. Respondents highlighted the need for sound barriers to be installed in areas where changes to operational frequency will be most prominent.

Some submissions welcomed the move from diesel to electricity powered trains and stated that this will positively influence noise levels in the areas surrounding the line.

Respondents questioned whether there will be additional noise coming from the OHLE and/or substations.

Response

Detailed noise and vibration modelling is being carried out as part of the Environmental Impact Assessment (EIA) based on the proposed increase in train frequencies. The findings of these studies will inform the detailed design of the DART+ Coastal North Project, and provision for relevant mitigation measures will be included as appropriate.

It is important to note that the new DART+ Fleet will reduce the number of Diesel trains operating on the Northern Line. The new DART+ Fleet will be powered by electricity and will be substantially quieter than the diesel trains that they are replacing.

At this point in time, it is not possible to say what the impacts on train operating times and or details of future train movements/frequencies will be. These operational decisions have not yet been developed and will evolve over time, linked to passenger demand and future requirements of Iarnród Éireann.

Iarnród Éireann are conscious that the Northern Line is bounded by areas of residential properties and all possible measures will be taken to ensure that impacts relating to increased frequencies of services are minimised and kept within acceptable parameters.

4.3.10 Population

Submissions urged Iarnród Éireann to give further consideration to future population growth, with a particular focus on the Howth/Sutton area, and the Drogheda North area.

Stakeholders made specific reference to a number of developments which are progressing through planning and construction in the Howth/Sutton/Bayside area which will lead to an increase of circa 30,000 new residents in the area. Specific reference was made to developments at Santa Sabina, Howth Road / Howth Castle, the old Techrete site, and the Bailey Court site. Many concerns received from the Howth Peninsula locality related to a potential increase in the volume of cars associated with these developments over the coming years. Respondents raised concerns that the current traffic issues associated with the existing frequency of DART services will only worsen over time, given the potential increase in level crossing closure frequency associated with the DART+ Coastal North project.

Reference was also made to the booming population of Drogheda, and particularly Drogheda North, in submissions calling for the DART+ Coastal North project to extend beyond Drogheda MacBride Station in future. This was echoed in the Louth Co Council submission, which also acknowledged a variety of constraints to a project of this type. Some calls for DART+ Coastal North to extend to Dundalk to service their growing population were included in submissions.

Response

The proposed infrastructure included in the DART+ Coastal North project will allow for a potential doubling of capacity between Howth and Dublin City Centre. As the demand for DART capacity increases over time, fed in-part by developments such as those referenced above, Iarnród Éireann will have the capacity to increase capacity in line with demand into the future. When considering impacts on vehicular traffic relating to future developments it is important to note that Government policy currently has a focus on moving people away from private car use. The objectives of the DART+ Coastal North project focus on the provision of increased capacity and frequency of rail services, to facilitate a modal shift away from private cars. Facilitating future growth of individual car

volumes is not part of the DART+ Coastal North objectives, nor is this supported by current government policy.

The DART+ Coastal North project will also provide 5 DART services per hour from Drogheda to Dublin Connolly during the 3hr peak period when operating at maximum capacity. This will provide improved public transport services for all locations along the Northern Line within these extents. The extension of DART services to Drogheda North, and Dundalk, is not included in the DART+ Coastal North scope, however, this does not prohibit an extension of services to Drogheda North as part of future, separately funded, projects. Future projects of this type are largely demand driven and should the demand for these projects grow into the future then such extension projects certainly will not be ruled out.

4.3.11 Traffic & Transportation

4.3.11.1 Construction Traffic & Transportation

Several concerns were raised in submissions regarding the impact of construction on general traffic, and construction traffic itself, relating mostly to areas surrounding significant interventions.

The need to carefully plan and coordinate construction impacts associated with the Dublin Road Bridge was raised by both Louth and Meath County Councils as part of ongoing correspondence. The Dublin Road is seen as a vital piece of road infrastructure in the Drogheda area where disruption to the flow of traffic may have large knock-on effects.

Residents of the Railway Terrace / McGraths Lane area raised concerns relating to disruption associated with the re-construction of OBB080/80A/80B noting concerns with the width of Railway Terrace and its ability to cater for construction traffic. Disruption to the two residential properties located to the east of OBB080/80A/80B was noted in submissions where temporary access to Marsh Road is proposed during the period where access via OBB080/80A/80B will not be possible due to the reconstruction works proposed.

Meath County Council noted that many of the proposed construction compound locations would need to be accessed via narrow country roads and noted that a Construction Stage Traffic Management Plan would be required prior to the commencement of works. Meath County Council also noted that it will be unacceptable for access to the Bettystown Substation to be through a residential area.

Respondents raised concerns relating to the proposed construction of a turnback at Malahide, and the construction compounds proposed within the Malahide Marina area. Concerns relating to general construction traffic accessing the Malahide Marina were voiced, as well as concerns relating to the proposed diversion of wastewater treatment plant traffic through the Malahide Marina Village (while construction works will require the closure of the existing access road which serves the Malahide Wastewater Treatment Plant). Residents of the Malahide Marina Village noted concerns for pedestrians within the residential area as well as concerns with hazardous waste material being transported through a residential area (from the wastewater treatment plant). Impacts relating to a loss of carparking spaces and access to existing businesses within the Malahide Marina Village were also raised.

Fingal Co Council has identified the need for any construction traffic which needs to be routed through the Malahide Area to be carefully planned and raised the need for all necessary Traffic Management Plans to be submitted to the Council in advance of the commencement of works. A general request was contained within many submissions for the provision of detailed traffic arrangements proposed at each construction compound site with regard to vehicular access. Stakeholders noted that suitable haul routes need to be identified and information should be provided on these.

Respondents requested that specific work timetables be developed, and that advance notice of works be given to residents in areas surrounding construction works.

Submissions highlighted the importance of a Traffic and Transport Assessment being carried out in accordance with relevant guidelines. It was noted that TII's Traffic and Transport Assessment Guidelines (2014) should be referred to in relation to the project's potential impact on the national road networks.

Concerns were raised over the potential impact of construction traffic on existing roads and surfaces. The potential for heavy construction traffic to cause damage to existing pavements was noted. This was of particular concern within the Malahide Marina where poor ground conditions were noted as well as a history of significant works to stabilise ground to allow for the construction of pavements suitable for marina use. Concerns over the suitability of existing country roads as construction access routes were also noted.

Response

A detailed construction strategy has been prepared, which includes programming, phasing and construction methodologies for the proposed DART+ Coastal North project works. This strategy has been developed in close consultation with the Environmental Impact Assessment (EIA) team, to ensure that construction impacts are clearly identified and avoided or minimised where possible. A Construction Environmental Management Plan, including a Construction Traffic Management Plan, as well as a detailed Traffic Impact Assessment within the Environmental Impact Assessment Report will accompany the RO application, setting out the measures to be taken during construction to ensure against significant effects on traffic, existing infrastructure, residential areas, and the environment within the surrounding areas. The construction impacts will be comprehensively analysed and assessed in the Environmental Impact Assessment Report, to provide sufficient information for the competent authority to reach its reasoned conclusions on the potential effects of the project in relation to traffic & transportation, and all aspects of the surrounding environment including residents and the public.

Throughout the planning and construction phases, all necessary steps will be taken to limit the impacts associated with the delivery of the DART+ Coastal North project. Where there is a need for some temporary land-take to allow for construction compounds, and construction access, consultation with all affected landowners and interested parties will continue through the planning and construction phases to ensure that any queries and concerns are addressed. As the DART+ Coastal North project progresses, the project's designated Community Liaison Officer will keep local communities informed and engaged on upcoming works and the expected impacts these will have on the local area.

Where construction related activities will impact on existing traffic, such as where traffic management measures are required, all necessary applications will be sought from the relevant local authorities in advance of the works taking place.

Access to both residential properties to the East of OBB080/80A/80B will be provided via Marsh Road during the period where it is not possible to access these properties while the existing bridge is removed and reconstructed. This temporary access will be carefully planned and coordinated.

4.3.11.2 Operational Traffic & Transportation

General

The responses in relation to the impacts of DART+ Coastal North on traffic & transportation in the Operational Phase were generally mixed and varied based on the areas from which the responses originated.

Local authorities and public representatives generally acknowledged the project's potential benefits in relation to reducing car traffic and congestion within the GDA.

Local Authorities have noted the need to provide for increased car and bicycle parking and improved accessibility at stations to cater for the increased volume of passengers, as well as a need to coordinate with active travel projects that are being progressed in many areas surrounding the DART+ Coastal North Project.

Howth Peninsula

Serious concerns were raised in relation to the implications of the project on the Howth Peninsula road network due to the increased level crossing closures associated with the proposed increased DART frequencies on the Howth Branch.

Many respondents noted existing traffic & transportation issues based on a train frequency of three trains per hour between Howth and Dublin City Centre where traffic gridlock was noted as a regular occurrence during peak travel times, school drop off and collection times, periods of good weather and when events are scheduled in the Howth or Sutton areas. The doubling of train frequency has been noted as having the potential to make traffic significantly worse.

Traffic accessing residential areas surrounding the level crossings was noted as being extremely challenging currently and concerns have been raised over the potential worsening of an already difficult traffic situation.

Many respondents from the Howth Peninsula noted that a change from private car use is not possible for those needing to drive children to schools, or to visit elderly relatives, for example. A general lack of viable public transport alternatives for the people of the Howth Peninsula was noted as was a need for a better bus-system to service the area.

Response

General

One of the DART+ Coastal North project objectives is to help alleviate traffic congestion. This can be achieved through the provision of increased frequency and capacity on public transport, in this case DART services.

Additional parking facilities at stations are not included as part of DART+ Coastal North's project scope, which is focussed on the development of infrastructure to facilitate the increase in train frequency on both the Northern and Howth Branch lines. Car parking strategy is a matter considered separately by the NTA.

However, separately to the DART+ Coastal North project and outside the Railway Order, Iarnród Éireann are progressing a number of projects including the Multimodal Interchange Project, DART Station Enhancement Project and, Carparks Programme aimed at developing stations to support future needs. The Multimodal Interchange Project will assess all stations throughout the network with a view of implementing its strategy at stations where there is need for modifications that will have an impact on multimodal travel and station access. The project will assess a variety of multimodal options at stations including but not limited to the provision of secure bicycle parking and shared mobility services. Iarnród Éireann are working to progress and finalise the Multimodal Interchange Strategy before the end of Q4 2023 with a view to developing an Implementation Plan subject to funding constraints. Additionally, the DART Station Enhancements Project, currently out to tender for consultant support, will review the future requirements at DART stations and the first phase of this project (design principles guidelines and strategy and implementation plan) is scheduled for completion in Q2 2024. Further stages and roll out of the project will be subject to funding.

Howth Peninsula

The current level crossing barrier opening and closing timings have been used to inform a traffic model assessing the effects on vehicles, cyclists, and pedestrians. Detailed assessment of the four existing level crossings along the Howth line has concluded that these level crossings can continue to operate and provide an appropriate level of cross connectivity and accessibility whilst still meeting the increased DART service frequency requirement. The increased frequency of level crossing closures will result in a greater likelihood of vehicles, pedestrians and cyclists being required to queue at the crossings, however, the traffic modelling and sensitivity analysis has shown that queue lengths are likely to remain within the available queueing road space in all cases. Based on the assessments carried out to date, additional infrastructural interventions at the four level crossings are not considered necessary. The effects of any changes to traffic patterns will be fully assessed as part of the Environmental Impact Assessment Report (EIAR) and Traffic Impact Assessment (TIA) and it should also be noted that the EIAR accompanying the Railway Order application will include a comprehensive assessment of potential air quality and climate impacts resulting from the proposed DART+ Coastal North development.

4.4 Project Need

A large proportion of submissions received do not support the need for the DART+ Coastal North project. As noted in Section 3.4.2 and Section 3.4.4, a very significant proportion of opposition to the project was received from the Howth Peninsula. Where feedback was received from other areas along the Northern Line, stakeholder submissions generally recognised the need for DART+ Coastal North for a variety of reasons, many of which have been referred to previously within this document.

Many respondents from the Howth Peninsula questioned the benefits of the project for their community when considering the disruption involved for them and the implications of operating a shuttle service to facilitate the overall improved capacity and frequency on the Northern Line. These sentiments were echoed by elected representatives, with many stating that the overall benefits that DART+ Coastal North will deliver to the wider area should not be at the cost of the existing and future DART users from the Howth Peninsula communities.

Submissions noted that a modal shift from private car usage to public transport would have climate benefits by reducing congestion and traffic. Respondents from the Howth Peninsula responded with opposing views on this opinion.

Stakeholders generally welcomed the proposed frequency and capacity increases, which they highlighted would reduce overcrowding and reliability and would contribute to the development of the GDA.

Dublin's rapidly expanding population, particularly those populations located along the Northern Line, were highlighted by stakeholders and it was stated that projects like DART+ Coastal North are needed to support the continued population growth expected along the Northern Line into the future. It was however also noted that additional stations, station upgrades, and greater integration with other forms of transport, would be needed to ensure that growing populations are properly catered for by public transport going forwards.

Those stakeholders opposing the development of the DART+ Coastal North Project called for additional interventions at level crossings to reduce the potential for delays to traffic and for measures to be introduced which would allow for the continuation of direct services to Dublin City Centre from Howth. Stakeholders, in supporting the project, called for it to be delivered without delay and hoped that delays associated with other major infrastructure projects such as the proposed DART Underground and MetroLink would not be repeated with DART+ Coastal North.

Response

The need for the DART+ Coastal North project is established in the DART+ Programme Preliminary Business Case which was published in September 2021 (https://www.nationaltransport.ie/wp-content/uploads/2022/08/20210910-DART-Programme-Preliminary-Business-Case_Final.pdf)

The delivery of DART+ Coastal North will allow Iarnród Éireann to deliver services to support the future public transport needs of communities along the Northern Line and within the northern extents of the GDA.

4.5 Integration

A range of submissions called for greater interaction between forms of public and active transport as part of DART+ Coastal North.

4.5.1 Public Transport

Respondents noted a need for greater joined up thinking between different forms of public transport and authorities. A general lack of viable public transport options was cited as a main reason for people choosing to travel by private car as opposed to public transport.

Respondents noted a desire for bus services to reach a greater variety of destinations. The limitations of rail services as a viable form of public transport for people looking to travel to areas other than Dublin City Centre were noted.

Respondents noted that park and ride services centred around railway stations would encourage people to leave their cars at home and shift to public transport.

Respondents from the Howth Peninsula noted that bus services are extremely limited and often involve excessive journeys into the City Centre, and a change in service, to then continue on to their destination.

Response

This issue falls under the remit of the NTA and shall be passed on to the NTA for their further consideration. Where provision of infrastructure at stations is required as part of other projects, Iarnród Éireann shall progress these projects as required to do so by NTA. As noted previously, separately to the DART+ Coastal North project and outside the railway order, Iarnród Éireann are progressing a number of projects including the Multimodal Interchange Project, DART Station Enhancement Project and, Carparks Programme aimed at developing stations to support future needs.

4.5.2 Active Travel Measures

Local Authorities stressed the need for ongoing and future integration between DART+ Coastal North and Active Travel projects. A variety of active travel projects have been identified in responses to PC2, these include:

Dublin Road (Drogheda).

Louth County Council is progressing with preliminary plans to develop active travel measures along the Dublin Road as part of improvements to active travel facilities within Drogheda. The Dublin Road Bridge (UBK1) acts as a significant constraint to these plans as the current bridge does not provide sufficient horizontal clearance to accommodate additional pedestrian/cycle facilities.

Response

The DART+ Coastal North project proposes to widen (perpendicular to the road beneath) the Dublin Road Bridge UBK1 to allow for the extension of the existing platform on the Navan Branch. The widening of this structure will allow for the shifting of the tracks to the North and the extension of the existing platform as part of the proposed extension of the DART to Drogheda. The location of the bridge abutments are not proposed to be altered as part of the DART+ Coastal North Project.

Consultation with Louth County Council and the NTA with regards to the Dublin Road Bridge will continue, however currently the widening of UBK1 to facilitate active travel measures does not form part of the project scope. Any works to facilitate additional infrastructure beneath UBK1 may be progressed as part of separately funded projects.

OB080/80A/80B at McGraths Lane

Both Meath and Louth policy documentation identify OBB080/80A/80B as a key link for the surrounding area to Drogheda MacBride Station. In line with both Louth and Meath policy it is understood that OBB080/80A/80B should provide capacity for active travel to fit with future plans for the development of active travel facilities in the area.

Response

The new structure that is proposed to replace the existing OBB080/80A/80B will allow for sufficient vertical clearances that will allow for the passage of electrification beneath the superstructure. The proposed new structure aims to replicate the existing function of OBB080/80A/80B so far as to facilitate vehicular access to the two residential properties to the East of the structure and to accommodate future active travel needs.

UBB079 at Boyne Valley Hotel

Planning applications submitted to Meath County Council show an increased usage of this bridge going forwards. Meath County Council has noted that improved capacity/width should be provided for active travel in this location.

Response

DART+ Coastal North does not propose any significant works to UBB079 as part of the extension of electrification to Drogheda. Should any upgrades to the structure be required in future to facilitate active travel provision, they may be progressed as a separately funded project to DART+ Coastal North under the direction of the NTA.

Possible pedestrian overbridge at Colpe, by Shannon Homes Development

A new pedestrian overbridge is proposed as part of an ongoing development currently being progressed by Shannon Homes.

Response

Consultation with Shannon Homes Development is ongoing and all necessary provisions for adequate clearances shall be made.

OBB078 on Colpe/Donacarney Road L5615

Meath County Council noted that the Laytown and Bettystown Walking and Cycling Network Study shows proposed active travel facilities on the L5615 road. Currently the existing road-bridge skew angle means the available width for active travel facilities is constrained. Meath has queried if this structure is to be impacted by DART+ Coastal North.

Response

DART+ Coastal North does not propose any significant works to UBB078 as part of the extension of electrification to Drogheda. Should any upgrades to the structure be required in future to facilitate active travel provision, they may be progressed as a separately funded project to DART+ Coastal North.

Rogerstown Greenway at Rush & Lusk Station / Substation

Correspondences between DART+ Coastal North and Fingal County Council have helped inform the development of the Rogerstown Greenway. Coordination is required to ensure that the Greenway can be facilitated by DART+ Coastal proposals.

Response

Consultation has resulted in the proposed location of the Rush & Lusk substation being shifted to accommodate the preferred route for the Rush & Lusk Greenway. Consultation between the DART+ Coastal North project team and Fingal County Council shall continue into the future regarding the development of both projects in tandem with each other.

Fingal Coastal Way

Fingal County Council are progressing with the development of the Fingal Coastal Way which extends from just North of Balbriggan as far south as Newbridge Demesne near Donabate. The Coastal Way interacts with the existing railway in a limited number of locations along its 32km extents.

Response

Consultation between the Fingal Coastal Way and DART+ Coastal North project teams remains ongoing. The DART+ Coastal North project has ensured that the Fingal Coastal Way project is not negatively impacted by the project wherever possible.

4.6 Public Realm

A limited number of submissions made reference to interaction with the public realm. It was noted that there is a need for the upgrades proposed at Howth Junction & Donaghmede Station to be well integrated into the surrounding areas.

Response

The upgrades at Howth Junction & Donaghmede Station will be completed in such a way that the upgrades to station entrances will seamlessly blend into the surrounding environment and provide an improved transition between the station and the existing public areas.

4.7 Climate Change

Respondents were supportive of DART+ Coastal North in terms of its objective of addressing climate change and supporting Ireland meeting its climate goals.

The importance of a project such as DART+ Coastal North and shifting people away from private cars to clean public transport options, were noted as essential to Ireland achieving its binding climate action targets. Respondents noted the ongoing climate emergency as a significant reason to support the DART+ Programme.

Additionally, respondents were pleased to see the change from high-polluting diesel trains to a fully electric fleet in the proposals. Submissions called for a phasing out of diesel-powered trains at a faster rate than what is currently planned.

Many respondents from the Howth Peninsula area felt that the project has limited aspirations for the reduction of car usage and carbon emissions. Respondents noted that the introduction of a DART shuttle service, and the removal of peak period direct services to Dublin City Centre, would actually have a negative effect on the volume of commuters choosing to use public transport and push commuters back towards private car usage. Respondents from the Howth Peninsula also cited increased wait times associated with increased level crossing closure frequency as having a potentially damaging effect on the environment through increased carbon emissions. As such, stakeholders urged Iarnród Éireann to reconsider the removal of direct DART services to Dublin City Centre, and further interventions that would remove or limit wait times at level crossings, in the current development plans.

Respondents further noted that the inclusion of active travel options such as cycleways, footpaths, safe bicycle parking at stations, as well as links to other public transport services, would encourage sustainable transport in high commuter areas around the DART network.

Response

DART+ Coastal North will provide a sustainable, electrified and a more reliable train service upon completion. The electrification of the Northern Line to Drogheda will support building a sustainable and connected City Region and facilitate the transition to a low carbon and climate resilient society.

The effects of any changes to traffic patterns will be fully assessed as part of the Environmental Impact Assessment Report (EIAR) and Traffic Impact Assessment (TIA) and it should also be noted that the EIAR accompanying the Railway Order application will include a comprehensive assessment of potential air quality and climate impacts resulting from the proposed DART+ Coastal North development.

4.8 Landownership

Stakeholders noted and queried the impact that the proposed works will have on their land and properties, including potential permanent or temporary impacts. Submissions also questioned what legal agreements/consents would be required to include land not owned by Iarnród Éireann (such as residential), in the Railway Order application.

Submissions and correspondences with affected landowners have provided valuable information relating to the design proposals included in the PC2 documentation. Submissions have provided some clarification of land ownership as well as additional information specific to particular land parcels.

The reinstatement of lands to their original condition was noted as being of great importance to landowners. Concerns that lands may be left in a state requiring further expense or inconvenience to landowners were raised in relation to past experiences.

Response

Correspondence with affected landowners has allowed for the benefits of local knowledge to be passed to the design team. This has allowed for designs to be adjusted and amended in such a way that the needs of both the DART+ Coastal North project and the landowners can be met in a way that limits any negative impacts as much as possible.

Consultation has allowed for the needs and wishes of landowners to be fully considered and suitable adjustments to planning and design to be made, as appropriate, in advance of the RO submission.

Meetings and correspondence with landowners have allowed the DART+ Coastal North project team to fully explain the project proposals, impacts, processes and timelines to landowners to ensure that they are as informed as possible with regard to the project and what it means for them.

Following completion of aspects of the project requiring construction compounds or other temporary access, all lands shall be fully reinstated to their previous condition. Ongoing consultation with landowners for the duration of works will form an important part of the construction process.

4.8.1 Design updates resulting from consultation with landowners.

Further to the detailed MCA which informed the design development up to PC2, further consultation and assessment of feedback has led to the further design development and optimisation for various aspects of DART+ Coastal North. These are outlined below.

Drogheda Substation & Construction Compound and Access Road

Following multiple meetings and correspondences with landowners relevant to the Drogheda Substation and associated construction compound the design and construction methodology relevant to this aspect of the project have been revised to limit the potential for impact on future development of lands planned by the landowner. The changes have resulted in the main construction compound being relocated to the north of its location in PC2 documentation. Further to the changes to the construction compound layout, access through the third-party lands has also been revised to limit the impacts on these development lands.

UTX Crossing, south of Laytown Viaduct

Revised access to the proposed UTX crossing south of Laytown Viaduct has resulted following consultation with relevant landowners to minimise potential impact on agricultural lands and existing hedgerows.

Skerries North Substation and Access Road

Following consultation with relevant landowners relevant to the Skerries North Substation revisions have been made to both the substation layout and access arrangements. The revised layout and access arrangements limit the extent of impact on agricultural lands as well as the extent of impacts on the existing road networks and surrounding properties. The revised layout results in a shorter access route to the substation which utilises an existing laneway and maximises the extent of agricultural lands that will remain for the landowner.

Skerries South Substation and Access Road

Following multiple meetings with relevant landowners the design layout of the Skerries South Substation and its access road have been revised to reduce the extent of impact on agricultural lands resulting from the construction of the substation and access road. The substation has been relocated to the northern most corner of the field in which it is located as well as the access road being aligned to minimise impacts.

Rush & Lusk Substation and Access Road

The revisions relating to the Rush & Lusk Substation are predominantly around the location and layout of the access road which also serves the existing Rush & Lusk station carpark. The access road layout presented in PC2 documentation has been revised to both accommodate future active travel facilities potentially progressed by Fingal Co Council as well as providing appropriate access to agricultural lands to the East of Rush & Lusk Station. Visibility is maximised by the revised layout.

Rogerstown Construction Compound

Further to consultation between the DART+ Coastal North project team and Fingal Co Council, the construction compound previously located within the extents of Rogerstown Park at Baleally Landfill has been removed and proposed works in the area will be serviced from alternative locations. The removal of the substation followed further consideration of the potential for negative impact on the existing landfill site versus the benefits of a location that would be in close proximity to Rogerstown Viaduct.

Donabate Substation and access Road

Following discussions between the project team and landowners relevant to the Donabate Substation and access road, the orientation, location and layout of the Donabate Substation and access road has been revised. The resulting layout removes land severance and minimises the impact on surrounding lands.

4.8.2 Impact on property value

Landowners raised concerns in relation to the potential loss in property value resulting from the interventions proposed by DART+ Coastal North. Aspects of the project such as the loss of direct services to Dublin City Centre from Howth during peak travel time, increased traffic resulting from increase level crossing closures, and impact to views from existing properties in close proximity to the extended electrification and turnback facilities were cited as reasons for concern.

Response

Through the development of DART+ Coastal North, all potential impacts to properties and surrounding areas have been considered and where necessary, appropriate mitigation measures have been proposed. These mitigation measures aim to ensure that the general impacts resulting from DART+ Coastal North are minimal. The benefits of DART+ Coastal North, in terms of increased frequencies of service, extension of the DART extents, and a move from diesel to electricity powered trains will be for all communities along the Northern Line and within the GDA.

While it is acknowledged that certain areas may stand to benefit more than others, the overall benefits of the project are wide ranging and provide positive impacts for communities in general.

4.8.3 Compensation and the CPO process

Some respondents queried how they would be informed that their property may be subject to a CPO and how the process for claiming compensation as part of the CPO process works.

Response

Following assessment and subject to An Bord Pleanála granting approval of the Railway Order application, CIÉ will be given the powers to acquire the necessary lands and rights required for the project through the Compulsory Purchase Order (CPO) process. A notice will be served on the affected parties to allow the works to proceed; and those property owners may be entitled to lodge a claim for compensation with CIÉ. The rules for assessing compensation for compulsory purchase are set out in legislation. The compensation can be agreed between the parties or referred to an independent arbitrator.

The Project Team will remain in contact with landowners who shall be directly affected by DART+ Coastal North as the project progresses, anyone impacted by the CPO process will be notified in due course if the project has the necessary planning approval to proceed as planned. The planning application (Railway Order) that Iarnród Éireann will submit at the end of 2023 will include any proposed Compulsory Purchase Orders (CPOs). At the same time, any impacted property owners will receive a formal notification by post – called a Notice to Treat – advising that the planning process has commenced, and that property is potentially impacted. When An Bord Pleanála approves the project and funding is available, Iarnród Éireann will finalise the design and appoint contractors. At this stage the CPO process will commence, and landowners will be informed of same. Landowners will have the opportunity to have their say on the project at that stage and to make a submission to An Bord Pleanála / participate in any oral hearing it holds.

A chartered valuation surveyor experienced in the area of compulsory purchase will be able to assess the compensation payable to those affected by CPO. They will take a number of factors into consideration and be able to negotiate on behalf of affected property / landowners, in order to obtain their full entitlement to compensation.

4.9 Safety

A variety of safety related topics have been identified during Public Consultation No.2. These have been categorised into three main phases relating to Design, Construction & Operational.

4.9.1 Design

4.9.1.1 Interchange at Howth Junction & Donaghmede Station

Respondents noted serious safety concerns over the prospect of an interchange at Howth Junction & Donaghmede Station. The concerns related to both the history of anti-social behaviour associated with the station as well as concerns relating to the volume of passengers required to change trains and the suitability of Howth Junction & Donaghmede Station to cater for such an interchange. Availability of space on platforms, space on receiving trains, the potential crush of a mass of people moving between services, the gap between trains and platforms, and a lack of in person Iarnród Éireann staff were all cited as aspects of safety raising cause for concern for respondents.

Response

Concerns relating to the proposed interchange at Howth Junction & Donaghmede Station, should the operation of a DART shuttle service be required on the Howth Branch, are addressed in Sections 4.1 and 4.2 of this report.

4.9.1.2 Access & Visibility

Submissions raised concerns relating to the provision of adequate sightlines where new access to substations, carparks, compounds etc are required. Respondents noted a need to consider the safety implications of access being provided onto/off rural roads with relatively high-speed limits.

Response

All new and/or amended accesses required as part of DART+ Coastal North, for elements such as substations or construction compounds, shall be designed to meet all current road design standards. Appropriate visibility extents and turning circles shall be allowed for in the designs.

Consultation with local authorities remains ongoing with regards to road access to ensure compliance with relevant requirements.

4.9.1.3 Fencing / Parapet Upgrades

Respondents noted that appropriate fencing must be provided surrounding all electrical infrastructure to mitigate against the risk of electrification of both people and livestock.

Response

As part of the design of DART+ Coastal North, and the extension of electrification to Drogheda, a full assessment of fencing requirements is being undertaken. The application of appropriate fencing is given particular consideration due to the proximity of the fencing to live electrical systems (OHLE) and the risk of serious injury that is posed by a live electrified railway. The safety of all members of the public is of utmost importance to Iarnród Éireann and the provision of appropriate fencing will form part of the detailed design of the project – this may include the introduction of new fencing, or upgrading of existing fencing, as appropriate.

An assessment of all bridge parapets has been conducted as part of the project design. Where existing parapets are not of sufficient height (1.2m) to meet the current design requirements, appropriate interventions are proposed. In some cases this will include the provision of a full new parapet in place of the existing parapet, and in other cases a parapet extension is proposed. Where interventions are proposed, consultation with relevant cultural heritage and conservation officials from the local authorities has taken place to ensure that the proposed solutions will be acceptable from both an engineering and conservation standpoint.

4.9.2 Construction

4.9.2.1 Construction Traffic & Residential Areas

Respondents raised concerns about the prospect of construction traffic being directed through residential areas. Concerns from the Malahide Village area were particularly prominent in

submissions. Concerns were also raised by respondents in the Donaghmede area as well as the residents surrounding Drogheda MacBride Station.

Response

During the construction phase, and in advance of any works commencing, a detailed construction management plan and traffic management plan will be prepared detailing how construction traffic will be managed. Public safety will be at the forefront of planning all construction activities.

As the DART+ Coastal North project progresses, the project's designated Community Liaison Officer will keep local communities informed and engaged on upcoming works and the expected impacts these will have on the local area.

This topic is discussed in greater detail in section 4.3.12.1, earlier in this report.

4.9.2.2 Fencing around construction compounds & works sites

Submissions noted the need for suitable fencing to be erected surrounding construction compounds, access roads and work sites route wide. Concerns for both personal and animal welfare were noted in relation to fencing. Further clarification was sought on the types of fencing that are likely to form part of compounds and works sites.

Response

Appropriate fencing and security measures will be applied throughout the construction phase of DART+ Coastal North to ensure that all works are contained within the appropriate areas and that the risk of any person or animal coming into contact with any construction related activity is kept to an absolute minimum. Different fencing applications may be applied to different scenarios depending on the nature of works being undertaken at any given time.

4.9.2.3 Access to properties (residential, creche, businesses, equestrian)

Safety concerns relating to access to residential and business properties during the construction phase were raised. Respondents called for public safety during construction to be at the forefront of planning considerations.

Access to residential properties to the East of OBB080, existing businesses in close proximity to the construction compounds at Malahide Marina (including a creche), and access to equestrian businesses in the Laytown area were noted as particular areas of concern.

Response

Throughout the construction phase, where access to existing properties is affected, the provision of a safe and appropriate alternative access will be provided as part of the project planning.

Consultation with the relevant landowners, occupiers, business operators, shall help ensure that impacts and disruption is kept to a minimum.

4.9.3 Operational

4.9.3.1 *Anti-social behaviour*

As noted earlier, respondents regularly cited anti-social behavior at Howth Junction & Donaghmede Station as a cause for concern. Respondents noted that the proposed upgrades to Howth Junction & Donaghmede Station were welcome, but many submissions noted that without any in person security and/or additional Iarnród Éireann staffing at the station (or at other stations), they would continue to feel concerned for their own, and for their loved ones, safety.

Concerns relating to the safety of women, older commuters and children have been particularly prominent in the feedback received. The level of anti-social behavior has been highlighted at this station and respondents have stated that they will not use the DART+ services should there be a need to interchange at Howth Junction & Donaghmede Station based on recent station experiences and the station's reputation.

Response

Customer experience, accessibility, safety, and security will be central to the development of Howth Junction & Donaghmede Station, and we also acknowledge the feedback we have been given to date about this station experience and its current facilities. These concerns are something the DART+ Coastal North project team is taking very seriously, and the project team is looking at what solutions can be provided, in both the long and short term. As noted previously, within Section 4.1.1 and elsewhere within this report, significant upgrades are proposed at Howth Junction & Donaghmede Station which are aimed at developing the station to address existing issues and better serve as an interchange station going forward.

It is important to note that the majority of train users travel without incident. The network is actively monitored by a central operations team which helps create a safe travel and work environment for both Iarnród Éireann staff and customers.

There are a range of existing measures in place across the DART and Commuter network designed to help mitigate against anti-social behaviour (ASB):

- A TEXT alert system is in place on trains (51444 TRAIN) for members of the public to report incidents of ASB in real time so assistance can be dispatched as needed.
- Joint operations with Gardaí have proven effective and are planned to continue. The roll out of Garda Hubs around the network to assist on-board staff to deal with problematic passengers have provided much peace of mind to passengers and staff alike. We regularly work closely with An Garda Síochána (AGS) in targeted joint operations to address issues of anti-social behaviour on the network and the issuing of fixed penalty notices where appropriate. Moving forward we will be collocating with (AGS) in the new Operations Control Centre in at Heuston Station.
- CCTV at all stations, monitored in real time by a team at our security monitoring room at Howth Junction & Donaghmede Station. The security monitoring room actively monitors the DART and Commuter stations CCTV, and the supervisory team coordinates the security response in the Greater Dublin Area as required.
- Teams of security operatives roam the network throughout the day and into the night.

- Fare evaders are targeted by the Revenue Protection Officers (RPOs) ensuring issue of fare penalty notices.
- Iarnród Éireann now have a team specifically dedicated to targeting and addressing ASB across a wide range of issues from trespass to vandalism to graffiti etc. Part of their remit is to ensure that those who are engaged in criminal activity are prosecuted for same.

4.9.3.2 Level crossings

Emergency Services

Respondents have raised concerns relating to impacts on road safety as a result of the proposed overall increase in level crossing closure times, and increased frequencies of level crossing closures. Concerns raised state that the increase in frequency of closure of level crossing gates, and the associated increased traffic disruption, increases the overall risk of Emergency Services vehicles being delayed at level crossing locations.

Response

The proposed changes to the Howth Branch will enable an increase in both the service frequency and capacity on the line. The current level crossing barrier opening and closing timings have been used to inform a traffic model assessing the effects on vehicles, cyclists, and pedestrians. Details of the analysis and the effects of the increased frequency of DART services on level crossing closures is included in Annex 3.7 of the PC2 published material which is available through the project website <https://www.dartplus.ie/en-ie/projects/dart-north>.

The overall increase in level crossing closure frequency associated with the increased DART+ Coastal North services will increase the likelihood of all road users being required to queue and wait at the level crossings, as detailed above. As demonstrated by the modelling in Annex 3.7 the wait times at some level crossings will increase and others will decrease depending on the timetable adopted in future. Any future timetable is yet to be decided and will be progressed separately to the DART+ Coastal North project at a later date. In the event of an emergency, emergency services vehicles typically bypass a general traffic queue and travel up to the level crossing ensuring a swift crossing upon the next barrier opening.

Consultation with all emergency services is ongoing and all feedback received through these consultations will be fully considered in the development of the final design for the DART+ Coastal North project.

Speeding Vehicles

Respondents also made reference to potential risks posed by more vehicles speeding to beat more frequent gate closures as a result of the greater potential for vehicles to be caught and delayed by level crossing closures. The risks posed to other vehicles, cyclists and pedestrians were highlighted.

Response

The primary objective of the DART+ Coastal North project is to deliver the infrastructure to allow increased train frequency and capacity between Drogheda and Howth and Dublin City Centre. Based on assessment of level crossing closure times and considering the crossings will generally be closed

for more regular and shorter time periods, it is not anticipated that the incidents of drivers taking unnecessary risks at the crossings will increase. No significant increase in poor behaviour has been shown on other areas of the network with a comparable level of service.

Iarnród Éireann undertakes regular safety awareness activity and would put a particular focus on this area should anything necessitate it in the future. Under the rules of the road, road users must use level crossings in a safe and responsible manner and obey the rules of the road, failure to do so, may result in a prosecution. Risks associated with dangerous driving will be considered as part of the further development of the Preferred Option and detailed design phase.

4.10 Communications and Public Consultation

Stakeholders welcomed the public consultation and the opportunity to engage with the project team. Several stakeholders highlighted the importance of ongoing engagement and multi-agency input as the project develops. Respondents stated that they look forward to continued communication and cooperation with Iarnród Éireann as the DART+ Coastal North project progresses.

4.10.1 Stakeholder Engagement

The importance of having a Community Liaison Officer (CLO) to deal specifically with the land acquisition concerns, and with residents affected by the proposed works during construction, was noted in submissions.

The importance of ongoing consultation with local authorities, community representatives and elected representatives is essential to ensure 'buy-in' to these plans and ensure that the view of those most affected by the proposals are both heard and fully considered.

The value of ongoing correspondence and continued cooperation with landowners and developers with plans for adjacent sites was noted in relation to ensuring that neighboring proposals are not negatively impacted by DART+ Coastal North proposals.

Response

Iarnród Éireann believe that a CLO provides an essential service through both the design development and construction stages of projects of this nature. The project's CLO shall remain available to members of the public to provide information on aspects of the project of concern to them.

The DART+ Coastal North project team shall remain in ongoing consultation with local authorities, community representatives and elected officials as the project develops towards Railway Order application. This ongoing consultation is seen as important in ensuring the project meets the needs of both Iarnród Éireann and the wider public.

The project team will continue to engage with landowners and developers impacted by the DART+ Coastal North project. Ongoing correspondence will ensure all interfacing projects and land uses are fully considered so that design development of the DART+ Coastal North project can be coordinated in such a way that impacts on all parties involved are minimised.

4.10.2 Consultation Process

Submissions noted that the in-person and webinar events were not widely advertised enough and that they had learned of the events through word of mouth, or in some cases after the events had taken place. Some residents cited frustration regarding how the public consultation was promoted and stated that advertising should have been more prominent onboard DART carriages or at the train stations along the DART+ Coastal North line. Some submissions noted that the project leaflet which was distributed in advance of the public consultation was not received, and/or was not distributed to a wider audience.

Attendees at the three in-person events and the public webinar noted that the information on display was of a high quality and contained much of the information that they were seeking. Some attendees at the in-person events noted that they had been expecting a presentation as part of the events providing a greater overview of the project and inviting comment and feedback.

Attendees generally commented that questions raised in relation to the project were answered in a satisfactory manner. However, a lack of clarity relating to operational aspects of the project was a cause of concern for many attendees at both the in-person and webinar events. Some respondents noted that they felt that the public events were 'a box-ticking exercise' and questioned whether the feedback and concerns raised at the events were being taken seriously. Some attendees were critical of how their feedback was received during the consultation events and how they were advised to make a written submission in addition to any conversations held at the events.

Some respondents noted technological issues during the webinars and stated that holding such events through Zoom rather than MS Teams may be beneficial in future.

Some respondents cited a lack of hard-copy information as an issue, stating that people who are not overly comfortable with the use of the internet may have struggled to gain a full understanding of the project proposals. The absence of DART+ Coastal North PC2 information from publicly accessible locations was criticised by some stakeholders.

A number of submissions noted that some of the main issues raised during Public Consultation No.1 had not been addressed in the Preferred Option presented in Public Consultation No.2. These sentiments were particularly prominent in submissions received from the Howth Peninsula area.

Response

As presented in Section 3 of this report, an extensive consultation process was undertaken at multiple levels to ensure that as many people as possible were informed of, and provided direction to access, the DART+ Coastal North project information. Following feedback from PC1, the extent of leaflet distribution was considerably greater during PC2.

The information displayed at the public events, and online webinar, was provided to give a high-level overview of the DART+ Coastal North project. Iarnród Éireann's experienced design team were available at all events to discuss aspects of the project and advise attendees of how to make a submission and to make their feelings towards the project known.

Attendees were advised to make a written submission in addition to voicing their opinions at the consultation events. This was advised by project team members to ensure that any feedback would

be submitted exactly as the respondent would intend it to be and not open to misinterpretation or error in receiving feedback. All feedback received during the public events has been given due consideration as part of this public consultation process.

It was not possible for design team members to comment on the future operational aspects of DART+ Coastal North as these decisions have not yet been made by Iarnród Éireann. Attendees and respondents to PC2 were advised that final operational decisions will be made at a later stage and are subject to passenger demand and train frequency on the Northern and Howth lines. When the infrastructure is in place (circa 2028/29 – fully dependent on completion of statutory processes, procurement & construction), it is expected that Iarnród Éireann would incrementally introduce new services and enhanced timetables across DART+ in response to growing demand. Any substantial timetable change, such as the introduction of a shuttle service, will go through a Public Consultation process of its own organised by the National Transport Authority (NTA) known as the Timetable Customer Consultation Process. The public will be invited to give their feedback on any future proposals at the appropriate time.

Where technical issues were raised during the online webinars, attendees were advised to send in a written submission so that their feedback and/or queries could be addressed. These submissions were responded to throughout the consultation period.

Consideration was given to displaying hard copies of project materials in public places during PC2. However, largely due to the scale of the display information involved and the fact that in person events were scheduled to be held in locations that would be convenient to residents and rail users, a decision was taken to limit the availability of project supporting materials to the project website.

During Public Consultation No.1, a wide variety of concerns were raised in relation to the Emerging Preferred Option. These concerns were documented in the Public Consultation No.1 Findings Report and given further consideration during the development of the Preferred Option. As a direct result of feedback received during PC1, a variety of significant modification works are proposed at Howth Junction & Donaghmede station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the station entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. The works will include upgrades to the existing footbridge, connections to the center platforms, the provision of additional sheltered areas along platforms, as well as general improvements to lighting, signage, and finishes throughout.

Responses to PC1 queried whether the implications of increased DART frequency on the Howth Branch would have an overly negative impact on traffic in the surrounding area. Additional modelling has taken place in the development of the Preferred Option using the current level crossing barrier opening and closing timings to inform the model and assess the effects on vehicles, cyclists, and pedestrians. Detailed assessment of the four existing level crossings along the Howth line concluded that these level crossings can continue to operate and provide an appropriate level of cross connectivity and accessibility whilst still meeting the increased DART service frequency requirement. The increased frequency of level crossing closures will result in a greater likelihood of vehicles, pedestrians and cyclists being required to queue at the crossings, however, the traffic modelling and sensitivity analysis has shown that queue lengths are likely to remain within the available queueing

road space in all cases. Based on the assessments carried out to date, additional infrastructural interventions at the four level crossings are not considered necessary.

4.10.3 Technical Reports

It was noted by respondents that some key information was felt to be buried in technical reports rather than presented clearly in the leaflets, brochures and information displayed at consultation events. Information in relation to level crossing closure times and traffic implications was given as an example of information not being clearly presented.

Response

The project leaflet, brochure, and public display information were developed to provide readers with higher level information to inform them of the proposals. Much of the detail relating to how and why these proposals were reached, and details of what the proposals involve, were contained within the technical reports. Given the geographical extents of the project, the scale and complexities involved, as well as the extensive assessments and optioneering that have taken place to determine a Preferred Option for the project, it was not possible to include this information in the printed documentation.

The supporting material is clearly set out and available through the project website and regular references are made to this material throughout the leaflet, brochure and public display information as well as the advertising material displayed in advance of and throughout the public consultation event.

4.10.4 Community Impact / Community Gain

Respondents, mainly from the localities of Malahide, Howth Peninsula, and Drogheda MacBride Station surrounding area, stated that they felt that their communities would suffer as a result of DART+ Coastal North, to allow for other areas to benefit from the proposed increases in frequencies and capacity of DART Service.

Malahide Village Residents

Respondents from Malahide Marina Village felt that their quality of life would be negatively affected for the gain of others due to the location of the proposed Malahide turnback facility and its proximity to their properties. Concerns were raised in relation to both construction and operational activities in respect of impacts such as noise & vibration, biodiversity, health, landscape & visual, safety and property value. The increased frequency of services and lack of clarity around operating times were cause for concern.

Howth Peninsula Residents

Respondents from the Howth Peninsula regularly cited the potential introduction of a shuttle DART service as a 'downgrading of service for the benefits of those populations surrounding the Northern Line' and the 'traffic chaos resulting from increased level crossing barrier closures' as impacts that would negatively impact on their community.

Drogheda MacBride Station Surrounds

Respondents from the localities surrounding Drogheda MacBride Station raised similar concerns to those raised by Malahide Village residents. The implications of increased frequency of train movements, depot activity, and operations stretching into the night were noted as particular concerns. Residents also raised concerns with the new OBB080/80A/80B providing a link between the development lands to the North of McGraths Lane to Drogheda MacBride Station and resulting in a significant increase in the volume of people commuting via Railway Terrace.

Response

The impacts associated with DART+ Coastal North will be assessed as part of the design development and EIAR. Impacts shall either be avoided or mitigated against as appropriate. This process has been described earlier in this report.

Where certain scenarios are encountered which may result in a community being significantly disrupted or impacted as a result of DART+ Coastal North and where CPO compensation is not applicable, opportunities for the project to support communities through community gain may be investigated. Following the granting of the Railway Order, and before construction starts, the Project Team may engage with communities in relevant areas to establish local liaison groups and consult on how the community may be supported. For similar projects Iarnród Éireann has supported communities with initiatives ranging from local charity donations to children's events. The exact type of support for particular areas will be discussed and agreed with the community.

4.11 Bridges

A limited number of submissions made reference to DART+ Coastal North impacts on bridges/structures. A submission received from Meath County Council noted that 'Iarnród Éireann should use the opportunity presented by the DART + Coastal North project to tackle significant historic issues along the route and not make it more difficult or expensive to do so in the future.'

Response

The development of DART+ Coastal North shall seek to deliver the projects objectives while minimising the associated impacts of the project on the surrounding areas. The project will be cognisant of historical issues and of future projects and where it is appropriate to do so then suitable steps will be taken to address such issues. However, where existing issues do not necessarily fall within the scope of DART+ Coastal North, these issues may be addressed as part of separately funded projects progressed in future.

4.11.1 Viaducts

Feedback received from both the general public and local authorities has highlighted the importance of retaining the aesthetics of the four viaducts encountered along the length of DART+ Coastal North. The need for overhead electrification to cross these historic structures is acknowledged, as is the need to avoid negative impacts associated with the installation of OHLE.

Response

The DART+ Coastal North project has engaged conservation and heritage specialists to help ensure that the impacts of the project are identified and managed in an appropriate manner. Consultation

with the relevant departments within local authorities is ongoing to ensure that the proposals of DART+ Coastal North are acceptable and do not adversely affect the conservation and architectural heritage values of the viaducts.

4.11.2 UBK1 – Dublin Road Bridge

A number of submissions were received in relation to UBK1. Submissions from both Louth and Meath County Councils drew attention to the limited vertical clearance of the existing bridge, citing regular bridge strikes as occurring each year (approx. 2 per year on average). The constraints to providing increased vertical clearance due to rail-line gradient restrictions were acknowledged.

Submissions from Louth and Meath County Council also referred to the limited horizontal clearances provided by UBK1 and noted that the structure currently limits the potential for active travel measures to be progressed along the Dublin Road (R132). These limitations were also noted in a submission from the Drogheda Cycling group who requested additional active travel inclusions as part of the project.

These limitations to the inclusion of active travel measures were cited as 'a major impediment to the development of access to Drogheda MacBride Station going forwards.

Response

The proposed upgrades to UBK1 as part of the DART+ Coastal North project include the widening of the existing structure to facilitate the inclusion of a new platform extension along the northern side of the structure (this widening is perpendicular to the road beneath). The existing tracks shall be shifted to the south and the track raised slightly to accommodate the new bridge deck required as part of the widening works. The Navan line is intended to be kept operational throughout the majority of the widening works.

The works include the construction of a new bridge superstructure and the widening of the existing abutments on each side of the Dublin Rd. The existing headroom of 4.78m and existing width between bridge abutments of 10.6m will both be retained.

The proposed works are sufficient to allow for the DART+ Coastal North project to meet its project objectives.

Currently no additional widening to either side of the Dublin Rd (R132) is included in the project. Should future Louth County Council or NTA projects require additional works to UBK1 to facilitate active travel measures, these may be progressed as part of separately funded projects carried out separately to DART+ Coastal North.

Any future works required to improve access to Drogheda MacBride Station to cater for increased usage linked to DART+ Coastal North, again, may be progressed in future as part of separately funded projects.

4.11.3 OBB080/80A/80B

Submissions from Louth and Meath County Council have identified OBB080/80A/80B as a key transport link to Drogheda MacBride Station. Council submissions note that submitted planning applications show increased usage of this bridge going forwards.

Submissions received from residents of Railway Terrace & McGraths Lane have raised concerns that the proposed works on OBB080/80A/80B may facilitate an increase in vehicular and general traffic along Railway Terrace & McGraths Lane.

A submission received from J Murphy Developments Ltd & Ravana Ltd notes the importance of the bridge as a link to Drogheda MacBride Station.

Meath County council notes that the proposed replacement bridge should have improved capacity for active travel. A request was included from Meath Co Council that an assessment of need for improved capacity of vehicular travel should be carried out.

Response

The proposed works at OBB080/80A/80B include the construction of a replacement bridge, in its existing location, to provide sufficient clearance for OHLE installation, which will simultaneously enable an improved road alignment and improved infrastructure for vehicles, cyclists and pedestrians. The proposed new structure aims to replicate the function of the existing structure and will cater for active travel usage, as well as a limited volume of vehicular use associated with the two residential properties accessed off McGraths Lane.

Access to the two residential properties to the east of the railway line shall be provided via Marsh Road for the duration of construction activities.

Louth County Council, as the local authority, is ultimately responsible for the enforcement of restrictions to the use of this structure following completion of the bridge reconstruction. The delivery and/or development of active travel measures, and/or links to future developments which may include this structure, shall be the responsibility of the Local Authority and not Iarnród Éireann.

Based on current planning and existing land use, no additional vehicular use of this structure is anticipated. In order for DART+ Coastal North to meet its objectives, a like-for-like replacement is considered appropriate for OBB080/80A/80B.

4.11.4 Possible overbridge at Wheaton Hall, Drogheda (LCC area)

Submissions from both Meath County Council and J Murphy Construction & Ravala Ltd queried if there is any intention that provision of a bridge to the North of Wheaton Hall should be taken account of in DART + Coastal project.

Response

The proposed replacement of OBB080/80A/80B as part of the project proposals is solely to provide for the necessary OHLE clearances required to complete the electrification of the Northern Line to Drogheda. As such, the inclusion of a new bridge at this location is not required by the project and

would serve no purpose in meeting the project objectives. Should a new bridge be required by local authorities or the NTA in future, it would need to be progressed as a separately funded project to DART+ Coastal North.

4.11.5 Existing underbridge UBB079 at Boyne Valley Hotel

Meath Co Council noted that improved capacity/width should be provided for at UBB079 to allow for active travel provisions. MCC stated that ‘it might be appropriate to install a ‘bigger’ structure during rail closures for DART+’. Submitted planning applications show increased use of this bridge going forwards.

Response

No structural works are required to UBB079 as part of DART+ Coastal North. Sufficient clearances to OHLE can be achieved without further interventions.

Any future upgrades to UBB079 would need to be progressed as separately funded projects should these projects be identified by the local authorities & NTA in future.

4.11.6 Possible pedestrian overbridge at Colpe, by Shannon Homes Development

A new pedestrian overbridge is proposed as part of an ongoing development currently being progressed by Shannon Homes.

Response

Consultation with Shannon Homes Development is ongoing and all necessary provisions for adequate clearances shall be made.

4.11.7 Overbridge OBB78 on Colpe/Donacarney Road L5615

Meath County Council noted that the Laytown and Bettystown Walking and Cycling Network Study shows proposed active travel facilities on the L5615 road. Currently the existing road-bridge skew angle means the available width for active travel facilities is constrained. Meath County Council has queried if this structure is to be impacted by DART+ Coastal North.

Response

DART+ Coastal North does not propose any significant works to UBB078 as part of the extension of electrification to Drogheda. Should any upgrades to the structure be required in future to facilitate active travel provision, they may be progressed as a separately funded project to DART+ Coastal North.

4.11.8 Existing underbridge UBB73 Laytown Bridge on the R150

Meath County Council noted that UBB073 currently has very restricted width and height clearances as well as poor alignment with the bridge skewed at a sharp angle to the main road alignment. Multiple bridge strikes have occurred over the past number of years causing the closure of the Northern line unexpectedly.

Response

No structural works are required to UBB073 as part of DART+ Coastal North. Sufficient clearances to OHLE can be achieved without further interventions.

Any future upgrades to UBB073 would need to be progressed as separately funded projects should these projects be identified by the local authorities & NTA in future.

4.12 Construction

Submissions received outlined concerns regarding the impacts of construction, and clarity was sought on the mitigation measures that will be put in place.

Response

A detailed construction strategy has been prepared, which includes programming, phasing and construction methodologies for the proposed DART+ Coastal North project works. This strategy has been developed in close consultation with the Environmental Impact Assessment (EIA) team, to ensure that construction impacts are clearly identified and avoided or minimised where possible. A Construction Environmental Management Plan and Traffic Impact Assessment will be prepared to accompany the RO application, setting out the measures to be taken during construction to ensure against significant effects on the environment, including in relation to construction impacts. The construction impacts will be comprehensively analysed and assessed in the Environmental Impact Assessment Report (EIAR) and in the Appropriate Assessment (AA) documentation, to provide sufficient information for the competent authority to reach its reasoned conclusions on the potential effects of the project on the environment, and on European sites.

Assessments of all construction related activities, such as noise, vibration, biodiversity, traffic, hydrology, will be undertaken as part of the EIAR, and if deemed necessary, the design may include appropriate mitigation measures in locations where acceptable impacts are identified, e.g. natural screening, noise fences/barriers and landscaping.

Potential construction impacts (from a limited number of proposed interventions) will likely be minimal to the south of Malahide given that the line between Connolly and Malahide, including the Howth Branch, is already electrified. Some site-specific interventions will be required between Howth Junction & Donaghmede and Drogheda stations, associated with increasing the rail capacity. Between Malahide and Drogheda, DART+ Coastal North will involve the erection of overhead electrical infrastructure to facilitate the future running of electric trains. In order to maintain services for customers during the day, the majority of the construction works along the railway line itself will take place at night. Works outside of the live railway corridor can progress during the day i.e. modifications to bridges, construction of substations, construction compounds. Every effort will be made to avoid, reduce, and/or mitigate negative impacts through the construction and operational phases.

4.12.1 Impacts

Stakeholders noted that the disruption and impact of the proposed works should be confirmed to them in advance of the works and requested that night-time works be minimised. It was further noted that adequate notice of night works must be provided to all residents within impacted extents when

they are in fact required. Respondents stated that Iarnród Éireann should provide clear and accurate information detailing any potential construction impacts.

Stakeholders from the Railway Terrace area noted that ‘amenities’ such as bin-collection services, of existing properties should be appropriately protected during construction and related works. This relates particularly to the 2 properties located to the east of OBB080/80A/80B which will be cut off for a period during construction works, with residents required to access their homes via Marsh Road. Concerns were raised over the use of Railway Terrace / McGraths Lane during construction due to the limited width of the existing road.

Submissions queried if the underground access to the Drogheda Depot could be utilised by residents of the two properties located to the east of OBB080 during construction works to avoid a scenario whereby a diversion via Marsh Road would be necessary. Significant inconvenience to these properties as well as significant loss of time during a typical day (associated with the diversion) were raised during the consultation.

Submissions raised concerns over the impact of construction compounds, particularly those located within the Malahide Village locality which will impact on businesses such as a creche and the Malahide Marina itself. Concerns relating to the loss of carparking in the area were raised in submissions as well as concerns relating to the traffic accessing these compounds via a residential road through a residential area.

Response

In the future, when construction works are scheduled, residents in the surrounding areas will be made aware of upcoming construction related activities in advance of their scheduled occurrences. Iarnród Éireann will provide a designated Community Liaison Officer (CLO) for the duration of the construction period, who will keep local communities informed and engaged on upcoming works and the expected impacts these will have on the local area.

The project team will ensure the continued provision of amenities and services to residents throughout the construction period. Where any potential disruption to such services is identified, appropriate provisions shall be made.

An assessment of the potential use of the existing depot access for residential use during the construction period has been undertaken. However, largely due to the nature of the existing access and associated safety and security issues, it will not be possible to use this access for residential use during the period that will require the closure of OBB080/80A/80B. Appropriate alternative access provision via Marsh Road will be provided to the two residential properties for the duration of the construction works in the area.

The impact of construction compounds will be fully assessed within the construction strategy and Environmental Impact Assessment Report (EIAR) to ensure that construction impacts are clearly identified and avoided or minimised where possible. As mentioned previously, these documents will set out the measures to be taken during construction to ensure against significant impacts during construction.

4.12.2 Mitigation

Stakeholders requested that appropriate traffic mitigation measures be planned and implemented during the proposed works. Minimal disruption to traffic in the surrounding areas was called for by respondents.

Calls for appropriate security and an indication of the plans for fencing and surrounding construction compounds were received through submissions.

Mitigation measures against dirt, noise and dust were further called for through submissions. Respondents noted that the construction works will cause noise impacts, raise dust, and cause dirt in the area surrounding the works and wished for all mitigation measures to be taken to avoid negative impacts.

Submissions questioned the management of post-construction works and the restoration of any road damage, property damage and public areas such as orchards and green areas. Stakeholders stated that after previous works to the tracks a retaining wall was rebuilt to a poor standard. Feedback highlighted that road infrastructure, and lands used for temporary works, should be maintained and not fall into disrepair as a result of the proposed works and construction traffic.

Response

A detailed overview of processes for addressing construction traffic are provided in section 4.9.2.1 and security/fencing provided in 4.9.2.2.

Throughout the construction period all ‘best-practice’ measures will be implemented to ensure that the impacts of construction on elements such as noise, dust and dirt are managed so that all impacts are minimised.

Following completion of construction works, any site works, or access routes shall be fully reinstated to their pre-construction states. Prior to commencement of construction, all compounds, site works area, access routes shall be inspected so that any signs of degradation related to construction related activities will be evident and can be addressed following construction.

4.13 Electrification

Feedback from respondents in relation to the extension of DART services to Drogheda and the proposed shift from diesel trains to electricity powered trains was met with approval in general. The improved connectivity to Dublin City Centre and the move to greener, more sustainable, transport has been raised as a positive in a variety of submissions.

4.14 Policy and Planning

4.14.1 Policy

Stakeholders urged the DART+ Coastal North Project to be developed in accordance with all relevant national, regional, and local policies. Policies cited include some of the following:

- National Planning Framework (NPF)
- National Development Plan (NDP)

- The Regional Spatial and Economic Strategy 2019-2031 (RSES)
- County Development Plans (Dublin, Fingal, Meath & Louth)
- Transport Strategy for the Greater Dublin Area 2022-2042
- National Sustainable Mobility Policy
- National Investment Framework for Transport in Ireland (NIFTI)
- The Regional Spatial and Economic Strategy [RSES] for the Eastern and Midland Region 2019-2031

A thorough review of all relevant policy documents has been undertaken as part of the development of DART+ Coastal North to ensure that the project aligns with these documents.

4.14.2 Planning

Submissions urged Iarnród Éireann to pay close attention to areas where the DART+ Coastal North project directly interacts with existing development lands and sites.

Response

A thorough review of all planning history within the areas surrounding DART+ Coastal North has taken place to inform the project development. Consultation carried out during PC2 has further informed this review and allowed the design team to better shape the project to work with interfacing projects.

4.15 Surveys and Site Investigations

Respondents queried if baseline surveys would be carried out to allow the full extents of DART+ Coastal North impacts to be assessed and if the findings from these surveys would be made available to the public.

Some respondents noted that insufficient notice was provided in advance of Ground Investigation works and that the resulting noise relating to drilling was disruptive to daily life.

Response

All necessary surveys to allow for the establishment of baseline information and data will be carried out to inform the impact assessments contained in relevant chapters within the EIA.

Where surveys require ground penetration or may result in noise/vibration impacts, residents within an appropriate area will be issued with advanced notice of the works as has been common practice throughout the development of DART+ Coastal North to date.

5. NEXT STEPS

5.1 Summary

The purpose of this public consultation process was to present the Preferred Option for the proposed DART+ Coastal North project and to request the views of the public. A total of 1,748 submissions were received during the consultation period covering a broad range of concerns from the public.

The submissions received as part of this public consultation will feed now into the option selection process and the further refinement of the Preferred Option.

5.2 Addressing Key Issues Arising from the Second Public Consultation

All of the matters raised in the feedback during PC2, as summarised in the report above, will feed into the project preliminary design as it is advanced to a stage where the Railway Order application is made. The EIAR will also be informed by the feedback, in relation to impact assessment and mitigation measures, including construction stage impacts and mitigation. The following summarises some of the key action areas for the design team and environmental specialists as the project proceeds to the next stage.

5.2.1 Property and land issues

The design shall be developed and refined with a view to keeping works and impacts within the CIE property ownership as far as possible and minimising the extent of impact on third party lands and compulsory purchase required.

Consultation with landowners will continue to ensure that the refined designs take into account the views of landowners and any interfacing projects.

5.2.2 Operational Aspects – DART Shuttle & Interchange

The design of Howth Junction & Donaghmede Station upgrades will be developed further.

Aspects of the design relevant to the provision of additional security and the future presence of security personnel will be considered further within Iarnród Éireann.

Where possible, further clarity around operational aspects of DART+ Coastal North will be provided.

5.2.3 Noise

Additional development and refining of the construction planning and methodology will take place so as to minimise disturbance by noise and vibration. Further consideration of operational noise relevant to the enhanced rail services will take place to deliver a solution with minimal operational noise.

5.2.4 Biodiversity

The design development will seek to protect existing biodiversity surrounding the railway corridor and reinstate any vegetation where it has not been possible to avoid impact during construction related activities.

5.2.5 Traffic and Transport

Continuing traffic modelling will be undertaken to ensure the effects of increased level crossing closures on the surrounding road network are acceptable. Consultation will also continue with both the Local Authority and the NTA.

The Project Team will continue to develop the construction strategy and methodology so that the impacts of construction related traffic are minimised.

5.2.6 Sustainable Transport / Active Travel

There will be continued consultation with local authorities to ensure that sustainable transport and active travel projects are progressed and integrated with DART+ Coastal North as appropriate.

5.2.7 Construction Management

There will be continued consultation and design development addressing concerns expressed in relation to aspects like disturbance, security/ safety, access, and measures to control dust and litter; these issues will be considered in the Construction Environmental Management Plan, which will accompany the RO application. This will include a requirement for excellent communications and community liaison during construction, as part of the plan.

Where possible, the Project Team will seek to minimise duration of impacts and overall construction programme.

5.2.8 Infrastructure Co-ordination

There will be ongoing engagement with other bodies such as local authorities and utility companies to co-ordinate actions and avoid inefficiency or conflicts as part of the design development.

5.2.9 Development plans and co-ordination

There will be continued consultation with local authorities to keep abreast of emerging planning policy changes at city/county level.

5.2.10 Architectural Heritage

There will be continued consultation with relevant departments within local authorities, as well as taking a sensitive and appropriate design approach to features of built heritage and archaeology.

5.2.11 Consultation

There was also good feedback in relation to the preferred methods of communication and consultation during project development, including the desire for clear, simple and graphic communications where possible. This feedback will continue to be applied by the overall Iarnród Éireann project team.

5.3 Next Steps

Following this second non-statutory public consultation further studies, assessments, and design development will continue where the preferred option will be refined further. A design freeze will then be implemented. Following this, the project will culminate in a Railway Order application to An Bord Pleanála, the planning authority, expected in late 2023 / early 2024.



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APPENDIX A1

DART+ Coastal North, Public Consultation No.2 - Media Review & Press Clippings



Córas Iompair Éireann

DART+ Coastal PC 2 Coverage

02/08/2023

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Letters to the Editor

Rail services – visions and reality

Sir, – I didn't know whether to laugh or cry when I read your article about the Island Strategic Rail Review (News, July 17th).

Minister for Transport Eamon Ryan calls for a significant modal shift from car to rail for Ireland to meet its emissions targets, but after years of travel on the Longford-Dublin commuter service, I can't see that happening anytime soon. Here are some examples why.

If I want to attend an event in Dublin that runs later than 8.50pm, I miss the last train home, and there's no workable park-and-ride facility on my route that would allow me to use rail for even part of my journey. If I were a shift worker, there's no train to Dublin at weekends that gets me to work on time or home after a late shift. Bus Éireann is not a reliable alternative.

Buses to Dublin depart around the same time as the trains, so there's no coverage at times when there's no train and they are a much slower option. The bus service is also prone to poorly flagged, last-minute cancellations.

As Bus Éireann informed me, Transport for Ireland, and not Bus Éireann, updates the electronic bus signs (where they exist), and the two organisations don't seem capable of communicating with each other, leaving passengers stranded without information.

While I wholeheartedly welcome plans to extend the rail network, maybe we should first address the inefficiencies of the existing network. Until there are frequent, dependable services and a bit of joined-up thinking, I can't envisage how Mr Ryan will ever get us out of our cars. – Yours, etc,

ROSEMARY HORAN,
Mullingar,
Co Westmeath.

Sir, – Your article on the Island Strategic Rail Review (News, July 17th) concluded by stating that "Dublin Airport will have to rely on the construction of the Metrolink in the 2030s as there is no rail network nearby". As countless others have observed before, the Dublin-Belfast main line is less than 10km away, across mainly open ground. How much more "nearby" do you need! – Yours, etc,

RICHARD THOMAS,
Woking,
Surrey,
United Kingdom.

A chara, – "A change in the weather is sufficient to recreate the world and ourselves", according to Marcel Proust.

With this advice in mind, I planned to head west by train

from Connolly station in Dublin yesterday morning.

The guard, spotting my bike, came running up to me on the early morning platform. "This train is fully booked for bicycles. We've had an incident only last week and I can't let you board." I looked forlornly at the almost entirely empty carriages stretching the length of the platform. "Two bicycles per train is the limit and both spots are taken."

Removing the wheels and placing the frame in a plastic bag, the potential disaster was averted.

The guard, clearly a disciple of Proust himself, understood that the discovery of new landscapes sometimes requires new eyes. – Is mise,

MACKLENNON,
Howth,
Co Dublin.

Sir, – If Minister for Transport Eamon Ryan and his Cabinet colleagues were to take a return trip from Dublin to Sligo by rail, they would not require a written report or study to tell them why this track urgently needs upgrading. We need to improve our existing rail services before any new rail way lines are started.

This railway journey of 220 kilometres one way that takes three hours and 10 minutes is unacceptable in the 21st century and shows a total disregard for the people of the northwest.

– Yours, etc,

MICHAEL STOREY,
Glencar,
Sligo.

Sir, – Kenneth Harper comments that Dart+ hasn't commenced (Letters, July 19th).

On the contrary, Dart+ Coast at North is progressing rapidly – it has had multiple rounds of public consultation, where they have ignored the issues raised by residents in Howth, Sutton and Bayside. Irish Rail seem intent on disimproving the service to these areas by removing a direct line from the city centre to Howth, closing level crossings for 30 minutes out of every hour and leaving vulnerable rail users waiting at Howth Junction for a proposed shuttle service to get into town or back home.

As a concerned Bayside resident, I'd be only delighted if this roll-out continued to drag on for decades before being abandoned.

Alas, it seems the only rail infrastructure projects being pushed through in Ireland are those that degrade a current service and inconvenience thousands of users. – Yours, etc,

Dr MARIA O'BRIEN,
Bayside,
Dublin 13.



Media Source Press
Circulation 54,147
Topic Irish Rail

Time for a dose of railway reality

Sir, – Despite Irish Rail's glitzy PR campaign, masquerading as "consultation", advocates of Dart Coastal North should be wary of what they wish for. Quite apart from the proposed emasculation of the Howth service, mentioned by Dr Maria O'Brien (Letters, July 20th), Irish Rail has plenty of other tricks up its sleeve. Notable among them is the way in which a Dart service to Drogheda, with stopping trains running every 10 minutes, will share its tracks with expresses to Belfast (a service already lamentably slow by international standards).

It appears that Irish Rail is putting its faith in passing loops, a system that demands pin-point time-keeping, something that in Ireland happily belongs in the world of fantasy. Does this spell the end of an effective Belfast service, a key element in the development of North-South relations?

Will this too be sacrificed to the holy grail of Dart Coastal North?

If only our erstwhile taoiseach, Garret FitzGerald, that well-known aficionado of railway timetables, were here to provide the Government with a

dose of railway reality. – Yours, etc,

ROGER STALLEY,
Dublin 13.

Sir, – Further to "Multibillion-euro new railway lines for Northern Ireland are make-believe" (Newton Emerson, Opinion, July 20th), much of the cost of building a railway is in flattening the land with tunnels, cuttings, embankments and viaducts. Fortunately, this was already completed for us over a century and a half ago on Ireland's now dormant railways. On routes like those that radiated from Portadown, the earthworks and even some of the bridges are still intact. Even if the £11.5 million per mile cost of reopening quoted by Translink were to double, it would still come out less than the £29 million per mile cost of the recently opened Dungiven bypass. It would also allow people to escape traffic, reduce wear on the road surface, and open up the possibility of electrification with reliable, efficient, and proven technology. – Yours, etc,

EAMONN GORMLEY,
San José,
California.

Media Source Press Page 3
Circulation 74,500
Topic Irish Rail



DART extension to Drogheda is "game-changer" says MEP

Dublin MEP Ciarán Cuffe has described a planned extension of the DART line to Drogheda as a "game-changer" for households in North County Dublin.

The DART Coastal North project, due to begin construction by 2026, is set to double the frequency of trains between Drogheda and Dublin city centre.

The Green Party MEP made a submission to the public consultation where he called for a shuttle bus service from Dublin Airport to Clongriffin station, and called for measures to avoid reliance on a shuttle service from Howth to Howth Junction.

Cuffe said "Fingal is one of the fastest-growing counties in Ireland; if we want that growth to be sustainable, we will need more high-quality public transport options like this."

"At the moment, if you're living in Balbriggan or even Donabate and you want to get into the city, your only option is to get in your car and trundle up the M1 to look for parking in the city centre. That's bad for Dubliners, and it's bad for the environment," and said, "the DART project is going to change that."



The DART project has been a major part of the Green Party's brief in Government, with Minister Eamon Ryan earmarking significant public funding to extend the services offered by the DART system, including an enhanced service between Bray and Greystones, a new service to commuter towns Hazelhatch and Celbridge and a new service on the Maynooth/M3 Parkway.

Referring to planned improvements at the busy Howth Junction/Donaghmede station, which will host a new shuttle service to Howth station under the proposal, he suggested that a station attendant could provide assistance to vulnerable passengers during operating hours.

"Upgrades to Howth Junction Station should prioritise passenger comfort and accessibility and should facilitate the smooth passage of large numbers of commuters from one platform to another... New lifts should be sufficient in size to contain two bicycles or a large motorised wheelchair."

Cuffe also advised that improvements along the line should go beyond increases in rail frequency, and called for information displays, seating, rain cover and

bathroom facilities to be part of upgrades.





kildarestreet.com | 06/07/2023

Media Source	Online	Visits	5,000
Topic	Irish Rail		

Department of Transport, Tourism and Sport Departmental Priorities

...statutory responsibility for the planning and development of **public transport** infrastructure, including the **DART+** Programme and its constituent projects, which includes **DART+ Coastal North**. **DART+ Coastal North** will...

[CONTINUE READING](#)



The Irish Sun | 09/07/2023

Media Source	Online	Visits	6,101,042
Topic	Irish Rail		

TRAIN TRAGEDY Emergency services rush to scene of fatal incident on train line as Irish Rail services confirm disruptions

...available. "Services on the **train** line have since been restored." Meanwhile, a first look at a new **DART** fleet set to hit tracks in two years was revealed in March - with a number of major changes for commuters....

[CONTINUE READING](#)

THE IRISH TIMES.com

The Irish Times | 20/07/2023

Media Source	Online	Visits	10,777,589
Topic	Irish Rail Dublin Bus Bus Éireann		



Rail services - visions and reality

...from car to **rail** for Ireland to meet its emissions targets, but after years of travel on the Longford-**Dublin** commuter service, I can't see that happening anytime soon. Here are some examples why. If I want...

[CONTINUE READING](#)



Dublin People | 21/07/2023

Media Source	Online	Visits	5,000
Topic	Irish Rail		

DART extension to Drogheda is "game-changer" says MEP

Dublin MEP Ciarán Cuffe has described a planned extension of the **DART** line to Drogheda as a "game-changer" for households in North County **Dublin**. The **DART Coastal North** project, due to begin construction...

[CONTINUE READING](#)

THE IRISH TIMES.com

The Irish Times | 22/07/2023

Media Source	Online	Visits	10,777,589
Topic	Irish Rail		

Time for a dose of railway reality



...change? Sir, - Despite **Irish Rail**'s glitzy PR campaign, masquerading as "consultation", advocates of **Dart Coastal North** should be wary of what they wish for. Quite apart from the proposed emasculation of the...

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APPENDIX A2

DART+ Coastal North, Public Consultation No.2 - Social Media & Media Advertising

02.08.2023

Iarnród Éireann

RAI194_Dart+North Coastal



Meta Results



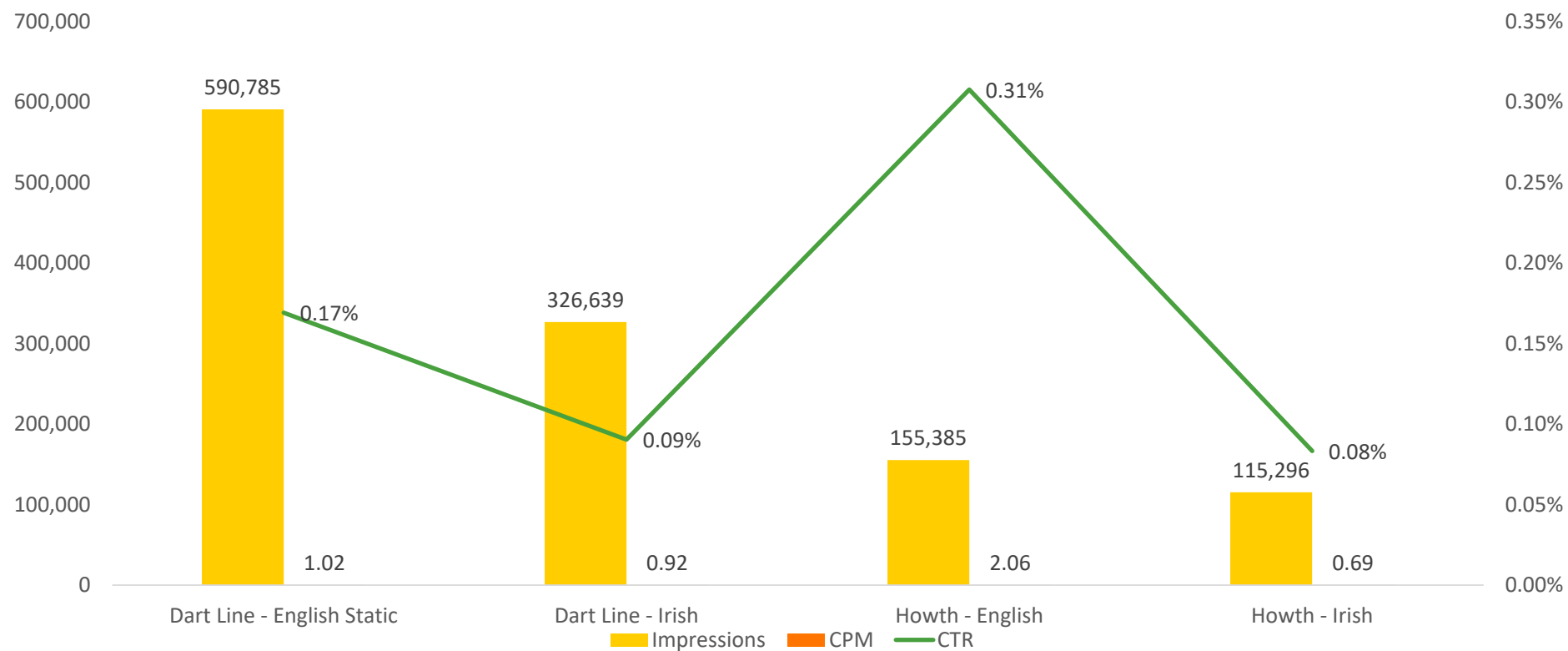
Impressions 1,188,105

Clicks 2,437

CTR 0.14%

Spend €1899.98

Dart Line Static delivered most impressions



Twitter Results



741,508 Impressions

2,703 Clicks

CTR 0.36%

Spend €1,500



Press

Dublin North Coastal Press Activity



COMHAIRLÍOCHÁN POIBLÍ
CÚR DO THUAIRIMH IN IOL DÚINN AR
DARTPlus.ie

PUBLIC CONSULTATION
HAVE YOUR SAY ON
DARTPlus.ie

Is féidir le cónaitheoirí labhairt leis an bhfoireann tionscadail agus tuilleadh a chloistear faoin rogha roghnaithe le haghaidh **DART+ an Chósta Thuaidh** trí fhreastal ar oíche solais (go pearsanta) ar na dátaí seo a leanas:

Dé Máirt, an 16 Bealtaine,
Ostán Harro, Cill Phiorntáin
16:00 - 20:00

Deardaoin, an 18 Bealtaine,
Ostán D, Droichead Átha
16:00 - 20:00

Dé Máirt, an 23 Bealtaine,
Club CLG, Naomh Sylvester,
Mullach Íde 16:00 - 20:00

Beidh seimínear gréasáin 19:00 ag tarlú Dé Máirt an 30 Bealtaine, chun a chinntiú go bhfuil deis ag aon duine nach bhfuil in ann bheith i láthair go pearsanta ar na himeachtaí teagmhála a dhéanamh leis an bhfoireann. Seol ríomhphost go dartcoastalnorth@irishrail.ie chun clárú agus chun nasc don seimínear a fháil.

Residents can speak to the project team and hear more about the preferred option for **DART+ Coastal North** by attending an in person information evening on the following dates:

Tues 16th May,
Marine Hotel, Sutton
16:00 - 20:00

Thurs 18th May,
D Hotel, Drogheda
16:00 - 20:00

Tues 23rd May,
St Sylvesters GAA Club,
Malahide 16:00 - 20:00

There will also be a webinar at 19:00 on Tuesday 30th May to ensure anyone unable to attend the in person events has the opportunity to engage with the team. Email dartcoastalnorth@irishrail.ie to register your attendance and receive the webinar link to join.

Dublin Gazette – 11 May 2023

COMHAIRLÍOCHÁN POIBLÍ
CÚR DO THUAIRIMH IN IOL DÚINN AR
DARTPlus.ie

PUBLIC CONSULTATION
HAVE YOUR SAY ON
DARTPlus.ie

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Northside People East – 15 May 2023

Dublin North Coastal Press Activity



Drogheda Independent – 10 May 2023



Drogheda Leader – 16 May 2023

Thank You



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Coastal North

APPENDIX B1

DART+ Coastal North, Public Consultation No.2 - Public Representatives Pre-Public Consultation Briefings

- 09th MAY 2023 – DUBLIN CITY COUNCIL & FINGAL COUNTY COUNCIL BRIEFING



Public Consultation No.2

Briefing to Dublin City Council & Fingal
County Council - Elected Representatives

09th May 2023

Agenda

1. Project Overview / Update
2. PC1 Feedback and Design Development
3. Presentation of Preferred Option
 1. Focus on DCC & FCC Jurisdictions
4. Consultation Update



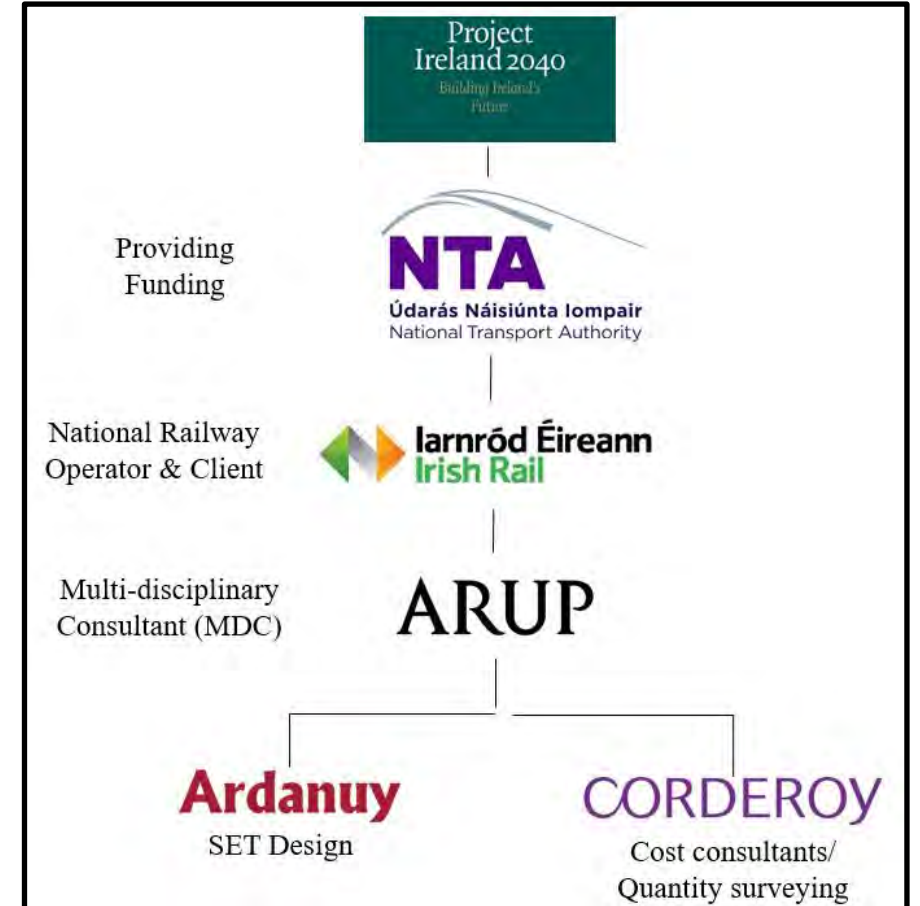
DART+ Coastal North Team

Iarnród Éireann

- Niamh Horan, Communications Manager, DART+ Programme
- Brian Whelehan, Project Manager, DART+ Coastal North

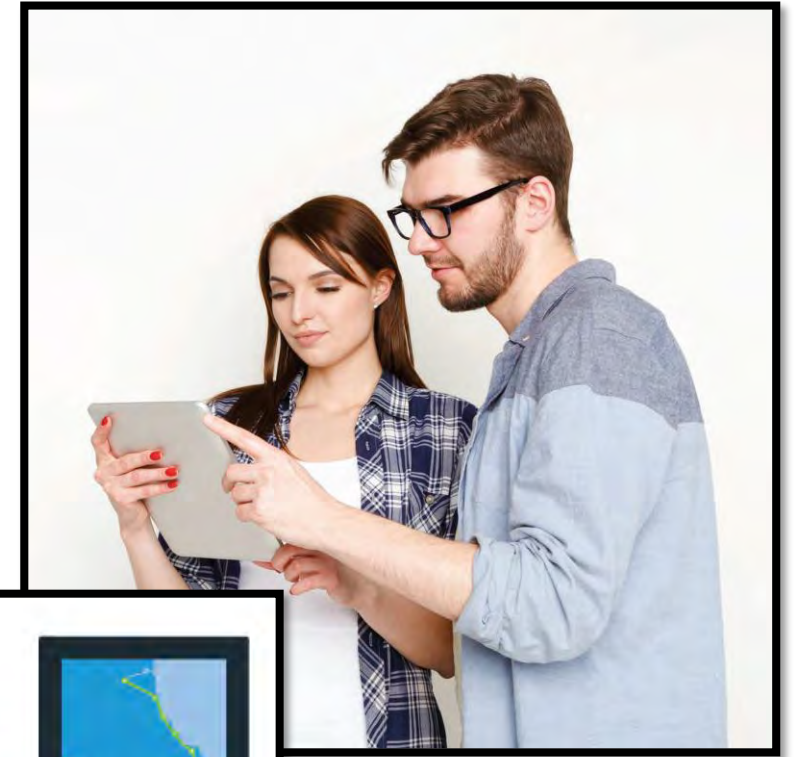
Arup

- Gillian Sisk, Project Manager, DART+ Coastal North
- Clodagh O'Donovan, RO Manager, DART+ Coastal North
- Chris Bradish, Stakeholder Manager, DART+ Coastal North



Public Consultation No.2 – Briefing.

- Public Consultation No.2 has commenced on DART+ Coastal North;
 - PC No.2 commenced on **09th May 2023**.
- Consultation will continue for 6 weeks;
 - PC No.2 will conclude on **23rd June 2023**.
- The purpose of the consultation is to seek feedback on the **‘Preferred Option’** for DART+ Coastal North;
- The intention of this briefing is to take both Dublin City Council and Fingal County Council Representatives through the key elements of the project that are being presented at PC No.2.



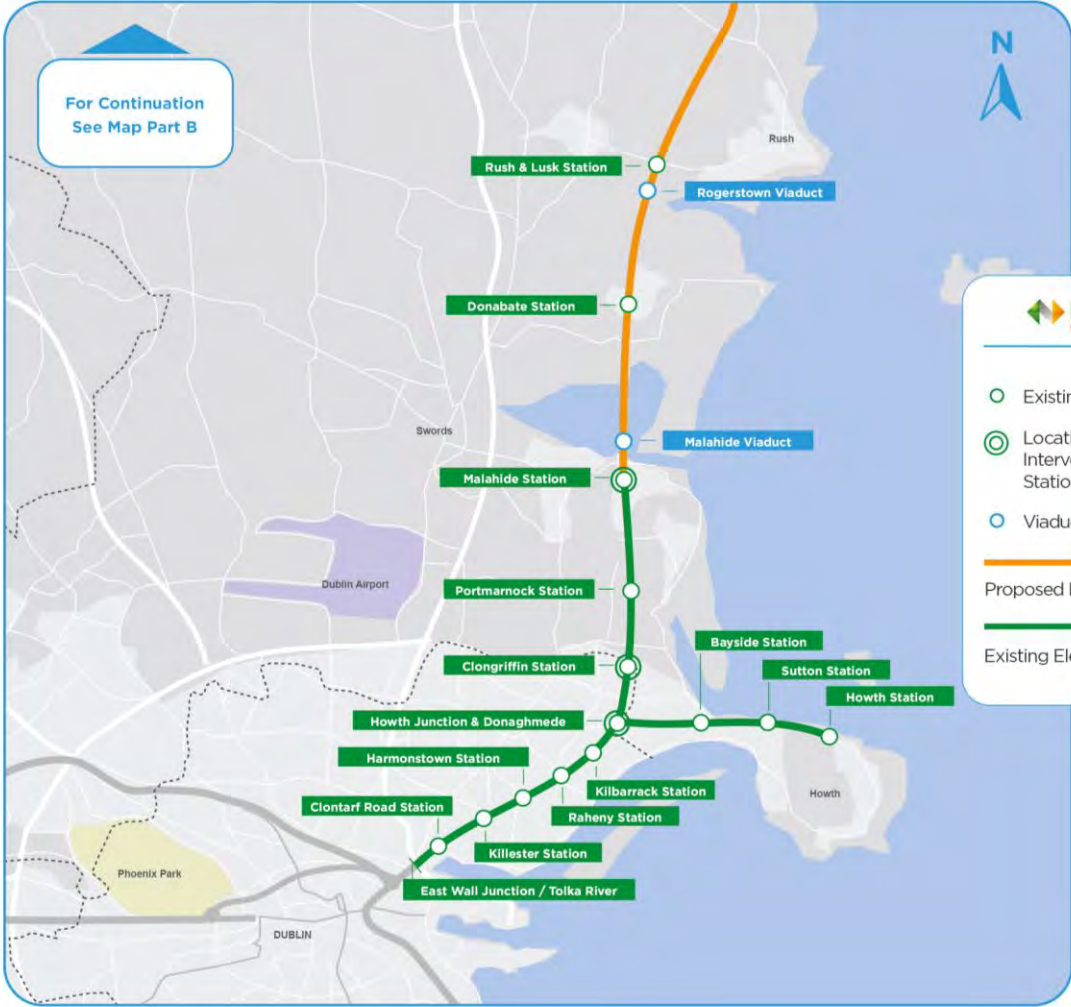
DART+ Coastal North

Project Overview & Update

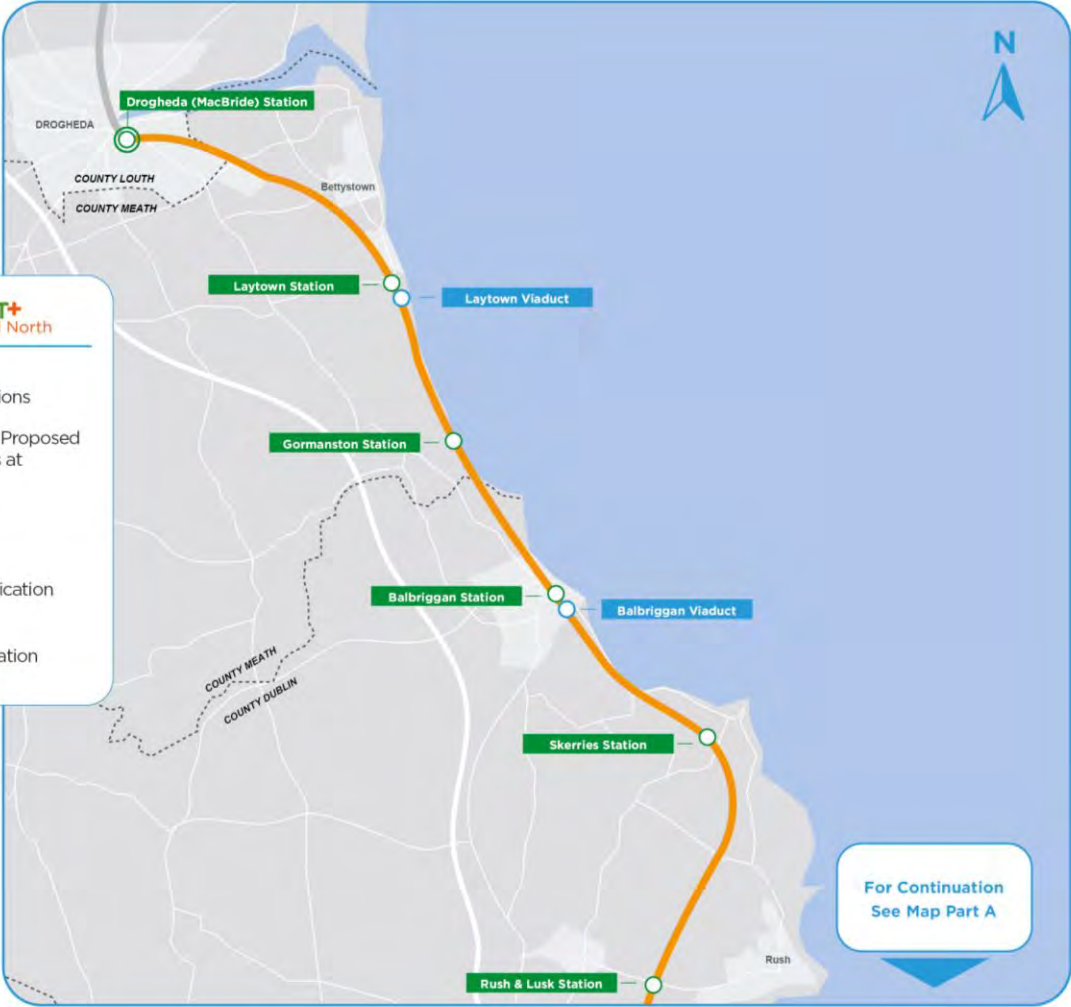


DART+ Coastal North Route Map

Map Part A



Map Part B



Project Update

- PC1 completed in Spring 2022
- Feedback has been considered in the further development of the design
- Options selection process now complete – Preferred Option identified
- PC2 documentation in preparation – due to commence in May 2023
- Preliminary Design nearing completion
- Work on RO documentation is in progress



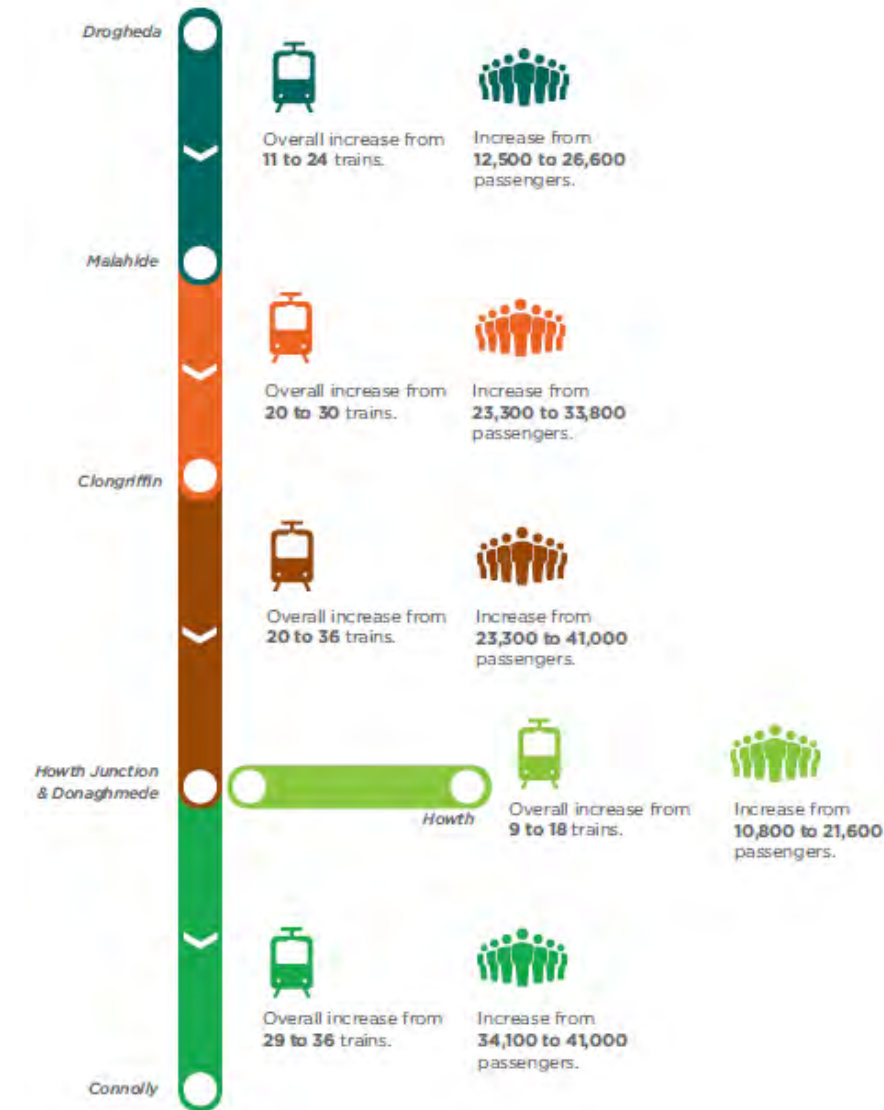
*Note: Dates to be confirmed.

DART+ Coastal North Overview

Project Specific Objectives

- To deliver a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between Drogheda and Dublin City Centre;
- To deliver solutions which improve the passenger experience where passenger infrastructure interventions are required to meet the Train Service Specification (i.e. 'desired' level of service).
- To deliver a sustainable, low carbon and climate resilient design solution including making use of existing infrastructure where possible with targeted improvement works;
- To identify cost-effective solutions from a capital, operations, and maintenance perspective;
- To minimise adverse impacts on the natural and built environment associated with construction, operation and maintenance of the project
- To minimise adverse impacts on existing rail services, road users and landowners associated with the construction, operation and maintenance of the project.
- To provide efficient and cost-effective integration of systems with the other DART+ projects.

Planned increase in train frequency and passenger capacity for the 3-hour AM peak period for inbound/southbound services to Dublin City Centre.



DART+ Coastal North Overview – Key Infrastructural Elements

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users;
- Undertaking upgrades to existing signalling, telecoms and power supplies to support the planned increase in train services, including the introduction of new electrical substations at key locations alongside the railway line;
- Drogheda • Gormanston • Skerries North • Rush & Lusk
- Bettystown • Balbriggan • Skerries South • Donabate
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.

DART+ Coastal North - Benefits

- Increase peak passenger capacity and increased train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch – facilitating frequent and reliable transport to the surrounding communities.
- Enhance public transport opportunities for work, education and leisure purposes.
- Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.
- Help alleviate road congestion.
- Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.
- Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient and safer public transport network.
- Improve multi-modal transport connectivity through the development of the wider DART+ Programme.
- Improve journey time reliability.



DART+ Coastal North

PC1 Feedback and Design Development



Feedback from Public Consultation No.1

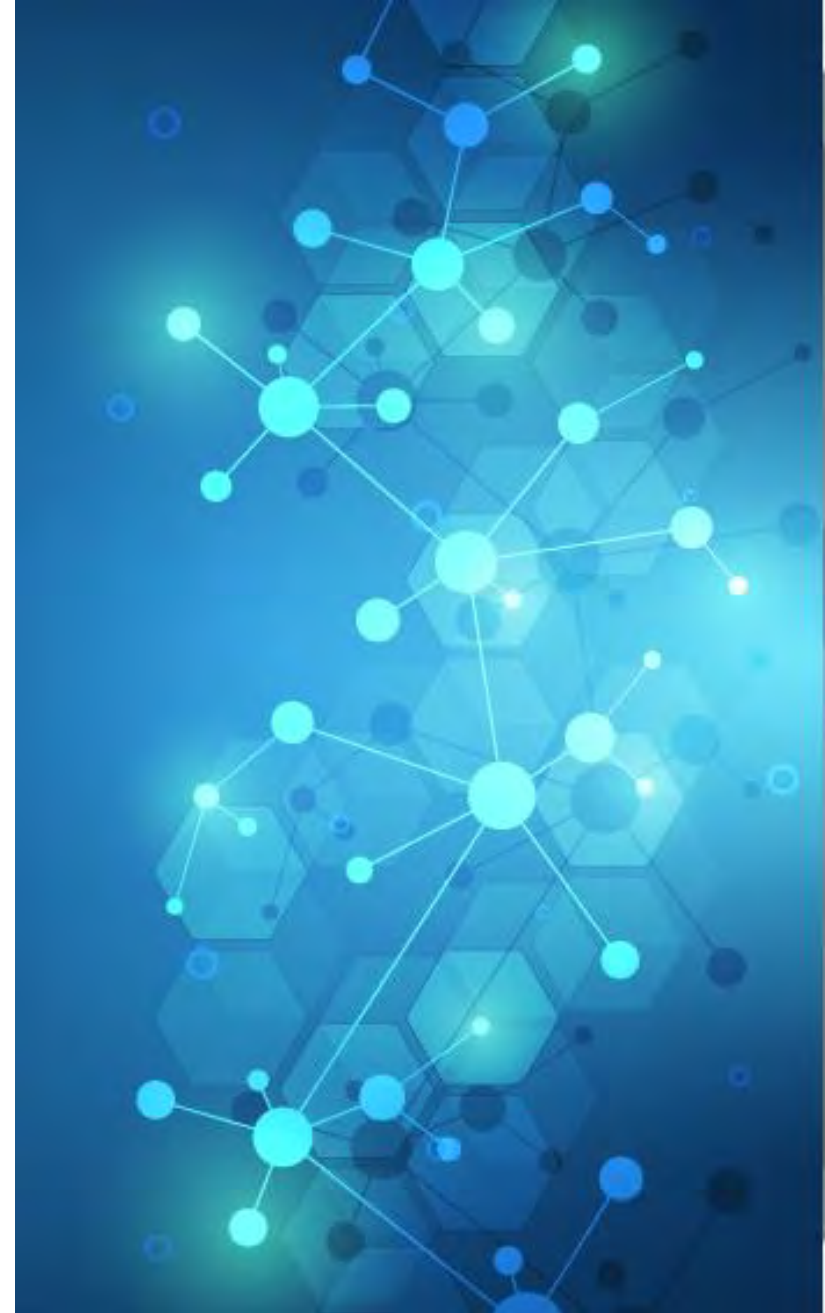
- Feedback received during Public Consultation No. 1 raised a number of key issues for further consideration, including:
 - Concerns regarding suitability of Howth Junction and Donaghmede to function as an interchange station, particularly in respect of:
 - Station facilities, and,
 - Safety & security of passengers.
 - Concerns relating to the shuttle service proposed on the Howth Branch during peak periods, including:
 - Implications of interchange at Howth Junction & Donaghmede Station
 - Concerns in respect of the issues above re HJ&D Station
 - Concerns relating to the Howth Branch level crossings:
 - Perceived increased delays and frequency of delays for road users.
- This has helped shape the ongoing project design development and has led to further assessment and consideration of some major project elements, in particular:
 - The inclusion of, within the project scope, significant upgrades to **Howth Junction & Donaghmede Station** to provide a more accessible, user friendly and customer focused station for all rail users;
 - Further surveys and assessments undertaken in relation to transport modelling for the **level crossings on the Howth Branch line** confirming they are to remain operational.



Design Development

- Design development since Public Consultation No. 1 has ensured it is now possible to identify:
 - **substation locations; and,**
 - **construction compounds.**
- Structural assessments have identified **bridges/structures requiring intervention** to allow for the installation of OHLE as part of the overall extension of electrification to Drogheda MacBride Station.

* Further information available via www.DARTplus.ie



DART+ Coastal North Preferred Option



DART+ Coastal North – Option Selection Process

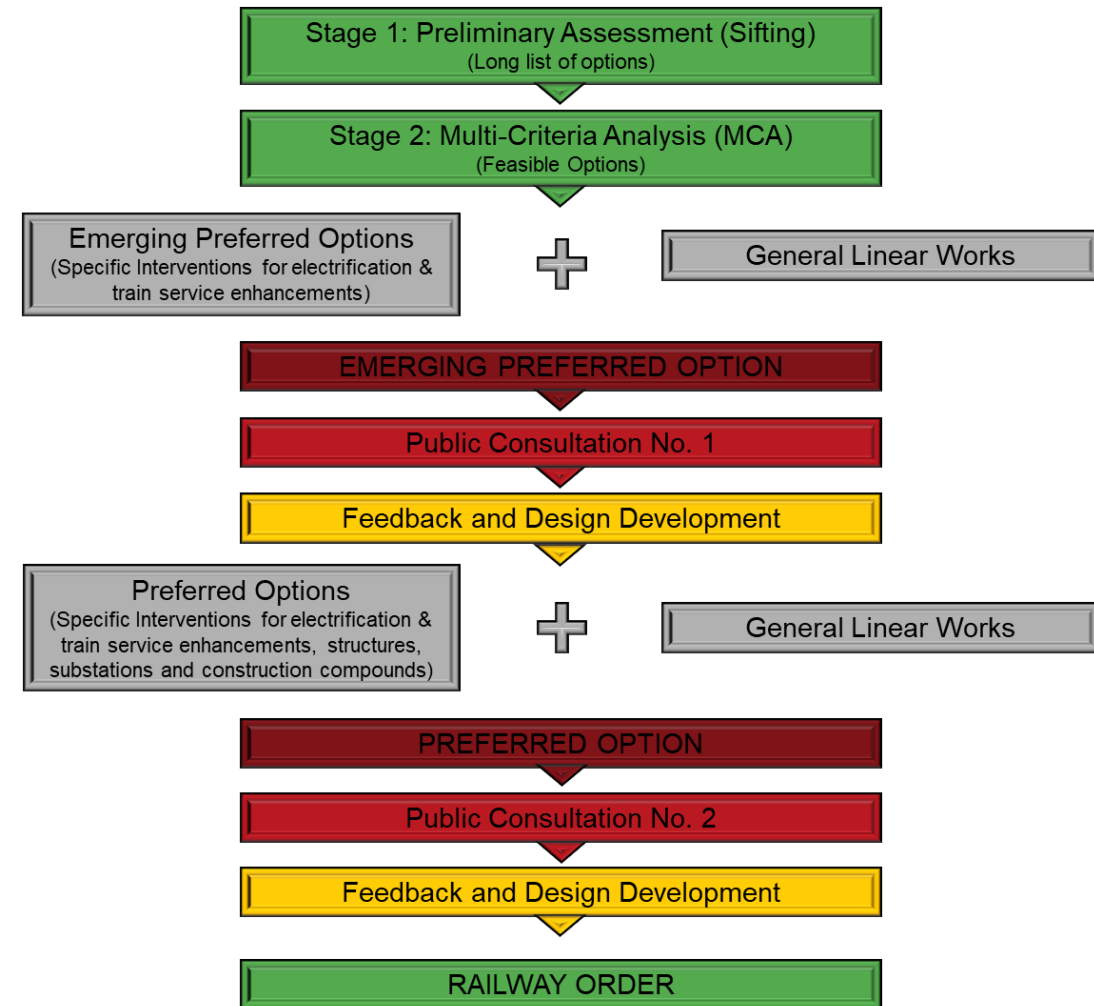
Assessment Methodology

Stage 1 – Preliminary Assessment (sifting process)

- Assessment of a long list of options against engineering, economic and environmental criteria;
- Evaluation of the ‘feasibility’ of each option to meet the project objectives / requirements;
- Options filtered to a shorter list of feasible options brought forward to Stage 2.

Stage 2 – The Multi-Criteria Analysis (MCA)

- Detailed, multidisciplinary, comparative analysis of the feasible options from Stage 1 assessment;
- This structured process evaluates a number of different options and is based on ‘Guidelines on a Common Appraisal Framework for Transport Projects and Programmes’ (CAF) published by the Department of Transport March 2016 (updated October 2021);
 - Options have been assessed against the six appraisal criteria - economy, safety, environment, accessibility and social inclusion, integration and physical activity.



Preferred Option

- General Linear Works, including:
 - **Electrification**
 - **Electrical substations**
 - **Signalling**
- Dublin City to Malahide, including works around:
 - **Clongriffin Station**
 - **Howth Junction & Donaghmede Station**
 - **Malahide Station**
 - **Fairview Depot**
- Malahide to Drogheda, including works around:
 - **Malahide, Balbriggan, Rogerstown and Laytown Viaducts**
 - **Interventions at overbridges to provide OHLE clearances**
 - **User Worked Level Crossing, XB001**
 - **Drogheda MacBride Station**
 - **Drogheda Depot**



General Linear Works

Electrification Works.

- Electrification of the existing railway line from Malahide to Drogheda, including:
 - Extension of the overhead line equipment (OHLE) from Malahide (current extent of electrification) to Drogheda;
 - Eight new electrical substations at intervals along the railway line between Malahide and Drogheda:
 - These substations will provide power to the rail network and will receive power from the local power distribution network at 38kV AC.
 - The footprint of the substation compound is c. 50 m x 20 m, with general substation building dimensions of 35 m x 10 m x 6 m (height).
 - The substations are located at:
 - Drogheda
 - Bettystown
 - Gormanston
 - **Balbriggan**
 - **Skerries North**
 - **Skerries South**
 - **Rush and Lusk**
 - **Donabate**



Example of a typical substation

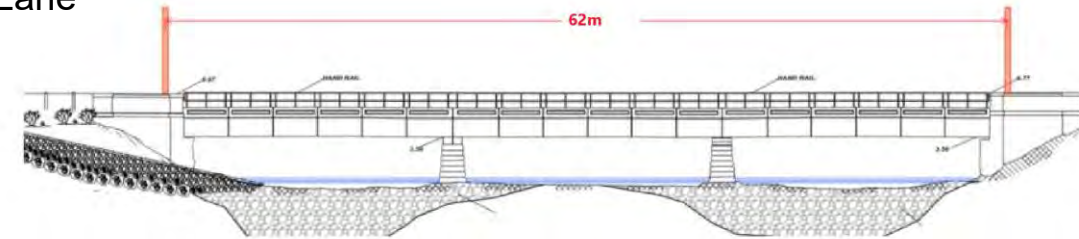


Typical Signalling Infrastructure

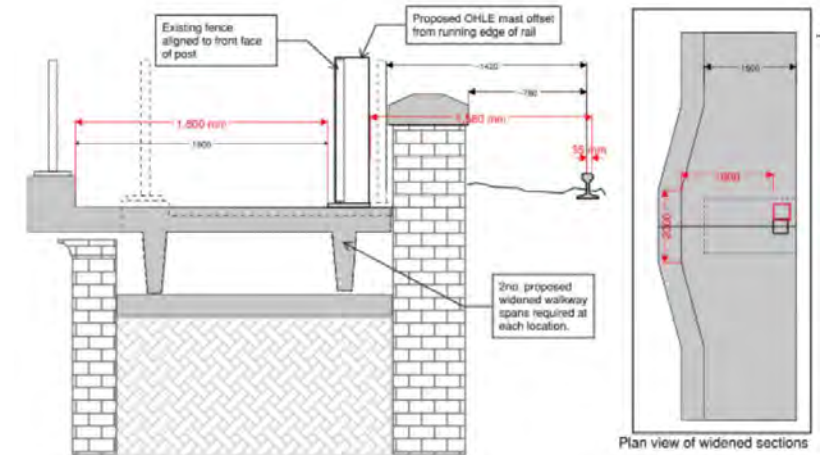


General Linear Works (continued)

- Modifications to a small number of bridges to achieve the appropriate clearances for OHLE, including:
 - Upgrade to Drogheda MacBride station footbridge
 - Replacement of OBB080/80A/80B linking Railway Terrace with McGrath's Lane
 - Minor localised track lowering works at 4 additional overbridges:
 - **OBB39 (carrying Station Road/R128)**
 - **OBB44 (carrying local road in Tyrrelstown Big)**
 - **OBB55 (carrying Lawless Terrace/R127)**
 - OBB78 (carrying Colpe Road)
- Localised modifications to allow fixing of OHLE to underbridges/viaducts at:
 - **Malahide Viaduct**
 - **Rogerstown Viaduct**
 - **Balbriggan Viaduct**
 - Laytown Viaduct
- Modifications to existing overbridge parapets between Malahide and Drogheda – to minimise risk of people coming into contact with OHLE – ensuring parapets have no openings, are climb-resistant and at least 1.8 m high
- Interfaces with existing utilities (UTX crossings & utility diversions), boundary treatments (including new retaining walls), drainage works, vegetation management and other ancillary works
- Closure of user worked level crossing (XB001) located to the south of Donabate
- Temporary compounds along the route



OHLE Supporting Posts at Rogerstown Viaduct



Preferred Option for Balbriggan Viaduct

General Linear Works (Continued)

Signalling & Telecommunications

- Upgrade of the existing signalling system & replacement of some legacy components, including:
 - Signalling upgrades and additional signalling between Malahide and Drogheda
 - Minor signalling changes between East Wall Junction (Tolka River) and Malahide
 - Provision of Signalling Equipment Buildings (SEB), c. 12m x 4m x 2.6m
- Upgrades to telecommunications systems route wide, including:
 - Telecommunications Equipment Rooms (TER)
- SEBs/TERs are typically fenced off as they need to be secure



Typical Equipment Cabins (SEB & TER)

Works at Clongriffin

- Track modifications to facilitate the increase in train services, allowing trains to be turned back, clear of continuing services on separate tracks.
- New loop to serve a platform to the east side of the station, within the existing railway corridor.
- Proposed to use the platform face constructed when station was built.
- Retaining structure needed to the east of the station to facilitate the new loop.
- Local modifications and additions to OHLE and signalling are required.
- Consultation with Shoreline Developments and major stakeholders ongoing.



Works at Malahide

- Works comprise track modifications to facilitate the increase in train services, by allowing trains to be turned back clear of continuing services on separate tracks
- Introduce a turnback immediately north of Malahide Station between Strand Road Underbridge and Malahide Viaduct
- Located between two running lines – necessitating the existing up line to be slewed to the east between the two bridges
- Existing embankment to the east needs to be widened – achieved by retaining structure alongside the realigned track
- New OHLE, signalling and modifications to existing systems required
- Works required in proximity to Wastewater Treatment Plant, with potential interference to 3rd party property rights, consultation ongoing with Marina Village, Uisce Éireann and major stakeholders.



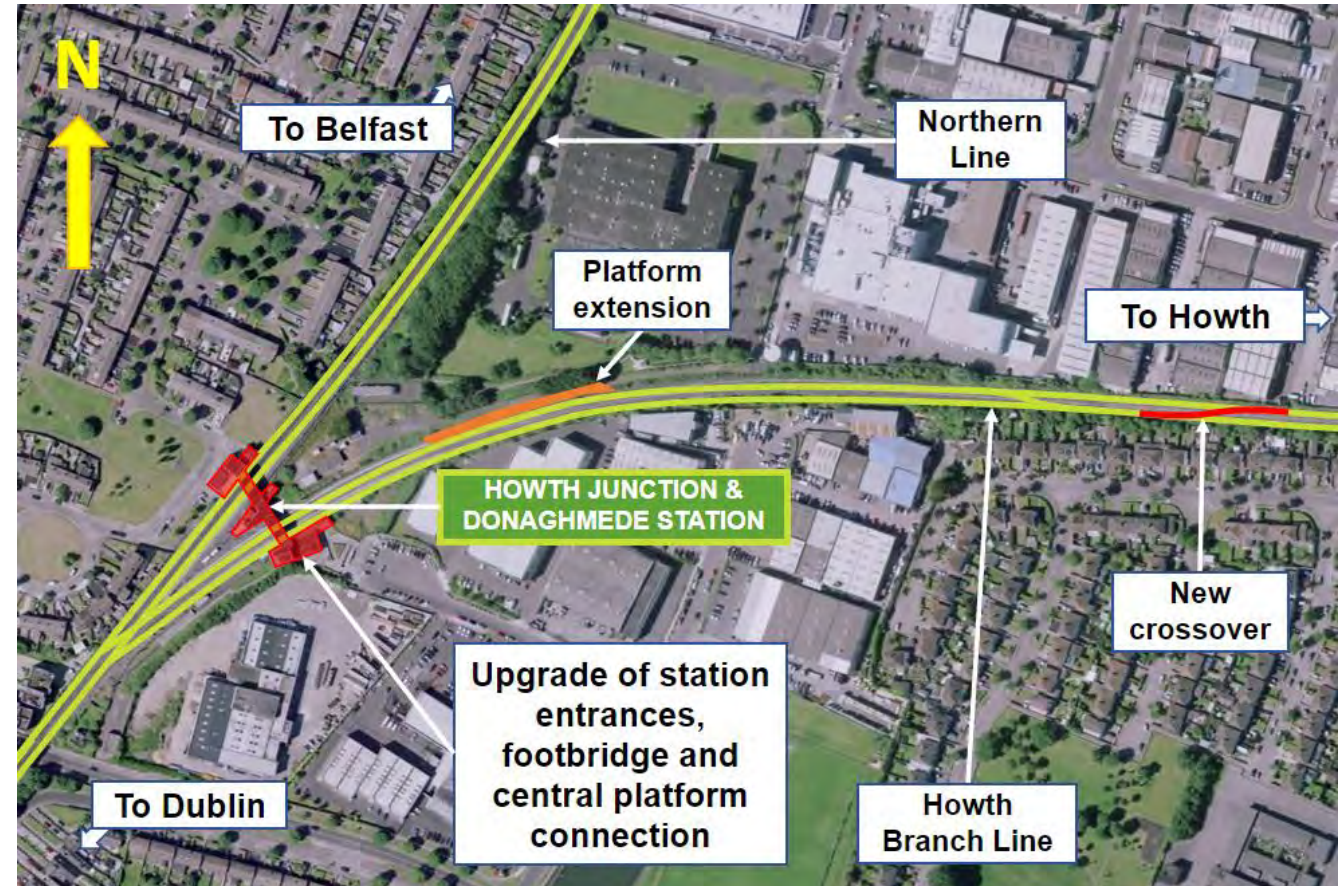
Works at Howth Junction & Donaghmede

Mainline works include:

- Construction of an extension to the existing Platform 2 and some associated track modifications
- Construction of a new crossover east of the platforms
- Alterations to existing OHLE, signalling and telecoms

These works are needed, as:

- The existing crossing conflicts currently constrain capacity and train frequency on the network
- The changes will enable the operation of both
 - DART shuttle service on the Howth Branch line as required during peak times; and/or
 - A direct through service to/from Dublin City Centre
- This allows for the capacity and frequency of DART+ services on both the Northern and Howth Branch lines to be maximised
- Enables a more frequent and reliable service on Howth Branch, operating every 10 minutes each way
- Interchange introduced will be facilitated by increased frequency of stopping trains on the Northern Line



Howth Junction & Donaghmede Station Improvement Works

- In direct response to feedback from PC1, a variety of significant modification works are proposed at the station to:
 - Improve passenger experience generally
 - Develop the station to better serve as an interchange station
- Works include:
 - Upgrades to the footbridge
 - New central connection to the centre platforms
 - Improvements to the station entrance
 - Lighting, signage and finishes throughout



Visualisations of the proposed Station Works

Howth Branch Line

- Four level crossings located along Howth Branch line:
 - Baldoyle Road Level Crossing (XQ001);
 - Sutton Level Crossing (XQ002);
 - Cosh Level Crossing (XQ003);
 - Claremont Level Crossing (XQ004).
- Service frequency and capacity to increase from 3 trains per hour to 6 trains per hour
- Reliability of Howth Branch would increase with proposed DART Shuttle service – trains would no longer be susceptible to delays on Northern Line
- Traffic assessment has concluded that:
 - Barrier controlled crossings can continue to provide an appropriate level of connectivity and accessibility whilst meeting the increased DART service frequency requirement
 - Assessment based on observed traffic survey data and application of best practice methodology and industry standard software (LinSig); level crossing closure times were simulated and showed that:
 - Likelihood of vehicles, pedestrians and cyclists incurring delay increased due to increased frequency of level crossing closures
 - There will be an impact on queue lengths in the study area – in some cases queue lengths may reduce, in others queue lengths increase
 - Sensitivity analysis shows that queue lengths are predicted to remain within available traffic queueing road space in all cases



View at Sutton Level Crossing

Fairview Depot

- Localised minor works to modify the facilities to cater for changes in rolling stock
- Modifications include:
 - Provision of new cleaning platforms on the sidings to the east side of the mainline, along with associated walkways and services
 - Provision of suitable access and services for cleaning staff internal to the building



View into Fairview Depot

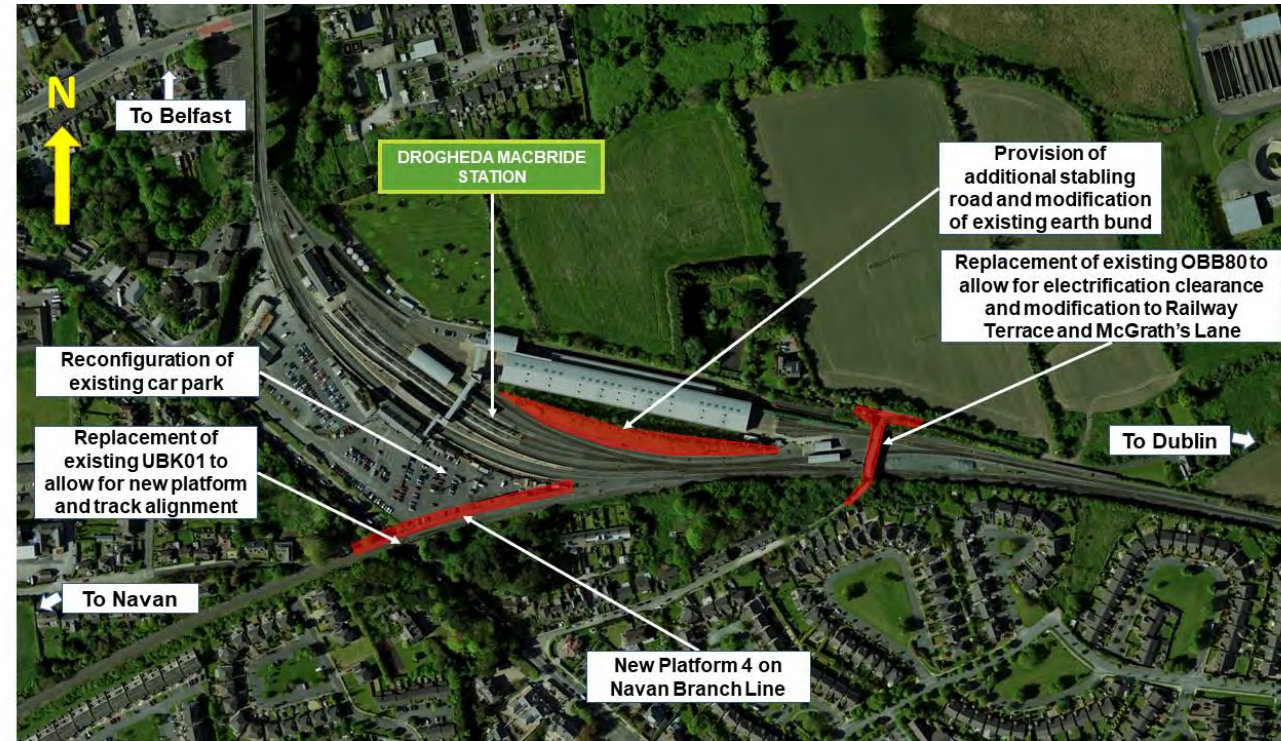
Works around Drogheda MacBride Station (outside of DCC/FCC Jurisdiction)

Turnback

- Provision of turnback to allow a greater number of services to turn back at Drogheda and return to Dublin
- New siding on Drogheda freight siding to turnback services
 - New platform will extend over the Dublin Road Underbridge (UBK01), necessitating widening of the bridge
 - At grade access to be provided between new platform and existing Platform 1; new gateline will likely be installed
 - Drogheda freight siding will be slewed (realigned) and railway infrastructure modified as necessary
- New stabling track/siding, located adjacent to the existing landscape bund

UBK01 – Dublin Road Bridge

- Widening of the bridge to facilitate a shift of the tracks to the south and provision of a new platform on the northern side of the tracks above the bridge
- Locations of the abutments are not expected to be adjusted as part of these proposals



Works around Drogheda MacBride Station (outside of DCC/FCC Jurisdiction)(Continued)

- Drogheda Depot
 - Localised modifications to the depot facilities to cater for changes in rolling stock
 - Changes predominantly internal to the existing depot buildings
 - Some localised exterior changes to tracks and railway systems
 - Depot at Drogheda will be electrified with OHLE
- Overbridge OBB81 (Drogheda Station Footbridge)
 - Replacement of the bridge superstructure with a profiled soffit to provide sufficient clearance for OHLE
 - cost-effective solution, reduces disruption to services, maintains visual character of station
- Canopy Modifications
 - Minor modifications to the Drogheda MacBride Station canopy to accommodate OHLE
- Overbridge OBB80/80A/80B (carrying Railway Terrace)
 - Removal of the existing bridge structure and construction of a new bridge in its place
 - Roads along McGrath's Lane and Railway Terrace will need to be raised and potentially widened to facilitate tie in with revised bridge levels



Works to Drogheda MacBride Station Footbridge



Consultation Updates



Public Consultation Documentation

- Letters to potentially affected landowners
- Letters to prescribed bodies
- PC.2 Leaflet to adjacent communities
- Advertising Campaign
- Dedicated website - www.dartplus.ie
 - Project documentation
 - PC.2 Brochure
 - PC.1 Findings Report
 - Options Selection Reports
 - Preferred Option Report
 - Technical Report
 - Supporting documentation
- Virtual consultation room
 - Multi-media engagement tools



Public Consultation Events & Webinars

- Iarnród Éireann will host a number of public engagement webinars for communities along the route:
 - In Person Events
 - The Marine Hotel, Sutton. 16th May 2023 from 16:00hrs to 20:00hrs
 - The D Hotel Drogheda. 18th May 2023 from 16:00hrs to 20:00hrs
 - St Sylvester's GAA, Malahide. 23rd May 2023 from 16:00hrs to 20:00hrs
 - General Project Webinar 30th May 2023 @ 19:00hrs
 - *Scope to schedule additional webinars as necessary (based on demand, dates yet to be set)*



DART+ Coastal North – How People can Engage

Contact via the following means:

Website: www.dartplus.ie

Email: DARTCoastalNorth@irishrail.ie

Phone line: 01 233 4515

Or in writing to:

**Community Liaison Officer
DART+ Coastal North,
Iarnród Éireann,
Inchicore Works,
Inchicore Parade,
Dublin 8.
D08K6Y3**





DART+ Programme, Legal Statement.



DART+ Programme, Legal Statement

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Thank You



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of Ireland

Tionascadh Éireann
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Iarnród Éireann
Irish Rail

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DART+
Coastal North

APPENDIX B2

DART+ Coastal North, Public Consultation No.2 - Public Representatives Pre-Public Consultation Briefings

- 09th FEBRUARY 2022 – MEATH COUNTY COUNCIL & LOUTH COUNTY COUNCIL BRIEFING



Public Consultation No.2

Briefing to Louth County Council
& Meath County Council
- Elected Representatives

09th May 2023

Agenda

1. Project Overview / Update
2. PC1 Feedback and Design Development
3. Presentation of Preferred Option
 1. Focus on LCC & MCC Jurisdictions
4. Consultation Update



DART+ Coastal North Team

Iarnród Éireann

- Niamh Horan, Communications Manager, DART+ Programme
- Brian Whelehan, Project Manager, DART+ Coastal North

Arup

- Gillian Sisk, Project Manager, DART+ Coastal North
- Clodagh O'Donovan, RO Manager, DART+ Coastal North
- Chris Bradish, Stakeholder Manager, DART+ Coastal North



Public Consultation No.2 – Briefing.

- Public Consultation No.2 has commenced on DART+ Coastal North;
 - PC No.2 commenced on **09th May 2023**.
- Consultation will continue for 6 weeks;
 - PC No.2 will conclude on **23rd June 2023**.
- The purpose of the consultation is to seek feedback on the **‘Preferred Option’** for DART+ Coastal North;
- The intention of this briefing is to take both Louth County Council and Meath County Council Representatives through the key elements of the project that are being presented at PC No.2.



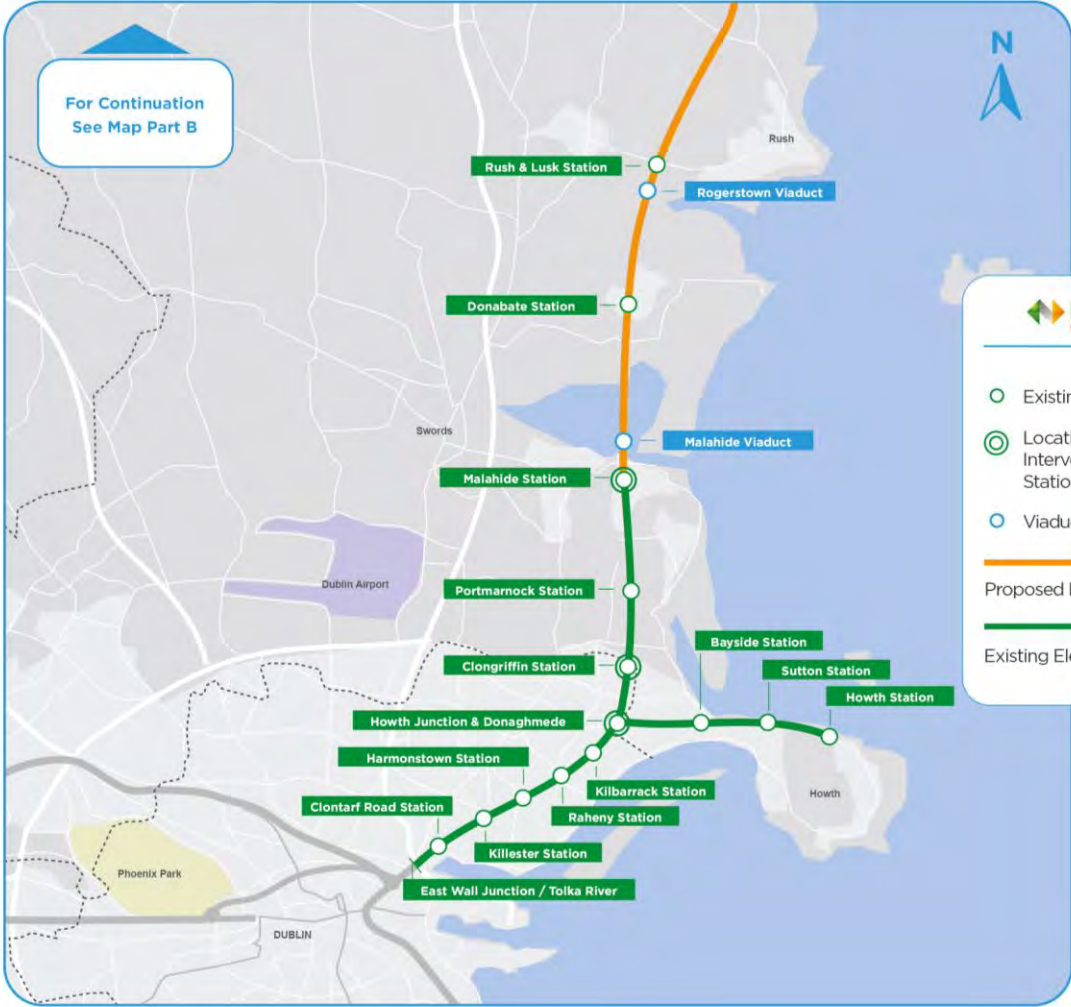
DART+ Coastal North

Project Overview & Update

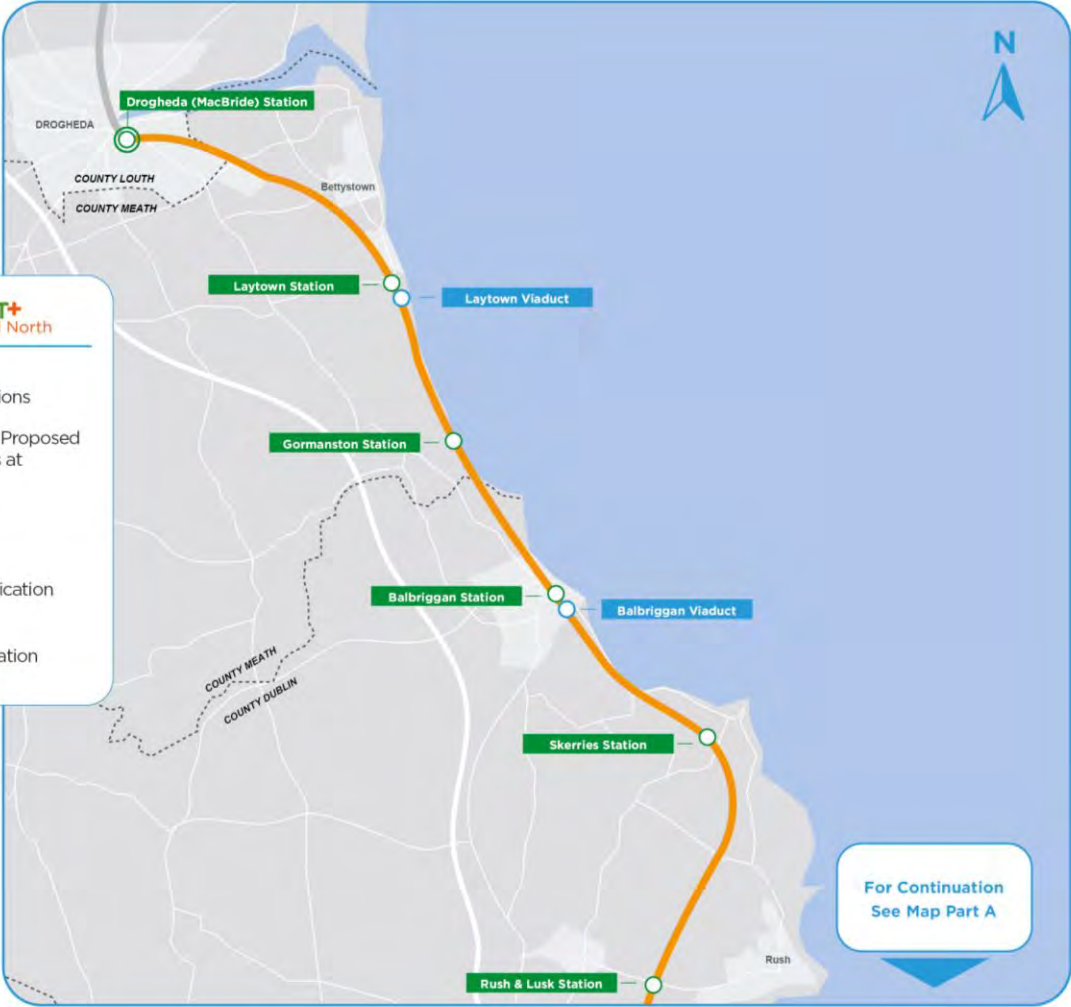


DART+ Coastal North Route Map

Map Part A



Map Part B



DART+ Coastal North

- Existing Stations
- Locations of Proposed Interventions at Stations
- Viaducts
- Proposed Electrification
- Existing Electrification

Project Update

- PC1 completed in Spring 2022
- Feedback has been considered in the further development of the design
- Options selection process now complete – Preferred Option identified
- PC2 documentation in preparation – due to commence in May 2023
- Preliminary Design nearing completion
- Work on RO documentation is in progress



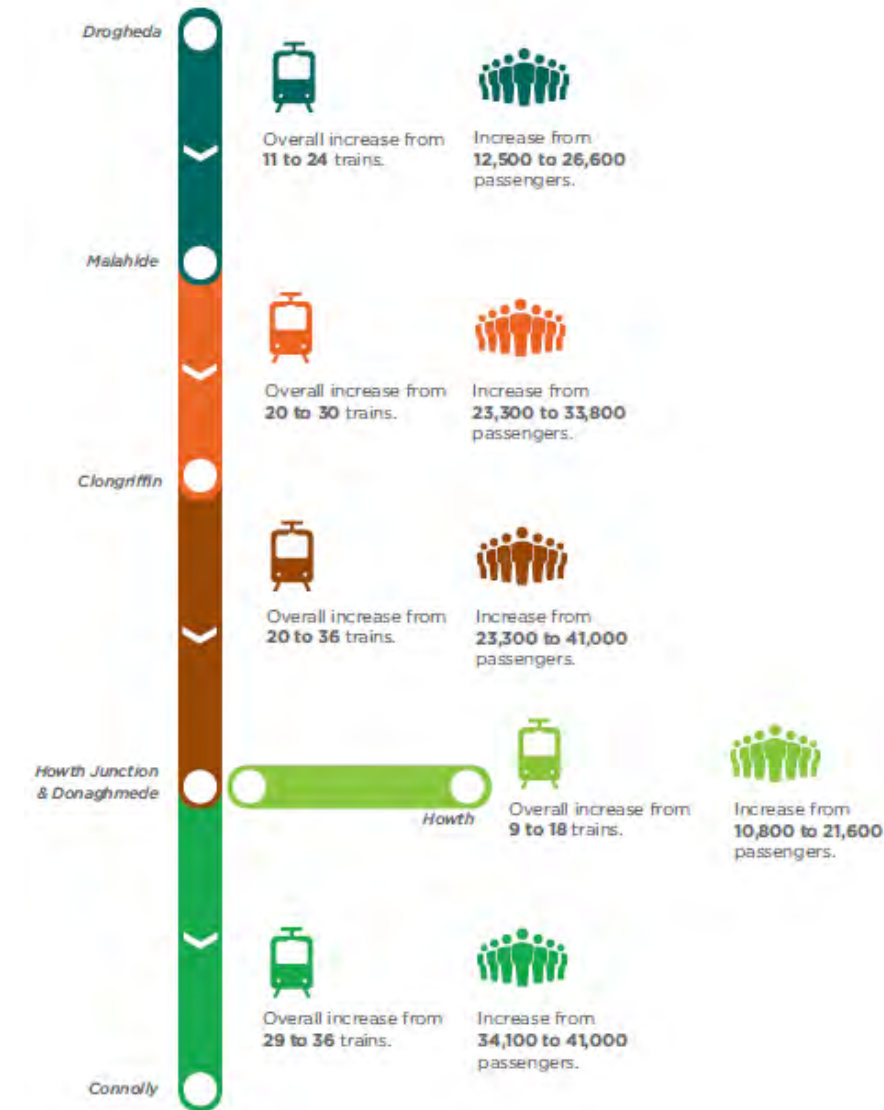
*Note: Dates to be confirmed.

DART+ Coastal North Overview

Project Specific Objectives

- To deliver a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between Drogheda and Dublin City Centre;
- To deliver solutions which improve the passenger experience where passenger infrastructure interventions are required to meet the Train Service Specification (i.e. 'desired' level of service).
- To deliver a sustainable, low carbon and climate resilient design solution including making use of existing infrastructure where possible with targeted improvement works;
- To identify cost-effective solutions from a capital, operations, and maintenance perspective;
- To minimise adverse impacts on the natural and built environment associated with construction, operation and maintenance of the project
- To minimise adverse impacts on existing rail services, road users and landowners associated with the construction, operation and maintenance of the project.
- To provide efficient and cost-effective integration of systems with the other DART+ projects.

Planned increase in train frequency and passenger capacity for the 3-hour AM peak period for inbound/southbound services to Dublin City Centre.



DART+ Coastal North Overview – Key Infrastructural Elements

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users;
- Undertaking upgrades to existing signalling, telecoms and power supplies to support the planned increase in train services, including the introduction of new electrical substations at key locations alongside the railway line;
- Drogheda • Gormanston • Skerries North • Rush & Lusk
- Bettystown • Balbriggan • Skerries South • Donabate
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.

DART+ Coastal North - Benefits

- Increase peak passenger capacity and increased train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch – facilitating frequent and reliable transport to the surrounding communities.
- Enhance public transport opportunities for work, education and leisure purposes.
- Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.
- Help alleviate road congestion.
- Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.
- Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient and safer public transport network.
- Improve multi-modal transport connectivity through the development of the wider DART+ Programme.
- Improve journey time reliability.



DART+ Coastal North

PC1 Feedback and Design Development



Feedback from Public Consultation No.1

- Feedback received during Public Consultation No. 1 raised a number of key issues for further consideration, including:
 - Concerns regarding suitability of Howth Junction and Donaghmede to function as an interchange station, particularly in respect of:
 - Station facilities, and,
 - Safety & security of passengers.
 - Concerns relating to the shuttle service proposed on the Howth Branch during peak periods, including:
 - Implications of interchange at Howth Junction & Donaghmede Station
 - Concerns in respect of the issues above re HJ&D Station
 - Concerns relating to the Howth Branch level crossings:
 - Perceived increased delays and frequency of delays for road users.
- This has helped shape the ongoing project design development and has led to further assessment and consideration of some major project elements, in particular:
 - The inclusion of, within the project scope, significant upgrades to **Howth Junction & Donaghmede Station** to provide a more accessible, user friendly and customer focused station for all rail users;
 - Further surveys and assessments undertaken in relation to transport modelling for the **level crossings on the Howth Branch line** confirming they are to remain operational.



Design Development

- Design development since Public Consultation No. 1 has ensured it is now possible to identify:
 - **substation locations; and,**
 - **construction compounds.**
- Structural assessments have identified **bridges/structures requiring intervention** to allow for the installation of OHLE as part of the overall extension of electrification to Drogheda MacBride Station.

* Further information available via www.DARTplus.ie



DART+ Coastal North Preferred Option



DART+ Coastal North – Option Selection Process

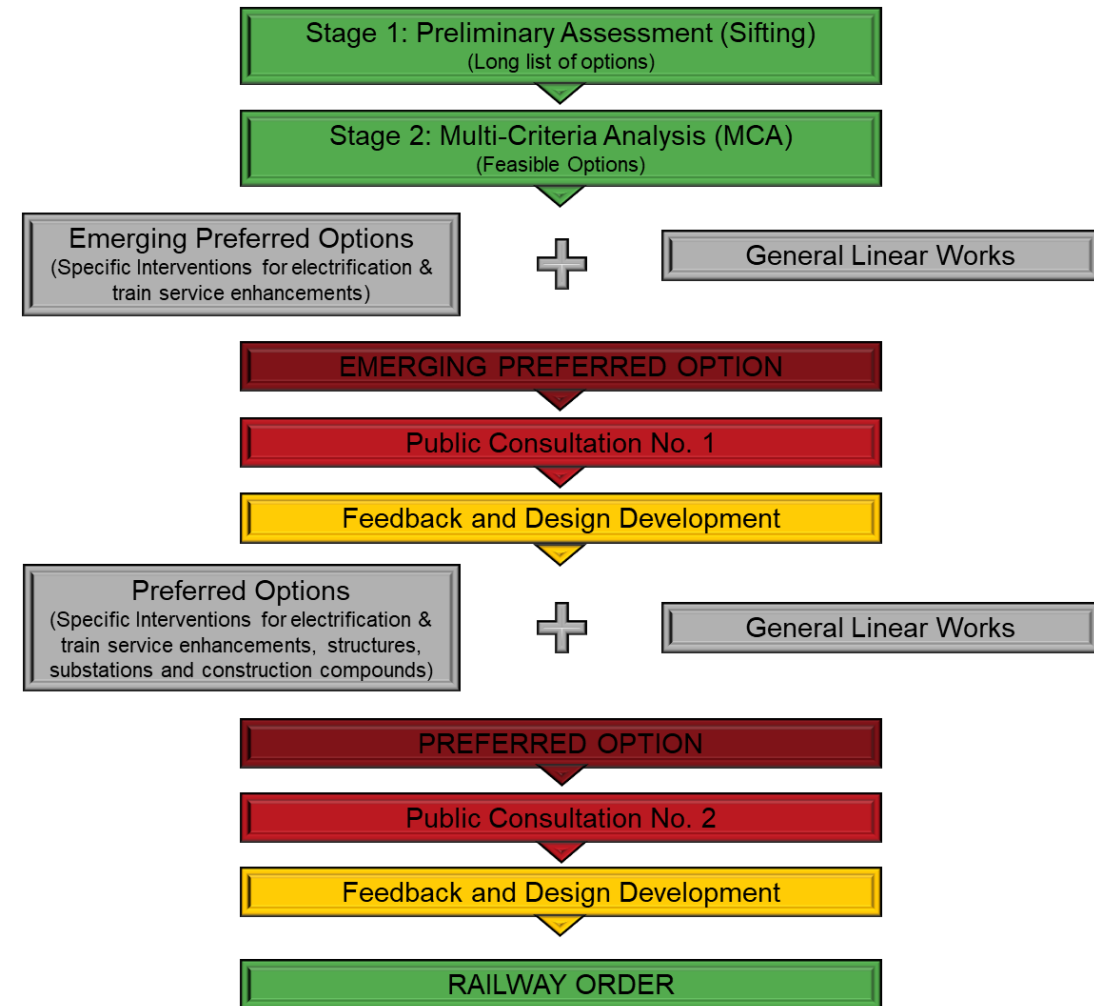
Assessment Methodology

Stage 1 – Preliminary Assessment (sifting process)

- Assessment of a long list of options against engineering, economic and environmental criteria;
- Evaluation of the ‘feasibility’ of each option to meet the project objectives / requirements;
- Options filtered to a shorter list of feasible options brought forward to Stage 2.

Stage 2 – The Multi-Criteria Analysis (MCA)

- Detailed, multidisciplinary, comparative analysis of the feasible options from Stage 1 assessment;
- This structured process evaluates a number of different options and is based on ‘Guidelines on a Common Appraisal Framework for Transport Projects and Programmes’ (CAF) published by the Department of Transport March 2016 (updated October 2021);
 - Options have been assessed against the six appraisal criteria - economy, safety, environment, accessibility and social inclusion, integration and physical activity.



Preferred Option

- General Linear Works, including:
 - **Electrification**
 - **Electrical substations**
 - **Signalling**
- Dublin City to Malahide, including works around:
 - Clongriffin Station
 - Howth Junction & Donaghmede Station
 - Malahide Station
 - Fairview Depot
- Malahide to Drogheda, including works around:
 - Malahide, Balbriggan, Rogerstown and Laytown Viaducts
 - Interventions at overbridges to provide OHLE clearances
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 - **Drogheda MacBride Station**
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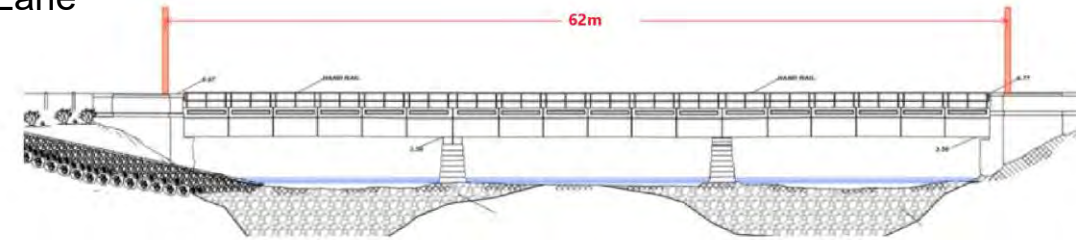


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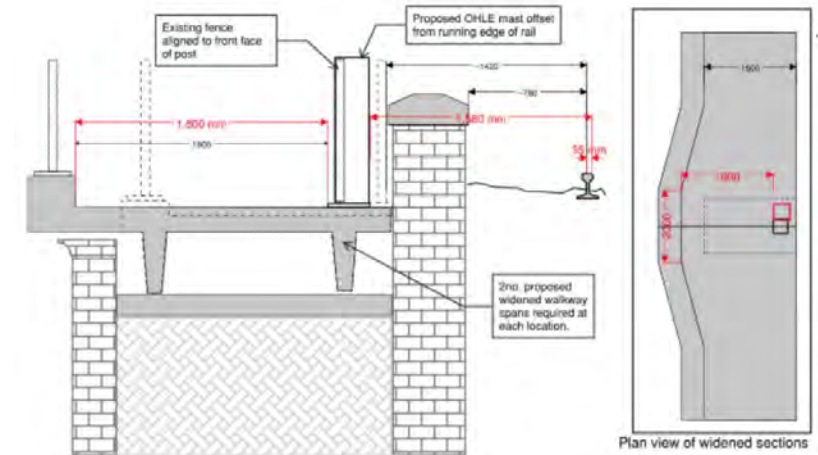


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OHLE Supporting Posts at Rogerstown Viaduct



Preferred Option for Balbriggan Viaduct

General Linear Works (Continued)

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Typical Equipment Cabins (SEB & TER)

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(Outside of LCC/MCC Jurisdiction)

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- Proposed to use the platform face constructed when station was built.
- Retaining structure needed to the east of the station to facilitate the new loop.
- Local modifications and additions to OHLE and signalling are required.
- Consultation with Shoreline Developments and major stakeholders ongoing.



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- Works comprise track modifications to facilitate the increase in train services, by allowing trains to be turned back clear of continuing services on separate tracks
- Introduce a turnback immediately north of Malahide Station between Strand Road Underbridge and Malahide Viaduct
- Located between two running lines – necessitating the existing up line to be slewed to the east between the two bridges
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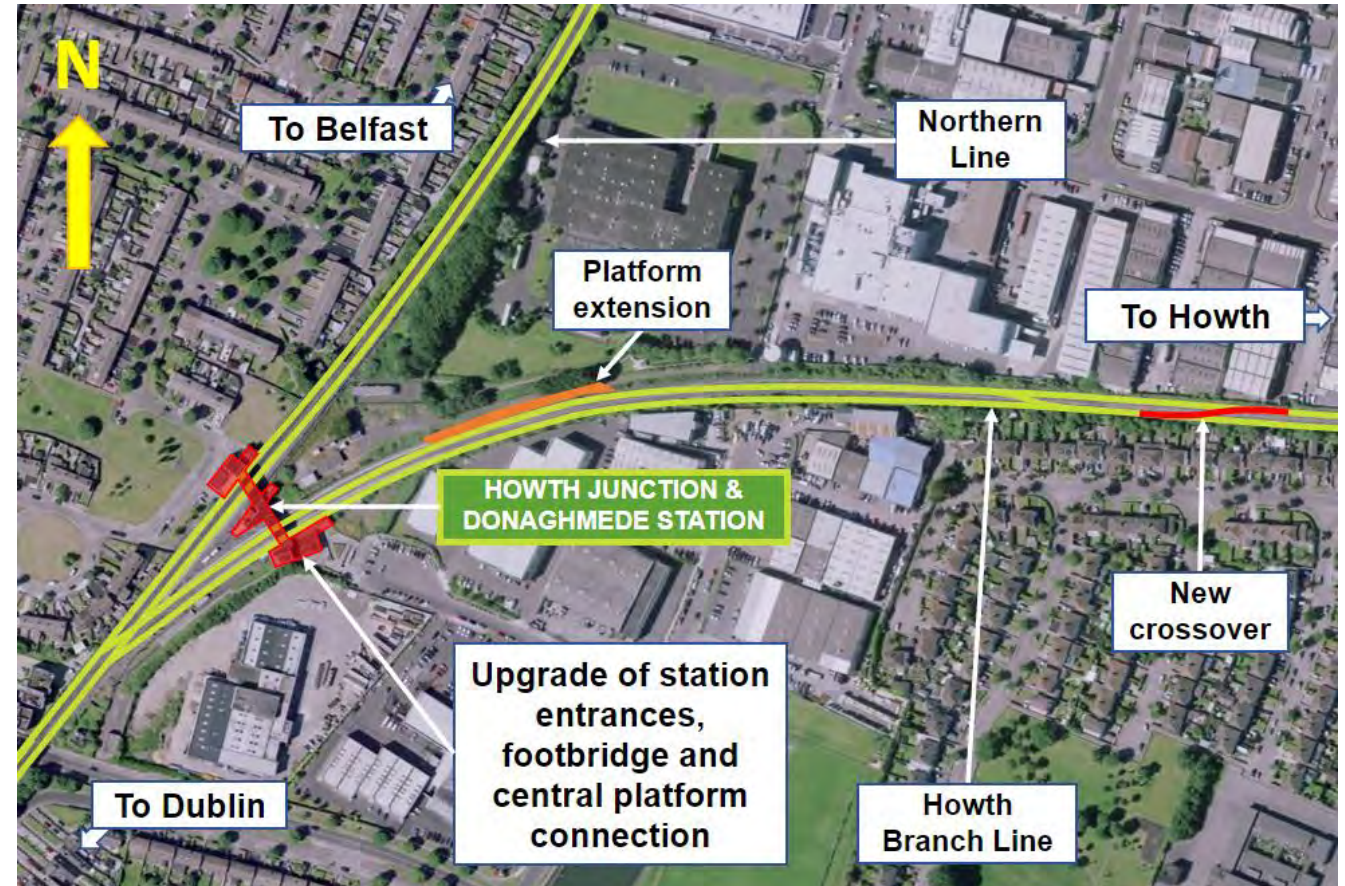
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Visualisations of the proposed Station Works

Howth Branch Line (Outside of LCC/MCC Jurisdiction)

- Four level crossings located along Howth Branch line:
 - Baldoyle Road Level Crossing (XQ001);
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View at Sutton Level Crossing

Fairview Depot (Outside of LCC/MCC Jurisdiction)

- Localised minor works to modify the facilities to cater for changes in rolling stock
- Modifications include:
 - Provision of new cleaning platforms on the sidings to the east side of the mainline, along with associated walkways and services
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View into Fairview Depot

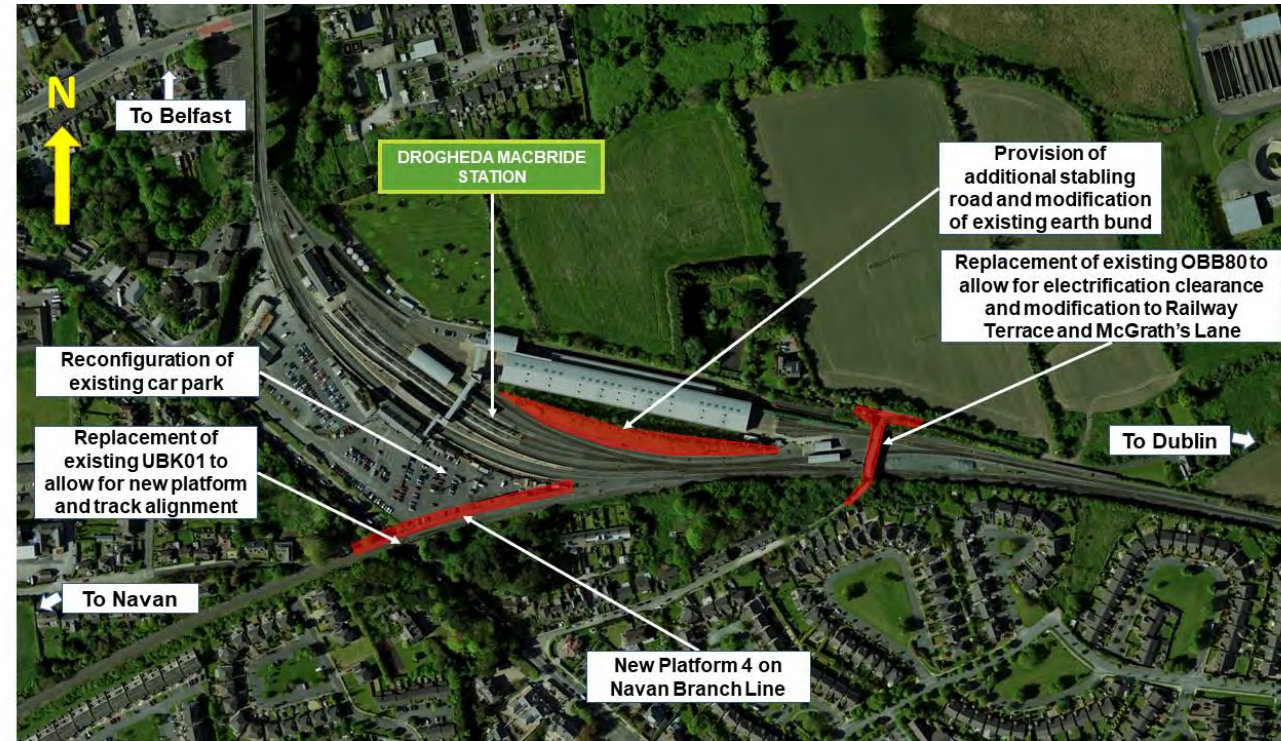
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- New siding on Drogheda freight siding to turnback services
 - New platform will extend over the Dublin Road Underbridge (UBK01), necessitating widening of the bridge
 - At grade access to be provided between new platform and existing Platform 1; new gateline will likely be installed
 - Drogheda freight siding will be slewed (realigned) and railway infrastructure modified as necessary
- New stabling track/siding, located adjacent to the existing landscape bund

UBK01 – Dublin Road Bridge

- Widening of the bridge to facilitate a shift of the tracks to the south and provision of a new platform on the northern side of the tracks above the bridge
- Locations of the abutments are not expected to be adjusted as part of these proposals



Works around Drogheda MacBride Station

- Drogheda Depot
 - Localised modifications to the depot facilities to cater for changes in rolling stock
 - Changes predominantly internal to the existing depot buildings
 - Some localised exterior changes to tracks and railway systems
 - Depot at Drogheda will be electrified with OHLE
- Overbridge OBB81 (Drogheda Station Footbridge)
 - Replacement of the bridge superstructure with a profiled soffit to provide sufficient clearance for OHLE
 - cost-effective solution, reduces disruption to services, maintains visual character of station
- Canopy Modifications
 - Minor modifications to the Drogheda MacBride Station canopy to accommodate OHLE
- Overbridge OBB80/80A/80B (carrying Railway Terrace)
 - Removal of the existing bridge structure and construction of a new bridge in its place
 - Roads along McGrath's Lane and Railway Terrace will need to be raised and potentially widened to facilitate tie in with revised bridge levels



Works to Drogheda MacBride Station Footbridge



Consultation Updates



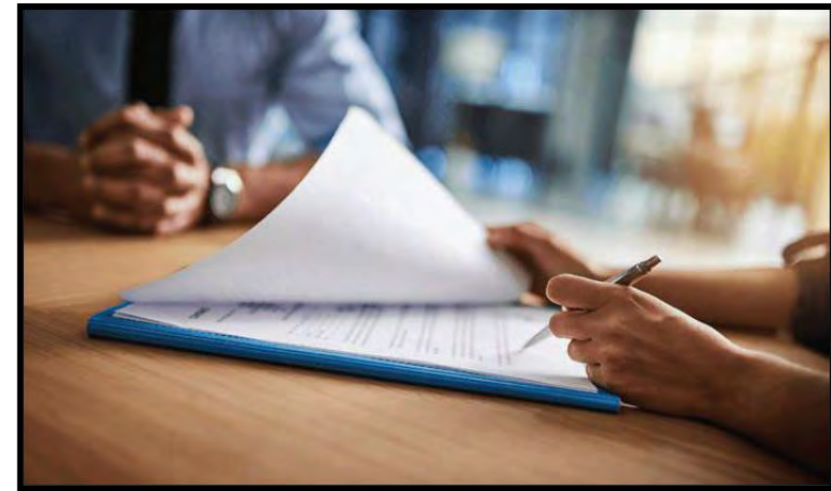
Public Consultation Documentation

- Letters to potentially affected landowners
- Letters to prescribed bodies
- PC.2 Leaflet to adjacent communities
- Advertising Campaign
- Dedicated website - www.dartplus.ie
 - Project documentation
 - PC.2 Brochure
 - PC.1 Findings Report
 - Options Selection Reports
 - Preferred Option Report
 - Technical Report
 - Supporting documentation
- Virtual consultation room
 - Multi-media engagement tools



Public Consultation Events & Webinars

- Iarnród Éireann will host a number of public engagement webinars for communities along the route:
 - In Person Events
 - The Marine Hotel, Sutton. 16th May 2023 from 16:00hrs to 20:00hrs
 - **The D Hotel Drogheda. 18th May 2023 from 16:00hrs to 20:00hrs**
 - St Sylvester's GAA, Malahide. 23rd May 2023 from 16:00hrs to 20:00hrs
 - **General Project Webinar 30th May 2023 @ 19:00hrs**
 - *Scope to schedule additional webinars as necessary (based on demand, dates yet to be set)*



DART+ Coastal North – How People can Engage

Contact via the following means:

Website: www.dartplus.ie
Email: DARTCoastalNorth@irishrail.ie
Phone line: 01 233 4515

Or in writing to:

**Community Liaison Officer
DART+ Coastal North,
Iarnród Éireann,
Inchicore Works,
Inchicore Parade,
Dublin 8.
D08K6Y3**





DART+ Programme, Legal Statement.



DART+ Programme, Legal Statement

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All press releases in connection with the DART+ Programme will be issued by Iarnród Éireann through its Corporate Communications Department at Connolly Station, Dublin 1 and all requests for information and/or press releases in connection with the DART+ Programme should be routed through our Corporate Communications Department.



Thank You



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APPENDIX C

DART+ Coastal North, Public Consultation No.2 - Project Leaflet



Public Consultation No.2 Leaflet

Preferred Option

Bileog maidir le Comhairliúchán Poiblí Uimh.2

Rogha Roghnaithe



Introduction to DART+ Programme & DART+ Coastal North

The DART+ Programme is a transformative railway investment programme that will modernise and improve the existing rail services in the Greater Dublin Area. It will provide a sustainable, electrified, reliable and more frequent rail service, improving connectivity and capacity on the rail corridors serving Dublin. The DART+ Programme will enable people to make more sustainable travel choices. The current DART network is 50km long, extending from Malahide / Howth to Greystones. The DART+ Programme will increase the length of the DART network to 150km of railway corridor through the electrification and upgrade of existing lines transforming commuter rail travel in the Greater Dublin Area.

The DART+ Coastal North project is the third infrastructural project to be delivered as part of the DART+ Programme, alongside DART+ West, DART+ South West, and DART+ Coastal South. The project will predominantly follow the existing railway corridor and will include the overhead electrification of the existing railway line between Malahide and Drogheda, completing the electrification of the Northern Line to Drogheda. It will also entail some reconfiguration of the existing track layout and infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin, and Howth Junction & Donaghmede Stations, including the removal of existing train crossing conflicts at Howth Junction & Donaghmede Station. Track modifications will enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern and Howth Branch lines to be maximised.



Tús eolais ar Chlár DART+ & DART+ An Chósta Thuaidh

Is clár infheistíochta iarnróid bunathraithe é Clár DART+ a dhéanfaidh na seirbhísí iarnróid atá ann cheana i Mórcheantar Bhaile Átha Cliath a nuachóiriú agus a fheabhsú. Soláthróidh sé seirbhís iarnróid inbhuanaithe, leictirithe, iontaofa agus níos minice, ag cur feabhas ar nascacht agus ar acmhainn na gconairí iarnróid a fhreastalaíonn ar Bhaile Átha Cliath. Cuirfidh an Clár DART+ ar chumas daoine roghanna taistil níos inbhuanaithe a dhéanamh. Tá an líonra DART reatha 50km ar fad, ag síneadh ó Mhullach Íde / Bhinn Éadair go dtí na Clocha Liatha. Méadóidh Clár DART+ fad líonra DART go 150km de chonair iarnróid trí leictiriú agus uasghrádú na línte atá ann cheana féin a athróidh taisteal iarnróid comaitéireachta i Mórcheantar Bhaile Átha Cliath.

Tá tionscadail DART+ An Chósta Thuaidh mar an tríú tionscadal bonneagair le seachadadh mar chuid den Chlár DART+, chomh maith le DART+ an Iarthair agus DART+ Iardheiscirt agus DART+ An Chósta Theas. Leanfaidh an tionscadal an chonair iarnróid atá ann go príomha agus áireofar leis leictiriú lastuas den líne iarnróid atá ann cheana idir Mullach Íde agus Droichead Átha chun leictiriú an Líne ó Thuaidh go Droichead Átha a chur i gcrích. Áireoidh sé freisin roinnt athchumrú ar leagan amach an rianta reatha agus ar an mbonneagar i gcóngarach Stáisiún Dhroichead Átha MacBride, Mhullach Íde, Chluain Ghrífin, agus Gabhal Bhinn Éadair agus Domhnach Míde, lena n-áirítear deireadh a chur le coinbhleachtaí trasnaithe reatha ag Gabhal Bhinn Éadair & Stáisiún Dhomhnach Míde. Cumasóidh modhnuithe rianta feidhmiú seirbhísí tointeála DART ar líne Bhrainse Bhinn Éadair de réir mar is gá, agus/nó seirbhísí díreach tríd go/ó Lár Chathair Bhaile Átha Cliath, a cheadóidh acmhainn agus minicíocht seirbhísí DART+ ar línte ó Thuaidh, agus ar Bhrainse Bhinn Éadair araon, a uasmhéadú.

Design Development Process since Public Consultation No.1

The first non-statutory Public Consultation for the DART+ Coastal North project was presented from 24th February to 8th April 2022. Following the completion of Public Consultation No. 1, the project team has analysed all submissions received from the public. The feedback from this consultation is presented on the project website in the Public Consultation No. 1 – Consultation Findings Report. Furthermore, since Public Consultation No. 1, the project team has undertaken additional topographical surveys, geotechnical surveys, environmental surveys, and traffic studies to further inform the design process.

The contributions from Public Consultation No. 1 and the additional surveys and studies have informed the design development process and enabled the DART+ Coastal North project team to select a Preferred Option. The Option Selection Report (comprising Volume 1: Preferred Option Report and Volume 2: Technical Report) is the end-to-end combination of preferred design options. The Preferred Option is presented in this second non-statutory public consultation to provide a further opportunity for the DART+ Coastal North project to engage with you. The feedback you provide will further assist in the development of the final design for the DART+ Coastal North project Railway Order application.

Public Consultation No. 2 is now live for the Preferred Option and all the relevant information is available through the project website www.DARTplus.ie.



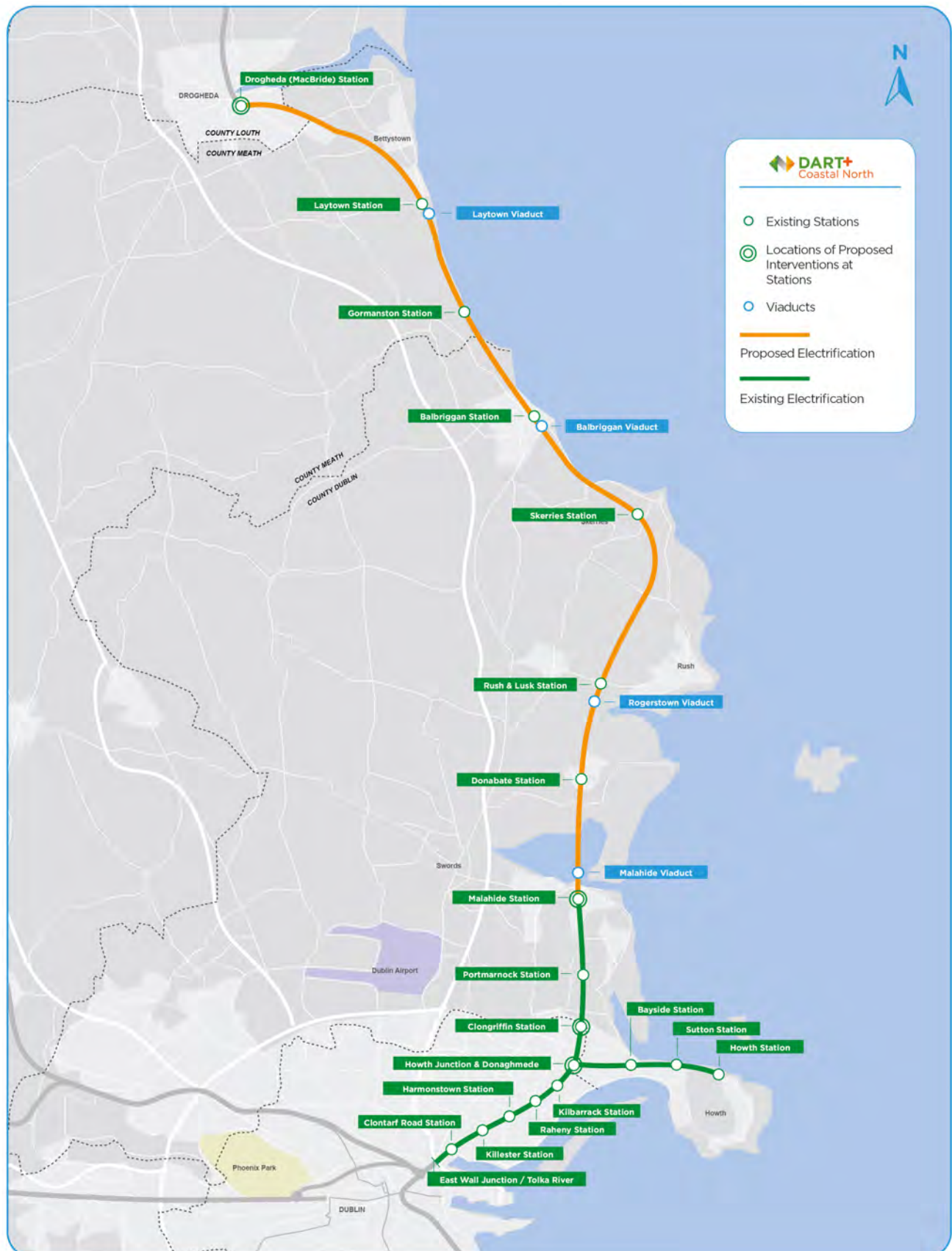
Forbairt Dearaidh ó Chomhairliúchán Poiblí Uimh. 1

Cuireadh an chéad Chomhairliúchán Poiblí neamhreachtúil do thionscadal DART+ An Chósta Thuaidh i láthair idir an 24 Feabhra agus an 8 Aibreán 2022. I ndiaidh Chomhairliúchán Poiblí uimh. 1 a chur i gcrích, rinne foireann an tionscadail anailís ar na haighneachtaí ar fad a fuarthas ón bpobal. Tá an t-aiseolas ón gcomhairliúchán le fáil ar shuíomh gréasáin an tionscadail i dTuarascáil Thorthaí an Chomhairliúcháin – Comhairliúchán Poiblí Uimh.1. Chomh maith leis sin, ó réachtáladh Comhairliúchán Poiblí Uimh.1, tá suirbhéanna topagrafacha, suirbhéanna geoiteicniúla agus suirbhéanna timpeallachta breise déanta ag foireann an tionscadail chun cur próiseas an deartha. Úsáideadh an t-eolas a bailíodh le linn Chomhairliúchán Poiblí Uimh.1 agus na suirbhéanna breise mar bhonn don phróiseas forbartha dearaidh agus chuir sé ar chumas fhoireann tionscadail DART+ an Chósta Thuaidh cinneadh a dhéanamh maidir leis an rogha a roghnófar. Sa Tuarascáil um Roghnú Roghanna (Imleabhar 1 den Tuarascáil Roghnúcháin agus Imleabhar 2, An Tuarascáil Theicniúil) tá cnuasach ceann ceann de na Roghanna dearaidh is dealraithí. Tá eolas maidir leis an rogha a roghnófar le fáil sa dara comhairliúchán poiblí neamhreachtúil seo chun tuilleadh deiseanna a thabhairt duit eolas a bhailiú faoi thionscadal DART+ an Chósta Thuaidh. Cabhróidh an t-aiseolas a chuireann tú ar fáil dúinn le forbairt an dearaidh deiridh don iarratas ordaithe iarnróid thionscadal DART+ an Chósta Thuaidh.

Tá Comhairliúchán Poiblí Uimh. 2 don rogha is dealraithí a roghnófar beo anois agus tá an t-eolas ábhartha ar fad le fáil ar shuíomh gréasáin an tionscadail www.DARTplus.ie

DART+ Coastal North Route Map

DART+ An Chósta Thuaidh Leathanach an Bhealaigh



Key Infrastructural Elements

The key infrastructural elements of the DART+ Coastal North project include:

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users.
- Undertaking upgrades to existing signalling, telecoms, and power supplies to support the planned increase in train services, including the introduction of new electrical substations at evenly spaced key locations alongside the railway line;
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.

Scóip DART+ An Chósta Thuaidh

I measc na bpríomheilimintí bonneagair de thionscadal DART+ An Chósta Thuaidh tá:

- Síneadh ar leictriú reatha 1500V DC, a chríochnaíonn faoi láthair ag Mullach Íde, chomh fada le Stáisiún Mhic Ghiolla Bhríde Dhroichead Átha (thart ar 37km);
- Athchumrú a dhéanamh ar leagan amach reatha an riain agus ar an mbonneagar gaolmhar i gcóngarachtaí Dhroichead Átha Mhic Ghiolla Bhríde, Mullach Íde, Cluain Ghrífin agus Gabhal Bhinn Éadair agus Stáisiún Dhomhnach Míde, chomh maith le codanna de rian breise a sholáthar, saoráidí tiontaíthe stáisiúin, agus bonneagar a chumasóidh feidhmiú an dá cheann. seirbhís tointeála DART ar Bhrainse Bhinn Éadair, ag an am gur gá úsáid a bhaint as éileamh paisinéirí sa todhchaí, agus/nó oibriú leanúnach seirbhíse díreach tríd go/ó Lár Chathair Bhaile Átha Cliath. Tá na hidirghabhálacha go léir deartha le solúbthacht oibriúcháin feabhsaithe a cheadú agus le hacmhainn uasta paisinéirí agus le minicíocht DART ar Línte Brainse an Tuaiscirt agus Bhinn Éadair;
- Ardán nua a thógáil ag Stáisiún Mhic Ghiolla Bhríde Dhroichead Átha;
- Tá uasghrádaithe suntasacha ar Gabhal Bhinn Éadair & Stáisiún Dhomhnach Míde molta anois chun stáisiún níos inrochtana, níos so-úsáidte agus dírithe ar an gcustaiméir a sholáthar do gach úsáideoir iarnróid.
- Uasghrádaithe a dhéanamh ar sholáthairtí comharthaíochta, teileachumarsáidí agus cumhachta atá ann cheana féin chun tacú leis an méadú atá beartaithe ar sheirbhísí traenacha, lena n-áirítear fostáisiúin leictreacha nua a thabhairt isteach ag láithreacha tábhachtacha, ar eatraimh chothroma. taobh leis an líne iarnróid;
- Feabhsuithe/athruithe ar dhroichid a dhéanamh ag eascairt as feabhsuithe toillte, athchumrú rianta agus/nó glantacháin leictreachais chun na réitithe riachtanacha a bhaint amach;
- Mionathruithe ar iostaí reatha i nDroichead Átha agus Fionnradharc chun tacú leis an bhflít traenach nua, lena n-áirítear soláthar stáblaí traenach breise i nDroichead Átha;
- Oibríonn sibhialtaigh choimhdeacha, draenáil agus cumhachta chun freastal ar na hathruithe.

Significant Design Developments Since PC No.1

Feedback received during Public Consultation No. 1 has helped further shape the ongoing project design development and led to further assessment and consideration of some major project elements, most notably:

- The inclusion of, within the project scope, significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users.
- Further surveys and assessments undertaken in relation to transport modelling for the level crossings on the Howth Branch line confirming they are to remain operational.
- Design development since Public Consultation No. 1 has ensured it is now possible to confirm locations of compounds, both temporary and permanent, relating to the project.
- Structural assessments have identified bridges/structures requiring intervention to allow for the installation of OHLE as part of the overall extension of electrification to Drogheda MacBride Station. Solutions have been developed which include the reconstruction of two bridges around Drogheda MacBride Station, track lowering and electrical solutions at four road overbridges, and electrical solutions to allow the OHLE to span the four larger viaducts encountered along the extents of the route.

Further details on all design developments are provided in the DART+ Coastal North Public Consultation No.2 Brochure, within the Option Selection Report (comprising Volume 1: Preferred Option Report and Volume 2: Technical Report), and within other supporting reports available through the project website: www.dartplus.ie



Forbairtí Suntasacha Dearaidh ó Tharla CP Uimh. 1

Chuidigh an t-aiseolas a fuarthas le linn Comhairliúcháin Phoiblí Uimh. 1 le tuilleadh forbartha a dhéanamh ar an bhforbairt leanúnach ar dheardh an tionscadail agus tá sé mar thoradh air measúnú agus breithniú breise a dhéanamh ar roinnt príomhghnéithe tionscadail, go háirithe:

- Tá sé molta anois, laistigh de scóip an tionscadail, uasghráduithe suntasacha ar Gabhal Bhinn Éadair & Stáisiún Dhomhnach Míde a chur ar fáil chun stáisiún níos inrochtana, níos éasca le húsáid agus dírithe ar an gcustaiméir a sholáthar do gach úsáideoir iarnróid.
- Rinneadh suirbhéanna agus measúnuithe breise maidir le samhaltú iompair do na crosairí comhréidhe ar líne Bhraínse Bhinn Éadair ag deimhniú go mbeidh siad fós ag feidhmiú.
- Chinntigh forbairt dearaidh ó Chomhairliúchán Poiblí Uimh. 1 gur féidir láithreacha na gcolún, sealadach agus buan, a bhaineann leis an tionscadal a dhearbhu.
- D'aithin measúnuithe struchtúracha droichid/struchtúir a dteastaíonn idirghabháil uathu chun suiteáil OHLE a cheadú mar chuid den leathnú iomlán ar leictriú go Stáisiún Mhic Ghiolla Bhríde Dhroichead Átha. Forbraíodh réitigh lena n-áirítear atógáil dhá dhroichead thart ar Stáisiún Mic Ghiolla Bhríde Dhroichead Átha, íslíu rianta agus réitigh leictreacha ag ceithre thardhroichead bóthair, agus réitigh leictreacha chun ligean don OHLE na ceithre tharbhealach is mó a fhaightear feadh réimsí an bhealaigh a chuimsiú.

Tá sonraí breise ar gach forbairt dearaidh ar fáil i mBróisiúr Chomhairliúchán Poiblí Uimh. 2 maidir le DART+ An Chósta Thuaidh, sa Tuarascáil um Roghnú Roghanna (An Tuarascáil Roghnúcháin agus An Tuarascáil Theicniúil) agus laistigh de thuarascálacha tacaíochta eile atá ar fáil ar shuíomh gréasáin an tionscadail: www.dartplus.ie: www.dartplus.ie

Next Steps

As users of the service or those likely to be affected by its development, the public is invited to contribute to this consultation process to express opinions on the DART+ Coastal North project Preferred Option. All inputs during the consultation process will be analysed and will help to inform the development of the design.

The DART+ Coastal North project will continue its environmental studies and assessments, which will lead to the production of an Environmental Impact Assessment Report (EIAR). The designers and the land referencing team will continue to engage with potentially affected landowners. These activities will define the lands necessary to construct and operate DART+ Coastal North and will assess the likely impact on the environment. All this information will be compiled into a DART+ Coastal North Railway Order application which will be submitted to An Bord Pleanála to seek statutory planning approval.

An Bord Pleanála will conduct a separate consultation process once the Railway Order application is submitted, independent of Iarnród Éireann. Members of the public will be invited to engage in this statutory consultation process by making submissions directly to An Bord Pleanála.



Céad Chéimeanna Eile

Mar úsáideoirí na seirbhíse nó iad siúd ar dóigh go mbeidh tionchar ag a forbairt orthu, tugtar cuireadh don phobal cur leis an bpróiseas comhairliúcháin seo chun tuairimí a nochtadh ar rogha an tionscadail DART+ An Chósta Thuaidh. Déanfar anailís ar na hionchuir go léir le linn an phróisis chomhairliúcháin agus cabhróidh sé seo le bonn eolais a chur faoi fhorbairt an dearaidh.

Leanfaidh an tionscadal DART+ An Chósta Thuaidh lena staidéir agus measúnuithe comhshaoil, as a dtiocfaidh táirgeadh Tuarascáil ar Mheasúnú Tionchair Timpeallachta (EIAR). Leanfaidh na dearthóirí agus an fhoireann tagartha talún de bheith i dteagmháil le húinéirí talún a bhféadfadh tionchar a bheith acu orthu. Saineoidh na gníomhaíochtaí seo na tailte atá riachtanach chun DART+ An Chósta Thuaidh a thógáil agus a oibriú agus déanfar measúnú ar an tionchar dóchúil ar an gcomhshaoil. Cuirfear an t-eolas seo ar fad le chéile in iarratas ar Ordú DART+ Iarnróid Cósta Thuaidh a chuirfear faoi bhráid an Bhoird Pleanála chun cead pleanála reachtúil a lorg.

Reáchtálfaidh an Bord Pleanála próiseas comhairliúcháin ar leith a luaithe a bheidh an t-iarratas ar Ordú Iarnróid curtha isteach, neamhspleách ar Iarnród Éireann. Tabharfar cuireadh don phobal páirt a ghlacadh sa phróiseas comhairliúcháin reachtúil seo trí aighneachtaí a dhéanamh go díreach chuig an mBord Pleanála.

How to Engage

As users of the service, or those likely to be affected by its development, the public is invited to contribute to this consultation process to express opinions on the DART+ Coastal North project Preferred Option. The consultation period is now open and full details are available on the project website.

You can engage with us via the following means:

Website | www.dartplus.ie

Email | DARTCoastalNorth@irishrail.ie

Phone line | (01) 233 4515

Postal Address

If you would prefer to write to us, please send any correspondence to:

**Community Liaison Officer
DART+ Coastal North
Iarnród Éireann
Inchicore Works
Inchicore Parade
Dublin 8
D08K6Y3**

Conas Páirt a Ghlacadh

Mar úsáideoirí na seirbhíse, nó mar dhaoine a bhfuil sé dóchúil go mbeidh tionchar ag an bhforbairt orthu, tugtar cuireadh do dhaoine den phobal cur leis an bpróiseas comhairliúcháin seo agus a dtuairimí a nochtadh maidir leis an Rogha is Dealraithí a Roghnófar i leith DART+ An Chéad Rogha. Tá an tréimhse chomhairliúcháin oscailte anois, tá na sonraí go léir ar fáil ar shuíomh gréasáin an tionscadail.

Is féidir leat teagmháil a dhéanamh linn ar na bealaí seo a leanas:

Suíomh Gréasáin | www.dartplus.ie

Ríomhphost | DARTCoastalNorth@irishrail.ie

Líne Theileafóin | (01) 233 4515

Seoladh Poist

Más fearr leat nóta i scríbhinn a sheoladh seol an nóta sin nó aon chomhfhreagras eile chuig:

An tOifigeach Idirchaidrimh Pobail

DART+ An Chósta Thuaidh

Iarnród Éireann

Oibreacha Inse Chór

Paráid Inse Chór

Baile Átha Cliath 9

D08K6Y3





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APPENDIX D

DART+ Coastal North, Public Consultation No.2 - Project Brochure



PUBLIC CONSULTATION NO. 2 BROCHURE

PREFERRED OPTION

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01

Introduction to
DART+ Programme

1. Introduction to DART+ Programme

The current DART network is 50km long, extending from Malahide / Howth to Greystones. The DART+ Programme will increase the length of the DART network to 150km of railway corridor through the electrification and upgrade of existing lines, transforming commuter train travel in the Greater Dublin Area (GDA). The DART+ Programme also includes the purchase of a new DART fleet.

The DART+ Programme will deliver frequent, modern, electrified services from Dublin City Centre to:

- Maynooth, M3 Parkway (DART+ West);
- Hazelhatch & Celbridge (DART+ South West);
- Drogheda (DART+ Coastal North); and
- Greystones (DART+ Coastal South).

The DART+ Programme is a key transportation improvement which will form a high quality and integrated public transport system. It will deliver benefits for the residents of the Greater Dublin Area and also those living in surrounding regions. The DART+ Programme is a transformative programme that will ensure train travel is at the heart of Ireland's sustainable transport network.

The DART+ Programme will seek to maximise use of the existing railway corridors and implement a modernisation programme to achieve the capacity increase necessary to meet current and future demands.





Schematic diagram of DART+ Programme extent

Why investment in DART+ Programme is needed

Provides Sustainable Transport Options

- Over-reliance on private car use and increasing congestion in Greater Dublin Area.
- DART trains are more sustainable and cleaner than current diesel trains.

Achieve Climate Change Targets

- Will help reduce the transport sector greenhouse gas emissions which continue to rise.
- Supporting the Government's Climate Action Plan.



Supporting Economic and Population Growth

- Congestion in Greater Dublin Area is increasing.
- Cost of Time Lost in the Dublin Region is ~ €350million/annum and forecast to rise to €2,000million/annum by 2033.
- Sustainable public transport infrastructure (pedestrian, cycling, bus and rail) will sustain economic and population growth while reducing emissions.

Integration of Land-use & Transport Planning

- Co-ordination and integration of spatial planning with rail transport.
- Supporting compact growth and increased densities in the Greater Dublin Area.
- Supports the implementation of the Project Ireland 2040 and the National Planning Framework.

Facilitates Integration with other modes of transport

- Improves integration of rail services with active modes of travel (walking and cycling).
- Enables greater cross-modal journeys through improved integration with other modes – Bus, Luas, proposed MetroLink and Dublin Bikes.



02

DART+ Coastal North

2. DART+ Coastal North

Overview

The delivery of the DART+ Coastal North project will form the third infrastructural project of the DART+ Programme, in addition to DART+ West and DART+ South West.

The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved and extended electrified rail network and will enable increased passenger capacity and an enhanced train service between Dublin City Centre and Drogheda, including the Howth Branch. This increased rail capacity will be achieved by implementing an extended electrified railway network with high-capacity DART trains and an increased frequency of rail services. In addition, the DART+ Coastal North project requires that some track modifications are implemented, including the provision of turnback facilities at Malahide, Clongriffin and Howth Junction & Donaghmede Stations. These modifications are essential to facilitate the increase in train services by improving operational flexibility, allowing trains to be turned back clear of continuing services and allow for a higher frequency and a more reliable service.

To achieve the peak capacity increases proposed by the DART+ Programme, the DART+ Coastal North project will seek a reconfiguration of Howth Junction and Donaghmede Station and the removal of train crossing conflicts at the station which currently limit both capacity and frequency of services on the Northern and Howth Branch Lines. The project is seeking to deliver the infrastructure at Howth Junction and Donaghmede Station that will enable the operation of both a DART shuttle service on the Howth Branch Line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised and to help future-proof the network.

In direct response to feedback received during the first Public Consultation, significant upgrade works and enhancements are now being proposed for Howth Junction & Donaghmede Station to deliver accessibility improvements and provide for a better overall customer experience. The works will involve modifications to the station entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as enhancing the connection to the surrounding communities of

Donaghmede and Kilbarrack. Upgrades are proposed to the existing station footbridge and connections to the centre platforms, as well as to the lighting, signage, and finishes throughout.

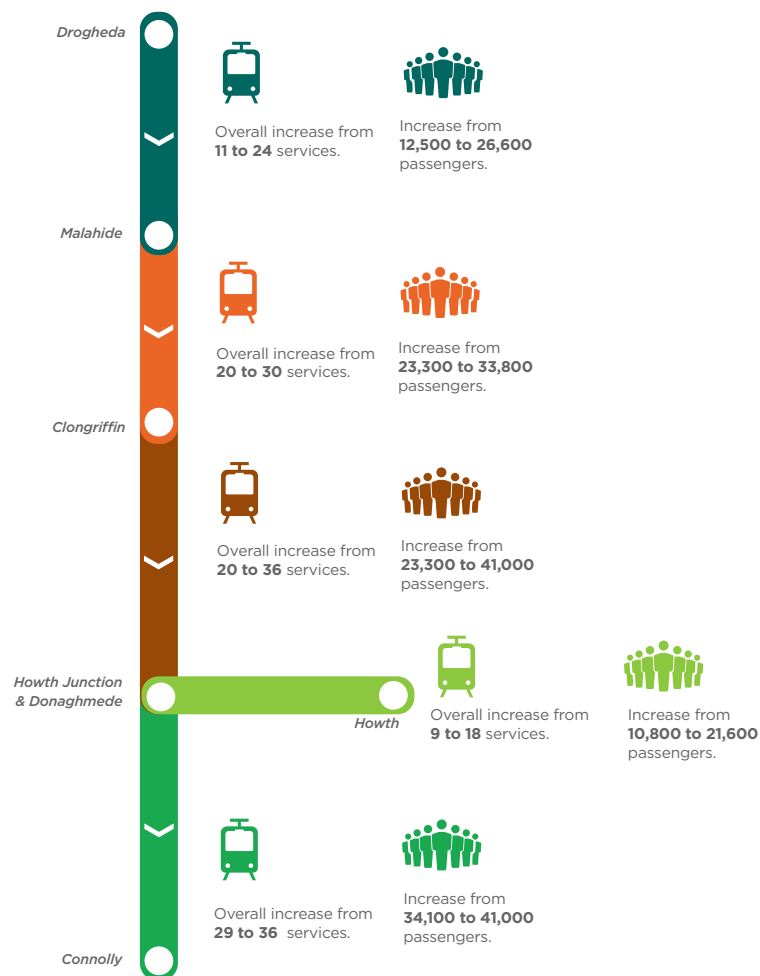
Proposed changes to the Howth Branch will see both the service frequency and capacity increase, along with improvements to the reliability of timetabling. The reliability of the Howth Branch will increase as the proposed shuttle service would mean that trains operating on this branch would no longer be susceptible to delays occurring along the Northern Line. Further assessments on the four Howth Branch level crossings have indicated that, even with the proposed DART service uplift, the existing level crossings can continue to operate and provide an appropriate level of cross connectivity and accessibility to surrounding communities and thus will remain open.

Delivery of the DART+ Coastal North project will support existing communities along the railway and support future sustainable development. The project will serve all existing stations along the railway corridor between Dublin City Centre and Drogheda MacBride Station, including those located on the Howth Branch, with electric powered trains that have a lower carbon footprint than the existing diesel trains. The frequency and quality of service will provide a viable transport alternative to communities along the route and help encourage people to migrate from private car use. This will assist Ireland in reducing greenhouse gas emissions from transport and help combat climate change.

The majority of proposed works and interventions are expected to be carried out within the existing railway corridor boundary. Some works and interventions, however, will be required outside of Iarnród Éireann for some project elements such as:

- Bridge modifications/improvements to facilitate extended electrification;
- Construction of substations (to facilitate the provision of power to the line); and
- Use of land for temporary construction/storage compounds.

Planned increase in train frequency and passenger capacity for the 3-hour AM peak period for inbound/southbound services to Dublin City Centre.



Note: Overall increases are inclusive of DART, Commuter and Enterprise services and comparisons are based on service level post-BEMU (as opposed to the current service level).

Capacity increases associated with DART+ Coastal North

The DART+ Coastal North project will provide the infrastructure to enable improved performance and increased DART frequencies along the Northern and Howth Branch Lines, providing enhanced capacity from the city centre to and from both Drogheda and Howth.

Additionally, through the delivery of the DART+ Coastal North project, the current AM and PM peak hours will become peak periods, with maximum service level being provided for a projected 3 hour peak period as opposed to the current 1 hour. The DART+ Coastal North project customers can look forward to these enhanced frequencies commencing earlier and ending later, both in the morning and evening peak periods. This extension of enhanced peak service frequencies will take advantage of infrastructure enhancements and new rolling stock, providing more flexibility, comfort, and capacity to DART customers.

DART+ Coastal North customers will benefit from enhanced reliability, with a service designed to incur fewer delays and robust enough to recover from delays when they do occur.

Battery Electric Multiple Units (BEMUs)

Iarnród Éireann, supported by the National Transport Authority (NTA), will be purchasing Battery Electric Multiple Units (BEMUs) in advance of the DART+ Coastal North project. The provision of these BEMUs will allow for the possibility of running enhanced services on the network in advance of the planned full electrification of the line. Iarnród Éireann have identified the Northern Line as the most suitable route for BEMU deployment and Drogheda MacBride Station and depot area as the preferred charging station location. These BEMU works will be delivered under a separate project and the increase in service level provided will be in advance of the electrification under the DART+ Coastal North project.

** The DART+ BEMU project has progressed through all statutory planning processes and is expected to commence service in 2025. The final grant of planning was issued by Louth County Council in February 2023. Works are now progressing on design development and procurement.*



03

Public Consultation
Process

3. Public Consultation Process

Public participation during the design process is a key element to the delivery of major infrastructure projects such as DART+ Coastal North.

This project has a two stage non statutory public consultation process. The first public consultation on DART+ Coastal North **'Emerging Preferred Option'** was held between February and April 2022. Public Consultation No. 1 has informed the project design development. This current public consultation has considered the feedback received, to advance the design and now also includes significant upgrades to Howth Junction & Donaghmede Station. Feedback is now requested on the **'Preferred Option'** for the DART+ Coastal North Project.

Public Consultations are our way of asking you, as potential users of the improved services or those likely to be affected by its development, for your views on our plans, whilst the design process is active. Your local knowledge and comments will inform the design and help us improve the project and ensure it will be a success for you and the communities it will serve. The main public participation/feedback stages as part of the project development include:

- **Public Consultation No.1** on the Emerging Preferred Option – **Completed** (Spring 2022).
- **Public Consultation No.2** on the Preferred Option – **Current Stage (Spring 2023)**
- **Statutory Consultation Period** as part of the Railway Order application process (Autumn 2023)*

**Note: Dates to be confirmed*

Iarnród Éireann invites you to engage in the design process and all feedback is welcome. Your feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone line or by written correspondence.

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

For further details on how to submit you feedback please see the **'How to Engage'** section or visit our website **www.dartplus.ie**.





*Note: Dates to be confirmed.

Graphic demonstrating public participation as part of the option selection, design, and Railway Order application process.



Slí Amach
↑ Exit ↑

Slí Amach
↑ Exit ↑

TORMAX
Automatic
door

04

Current Design
Status

4. Current Design Status

The DART+ Coastal North project is currently at 'Preliminary Design Stage'. This brochure explains the current design status of the project, its benefits, potential impacts, and how you can send us your queries, thoughts and ideas.

The design and environmental impact assessment process for the DART+ Coastal North project has commenced, and we are at a key stage in the project. The DART+ Coastal North project has defined a **'Preferred Option'** which will be developed in greater detail as the project progresses towards completion.

Before we proceed any further, we would like your views on the DART+ Coastal North project 'Preferred Option' which is being put forward by Iarnród Éireann as part of this second round of non-statutory Public Consultation.

The **'Preferred Option'** is the preferred combination of design options that have been identified at this stage of the project development for each of the individual elements forming the end-to-end proposed solution for the DART+ Coastal North project.

Following the completion of Public Consultation No. 1 and consideration of the feedback received, additional studies and surveys have been undertaken which have assisted the project team in updating and completing the option selection process. The identification of the **'Preferred Option'** is to ensure that the project, when delivered, will be a success for you and the communities it will serve.

Further studies, assessments, design development and a review of your feedback on the preferred option will enable the **'Preferred Option'** to be refined and developed into the final project plans, which will be the subject of the Environmental Impact Assessment (EIA) and Railway Order (RO).

The project will culminate with a Railway Order application to An Bord Pleanála, in accordance with the Transport (Railway Infrastructure) Act 2001 (as amended). This is essential to secure building consent. It is currently anticipated that the Railway Order application will be submitted to An Bord Pleanála for approval in Autumn of 2023*, although exact dates for this submission are yet to be confirmed.

Your participation and feedback are an essential part of this stage in the design and assessment process.





05

Key Infrastructural
Elements

5. Key Infrastructural Elements of DART+ Coastal North

The key infrastructural elements of the DART+ Coastal North project include:

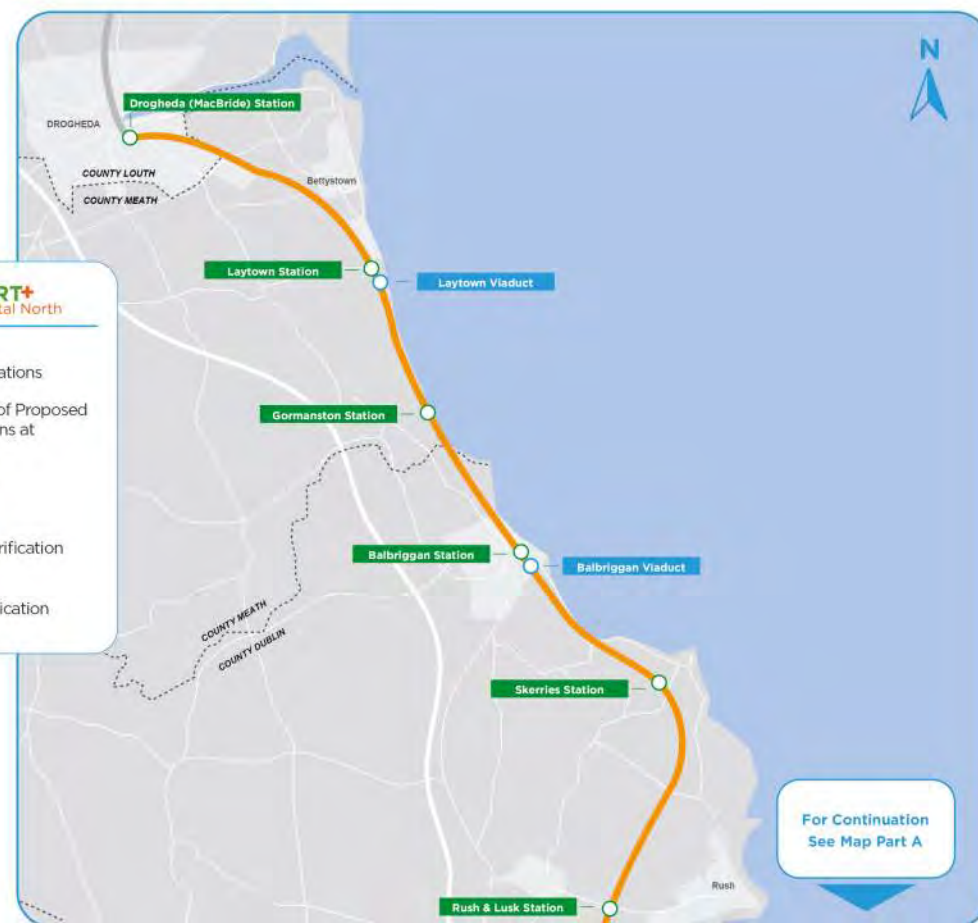
- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users;
- Undertaking upgrades to existing signalling, telecoms, and power supplies to support the planned increase in train services, including the introduction of new electrical substations at key locations alongside the railway line;
 - Drogheda • Gormanston • Skerries North • Rush & Lusk
 - Bettystown • Balbriggan • Skerries South • Donabate
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.



Map Part A



Map Part B





06

**Benefits of
DART+ Coastal North**

6. Benefits of DART+ Coastal North

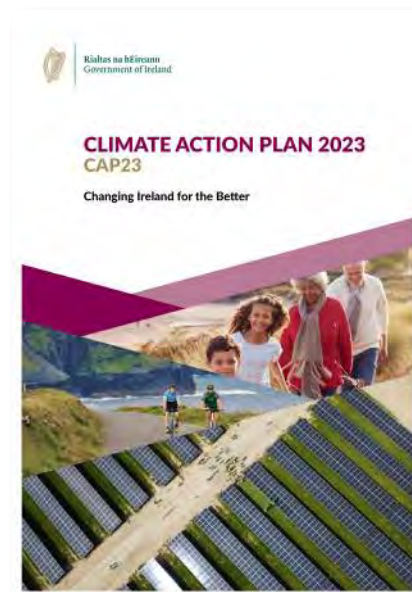
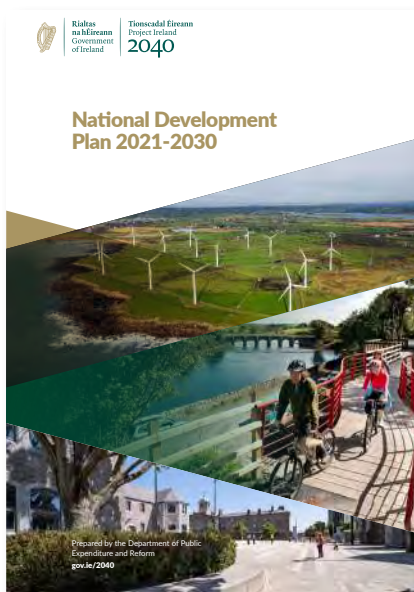
The DART+ Coastal North project will have far reaching, positive transportation effects for communities along the railway corridor. It will facilitate increased train and passenger capacity that is currently constrained on the network. It will transport passengers in high-quality trains that are designed to best suit the needs of growing communities, providing all day capacity – especially during peak morning and evening commuter periods.

The project will link good quality public transport to sustainable land use management and will also assist in local regeneration, economic development and in supporting the development of new communities along the route. This is a key objective of Project Ireland 2040 and the National Planning Framework. The integration of public transport with sustainable land use planning will reduce the dependency on private car use and ultimately support reductions in greenhouse gas emissions from the transport sector.

Availability of good quality rail transport, which is integrated with other public transport modes (Bus, Luas, and the future MetroLink), as well as pedestrian and cycling infrastructure, will have a positive effect on transport patterns and lifestyle factors. The provision of a sustainable transport network supports sustainable options for where people live, work, study and access services and amenities. It can promote more active and healthy modes of travel by supporting people to walk or cycle to public transport links for onward transfer to their end destinations.

The DART+ Programme is consistent with Project Ireland 2040, the National Development Plan 2021-2030, the Climate Action Plan 2023, the National Planning Framework and the Transport Strategy for the Greater Dublin Area 2022-2042. The DART+ Programme will look to align with any updates to these documents once they are published.

The DART+ Programme is a key deliverable measure identified in the Climate Action Plan 2023 and supports the achievement of targets for mode shift from private car use to public transport.



6. Benefits of DART+ Coastal North



Increase peak passenger capacity and increase train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch - facilitating frequent and reliable transport to the surrounding communities.



Enhance public transport opportunities for work, education, and leisure purposes.



Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.



Help alleviate road congestion.



Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.



Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient, and safer public transport network.



Improve multi-modal transport connectivity through the development of the wider DART+ Programme.



Improve journey time reliability.



07

**Option Selection
Process**

7. Option Selection Process

Option Selection Process

To assist the design development process and to consider various options to determine the **'Preferred Option'** for the DART+ Coastal North project, a structured optioneering process has been followed:

Stage 1 – Preliminary Assessment of Options (sifting); followed by,

Stage 2 – Multi-Criteria Analysis of short-listed options.

This structured process evaluates a number of different options and is based on 'Guidelines on a Common Appraisal Framework for Transport Projects and Programmes' (CAF) published by the Department of Transport March 2016 (updated October 2021), NTA Project Approval Guidelines (December 2020), and Iarnród Éireann's Project Management Procedures.

Development of Options

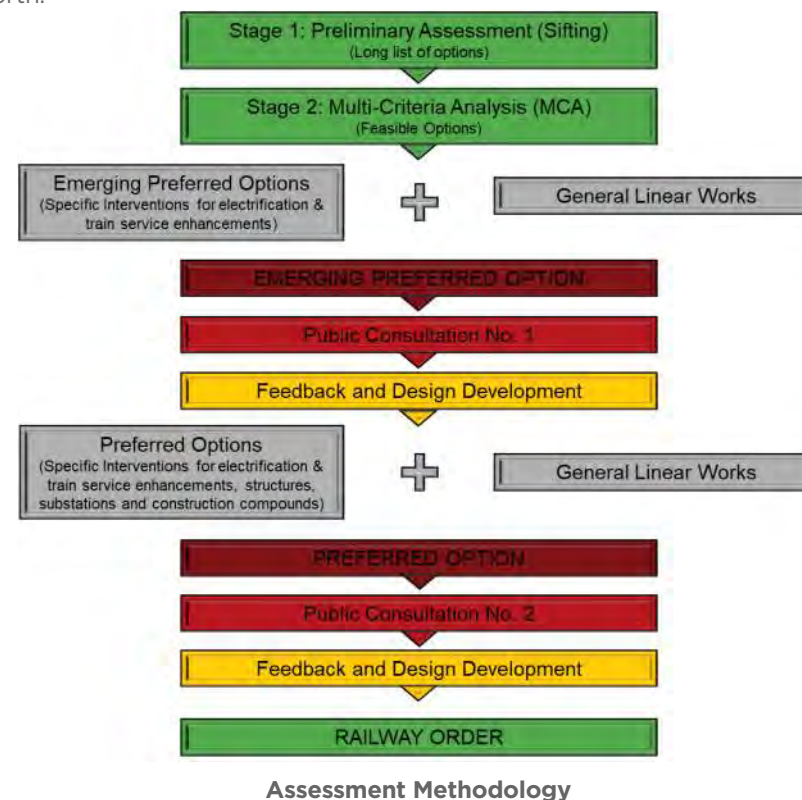
The engineering design will enhance the existing railway network to meet train capacity requirements to cater for current and future projected passenger demand. Options were developed for individual components, including the following:

- Track alterations, new turnback facilities and depot works;
- Bridge alterations / reconstructions;
- Signalling, electrification and telecommunications;
- Electrical substations;
- Construction compounds.

Assessment Methodology

Stage 1 – Preliminary Assessment process - comprised the assessment of a long list of options against engineering, economic and environmental criteria to evaluate the 'feasibility' of each option to meet the project objectives / requirements. This approach allowed for the long list of options to be filtered to a shorter list of feasible options. All feasible options were brought forward to Stage 2 where they could be explored in greater detail.

Stage 2 – The Multi-Criteria Analysis process comprised a more detailed, multidisciplinary, comparative analysis of the feasible options which passed through the Stage 1 assessment. The feasible options were assessed against the six appraisal criteria set out in the Department of Transport's Common Appraisal Framework (CAF), namely: economy, safety, environment, accessibility and social inclusion, integration, and physical activity. Options were then compared to each other based on whether an option had 'some' or 'significant' advantage or disadvantage over other options, or whether all options were 'comparable / neutral', leading to the determination of Emerging Preferred Options for the intervention required. The various Emerging Preferred Options in respect of particular elements or interventions were then combined with the general linear works needed to upgrade and modernise the railway to form the **'Preferred Option'** for DART+ Coastal North.





08

**Considerations
Since Public
Consultation No.1**

8. Considerations since Public Consultation No. 1

Public Consultation No. 1 – Emerging Preferred Option

Non-Statutory Public Consultation No. 1 (PC1) commenced on 24th February 2022 and ran for 6 weeks, until its formal closure on 8th April 2022. The purpose of Public Consultation No. 1 was to inform the public of the developing design at the Emerging Preferred Option stage for the DART+ Coastal North project and to request their views.

All submissions received either via post, telephone communication, online feedback form or email were analysed, with issues, comments and suggestions logged and considered by the design team as appropriate. A summary of key issues or concerns raised during PC1 is described in the Public Consultation No. 1 Findings Report which is available on www.dartplus.ie.

The project team has analysed the submissions and considered all relevant information in re-evaluation and further development of design options leading to the selection of the **‘Preferred Option’**.

Actions following Public Consultation No. 1 feedback

Feedback received during Public Consultation No. 1, has helped further shape the ongoing project design development and led to further assessment and consideration of some major project elements, most notably:

- The inclusion of, within the project scope, significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users;
- Further surveys and assessments undertaken in relation to transport modelling for the level crossings on the Howth Branch line confirming they are to remain operational;
- Design development since Public Consultation No. 1 has ensured it is now possible to confirm locations of compounds, both temporary and permanent, relating to the project.
- Structural assessments have identified bridges/structures requiring intervention to allow for the installation of OHLE as part of the overall extension of electrification to Drogheda MacBride Station.

Cognisant of the level of feedback relating to construction and operational environmental impacts we have also sought to provide additional information relating to the construction

methodology and scope of the Environmental Impact Assessment Report (EIAR) so that the public may understand the approach being considered. It is acknowledged that this information is based on information and level of design available at this time and it will continue to be developed as part of the Railway Order package and supporting documentation including EIAR.

Feedback raised significant concerns in relation to the level of comfort and security experienced by passengers at Howth Junction & Donaghmede Station. The design development has therefore now proposed a variety of significant modification works at the station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as to improve the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades will also take place to the footbridge and connections to the centre platforms, as well as the lighting, signage and finishes throughout.

Concerns for the future of the Howth Branch were also raised, with a particular focus on the continued provision of a direct service between Howth and Dublin City Centre. The Preferred Option will provide infrastructure to remove train crossing conflicts at Howth Junction and Donaghmede and enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised.

In addition, a significant number of submissions during PC No. 1 called for new railway stations, additional platforms, or station upgrades along the railway line including at Drogheda North, Skerries, Balbriggan & Bettystown. Suggestions that DART services should be extended to areas such as Navan, Dundalk South, Dublin Airport and/or the Swords Area were also voiced during Public Consultation No. 1. Stakeholder feedback in relation to the provision of new railway stations along the railway line, extension of DART services beyond the DART+ Coastal North extents, and the upgrading of station facilities in general, has been fed back through the Project Team to the Iarnród Éireann DART+ Programme Board and the NTA. It is important to note that the principal objective of the DART+ Coastal North project is to provide the necessary railway infrastructure to enable increased rail capacity and frequency. Whilst the provision of additional stations, the extension of DART services to other destinations, or the upgrading of stations does not form part of the general project scope, the design put forward will not preclude developments of this type as part of future Iarnród Éireann projects progressed in accordance with National Policies and Strategies.



09

The Preferred
Option

9. The Preferred Option

This section of the brochure will present a high-level overview of the main elements of the project in a linear manner working from Dublin City Centre in the south to Drogheda MacBride Station in the north, inclusive of the Howth Branch Line. To avoid repetition, some elements common to all sections of the project are listed in the “General Linear Works” section below and are not repeated at each location along the scheme.

The project is predominantly located within the corridor of the existing railway and will deliver the necessary infrastructure to support the proposed increased train capacity and enable a higher frequency of DART services on the Northern and Howth Branch Lines. The provision of new infrastructure will comprise general linear works together with a number of localised interventions which are predominantly located at stations.

In the following section we introduce the range of general linear works required to modernise and upgrade the existing railway between Dublin City and Drogheda inclusive of the Howth Branch Line, as well as electrifying the existing railway line between Malahide and Drogheda as part of DART+ Coastal North.

9.1 General Linear Works

Given that much of the general linear works manifest along the full extent of the scheme, these elements are described first in this section to avoid the need for repetition. In addition, elements of the scheme which, although arising at discrete locations throughout the scheme, are proposed to be provided with common treatment are also described in this section (for example, additional signalling).

The elements of the Preferred Option considered under General Linear Works include:

- Electrification of the existing railway line from Malahide to Drogheda, including the construction of electrical substations.
- Signalling upgrades and additional signalling infrastructure.
- Telecommunications infrastructure including buildings.
- Equipment cabins.

- Works to the Permanent Way (or track or railway corridor) including all ancillary installations such as rails, sleepers, ballast interfaces with existing utilities, boundary treatments, drainage works, vegetation management and other ancillary works.
- Construction Compounds – both permanent and temporary.

Electrification

- An extension of the overhead electrification equipment (OHLE) will be required as part of the DART+ Coastal North project. This will extend from the current limit of electrification at Malahide through to Drogheda. The equipment will be similar to, and compatible with, the overhead electrification equipment currently used on the existing DART network. It is a project requirement to provide an electrification system that is compatible with the existing DART system and other electrification projects associated with the DART+ Programme;
- Eight new electrical substations will be required at intervals along the railway line between Malahide and Drogheda to provide power to the network;
- An assessment has been undertaken to review the existing clearances at all overbridges along the route in regard to electrification requirements. The preliminary findings from the assessment conclude that a large proportion of the bridges have the necessary clearances and are unlikely to be impacted by the project. However, in order to achieve appropriate clearances, an upgrade to the Drogheda MacBride station footbridge, and the replacement of OBB080 linking Railway Terrace with McGrath's Lane, will be required. Some minor localised track lowering works will be necessary to achieve the required clearances at 4 existing structures:
 - Overbridge OBB39 (carrying Station Road / R128)
 - Overbridge OBB44 (carrying local road in Tyrrelstown Big)
 - Overbridge OBB55 (carrying Lawless Terrace / R127)
 - Overbridge OBB78 (carrying Colpe Road)

- OHLE will be required to be fixed to, and will require localised modifications, to underbridges/viaducts at:
 - Malahide Viaduct;
 - Rogerstown Viaduct;
 - Balbriggan Viaduct;
 - Laytown Viaduct.
- Modifications to existing overbridge parapets between Malahide and Drogheda will be required to ensure that parapets have no openings, climb-resistant and at least 1.8m high. This will reduce the risk of people coming into contact with the OHLE;
- Interfaces with existing utilities, boundary treatments (including new retaining walls), drainage works, vegetation management and other ancillary works will be required along the length of the project.
- The existing user worked Level Crossing (XB001) located to the south of Donabate Station is to be closed. This is as a result of the introduction of electrification and the increase in train frequency on the Northern Line which significantly increases the safety risks at this level crossing to users of the crossing and to rail traffic.
- Construction Compounds – both permanent and temporary.

Electrical Substations

The OHLE system will be supplied with electrical power from the ESB distribution network at regular intervals, at locations known as substations. These substations will receive power from the local power distribution network at 38kV AC. Where the availability of 38kV is constrained, ESB will provide a local transformer substation to enable the delivery of the necessary voltage.

The footprint of the substation compound will generally be 50m (length) x 20m (wide). The substation building dimensions will generally be 35m (length) x 10m (width) and 6m (height).

A DART system-wide power study identified that eight substations will be required at various locations along the length of the DART+ Coastal North project to provide power to the network. The location for each of the substations was identified following a two-step optioneering process, Preliminary Assessment, followed by Multi-Criteria Analysis (feasible options), where appropriate. This led to the identification of the Preferred Options in respect of each of the required substation locations.

The proposed substation locations along the line are:

- | | |
|--------------|------------------|
| • Drogheda | • Skerries North |
| • Bettystown | • Skerries South |
| • Gormanston | • Rush and Lusk |
| • Balbriggan | • Donabate |



Example of a typical substation

Signalling

In order to achieve the necessary performance and provide for the revised track layout required for the introduction of the new DART+ Fleet, it will be necessary to upgrade the existing signalling system as well as replacing some of the legacy components.

Signalling upgrades and additional signalling will be required between Malahide and Drogheda. Minor signalling changes will be required between East Wall Junction (Tolka River) and Malahide. Upgrades to the telecommunication systems will be required route wide. This will include the provision of Signalling Equipment Buildings (circa 12m x 4m x 2.6 m) and Relocatable Equipment Buildings, where required, along the route in order to house signalling and telecommunication equipment and their necessary power supplies.



Typical Signalling Infrastructure

Equipment Cabins

Additional infrastructure buildings will be required, including a number of equipment cabins, to support the Signalling and Telecommunication systems. These will be mostly located within C  rus Iompair   ireann land where possible and will be adjacent to stations where similar cabins are currently evident.

The various cabins required along the works are:

- Signalling Equipment Buildings (SEB)
- Telecommunication Equipment Rooms (TER)

The cabins are typically fenced off as they need to be secure.



Typical Equipment Cabins (SEB & TER)

Permanent Way Requirements

The Permanent Way (PW) is a term used to describe the track or railway corridor and includes all ancillary installations such as rails, sleepers, ballast as well as line-side retaining walls, fencing and signage. The DART+ Coastal North project includes:

- Widening of the railway corridor to facilitate new turn back infrastructure at specific locations.
- Track lowering arising from electrical clearance requirements at bridges.
- Track improvements, including realignment works at Howth Junction & Donaghmede Station.

Aspects most relevant to the permanent way are where interventions have been identified as being required, e.g., at bridge locations, as the potential for knock-on impacts have the potential to extending beyond the area of intervention of the bridge location itself, with implications for track alignment, road levels on adjoining roads, other bridges, etc.;

Where interventions have been identified in the Preferred Option, all solutions have been considered and developed holistically.

Construction Compounds

Works on this linear scheme will require Construction Compounds at specific locations. The sites will need to accommodate offices for the contractor and client teams, storage facilities, recycling facilities, parking for cars and plant and potentially fabrication areas.

It is a prerequisite that the construction compounds are located close to, and ideally with direct access to, the respective work site. The sites must be fully serviced with electricity, water, sewerage, and telecoms and must have good access to the public road network.

The compounds are required at specific construction sub-sites and also distributed along the scheme by geographical features. For example, compounds will be required at each of the bridge reconstruction locations. They will also be required for material processing and storage of construction components. The construction compounds will be used to support earthworks, enabling works, site clearance, utility diversions work, civil works, the demolition of bridges, OHLE, track installation, signalling and telecoms equipment and all ancillary works.

The majority of the compounds will be temporary in nature. The compound locations are identified within the alignment figures in Section 14 of this brochure. Many of the compound locations would need to be temporarily acquired for the duration of the works.

9.2 Dublin City to Malahide

General Description

This section of the railway extends between Connolly Station and Malahide. The existing Northern Line provides the basis and groundwork for this section of the DART+ Coastal North project. The line passes through a number of stations including Malahide, Portmarnock, Clongriffin, Howth Junction and Donaghmede, Kilbarrack, Raheny, Harmonstown, Killester, and Clontarf Road Stations. Within this section, the Preferred Option includes works at Howth Junction & Donaghmede, Clongriffin, and Malahide Stations linked to facilitating the planned increases in capacity and frequency associated with the project.

A range of upgrades are proposed at Howth Junction & Donaghmede Station linked to improving the overall customer experience at the station.

The existing railway, within this section, is already fitted with OHLE and only some minor changes to signalling and telecommunications upgrades are envisaged between Dublin City Centre and Malahide as part of the DART+ Coastal North project. As this section of the Northern Line is already fully electrified with OHLE, all necessary clearances are already in place and no existing structures located between Malahide and Dublin City Centre are expected to be impacted as part of the DART+ Coastal North works.

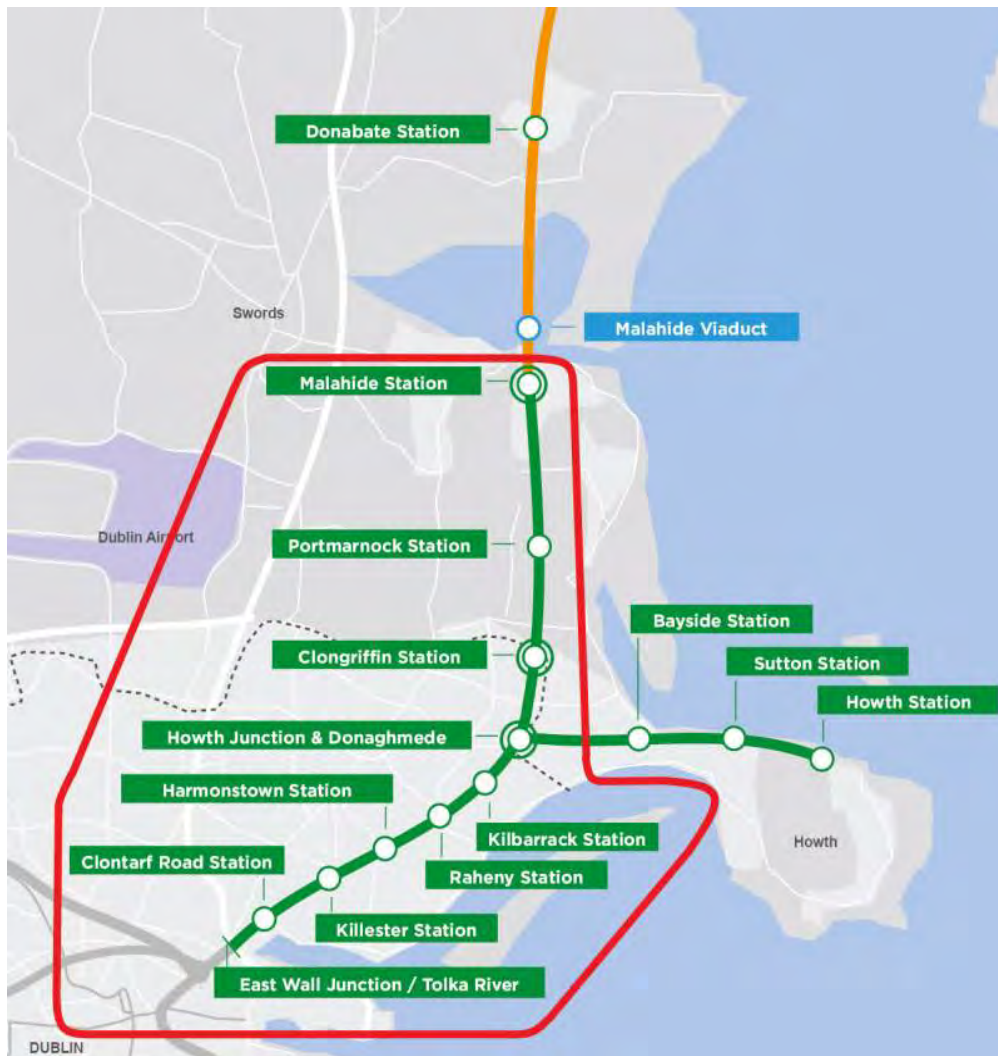
The Preferred Option includes the completion of some upgrades to the existing Fairview Depot located at Clontarf Road Station.

Permanent Way Requirements

To facilitate the proposed increase in train frequency it is proposed as part of the DART+ Coastal North Project to implement some track modifications, including the introduction of new turnback facilities, in the areas surrounding Malahide Station, Clongriffin Station and Howth Junction & Donaghmede Station.

Substations

The Power Study did not identify any requirement for additional new substations on this section of the scheme. Instead, the existing substations will be adjusted to provide the increased power requirements needed for the more frequent train service.



Dublin City to Malahide Extents

Works around Clongriffin Station

The works at Clongriffin Station include track modifications which are essential to facilitate the increase in train services by allowing trains to be turned back clear of continuing services on separate tracks.

The Preferred Option is to introduce a new loop to serve a platform to the east side of the station, within the existing railway corridor. It is proposed to use the platform face that was constructed when the station was originally built but which is not currently served by any tracks.

Works include the construction of a retaining structure to the east of the station to facilitate the new loop and modifications will be made to the track alignment to the south of the station to allow trains to access the new platform. New OHLE and signalling installations, as well as modifications to the existing systems, will be required.



Proposals at Clongriffin Station

Works around Malahide Station

The works at Malahide comprise track modification which are essential to facilitate the increase in train services, by allowing trains to be turned back clear of continuing services on separate tracks.

The Preferred Option is to introduce a turnback immediately north of Malahide Station between the Strand Road Underbridge and Malahide Viaduct. This turnback will be situated between the two existing running lines which will necessitate the existing running lines to be slewed to the east between the two aforementioned bridges. This slewing will introduce the need to widen the existing embankment to the east, which will be accomplished by building a retaining structure alongside the realigned track. New OHLE and signalling installations, as well as modifications to the existing systems, will be required.

The proposed works are in close proximity to Irish Water's wastewater treatment works at Malahide and there is potential interference to third party property rights. Further design development and technical and construction related solutions will seek to minimise this.



Proposals at Malahide Station

Works around Howth Junction & Donaghmede Station

The Preferred Option at Howth Junction & Donaghmede Station includes construction of an extension to the existing Platform 2 and some associated track modifications. These modifications include construction of a new crossover to the east of the platforms, and alterations to existing OHLE, signalling and telecoms will also be required.

To achieve the peak capacity increases proposed by the DART+ Programme, the DART+ Coastal North project will seek a reconfiguration of Howth Junction and Donaghmede Station and the removal of existing train crossing conflicts at the station which currently constrain capacity and train frequency on the network. These changes will enable the operation of both a DART shuttle service on the Howth Branch line as required during peak times, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised. The removal of train crossing conflicts at Howth Junction will also enable a more frequent and reliable Howth DART service operating every ten minutes each way, with a change at Howth Junction to access the Northern Line. The associated interchange introduced at Howth Junction & Donaghmede Station will be facilitated by an increased frequency of stopping trains on the Northern Line. Final operational decisions will be made subject to future passenger demand requirements.



Proposals at Howth Junction & Donaghmede Station

Works / Upgrades to Howth Junction & Donaghmede Station

In direct response to feedback received in Public Consultation No.1, a variety of significant modification works are proposed to Howth Junction and Donaghmede Station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station.

The works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improve the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades will also take place to the footbridge and connections to the centre platforms, as well as the lighting, signage, and finishes throughout.



Conceptual Image of Modified Howth Junction & Donaghmede Station Entrance



Conceptual Modifications to Footbridge Cross-section.



Conceptual Image of Modifications to Footbridge & Platform Access

Works at Fairview Depot

There will be localised minor works at Fairview Depot to modify the facilities to cater for the change in rolling stock. These modifications are predominantly internal to the buildings.

In order to provide a greater capacity for cleaning at Fairview Depot for the new trains, several modifications are required at the depot. These will include the provision of new cleaning platforms on the sidings to the east side of the mainline, along with associated walkways and services. On the west side modifications are proposed largely within the existing maintenance building to provide suitable access and services for cleaning staff.



View into Fairview Depot

9.3 Malahide to Drogheda

General Description

This section of the railway extends from Malahide Station to Drogheda MacBride Station. The existing Northern Line provides the basis and groundwork for this section of the DART+ Coastal North project.

As part of the works, this length of the Northern Line will be electrified with the installation of overhead electrical equipment. The line passes through a number of stations including Drogheda MacBride, Laytown, Gormanston, Balbriggan, Skerries, Rush and Lusk, Donabate and Malahide Stations. In general, no works are envisaged to these stations as part the Project, although the Preferred Option does include the introduction of turnback facilities and some localised modifications at Drogheda MacBride Station.

There are also a number of structures on this section of the route, including 28 road overbridges and footbridges. An assessment of these structures has shown that in most cases sufficient clearances are available to allow for the electrification works to be run under the existing bridges with no/minimal intervention to the bridge structures. However, in order to achieve appropriate clearances, an upgrade to the Drogheda MacBride station footbridge, and the replacement of OBB080 linking Railway Terrace with McGrath's Lane, will be required. Some minor localised track lowering works will be necessary to achieve the required clearances at 4 existing structures (OBB39, OBB44, OBB55 & OBB78). OHLE solutions will be required to facilitate the electrification to span the existing longer viaduct structures:

- Malahide Viaduct;
- Balbriggan Viaduct;
- Rogerstown Viaduct;
- Laytown Viaduct.

The Preferred Option for each of these interventions are provided later in this section.

Existing user worked Level Crossing (XB001) located to the south of Donabate Station is to be closed. This is as a result of the introduction of electrification and increase in train frequency on the Northern Line which significantly increases the safety risks at this level crossing to users of the crossing and to rail traffic.



Donabate to Drogheda Extents

Permanent Way Requirements

To facilitate the proposed increase in train frequency it is proposed as part of the DART+ Coastal North project to implement some track modifications, including the introduction of new turnback facilities, in the areas surrounding Drogheda MacBride Station.

Works around Drogheda MacBride Station

The works at Drogheda MacBride Station predominately relate to allowing a greater number of services to turn back at Drogheda to return to Dublin. There are currently an insufficient number of platforms to cater for the proposed service frequency at Drogheda MacBride, therefore an additional platform to turn back services is required.

The Preferred Option is to construct a new single platform on the Drogheda freight siding. This new platform will extend over the Dublin Road Underbridge, necessitating widening of the bridge. At-grade access will be provided between the new platform and the existing Platform 1 and a new gateline will likely be installed. The Drogheda freight siding will be slewed (realigned) and railway infrastructure modified as necessary. In terms of train stabling, the existing Drogheda freight siding, and a new stabling track, located adjacent to the depot, will be utilised. The new stabling track will require works to the existing landscape bund.

UBK01- Dublin Road Bridge

The preferred option at Drogheda MacBride Station, requires the widening of the Dublin Road Bridge to facilitate a shift of the tracks to the south and inclusion of an extension of the existing platform on the northern side of the tracks above the Dublin Road Bridge. The locations of the abutments are not expected to be adjusted as part of these proposals.

Works at Drogheda Depot

There will be localised modifications to the depot facilities at Drogheda MacBride Station to cater for the changes in rolling stock. These modifications are predominantly internal within the existing depot buildings, although some localised exterior changes to tracks and railway systems will also be required. The depot at Drogheda will be electrified with OHLE.



Works Around Drogheda MacBride Station



Works to Dublin Road Bridge

Bridge clearance works

Wherever a bridge spans over the railway it is necessary to ensure that the OHLE passes safely below the bridge. Where existing bridges do not, or may not, provide the necessary clearance for OHLE, a range of options to reduce impacts have been considered on a case-by-case basis. The options include modifications to the track layout and structural solutions to gain the necessary vertical and horizontal clearance. The options considered include the following (either standalone or in combination):

- Provision of specialist electrical solutions for the OHLE with reduced clearance;
- Lowering the rail track under the bridge;
- Modification of the existing bridge structure;
- Removal of the existing structure and provision of a replacement structure.

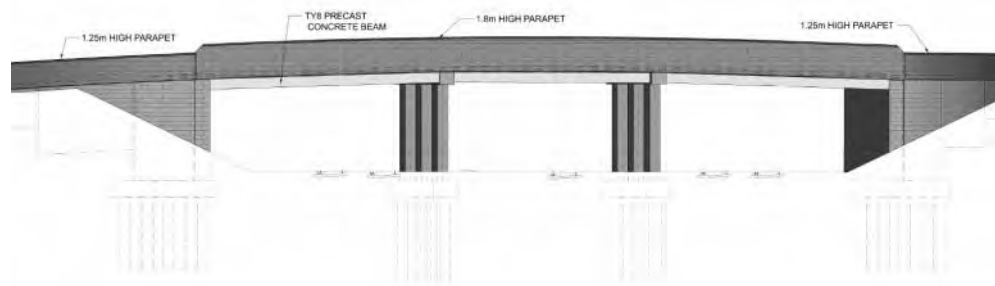
Along the project route corridor, only six structures have been identified where the required clearances are not achieved. Following consideration of the options listed above, and completion of detailed analysis, two of the bridges were identified as requiring reconstruction, and the Preferred Option for each, is as follows:

- **Overbridge OBB81 (Drogheda station footbridge)** – replacement of the bridge superstructure with a profiled soffit to provide sufficient clearance for OHLE installation. The option will be a cost-effective solution, reduce disruption to services and maintain the visual character of the station.



Works to Drogheda MacBride Station Footbridge

- **Overbridge OBB80/80A/80B (carrying Railway Terrace)** - The preferred option involves the removal of the existing bridge structure and the construction of a new bridge in its place. A temporary access road would be constructed to the North linking to Marsh Road (R150) to facilitate access to the affected properties for the duration of works. The new bridge would be set at a level to provide a minimum vertical clearance of 5.6m, to provide adequate clearance for the OHLE wires beneath the bridge. The roads along McGrath's Lane and Railway Terrace will need to be raised to facilitate tie in with revised bridge levels. Additional temporary access may be required during these works to maintain access to the residential properties during works to road levels. This option would require the acquisition of land to the north of McGrath's Lane to facilitate a new embankment associated with the raising of the road.



Proposed Works at OBB080 (McGrath's Lane)

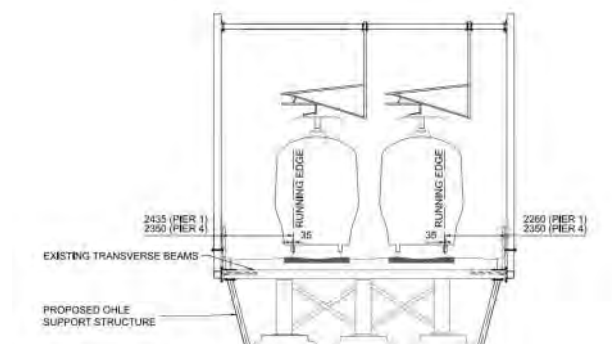
Four additional bridges along the project extents were identified as having insufficient clearance for the installation of OHLE. Following detailed assessment. It was deemed that electrical solutions and localised track lowering interventions provide a sufficient solution at each location and more significant bridge reconstruction can be avoided. These bridges include:

- Overbridge OBB39 (carrying Station Road / R128)
- Overbridge OBB44 (carrying local road in Tyrrelstown Big)
- Overbridge OBB55 (carrying Lawless Terrace / R127)
- Overbridge OBB78 (carrying Colpe Road)

The track lowering works are all considered minor track adjustments which will be undertaken during non-disruptive night-time possessions over a relatively short period of time.

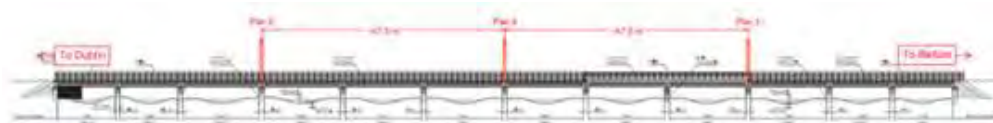
Installation of OHLE structures onto underbridges

Bespoke fixing arrangements for OHLE will be required at some locations where the railway is supported on underbridges. It is envisaged that typical OHLE foundations can be placed either side of underbridges with spans of less than 60m, removing the need to fix OHLE to the bridge. Underbridges with spans around, or in excess of, 60m have been subject to further assessment and optioneering. The resulting list of impacted underbridges, and their respective Preferred Options, are as follows:



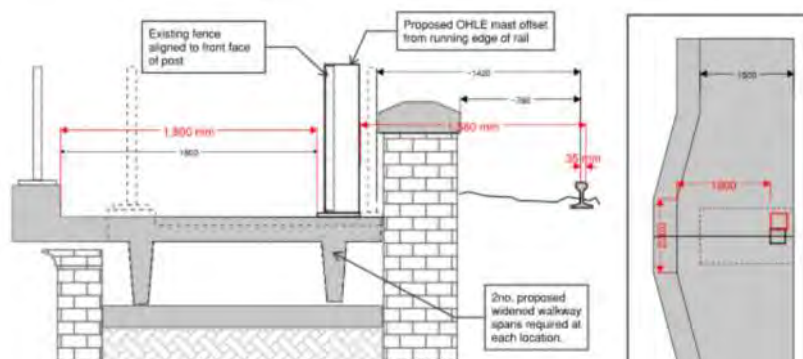
Cross Section Showing Proposed OHLE Installation at Laytown Viaduct

- **UBB30 – Malahide Viaduct** – The Preferred Option requires OHLE supporting posts to be installed at three locations along the Malahide Viaduct. The OHLE supporting posts will connect to concrete slabs placed on the superstructure of the Malahide Viaduct (at Piers 6 & 9) where it is not possible to connect directly to the bridge itself. Due to the bridge deck configuration at Pier 3, it is possible to connect the OHLE post directly to the outer edge beam of the viaduct - hence a concrete support slab is not required at this location.



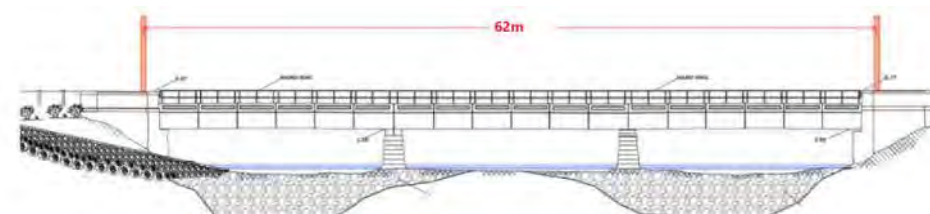
OHLE Supporting Posts on Malahide Viaduct

- **UBB56 – Balbriggan Viaduct** – Due to the length of Balbriggan Viaduct, at least two pairs of OHLE supporting masts are required to facilitate the electrification. The Preferred Option is to place the masts at the 3rd and 8th pier locations, resulting in a 55 m span between masts when viewed in elevation. The Preferred Option involves attaching the OHLE masts to the pedestrian walkway outside of the existing fence line and widening the walkway locally at the location of the OHLE masts to allow for suitable pedestrian passage. It is also proposed to attach anti-climb guards to the OHLE masts to prevent people from attempting to scale them, particularly given their location adjacent to the fence.



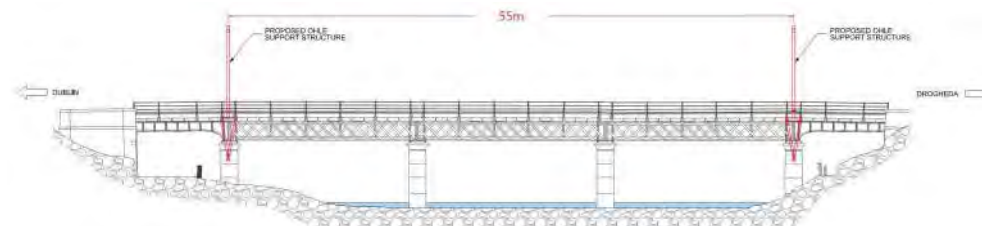
Preferred Option for Balbriggan Viaduct

- **UBB36 – Rogerstown Viaduct** – As the track has a relatively straight horizontal alignment at this location, it is possible to position the OHLE masts up to 62m apart. This allows the masts to be located at either end of the bridge deck superstructure, which measures approximately 60m in length. Hence, the Preferred Option is to place the OHLE supporting masts at either end of the bridge, supported on the existing masonry wing-walls which will be demolished down to slab formation level and rebuilt with reinforced concrete walls which will be connected to the existing wing-wall substructure. An exposed concrete corbel will support the post locally with the remainder of the proposed reinforced concrete wall clad with stone to match the existing structure.



OHLE Supporting Posts at Rogerstown Viaduct

- **UBB72 – Laytown Viaduct** – The Preferred Option is to install OHLE masts at the locations of the first and last bridge pier. The proposal involves the installation of additional supporting steelwork within the structure to provide sufficient strength for a mast to be fixed. The steelwork and OHLE masts will be bolted to the existing bridge piers.



Preferred Option for Laytown Viaduct

Substations

The Power Study identified the requirement for eight new substations, spaced at regular intervals, on this section of the scheme. These are required at the following locations:

- Drogheda
- Skerries North
- Bettystown
- Skerries South
- Gormanston
- Rush and Lusk
- Balbriggan
- Donabate

Drogheda Substation - The Preferred Option for the location of the Drogheda Substation is on agricultural lands to the north of the Drogheda MacBride depot train shed. A short access road would be required from the current depot boundary to facilitate access to the substation. Access would be created through the existing reinforced concrete (RC) wall, rather than through the gabion wall, with additional sections of RC wall constructed to the rear when in cutting. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Bettystown Substation - The Preferred Option for the location of the Bettystown Substation is on scrub-land adjacent to Ardmore Avenue. It is envisaged that it could be directly accessed from the existing Ardmore Avenue through the construction of a small section of access road. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Gormanston Substation - The Preferred Option for the location of the Gormanston Substation is on grassland within Gormanston Camp, directly south of the Irishtown Road overbridge, to the western side of the railway. A short access road would be required perpendicular to the tracks due to topological constraints for the required overbridge access ramps. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Balbriggan Substation - The Preferred Option for the location of the Balbriggan Substation is on agricultural land approximately 350m north of the underbridge serving Bremore Bay Beach on the western side of the railway. An access road would be required from the R132, to access the substation, running along the boundary of the existing fields. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Skerries North Substation - The Preferred Option for the location of the Skerries North Substation is on agricultural land approximately 250m southeast of Barnageeragh Bay Steps, on the western side of the railway. The substation is positioned close to the railway corridor, blocking the current access road to the farmland directly south of the proposed substation. An access road would be required from Barnageeragh Road that would ensure farm access is also maintained. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Skerries South Substation - The Preferred Option for the location of the Skerries South Substation is in agricultural land, east of the railway and directly south of Golf Links Road. It is envisaged that access would be provided directly from Golf Links Road. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

Rush and Lusk Substation - The Preferred Option for the location of the Rush and Lusk Substation is within green field lands located to the southeast of Rush and Lusk Station. Access to the existing road network is envisaged as being through the existing station car park located to the east of Rush and Lusk Station. The proposed location is within existing Córas Iompair Éireann boundaries; therefore no land acquisition is envisaged.

Donabate Substation - The Preferred Option for the location of the Donabate Substation is on agricultural land located to the south of the R126, to the west of the railway line. An access road would be required from the L6165 south-west of the proposed location, to connect with the existing road network. The substation location is in third party private land ownership; therefore land acquisition is envisaged.

9.4 Howth Junction & Donaghmede Station to Howth Station

General Description

This section of the railway extends between Howth Junction & Donaghmede Station and Howth Station. The existing Howth Branch line provides the basis and groundwork for this section of the DART+ Coastal North project.

The proposed works along this section of the DART+ Coastal North project are relatively minimal, with the exception of the upgrade works at Howth Junction & Donaghmede Station described earlier. The existing railway is already fitted with OHLE and only some minor changes to signalling and telecommunications upgrades, and the construction of a new substation, are envisaged as part of the DART+ Coastal North project.

The line passes through a number of stations including Howth Junction & Donaghmede Station, Bayside Station, Sutton Station and Howth Station. The preferred option in this section of the DART+ Coastal North project includes provision of infrastructure to enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised.

There are also a number of structures on this section of the route, however, as this section of the Northern Line is already electrified no existing structures located between Howth Junction & Donaghmede and Howth Station are expected to be altered as part of the DART+ Coastal North project works.

Permanent Way Requirements

To facilitate the proposed increase in train frequency it is proposed as part of the DART+ Coastal North project to implement some track modifications, including the introduction of a new crossover facility at Howth Junction & Donaghmede Station. The extent of track modifications in the area between Howth Junction & Donaghmede Station and Howth Station are minimal as the track is already fitted with existing OHLE.



Howth Junction & Donaghmede Station to Howth Station Extents

Works around Howth Junction & Donaghmede Station

Works around Howth Junction & Donaghmede Station, including proposed upgrades to the station itself, are as described in Section 9.2.

Howth Branch Level Crossings

Four level crossings are located along the Howth Branch line, including:

- Baldoyle Road Level Crossing (XQ001);
- Sutton Level Crossing (XQ002);
- Cosh Level Crossing (XQ003);
- Claremont Level Crossing (XQ004).

Proposed changes to the Howth Branch will see both the service frequency and capacity increase, along with improvements in the reliability of timetabling. The reliability of the Howth Branch will increase as the proposed DART shuttle service would mean that trains would no longer be susceptible to delays that occur along the Northern Line.



View at Sutton Level Crossing

The Preferred Option for the Howth Branch level crossings is for crossings to continue to be controlled by automatic barriers. Our traffic assessment has concluded that the barrier controlled crossings can continue to provide an appropriate level of connectivity and accessibility whilst still meeting the increased DART service frequency requirement.

The traffic assessment was carried out based on observed traffic survey data and through the application of best practice methodology and industry standard software (LinSig). The proposed level crossing closure times were simulated, and it was found that the likelihood of vehicles, pedestrians and cyclists, incurring delay at the level crossings will increase due to the increased frequency of level crossing closures. It was also found that there will be an impact on queue lengths in the study area – in some cases queue lengths may reduce, while in some cases queue lengths will increase. The sensitivity analysis has, however, shown that queue lengths are predicted to remain within the available traffic queueing road space, in all these cases.

Therefore, whilst it is acknowledged that the increased frequency of DART services on the Howth branch line will have an impact on the surrounding road networks, and their users, the impact is not considered significant and the level crossings can continue to operate effectively, without significant effect on any transport mode.



Howth Branch Line

Substations

The existing railway is already fitted with OHLE and only some minor changes to signalling and telecommunications upgrades are envisaged as part of the DART+ Coastal North project.

A Power Study has identified the need for an additional substation to be located toward the eastern end of the Howth Branch Line. The precise location of the substation is still to be determined subject to the identification of a suitable site.



9.5 Conclusions

The DART+ Coastal North project will deliver an extended electrified network, with increased passenger capacity and enhanced train service between Drogheda MacBride Station and Dublin City Centre (circa 37km) on the Northern Line, inclusive of the Howth Branch Line.

DART+ Coastal North will deliver increased rail capacity through implementing an extended electrified railway network with high-capacity DART trains and an increased frequency of train services. The proposed increase in train services can be achieved through the provision of turnback facilities at Malahide, Clongriffin and Howth Junction & Donaghmede Stations.

The removal of train crossing conflicts through the reconfiguration of Howth Junction and Donaghmede Station will allow DART+ Coastal North to achieve the peak capacity increases proposed by the DART+ Programme. These works will enable the operation of both a DART shuttle service on the Howth Branch Line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, Lines to be maximised. The interchange at Howth Junction & Donaghmede Station will be facilitated by an increase in Northern Line stopping trains. The removal of train crossing conflicts at Howth Junction will also result in a more frequent and reliable Howth DART service with frequency of service increasing to every ten minutes each way, with a change at Howth Junction to access the Northern Line.

The proposed modifications and upgrades to entrances, footbridges, platforms, lighting, signage and finishes at Howth Junction & Donaghmede Station will ensure a more accessible, user friendly and customer focused station for all users of the station going forwards.



10

Transport
Integration

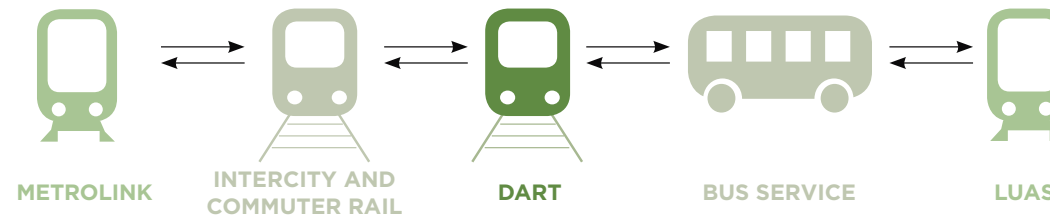
10. Transport Integration

The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved electrified network, with increased passenger capacity and enhanced train service between Dublin City Centre and Drogheda MacBride Station. The DART+ Coastal North project includes the Howth Branch of the DART Northern Line.

The project will link Iarnród Éireann Intercity and Suburban Services, DART, Dublin Bus, Luas, MetroLink and Dublin Bike services to create a fully integrated public transport system in the Greater Dublin Area. Although no direct link will be provided between DART+ Coastal North and Metrolink, they can each be considered integral components in the overall integrated system.

The DART+ Coastal North project is planned to enhance access and movement of pedestrian and cyclists and reduce reliance on private car. The project will integrate with the Metropolitan Cycle Network where potential interfaces are identified.

Where practicable, DART+ Coastal North will integrate with cycleways, greenways, and other active travel facilities proposed in existing and draft future transport strategies.



Public Transport Integration



11. Issues to Consider

All possible efforts will be made to sensitively address issues and challenges associated with the project at the earliest stages of the design process and public consultation. Several potential issues are detailed below, and the public consultation and stakeholder engagement phases will help us to better understand some of the issues and challenges we face.



Property Acquisition

The DART+ Coastal North project will predominantly seek to confine the railway improvement works within the existing railway corridor. However, where works are required to extend beyond the confines of the existing railway corridor, it may be necessary to acquire some additional lands to facilitate the projects development. This land acquisition may be required to allow for the provision of new electrical substations that will facilitate the extension of electrification of the network, track modifications to introduce additional turnback facilities to improve operational flexibility, or where additional train stabling is required.

We have commenced an extensive programme of consultation with the potentially affected property owners and if your property is likely to be directly affected by the works you should already have heard from us, separately. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress through design development and Environmental Assessment.



Environmental Impacts

The project will involve changes to the local environment during both the construction and operation stages, which will result in both temporary and permanent impacts. In order to maintain daytime passenger services during the construction phase night-time works will be necessary. The design process will make every effort to ensure that negative impacts are avoided, reduced or mitigated as far as reasonably practicable, and positive impacts are maximised.

The interface with coastal environments along the DART+ Coastal North route will present environmental challenges. Highly detailed environmental assessments will be carried out over the course of the project to ensure that the proposed works are carried out without negatively impacting on these highly sensitive constraints.



Bridge Improvements/Reconstruction

In the section between Dublin City Centre and Malahide Station, and between Howth Junction & Donaghmede Station and Howth Station, assessments have confirmed that no works to existing structures will be required. This is largely due to these sections of the Northern Line already being electrified and not requiring further OHLE installation.

In the section between Malahide Station and Drogheda MacBride Station a number of interventions have been identified where works are required to, or around, structures due to insufficient clearances for OHLE. Localised track lowering and electrical solutions are proposed at 4 overbridges (OBB39, OBB44, OBB55, & OBB78), the replacement of the Drogheda Station Footbridge superstructure with a profiled soffit to provide sufficient clearance for OHLE installation, and the full replacement of the existing bridge between McGrath's Lane and Railway Terrace at Drogheda MacBride have been included in the Preferred Option.

Further to the aforementioned interventions, there will also be a need to span the four existing viaducts included within this section with OHLE. These interventions include the electrification of Malahide, Laytown, Balbriggan and Rogerstown Viaducts.

At all bridges, parapet wall heights have been assessed and improvements have been proposed, as necessary.



Electrification of the Line

Overhead line electrification equipment (OHLE) will be required to provide electrical power to the DART trains. This will involve considerations such as:

- The supply of power from the grid which will need to be agreed and assessed as part of the Railway Order application process;
- The development of substations, and associated land and access requirements, along the line to provide the power to the electrified train fleet over the additional 37km of electrified track;
- The equipment carrying the power lines requires certain height clearances from the trains. Several bridges on the existing line have been identified as having insufficient clearances to this electrical equipment. A range of options are being considered at these locations - some of which include modifications to protected structures;
- Boundary walls and fencing along the existing railway may need to be modified. Where necessary, the heights of walls may need to be increased to ensure the security of the railway is maintained in the interest of both railway operations and public safety. This is especially relevant in areas where new overhead electric lines are erected to ensure that members of the public do not come into contact with electricity equipment.
- The additional space required for the development of overhead electrification equipment to provide the power to the lines, and associated landscape, visual and heritage impacts.





12

Next Steps

12. Next Steps

Further Design Development & Option Selection

The option selection and design development that has been undertaken has led to the development of the **'Preferred Option'** which is the focus of this public consultation stage.

Once the public consultation process is complete, all feedback and submissions received will be reviewed and assessed as part of the next stage of the design development. Following a full appraisal of the feedback, a Public Consultation No. 2 Findings Report will be prepared and published, as part of the Railway Order documentation, to document this process.

All information gathered by the project team will be used to inform the design development of the project which will be the subject of the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA), and ultimately the Railway Order application that will be submitted to An Bord Pleanála.

Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone-line or by written correspondence. For further details see the **'How to Engage'** section.

The Railway Order Process

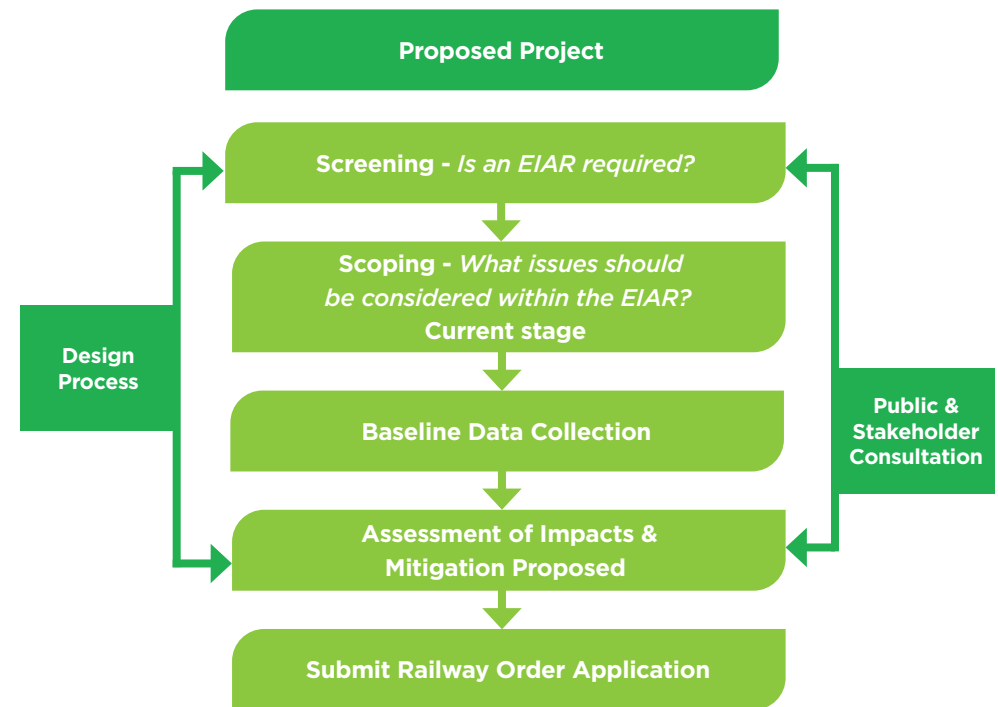
The application to An Bord Pleanála for a Railway Order is broadly similar to the planning process with which most people are familiar.

The Railway Order application process is set out in the Transport (Railway Infrastructure) Act 2001 (as amended) and the application will be made to An Bord Pleanála. The Environmental Impact Assessment Report (EIAR) will detail the nature and extent of the proposed project and identify and describe the impacts on the environment. It will also detail measures which will be taken to avoid, reduce and/or monitor these impacts. Following the submission of the Railway Order application to An Bord Pleanála, the public are invited, through public notices, to make submissions which will be duly considered by An Bord Pleanála as part of the decision-making process.

We expect that An Bord Pleanála will conduct an Oral Hearing, to provide the public with further participation in the decision-making process for this project. At an Oral Hearing the Iarnród Éireann project team will provide responses to submissions and will be available for questioning. Any person or body may make a submission or observation in writing to the Board in relation to the Railway Order application including the EIAR and the Compulsory Purchase Order (CPO) requirements.

We expect to make the application to An Bord Pleanála in the Autumn/Winter of 2023*.

** dates to be confirmed*



The EIA Process leading to submission of Railway Order to An Bord Pleanála



13

How to Engage

13. How to Engage

This consultation is our way of asking you, as potential users of the service or those likely to be affected by its development, for your views on our plans. Your local knowledge will inform the emerging design, help us to improve the scheme and ensure it will be beneficial for you and the communities the route will serve.

The consultation period is now open, full details including closing dates for receipt of submissions are available on the project website.

You can engage with us via the following means:

Website | www.dartplus.ie

Email | DARTCoastalNorth@irishrail.ie

Phone line | (01) 233 4515

Postal Address

If you would prefer to write to us, please send any correspondence to:

Community Liaison Officer

DART+ Coastal North

Iarnród Éireann

Inchicore Works

Inchicore Parade

Dublin 8

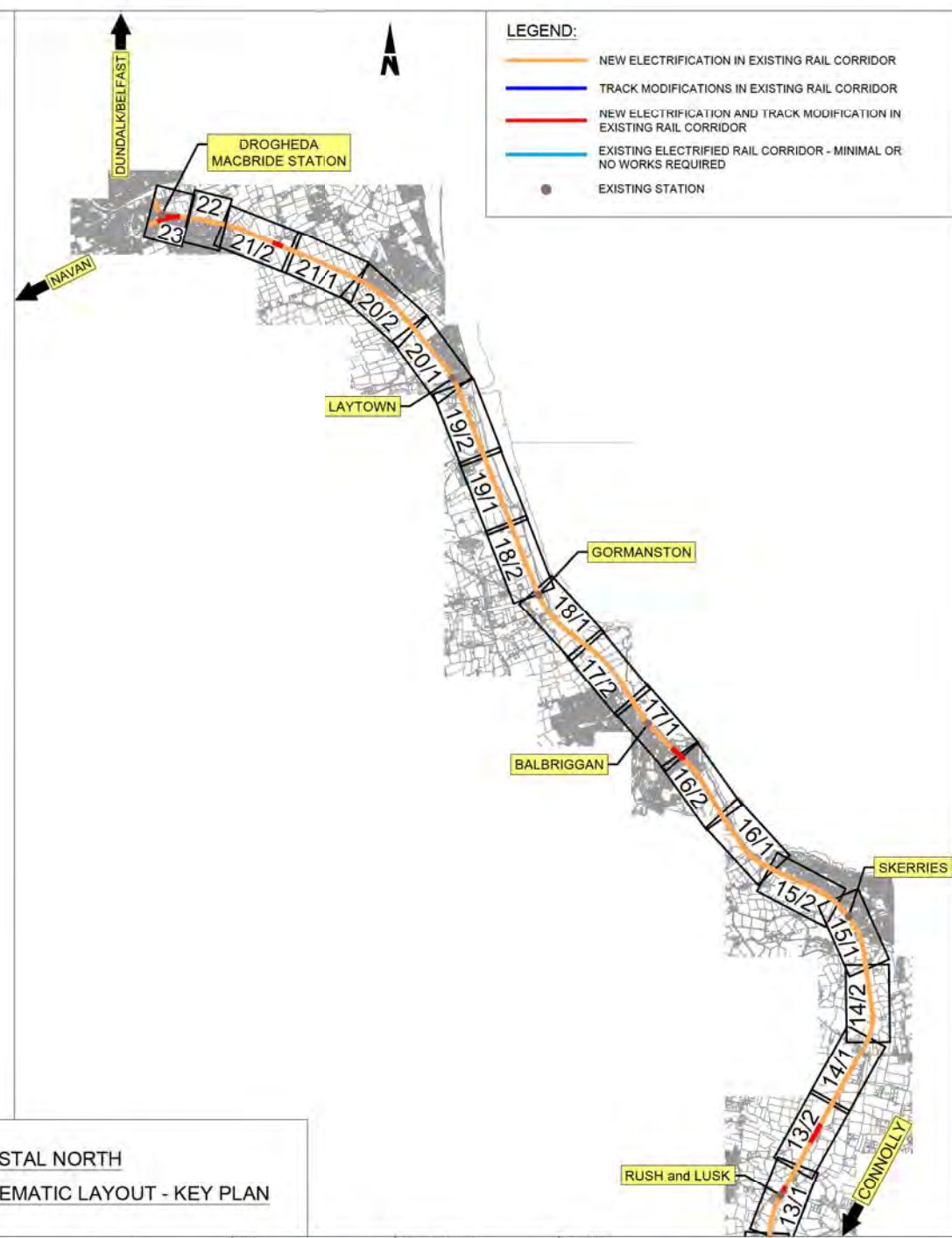
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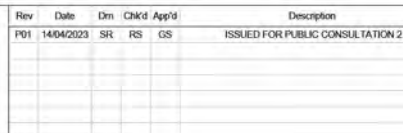
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Alignment
Figures



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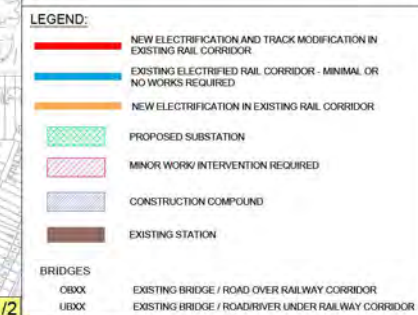
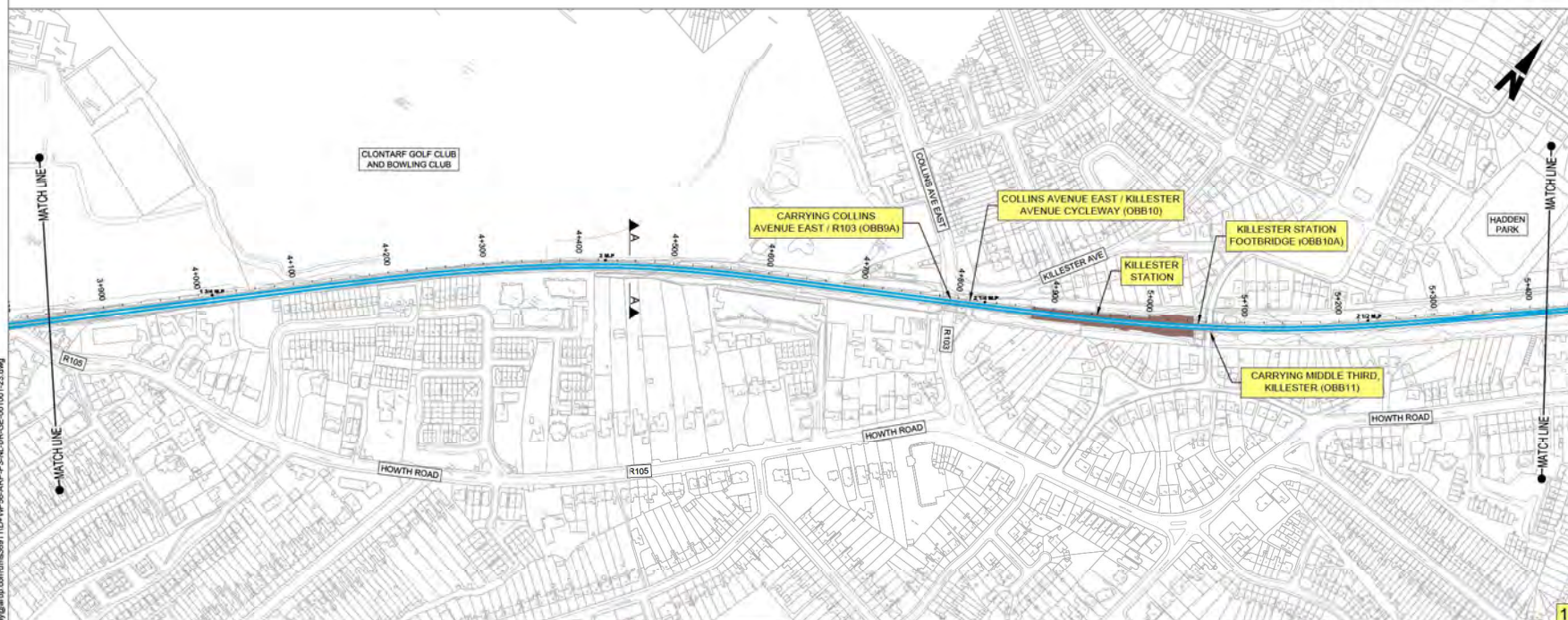
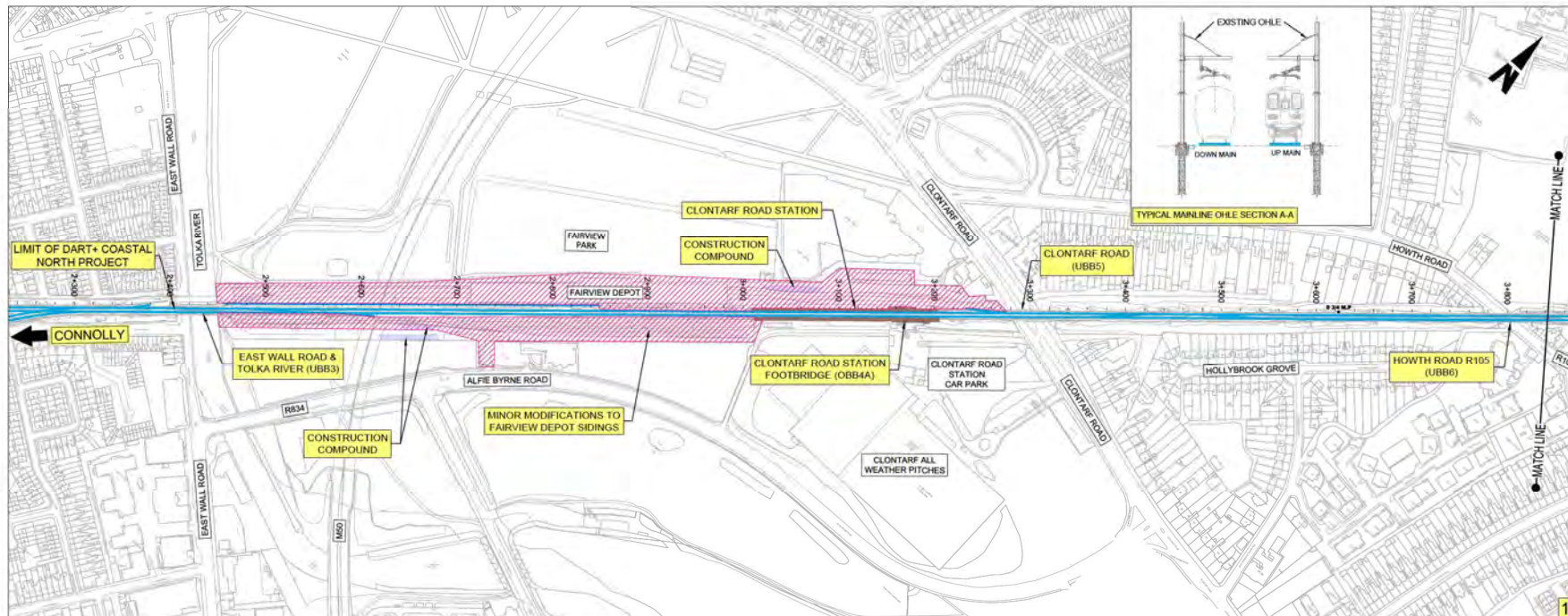
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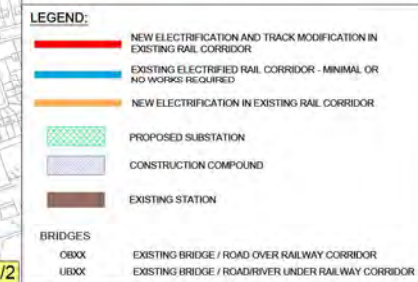
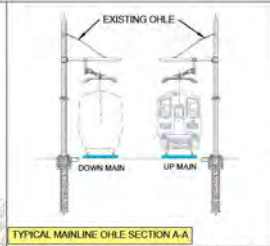
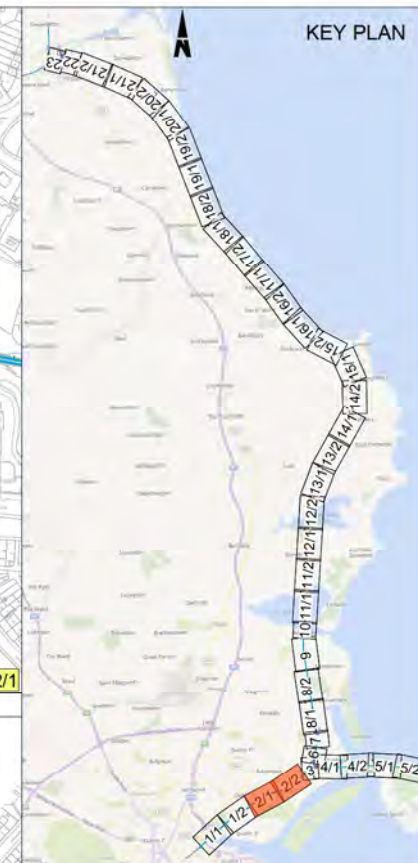
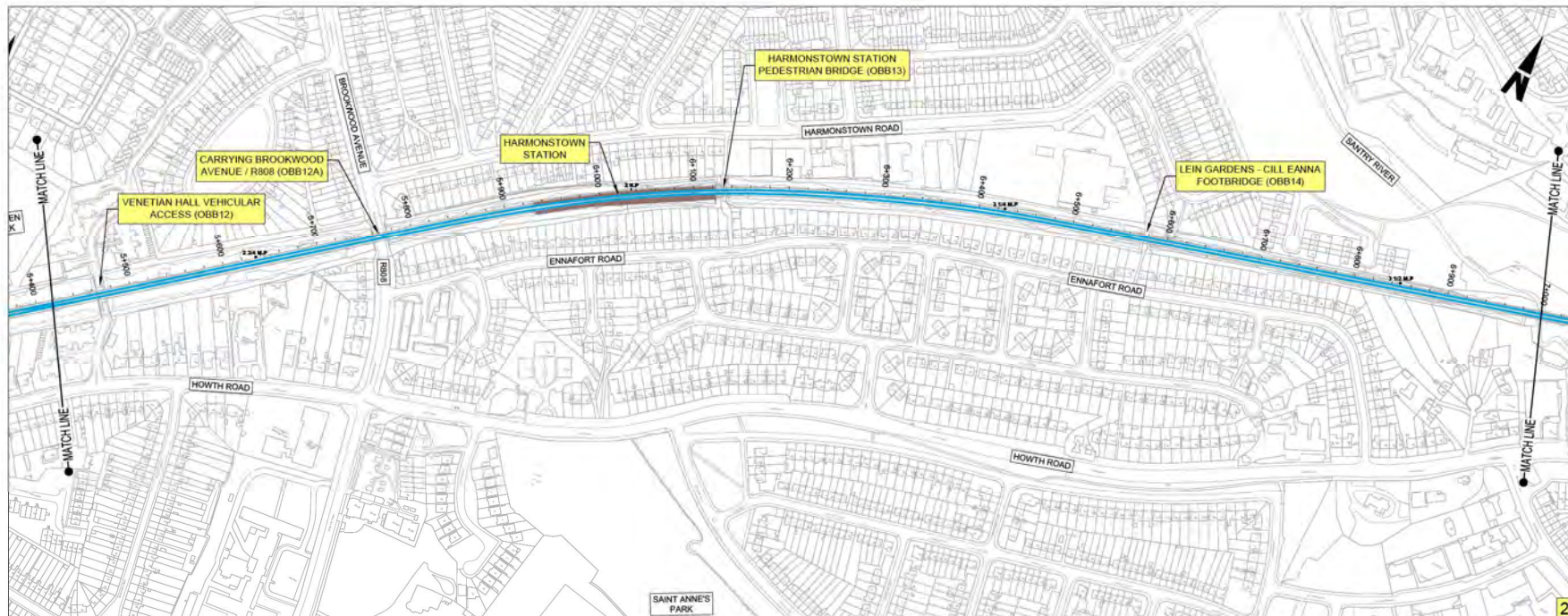
Client		 Iarnród Éireann Irish Rail	
Date	14/04/2023	Scale	N.T.S
Project Code	D+WP66	Originator Code	ARP





Engineering Designer	ARUP		
Drawn SR	Checked RS	Appd	
QMS Code		280275/00	

Project Title:	DART+ COASTAL NORTH			
Drawing Title:	PREFERRED OPTION - SCHEMATIC LAYOUT KEY PLAN			
Drawing File Name:	PREFERRED OPTION - SCHEMATIC LAYOUT	Sheet Number:	01 of 01	Status: S3
				Rev: p01

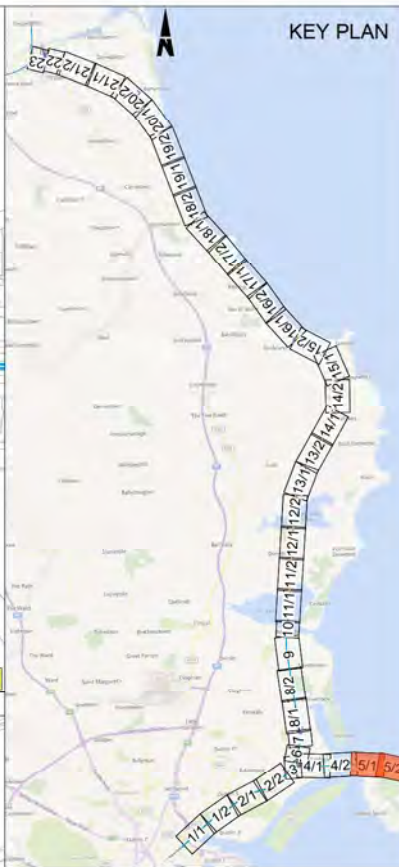
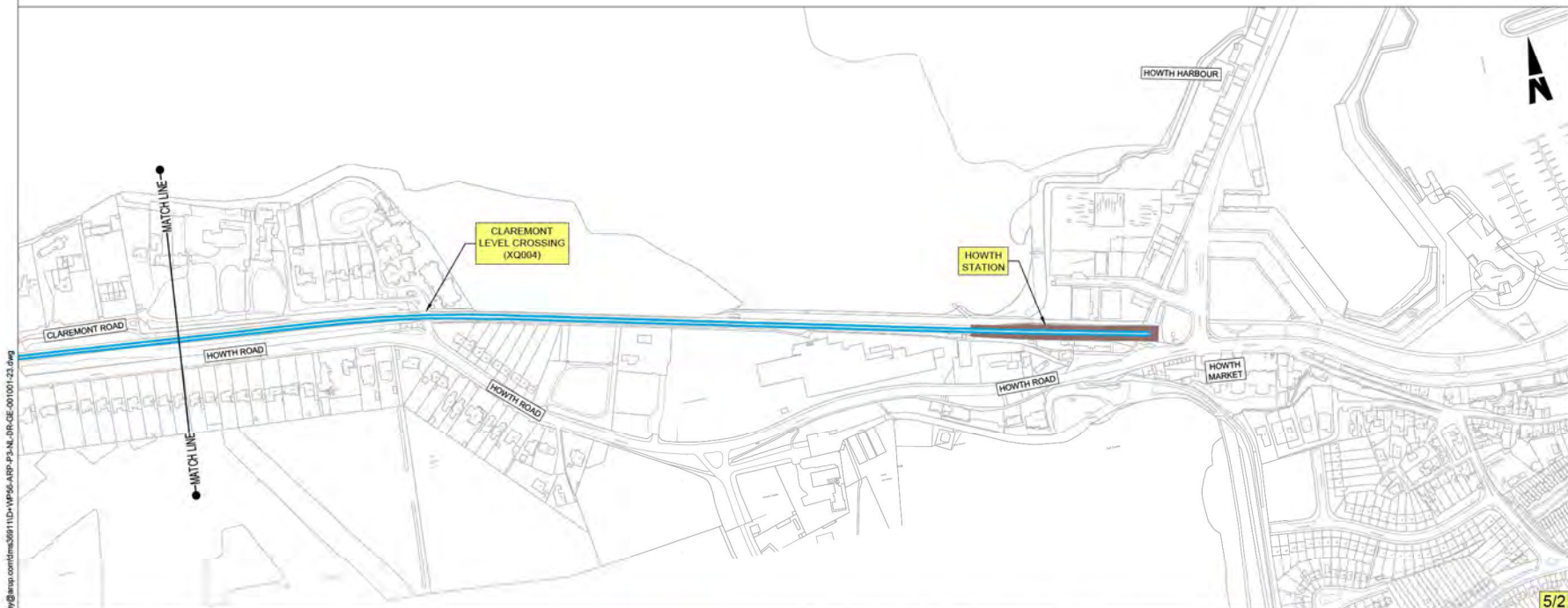
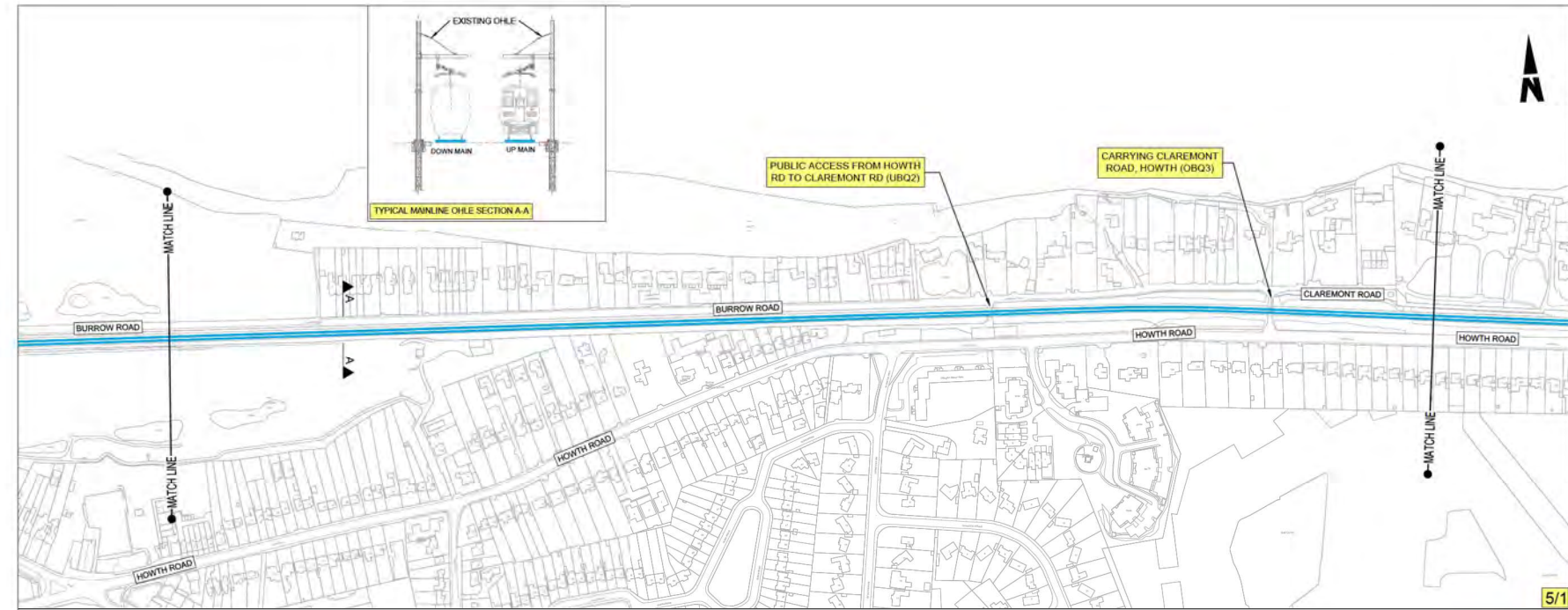


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Rev	Date	Dr	Chkd	App'd	Description												
P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2												



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														P01	

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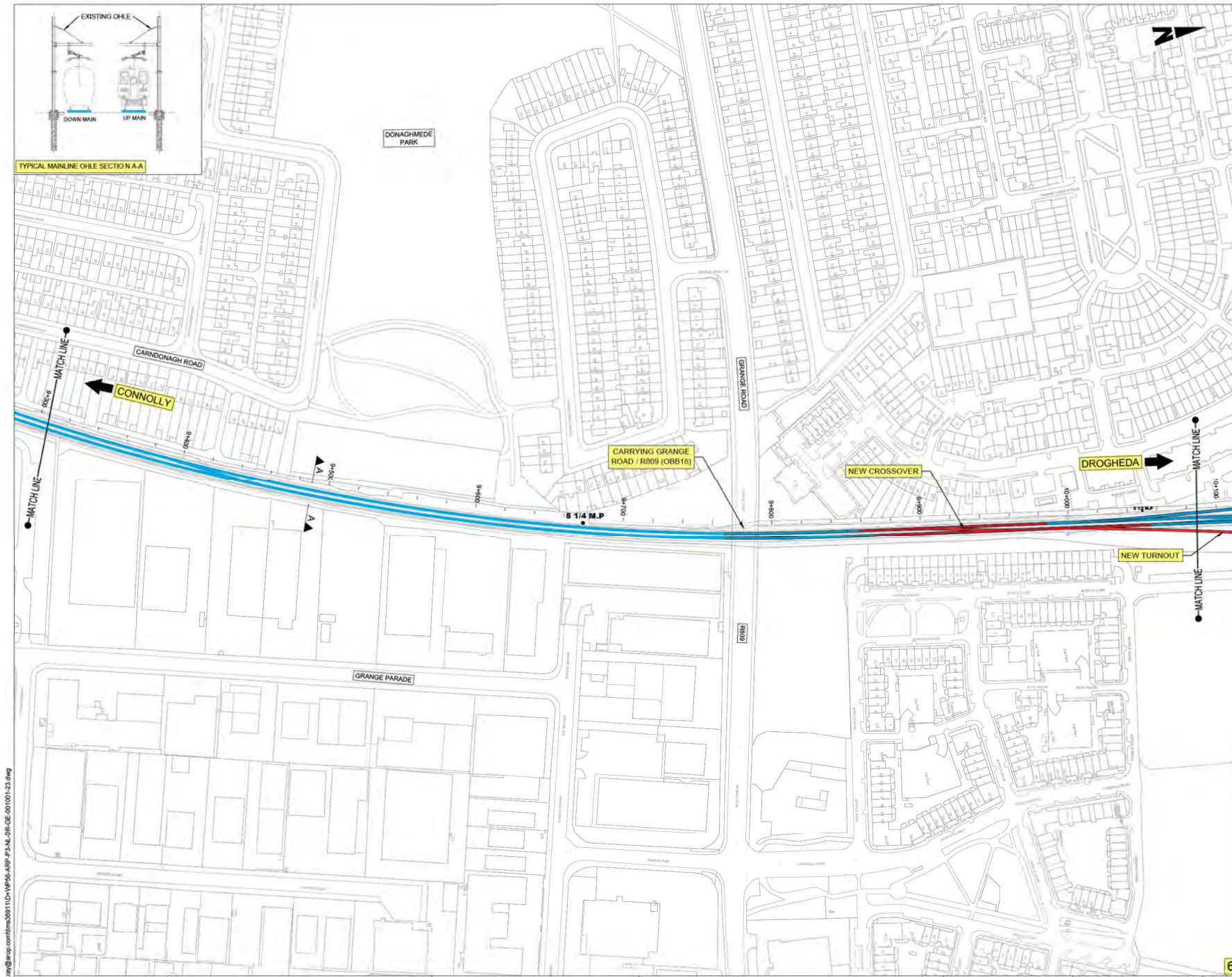


LEGEND:

- NEW ELECTRIFICATION AND TRACK MODIFICATION IN EXISTING RAIL CORRIDOR
- EXISTING ELECTRIFIED RAIL CORRIDOR - MINIMAL OR NO WORKS REQUIRED
- NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
- PROPOSED SUBSTATION
- CONSTRUCTION COMPOUND
- EXISTING STATION

BRIDGES

- OBXX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
- UBXX EXISTING BRIDGE / ROAD/RIVER UNDER RAILWAY CORRIDOR



- LEGEND:**
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 - EXISTING ELECTRIFIED RAIL CORRIDOR - MINIMAL OR NO WORKS REQUIRED
 - NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
 - PROPOSED SUBSTATION
 - CONSTRUCTION COMPOUND
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 - BRIDGES
 - OBXX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
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Rev	Date	Dr	Chkd	App'd	Description
P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2

DART+ Coastal North

Irish Rail

ARUP

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 14/04/2023 Scale: 1:1250 @ A1 1:2500 @ A3

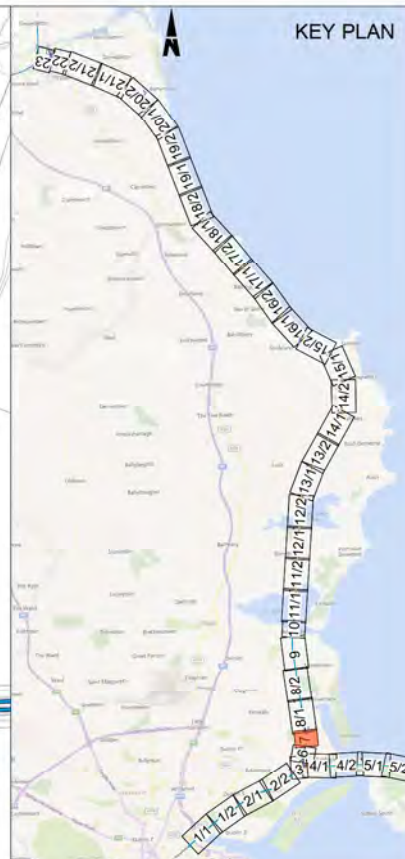
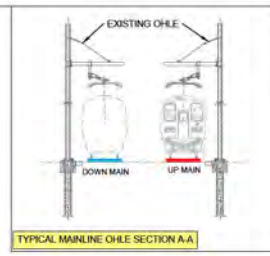
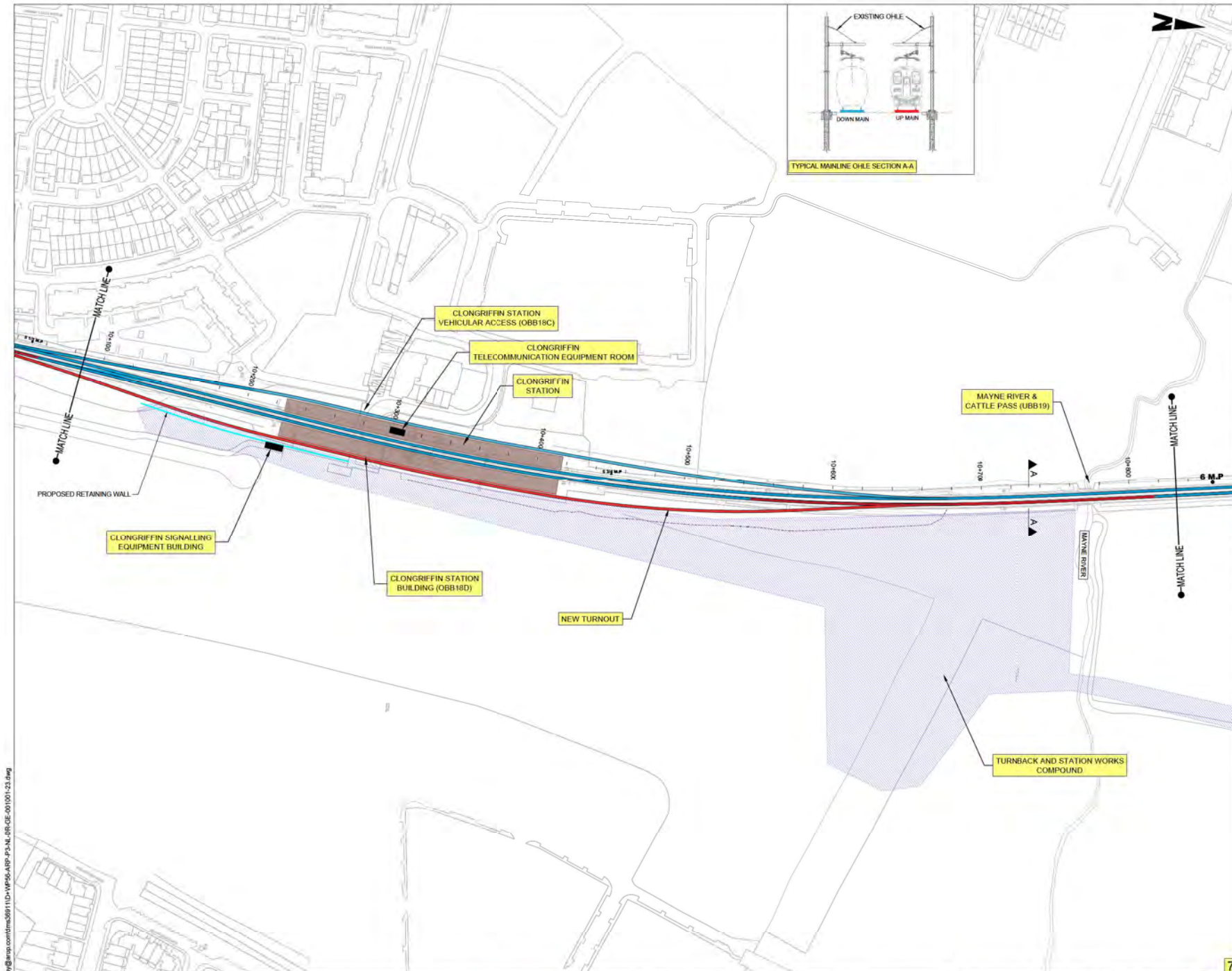
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Project Title: **DART+ COASTAL NORTH**

Drawing Title: **PREFERRED OPTION - SCHEMATIC LAYOUT SOUTH OF LONGGRIFIN STATION AND SURROUNDINGS**

Drawing File Name: D-WP56-ARP-P3-NL-DR-GE-001006 Sheet Number: 06 of 23 Status: S3 Rev: P01

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- EXISTING ELECTRIFIED RAIL CORRIDOR - MINIMAL OR NO WORKS REQUIRED
- NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
- PROPOSED SUBSTATION
- CONSTRUCTION COMPOUND
- PROPOSED RETAINING WALL
- EXISTING STATION

BRIDGES

- OBBX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
- UBBX EXISTING BRIDGE / ROAD/RIVER UNDER RAILWAY CORRIDOR

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Drawn by: [Name]

Checked by: [Name]

Approved by: [Name]

Scale: 1:1250 @ A1, 1:2500 @ A3

Project Code: D+WP56

Originator Code: ARP

QMS Code: 280275-00

Client: **Iarnród Éireann**
Irish Rail

Engineering Designer: **ARUP**

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **PREFERRED OPTION - SCHEMATIC LAYOUT
CLONGRIFFIN STATION AND SURROUNDS**

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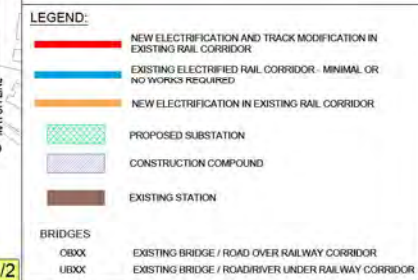
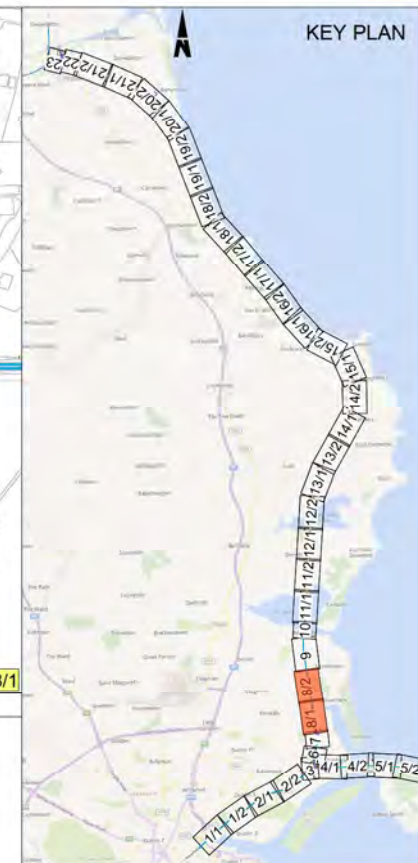
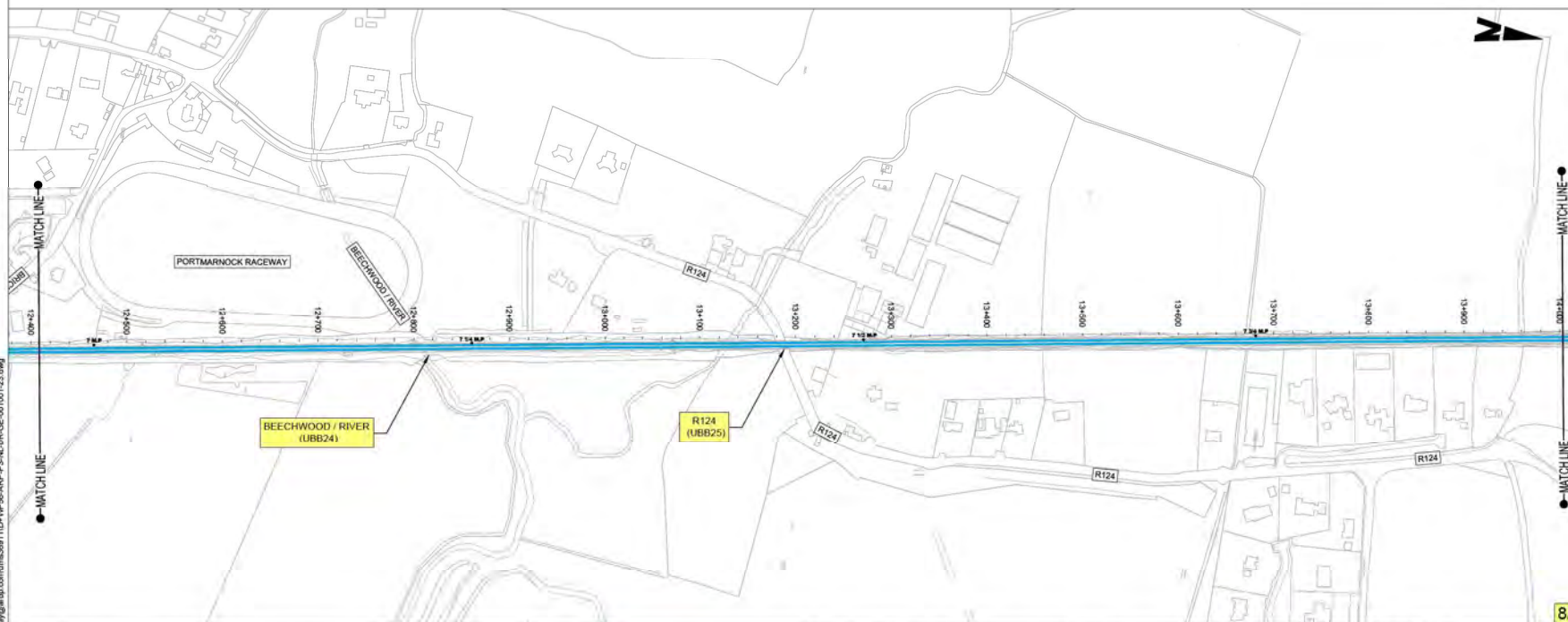
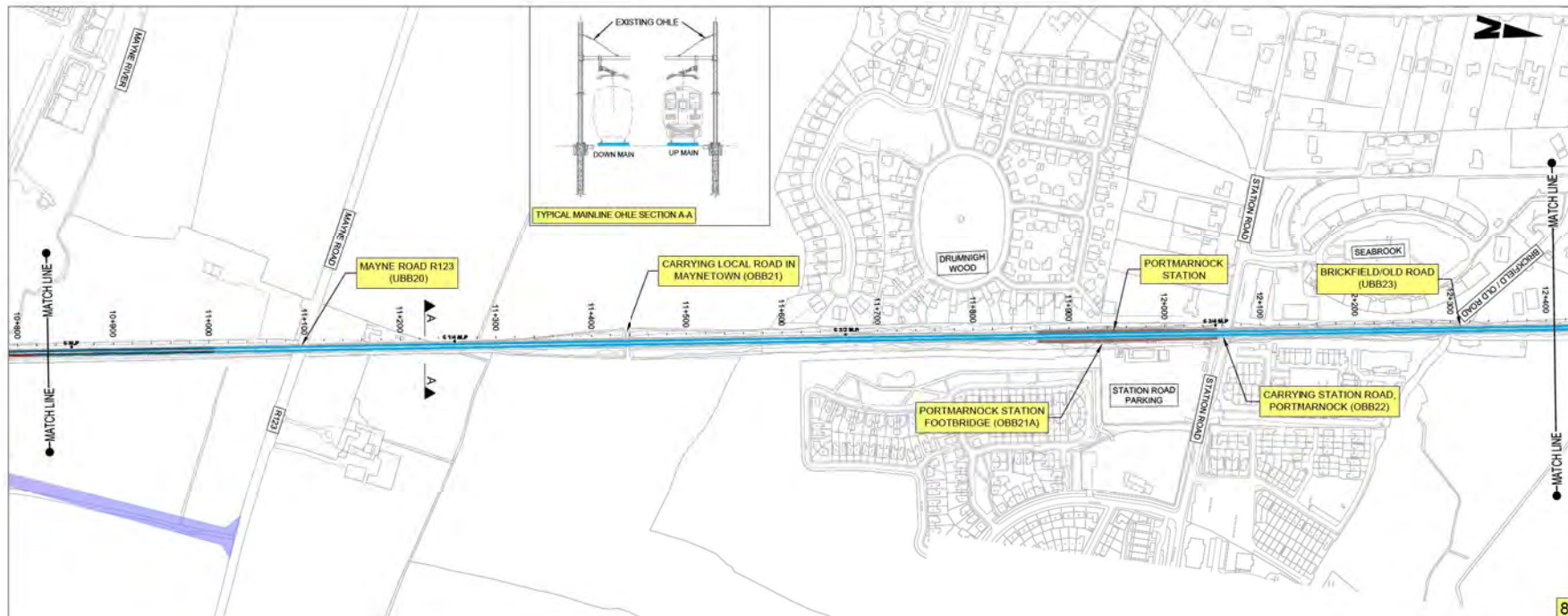
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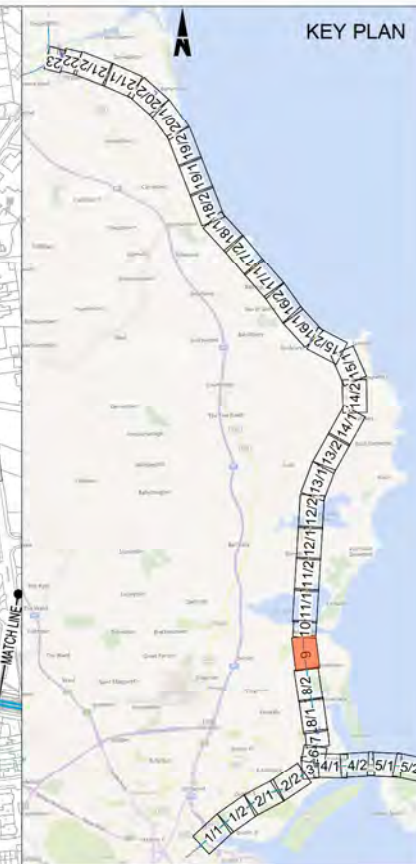
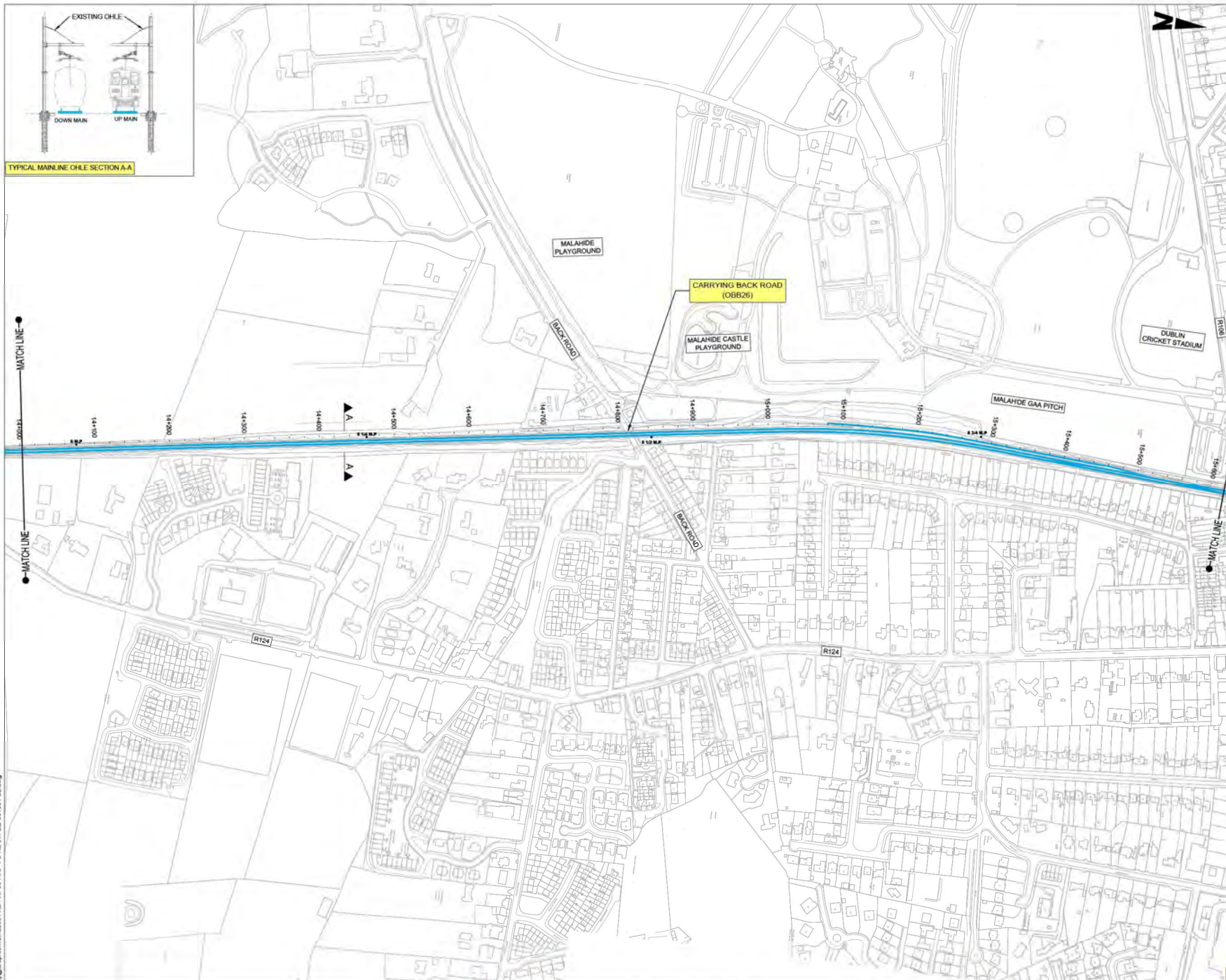
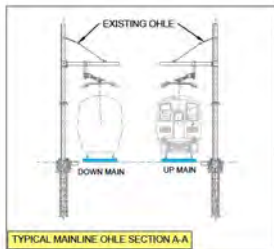
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- NEW ELECTRIFICATION AND TRACK MODIFICATION IN EXISTING RAIL CORRIDOR
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 - NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
 - PROPOSED SUBSTATION
 - CONSTRUCTION COMPOUND
 - EXISTING STATION
- BRIDGES**
- OBBX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
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Rev	Date	Dr	Chkd	App'd	Description
P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 14/04/2023 Scale: 1:2500 @ A1, 1:5000 @ A3

Project Code: D-WP56

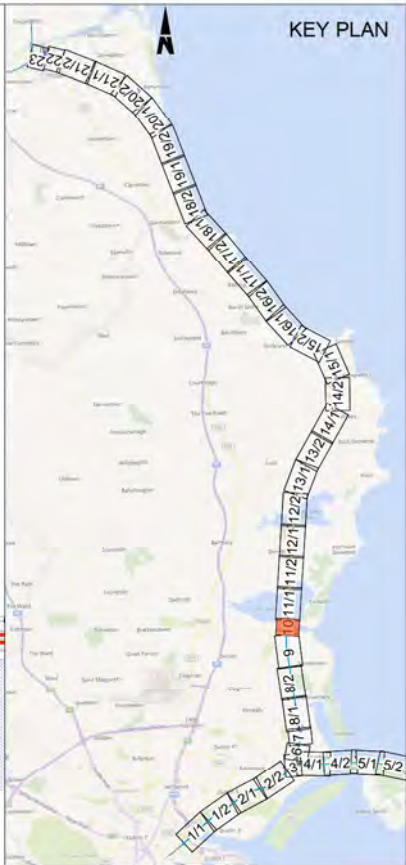
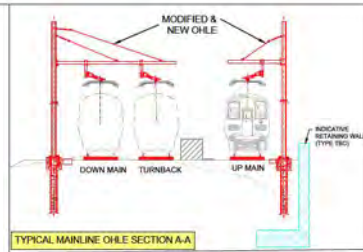
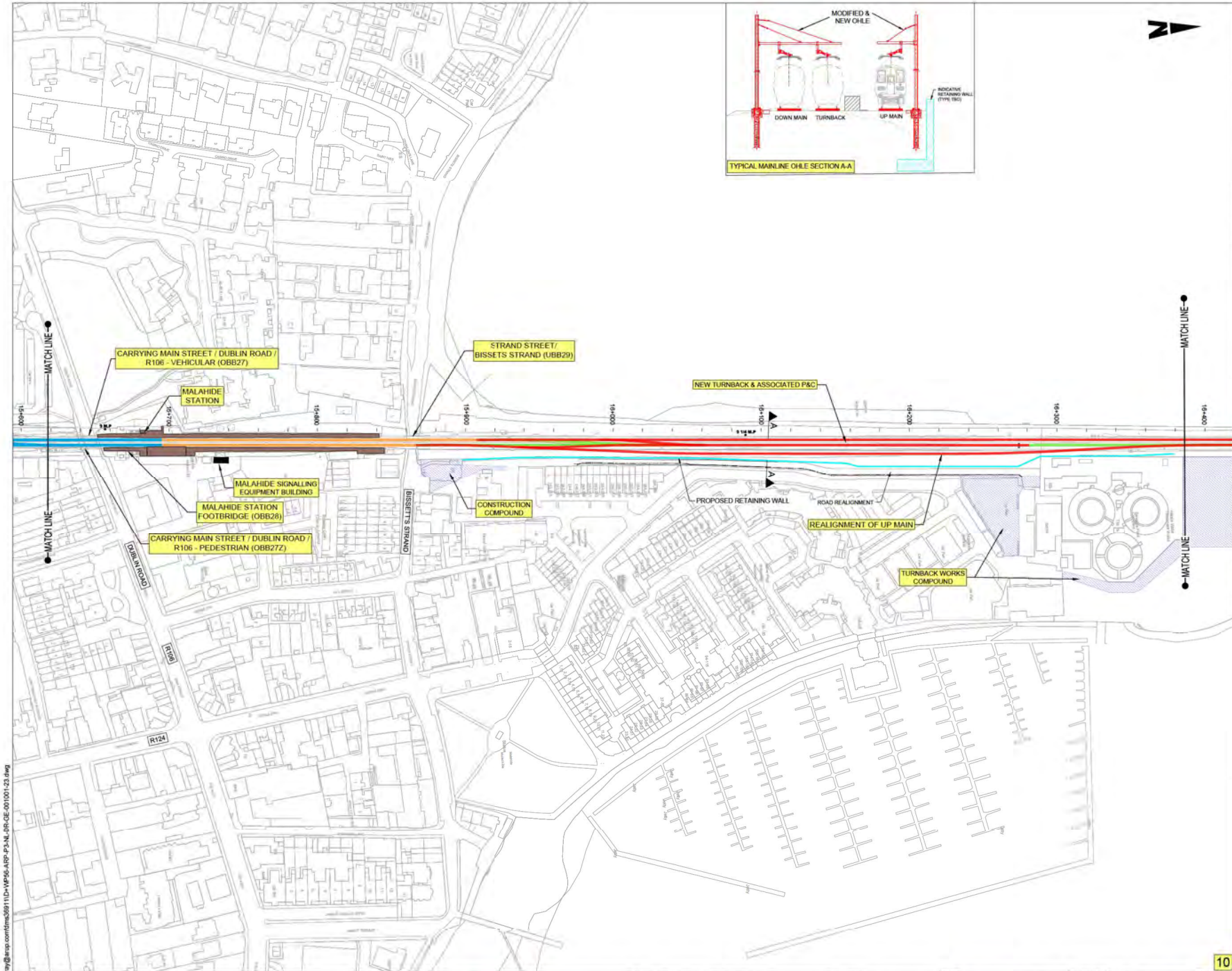
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QMS Code: 280275-00

Drawn: SR, Checked: RS, Approved: GS

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Drawing File Name:	D-WP56-ARP-P3-NL-DR-GE-001009	Sheet Number:	09 of 23
Status:	S3	Rev:	P01

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—	EXISTING RAIL TRACK REMOVED
—	NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
—	PROPOSED RETAINING WALL
—	EXISTING STATION
—	CONSTRUCTION COMPOUND
BRIDGES	
OBXX	EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
UBXX	EXISTING BRIDGE / ROAD/ RIVER UNDER RAILWAY CORRIDOR

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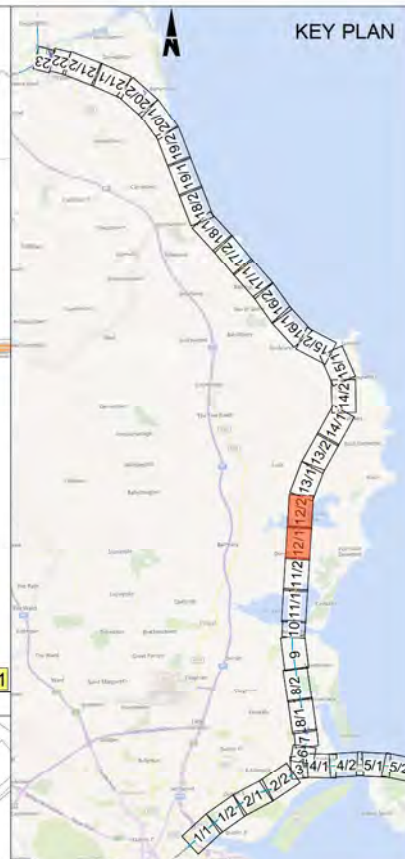
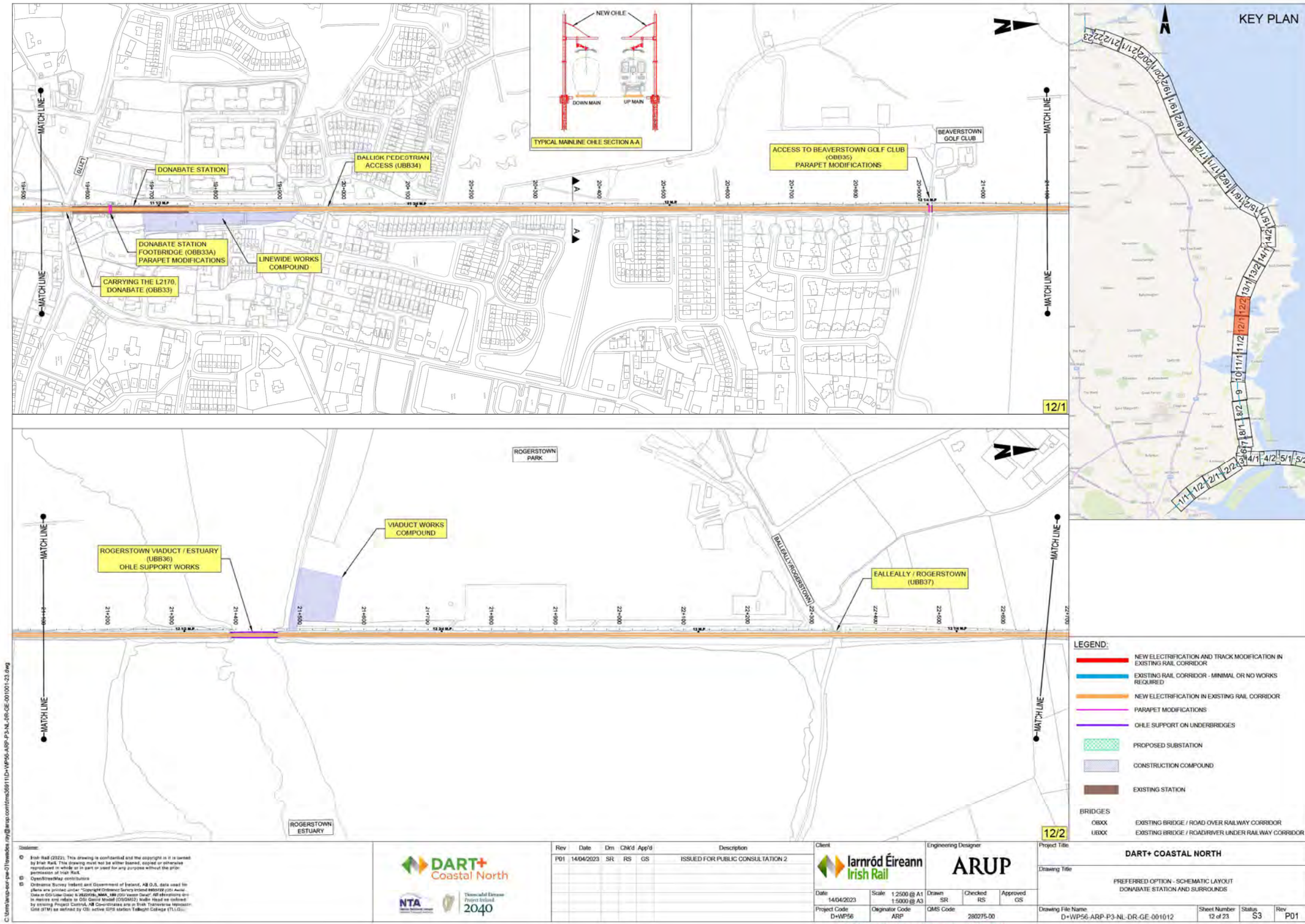
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P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2

Client		Engineering Designer	
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Project Code	D-WP56	Originator Code	ARP
GMS Code		280275-00	

Project Title	DART+ COASTAL NORTH		
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Drawing File Name	D-WP56-ARP-P3-NL-DR-GE-001010	Sheet Number	10 of 23
Status	S3	Rev	P01

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 - NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
 - PARAPET MODIFICATIONS
 - OHLE SUPPORT ON UNDERBRIDGES
 - PROPOSED SUBSTATION
 - CONSTRUCTION COMPOUND
 - EXISTING STATION
- BRIDGES**
- OBXX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
 - UBXX EXISTING BRIDGE / ROAD/RIVER UNDER RAILWAY CORRIDOR

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Rev	Date	Dr	Chkd	App'd	Description
P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2

Date: 14/04/2023

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1:5000 @ A3

Project Code: D-WP56

Client: **larnród Éireann**
Irish Rail

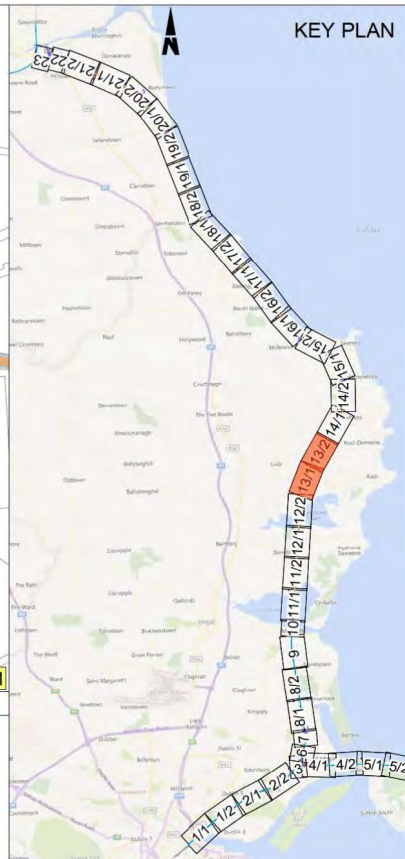
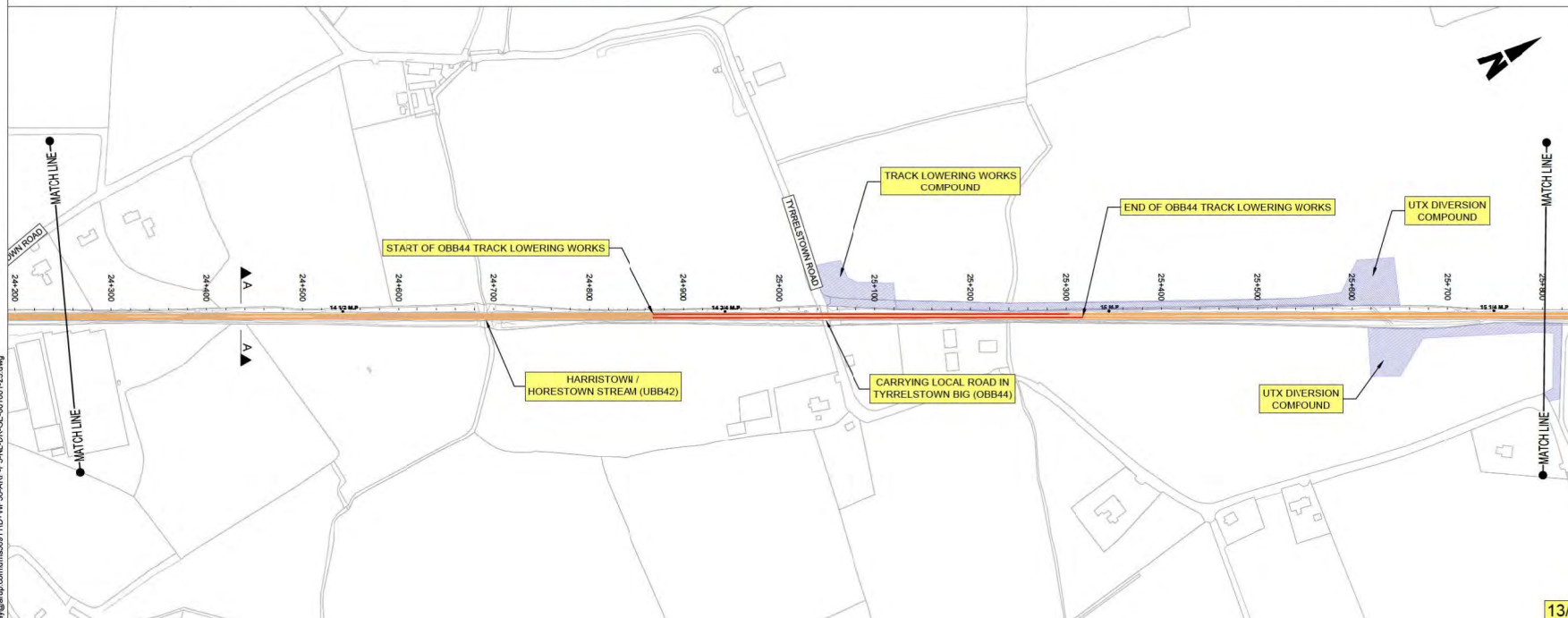
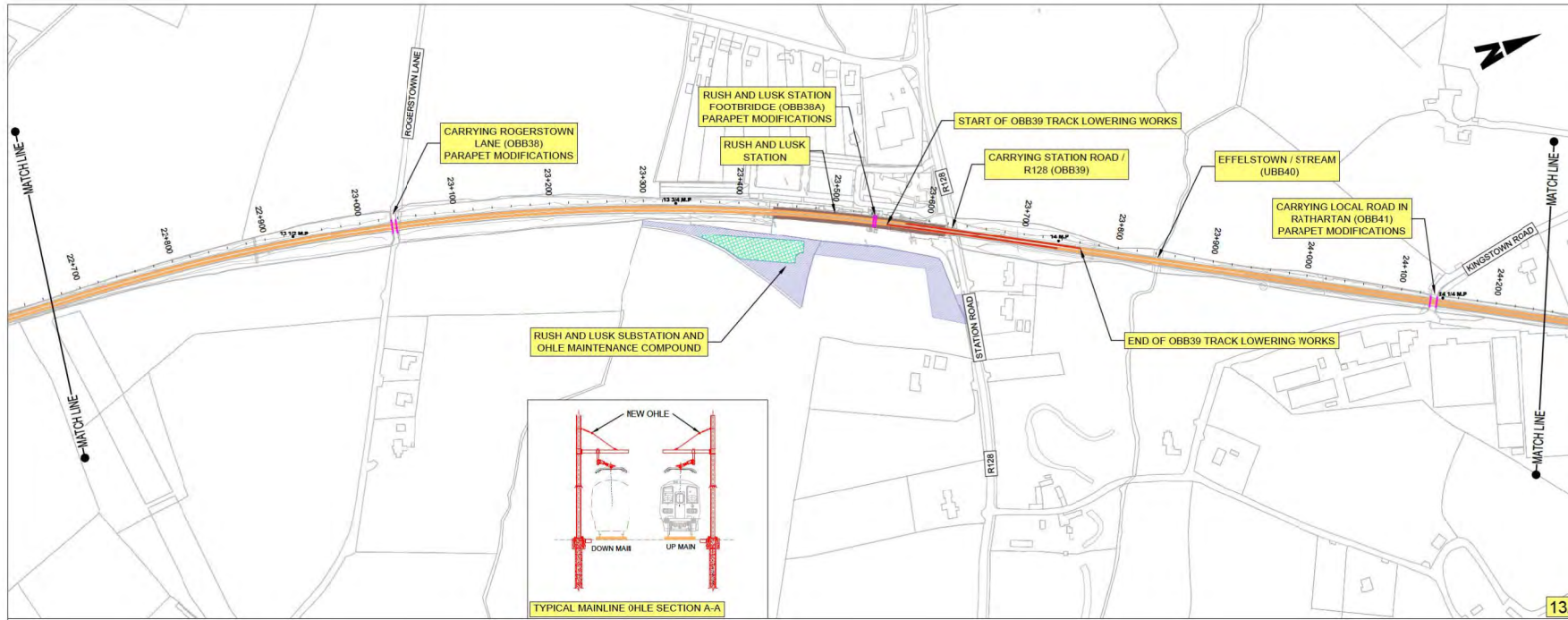
Engineering Designer: **ARUP**

Drawn: SR	Checked: RS	Approved: GS
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QMS Code: 280275-00

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Drawing File Name: D-WP56-ARP-P3-NL-DR-GE-001012
Sheet Number: 12 of 23
Status: S3
Rev: P01

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 - NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
 - PARAPET MODIFICATIONS
 - PROPOSED SUBSTATION
 - CONSTRUCTION COMPOUND
 - EXISTING STATION
 - BRIDGES
 - OBXX EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
 - UBXX EXISTING BRIDGE / ROAD/RIVER UNDER RAILWAY CORRIDOR

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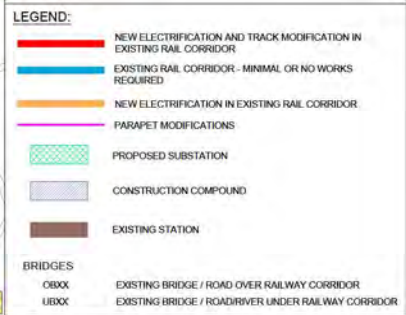
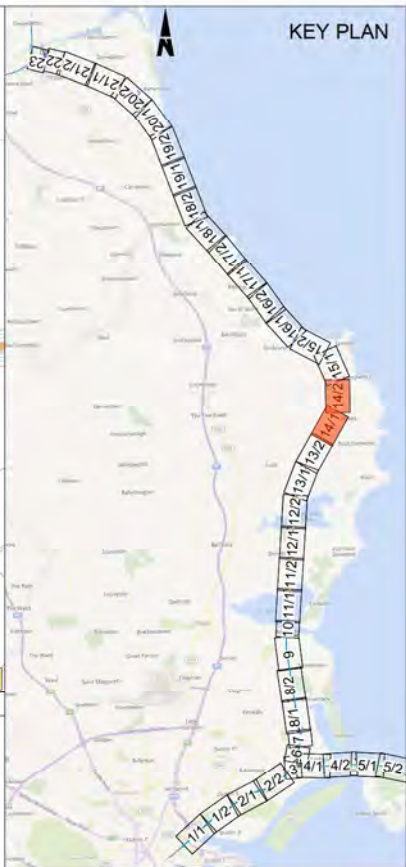
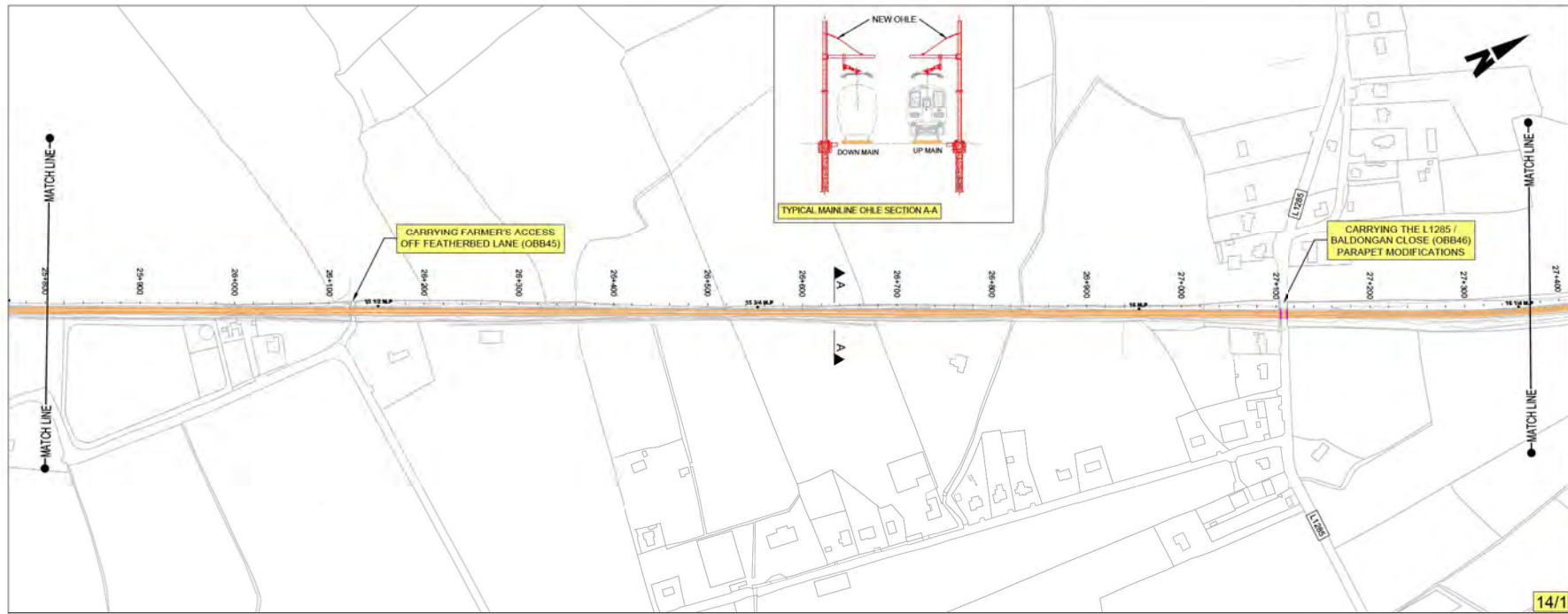


Rev	Date	Dm	Chkd	App'd	Description
P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2
P02	08/05/2023	SR	DB	GS	ISSUED FOR PUBLIC CONSULTATION 2

Client		Engineering Designer	
Iarnród Éireann Irish Rail		ARUP	
Date	14/04/2023	Scale	1:2500 @ A1 1:5000 @ A3
Project Code	D-WP56	Drawn	SR
Originator Code	ARP	Checked	RS
GMS Code	280275-00	Approved	GS

Project Title		Drawing Title	
DART+ COASTAL NORTH		PREFERRED OPTION - SCHEMATIC LAYOUT RUSH AND LUSK STATION AND SURROUNDS	
Drawing File Name		Sheet Number	
D-WP56-ARP-P3-NL-DR-GE-001013		13 of 23	
Status		Rev	
S3		P02	

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 All Coordinates are in Irish Transverse Mercator (ITM) as defined by OS active 2015 station Tallaght College (TL10).



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P01	14/04/2023	SR	RS	GS	ISSUED FOR PUBLIC CONSULTATION 2

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 14/04/2023 Scale: 1:2500 @ A1, 1:5000 @ A3

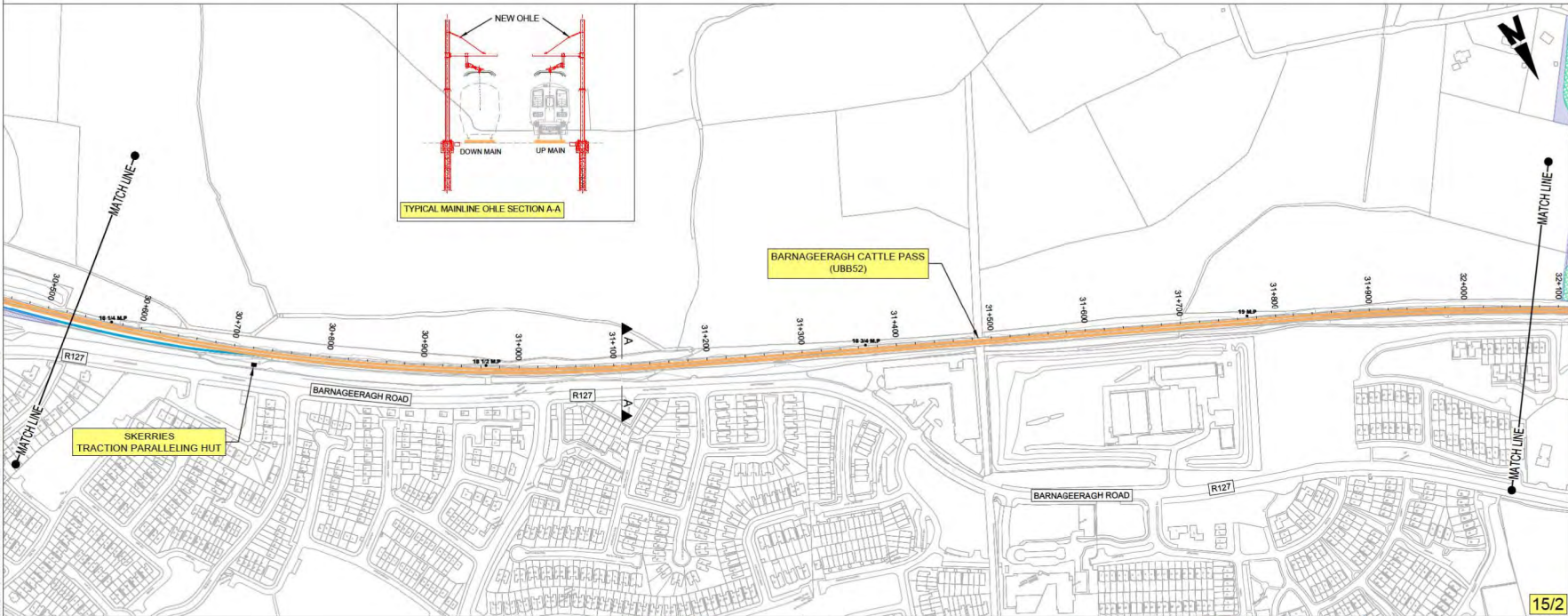
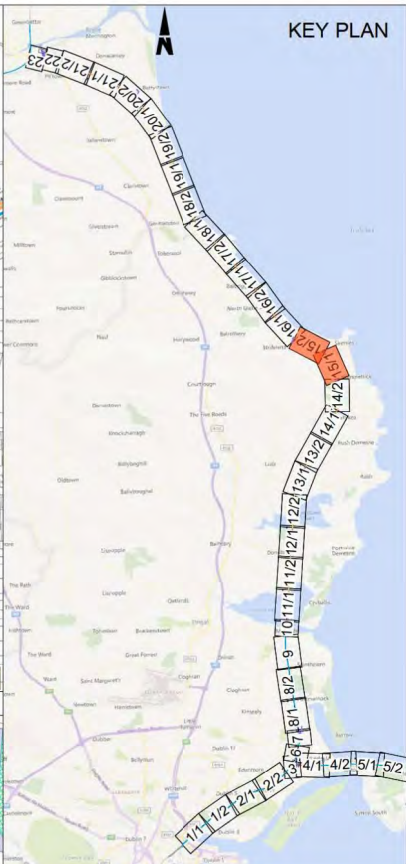
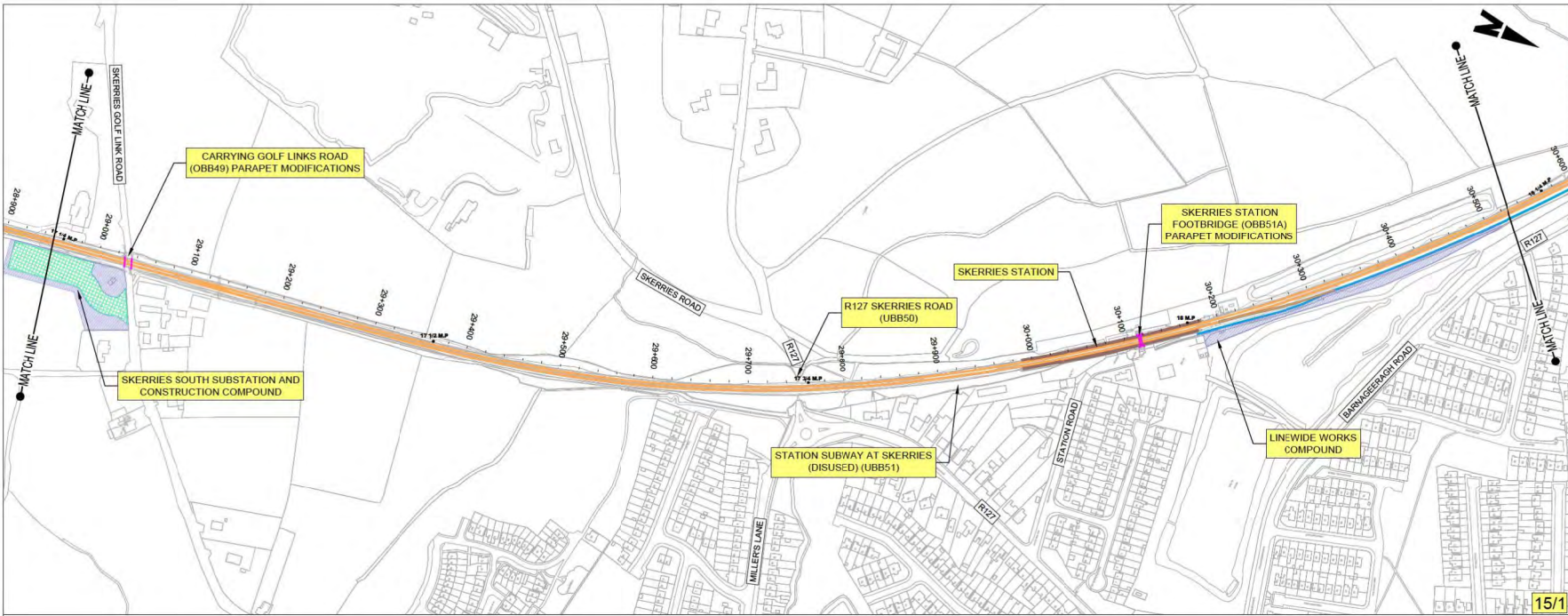
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QMS Code: 280275-00

Drawn: SR, Checked: RS, Approved: GS

Project Title:	DART+ COASTAL NORTH			
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Drawing File Name:	D+WP56-ARP-P3-NL-DR-GE-001014	Sheet Number:	14 of 23	Status: S3
Rev:	P01			

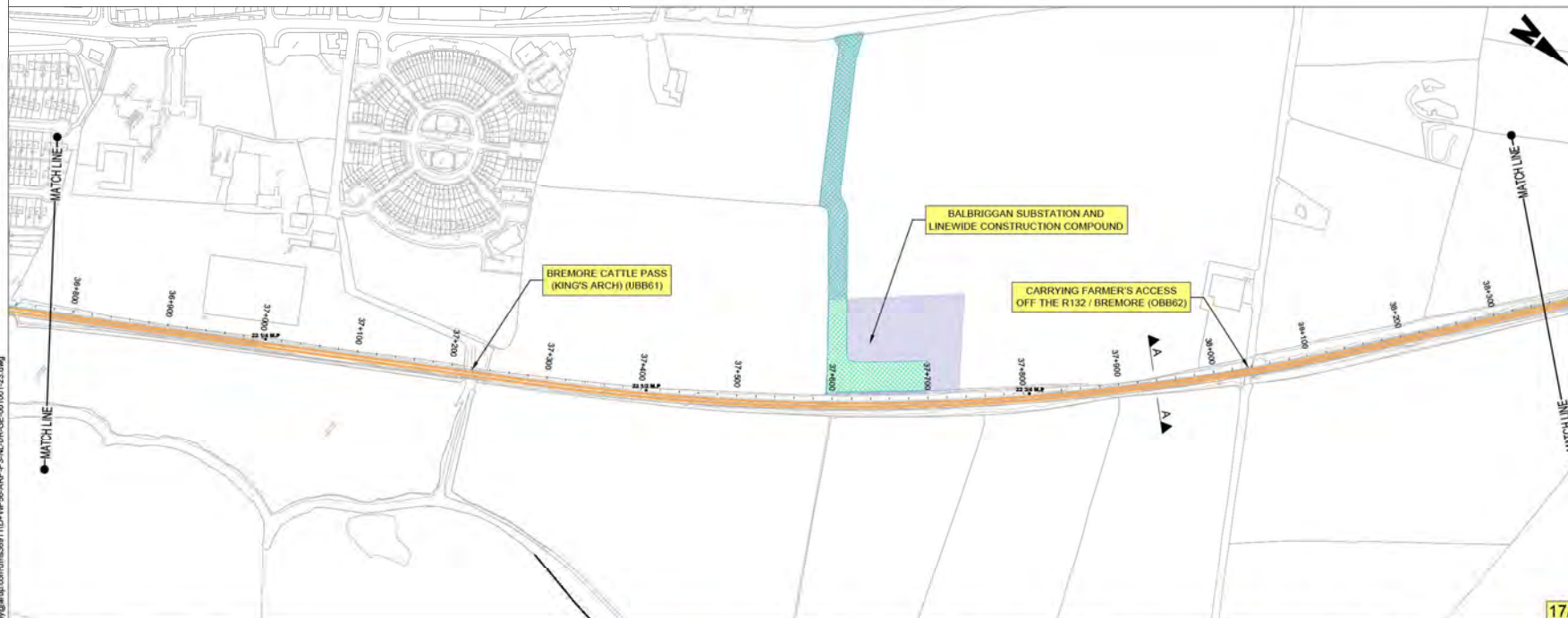
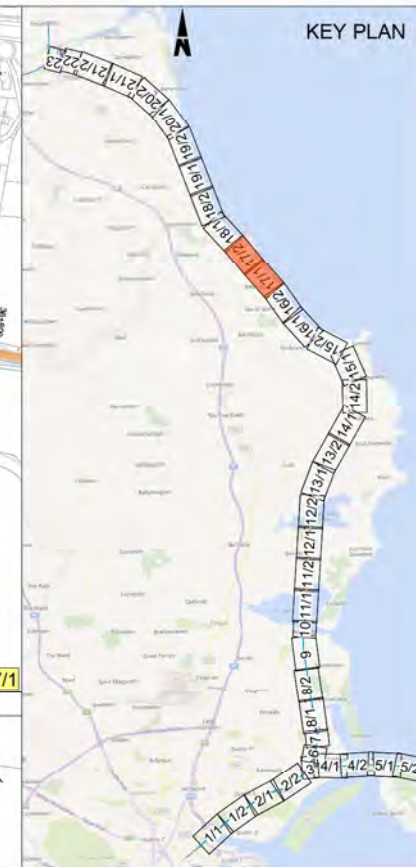
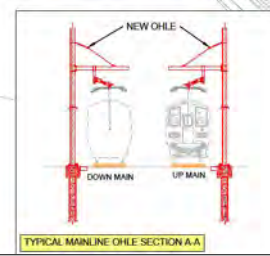
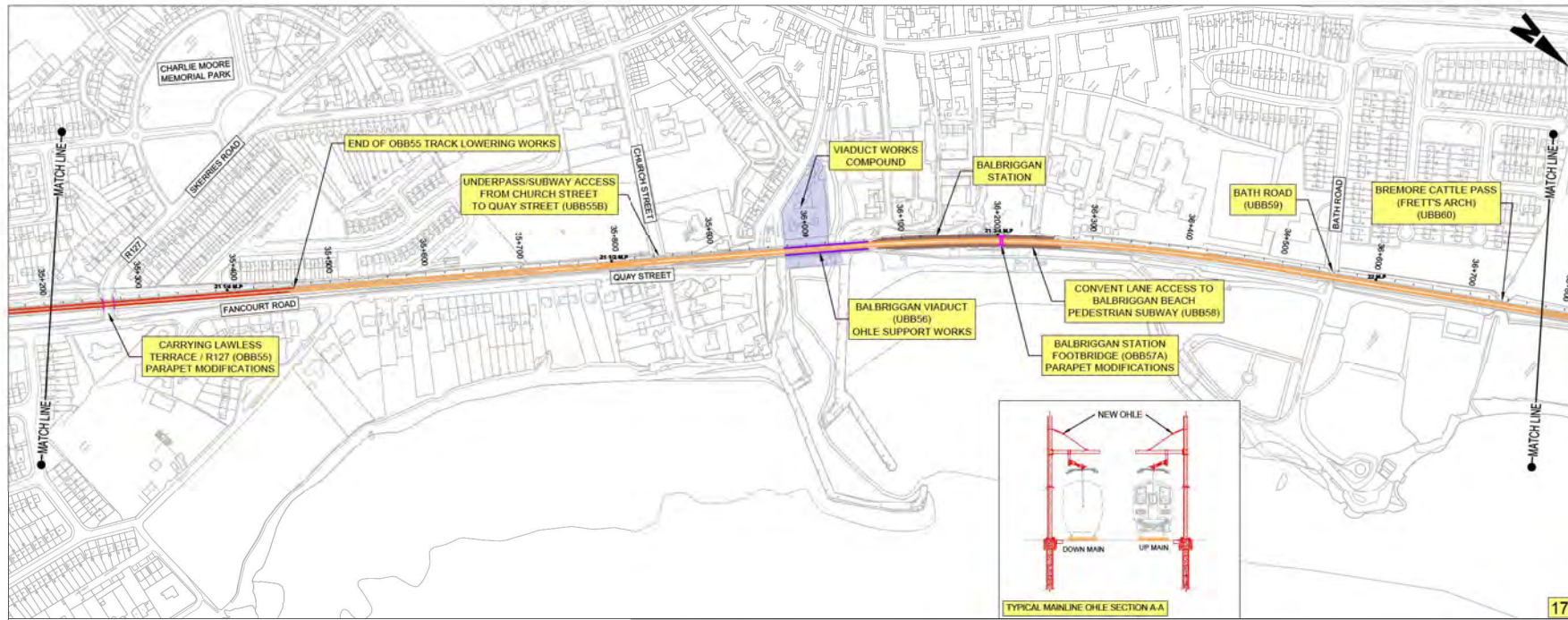
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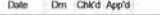





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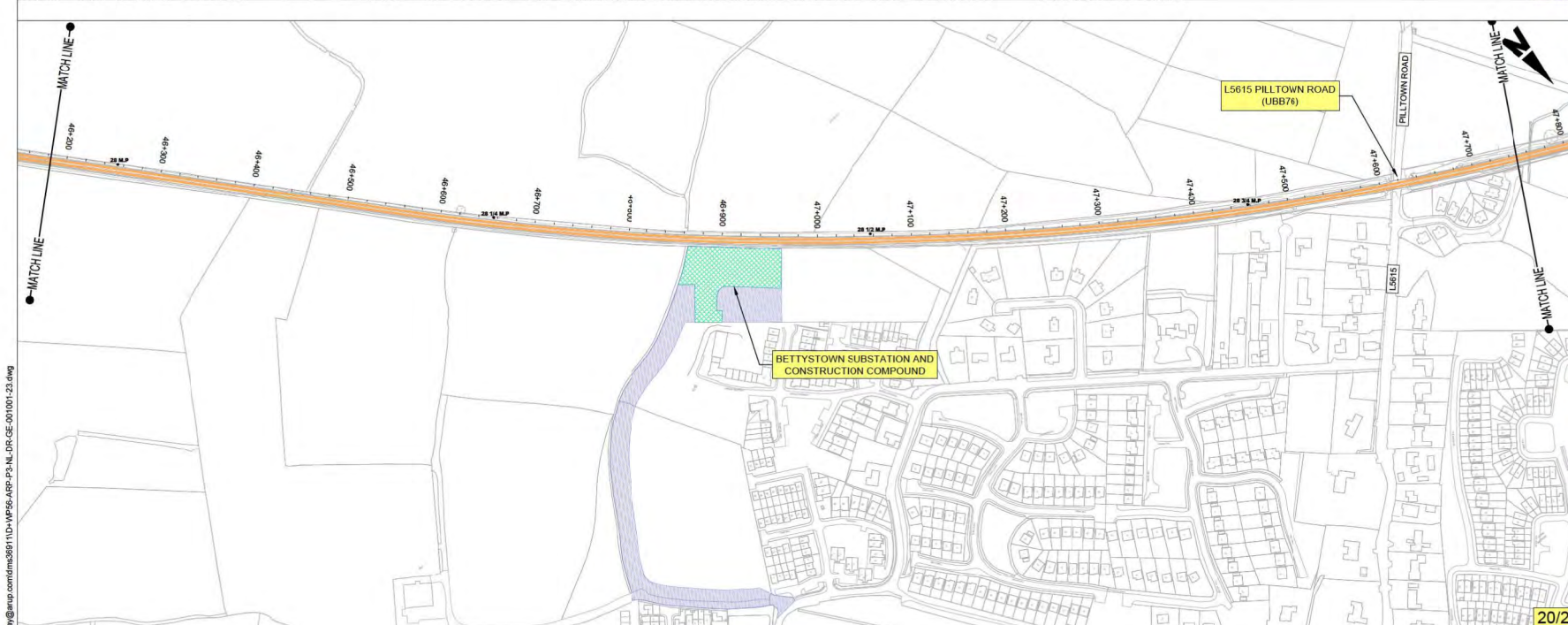
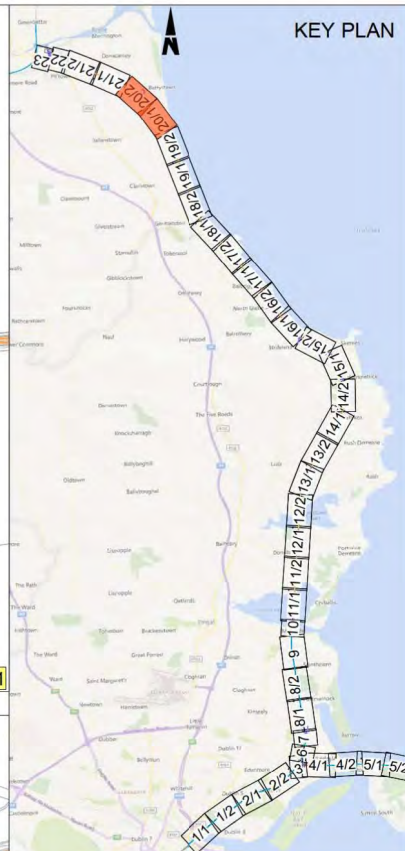
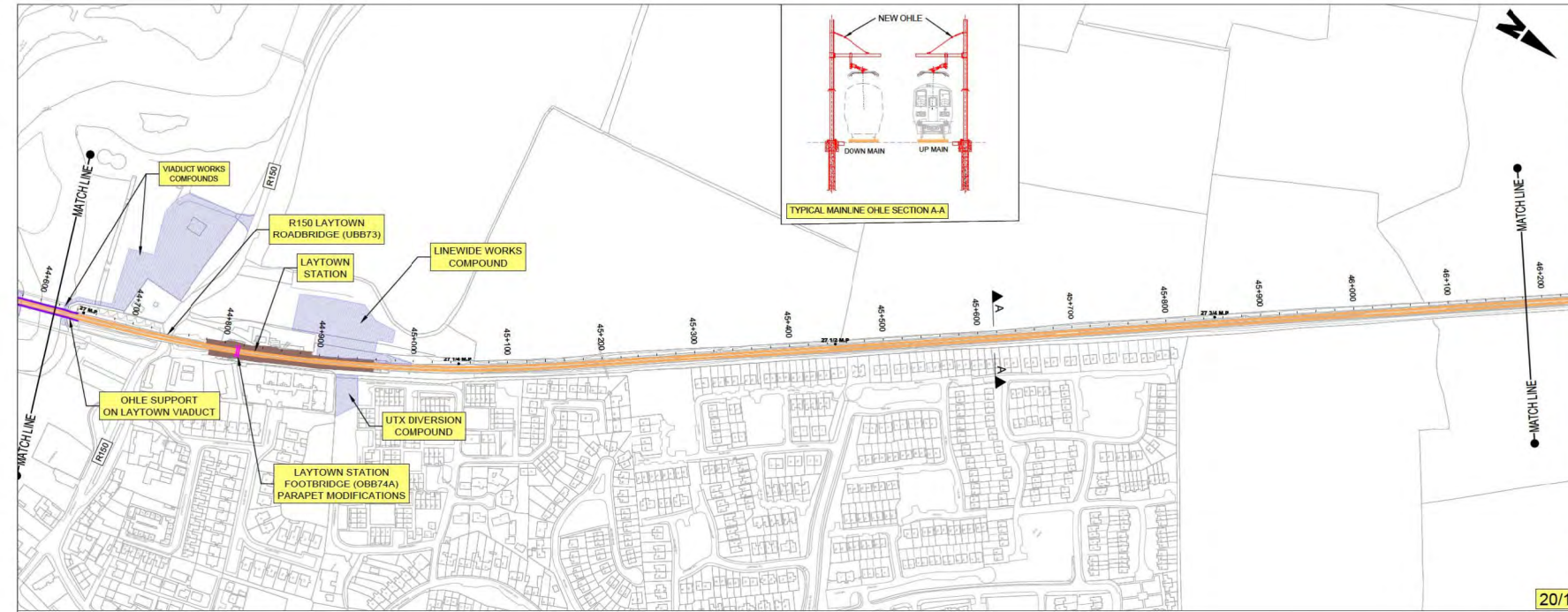
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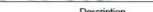



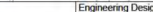
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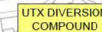
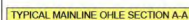
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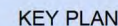


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DROGHEDA



 NEW ELECTRIFICATION AND TRACK MODIFICATION IN EXISTING RAIL CORRIDOR
 EXISTING RAIL CORRIDOR - MINIMAL OR NO WORKS REQUIRED
 EXISTING RAIL TRACK REMOVED
 NEW ELECTRIFICATION IN EXISTING SIDING
 NEW ELECTRIFICATION IN EXISTING RAIL CORRIDOR
 PARAPET MODIFICATIONS
 PROPOSED SUBSTATION
 CONSTRUCTION COMPOUND
 EXISTING STATION


BRIDGES	
OBXX	EXISTING BRIDGE / ROAD OVER RAILWAY CORRIDOR
UBXX	EXISTING BRIDGE / ROAD/RIVER UNDER RAILWAY CORRIDOR

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Project Ireland
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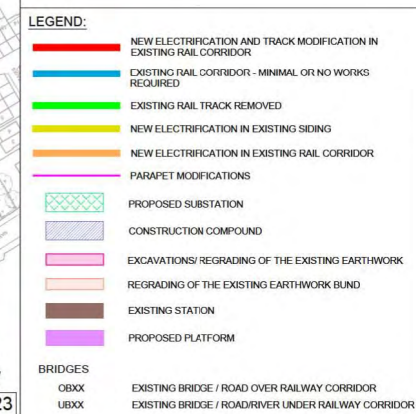
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Project Title **DART+ COASTAL NORTH**

Drawing Title	PREFERRED OPTION - SCHEMATIC LAYOUT DROGHEDA MACBRIDE STATION SOUTH
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Drawing File Name	Sheet Number	Status	Rev
D+WP56-ARP-P3-NI-DR-GF-001022	22 of 23	S3	P02



Project Title	DART+ COASTAL NORTH			
Drawing Title	PREFERRED OPTION - SCHEMATIC LAYOUT DROGHEDA MACBRIDE STATION AND SURROUNDINGS			
Drawing File Name	PIWP56-ARP-P3-NI-LR-GF-001023	Sheet Number	23 of 23	Rev
			S3	P02





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Government
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Tioncharal Éireann
Project Ireland
2040



Iarnród Éireann
Irish Rail

ARUP



DART+
Coastal North

APPENDIX E

DART+ Coastal North, Public Consultation No.2 – Frequently Asked Questions (FAQ's)

How will the local community benefit?

DART+ Coastal North is seeking to increase the frequency and capacity of train services between Drogheda and Dublin City Centre, inclusive of the Howth Branch Line. This can be achieved by introducing electrified, high-capacity DART trains and increasing the frequency of these trains. Delivery of this project will support the existing communities along the railway and support future sustainable development. DART+ Coastal North will serve all existing stations along the route using electrical power that has a lower carbon footprint than the existing diesel trains. The frequency and quality of service will provide a viable transport alternative to communities along the route and will encourage people to switch from private car use. This will assist in Ireland reducing transport related greenhouse gas emissions and help combat climate change. The electrification of the rail line will predominantly follow the existing railway corridor and works will mostly be carried out within the extents of the existing railway corridor.

What are the main objectives of the DART+ Coastal North project?

The main objectives of the DART+ Coastal North project include delivering the infrastructure to enable a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between Drogheda and Dublin City Centre. Further information can be found in the project brochure or the project website.

How long will the public consultation period extend for?

The second non- statutory public consultation, Public Consultation No.2, focussing on the Preferred Option for DART+ Coastal North is scheduled to be held in Spring 2023 (09 May - 23 June).

The first non - statutory public consultation period was held in Spring 2022.

What do you mean by shuttle service between Howth and Howth Junction & Donaghmede? Does this involve a bus-service?

The primary objective of the DART+ Coastal North project is to deliver the infrastructure to enable increased train frequency and capacity between Drogheda and Howth and Dublin City Centre.

To support this objective, the project is proposing infrastructure that would enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised. This proposal has been developed to remove the crossing conflicts currently experienced at Howth Junction & Donaghmede Station which limit the frequency and capacity that can be achieved on the Northern Line. The proposed infrastructure will not prevent a direct service running on the Howth Branch.

Final operational decisions will be made at a later stage and are subject to passenger demand and train frequency on the Northern Line and Howth Branch.

How can I voice my thoughts and opinions in relation to the project?

This consultation is our way of asking you, as potential users of the service or those likely to be affected by its development, for your views on our plans. Your local knowledge will inform the emerging design, help us to improve the scheme and ensure it will be a beneficial for you and the communities the route will serve.

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

You can engage with us via the following means:

Website | www.dartplus.ie

Email | DARTCoastalNorth@irishrail.ie

Phone line | 01 233 4515

Postal Address

Community Liaison Officer

DART+ Coastal North

Iarnród Éireann

Inchicore Works

Inchicore Parade

Dublin 8

D08K6Y3

How does the Railway Order application process work?

The Railway Order application is essentially an application seeking statutory consent (planning permission and acquisition of land) for the DART+ Coastal North railway infrastructure. The project is categorised as a Strategic Infrastructure Development (SID) and Iarnród Éireann applies directly to An Bord Pleanála for permission. The Railway Order application process is set out in the Transport (Railway Infrastructure) Act 2001 as amended by the Strategic Infrastructure Act 2006. Following the proposed two phases of non-statutory public consultation, Iarnród Éireann will submit the Railway Order application. Any person or body may make a submission or observation in writing to An Bord Pleanála in relation to the application. The Railway Order application will include a number of technical documents and project drawings as well as an Environmental Impact Assessment Report and Appropriate Assessment documentation (AA screening / Natura Impact Statement (NIS)). All these documents and drawings together with any feedback/submissions received from the public as part of the statutory public consultation process will be reviewed and considered by An Bord Pleanála before a decision on the application is made. We expect that An Bord Pleanála will conduct an Oral Hearing before a decision is made. At an Oral Hearing the authors of relevant reports and experts will give evidence on the submissions received and will be available for questioning. Further information on making a submission / observation in writing to the Board and Oral Hearing procedures are available from the An Bord Pleanála website.

When will the Railway Order be submitted?

It is currently anticipated that the Railway Order application will be submitted to An Bord Pleanála for approval in Autumn/Winter of 2023, although exact dates for this submission are yet to be confirmed.

How many extra services will be provided by DART+ Coastal North as a result of the infrastructure upgrade?

The scale of increase in services will vary across the extents of DART+ Coastal North and will be directly dependent on passenger demand over time. However, to provide the maximum level of service envisaged by the project, the following increase in services is currently expected to be delivered by the DART+ Coastal North project across the duration of 3-hour peak AM peak period for inbound / southbound services to Dublin City Centre:

- Drogheda to Malahide: 11 to 24 trains
- Malahide to Clongriffin: 20 to 30 trains
- Clongriffin to Howth Junction & Donaghmede: 20 to 36 trains
- Howth Branch: 9 to 18 trains
- Howth Junction & Donaghmede to Connolly: 29 to 36 trains

This overall increase is inclusive of DART, Commuter and Enterprise services. The AM and PM peak periods will be extended from 1 hour to 3 hour periods (i.e. 7-10 AM and 4-7 PM).

It is important to note that the proposed increases in services are not something that will come into effect immediately upon the delivery of the DART+ Coastal North project. There will be different phases of timetable development that will be gradually introduced as the project builds towards that maximum level of service. The operational detail behind each of these phases has not been worked through at this stage in the project planning and development. Any substantial timetable change will go through a Public Consultation process of its own organised by the NTA known as the Timetable Customer Consultation Process where members of the public will have an opportunity to voice their opinions on the proposed changes.

What is the timeline for commencement of construction?

The commencement of construction is contingent on the timely securing of the Railway Order. DART+ Coastal North remains in the later stages of the concept phase; this will be followed by the preliminary design phase and statutory planning approval phases. When the necessary permissions have been granted, the detailed design and procurement phases will be undertaken. Pending further approvals, the contract award for the construction phase is anticipated to be in 2025/26.

Is the construction of any new stations included in the DART+ Coastal North Project?

The delivery of new stations is not included as part of the DART+ Coastal North project and will be progressed by Iarnród Éireann as separate projects. The 'Preferred Option' will not preclude any

future development of any potential new stations, such as that proposed at Bettystown in the East Meath Local Area Plan, along the Northern Line. As a direct result of feedback received during Public Consultation No. 1, the DART+ Coastal North project will now deliver some significant station enhancements at Howth Junction & Donaghmede Station. These significant modification works are proposed to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improve the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades will also take place to the footbridge and connections to the centre platforms, as well as the lighting, signage, and finishes throughout.

How close will the new tracks / OHLE / sub-station be to my house/back wall?

In general, the track layout along the route will remain predominantly unaltered, therefore trains will be no closer to property boundaries than at present. Track modifications are proposed at specific locations such as Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede stations. These required works are currently expected to remain within the extents of the existing railway corridor.

The OHLE infrastructure will follow the alignment of the existing and modified tracks, remaining within the extents of the railway corridor.

The locations of proposed modifications to the existing railway infrastructure, and locations of substations and construction compounds are included in the DART+ Coastal North Brochure and Option Selection - Preferred Option Report and Schematic Layouts available through the project website www.dartplus.ie

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

My house backs on to the existing railway line. What will the impact be for me both during construction and when the service comes into operation?

Construction Phase

Given that the line between Connolly and Howth is already electrified, potential construction impacts (from limited interventions) will likely be minimal. Some site-specific interventions will be required between Howth Junction & Donaghmede and Drogheda stations, associated with increasing the rail capacity. Between Malahide and Drogheda, DART+ Coastal North will involve the erection of overhead line infrastructure to facilitate the running of electric trains. In order to maintain services for our customers during the day, the majority of the construction works along the railway line itself will take place at night. Works outside of the live railway corridor can progress during the day i.e. modifications to bridges, construction of substations, construction compounds. Every effort will be made to avoid, reduce, and/or mitigate negative impacts, however, there is likely to be some disturbance experienced for those near the railway line caused by noise, lighting or erected fencing/hoarding associated with the construction activities.

The types of construction work required at each specific location will determine the type of impact that may affect the area/your property. However, there will be general linear works required, such as:

- Overhead electrification equipment along the full extent of the railway line from Malahide to Drogheda. This will be similar in style to that currently used on the existing DART network.
- Modifications to the existing rail bridges such as modifications to the structure, track lowering or a combination of both.
- Substations will be required at intervals along the rail line to provide power to the network.
- Signalling upgrades and additional signalling will be required as part of the upgraded infrastructure.
- Interfaces with existing utilities, roads, boundary treatments, drainage works, vegetation management and other ancillary works will be required. Prior to the commencement of construction works, a dedicated Community Liaison Officer will be appointed to communicate details of all upcoming works and to oversee the implementation of all required mitigation measures, thereby minimising any potential disruption resulting from the works.

During the construction phase, residents living in close proximity to any planned works will receive ongoing communication in advance of significant works - i.e. piling or ground penetrating surveys.

Operational Phase

During the operational phase, levels of greenhouse gas emissions are likely to reduce significantly, with a positive impact on climate change. The engine noise from an electric train is also significantly quieter than a diesel train. At certain locations, existing bridge parapets will be raised to prevent people from accidentally or otherwise falling onto Overhead Line Equipment. All likely significant effects during both the construction and operational phases will be identified and detailed in the Environmental Impact Assessment Report. This will include a detailed schedule of mitigation measures identified to reduce those potential effects.

This route goes through some of the most biodiverse locations in the country, how do I know that these environments will not be detrimentally impacted by construction?

A specialist Environmental Impact Assessment team has been engaged as part of the overall Multi-Disciplinary Consultant contract. This team will collaborate with the engineering design team during the design development. The environmental team will contribute to assessing the various project options. Prior to the submission of the Railway Order Application, the design development will also be presented to the public at two public consultation events during the project, this is the second of these consultations. This will enable the general public to review and comment on the proposals and provide meaningful feedback on the project, including any environmental issues that they consider important. A comprehensive Environmental Impact Assessment Report will be prepared based on the Preliminary Design. The project will also be subject to Appropriate Assessment consideration, as required under the Habitats Directive, which will assess any potential effects on the conservation objectives of European sites. Therefore, at Railway Order Application stage, the project will have assessed the impact of the project on the environment and will provide avoidance, remedy, and mitigation measures to reduce environmental impacts during the construction and operational phases.

Are upgrades or improvements to car and bike parking facilities at stations being included in the DART+ Coastal North project works? "Additional parking facilities at stations are not included as part of DART+ Coastal North's project scope, which is focussed on the development of infrastructure to facilitate the increase in train frequency on both the Northern and Howth Branch lines. However, separately to the DART+ Coastal North project and outside the railway order, Iarnród Éireann are progressing a number of projects including the Multimodal Interchange Project, DART Station Enhancement Project and, Carparks Programme aimed at developing stations to support future needs.

The Multimodal Interchange Project will assess all stations throughout the network with a view of implementing its strategy at stations where there is need for modifications that will have an impact on multimodal travel and station access. The project will assess a variety of multimodal options at stations including but not limited to the provision of secure bicycle parking and shared mobility services. Iarnród Éireann are working to progress and finalise the Multimodal Interchange Strategy before the end of Q4 2023 with a view to developing an Implementation Plan subject to funding constraints.

Additionally, the DART Station Enhancements Project, currently out to tender for consultant support, will review the future requirements at DART stations and the first phase of this project (design principles guidelines and strategy and implementation plan) is scheduled for completion in Q2 2024. Further stages and roll out of the project will be subject to funding.

When will we know what the future timetables will be?

It is important to note that the DART+ Coastal North Project scope includes the construction of infrastructure to enable a planned increase in service, capacity and frequency on the Northern Line, inclusive of the Howth Branch Line. The development of timetables will progress separately to the DART+ Coastal North Project under the responsibility of Iarnród Éireann Operations Division.

The development of service timetabling is an entirely operational procedure, which will be carried out separately to this DART+ Coastal North Project. Future timetables will be directly determined by future passenger demand.

Every substantial timetable change goes through a public consultation process of its own, organised by the NTA, known as the Timetable Customer Consultation Process. Iarnród Éireann are required by the National Transport Authority (NTA) to publish timetable proposals online for customers to comment on and input to the service proposals. This process is usually live for approximately 3 weeks and takes place a number of months in advance of the proposed timetable changes. Once all inputs are received, they are compiled and reviewed in conjunction with the NTA.

Iarnród Éireann will provide updates on changes to timetables as they are developed over the coming years.

Will this project definitely go ahead?

As well as Iarnród Éireann being committed to this project, it is provided for in the Programme for Government, the National Development Plan and the Transport Strategy for the Greater Dublin Area. The project will go ahead subject to receipt of funding, granting of the Railway Order approval from An Bord Pleanála and approval of the Project Business Case by Government.

Will trees need to be cut down?

Yes, some trees will need to be cut down to accommodate the new overhead line electrical equipment (OHLE) and infrastructure. The Environmental Impact Assessment Report will consider this issue in detail and provide mitigation measures. Trees and branches from trees overreaching into Iarnród Éireann property will need to be cut down where they may come into contact with OHLE and trains. In cases where land is being acquired it is likely that trees within this land will be felled. All tree clearance will be undertaken in accordance with seasonal constraints and where this is not feasible trees will be examined by an ecologist to determine the presence of nesting birds and bats in advance of any felling or clearance. A landscape plan will be developed for the scheme to mitigate impacts.

Will there be an Environmental Impact Assessment Report (EIAR)?

Yes, an EIAR will be prepared for the project which will contain detailed analysis of the potential impacts of the proposed project on the existing environment and will include sufficient information to allow the consenting authority, in this case, An Bord Pleanála, to decide on whether consent should be given to the project.

The EIAR will present a description of the existing environment, an assessment of the potential impacts of the scheme, will set out measures to avoid or reduce any adverse impacts and will identify any remaining residual effects. The impacts will be assessed and presented in line with the environmental topics, and in accordance with Transport (Railway Infrastructure) Act 2001 as amended and the EIA Directive 2014/52/EU.

How/Where will the process of the Public Consultation be communicated?

Information on the DART+ Coastal North project and Public Consultation can be found on www.dartplus.ie. All public consultations are launched in the first instance via press release and further highlighted through in-station posters and a leaflet drop along the project route, briefing of elected representatives, email notification to the project database, targeted digital advertising and advertising in print media and on radio where appropriate. Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone or by written correspondence. For further details see the How to Engage / Contact Us section on www.dartplus.ie.

How will the project interact with Active Travel provisions?

Where practicable, DART+ Coastal North will integrate with cycleways, greenways, and other active travel facilities proposed in existing and draft future transport strategies. The DART+ Project Team is actively engaging with the sponsoring authorities for these projects to ensure due consideration is given to them.

Are any surveys being done on the DART+ Coastal North route?

A wide range of surveys are required as part of the DART+ Coastal North project. These include, but are not limited to, Topographical Surveys, Ecological and other environmental Surveys, Ground Investigation Surveys.

Should you have any queries or concerns regarding these surveys please contact the Community Liaison Officer for this Project Garry Keegan at 01 233 4515 or by email at DARTCoastalNorth@irishrail.ie "

I am a regular commuter between Drogheda and Connolly, what benefits will DART+ Coastal North deliver for me?

The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved electrified network, with increased passenger capacity and enhanced train service between Dublin City Centre and Drogheda. The project will provide the infrastructure to deliver a planned increase in train frequency from 11 to 24 trains, and a planned increase in passenger capacity from 12,500 to 26,600 passengers, for the new 3-hour AM peak period for inbound / southbound services from Drogheda to Dublin City Centre.

DART+ Coastal North will provide a sustainable, electrified and a more reliable train service. The electrification of the Northern Line to Drogheda will support building a sustainable and connected City Region and facilitate the transition to a low carbon and climate resilient society.

How will the Drogheda capacity enhancement be achieved?

DART+ Coastal North is seeking to extend the existing electrified rail network from Malahide to Drogheda as well as increasing rail capacity on the Northern Line between Dublin City Centre and Drogheda MacBride Station, including the Howth Branch. This increased rail capacity can be achieved by implementing an extended electrified railway network with high-capacity DART trains and an increased frequency of train services. In addition, the DART+ Coastal North project requires that some track modifications are implemented, including the provision of turnback facilities at Malahide, Clongriffin and Howth Junction & Donaghmede Stations. These modifications are essential to facilitate the increase in train services by allowing trains to be turned back clear of continuing services and to allow for a higher frequency and a more reliable service.

I am a regular commuter between Howth and Connolly, what benefits will DART+ Coastal North deliver for me?

The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved electrified network, with increased passenger capacity and enhanced train service between Dublin City Centre and Howth. The project will provide the infrastructure to deliver a planned increase in train frequency from 9 to 18 trains, and a planned increase in passenger capacity from 10,800 to 21,600 passengers, for the new 3-hour AM peak period for inbound / southbound services from Howth to Dublin City Centre.

To achieve the peak capacity increases proposed by the DART+ Programme, DART+ Coastal North will seek to implement a reconfiguration of Howth Junction & Donaghmede Station and the removal of existing train crossing conflicts currently experienced at the station. The Preferred Option will enable

the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised. The removal of crossing conflicts at Howth Junction & Donaghmede Station will also result in a more frequent and reliable Howth Branch DART service with frequency of service potentially doubling to deliver a service every ten minutes each way. The scale of increase in services will vary across the extents of DART+ Coastal North and will be directly dependent on passenger demand over time.

Should future passenger demand warrant the operation of a DART Shuttle Service on the Howth Branch Line, passengers travelling to/from Dublin City Centre will be required to interchange between services at Howth Junction and Donaghmede Station where a variety of significant modification works are proposed to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as to improve the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades will also take place to the footbridge and connections to the centre platforms, as well as the lighting, signage, and finishes throughout. The interchange at Howth Junction & Donaghmede station will be facilitated by an increase in Northern Line stopping trains which will minimise wait times for connecting services.

At this stage it is too early to say exactly what wait times would be, when interchanging at Howth Junction & Donaghmede Station, or indeed what the exact journey time from stations on the Howth Branch into Dublin City Centre will be. It is expected that sectional journey times (e.g. Bayside to Howth Stations) along the Howth Branch Line will remain similar to current journey times experienced by DART passengers, and that any adjustment to journey times from the Howth Branch into the city centre will be as a result of the interchange between services at Howth Junction & Donaghmede Station which is expected to be minimal. Changes to journey times will be somewhat offset by increased service frequency resulting in more choice for passengers and reduced wait times to commence DART journeys in the first instance.

It is also important to note that the operation of a DART shuttle service is not something that would come into effect immediately upon the delivery of the DART+ Coastal North project. There will be different phases of timetable development that will be gradually introduced as the project builds towards maximum level of service. The operational detail behind each of these phases has not been worked through at this early stage in the project planning and development. Any substantial timetable change will go through a Public Consultation process of its own organised by the National Transport Authority (NTA) known as the Timetable Customer Consultation Process.

How will increased frequency of DART trains on the Howth Branch affect vehicles and pedestrians/cyclists waiting at the level crossings?

The proposed changes to the Howth Branch will facilitate an increase in both DART service frequency and capacity, along with improvements to the reliability of timetabling and service operation. Operational benefits linked to the infrastructural upgrades will allow for greater operational flexibility and optimisation of services on the Howth Branch.

The current level crossing barrier opening and closing timings have been used to inform a traffic model assessing the effects on vehicles, cyclists, and pedestrians. Detailed assessment of the four existing level crossings along the Howth Branch Line has concluded that these level crossings can continue to operate and provide an appropriate level of cross connectivity and accessibility whilst still meeting the increased DART service frequency requirement. The increased frequency of level crossing closures will result in a greater likelihood of vehicles, pedestrians and cyclists being required to queue at the crossings, however, the traffic modelling and sensitivity analysis has shown that queue lengths are likely to remain within the available queueing road space in all cases. Based on the assessments carried out to date, additional infrastructural interventions at the four level crossings are not considered necessary.

The impacts on traffic surrounding the Howth Branch level crossings have been assessed using LinSig modelling software. LinSig is an industry standard software tool which allows traffic engineers to model traffic signals and their effect on traffic capacities and queuing. This was used to investigate the impacts of the barrier closures on the surrounding road network and further details are included in Annex 3.7 Appendix B of the published material which is available through the project website <https://www.dartplus.ie/en-ie/projects/dart-north>.

The traffic data used in the level crossing assessments was based on surveys carried out in May 2022. These included classified vehicle junction turning count surveys over a 14-hour time period between 0600 and 2000 at the junctions within the study area and also at the level crossings within the study area. The data also included queue length surveys and pedestrian count surveys. The AM peak hour was determined to occur between 0800 and 0900 and the PM peak hour between 1730 and 1830 (refer to Annex A). These are the busiest periods on the road network and the impact of the proposed level crossing closures was therefore assessed for these time periods. Historical traffic data (2018/2019) was available at some of the junctions adjacent to the Kilbarrack and Sutton level crossings and a comparison of the most recent traffic data (2022) and the historic traffic data (2018/2019) has shown that traffic levels observed in the recent surveys have, to a large extent, returned to pre-Covid levels in the study area. The most recent 2022 traffic count data were therefore considered a suitable data source for the assessment.

The effects of any changes to traffic patterns will be fully assessed as part of the Environmental Impact Assessment Report (EIAR) and Traffic Impact Assessment (TIA) and it should also be noted that the EIAR accompanying the Railway Order application will include a comprehensive assessment of potential air quality and climate impacts resulting from the proposed DART+ Coastal North development.

I regularly travel on the Belfast-Dublin Mainline, how will DART+ Coastal North affect journey times and existing rail services?

It is important to note that the DART+ Coastal North Project will deliver rail infrastructure which will enable the proposed increased frequency and capacity of rail services between Drogheda, Howth, and Dublin City Centre. The project will also deliver improved reliability of services on both the Northern and Howth Lines.

Whilst the technical characteristics of the new DART+ Fleet are still being finalised, modelling completed to date suggests expected DART journey times between Drogheda and Dublin Connolly during peak periods would take circa 53 minutes. It is worth noting that the DART+ Coastal North project will deliver the infrastructure to enable the maximum level of service on the Northern Line

and future journey times and/or timetables have yet to be developed and will be sensitive to a variety of influencing factors.

Timetables will be developed based on some DART trains stopping at all stations between Drogheda and Dublin City Centre, and others operating on a skip stopping pattern, similar to the existing stopping pattern on Northern Commuter services. Also, there will be different phases of timetable development that will be gradually introduced as the project builds towards the maximum level of service. The operational detail behind each of these phases will be determined through the timetable decisions at those times. Any substantial timetable change will go through a Public Consultation process of its own organised by the NTA known as the Timetable Customer Consultation Process.

Actual journey times, and timetables, for DART services originating from Drogheda will vary depending on the stopping patterns of DART services implemented in the future, of which there are many variations and options to consider. Timetables will be developed based on some DART trains stopping at all stations between Drogheda and Dublin City Centre, and others operating on a skip stopping pattern.

At certain times, operating an Enterprise service during a peak period may result in an extended journey time for Enterprise services. This does however allow Iarnród Éireann to maximise the Northern Line track capacity, through the implementation of the DART+ Coastal North project. Factors including the output from the ongoing Enterprise Fleet Replacement Project, the improved acceleration and braking provided by the new DART+ Fleet, and the stopping patterns of DART services implemented on the Northern Line will all influence and inform future journey times."

What improvements are proposed to Howth Junction & Donaghmede Station.

As a direct result of feedback received during Public Consultation No. 1 in addition to further project consideration and requirements, significant upgrades to Howth Junction & Donaghmede Station are now proposed to provide a more accessible, user friendly and customer focused station for all rail users. Full details of the proposed plans are shared in the Public Consultation No. 2 project documentation.

The proposed works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improving the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades to the existing footbridge and connections to the centre platforms will also be carried out, as well as upgrades to lighting, signage, and finishes throughout.

Customer experience, accessibility, safety, and security will be central to the development of Howth Junction & Donaghmede Station, and we also acknowledge the feedback we have been given to date about this station experience and its current facilities. These concerns are something the DART+ Coastal North project is taking very seriously, and the project team is looking at what solutions can be provided for in both the long and short term.

Will access to private 3rd party land be required?

Some access to third party lands will be required. Should this be required formal contact will be made with the relevant landowner and permission will be sought for access.

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

Are any works expected to take place outside of the railway corridor boundary?

The majority of proposed works and interventions are expected to be carried out within the existing railway corridor boundary. Some works relating to the provision of new electrical substations, bridge modifications, and construction compounds have been identified as being required outside of the existing boundary.

Details of locations where works are required outside of the existing railway corridor, such as at substations or construction compound locations, can be found in the Public Consultation No.2 published supporting documentation available through the project website www.dartplus.ie.

Relevant documents include:

- DART+ Coastal North Brochure;
- DART+ Coastal North Option Selection - Preferred Option Report; and
- Annex 1 Schematic Layout Drawings.

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

Where will the ESB substations be located?

The preliminary design process for DART+ Coastal North has established that 8 new electrical substations will be required at key locations along the rail line between Malahide and Drogheda to provide power to the network.

The proposed substation locations are identified within the Schematic Layout Drawings in Annex 1 of the PC2 Supporting Documents, available through the project website www.dartplus.ie. The proposed substation locations along the line include:

- Drogheda
- Bettystown
- Gormanston
- Balbriggan
- Skerries North
- Skerries South
- Rush and Lusk

- Donabate

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

Where will the compounds be located through the construction period?

The preliminary design process for DART+ Coastal North has Identified a variety of locations which may be used as construction compounds to allow for the construction of the project. Details of compound locations are included in Annex 1: Schematic Layout Drawings, and in Annex 3.2 Technical Optioneering Report: Electrification of the Northern Line between Malahide and Drogheda, available through the project website www.dartplus.ie

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

Will measures be included to limit Noise Impacts?

A noise assessment report will be undertaken as part of the EIA, and if deemed necessary, the design may include noise mitigation measures, e.g. natural screening, noise fences/barriers and landscaping.

Potential construction impacts (from limited interventions) will likely be minimal given that the line between Connolly and Howth is already electrified. Some site-specific interventions will be required between Howth Junction & Donaghmede and Drogheda stations, associated with increasing the rail capacity. Between Malahide and Drogheda, DART+ Coastal North will involve the erection of overhead line infrastructure to facilitate the running of electric trains. In order to maintain services for our customers during the day, the majority of the construction works along the railway line itself will take place at night. Works outside of the live railway corridor can progress during the day i.e. modifications to bridges, construction of substations, construction compounds. Every effort will be made to avoid, reduce, and/or mitigate negative impacts through the construction and operational phases.

How will Construction be managed and what is the expected duration of the works?

A detailed construction strategy has been prepared, which includes programming, phasing and construction methodologies for the proposed DART+ Coastal North project works and information in respect of the proposed construction strategy is provided in the Public Consultation No.2 supporting documentation, available on the project website at www.dartplus.ie. This strategy has been developed in close consultation with the Environmental Impact Assessment (EIA) team, to ensure that construction impacts are clearly identified and avoided or minimised where possible. A Construction Environmental Management Plan and Traffic Impact Assessment is being prepared to accompany the RO application, setting out the measures to be taken during construction to ensure

against significant effects on the environment. The construction impacts will be comprehensively analysed and assessed in the Environmental Impact Assessment Report and in the Appropriate Assessment documentation, to provide sufficient information for the competent authority to reach its reasoned conclusions on the potential effects of the project on the environment, and on European sites.



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Tioncharal Éireann
Project Ireland
2040



Iarnród Éireann
Irish Rail

ARUP



DART+
Coastal North

APPENDIX F

DART+ Coastal North, Public Consultation No.2 – Public Display Boards



Public Consultation No.2

Preferred Option

What is DART+ Coastal North

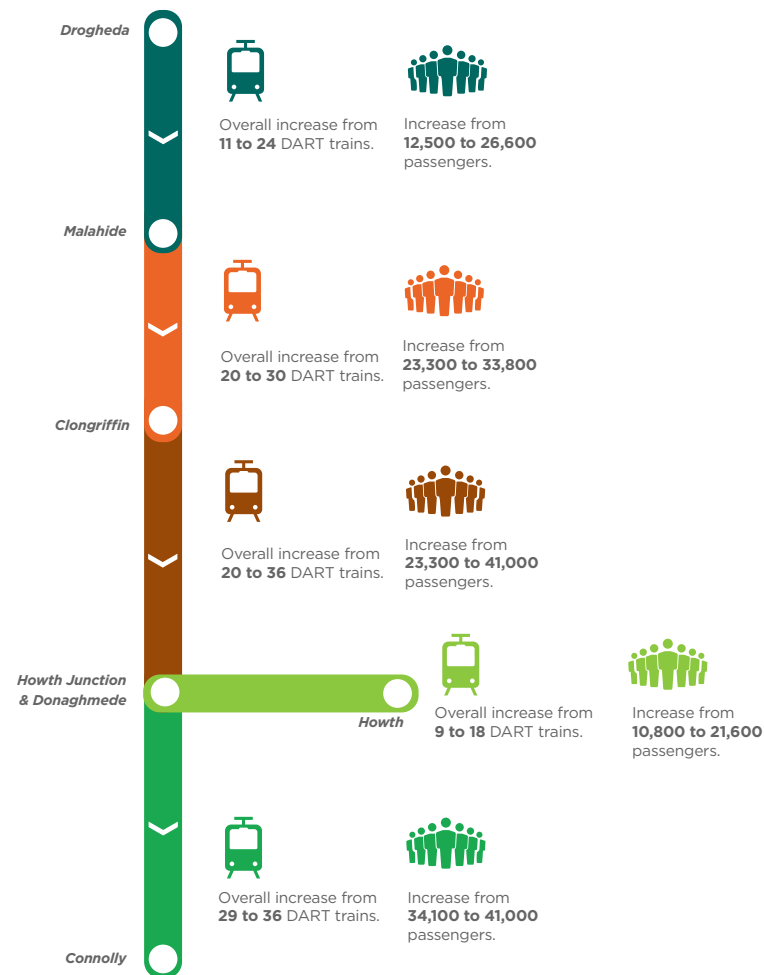
The DART+ Coastal North project, as part of the DART+ Programme, will enable the delivery of an improved and extended electrified rail network, with increased passenger capacity and an enhanced train service between Dublin City Centre and Drogheda, including the Howth Branch Line.

The project will predominantly follow the existing railway corridor and will include the overhead electrification of the existing railway line between Malahide and Drogheda. It will also entail some reconfiguration of the existing track layout and infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin, and Howth Junction & Donaghmede Stations, including the removal of existing crossing conflicts at Howth Junction & Donaghmede Station. Track modifications will enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised.

The DART+ Coastal North project will enable improved performance and increased train frequency in the AM and PM peak travel periods along both the Northern and Howth Branch Lines, providing enhanced capacity from the city centre to both Drogheda and Howth, and all intermediate stations.

The majority of proposed works and interventions are expected to be carried out within the existing railway corridor boundary. Some works relating to the provision of new electrical substations, bridge modifications, and construction compounds may, however, be required outside of the existing boundary.

Delivery of the DART+ Coastal North project will support existing communities along the railway and support future sustainable development. The project will serve all existing stations along the railway corridor between Dublin City Centre and Drogheda MacBride Station, including those located on the Howth Branch, with electric powered trains that have a lower carbon footprint than the existing diesel trains. The frequency and quality of service will provide a viable transport alternative to communities along the route and help encourage people to migrate from private car use. This will assist Ireland in reducing greenhouse gas emissions and help combat climate change.



Planned increase in train frequency and passenger capacity for the 3-hour AM peak period for inbound/southbound services to Dublin City Centre.

Benefits of DART+ Coastal North



Enable an increase in peak passenger capacity and an increase in train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch - facilitating more frequent and more reliable transport to the surrounding communities.



Enhance public transport opportunities for work, education and leisure purposes.



Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.



Help alleviate road congestion.



Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.



Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient and safer public transport network.



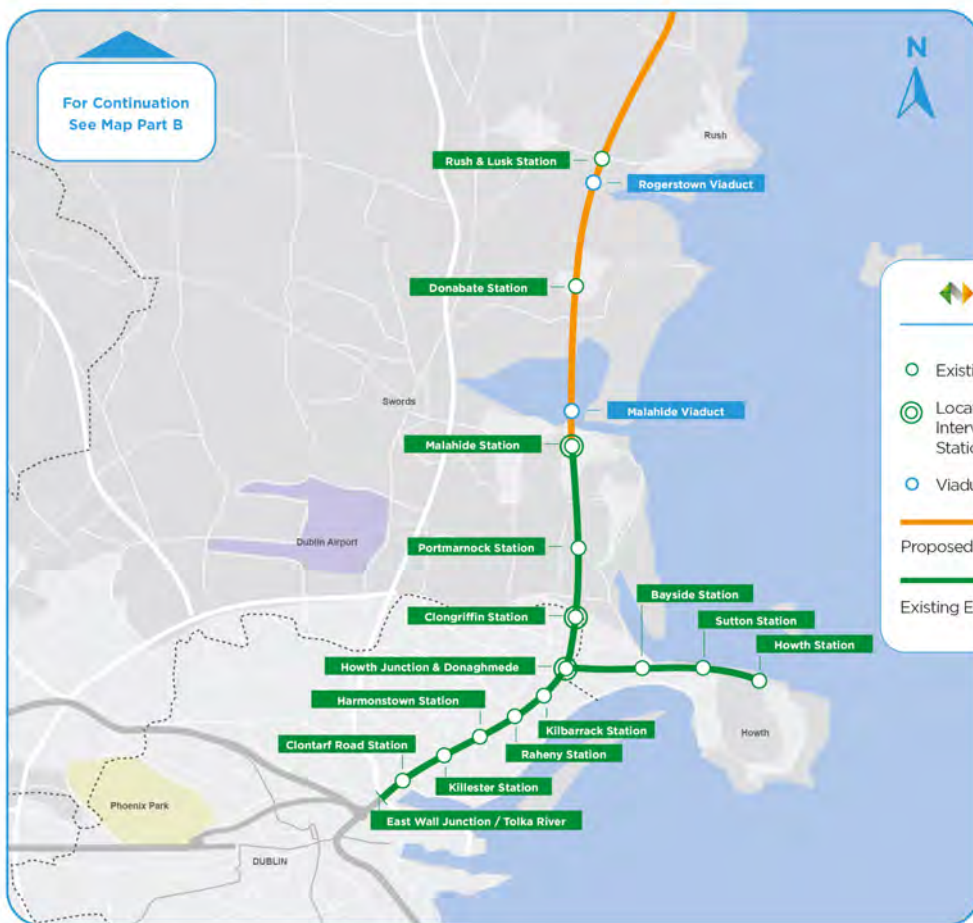
Improve multi-modal transport connectivity through the development of the wider DART+ Programme.



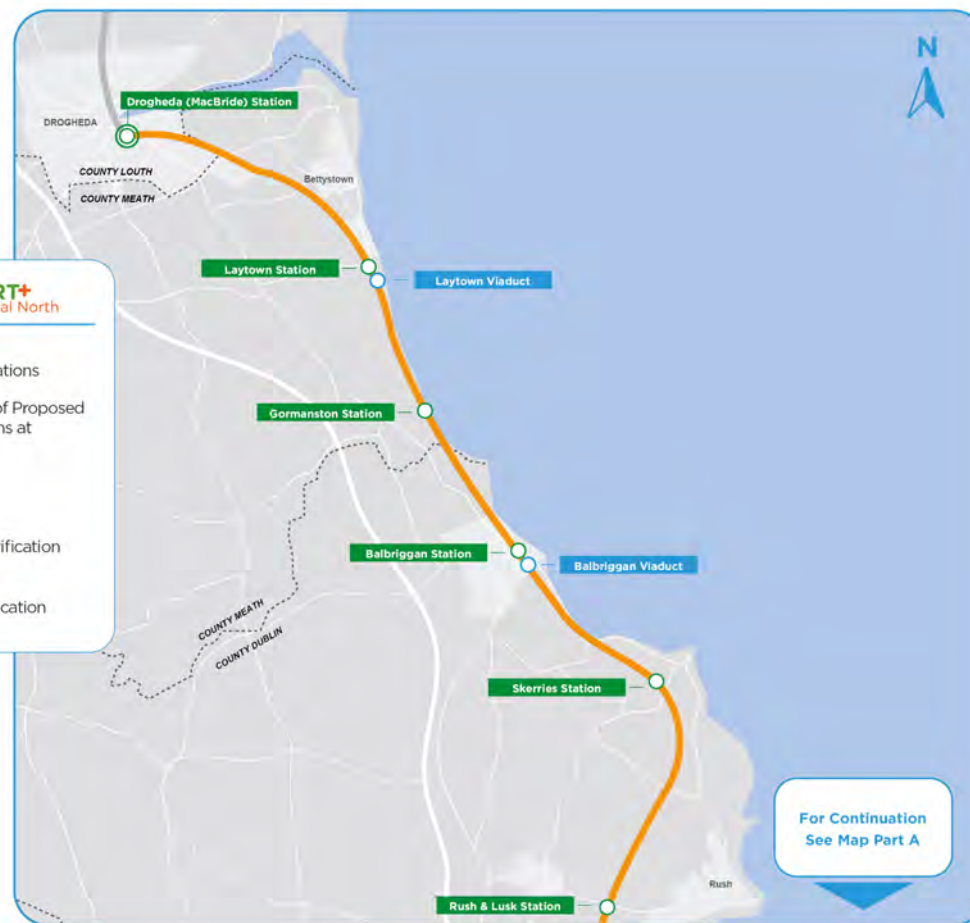
Improve journey time reliability.

DART+ Coastal North Route Map

Map Part A



Map Part B



Key Infrastructural Elements

The key infrastructural elements of the DART+ Coastal North project include:

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km);
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines;
- Construction of a new platform at Drogheda MacBride Station;
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users.
- Undertaking upgrades to existing signalling, telecoms and power supplies to support the planned increase in train services, including the introduction of new electrical substations at the following key locations alongside the railway line;
 - Drogheda • Gormanston • Skerries North • Rush and Lusk
 - Bettystown • Balbriggan • Skerries South • Donabate
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances;
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda;
- Ancillary civils, drainage and power work to cater for the changes.



Preferred Option

The DART+ Coastal North project includes general linear works required along the full length of the project, as well as specific interventions, predominantly at stations, to enable the planned increase in capacity, frequency and improved reliability of DART services on the Northern Line. For the purposes of describing the Preferred Option, the project corridor is divided into the following sections: (i) General Linear Works, (ii) Dublin City Centre to Malahide Station, (iii) Malahide Station to Drogheda Station, and (iv) Howth Junction & Donaghmede Station to Howth Station.

(i) General Linear Works

A range of general linear works are required to modernise and electrify the existing railway line between Malahide and Drogheda as part of DART+ Coastal North including additions of, and upgrades to, signalling and telecommunications infrastructure project wide.

An extension of electrification equipment (OHLE) will be required by DART+ Coastal North as well as the introduction of 8 new substations and localised bridge modifications to facilitate the introduction of OHLE. Modification of some bridge parapets and additional boundary treatments will be required to ensure that the safety of the public is maintained. Temporary construction compounds will be required at various locations along the project.



(ii) Dublin City Centre to Malahide Station.

This section of the railway extends between Malahide Station and Connolly Station. The Preferred Option includes works at Howth Junction & Donaghmede, Clongriffin, and Malahide Stations linked to facilitating the planned increases in capacity and frequency associated with the project. The existing railway within this section is already fitted with OHLE and only some minor changes to signalling and telecommunications upgrades are envisaged between Dublin City Centre and Malahide as part of the DART+ Coastal North project.

Works around Clongriffin Station: The Preferred Option introduces a new loop to serve a platform to the east side of the station. Works include the construction of a retaining structure and modifications will be made to the track alignment to the south of the station to allow trains to access the new platform.



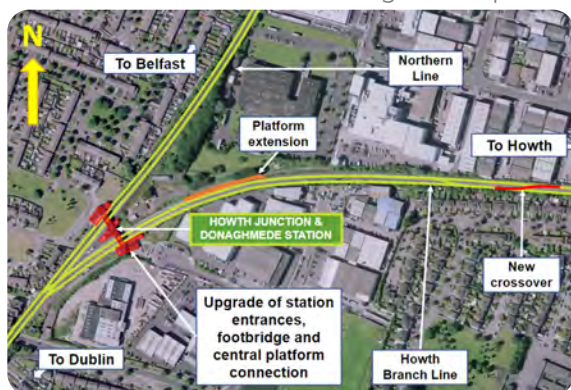
Works around Malahide Station: The Preferred Option introduces a turnback facility constructed on the eastern side of the existing tracks, immediately north of Malahide Station requiring the widening of the railway corridor and the existing embankment on which it is situated.



Fairview Depot Works: There will be localised works at Fairview Depot to modify the facilities to cater for the change in rolling stock and support the new DART+ Fleet. The majority of these works will be carried out within the confines of the depot and include the provision of new cleaning platforms on the sidings to the east side of the mainline, along with associated walkways and services.

Preferred Option

Works around Howth Junction & Donaghmede Station: The Preferred Option includes construction of an extension to the existing Platform 2 and some associated track modifications including a new crossover to the east of the existing station platforms.



The Preferred Option will remove train crossing conflicts at Howth Junction and Donaghmede and enable the operation of both a DART shuttle service on the Howth Branch line as required, and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern, and Howth Branch, lines to be maximised.



Howth Junction & Donaghmede Station Upgrades:

A variety of significant modification works are proposed to Howth Junction and Donaghmede Station to both improve the passenger experience generally, and to develop the station to better serve as an interchange station. The works will involve modifying the entrances to provide a more accessible, user friendly and customer focused station for all rail users, as well as improve the connection to the surrounding areas of Donaghmede and Kilbarrack. Upgrades will also take place to the footbridge and connections to the centre platforms, as well as the lighting, signage, and finishes throughout.



(iii) Malahide Station to Drogheda MacBride Station.

As part of the works, this length of the Northern Line will be electrified with the installation of overhead electrical equipment (OHLE). The line passes through a number of stations including Drogheda MacBride, Laytown, Gormanston, Balbriggan, Skerries, Rush and Lusk, Donabate and Malahide Stations. No works are proposed to these intermediary stations as part the Project,

although turnback facilities are proposed at Drogheda MacBride and Malahide Stations. Eight new electrical substations, placed at regular intervals, will be required in this section to power the extended OHLE. A variety of works are also proposed at existing structures to allow for the installation of OHLE. An existing 'user worked' level crossing, located north of Malahide Estuary, is to be permanently closed as part of the project works.

Works around Drogheda MacBride Station

The Preferred Option includes the provision of a new platform on the Drogheda freight siding. The new platform will extend over the Dublin Road (R132), hence the existing Underbridge UBK1 (Dublin Road N1) requires widening. Works to existing infrastructure at the station include provision of connectivity to and from the new platform and some modifications existing infrastructure to allow for pedestrian movements to and from the new platform. Retaining walls and other civil works are required to accommodate the new platform. Track modification works are necessary to cater for the proposed increase in stabling requirements at Drogheda MacBride Station.



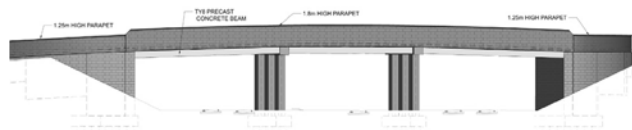
Preferred Option

Drogheda Depot: The Preferred Option includes localised works to provide the infrastructure, maintenance, and servicing facilities necessary for the new DART+ Fleet.

Works to, or surrounding, structures.

Within this section, two bridges have been identified as requiring reconstruction as a result of having insufficient clearance for OHLE. These bridges, and the Preferred Option for each, are as follows:

- Overbridge OBB80/80A/80B (carrying Railway Terrace) - construction of a replacement bridge, in its existing location, to provide sufficient clearance for OHLE installation, which will simultaneously enable an improved road alignment and improved infrastructure for vehicles, cyclists and pedestrians.



- Overbridge OBB81 (Drogheda MacBride Station footbridge) - replacement of the bridge superstructure with a ramped soffit that will provide sufficient clearance for OHLE installation.



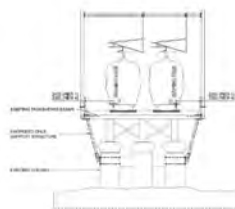
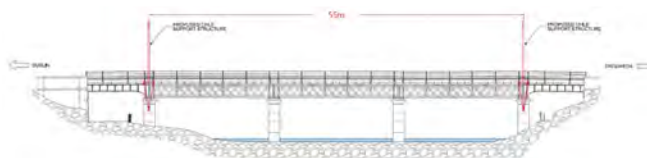
Four bridges along the route were identified within this section as having insufficient clearance for OHLE, the Preferred Option at these structures involves electrical solutions and/or localised track lowering works:

- Overbridge OBB39 - Station Rd (R128);
- Overbridge OBB44 - Whitestone Rd/Featherbed Ln;
- Overbridge OBB55 - Lawless Terrace (R127);
- Overbridge OBB78 - Colpe Rd (L1611)

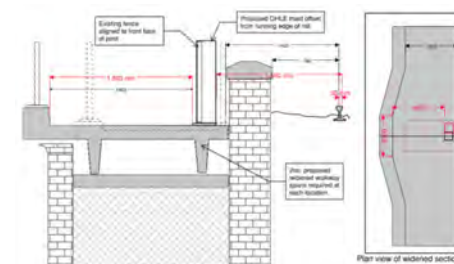
Installation of OHLE structures onto underbridges

Bespoke fixing arrangements for OHLE will be required at some locations where the railway is supported on existing viaducts. The list of impacted viaducts and the Preferred Option for each, is as follows:

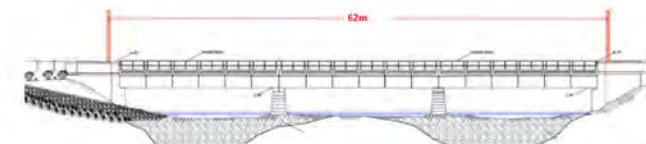
- UBB72 - Laytown Viaduct - Installation of additional supporting steelwork within the structure to provide sufficient strength for a mast to be fixed.



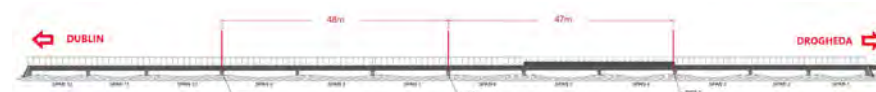
- UBB56 - Balbriggan Viaduct - installation of masts fixed to the existing wall located between the walkway and the track by replacing the top proportion of the existing stonework with a new concrete foundation;



- UBB36 - Rogerstown Viaduct - installation of masts fixed to the existing abutments, either on the face or by replacing the top proportion of the existing stonework with a new concrete foundation;



- UBB30 - Malahide Viaduct - installation of concrete foundations placed beneath the ballast under the tracks which allow a mast to be founded on them approximately at the location of the existing parapet;



Preferred Option

(iv) Howth Junction & Donaghmede Station to Howth Station.

This section of the railway extends between Howth Junction & Donaghmede Station and Howth Station, including Bayside and Sutton Stations, and forms an important part of the Northern Line. As noted previously, the DART+ Coastal North proposals seek to remove train crossing conflicts at Howth Junction and Donaghmede Station as well as enabling the proposed increase in train capacity and frequency on the Northern and Howth Branch Lines servicing Dublin City Centre.

As passenger demand increases on the network in the coming years, the DART+ Coastal North Preferred Option will provide the required infrastructure (at Howth Junction & Donaghmede Station) to enable the operation of both a DART shuttle service on the Howth Branch line and/or a direct through service to/from Dublin City Centre, allowing for the capacity and frequency of DART+ services on both the Northern and Howth Branch Lines to be maximised. This will offer the operational flexibility required to future proof the rail network as well as delivering improved reliability of Howth Branch Line services.

The proposed works along this section of the DART+ Coastal North project include significant upgrades to the station infrastructure and facilities at Howth Junction & Donaghmede, as described earlier, with minimal infrastructure works along the rest of the Howth Branch Line. The Howth Branch Line is already fitted with OHLE and only some minor changes to signalling and telecommunications upgrades are envisaged as part of the DART+ Coastal North project.

Howth Branch Level Crossings.

Four level crossings are located along the Howth Branch line, including:

- Baldoyle Road Level Crossing (XQ001);
- Sutton Level Crossing (XQ002);
- Cosh Level Crossing (XQ003);
- Claremont Level Crossing (XQ004).

The Preferred Option for the Howth Branch level crossings is for the crossings to continue to be controlled by automatic barriers.

Further traffic assessment carried out since Public Consultation No. 1, on the surrounding road network, has considered the effects of increased DART service frequency as well as the operational and timetable reliability improvements associated with the use of a DART shuttle service. It has concluded that the barrier-controlled crossings can continue to provide an appropriate level of connectivity and accessibility across the railway whilst still meeting the increased DART service frequency requirement.

Proposed level crossing closure times have been simulated and it was found that, while the likelihood of vehicles, pedestrians and cyclists, incurring delays at the level crossings will increase due to the increased frequency, of level crossing closures, the predicted wait times are not expected to be significantly different to those experienced today.

Traffic queue lengths at level crossing closures were also assessed and in some scenarios, queues were seen to reduce, while in other scenarios they were seen to increase. Taking account of the varying nature of timetable reliability, the assessment has established that in normal circumstances traffic queues will mostly not extend beyond the next junction. In normal circumstances, queues that build while the level crossings are down will typically clear at the next barrier opening. Another factor that needs to be considered in relation to level crossing closures is that current Government Policy supports the prioritisation of public transport over the use of private cars to help reduce transport related greenhouse gas emissions and help combat climate change.

It is important to note that final level crossing closure times and frequencies are based on the development of future timetables which are yet to be determined. All future timetable changes will be subject to a public consultation process organised by the National Transport Authority (NTA), known as the Timetable Customer Consultation Process. The public will be invited to give their feedback on any future proposals at the appropriate time.

Public Consultation Process

Public participation during the design process is a key element to the delivery of major infrastructure projects, such as DART+ Coastal North.

Public Consultations are our way of asking you, as potential users of the improved services or those likely to be affected by their development, for your views on our plans, whilst the design process is active. Your local knowledge and comments will inform the design and help us improve the project, ensuring it will be a success for you and the communities it will serve.

This project has two non-statutory Public Consultations and one Statutory Consultation Period as part of the Railway Order application process. This current consultation is Public Consultation No. 2 seeking your feedback on the **‘Preferred Option’**.

- Public Consultation No.1 Emerging Preferred Option – **Completed** (Spring 2022)
- Public Consultation No.2 Preferred Option (Spring 2023) – **Current Stage**
- Statutory Consultation Period as part of the Railway Order application process (Autumn/Winter 2023*)

*Note: Dates to be confirmed

Iarnród Éireann invites you to engage in the design process and all feedback is welcome. Your feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone line or by written correspondence.

If your property is likely to be directly affected by the works you should already have heard from us. Our Community Liaison Officer will be available throughout the process to ensure you are regularly updated on the current proposals and your views are taken into consideration as we progress the design.

For further details on how to submit your feedback please see the **‘How to Engage’** section or visit our website www.dartplus.ie.

Next Steps

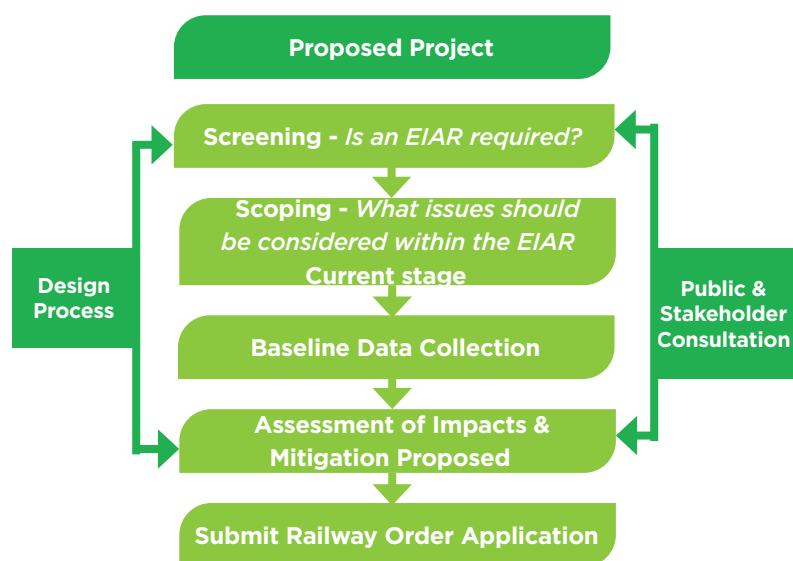
Further design development and option selection

The option selection and design development that has been undertaken has led to the development of the Preferred Option that is the focus of this public consultation stage. Once the public consultation process is complete all feedback and submissions received will be reviewed and assessed as part of the finalisation of the design development. Following a full appraisal of the feedback, a Consultation Findings Report will be prepared and published to document this process. All information gathered by the project team will be used to inform the design development of the project which will be the subject of the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA), as part of the Railway Order application that will be submitted to An Bord Pleanála.

Railway Order

The application to An Bord Pleanála for a Railway Order is broadly similar to the planning process with which most people are familiar. The Railway Order application process is set out in the Transport (Railway Infrastructure) Act 2001 (as amended) and the application will be made to An Bord Pleanála. The Environmental Impact Assessment Report (EIAR) will detail the nature and extent of the proposed Project and identify and describe the impacts on the environment. It will also detail measures which will be taken to avoid, reduce and/or monitor these impacts. Following the submission of the Railway Order application to An Bord Pleanála, the public are invited through public notices to make submissions which will be duly considered by An Bord Pleanála as part of the decision-making process.

We expect that An Bord Pleanála will conduct an oral hearing, to allow the public to provide further participation in the decision-making process for this project. At an oral hearing the Iarnród Éireann project team will provide responses to submissions and will be available for questioning. Any person or body may make a submission or observation in writing to the Board in relation to the Railway Order application including the EIAR and the Compulsory Purchase land requirements.



The EIA Process leading to submission of Railway Order to An Bord Pleanála

How to Engage

The project team would like to hear your views on the ‘Preferred Option’ to inform us in the development of the project.

We welcome your feedback on any issues or information, related to the project, which you think should be considered by the project team in progressing the ‘Preferred Option’.

All project information, including maps and reports are available to view on the project website.

The DART+ Coastal North project team are available to answer any of your questions and to assist you regarding the project via the following means:

Website | www.dartplus.ie

Email | DARTCoastalNorth@irishrail.ie

Phone line | (01) 233 4515

Postal Address

If you would prefer to write to us, please send any correspondence to:

Community Liaison Officer

DART+ Coastal North

Iarnród Éireann

Inchicore Works

Inchicore Parade

Dublin 8

D08K6Y3

All feedback for Public Consultation No. 2 should be returned to the project team by **16th June 2023.**





Riadas
na hÉireann
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Tionascadh Éireann
Project Ireland
2040



Iarnród Éireann
Irish Rail

ARUP



DART+
Coastal North

APPENDIX G

DART+ Coastal North, Public Consultation No.2 – Public Webinar



Public Consultation No.2

Public Webinar Briefing

30th May 2023 (19:00hrs.)

Public Consultation No.2 – Public Briefing.

- Public Consultation No.2 has commenced on DART+ Coastal North:
 - PC No.2 commenced on **09th May 2023**.
- Consultation will continue for 6 weeks and will conclude on **23rd June 2023**.
- The purpose of the consultation is to seek feedback on the '**Preferred Option**' for DART+ Coastal North.
- The intention of this briefing is to take you, members of the public, through the key elements of the project that are being presented at PC No.2:
 - Project Overview / Update.
 - PC1 Feedback and Design Development.
 - Presentation of Preferred Option.
- Feedback and Questions (by area, north to south).



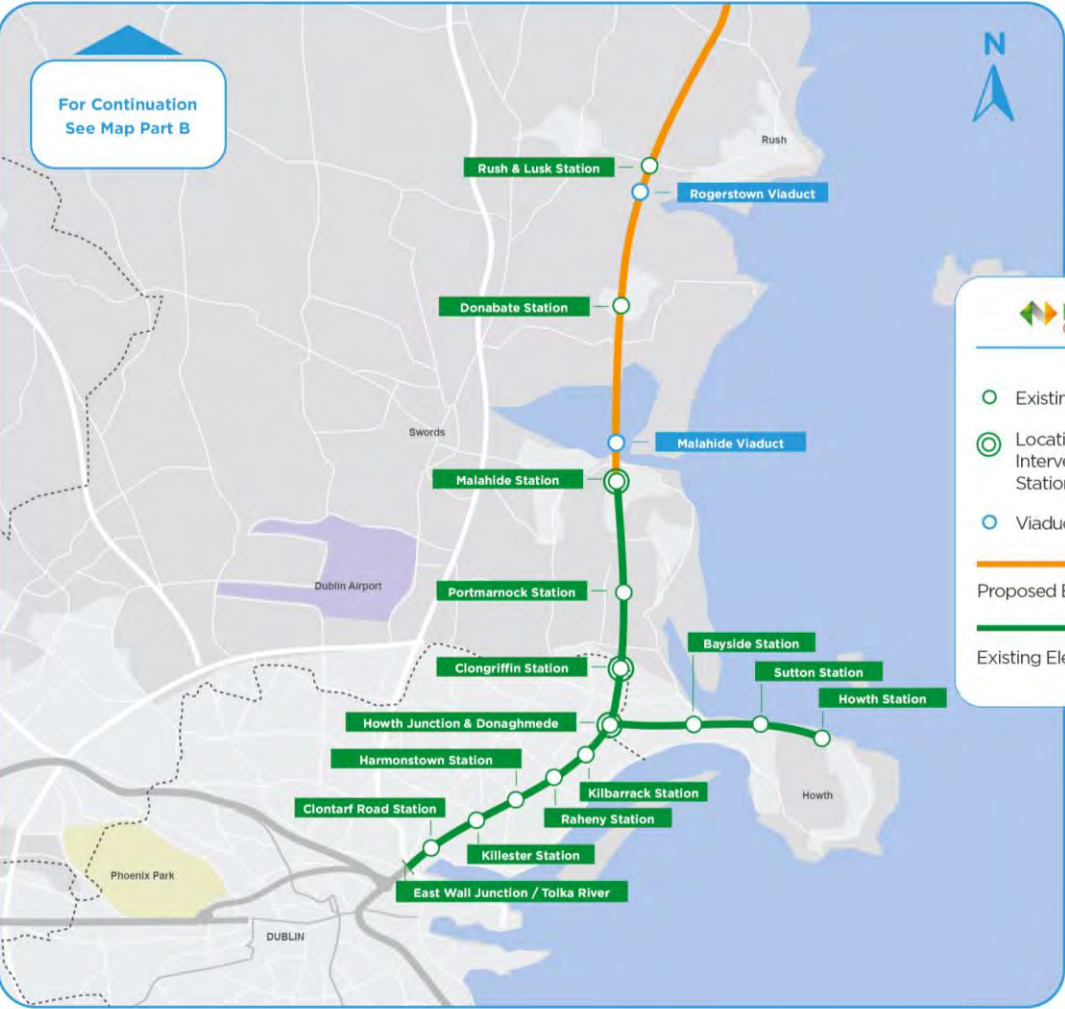
DART+ Coastal North

Project Overview & Update

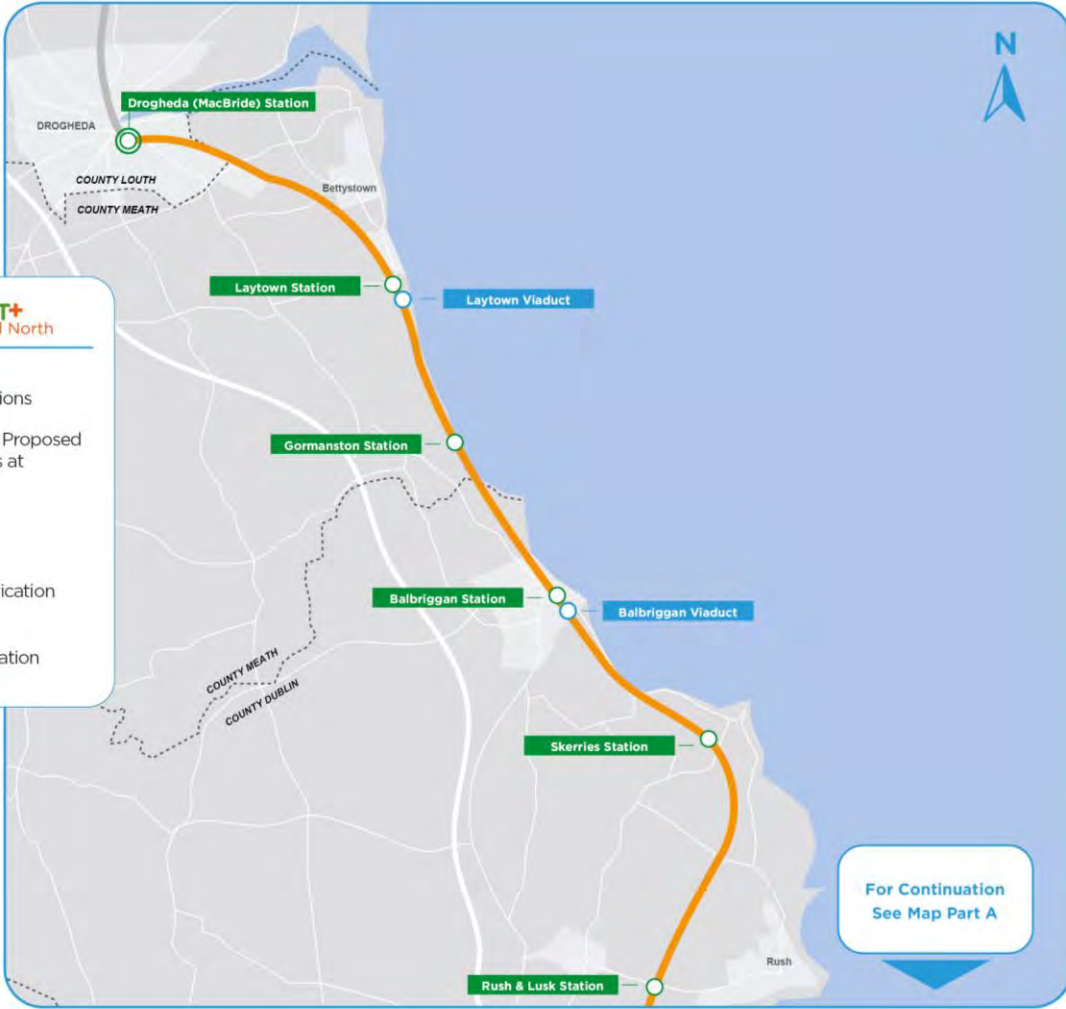


DART+ Coastal North Route Map

Map Part A



Map Part B



Project Update

- PC1 completed in Spring 2022
- Feedback has been considered in the further development of the design.
- Options selection process now complete – **Preferred Option** identified.
- PC2 documentation prepared and published on www.dartplus.ie.
- In person events held in Sutton, Malahide and Drogheda.
- Preliminary Design nearing completion.
- Work on RO documentation is in progress.



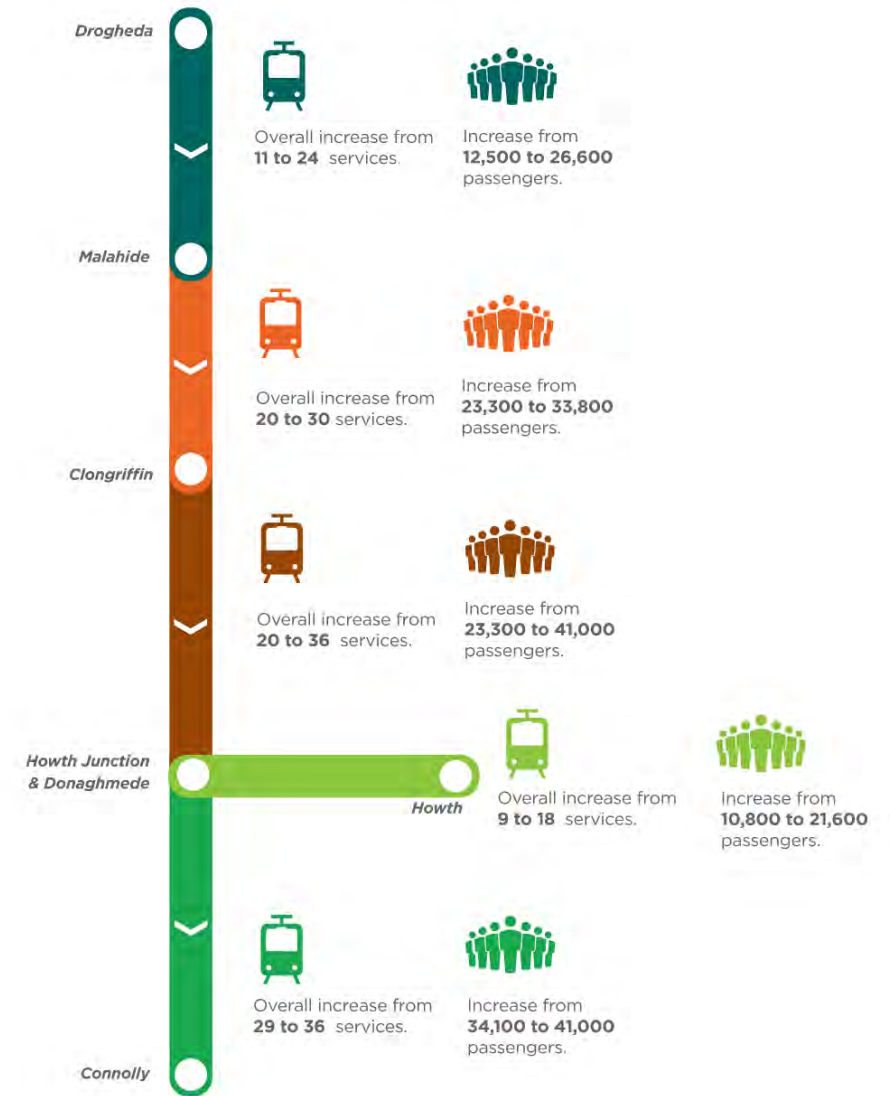
*Note: Dates to be confirmed.

DART+ Coastal North

Project Specific Objectives

- To deliver a higher frequency, higher capacity, reliable, electrified route to enable an increased DART service frequency between Drogheda and Dublin City Centre.
- To deliver solutions which improve the passenger experience where passenger infrastructure interventions are required to meet the Train Service Specification (i.e. 'desired' level of service).
- To deliver a sustainable, low carbon and climate resilient design solution including making use of existing infrastructure where possible with targeted improvement works.
- To identify cost-effective solutions from a capital, operations, and maintenance perspective.
- To minimise adverse impacts on the natural and built environment associated with construction, operation and maintenance of the project.
- To minimise adverse impacts on existing rail services, road users and landowners associated with the construction, operation and maintenance of the project.
- To provide efficient and cost-effective integration of systems with the other DART+ projects.

Planned increase in train frequency and passenger capacity for the 3-hour AM peak period for inbound/southbound services to Dublin City Centre.



Note: Overall increases are inclusive of DART, Commuter and Enterprise services.

DART+ Coastal North - Key Infrastructural Elements

- Extension of existing 1500V DC electrification, which currently terminates at Malahide, as far as Drogheda MacBride Station (approximately 37km).
- Reconfiguration of the existing track layout and associated infrastructure in the vicinity of Drogheda MacBride, Malahide, Clongriffin and Howth Junction & Donaghmede Stations, as well as the provision of sections of additional track, station turnback facilities, and infrastructure that will enable the operation of both a DART shuttle service on the Howth Branch, at such time that future passenger demand warrants its use, and/or the continued operation of a direct through service to/from Dublin City Centre. All interventions are designed to allow for improved operational flexibility and maximised passenger capacity and DART frequency on both the Northern and Howth Branch Lines.
- Construction of a new platform at Drogheda MacBride Station.
- Significant upgrades to Howth Junction & Donaghmede Station now proposed to provide a more accessible, user friendly and customer focused station for all rail users.
- Undertaking upgrades to existing signalling, telecoms and power supplies to support the planned increase in train services, including the introduction of new electrical substations at key locations alongside the railway line:
 - Drogheda • Gormanston • Skerries North • Rush & Lusk
 - Bettystown • Balbriggan • Skerries South • Donabate
- Undertaking bridge improvements/modifications arising from capacity enhancements, track reconfigurations and/or electrical clearances to achieve necessary clearances.
- Modifications to existing depots at Drogheda and Fairview to support the new train fleet, including the provision of additional train stabling at Drogheda.
- Ancillary civils, drainage and power work to cater for the changes.

DART+ Coastal North - Benefits

- Increase peak passenger capacity and increased train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch – facilitating frequent and reliable transport to the surrounding communities.
- Enhance public transport opportunities for work, education and leisure purposes.
- Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.
- Help alleviate road congestion.
- Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.
- Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient and safer public transport network.
- Improve multi-modal transport connectivity through the development of the wider DART+ Programme.
- Improve journey time reliability.



DART+ Coastal North

PC1 Feedback and Design Development



Feedback from Public Consultation No.1

- Feedback from PC1 raised a number of key issues for further consideration, including:
 - Suitability of Howth Junction and Donaghmede to function as an interchange station:
 - Station facilities.
 - Safety & security of passengers.
 - Concerns relating to the potential operation of a DART shuttle on the Howth Branch:
 - Implications of interchange at Howth Junction & Donaghmede Station.
 - Concerns in respect of direct services to Dublin City Centre.
 - Concerns relating to the Howth Branch level crossings:
 - Perceived increased delays and frequency of delays for road users.
- This feedback has helped shape the ongoing project design development and has led to further assessment and consideration of some major project elements, in particular:
 - The inclusion of, within the project scope, significant upgrades to **Howth Junction & Donaghmede Station** to provide a more accessible, user friendly and customer focused station for all rail users.
 - Clarification in PC2 documentation that the **proposed infrastructure will not prevent a direct service** running on the Howth Branch and final operational decisions will be made at a later stage, subject to passenger demand and train frequency on the Northern Line and Howth Branch.
 - Further surveys and assessments undertaken in relation to transport modelling for the **level crossings on the Howth Branch line** confirming they are to **remain operational**.



Design Development - Since PC No.1

- Design development since Public Consultation No. 1 has ensured it is now possible to identify:
 - Substation locations.
 - Construction compound locations.
- Structural assessments have identified bridges/structures requiring intervention to allow for the installation of OHLE as part of the overall extension of electrification to Drogheda MacBride Station.

* Further information available via www.DARTplus.ie



DART+ Coastal North Preferred Option



DART+ Coastal North – Option Selection Process

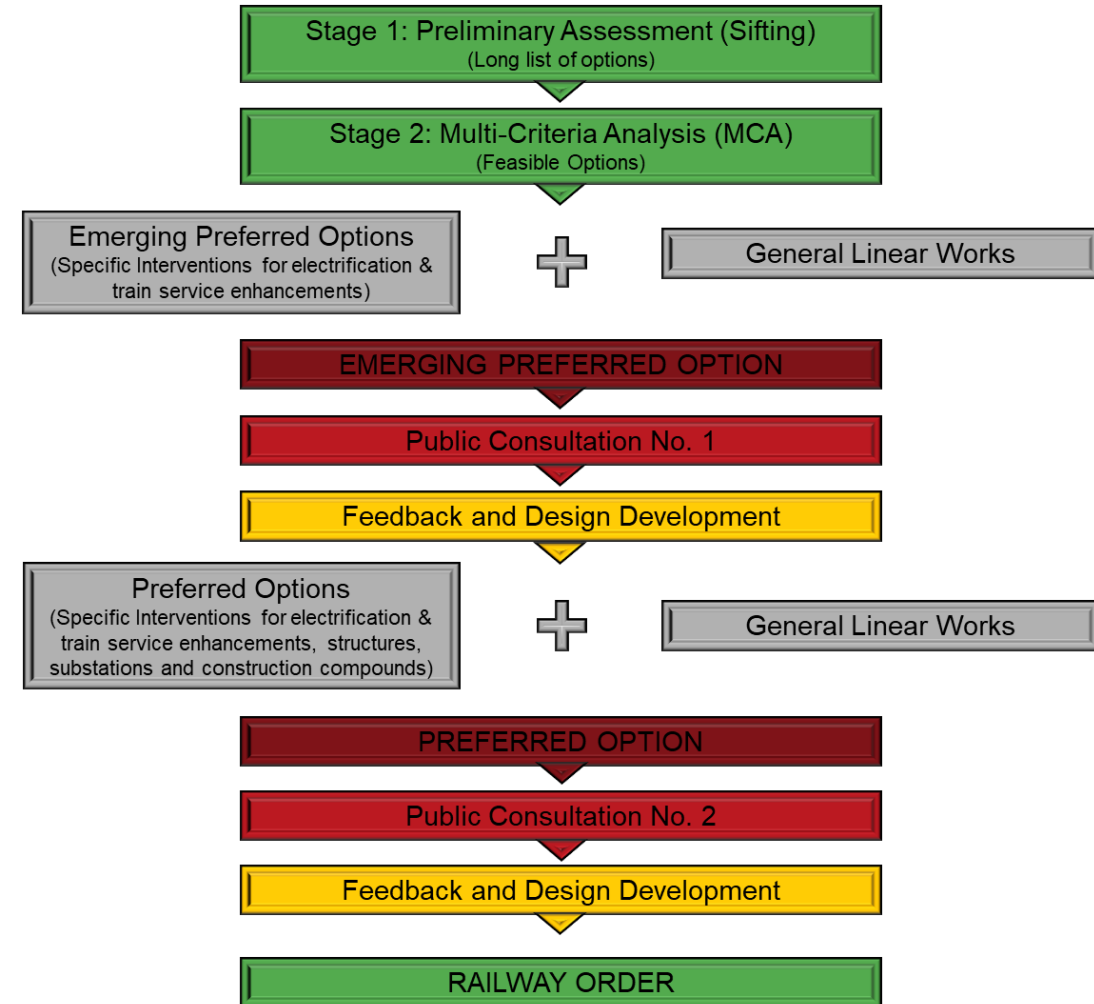
Assessment Methodology

Stage 1 – Preliminary Assessment (sifting process)

- Assessment of a long list of options against engineering, economic and environmental criteria.
- Evaluation of the ‘feasibility’ of each option to meet the project objectives / requirements.
- Options filtered to a shorter list of feasible options brought forward to Stage 2.

Stage 2 – The Multi-Criteria Analysis (MCA)

- Detailed, multidisciplinary, comparative analysis of the feasible options from Stage 1 assessment.
- This structured process evaluates a number of different options and is based on ‘Guidelines on a Common Appraisal Framework for Transport Projects and Programmes’ (CAF) published by the Department of Transport March 2016 (updated October 2021).
 - Options have been assessed against the six appraisal criteria - economy, safety, environment, accessibility and social inclusion, integration and physical activity.



Preferred Option

- General Linear Works, including:
 - Electrification.
 - Electrical substations.
 - Signalling.
- Malahide to Drogheda, including works around:
 - Drogheda MacBride Station.
 - Drogheda Depot.
 - Malahide Station.
 - Malahide, Balbriggan, Rogerstown and Laytown Viaducts.
 - Interventions at overbridges to provide OHLE clearances.
 - User Worked Level Crossing, XB001.
- Dublin City to Malahide, including works around:
 - Clongriffin Station.
 - Howth Junction & Donaghmede Station.
 - Fairview Depot.



General Linear Works

Electrification Works.

- Electrification of the existing railway line from Malahide to Drogheda, including:
 - Extension of the overhead line equipment (OHLE) from Malahide (current extent of electrification) to Drogheda.
 - Eight new electrical substations at intervals along the railway line between Malahide and Drogheda:
 - The substations are located at:
 - Drogheda
 - Bettystown
 - Gormanston
 - Balbriggan
 - Skerries North
 - Skerries South
 - Rush and Lusk
 - Donabate



Example of a typical substation

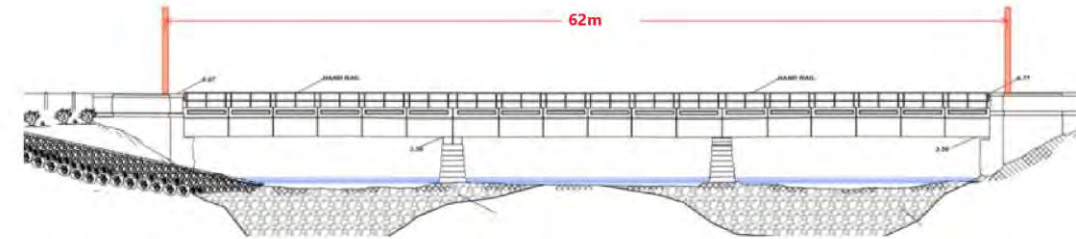


Typical Signalling Infrastructure

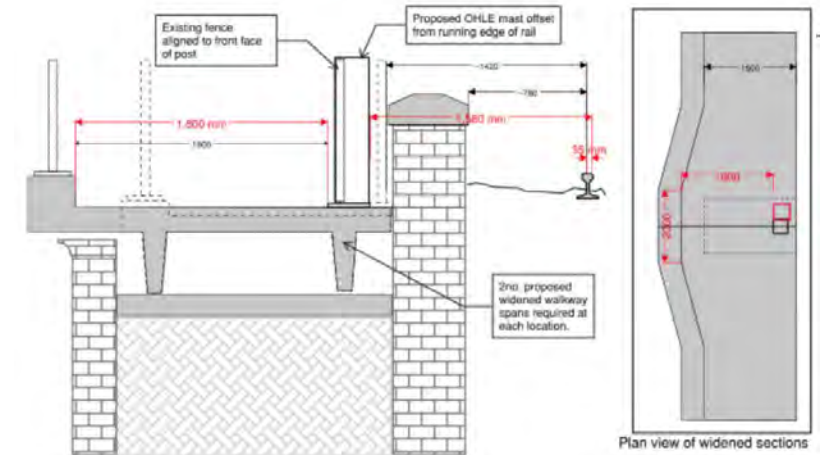


General Linear Works (continued)

- Modifications to a small number of bridges to achieve the appropriate clearances for OHLE.
- Localised modifications to allow fixing of OHLE to underbridges/viaducts at:
 - Malahide Viaduct.
 - Rogerstown Viaduct.
 - Balbriggan Viaduct.
 - Laytown Viaduct.
- Modifications to existing overbridge parapets between Malahide and Drogheda.
- Interfaces with existing utilities (UTX crossings & utility diversions), boundary treatments (including new retaining walls), drainage works, vegetation management and other ancillary works.
- Closure of user worked level crossing (XB001) (East of Donabate).
- Temporary compounds along the route.



OHLE Supporting Posts at Rogerstown Viaduct



Preferred Option for Balbriggan Viaduct

General Linear Works (Continued)

Signalling & Telecommunications

- Upgrade of the existing signalling system & replacement of some legacy components
- Upgrades to telecommunications systems route wide



Typical Equipment Cabins (SEB & TER)

Works around Drogheda MacBride Station

Turnback Infrastructure

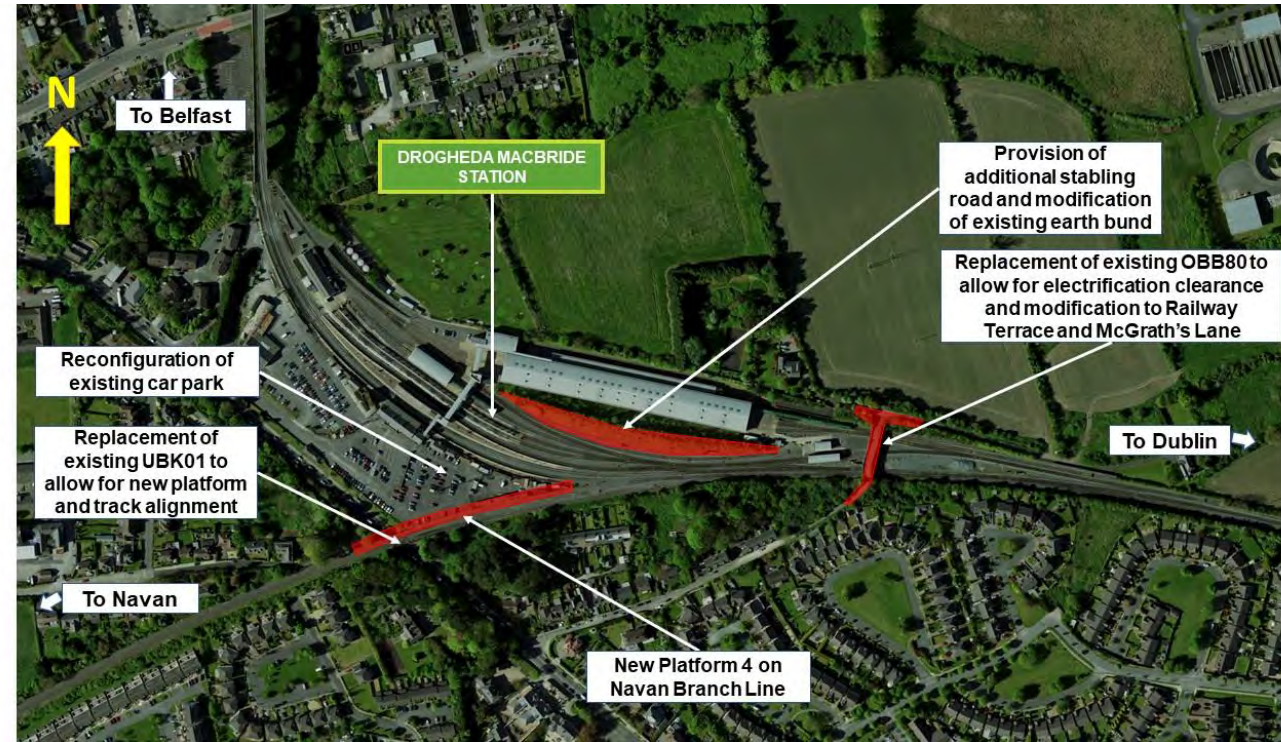
- Provision of turnback to allow a greater number of services to turn back at Drogheda.
- New siding on Drogheda freight siding to turnback services:
 - New platform extending over Dublin Road Bridge (UBK01).
- New stabling track/siding, located adjacent to the existing landscape bund.

Drogheda Depot

- Localised modifications to the depot facilities to cater for changes in rolling stock.

Canopy Modifications

- Minor modifications to the Drogheda MacBride Station canopy to accommodate OHLE.

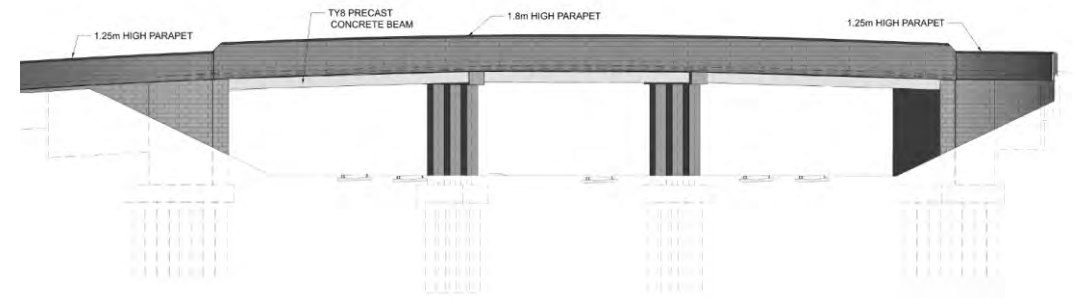


Works around Drogheda MacBride Station

- **UBK01 – Dublin Road Bridge**
 - Widening of the bridge to facilitate a shift of the tracks to the south and provision of a new platform on the northern side of the tracks above the bridge.
- **Overbridge OBB81 (Drogheda Station Footbridge)**
 - Replacement of the bridge superstructure with a profiled soffit to provide sufficient clearance for OHLE.
- **Overbridge OBB80/80A/80B (East of Drogheda MacBride Station)**
 - Removal of the existing bridge structure and construction of a new bridge in its place – like for like replacement.



Works to Drogheda MacBride Station Footbridge



Works to OBB080

Works at Malahide

- Works comprise track modifications to facilitate the increase in train services, by allowing trains to be turned back clear of continuing services on separate tracks.
- A new turnback will be located immediately north of Malahide Station between Strand Road Underbridge and Malahide Viaduct.



Works at Clongriffin

- Track modifications to facilitate the increase in train services, allowing trains to be turned back, clear of continuing services on separate tracks.
- New loop to serve a platform to the east side of the station, within the existing railway corridor.



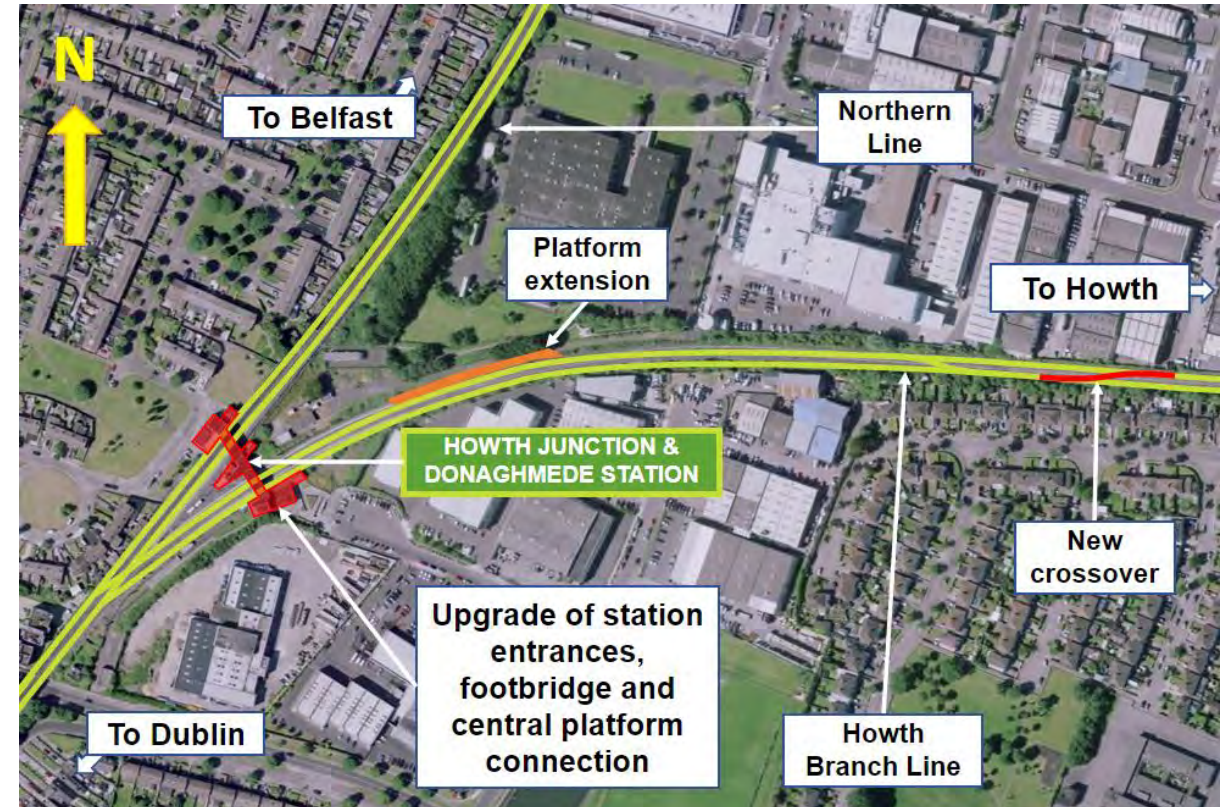
Works at Howth Junction & Donaghmede

Mainline works include:

- Construction of an extension to the existing Platform 2 and some associated track modifications.
- Construction of a new crossover east of the platforms
- Alterations to existing OHLE, signalling and telecoms.

Station works include:

- Upgrade of station entrances, footbridge and central platform connection



Howth Junction & Donaghmede Station Improvement Works

- In direct response to feedback from PC1, a variety of significant modification works are proposed at the station to:
 - Improve passenger experience generally
 - Develop the station to better serve as an interchange station.



Upgrades to the footbridge



New central connection to the centre platforms



Improvements to the station entrance.

Howth Branch – DART Shuttle

- A DART **train** service (not a bus service) running between Howth Junction & Donaghmede Station and Howth Station in both directions, **independent** of services on the northern line.
- Final operational decisions will be made at a later stage and are **subject to passenger demand** and train frequency on the Northern and Howth lines.
- Expected that Iarnród Éireann would incrementally introduce new services and enhanced timetables across DART+ in response to growing demand.
- Any substantial timetable change, such as the introduction of a shuttle service, will go through a Public Consultation process of its own organised by the National Transport Authority (NTA) known as the **Timetable Customer Consultation Process**.



Howth Branch Line

- Four level crossings located along Howth Branch line:
 - Baldoyle Road (XQ001)
 - Sutton (XQ002)
 - Cosh (XQ003)
 - Claremont (XQ004)
- To accommodate a service frequency and capacity increase from 3 trains per hour to 6 trains per hour, the following impacts are expected:
 - Kilbarrack Level Crossing closures: increase from approximately 5 times per hour to 6 times per hour and the duration of these closures is expected to increase by about 2 minutes
 - Sutton Level Crossing closures: increase from approximately 3 times per hour to 6 times per hour. The duration of these closures is expected to be less or similar to that of today.
 - Cosh Level Crossing closures: increase from approximately 3 times per hour to 6 times per hour. The duration of these closures is also expected to increase by one and a half minutes.
 - Claremont Level Crossing closures: increase from approximately 6 times per hour to 12 times per hour. The duration of these closures is also expected to remain similar to existing.



View at Sutton Level Crossing

Traffic assessment has concluded that the crossings can continue to provide an appropriate level of connectivity and accessibility whilst meeting the increased DART service frequency requirement

Fairview Depot

- Localised minor works to modify the facilities to cater for changes in rolling stock
- **Modifications include:**
 - Provision of new cleaning platforms on the sidings to the east side of the mainline, along with associated walkways and services.
 - Provision of suitable access and services for cleaning staff internal to the building.



View into Fairview Depot

Engagement, Feedback & Questions

DART+ Coastal North – How People can Engage

Contact via the following means:

Website: www.dartplus.ie

Email: DARTCoastalNorth@irishrail.ie

Phone line: 01 233 4515

Or in writing to:

**Community Liaison Officer
DART+ Coastal North,
Iarnród Éireann,
Inchicore Works,
Inchicore Parade,
Dublin 8.
D08K6Y3**



Public Consultation Webinar (30th May 2023)

Feedback & Questions

- North of Malahide:
 - Drogheda – Malahide.
- South of Malahide
 - Malahide – Dublin City Centre.
 - Howth Junction & Donaghmede – Howth.





DART+ Programme, Legal Statement.



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Thank You