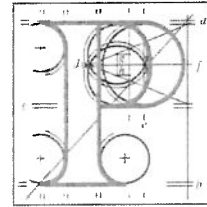


**Our Case Number:** ABP-320164-24

**Your Reference:** Monobrio DAC (MO)



**An  
Bord  
Pleanála**

CS Consulting Group  
19-22 Dame Street  
Dublin 2  
D02E267

**Date:** 05 November 2024

**Re:** DART + Coastal North Railway Order 2024 - Northern Line between Dublin City Centre and Drogheda including the Howth Branch  
Dublin City Centre and Drogheda, located in counties Dublin, Meath and Louth

Dear Sir / Madam,

An Bord Pleanála has received your recent letter in relation to the above mentioned case. The contents of your letter have been noted. Please accept this letter as a receipt for the fee of €50 that you have paid.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: [www.pleanala.ie](http://www.pleanala.ie).

If you have any queries in relation to the matter please contact the undersigned officer of the Board at [laps@pleanala.ie](mailto:laps@pleanala.ie)

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

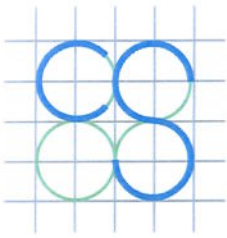
Aisling Reilly  
Executive Officer  
Direct Line: 01-8737131

RA03

**Tel** (01) 858 8100  
**Glaio Áitiúil** 1800 275 175  
**Facs** (01) 872 2684  
**Láithreán Gréasáin** [www.pleanala.ie](http://www.pleanala.ie)  
**Ríomhphost** [bord@pleanala.ie](mailto:bord@pleanala.ie)

**Tel** (01) 858 8100  
**LoCall** 1800 275 175  
**Fax** (01) 872 2684  
**Website** [www.pleanala.ie](http://www.pleanala.ie)  
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64 Sráid Maoilbhride 64 Marlborough Street  
Baile Átha Cliath 1 Dublin 1  
D01 V902 D01 V902



CS CONSULTING  
GROUP

An Bord Pleanála,  
64 Malborough Street,  
Dublin 1

## CS CONSULTING GROUP

HEAD OFFICE: 19-22 Dame Street, Dublin 2, D02 E267, Ireland

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<b>AN BORD PLEANÁLA</b>	
LDG-	<u>025674-24</u>
ABP-	
22 OCT 2024	
Fee: €	<u>50.00</u> Type: <u>CARD</u>
Time: <u>12:57</u>	By: <u>HAND</u>

Sent By: Post

Job Ref: R088

OS

Date: 16-Oct-24

**RE:** Observation on the DART+ Coastal North Railway Order project ("the Proposed Development").

**Observer;** Monobrio DAC (MO), 13-18 City Quay, Dublin 2, D02 ED70 ("the Observer").

**ABP Case Ref No;** NA29N.320164

**Applicant;** Iarnród Éireann (IÉ) / Córas Iompair Éireann (CIÉ) and the NTA

Dear Sir / Madam,

We act for the observer Monobrio DAC (MO), 13-18 City Quay, Dublin 2, D02 ED70. All correspondence should be addressed to Owen Sullivan, CS Consulting (CS), 19-22 Dame Street, Dublin 2. ([owen.sullivan@csconsulting.ie](mailto:owen.sullivan@csconsulting.ie)) as the agent for the observer.

We enclose the fee of €50.00.

The observer is observing the file and associated documentation that was lodged as part of the DART+ Coastal North project specifically relating to the boundary setback requirements for interface between DART+ Coastal North and Project Shoreline, located east of the existing Clongriffin Station, as per Figure 1.0 below.

Clongriffin Station is located on the Dublin to Belfast Line at 5 miles and 1100 yards. The centre of the station is located at 723085.417E, 740791.354N based on the Irish Transverse Mercator (IRENET95) grid system. Refer to Figure 1.0 below.

KP & Associates Consulting Engineers Ltd. T/A Cronin & Sutton Consulting  
Company No. 505303 | Registered Office: 19-22 Dame Street, Dublin 2.  
Directors: P. Sutton (Chairman), O. Sullivan (Managing), C. Sutton-Smith,  
E. Sutton, N. Barrett, C. Barry, M. McEntee, L. McNamee, C. Twomey  
Assoc. Director: G. Lindsay | Associates: C. Farmer, K. Freyne, L. Garrett,  
W. Gleeson, D. Mullins, S. Sose, J. Sutton

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LIMERICK OFFICE: 45 O'Connell Street, Limerick, V94 XE18  
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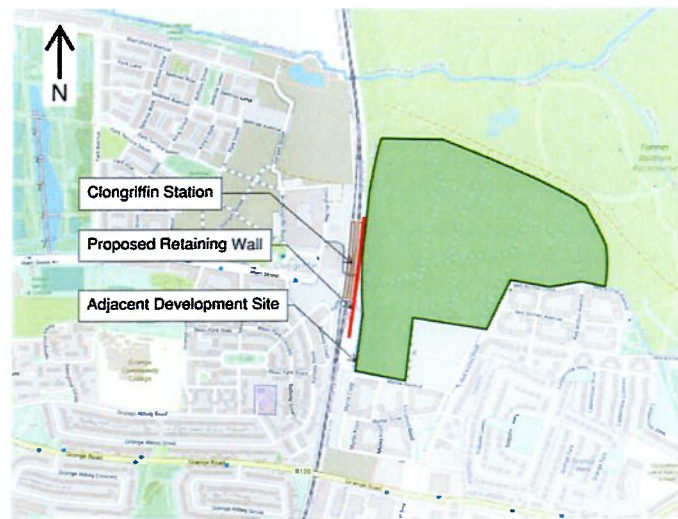
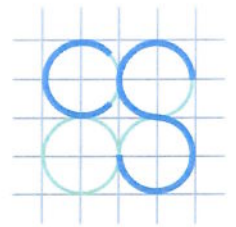


Figure 1.0: Location of proposed interface at Clongriffin Station with Project Shoreline Lands indicated in Green

The grounds of observations are set out below in this submission, prepared on behalf of the observer, and An Bord Pleanála is requested to take this submission into account in their deliberations on this application for the proposed development.

## Overview

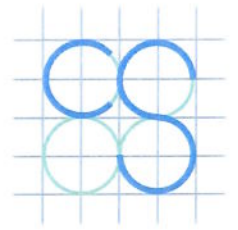
The observer supports the proposed development where there is an identified need for certain facilities and infrastructure in the public interest. We confirm that the observer has had multiple meetings with Iarnród Éireann (IÉ) within the period between November 2022 and June 2024.

The design of the interface at Clongriffin Station with Project Shoreline has developed through this ongoing engagement between Arup (acting on behalf of IÉ), IÉ, CS, and MO, and considered the scenario where DART+ Coastal North is constructed post-development of Project Shoreline, which may not have been reflected clearly in the lodged planning documentation.

A close-out meeting was held on the 26/06/2024 over MS Teams between Arup, IÉ, CS and MO to review and agree the final designs which would facilitate the above scenario. A memorandum capturing points agreed at this meeting is included in Appendix A.

A summary of these recommendations / acknowledgements are as follows;

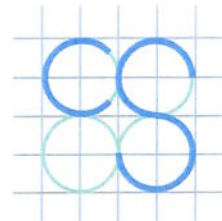
- As part of the RO application, it is assumed that the planning permissions secured for Project Shoreline under An Bord Pleanála (ABP) Reg. Ref. TA06F.310418 (FCC Reg. Ref. SHD/011/20) and ABP Reg. Ref. TA06F.311016 (FCC Reg. Ref. SHD/016/21) and all other relevant planning permissions in the vicinity of the works is to commence construction prior to the DART+ Programme works.
- The final overhead line equipment (OHLE) and all associated supporting structures are yet to be finalised. Should OHLE foundations coincide with the location the IÉ retaining wall, then



the wall dimensions may need to be locally altered to accommodate the additional OHLE support and associated loadings. It is proposed that the OHLE support will be integrated in with the wall and the foundations strengthened locally to support the additional loads. It is not foreseen that any additional lands over and above those identified within development boundary and proposed permanent land boundary is required for the provision of the OHLE.

- The outer face of the wall, installed by IÉ, will be clad with a stone masonry façade (RH side of the wall). The inner rail face will be left as a plain concrete finish (IÉ side of the wall).
- To safeguard both schemes, which is the installation of the new boundary wall by IÉ and the proposed development by RH, in terms of constructability it is proposed to maintain a minimum of 4m clear width between any permanent structures to allow for temporary works and future inspection and maintenance activities.
- This 4m clear width and inspection regime is applicable only to the extent of the retaining structure and excludes the 2.4m high block wall that will be built by RH along the rear boundary of the 15 number houses along Racecourse Close.
- The 2.4m high block will be built by RH along the rear boundary of the 15 number houses along Racecourse Close with no requirement for IÉ to acquire temporary land along the houses' back gardens or to retain the permanent land take of 1.5m strip immediately in front of the wall.
- Reinstatement of hard/soft landscaping works within the 4m wide offset will be carried out by IÉ post installation of the new retaining wall.
- Apartment Block (Racecourse Close): If the apartment block has been constructed or is in the process of being constructed at the time of the installation of the IÉ retaining wall, the requirement for IÉ to acquire temporary land can be reduced to a minimum of 4.0m offset from the eastern face of the wall (on the IÉ side of the wall), noting the bicycle parking shelter/outbuilding to the west of the apartment block will have to be relocated prior to IÉ starting the works. IÉ will require the permanent land take of a 1.5m strip immediately in front of the retaining wall to ensure no future excavations undermine the structure. A minimum ground level of +8.0m AOD will be maintained along this strip. The 1.5m strip is contained within the 4m offset line.
- The developer shall provide a minimum level of +8.0m AOD to the road level on Red Arches Road to the north of the apartment block, removing the requirement for IÉ to have a temporary embankment in this area.
- If the apartment block (GA1+GA3 - as described in planning permissions An Bord Pleanála (ABP) Reg. Ref. TA06F.310418 (FCC Reg. Ref. SHD/011/20) and ABP Reg. Ref. TA06F.311016 (FCC Reg. Ref. SHD/016/21)) has been constructed by the developer or is in the process of being constructed at the time of the installation of the IÉ retaining wall, the requirement for IÉ to acquire temporary land can be reduced to a minimum of 4.0m between the GA1 building line and the new IÉ boundary wall to allow for the construction of the retaining wall.
- IÉ will require the permanent land take of a 1.5m strip immediately in front of the retaining wall to ensure no future excavations undermine the structure.

We request that the findings and agreements of said close out meeting (Appendix A) with specific reference to Section 4 'Final Design and Recommendations' is considered by An Bord Pleanála and encapsulated in the permitted scheme and planning conditions if the development is so permitted.



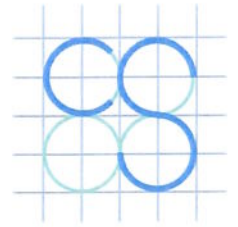
Sincerely,

Owen Sullivan  
For Cronin & Sutton Consulting on behalf of the Observer  
Monobrio DAC, 13-18 City Quay, Dublin 2, D02 ED70.

**ATTACHED:**

APPENDIX A: Boundary Setback Requirements for interface between DART+  
Coastal North and Project Shoreline

APPENDIX B: Boundary Setback Requirements Drawings



**APPENDIX A**

Boundary Setback Requirements for interface between DART+  
Coastal North and Project Shoreline

# Preliminary Design Note

<b>Project title</b>	DART+ Coastal North
<b>Job number</b>	279933-00
<b>File reference</b>	D+WP56-ARP-P3-NL-RP-CW-000010
<b>cc</b>	Iarnród Éireann (Irish Rail); Richmond Homes; CS Consulting
<b>Prepared by</b>	Arup
<b>Date</b>	08 <sup>th</sup> October 2024
<b>Subject</b>	Boundary Setback Requirements for interface between DART+ Coastal North and Project Shoreline

50 Ringsend Road Dublin 4 D04 T6X0 Ireland

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[arup.com](http://arup.com)

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## 1. Introduction & Background

### 1.1 Purpose

To document the design development process and stakeholder engagement activities related to establishing boundary setback requirements between Iarnród Éireann (IÉ) and Richmond Homes (RH), providing clear documentation for future reference and accountability.

### 1.2 Project Overview

Under the DART+ Programme, IÉ is implementing infrastructure enhancements to extend the electrification of the Northern Line to Drogheda. This initiative aims to increase the frequency of train services by constructing stabling and turnback facilities at Drogheda MacBride, Malahide, Clongriffin, and Howth Junction & Donaghmede Stations.

### 1.3 Turnback Facility at Clongriffin Station

The establishment of a turnback facility at Clongriffin Station requires the construction of a retaining wall to support the proposed embankment works located east of the railway line which will require the purchasing of lands outside the existing railway corridor.

### 1.4 Adjacent Development by Richmond Homes

Adjacent to the railway line, RH is developing the Project Shoreline portfolio, subject to planning permission. This project encompasses 23 hectares (56 acres) of residential land and 28 hectares (69 acres) of open and high-amenity space. The residential component is divided into two growth areas:

- **Growth Area 1:** Covering 17 hectares (41 acres), this area has full planning permission for 546 high-end residential units. A feasibility study indicates the potential to increase density to 833 units. The proposed development includes a new town centre and landscaped gardens.
- **Growth Area 2:** Spanning 6 hectares (15 acres), this area is zoned for residential development. A feasibility study reports the potential to accommodate 759 units, subject to planning permission.

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## 1.5 Site Overview

The location of the proposed retaining wall at Clongriffin Station is shown in Figure 1-1 below.

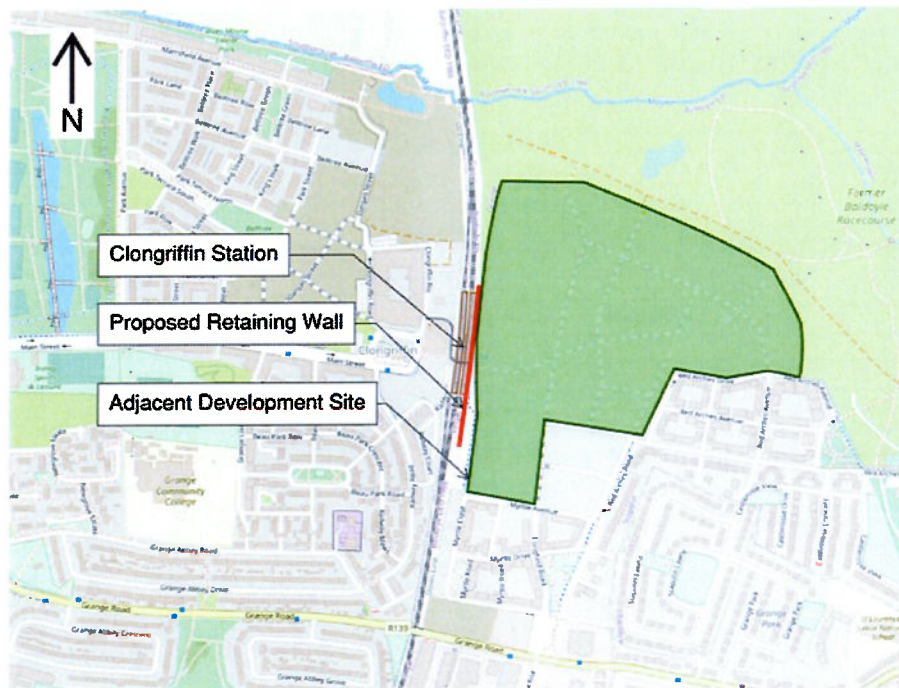


Figure 1-1: Location of proposed retaining wall at Clongriffin Station

## 1.6 Coordination and Boundary Setback Requirements

As part of the RO submission, it is assumed that the planning applications lodged by RH's as granted by Fingal County Council (FCC) under An Bord Pleanála (ABP) Reg. Ref. TA06F.310418 (FCC Reg. Ref. SHD/011/20) and ABP Reg. Ref. TA06F.311016 (FCC Reg. Ref. SHD/016/21) and all other relevant planning applications in the vicinity of the works is to commence construction prior to the DART+ Programme works. Therefore, it is essential to establish an agreed set of boundary setback requirements between IÉ and RH to coordinate development and infrastructure enhancement, ensuring safe and effective spatial separation between railway operations and adjacent property developments, addressing safety, operational efficiency, and regulatory compliance. This agreement will support the planning permissions, noted above, for RH's development and the DART+ railway order application.

## 1.7 Limitations and Exclusions

This file note documents the design development process and stakeholder engagement activities related to establishing boundary setback requirements between IÉ and RH to ensure the feasible delivery of both projects. It does not provide any design acceptance of proposed boundary types or where excavations are required within the existing railway corridor.

All designs must be in accordance with *CCE-TMS-410 Civil Engineering Structures Design Standard* and seek approval from the Chief Civil Engineer (CCE). Where works are carried out on or near the railway, the following standards shall be followed:



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- *I-DEP-0120 Guidance on Third Party Works.;*
- *I-DEP-0121 Third Party Works: Additional Details of Railway Safety Requirements.*

## 2. Design Development Process

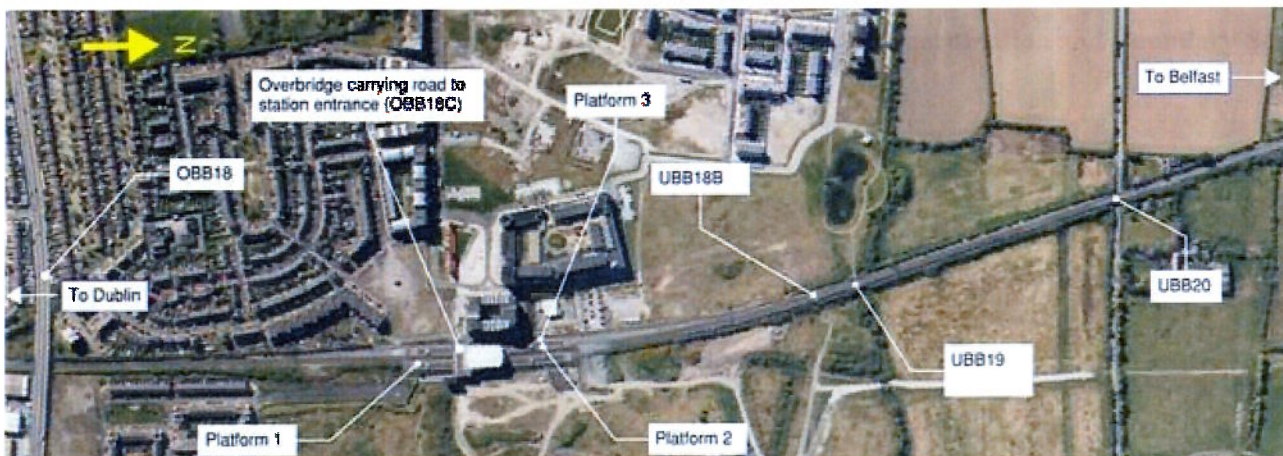
### 2.1 Initial Assessment:

#### 2.1.1 Location

Clongriffin Station is located on the Dublin to Belfast Line at 5 miles and 1100 yards. The centre of the station is located at 723085.417E, 740791.354N based on the Irish Transverse Mercator (IRENET95) grid system. The extents of the proposed turnback works are between overbridge OBB18 (5 miles and 600 yards) and underbridge UBB20 (6 miles and 300 yards).

Clongriffin Station comprises 3 platforms: Platforms 1 and 2 are located on the Up and Down Belfast Lines and Platform 3 is located on a passing loop which diverges from the Down Belfast Line. The current platform length is 190m for Platforms 1 through to 3. Access to the platforms is provided by an existing pedestrian overbridge at the station - OBB18D. Access to Platform 2 & 3 is afforded by means of a footbridge with centrally located stairs; platform lifts are provided to accommodate users with mobility impairments. The station was designed and constructed in 2010 with future provision allowed for a fourth track to serve Platform 0 which is located to the east of the station, albeit it presently unused and is not served by any track at present.

An aerial view of the site is shown in **Figure 2-1**.



**Figure 2-1: Aerial view of Clongriffin Station (source: Ordnance Survey of Ireland (OSI) aerial mapping)**

#### 2.1.2 Existing Permanent Way and Tracks

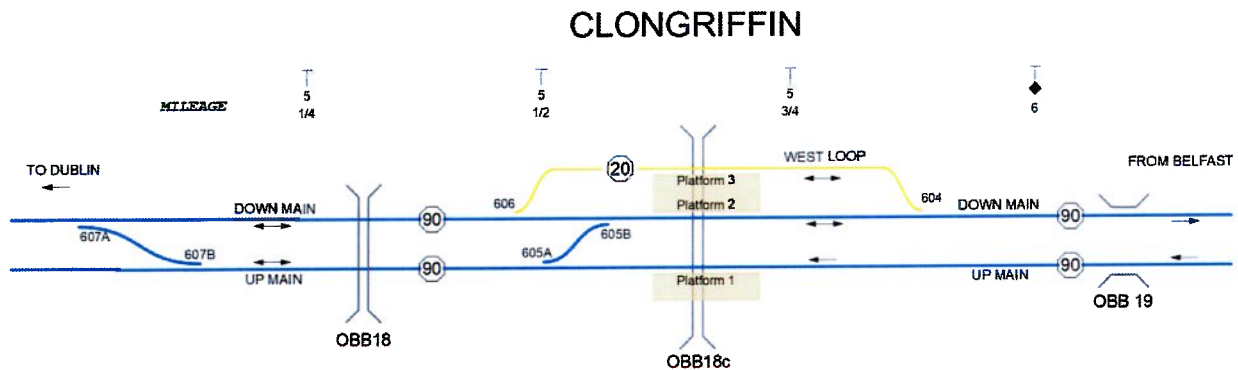
Clongriffin Station comprises two through lines, namely the Down and Up Main Lines, with a current line speed of 145 kph (90mph). In addition to the main lines, a passing loop (West Loop) is provided to the west of Clongriffin Station affording access to Platform 3. This existing loop is accessed from the Down Main Line via PTS 606 to the south and PTS 604 to the north, with a line speed of 35 kph (20mph).

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**Figure 2-2: Clongriffin Station, Existing Track Scheme**

Movements to the Up Line from the Loop are only feasible via a double shunt movement with wrong line running to Howth Junction and Donaghmede Station, where services are afforded the use of PTS 612B. This movement is protected by the station starter on the down platform at Kilbarrack DN252 held at red, which provides a route from DN235 from Clongriffin loop via Howth Junction Platform 4 crossing over at points 612B/A.

The current track form in the vicinity of Clongriffin Station is of a ballast nature, using precast concrete sleepers at 643mm centres (28/18m length) with a Vossloh spring clip and holding down bolt arrangement. A 6 foot is currently provided throughout with the average values of the 6 foot being 2000mm within the limits of the works.

### 2.1.3 Vehicular Access to the Site

When DART+ is operational, the access to the site is gained by the existing roads nearby the railway corridor at the same level. On the west side the existing road connections to the site will be maintained. To the east side, the proposed RH development will limit the access where a new retaining wall will be needed and where the new houses and buildings border the railway line.

It is presently considered that access to the construction site will be through the northwest side, since it is expected that the new urban development will be fully constructed before the new railway line. During construction, access to the station and nearby residential and business areas, existing and proposed, must be maintained.

## 2.2 Stakeholder Identification:

The following is a list of the key stakeholders and interested parties:

- Iarnród Éireann (IE);
- Richmond Homes (RH);
- CS Consulting (CS); and
- Fingal County Council (FCC).

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## 2.3 Preliminary Design Proposals:

This file note should be read in conjunction with the following reports:

- Clongriffin Turnback RW - Approval in Principle (D+WP56-ARP-P3-NL-RP-CB-000111)
- Clongriffin Turnback Report (D+WP56-ARP-P3-NL-RP-PW-000009)

The design is based upon a topographical survey dated December 2022, completed by APEX survey team. File name: Station Clongriffin 3D Topo Surveys - Stage A2 C1 Site 02.

The final overhead line equipment and all associated supporting structures are yet to be finalised and are not taken into consideration within this report. Should OHLE foundations coincide with the location of this wall, then the wall dimensions may need to be locally altered to accommodate the additional OHLE support and associated loadings. It is proposed that the OHLE support will be integrated in with the wall and the foundations strengthened locally to support the additional loads. It is not foreseen that any additional lands over and above those identified within development boundary and proposed permanent land boundary is required for the provision of the OHLE.

At future design, stages, the ground model, and parameters presented shall be reviewed, and updated as required, based on all available ground investigation.

### 2.3.1 Proposed Track Works

The proposed work to be undertaken is as follows:

- The construction of a new track on the east side of the station - the East Loop;
- The reopening of Platform 0 to receive operational traffic;
- The installation of new turnouts to connect the new Track 4 to the Up Main Line.

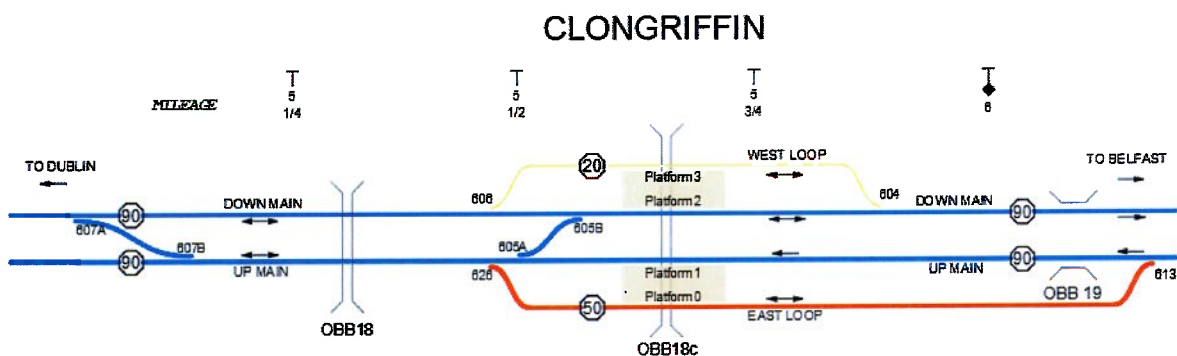


Figure 2-3: Clongriffin Station, Proposed Track Scheme

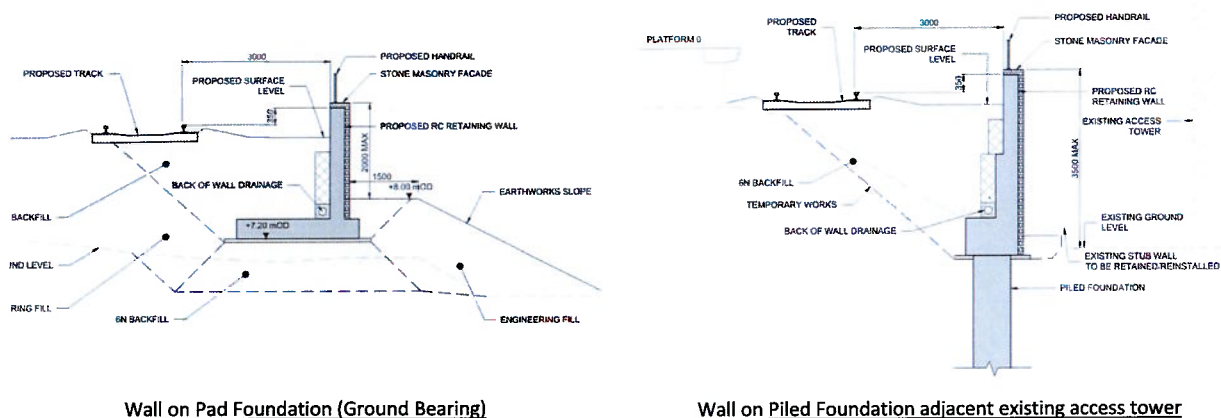
**Job number** 279933-00  
**Date** 08th October 2024

## 2.3.2 Proposed Civils/Structures Works

The proposed design in this area is to provide a new retaining wall running along the east side of the new track to accommodate the improvements at Clongriffin Station. It is proposed to provide a reinforced concrete retaining wall structure, circa 290 m in length and with a maximum retained height of 3.2 m. The stem of the wall will vary in height according to the level of earth retention required.

The proposed wall, to be installed by IÉ, will comprise two wall types (refer to Figure 2-4):

- Wall on Pad Foundation; the majority of the wall will be constructed on a ground bearing foundation (Wall on Pad Foundation). Where the underside of the wall is proposed to be above ground level, the wall will be founded on engineering fill materials and an earthworks slope constructed using engineering fill materials placed in front of the wall. The extent of this type of construction is in the vicinity of the Block C apartments and roadway between the GA1 apartments and the Block C apartments.
- Wall on Piled Foundation; due to access requirements to an existing access tower, a portion of the wall will be supported on a reinforced concrete embedded pile wall foundation. The extent of this type of construction is in the vicinity of the GA1 apartments.



**Figure 2-4: Typical cross section of structure**

The outer face of the wall, installed by IÉ as noted in Figure 2-4 above, will be clad with a stone masonry façade (RH side of the wall). The inner rail face will be left as a plain concrete finish (IÉ side of the wall).

Based on a preliminary assessment of the ground conditions present, the proposed earthworks embankment will be constructed using engineering fill materials (in accordance with TII Series 600 requirements). The topsoil will be removed, and the fill materials placed on a suitable bearing stratum and the proposed embankment will be benched into the existing rail embankment. Any soft material present will be excavated and replaced with suitable engineering fill material.

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### 2.3.3 Proposed Equipment Building

A new Signalling Equipment Building (SEB) is proposed to be located to the south of Clongriffin Station. The building will measure 22.5 x 5.0 x 4.0m (length x width x height). Land outside the IÉ boundary will be required as part of these works, which have been agreed with RH.

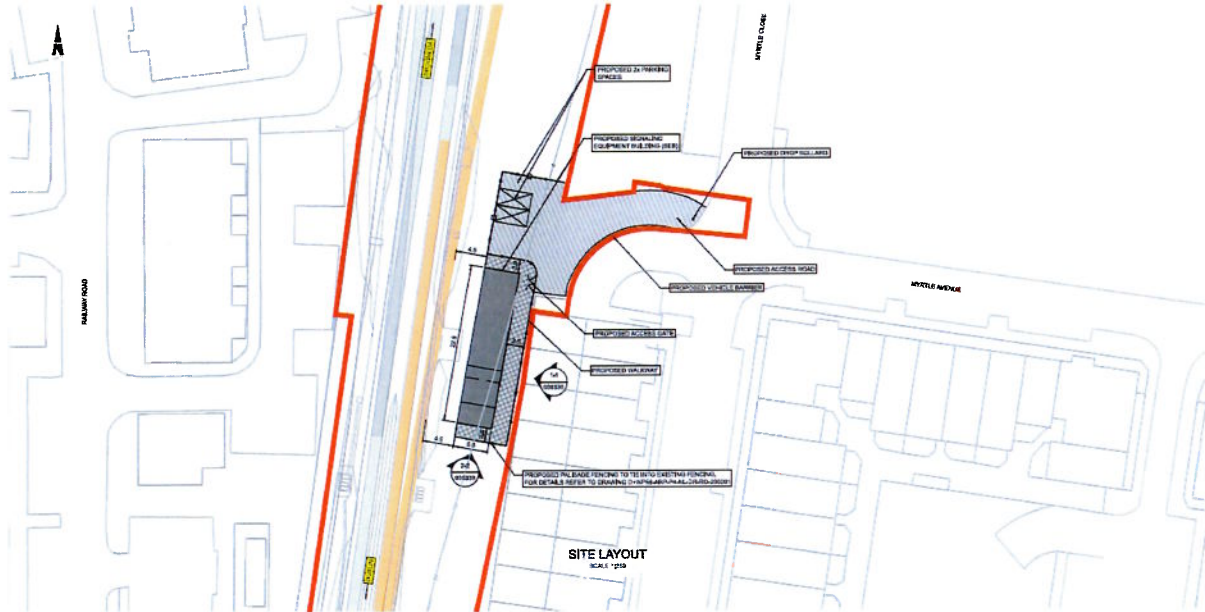


Figure 2-5: Proposed SEB Site Layout

A new Telecommunication Equipment Room (TER) is proposed to be located in Clongriffin Station. The building will measure 2.0 x 3.0m (length x width) and will be located within the existing IE land boundary.

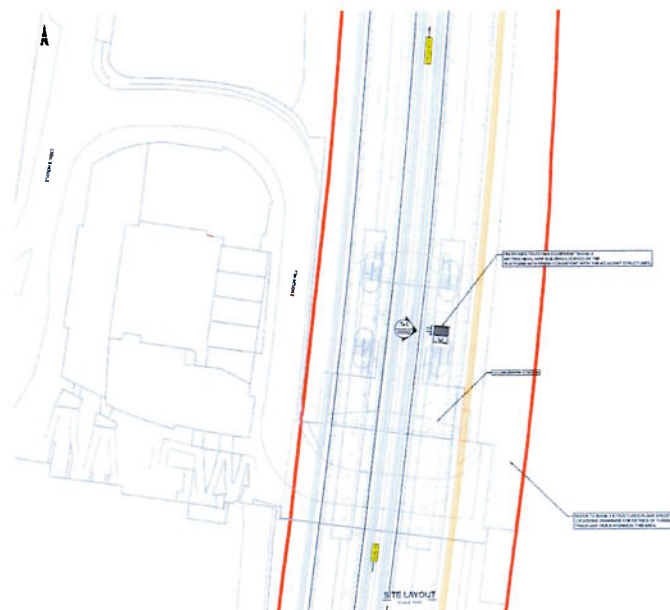


Figure 2-6: Proposed TER Site Layout

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#### 2.4 Design Criteria Establishment:

The key interface in this area is the ongoing engagement and coordination with RH, and their progress in delivering their masterplan, and IÉ and their delivery of the DART+ Programme. This will heavily influence both the design and construction of the new track to the east of the station. Irish Rail land ownership at Clongriffin Station is presently limited to a strip bordering each side of the railway. This is likely to be insufficient to locate a worksite compound to support the proposed works at the station. Therefore, the following key design criteria, in relation to the design and construction of the new retaining wall along the shared boundary, are noted.

The line of the proposed retaining wall is offset a minimum of 3.0m from the nearest running rail of the proposed East Loop line as shown in Figure 2-7. This provides sufficient clearance to accommodate a walkway and cable trough adjacent to the wall and complies with the minimum offsets in accordance with I-PWY-1101 (Requirements for Track and Structures Clearances).

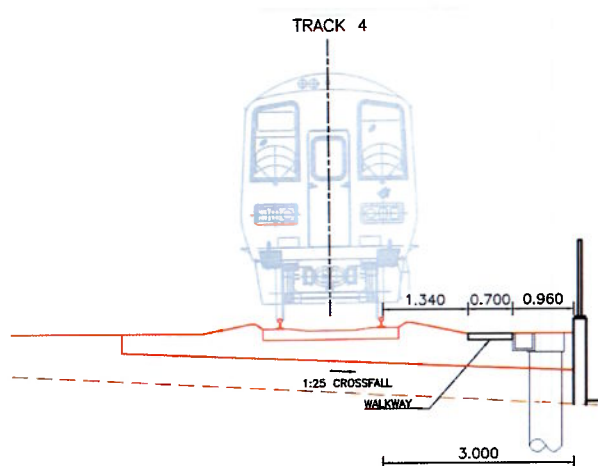


Figure 2-7: Proposed Formation Cross Section

In order to safeguard both schemes, that is the installation of the new boundary wall by IÉ and the proposed development by RH, in terms of constructability it is proposed to maintain a minimum of 4m clear width between any permanent structures to allow for temporary works and future inspection and maintenance activities. Inspection and maintenance of the retaining wall shall occur on a regular basis as part of IÉ's regular inspection and maintenance schedules. Where an embankment slope is proposed to the front of the wall (eastern side), a level width of 1.5 m is detailed to provide suitable access.

This 4m clear width and inspection regime is applicable only to the extent of the retaining structure and excludes the 2.4m high block wall that will be built by RH along the rear boundary of the 15 number houses along Racecourse Close.

The risk of derailment adjacent to the wall in this scenario is perceived to be low, given the lack of switches in the near vicinity of the wall. In addition to this, the wall is located greater than 1.5 m

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from the cess rail, meaning that any derailed train would need both wheel sets to mount the cess rail before approaching the wall. Hence, no specific rail containment measures are proposed adjacent to this retaining wall. Notwithstanding the above, the wall shall be designed to resist a lateral Robust Kerb Load as defined in Clause 5.2.17 of CCE-TMS-410.

## **2.5 Preliminary Construction Proposals:**

### **2.5.1 Overview**

As part of the Railway Order submission and for the purpose of the EIAR assessment, a reasonable worst case scenario is to assume that all of the development will be constructed post the DART+ Coastal North works. This file note outlines the considerations taken in the design in the scenario where Project Shoreline will be constructed prior to the DART+ Coastal North works to ensure that there are no potential clashes arising between both designs.

Figure 2-8 below gives an overview of the extent of the works at Clongriffin Station and the land ownership, involving the construction of the IÉ retaining wall and widening the existing embankment to the east of the station and widening of the existing embankment to the north of the station. Within the area of interface with the developer a 4m offset from the proposed retaining wall defines the temporary working area. This offset is for a haulage corridor for manoeuvring plant and materials up and down adjacent to the works. This haulage corridor is indicative and will be subject to ongoing engagement between IÉ, RH and the contractor as the adjacent developments progress. A construction compound is proposed to be sited between the third-party development area and the railway corridor, adjacent to the main access route from the North, to support both Clongriffin Station and Turnback works and local line-wide works.

Reinstatement of hard/soft landscaping works within the 4m wide offset will be carried out by IÉ post installation of the new retaining wall.

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**Figure 2-8: Overview of possible Clongriffin work areas**

### 2.5.2 Civil/Structures Work

The construction sequence for the ground bearing portion of the wall (Wall on Pad Foundation) will involve, where necessary, appropriate excavation and temporary slope stabilisation works. Engineering fill materials will be placed, and the reinforced concrete wall constructed. Once the wall has cured sufficiently, the area behind the wall, and in front of the wall as required, will be backfilled with engineering fill materials.

An embedded pile foundation is proposed adjacent to the existing access tower. Access at this location is constrained and will require temporary works and well-planned construction staging. Figure 2-9 below shows a potential arrangement for the piling rig setup at this location. Piling will commence from the existing bridge structure's columns and proceed south out of the constrained area.

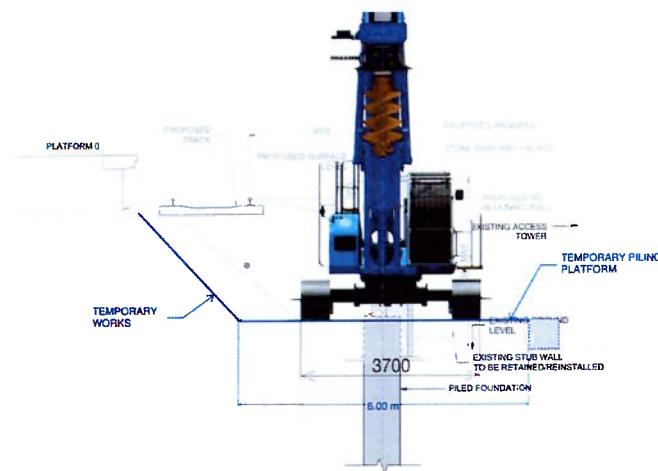


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**Figure 2-9: Potential setup of piling rig adjacent to existing access tower**

Where works are in close proximity to existing structures (including the proposed RH development, if constructed) or within the track support zone (e.g., temporary works excavations), instrumentation shall be installed on adjacent structures to monitor and record any potential movement during the works.

### 2.5.3 Trackworks

Following on from the civil/structures work, the trackworks will use the following typical sequence of activities. These activities will need to be performed during track possessions.

- Enabling works, such as: installation of facilities and storage areas; bringing machinery and materials on-site; utilities diversions and temporary suspension of railway operation.
- Rail cutting of the existing track, using a rail cutting machine.
- Removal of old track panels using road-rail vehicles (vehicles capable of running on both road and rails), excavators, crane on truck/RRV and other necessary engineering equipment
- Removal of degraded ballast by means of road-rail vehicles, excavators and other engineering equipment that will load the materials into a dump truck (if required). This will be taken off site and disposed of.
- Preparation of the track formation until required level and in-situ testing, using road-rail vehicle excavators.
- Extension and compaction on the subgrade, using a compactor.
- Extension of the geotextile.
- Placement of the longitudinal drainage, using trucks, mini excavators, and plate compactors.
- Extension and compaction of the sub-ballast layer, using wheel loader, trucks, and compactors.

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- Extension of first ballast layer, levelling and compaction using wheel loader, trucks, and compactors.
- Laying of the sleepers with the fastening systems, using crane on trucks and excavators.
- Laying of the rails and clamping the joints, using crane on trucks and excavators.
- Extension of second ballast layer, tamping and dynamic stabilisation, using crane on trucks, excavators, and a ballast tamper.
- Welding of joints and second stabilisation.
- Rail destressing and track tampering using tampering equipment.

It is possible that temporary rail speed restrictions may be required during these works. Any restrictions will be discussed and agreed with IÉ by the Contractor in advance of implementation.

#### 2.5.4 Construction Access

The nearest road link of strategic importance is the R123 (“Moyné Road”) to the north which joins onto the M1 to the west via the R107 and R139. It currently provides access onto a new road leading to the ongoing housing construction adjacent to the station. It is noted that the lands that the lands relating to this area are to be transferred to FCC, and IÉ will engage with FCC once the transaction is finalised

Underbridge UBB20, where the R123 crosses under the railway, has a clearance of 3.85m. This will restrict larger construction vehicles, including concrete wagons, in which case such vehicles would need to approach this area via the R106 Coast Road to the east. If access using the existing construction access from the north is not feasible, traffic would be required to find a route via the south or east, and ultimately maybe the R809 and/or R139, whilst endeavouring to mitigate disruption to the local community.

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### 3. Stakeholder Engagement Activities

#### 3.1 Engagement Strategy:

An initial kick-off meeting was held on 26<sup>th</sup> October 2022 over MS Teams between Arup, IÉ, CS and RH to discuss the Boundary Setback Requirements. Progress reviews were then carried out over MS Teams on the following dates:

**Table 3-1: Record of Progress Meetings with Developer**

Dates	Meeting
16/11/2022	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
01/02/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
26/04/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
03/05/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
15/05/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
22/05/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
30/05/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
28/06/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
06/09/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
18/12/2023	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
24/01/2024	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
07/02/2024	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail
14/06/2024	Baldoyle / Shoreline - Review of Shoreline Interface of Design with Irish Rail

A close-out meeting was held on the 26/06/2024 over MS Teams between Arup, IÉ, CS and RH to review and agree the final designs. A memorandum of this meeting is included in Appendix B.

In addition, Local Authorities were provided key updates by Arup and IÉ on the design development at Clongriffin. These presentations were carried out over MS Teams on the following dates:

**Table 3-2: Record of Proposal Update Meetings with Local Authority**

Dates	Local Authority	Meeting
21/01/2021	FCC & DCC	Proposals at Clongriffin Station
26/04/2023	FCC	Pre PC2 Update
09/10/2023	FCC	Clongriffin & General Update
24/11/2023	FCC	Post PC2 Update

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## 4. Final Design and Recommendations

### 4.1 Final Setback Requirements:

For the EIAR assessment, the RO submission assumes a reasonable worst-case scenario where all development will be constructed after the DART+ Coastal North works. Refer to drawings *D+WP56-ARP-P4-NL-DR-RO-000320 to 000362*.

The design, developed through ongoing engagement between Arup, IÉ, CS, and RH, considers the scenario where DART+ Coastal North is constructed post-development. The areas listed below discuss where accommodations can be made for RH in this scenario.

#### 4.1.1 Housing (Racecourse Close):

If the developer constructs the 2.4m high boundary wall and gardens or are in the process of being constructed, there is no requirement for IÉ to acquire temporary land along the houses' back gardens or to retain the permanent land take of 1.5m strip immediately in front of the wall (on the RH side of the wall). In this scenario the developer will need to obtain CCE agreement on the type of boundary wall to be used, as this is outside the remit of the DART+ Coastal North project team. Access to the site of SEB works will be via Myrtle Avenue.

Refer to drawing *D+WP56-ARP-P4-NL-DR-RO-002000*, specifically Section A-A.

#### 4.1.2 Apartment Block (Racecourse Close):

If the apartment block has been constructed by the developer or is in the process of being constructed at the time of the installation of the IÉ retaining wall, the requirement for IÉ to acquire temporary land can be reduced to a minimum of 4.0m offset from the eastern face of the wall (on the IÉ side of the wall). Reinstatement of hard/soft landscaping works within the 4m wide offset will be carried out by IÉ post installation of the new retaining wall.

The bicycle parking shelter/outbuilding to the west of the apartment block will have to be relocated prior to IÉ starting the works. IÉ will require the permanent land take of a 1.5m strip immediately in front of the retaining wall to ensure no future excavations undermine the structure. A minimum ground level of +8.0m AOD will be maintained along this strip. The hardstanding/green areas proposed by the developer can be applied to the 1.5m strip once the minimum levels are maintained. The 1.5m strip is contained within the 4m offset line.

The developer shall provide a minimum level of +8.0m AOD to the road level on Red Arches Road to the north of the apartment block, removing the requirement for IÉ to have a temporary embankment in this area.

Refer to drawing *D+WP56-ARP-P4-NL-DR-RO-002001*, specifically Section B-B.

#### 4.1.3 Apartment Block (GA1):

If the apartment block (GA1) has been constructed by the developer or is in the process of being constructed at the time of the installation of the IÉ retaining wall, the requirement for IÉ to acquire temporary land can be reduced to a minimum of 4.0m between the GA1 building line and the new IÉ boundary wall to allow for the construction of the retaining wall. Reinstatement of hard/soft

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landscaping works within the 4m wide offset will be carried out by IÉ post installation of the new retaining wall.

As part of the construction of the GA1 apartments, the developer shall incorporate a 1m high retaining wall along the west side of the under-croft parking terminating at the proposed bridge over the rail line.

IÉ will require the permanent land take of a 1.5m strip immediately in front of the retaining wall to ensure no future excavations undermine the structure. A minimum ground level of +8.0m AOD will be maintained along this strip. The hardstanding/green areas proposed by the developer can be applied to the 1.5m strip once the minimum levels are maintained. The 1.5m strip is contained within the 4m offset line.

Refer to drawing D+WP56-ARP-P4-NL-DR-RO-002001, 002002, with specific reference to Section C-C, D-D and E-E.

#### 4.1.4 Apartment Block (GA3):

If the apartment block (GA3) has been constructed by the developer or is in the process of being constructed at the time of the installation of the IÉ retaining wall, the requirement for IÉ to acquire temporary land can be reduced to a minimum of 4.0m between the GA3 building line and the new IÉ boundary wall to allow for the construction of the retaining wall. Reinstatement of hard/soft landscaping works within the 4m wide offset will be carried out by IÉ post installation of the new retaining wall.

IÉ will require the permanent land take of a 1.5m strip immediately in front of the retaining wall to ensure no future excavations undermine the structure. A minimum ground level of +8.0m AOD will be maintained along this strip. The hardstanding/green areas proposed by the developer can be applied to the 1.5m strip once the minimum levels are maintained. The 1.5m strip is contained within the 4m offset line.

Refer to drawing D+WP56-ARP-P4-NL-DR-RO-002003 with specific reference to Section F-F and G-G.

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## 5. Appendices

### 5.1 Appendix A: Design Drawings.

#### 5.1.1 Railway Order Drawings

- D+WP56-ARP-P4-NL-DR-RO-000320 Clongriffin Turnback - Retaining Wall - Plan & Elevation (Sheet 01 of 02)
- D+WP56-ARP-P4-NL-DR-RO-000321 Clongriffin Turnback - Retaining Wall - Plan & Elevation (Sheet 02 of 02)
- D+WP56-ARP-P4-NL-DR-RO-000322 Clongriffin Turnback - Retaining Wall - Cross Sections
- D+WP56-ARP-P4-NL-DR-RO-000330 Clongriffin Station - Proposed Signalling Equipment Building
- D+WP56-ARP-P4-NL-DR-RO-000331 Clongriffin Station - Proposed Telecoms Equipment Room
- D+WP56-ARP-P4-NL-DR-RO-000332 Clongriffin Station - Proposed Telecoms Equipment Room - Elevation
- D+WP56-ARP-P4-NL-DR-RO-000350 Clongriffin Turnback - Track Alignment (Sheet 01 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000351 Clongriffin Turnback - Track Alignment (Sheet 02 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000352 Clongriffin Turnback - Track Alignment (Sheet 03 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000353 Clongriffin Turnback - Track Alignment (Sheet 04 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000354 Clongriffin Turnback - Track Alignment (Sheet 05 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000355 Clongriffin Turnback - Track Alignment (Sheet 06 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000356 Clongriffin Turnback - Track Alignment (Sheet 07 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000357 Clongriffin Turnback - Track Alignment (Sheet 08 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000358 Clongriffin Turnback - Track Alignment (Sheet 09 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000359 Clongriffin Turnback - Track Alignment (Sheet 10 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000360 Clongriffin Turnback - Track Alignment (Sheet 11 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000361 Clongriffin Turnback - Track Alignment (Sheet 12 of 12)
- D+WP56-ARP-P4-NL-DR-RO-000362 Clongriffin Turnback - Typical Cross Sections



#### 5.1.2 Boundary Setback Requirements Drawings

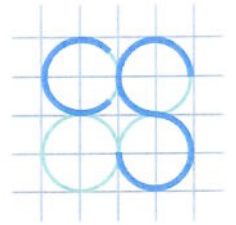
- D+WP56-ARP-P3-NL-DR-GE-002000 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 01 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002001 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 02 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002002 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 03 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002003 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 04 of 04)

### 5.2 Appendix B: Close-Out Meeting Memorandum, CS Consulting, 12/07/24.

Job number 279933-00  
Date 08th October 2024

## DOCUMENT CHECKING

	Prepared by	Checked by	Approved by
Name	Various	Darragh Beirne	Gillian Sisk
Signature			



## **APPENDIX B**

### Boundary Setback Requirements Drawings

- D+WP56-ARP-P3-NL-DR-GE-002000 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 01 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002001 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 02 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002002 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections (Sheet 03 of 04)
- D+WP56-ARP-P3-NL-DR-GE-002003 Clongriffin Turnback – Boundary Setback Requirements – Plan & Sections(Sheet 04 of 04)

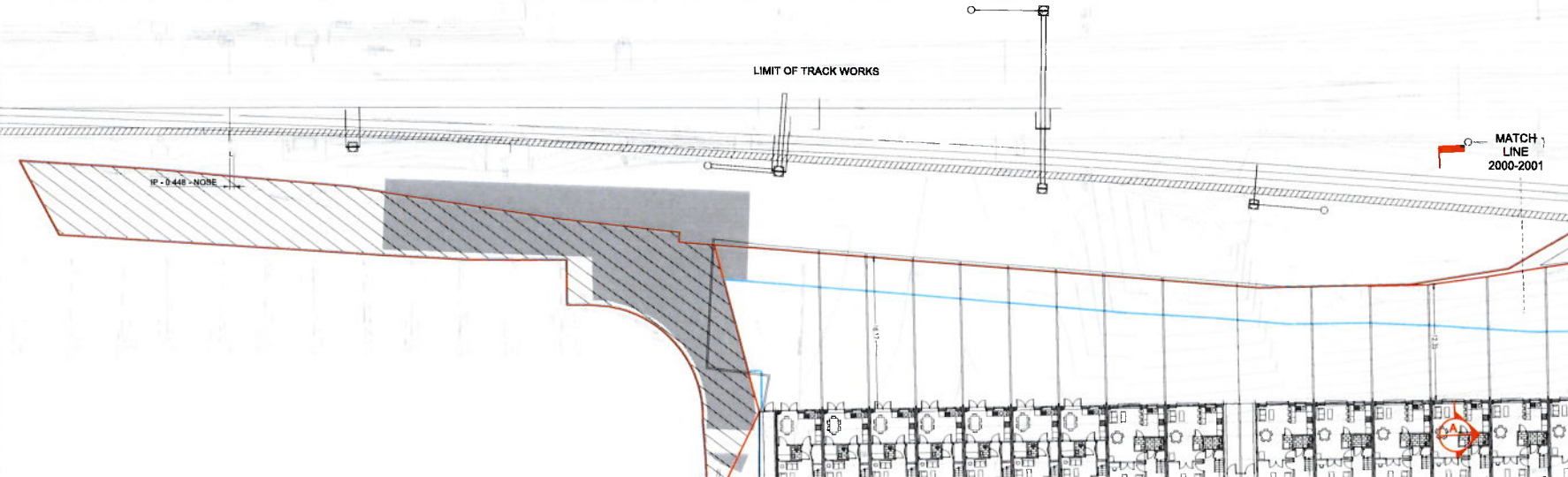


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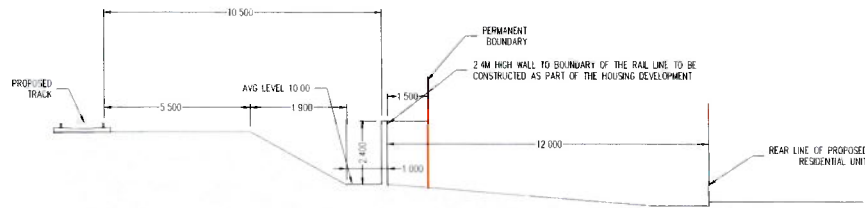
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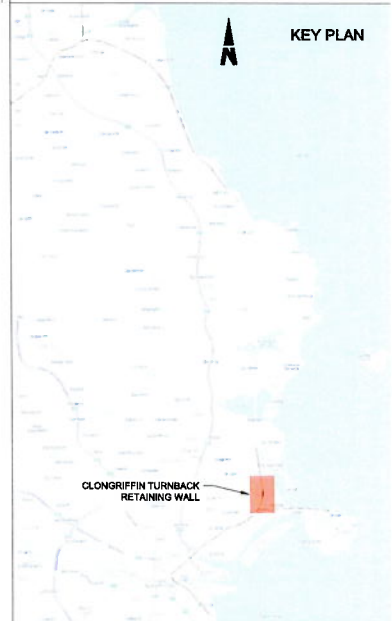
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PLAN  
SCALE 1:250



SECTION A-A  
SCALE 1:100



KEY PLAN

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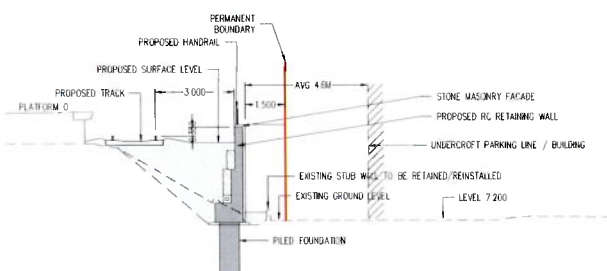
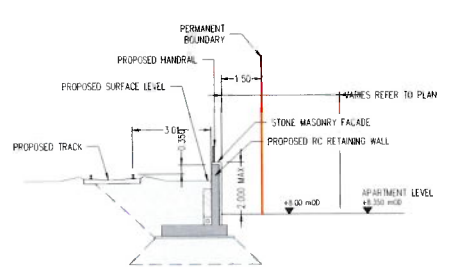
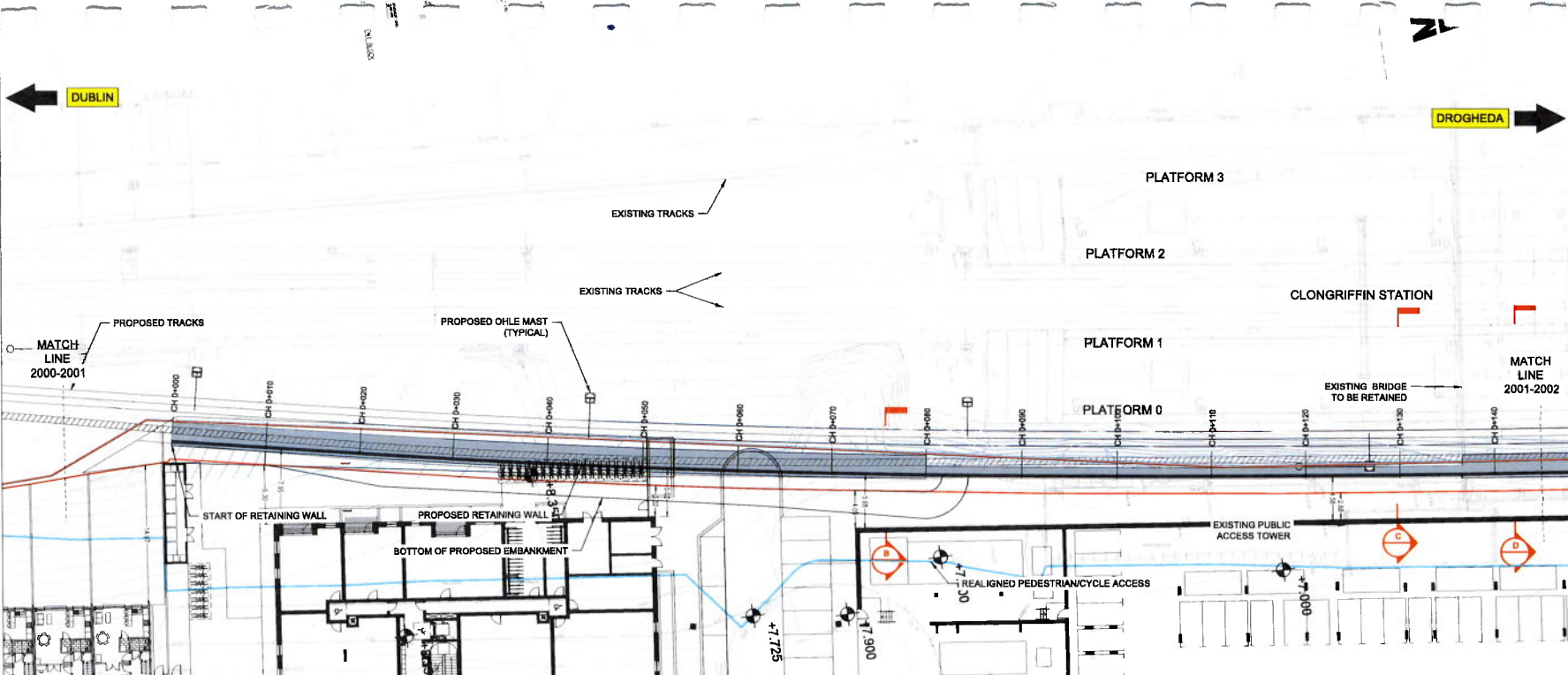
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Drawing Title: **CLONGRIFFIN TURNBACK - BOUNDARY SETBACK REQUIREMENTS PLAN & SECTIONS**

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Sheet Number	Status	Rev
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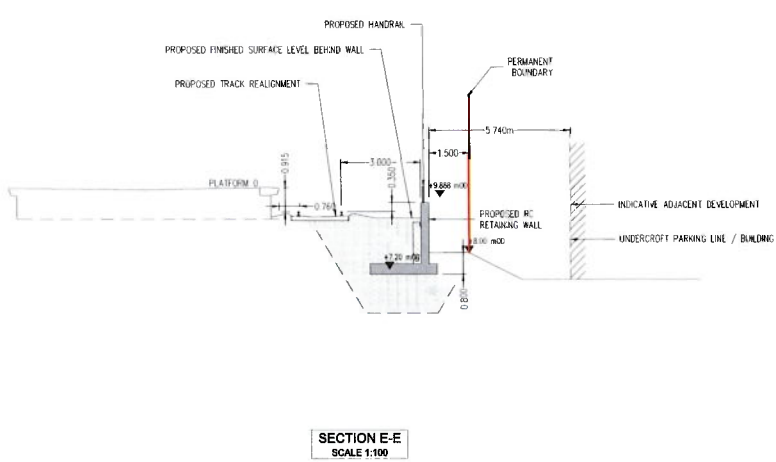
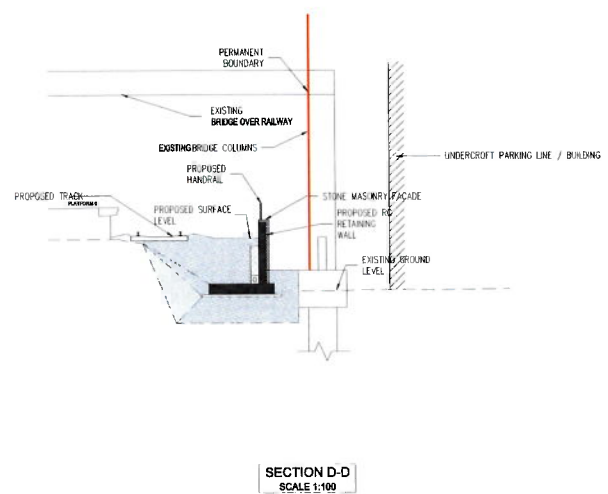
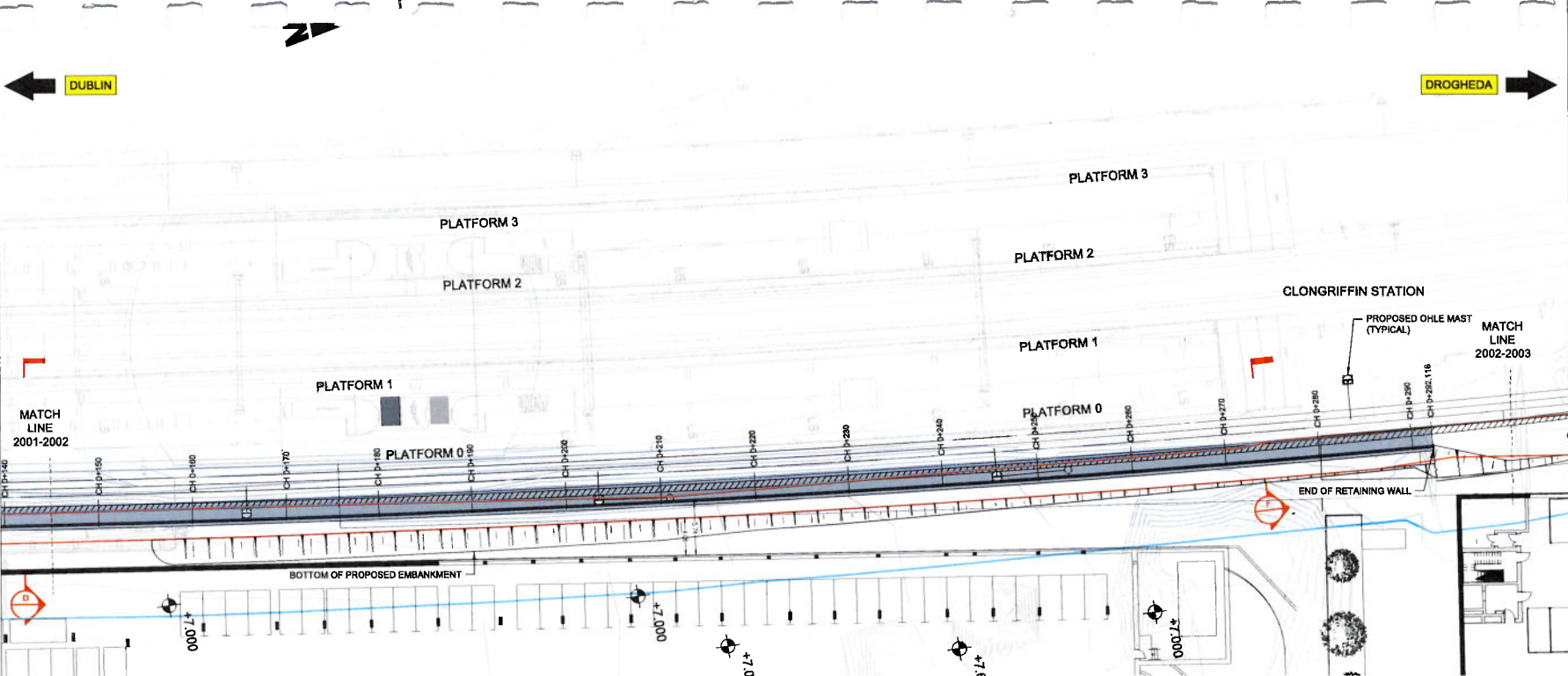
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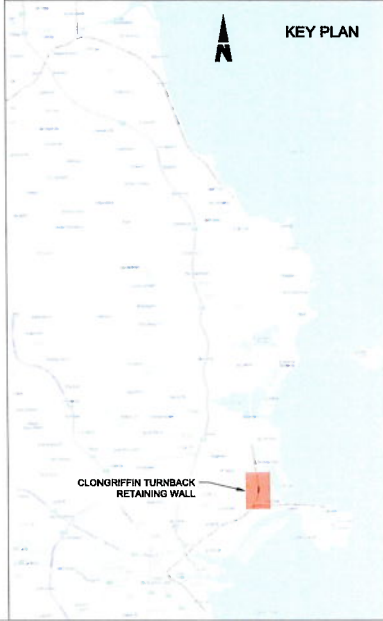
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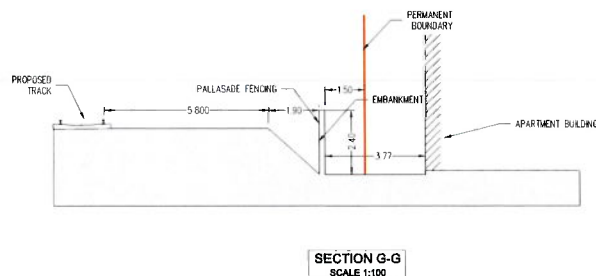
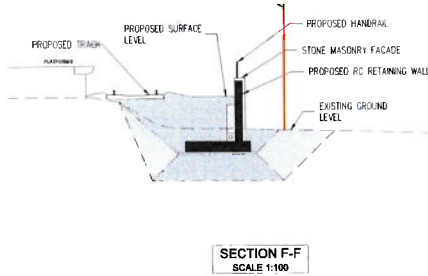
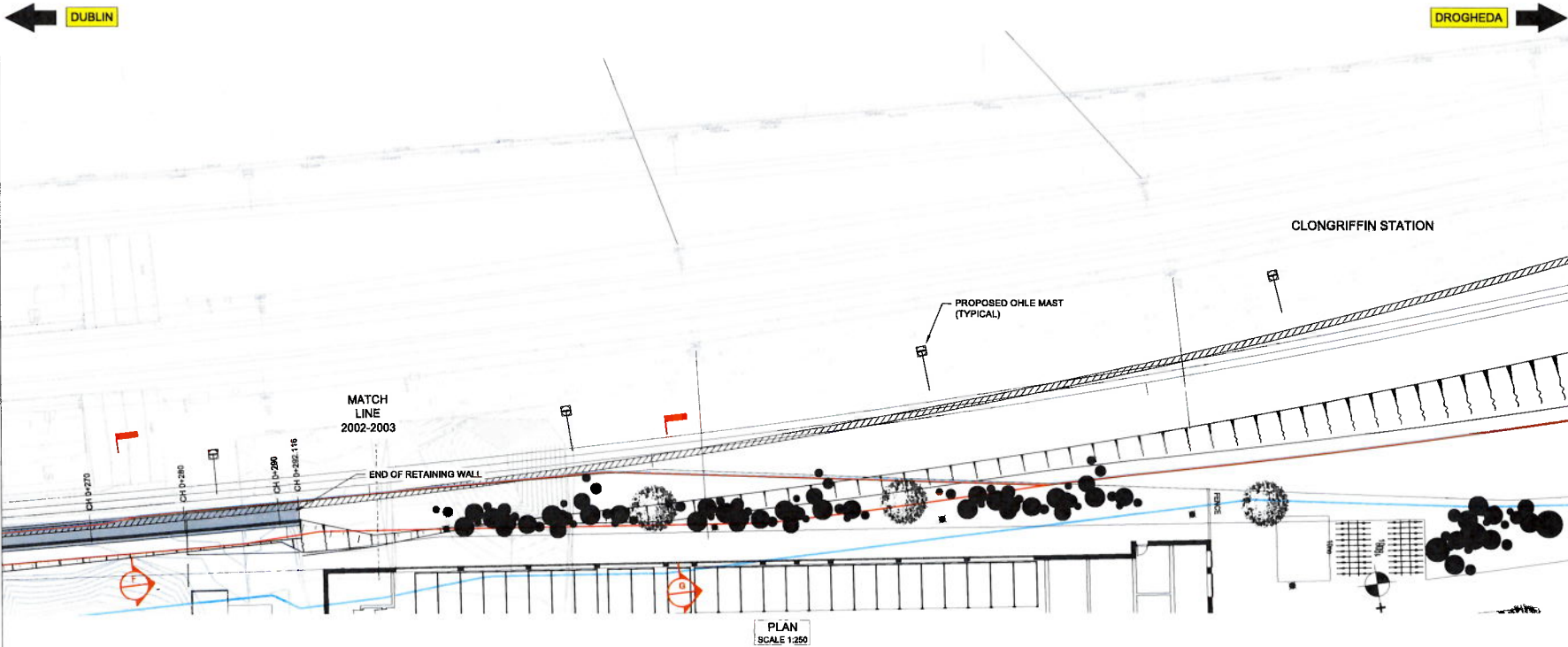
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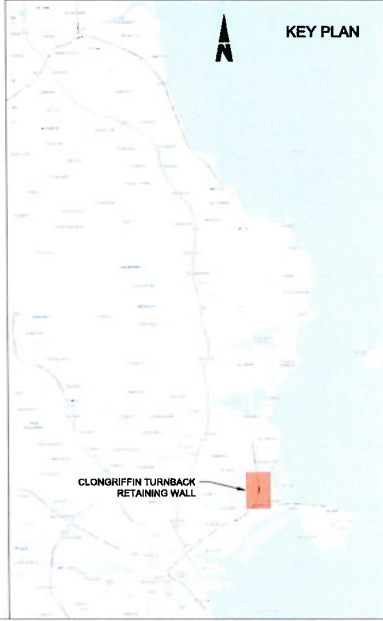
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