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# Appendix C

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## 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 rail travel in the Greater Dublin Area (GDA).

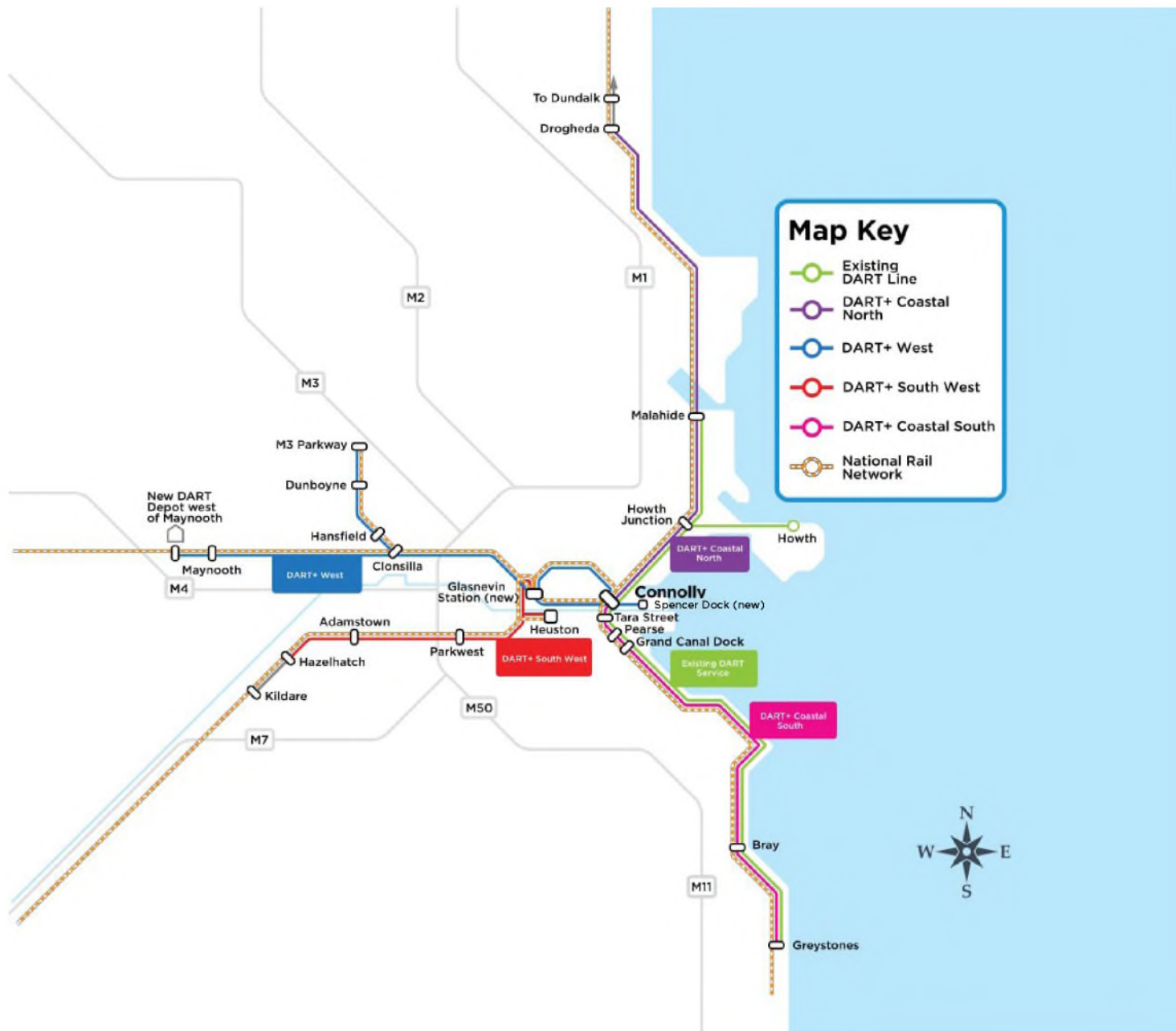
The DART+ Programme also includes the purchase of new train fleet. The DART+ Programme will deliver frequent, modern, electrified services from Dublin City Centre (Connolly & Spencer Dock) to:

- Maynooth, M3 Parkway
- Hazelhatch & Celbridge
- Drogheda
- Greystones

The DART+ Programme is a key transportation improvement to form a high quality and integrated public transport system. It will have benefits for the residents of the Greater Dublin Area and also those living in the other regions. It will assist in providing a sustainable transport system and a societal benefit for current and future generations.

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 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 + West



## 2. DART+ West

The first of the infrastructural projects of the DART+ Programme to be delivered will be the DART+ West project.

The DART+ West project is seeking to significantly increase rail capacity on the Maynooth and M3 Parkway lines. This can be achieved by changing to electrified, high-capacity DART trains and increasing the frequency of trains. The DART+ West project will increase passenger capacity from approximately 5,000 to 13,200 passenger per hour, by utilising new DART trains and lengthening existing diesel trains, operating at increased service frequency (i.e. 6 existing to 12 proposed trains per hour). The capacity projections have been amended since public consultation no.1, based on more detailed railway operating modelling.

Delivery of this project will support existing communities along the railway and support future sustainable development. It will serve all existing stations along the railway corridor between Maynooth Station and M3 Parkway Station to Connolly Station and to a new proposed Spencer Dock Station 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 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 electrification of the rail line will predominantly follow the existing railway corridor. Interventions outside of Iarnród Éireann lands will be required at a number of locations for some of the scheme elements such as:

- Level crossing replacements.
- Proposed depot, including rail and road realignment.
- Proposed new Spencer Dock Station.
- Construction of substations (to facilitate the provision of power to the line)
- Use of land for temporary construction/storage compounds and all ancillary works required for the project.



no. of trains per hour



passenger capacity

Current

.....> Completion

Capacity increases provided by the DART+ West project



no. of trains per hour



passenger capacity



**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+ West.

This project has a two stage non-statutory public consultation process. The first public consultation on DART+ West emerging preferred option was held between August and October 2020. This current public consultation has considered the feedback received, to advance the design. Feedback is now requested on the preferred option for the DART+ West 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 of the preferred option and help us improve the project to ensure it will be a success for you and the communities it will serve.

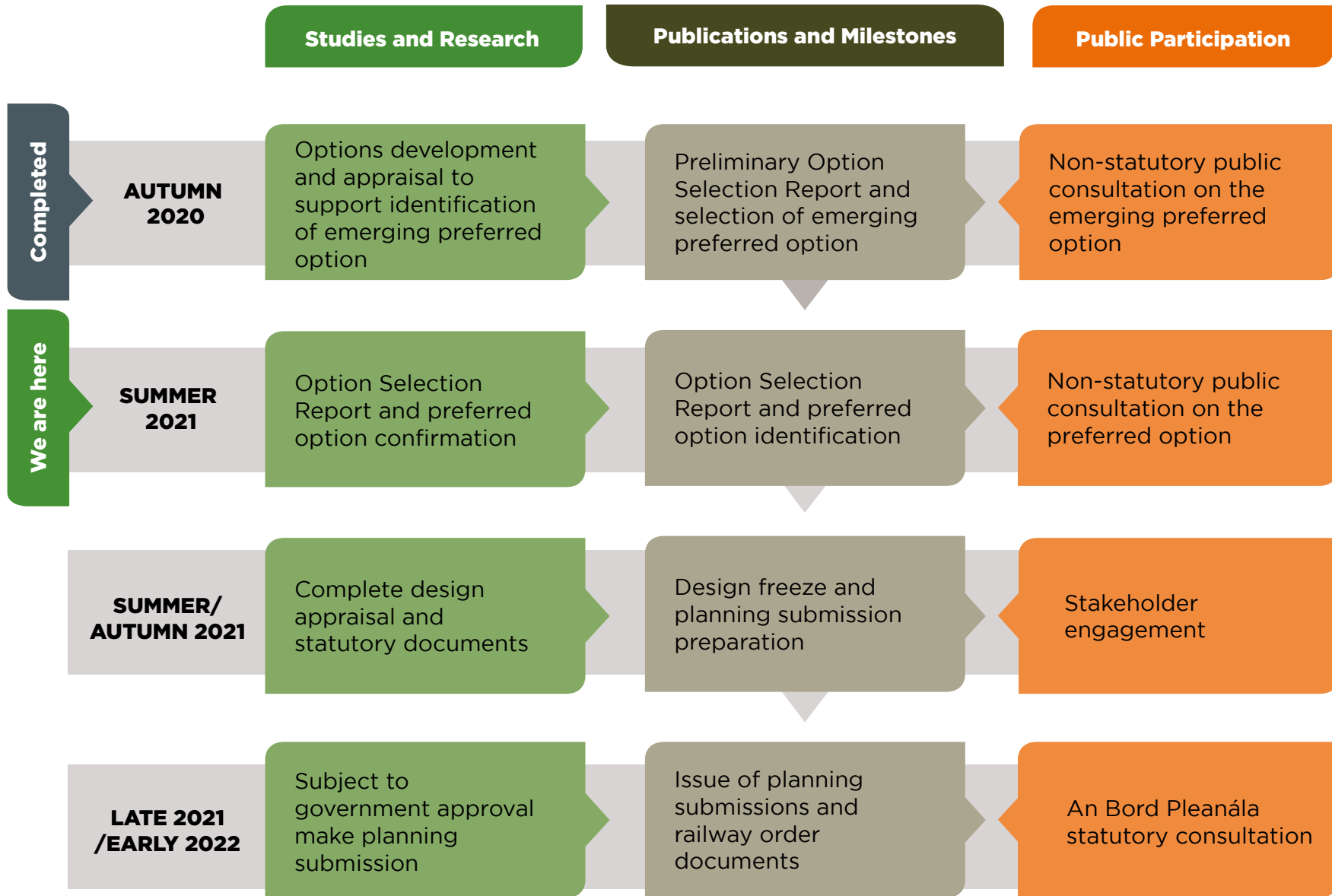
Public participation is welcomed and encouraged throughout the design development process, which will provide you with the opportunity to learn about the design as it develops and provide feedback which will inform the next stage as appropriate.

The main public participation/feedback stages as part of the project development are illustrated in the following graphic and include:

- Public consultation no.1 on the emerging preferred option  
- completed (Autumn 2020)
- Public consultation no.2 on the preferred option  
- current stage
- Statutory consultation period as part of the railway order application process (Late 2021/Early 2022)

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.

Iarnród Éireann invites the public to engage in the design process and all feedback is welcome.



Graphic showing public participation as part of the option selection, design and railway order application process



04

**Current Design  
Status**

## 4. Current Design Status

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+ West project has commenced, and we are at a key stage of the project.

Before we proceed any further, we would like your views on the DART+ West preferred option which is being put forward by Iarnród Éireann as part of this public consultation no.2 (PC2) process.

The preferred option is the preferred combination of design options that have been identified for each of the elements of the project. Following the completion of public consultation no.1 and the feedback received, additional studies and surveys have been undertaken which has 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 project, 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 Late 2021/Early 2022.

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





05

**Key Infrastructural  
Elements of DART+ West**

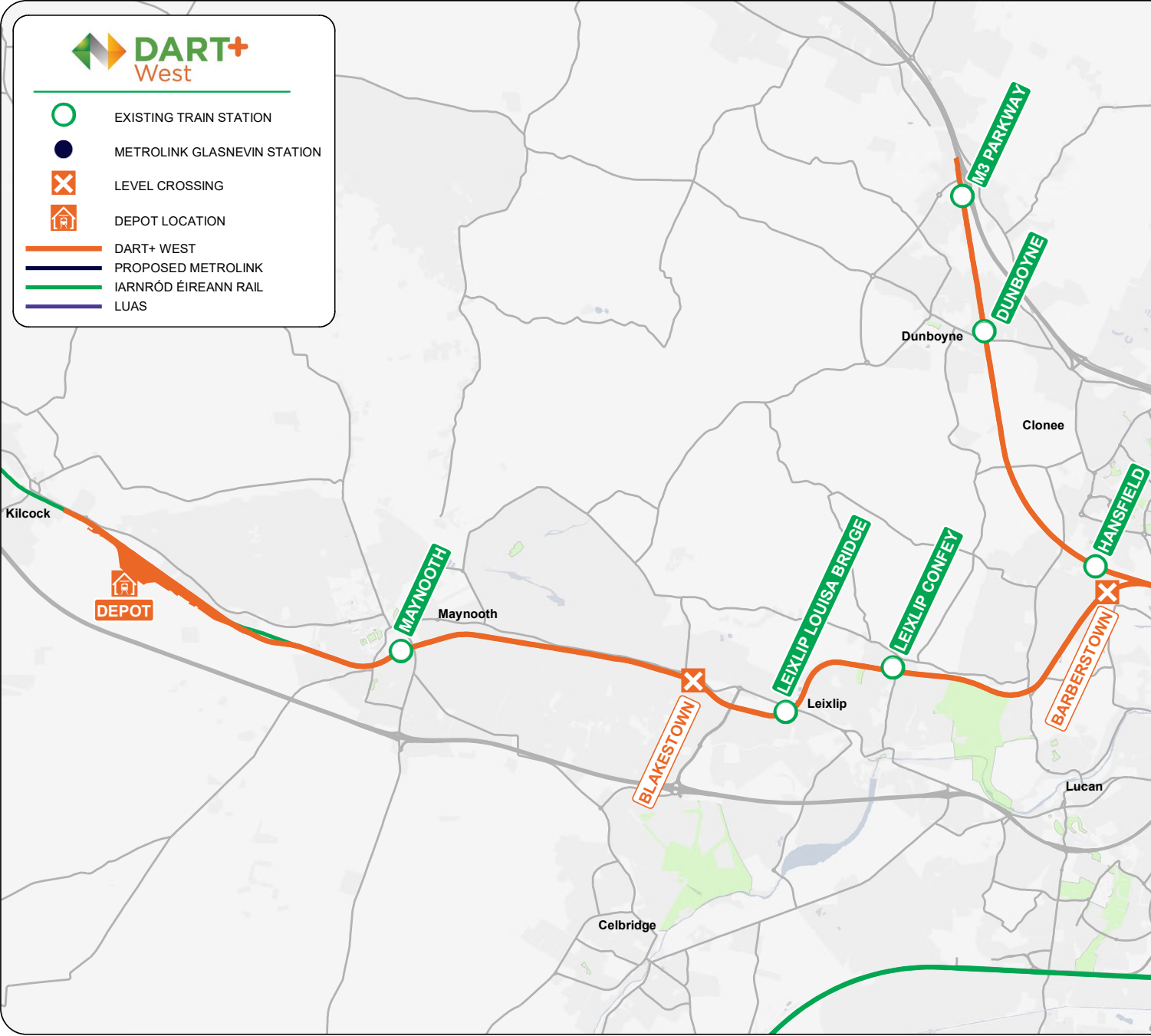
## 5. Key Infrastructural Elements of DART+ West

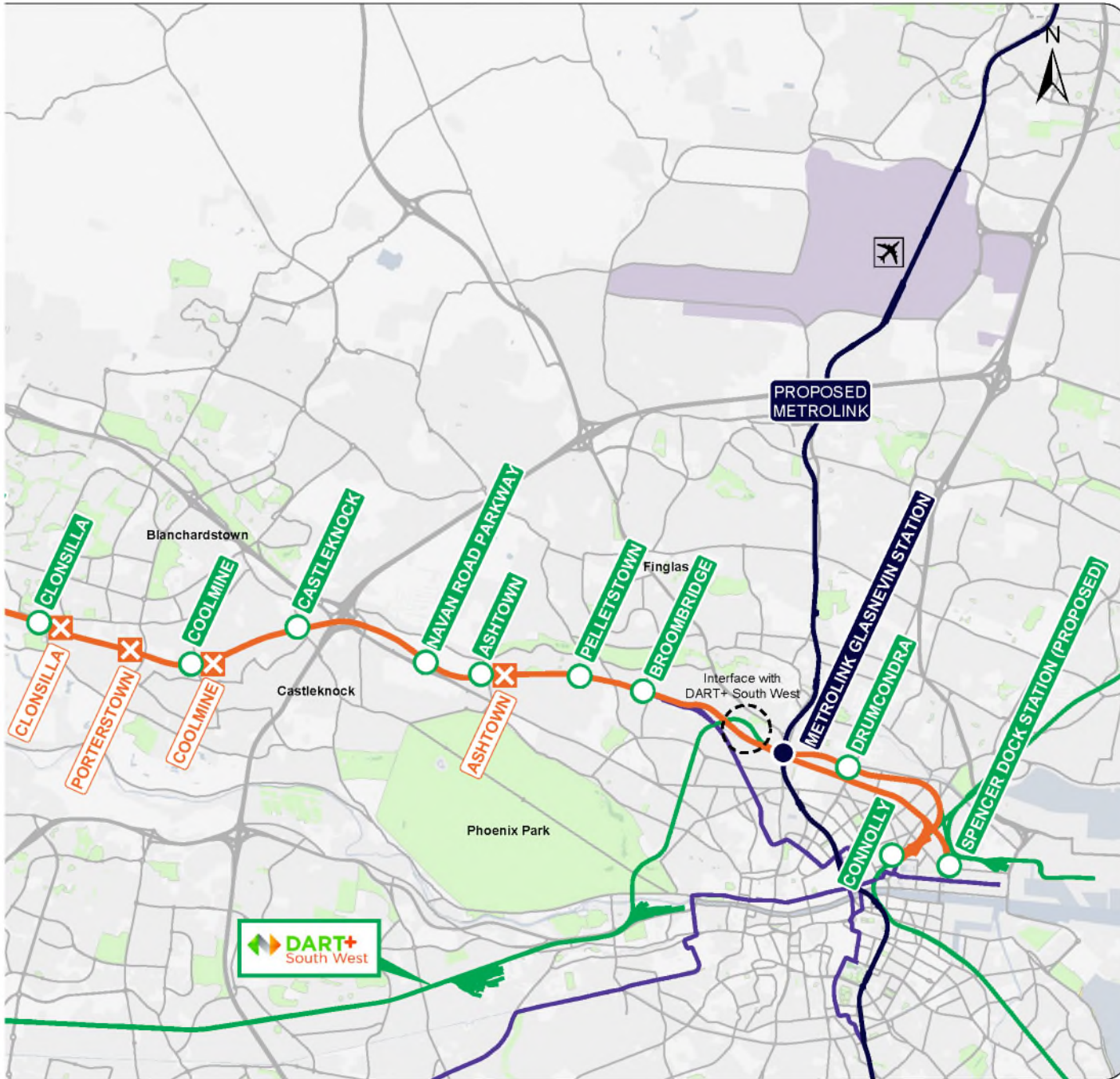
The following is a high-level summary of the key infrastructural elements of the DART+ West project:

- Electrification and re-signalling of the Maynooth and M3 Parkway lines (approximately 40km in length).
- Capacity enhancements at Connolly Station (to include modifications to junctions and the station) to facilitate increased train and passenger numbers.
- Provision of a new Spencer Dock Station, which will better serve the north Docklands area and create an improved interchange with the Luas Red Line.
- Closure of level crossings & provision of replacement bridges where required.
- Construction of a new DART depot facility west of Maynooth for the maintenance and parking (stabling) of trains.
- Interventions at existing bridges over the rail line where there is insufficient clearance to accommodate the new overhead electrification system.
- Substations, electrical buildings and all other civil and ancillary works as necessary to accommodate the project.











06

**Benefits of DART+  
West**

## 6. Benefits of DART+ West

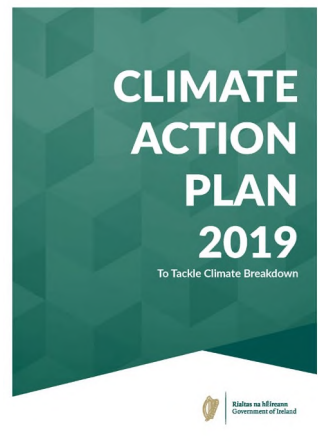
The DART+ West project will have far reaching positive transportation effects for communities along the railway corridor. It will facilitate increased train and passenger capacity on what is currently a constrained network. It will transport passengers in high quality trains that are designed to best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

The project will link good quality public transport to sustainable land use management and can also assist in local regeneration, economic development and support 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 walking 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 2018 to 2027, the National Planning Framework, the Transport Strategy for the Greater Dublin Area 2016-2035 and the Climate Action Plan 2019.

The DART+ Programme is a key deliverable measure in the Climate Action Plan 2019 and supports the achievement of targets for mode shift from private car to public transport.



## Benefits of DART+ West



Increase peak passenger capacity from 5,000 to 13,200 passengers per hour per direction and increase train frequency between Maynooth and M3 Parkway and Dublin city centre – facilitating fast, frequent, and reliable transport to the surrounding communities.



Enhance public transport opportunities for work, education, or leisure purposes.



Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that DART+ West project will deliver.



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 safe public transport network.



Improve multimodal transport connectivity through interchange with the Luas at Broombridge and proposed Spencer Dock Station and with the proposed Metrolink at Glasnevin/Phibsborough.



Improve journey time reliability.



**07**

**Option Selection  
Process**

## 7. Option Selection Process

The process to determine the preferred option for the DART+ West project was completed following a multi-criteria analysis (MCA). This is a process for evaluating different options in a methodical manner, which is informed by the standardised **“Common Appraisal Framework for Transport Projects and Programmes”** published by the Department of Transport.

### Development of Options

The engineering design is centred on enhancing the existing railway network to meet the DART train capacity requirements, necessary to cater for current and future projected passenger demand. In addition to an options assessment for the project, many elements of the project require specific options assessments at a local level prior to incorporation into the assessment.

Options were developed for all individual components including:

- Replacement infrastructure required to facilitate the removal of level crossings.
- Station enhancements including the proposed Spencer Dock Station.
- The proposed maintenance and stabling depot west of Maynooth.
- Permanent way design.
- Signalling, Electricity and Telecoms (SET) and all associated infrastructure including substations and electrical buildings and the overhead line equipment (OHLE).
- Assessment of existing railway bridge structure heights to accommodate the new overhead electrification system and increase bridge parapets to minimise the risk of the public coming in contact with the electrified line.
- Construction compounds and other construction related activities.

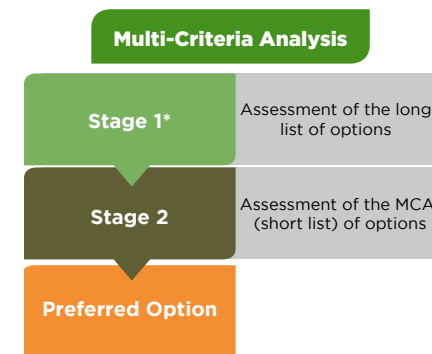
### Assessment Criteria

The options were assessed according to appraisal criteria set out in the Common Appraisal Framework, namely: economy, safety, integration, environment, accessibility & social inclusion, and physical activity.

### Assessment Methodology

Multi-criteria analysis (MCA) can be used to describe any structured approach to determine overall preferences among alternative options and is an objective-based method of assessment. The MCA methodology involves comparing each option against a set number of criteria to assess the advantages and disadvantages in comparison to each other.

In this options assessment process, a two stage multi-criteria analysis is generally used; Stage 1 assessment (MCA1) developed a long list of options which were assessed and sifted to create a short list of options. For some aspects of the proposed project the Stage 1 assessment was deemed to be sufficient and resulted in arriving at a preferred option. For those elements that required further analysis, the short-listed options from the Stage 1 MCA progressed to Stage 2 assessment (MCA2) resulting in a more detailed comparative assessment to determine a preferred option.



\*Note: For some aspects of the proposed project a Stage 1 assessment was deemed to be sufficient and resulted in arriving at the preferred option



**08**

**Considerations since  
Public Consultation No.1**



## 8. Considerations since Public Consultation No.1

At public consultation no.1 (PC1) the emerging preferred option was presented for a number of major elements of the project. The emerging preferred options had been re-analysed to take account of feedback received during PC1, ongoing consultations with key stakeholders, environmental surveys and further design development. The current option appraisals are now included in the Preferred Option Report and the Option Selection Report. A summary of the preferred option is presented in section 9 and on the alignment figures in section 14 of this brochure.

### Actions following Public Consultation 1 feedback

A summary of key issues or concerns raised during public consultation no .1 are described in the Public Consultation No.1 - Consultation Findings Report, which is provided in volume 3 of the Option Selection Report.

As part of the analysis of the feedback received, the following items or options were identified as requiring further consideration and were addressed as follows:

#### **1. Consider an option that does not provide any new road traffic bridge at Coolmine.**

Following a complete re-analysis of the optioneering process to take account of two new options, a new preferred option has been selected for the Coolmine level crossing replacement. This option will provide a new footbridge at Coolmine Road adjacent to the train station but will not provide a new road bridge across the railway line. Junction improvements will be provided on the local road network to facilitate the redistribution of traffic to the adjacent crossings of the railway line at Castleknock Bridge and Diswellstown Road / Dr. Troy Bridge. For further details see section 9 of this brochure.

#### **2. Further investigate the possibility of improving the signalling at level crossings to avoid the requirement for the closure but still delivering DART+ West increased train capacity objectives.**

A further analysis has been undertaken on the potential to upgrade the signalling, whilst retaining the level crossings at increased train frequency. The analysis has shown that this is not feasible and therefore the level crossings will be required to close. A summary of the analysis is provided in annex 03.1 of the Option Selection Report.

#### **3. Consider improved connectivity across the railway corridor at Coolmine and Ashtown as part of the DART+ West Project.**

Improved access proposals for Coolmine and Ashtown, which were previously to be developed as part of a separate IÉ Stations Accessibility project, will now be provided within the DART+ West project.

#### **4. Consider an alternative solution for the set down area at Martin Savage Park.**

The set down area design has been revised to minimise loss of amenity area and impacts on the residents of Martin Savage Park.



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 Spencer Dock and Connolly Station in the east to the depot and M3 Parkway Station in the west. 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 starting principle for the project is to upgrade the existing railway corridor and undertake all work, where possible, within the existing railway corridor.

### General Linear Works

#### Re-signalling, Electrical and Telecommunications works

The following is a summary of the works required to enable the electrification of the line and the upgrade of the existing network:

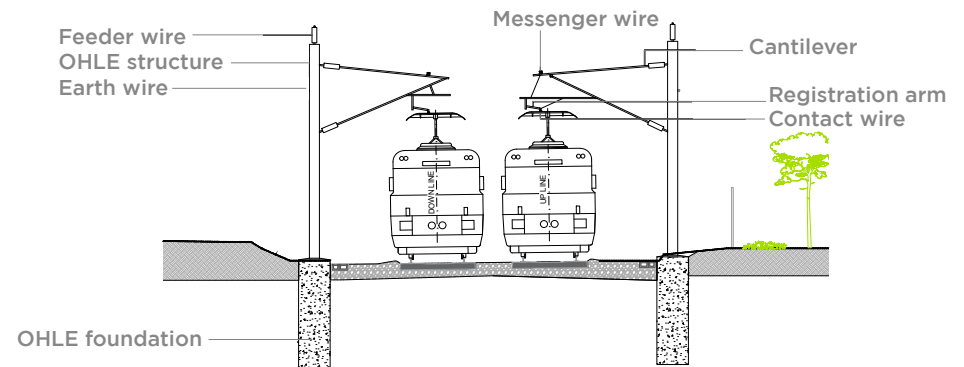
- Overhead electrification equipment will be required to provide electrical power to the network’s new electrified train fleet. This will be similar in style to that currently used on the DART network.
- Twelve substations will be required at intervals along the full length of the line to provide power to the network.
- Signalling upgrades and additional signalling equipment will be required to the upgraded infrastructure to allow the delivery of the proposed train service specification.
- Improving boundary walls and fencing to ensure public safety due to the electrification of the line. This will require increasing the height of walls in some instances to provide the necessary protection and physical segregation between public areas and the railway corridor.
- Alterations to railway tracks, including minor realignment and track lowering.
- Utility diversions required to accommodate new and upgraded infrastructure, vegetation management and other ancillary works provided along the length of the project.

### Overhead Electrification Equipment

The new DART trains will be electrically powered from overhead wires and associated support wires. The appearance of the proposed infrastructure will be similar to that used on the existing DART as shown in the image below. In order to carry the wires, structural steel supports are necessary. A typical steel mast support has been selected and is illustrated below. Masts will typically rise to between 6.0m and 8.5m above rail level. It is anticipated they will be located at spacings of between 40m and 50m along the railway.



Sample DART OHLE Equipment



Single track cantilever layout (preferred option)

In particular instances where space is constrained, variants on the steel supports are envisaged which are of a similar type. The different support configurations are illustrated by location on the alignment figures in section 14 of this brochure.

## Signalling

The existing railway incorporates signalling infrastructure along its length in the form of underground cables, track level sensors and switches, and visible signals on posts or gantries which communicate instruction to the train drivers along the route. As part of DART+ West it is intended to replace the existing signalling system with modern technology which will serve the more frequent train service. The proposed signalling system will incorporate similar components to those already in use. Sample posts and gantries and signal boxes are shown below.



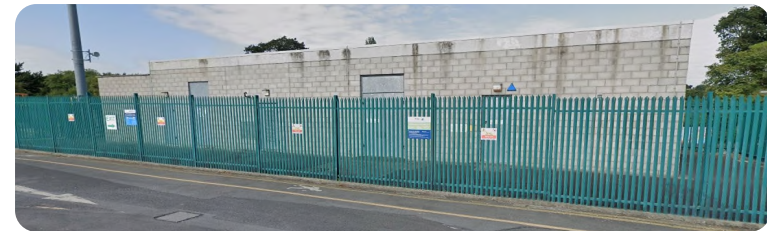
Portal gantries will only be used in stations or in areas with more than two tracks such as in Connolly Station and in the Docklands area.

Telecommunications for a rail project are critical to ensure all train movements are managed and regulated in a safe manner. The telecommunications provide a link between the remote signalperson, the lineside signal / communications infrastructure and the train driver. The telecommunications infrastructure includes underground cabling, lineside telecom location cases similar to the example shown below and localised building infrastructure. The telecommunications system also controls station infrastructure, such as cameras, telephones, loudspeakers, public information displays for trains, etc.

## Electrical Substations

Electrical power will be supplied to DART+ West at electrical substation buildings located at intervals along the line. A total of twelve electrical substations are necessary along the DART+ West route corridor and these are described in the sectional description of the preferred option.

Electrical power from the ESB network will be supplied to the DART+ West substations and it will be converted to 1,500V direct current to power the overhead line electrical system. Electrical substation buildings are approximately 5.0m high x 30m long x 10m wide. The substations will be located within a secure compound, behind palisade fencing for security purposes. Where practicable, the DART+ West project has sought to locate the substations within CIÉ owned lands. They will have appearance similar to that shown in the image below.



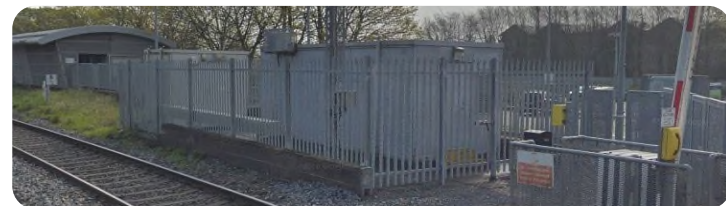
Sample substation building

## Ancillary Equipment Cabins

There are a number of equipment cabins which are required to support the signalling, electrical and telecommunication infrastructure. These will be located within existing Iarnród Éireann lands where possible and will typically be within stations and where similar cabins are currently evident. The cabins are typically fenced off for security purposes and a sample set of cabins is shown in the image below. The sites of equipment cabins are indicated on the Alignment Figures in Section 14.

The various cabins required along the works are:

- Signalling Equipment Rooms (SER's);
- Principal Supply Points (PSP's);
- Telecommunication Equipment Rooms (TER's).



Sample equipment cabin

## Permanent Way Requirements

### Trackwork Alterations

It is proposed to alter the existing track alignment where necessary to ensure there is sufficient space to fit the electrical infrastructure under bridges along the route and, in some instances to improve the track alignment in accordance with current standards. The alterations typically include lowering sections of the railway marginally and altering the associated drainage and utilities equivalently. The alterations apply to lengths of up to 1km as shown on the alignment figures in section 14.

### Interventions at Bridges to Obtain Necessary Clearance

Sufficient height at bridges is a critical project requirement for DART+ West, as there needs to be sufficient space between the roof of trains and the underside of the bridge to accommodate the new overhead electrification system. There are a number of locations where space is insufficient and interventions are necessary. Alternative design solutions have been selected including the following:

1. Provision of specialist electrical solutions.
2. Lowering of the rail track with measures to protect against flooding and to ensure rail stability.
3. Modification of an existing bridge.
4. Replacement of access over an existing bridge with equivalent access over a proposed new bridge with appropriate architectural consideration.
5. Realignment of the rail corridor to avoid a bridge.
6. A combination of the above.

There are a number of locations along the scheme where structural interventions are required. These are:

- Modification of an existing flat deck bridge by raising the existing bridge deck by between 200mm and 320mm. This solution is proposed at Old Navan Road Bridge, and Louisa Bridge;
- Modification of an existing arch bridge with replacement precast arch to a higher profile and altering the spandrel and parapet walls. This applies at Broombridge, Castleknock railway bridge and Leixlip Confey Station railway bridge.

A section of new railway alignment is proposed between Maynooth and the new depot, south of the existing railway corridor. This will avoid the requirement to reconstruct Jackson's bridge.

### Level Crossing Removals

There are a number of existing level crossings along the route. These are located at (east to west) Ashtown, Coolmine, Porterstown, Clonsilla, Barberstown and Blakestown. The level crossings constrain railway capacity due to the need to share the interface with cars, pedestrians and cyclists. In order to achieve the project objectives for passenger rail service increases it is not viable to retain the level crossings in their current form or with enhancements. The permanent removal of the level crossings is necessary to achieve the increased train frequency.

The removal of the level crossings will improve train efficiencies, will enhance safety, and will remove the delays caused by the road / rail interface. Their closure will also remove the periodic blockages on the road system, which are currently very pronounced, especially in the morning and evening peak commuter periods (for example Coolmine level crossing is closed for approximately 40 minutes between 08.00-09.00 each weekday).

On removal of the level crossings, the boundary of the railway will be secured with palisade fencing 2.4m high and with gates which will allow Iarnród Éireann maintenance access to the railway.

Where existing usage patterns of the level crossings exhibit significant activity, alternative equivalent access is proposed in the form of bridges and roadworks. Infrastructural proposals in respect of each of the level crossing locations is included in the sectional description of the preferred option.

### Ancillary Works

With the installation of electrified lines, interventions will be necessary at structures along the length of the scheme to provide protection from accidental or deliberate interference. Boundary walls along the railway will need to be raised to remove the risk of the public coming into contact with the electrification equipment, for example along the Royal Canal at Whitworth Road. Parapet walls on bridges crossing the railway will have to be raised in height to a minimum of 1.8 m above adjacent pavement level.

### Utilities Diversion

Existing utilities such as watermains, electricity cables, telecommunications cables and gas mains, both underground and above ground will require temporary and permanent diversion to accommodate the scheme. This will typically involve the relocation of the existing services along new routes to make space for the new infrastructure.

### Compounds

A number of temporary and permanent compounds are required along the length of the project.

#### Temporary Construction Compounds

Temporary compounds are generally located adjacent to the site of individual elements of infrastructure that are being constructed, i.e. the depot or where major bridge or station works are required. It is envisaged that these compounds will only be in place during the construction phase of the project. Their locations are summarised below and are shown on the Alignment Figures in section 14.

#### Operational Phase Maintenance Facilities

In addition to the existing maintenance compounds along the route, new operational phase maintenance facilities have been identified to support the project. An additional facility will be located immediately south of the railway and to the west of the Navan Road Parkway Station. The maintenance facility will include a two-storey building with a floor plan of approximately 7.5m high x 42.5m long x 9.8m wide (subject to further design development) and will include staff parking. It will be located within a secure compound accessed via the existing station access roadway.

The extension of the proposed DART+ West line to the proposed Spencer Dock station requires the demolition of several railway buildings including an existing maintenance facility, immediately east of the existing Docklands Station. It is proposed that this will be moved further east to a site within the Docklands area adjacent to East Wall Road. The area between the existing Docklands station and the extension of the railway alignment into the proposed Spencer Dock station is to be utilised as a construction compound during the construction phase and permanent compound during the operational phase. The proposed extension of the railway will sever the access to this area requiring a new access ramp to be provided from Sheriff Street Upper to serve both the construction and operational phases.

Function	Locations
Multi-disciplinary	Docklands, Castleknock, Blakestown Millfarm, Depot, Dunboyne, M3 Parkway
Stations	Connolly, Ashtown, Coolmine
SET	Cabra Road, Reilly's Bridge and Reilly's Bridge complementary, Navan Road Parkway and Barberstown
Permanent Way	Connolly, Glasnevin, Clonsilla, OBG13 Collins bridge, OBG18 Pike bridge and OBCN286 Barnhill bridge
Structures	OBG5 Broombridge, OBG9 Old Navan Road bridge, OBG14 Bridge adjacent to Leixlip Confey Station, OBG16 Louisa bridge; New UBG22A, UBG22B and UBG22C; and New OBG23A
Level Crossings	Ashtown, Coolmine, Porterstown, Clonsilla and Barberstown
Substations	Glasnevin, Ashtown, Coolmine, Leixlip Confey, Maynooth and Hansfield

Proposed Temporary Construction Compound Locations

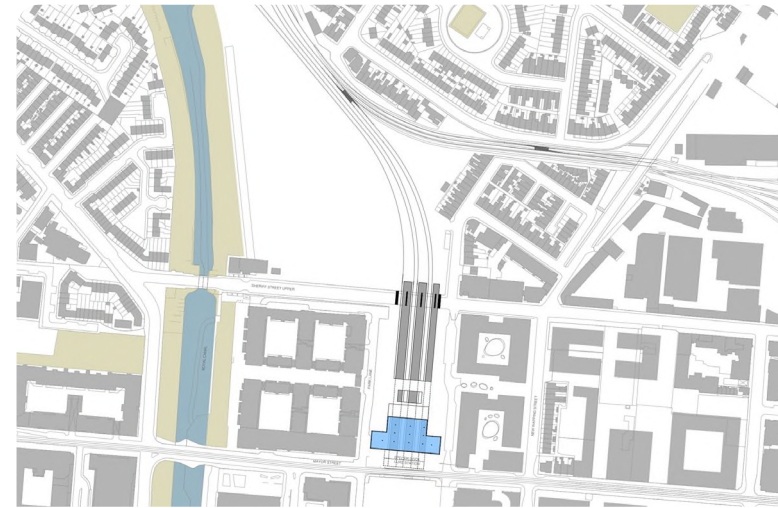
## City Centre Enhancements

The primary aim of the DART+ West project is to facilitate the increase in train frequencies and to increase passenger capacity along the Maynooth and M3 Parkway lines to the City Centre. The increased train frequency associated with DART+ West, coupled with the existing railway traffic from other lines, cannot be accommodated solely within Connolly Station. Therefore, additional city centre capacity is required. DART+ West has considered a number of options for providing this additional city centre capacity.

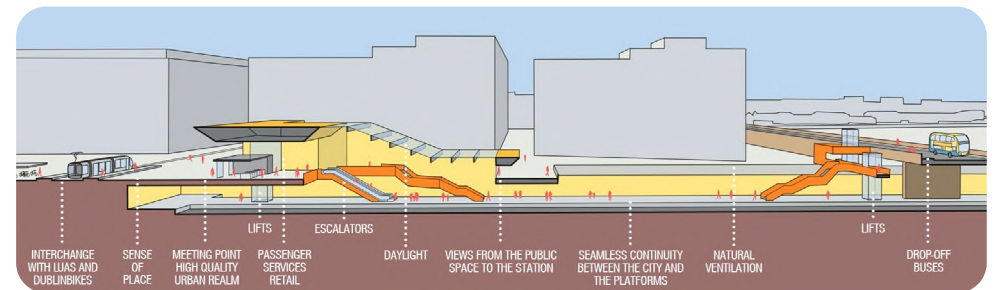
### Spencer Dock Station

The preferred option to provide additional capacity in the city centre is the construction of a new station at Spencer Dock. This new station will represent a significant enhancement to the Dublin Docklands area, securing interchange with Luas, and local bus services making Spencer Dock a key transport interchange hub in the heart of the Dublin Docklands Area. The proposed station provides good integration with the surrounding buildings by aligning the station with North Lotts planning scheme. In order to achieve the optimal platform arrangements, the proposed railway tracks will be lowered by approximately 7.0m to pass under the Spencer Dock Plaza providing an sub-surface terminal station that will have four platforms with lifts, stairs and escalators linking passengers to the surface streetscape in passing under Sheriff Street, it will be necessary to reconstruct two spans of the Sheriff Street Upper Bridge.

The new Spencer Dock Station will not preclude building development above the station in the future. Any future development is not associated with DART+ West and will need to consider the requirements of both the station and the land use policy when taken forward.



Spencer Dock Station Preferred Option: General layout



Graphic illustrating the Section and the Primary Elements of Spencer Dock Station



View of proposed entrance to Spencer Dock Station

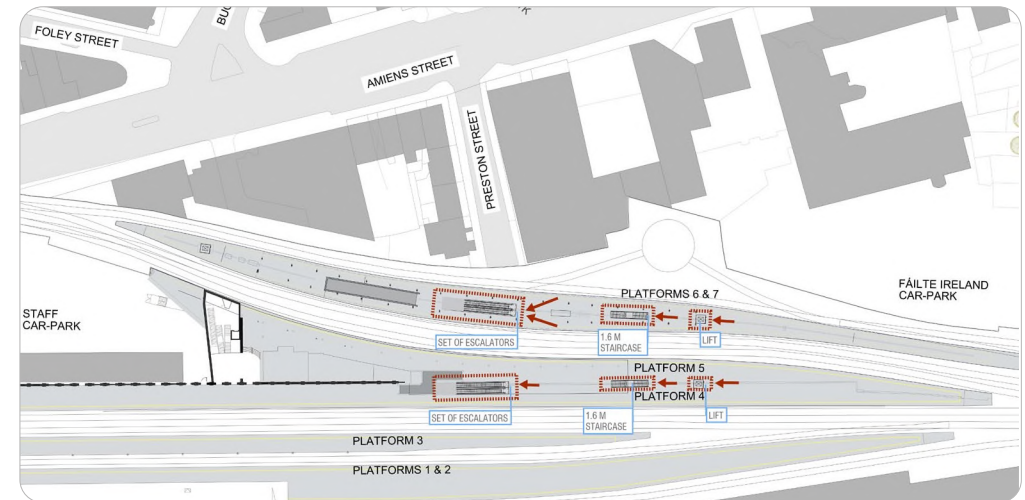
## Connolly Station

Two principal issues arise at Connolly Station in respect of the project. It will be necessary to provide additional access and egress capacity to the Loop Line bridge platforms (platforms 5, 6 and 7) to accommodate the increased passenger numbers which will be served by the project. In addition, it will be necessary to enhance the junction infrastructure immediately north of the station so it can accommodate the increased number of trains passing through.

## Proposed Preston Street Entrance

In respect of passenger access and egress enhancements, the preferred option is to provide a new Connolly Station entrance from Amiens Street via Preston Street and through the existing undercroft arches beneath the station. This option requires refurbishment of an area of the existing undercroft vaults and the platforms themselves. Access from the undercroft to the raised platform level will be by means of escalator, stair and lift centred on the existing island platforms. An artistic impression of the proposed entrance is provided below.

The platform level layout with the proposed staircases, escalators and lifts is shown in the plan below. The proposed escalators are located below the existing canopies and consequently will have weatherproofed access to raised platform level. It is proposed that the staircases and lift will be enclosed within architectural glass canopies to provide protection from the weather.



Proposed Preston Street Entrance

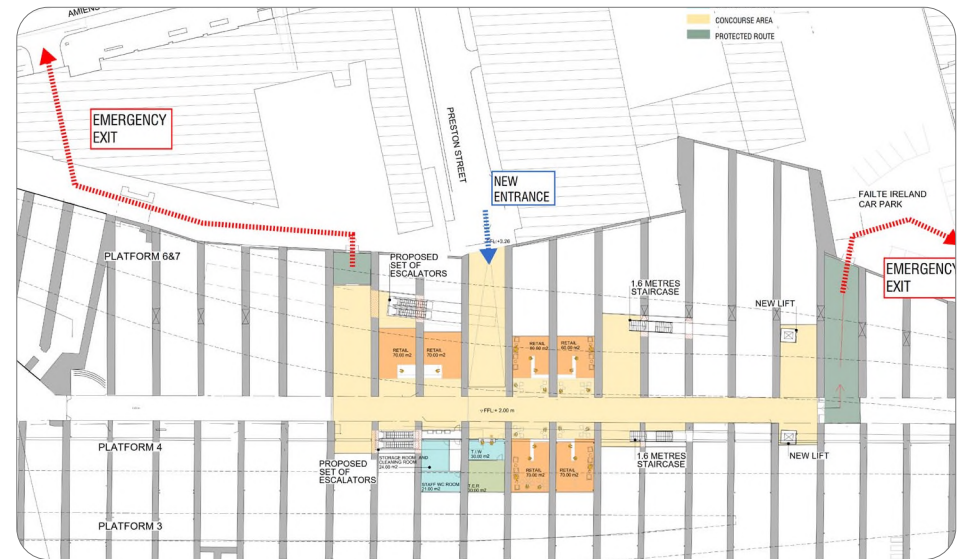


Graphic of Proposed Entrance from Preston Street

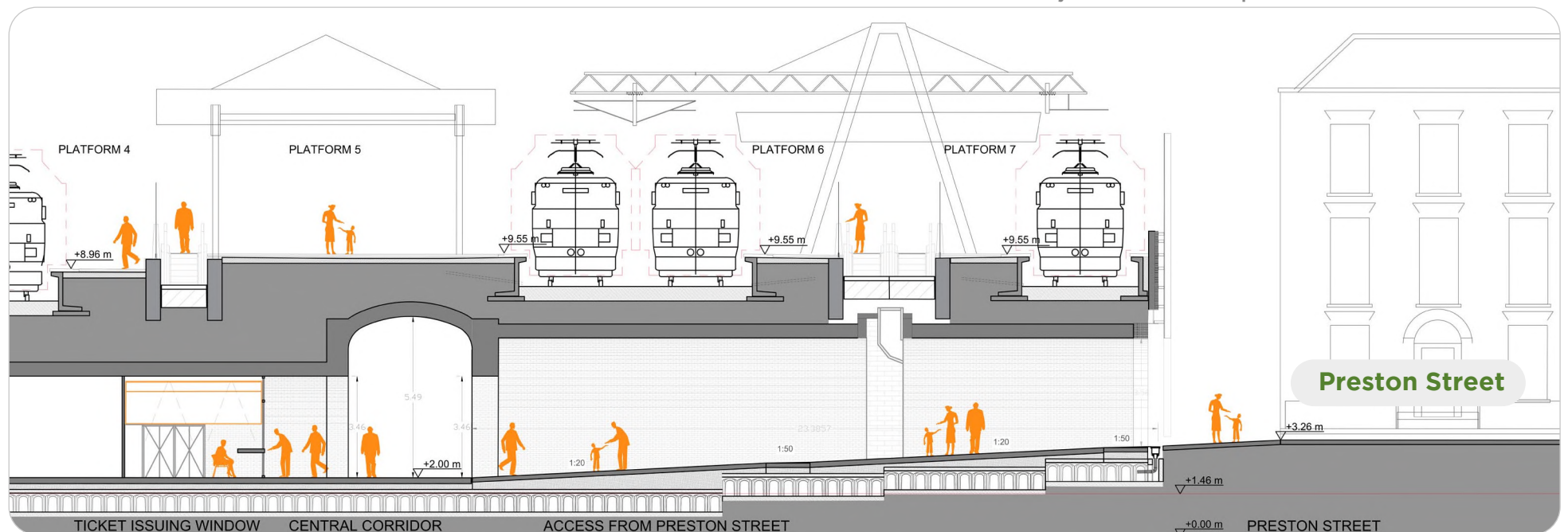


The incorporation of emergency exits has been accounted for in the development of the preferred option, and these are illustrated in the street level layout shown opposite.

The southernmost emergency egress is proposed to lead onto Amiens Street. The northernmost emergency egress is proposed to be through the existing Fáilte Ireland carpark to Seville Place. The proposed Preston Street entrance will provide good intermodal connection with bus routes at Amiens Street. The graphic below provides a section through the entrance vault at Preston Street.



Connolly Station Preferred Option: Street Level



Section through entrance to Preston Street

### Proposed Trackwork at Connolly Station

To facilitate the proposed increase in train frequency at Connolly Station it is proposed as part of DART+ West to modify the trackwork on the northern approach to the Station with additional crossovers and adjustments to track alignment. The modifications will also facilitate enhancement of operational flexibility at the Station.



Existing Track layout North of Connolly Station

### Docklands Substation

The preferred option for the location of the Docklands substation is to the north of Sheriff Street and within the Iarnród Éireann North Wall Yard railway compound. Access to Docklands substation will be provided from the existing entrance on Abercorn Road.

## City Centre to Phibsborough/Glasnevin

### General Description

It is proposed that both of the existing railway lines between Connolly Station and Phibsborough/Glasnevin and between the proposed Spencer Dock Station and Phibsborough/Glasnevin will be electrified with the installation of overhead electrical equipment, associated infrastructural enhancements, re-signalling, telecommunications, electrical substations and ancillary works.

Along this section of the project, proposals for supporting electrical wires will typically involve the installation of single-track cantilever supports at stations and twin track cantilever supports where the line is adjacent to the canal. Some of the structures will be supported laterally or on top of viaduct structures.

There are a number of existing structures in this section where the space beneath the bridge is insufficient to allow the installation of a standard OHLE solution. At these locations, track lowering, installation of a reduced height OHLE solutions or a combination of both is proposed to meet the needs of the scheme. This work will have no significant effect on the existing bridges and the works will be undertaken entirely within the existing rail corridor. The bridges in question are listed below:

- Three overbridges on the Maynooth Line (MGWR) north of Connolly Station
- Ossory Road Bridge
- Two overbridges located on the Phoenix Park Line (GWSR) north of Connolly Station
- Newcomen Bridge
- Clarke's Bridge
- Clonliffe Bridge
- Binn's Bridge
- Cross Guns (Westmorland Bridge)
- Cross Guns (on Prospect Road)
- Maintenance bridge at Glasnevin.

## Phibsborough/Glasnevin to Clonsilla Junction

### General Description

The Maynooth line runs alongside the Royal Canal between Phibsborough/Glasnevin and Clonsilla Station. The line then passes Broombridge Station, where it interfaces with the Luas Green Line. Travelling in a westerly direction along this section are the following stations: Pelletstown (which is currently under construction) Ashtown, Navan Road Parkway, Castleknock, Coolmine and Clonsilla.

The existing level crossings in this section of the project which have been identified for closure are Ashtown, Coolmine, Porterstown and Clonsilla.

Along this section, OHLE is typically single-track cantilever portals at stations with sections of twin track cantilever when the line is adjacent to the canal.

There are two existing structures within this section where existing clearance beneath the bridge is insufficient to allow the installation of a standard OHLE solution. At these locations track lowering, installation of a reduced height OHLE solution or a combination of both shall be employed to allow a suitable solution to be achieved to minimise impacts on the existing bridge structure. The bridges in question are listed below:

- M50 Roundabout / Navan Road bridge.
- M50 Roundabout bridge.

A new station is proposed at Phibsborough / Glasnevin as part of the MetroLink project. This station will be delivered as part of the MetroLink Railway Order.

### Glasnevin substation

The preferred option is the placing of the substation to the north of the railway on the edge of the playing pitches of St. Vincent's School in Glasnevin. Access for construction is likely to be off the Finglas Road, through Claremont Lawns and Clareville Court. Controls will be placed on the contractor during construction to minimise any potential impact on the residents of Claremont Lawns and Clareville Court and on the school due to construction traffic. The proposed location is not within the existing IÉ railway boundaries therefore land acquisition will be required.

## Broombridge

The existing bridge (Broome Bridge) carrying Broombridge Road over the railway requires an intervention to provide sufficient clearance for the OHLE. The railway arch is located next to the Royal Canal arch with the two-arch limestone canal bridge dated c.1790 and railway bridge c.1845. Broombridge is included in the Record of Protected Structures (RPS) for Dublin City. While the entry in the RPS states that only the canal bridge is protected, the national Inventory of Architectural Heritage (NIAH), Reg No. 50060126 has included both the railway and canal bridges and they have been assigned a National significance for their architectural, historical, social and technical interest.

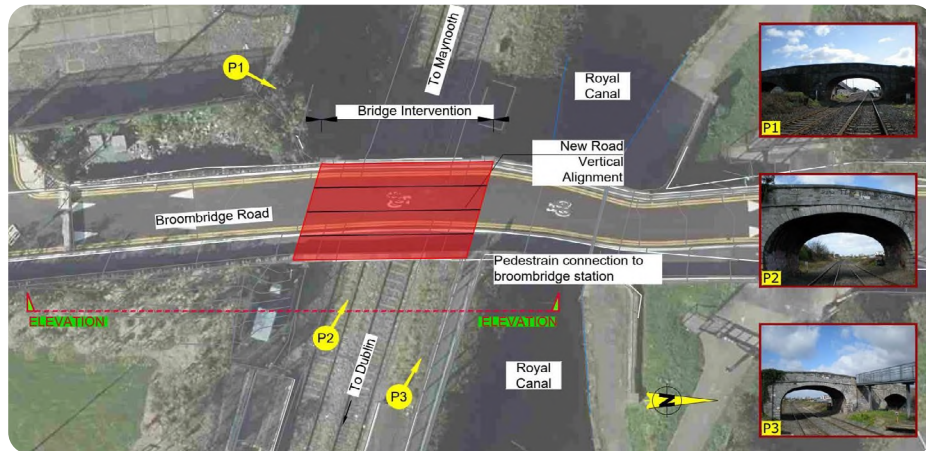
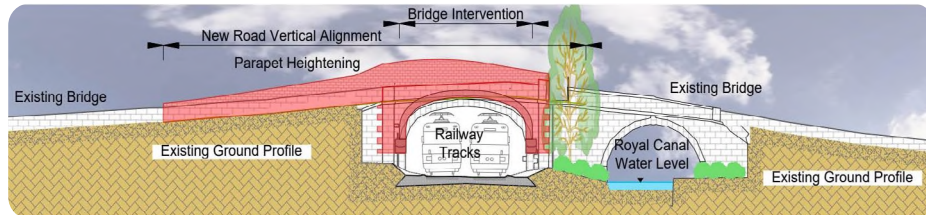
The clearance at Broombridge railway bridge is extremely low. It is not possible to deploy a reduced OHLE system or a track lowering solution due to potential flooding issues and existing station infrastructure at Broombridge Station. Therefore, the preferred option is for a careful and sensitive reconstruction of the existing railway bridge to obtain the required clearance.



View of Broombridge (Canal and rail arches)

Given the architectural heritage value of Broome Bridge, the project team will apply an extremely sensitive approach to the design of the proposed bridge reconstruction and to ensure the works do not impact on the adjacent Royal Canal arch bridge. It is proposed to systematically deconstruct the existing bridge and reconstruct with a higher clearance using pre-cast arch units. The existing Broombridge stone will be reused in the facing of the reconstructed rail bridge.

The design will be informed by consultations with Dublin City Council and the Architectural Advisory Unit of the Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media.



Graphic of proposed deck reconstruction of Broombridge

## Ashtown

### Ashtown Level Crossing Replacement

The preferred option at this location entails re-routing Ashtown Road along its original alignment (pre-Royal Canal) on Mill Lane and passing under both the railway and the Royal Canal. This option can accommodate a 6.5m carriageway with 1.8m footpaths on both sides and 2.5m two-way cycle track on the eastern side. It is proposed to curtail the footpath along the west of the alignment fronting the listed Ashton House curtilage to a 0.5m paved verge and provide a pedestrian crossing at this location to minimise the impact on the heritage property. Cyclists and pedestrians will be connected from the underpass to Ashtown Road via a new dedicated shared 3.0m facility on the south side and a shared 3.0m ramp on the north side connecting to Ashtown Road. An at-grade turning head and drop-off are proposed each side of the railway.

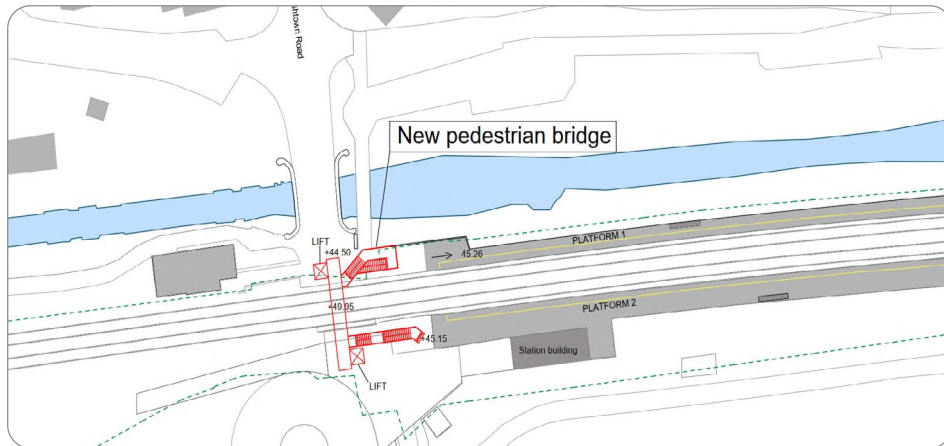
The preferred option extends approximately 150m north of the canal and 300m south of the railway. The proposed road alignment drops to an approximate level of 37.5m Ordnance Datum (OD) under the railway. On both sides of the railway a separate 3.0m wide link is proposed to provide enhanced access for non-motorised users between both sides of the railway.



Aerial view of Level Crossing Replacement at Ashtown  
(Trees removed from image to provide improved view of accessibility bridge)

### Ashtown Station Accessibility Enhancements

The proposed closure of the level crossings has resulted in the requirement to assess in-station accessibility for persons with impaired mobility. The preferred option for Ashtown Station includes a new pedestrian bridge replacing the existing footbridge. The new footbridge will provide staircases and lifts to ensure accessibility between platforms. It is placed at the entrance of the station, close to the western end of the platforms as shown in the graphic on the next page. This bridge will be available to passengers and the public during station operational hours.



Ashtown Station pedestrian bridge layout

### Ashtown Substation

The preferred option is the placing of the substation to the south of the railway and to the east of Ashtown Station. The proposed location is substantially within the existing Iarnród Éireann railway boundary, thereby minimising additional land take. Vehicular and pedestrian access can be established via a connection to Ashtown Road.

### Navan Road Parkway Operational Phase Maintenance Facility

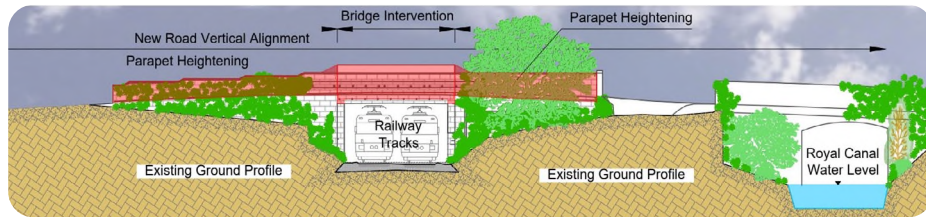
The preferred option is located on private lands south of the rail line and west of the station parking. The proposal is to establish an operational phase maintenance facility and to use it to support construction activity while the works progress on site. In this regard, the facility will have an access point to the tracks, allowing access for rail mounted vehicles. The maintenance facility will include a two-storey building approximately 7.5m high x 42.5m long x 9.8m wide subject to further design development. The facility will be located within a secure compound accessed via the station roadway and will include provision for staff parking.

### Old Navan Road Bridge Deck Lift

The existing bridge carrying Old Navan Road requires an intervention to provide sufficient clearance for the OHLE. The Preferred Option is for a lifting of the existing bridge deck by approximately 290mm to obtain the required clearance. This will result in a temporary impact on vehicular access across the Old Navan Road.



View of Old Navan Road bridge



Graphic of Proposed Old Navan Road Bridge Deck Lift

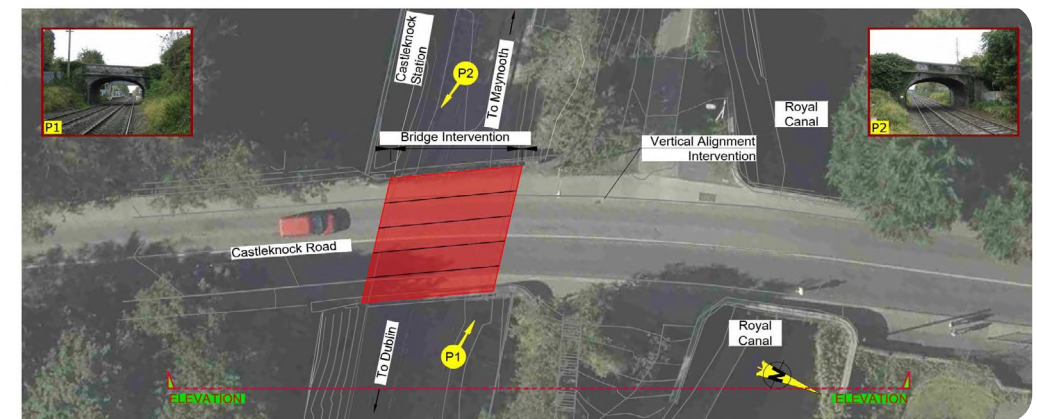
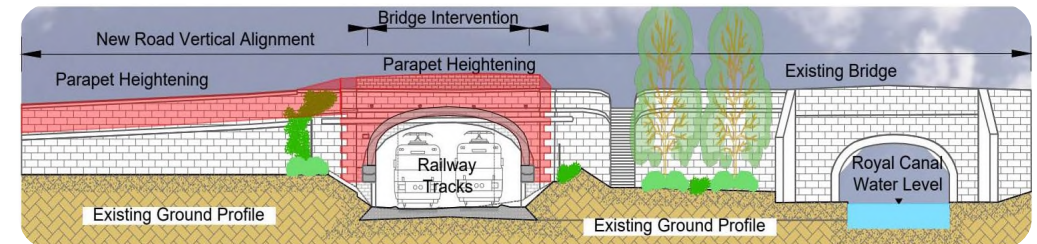
### Castleknock Road Railway Bridge

The existing bridge carrying Castleknock Road over the railway requires an intervention to provide sufficient clearance for the OHLE. The canal bridge element of Granard Bridge is a protected structure and is registered on the National Inventory of Architectural Heritage (NIAH) assigned a Regional significance for its architectural and technical interest. The adjacent railway bridge is not included in the record of protected structures or in the NIAH.



View of Castleknock Road Railway Bridge

Due to extremely low clearance, it is not possible to deploy a reduced OHLE system or a track lowering solution, the preferred option is for a careful and sensitive reconstruction of the existing railway bridge to obtain the required clearance. It is proposed to systematically deconstruct the existing bridge and reconstruct with a higher clearance using pre-cast arch units. The road alignment on the approaches to the bridge will need to be raised to accommodate the modified bridge profile. The design will be informed by consultations with Fingal County Council and the Architectural Advisory Unit of the Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media.



Graphic of Proposed Deck Reconstruction of Castleknock Road Railway Bridge

### Castleknock Substation

The preferred option is the siting of the substation at the south of the railway, in parkland west of the existing Castleknock Road (R806). The proposed location is not within the existing CIÉ property boundaries, therefore land acquisition will be required. It will be necessary to create an access to the proposed substation from the existing Castleknock Road.

## Coolmine

### Coolmine Level Crossing Removal

Feedback from the public and stakeholders during public consultation no.1 resulted in a re-appraisal of the possible options for the replacement of the Coolmine level crossing. These new alternative proposals have been assessed along with the original options, and this has led to the identification of a preferred option which differs from that identified as the emerging preferred option.

The preferred option for the replacement of the Coolmine level crossing involves the construction of a new cycle/pedestrian bridge over the railway and canal on Coolmine Road (See aerial view opposite). The provision of the new bridge will facilitate the closure of the level crossing, but will require diversion of traffic to alternative crossings of the railway. Improvements are proposed to the surrounding road network as part of this option but the preferred option does not involve the provision of a new road bridge to replace the existing level crossing.

This option proposes that road traffic will primarily divert to the existing bridge crossings at Dr. Troy Bridge (Diswellstown Road viaduct) and Castleknock Bridge. In order to facilitate the additional capacity on the existing road network, the option includes the upgrade to junctions along the local road network. The proposed upgrades are (See graphic of proposed junction upgrades on opposite page):

- Diswellstown Road junction.
- Diswellstown Road / Coolmine Road junction.
- Park Lodge / Castleknock Road junction.
- Porterstown Road / Diswellstown Road junction.



Aerial view of Pedestrian and Cyclist Bridge at Coolmine



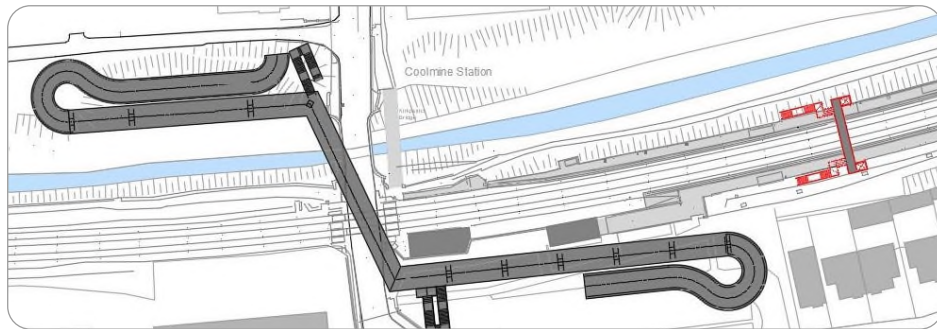
Graphic of Preferred Option for road junction improvements to facilitate Coolmine level crossing replacement



## Coolmine Station Accessibility Enhancements

The proposed closure of the level crossings has resulted in the requirement to assess in-station accessibility for persons with impaired mobility. At Coolmine, this assessment identified that on the northern platform the width of the access will need to be widened to 1.6 m. Minor land acquisition will be required at this location.

The proposal also requires a solution that connects both platforms. Currently, there is a pedestrian bridge between platforms, but it is not suitable for persons with reduced mobility. The preferred option consists of a new pedestrian bridge, with staircases and lifts, to replace the existing footbridge. The pedestrian bridge will be located 25 m west of the existing station footbridge, to facilitate the passenger flows as it is closer to the station entrance. This solution allows for maintenance of the current footbridge during the construction of the new bridge, thus keeping the current passenger operation of the station.



Graphic of Coolmine Station footbridge

## Coolmine Substation

The preferred option is the placing of the substation on a partially grassed area next to Maple Green residential area 400m east of Coolmine Station. A direct access can be provided through the local road network, connecting the substation to Maple Green. The proposed location is substantially within the existing Iarnród Éireann railway boundaries, therefore land acquisition is minimised.

## Porterstown

### Porterstown Level Crossing Removal

The preferred option at Porterstown involves the closure of the level crossing and the construction of a new 5m wide cycle/pedestrian bridge over the railway and canal. The provision of the new bridge will facilitate the closure of the level crossing but would require diversion of traffic to surrounding crossings of the railway. No specific improvements to the surrounding road network are proposed by DART+ West, however there are a number of road improvements proposed by Fingal County Council in the area (Kellystown Road and Barnhill to Ongar Distributor Road).



Aerial view of level crossing replacement at Porterstown

## Clonsilla

### Level Crossing Removal

The preferred option at this location involves the closure of the level crossing and the construction of a new 5m wide cycle/pedestrian bridge over the railway and canal. The provision of the new bridge will facilitate the closure of the level crossing but will require diversion of traffic to surrounding crossings of the railway. A new road bridge will be provided to the west of the existing Barberstown level crossing which will maintain vehicular connectivity north-south. A number of road improvements are also proposed by Fingal County Council in the area (Kellystown Road and Barnhill to Ongar Distributor Road).



Aerial view of Level Crossing Replacement at Clonsilla

**NOTE:** Design of the northern ramp to be agreed with Fingal County Council to be consistent with the Royal Canal Urban Greenway.



Image of Existing Clonsilla Level Crossing

## Clonsilla Junction to M3 Parkway

### General Description

West of Clonsilla Station the line splits, with a line continuing out towards Maynooth (mainline) and a line to M3 Parkway (Pace line/branch line). The Pace line, which spurs northwards, passes through Hansfield Station and Dunboyne Station before terminating at M3 Parkway Station which lies to the north of Dunboyne and west of Junction 5 off the M3 Motorway. Along this section, the OHLE proposals are typically single-track cantilever and portals at the stations.

There are three existing structures within this section where clearance beneath the bridge is insufficient to allow the installation of a standard OHLE solution. At these locations, track lowering, installation of a reduced height OHLE solution or a combination of both shall be employed to allow a suitable solution to be achieved. This work will have no significant effect on the existing bridges and the works will be undertaken entirely within the existing rail corridor. The bridges in question are listed below:

- Barnhill Bridge.
- Stirling Road Bridge.
- Dunboyne Bridge.

### Hansfield Substation

The preferred option is to place the substation south of the railway, near and east of Hansfield Station. The terrain at this location is almost flat, therefore no major earthworks are envisaged. The location of the building has no clashes with existing utilities networks. The proposed substation and the road needed for access, will be inside CIÉ property and will connect to Barberstown Lane north.

### Dunboyne Substation

The preferred option is the placement of the substation to the north of the railway, and west of Dunboyne Station. The terrain at this location is flat, so no major earthworks are envisaged. There are no clashes with existing utilities networks. Access to the proposed substation would be through the existing station carpark with curtailed modifications envisaged except the relocation of the existing taxi stop. There is space for two parking spaces next to the location of the proposed substation.

### M3 Parkway Substation

The preferred option is to place the substation to the west of the railway, near the M3 Parkway Station buildings. Major works would not be required to accommodate road access from the R157, however the existing bicycle parking will need to be relocated. The proposed road access would be along the existing circulatory access way in the station and parking area, but a connection would be needed to secure parking spaces for the substation. The only clash in this area is with a bike locker which could be relocated. The existing bus stop will be retained under this proposal.

As mentioned, immediately west of Clonsilla Station, the railway diverges, with the mainline continuing westwards to Maynooth & Sligo, and a branch line continuing northward towards Dunboyne & M3 Parkway. This section of the scheme continues along the mainline from west of Clonsilla Station through to the new proposed maintenance and stabling depot located west of Maynooth.

## Clonsilla Junction to Maynooth Depot

### General Description

As mentioned, west of Clonsilla Station, the railway diverges, with the mainline continuing westwards to Maynooth & Sligo, and a branch line (Pace line) continuing northwards towards Dunboyne & M3 Parkway. This section describes the scheme that continues along the mainline from west of Clonsilla Station through to the new proposed maintenance and stabling depot located west of Maynooth.

Between Clonsilla Station and the proposed depot the existing rail line continues parallel to the Royal Canal, passing through Leixlip Confey Station, Leixlip (Louisa Bridge) Station, and Maynooth Station.

In this section of the scheme there are two existing level crossings which have been identified for closure at Barberstown and Blakestown.

OHLE supports are typically single-track cantilever. At stations, portals are proposed and twin track cantilever supports are proposed where the line is adjacent to the canal.

There are two existing structures within this section where existing clearance beneath the bridge is insufficient to allow the installation of a standard OHLE solution. At these locations, track lowering, installation of a reduced height OHLE solution or a combination of both shall be employed to allow a suitable solution to be achieved. This work will have no significant effect on the existing bridges and the works will be undertaken entirely within the existing rail corridor. The bridges in question are:

- Collins Bridge.
- Pike Bridge.

### Barberstown

#### Level Crossing Removal

The preferred option at this location involves the construction of a new bridge above the railway and canal located 250m to the west of the existing crossing. The road will ramp up to the bridge from 140m on the north side and 220m on the south side of the proposed bridge. The provision of the new bridge will facilitate the closure of the level crossing.

The option would take the form of a bridge spanning over the railway and the canal with tie-in to the existing road network south of the railway and tie-in to the re-configured road network north of the railway consequent on the implementation of the proposed Barnhill to Ongar scheme due to be procured shortly by Fingal County Council. The proposed scheme will accommodate pedestrian and cycle facilities consistent with plans for enhancement of such amenities in the local area.

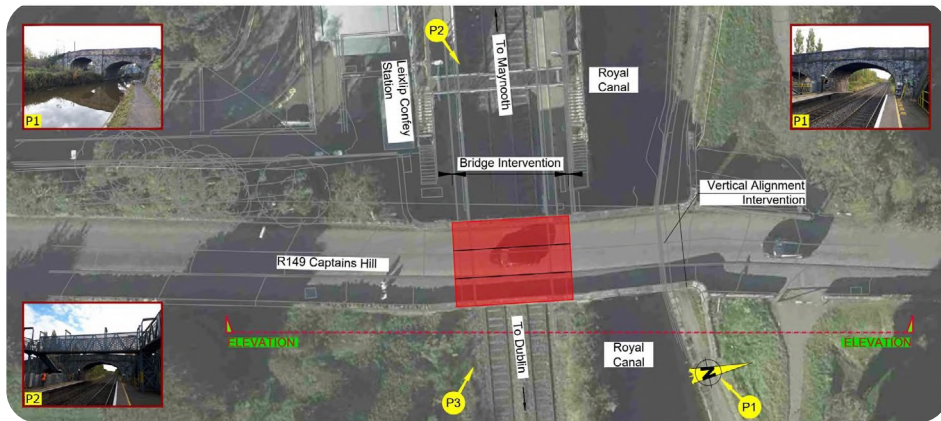
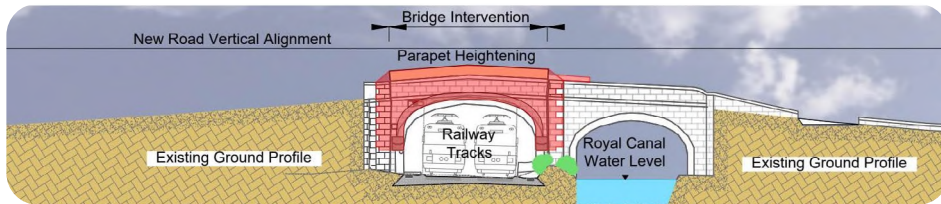


Graphic of Preferred Option for Level Crossing Replacement at Barberstown

## Railway bridge adjacent to Leixlip Confey Station

### Deck Reconstruction

The railway bridge adjacent to Leixlip Confey Station, carrying the R149 will require an intervention to provide sufficient clearance for the OHLE. This bridge has a one-way shuttle system in place under traffic signal control. It has an overall width of 7.6m, and there is access to the Royal Canal towpath located north of the bridge. The preferred option is for a careful and sensitive reconstruction of the existing railway bridge with a precast arch deck solution to be raised by at least 150 mm to obtain the required clearance. It is proposed to systematically deconstruct the existing bridge and reconstruct with a higher clearance using pre-cast arch units. The design will be informed by consultations with Kildare County Council and the Architectural Advisory Unit of the Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media.



Graphic of Proposed Railway bridge adjacent to Leixlip Confey Station

### Leixlip Confey Substation

The preferred option is the placing of the substation to the south of the railway, near the existing Leixlip Confey Station, on its western side. The proposed location is within the existing Iarnród Éireann railway boundaries, thereby minimising land take. A section of the existing car park will be required for undertaking works to accommodate road access from the R149.

### Louisa Bridge

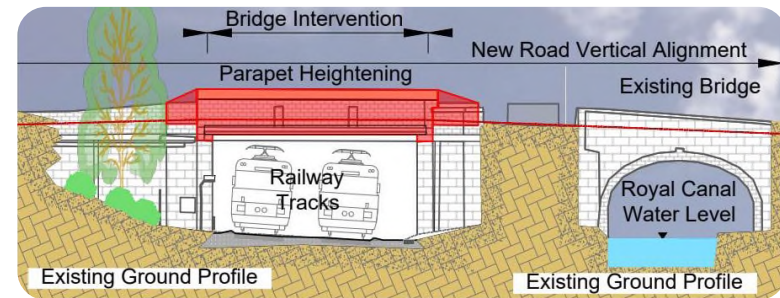
#### Deck Lift

Louisa Bridge carries the R149 and is adjacent to the Leixlip (Louisa Bridge) Station. This bridge requires an intervention to provide sufficient clearance for the OHLE. The preferred option is for a replacement of the existing bridge deck with one which is more slender to obtain the required clearances for electrification. The required deck lift for this bridge is around 140mm to obtain a sufficient clearance for the OHLE

system and prevent a significant modification of the road alignment and impact to the adjacent protected canal bridge. The design will be informed by consultations with Kildare County Council and the Architectural Advisory Unit of the Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media.



View of Louisa Bridge



Graphic of Proposed Louisa Bridge Deck lift

## Blakestown

### Level Crossing Removal

The preferred option for this location, described as the “do minimum” option, is the closure of the level crossing with no alternative access provided. For this scenario all traffic would be diverted to alternative routes around the crossing location.

### Blakestown Substation

The preferred option for the Blakestown substation is to locate the substation to the south of the railway, west of the existing Blakestown level crossing. The proposed location is not within existing Iarnród Éireann railway boundaries, therefore it will be necessary to acquire additional lands. It will be necessary to create an access off the existing road. Access to the location would be along the existing local road network, which links to the R148 and the Celbridge Interchange. Along with the substation access road, parking spaces will be required.

## Maynooth

### Maynooth Substation

The preferred option is the placing of the substation to the south of the railway adjacent to the R406. The proposed location is largely within the existing Iarnród Éireann railway boundaries, thereby minimising land acquisition. The access road to the station would have to be modified at the substation location, as would the footpath.

### Double track from Maynooth to the connection to the Depot

The rail line (referring to the mainline) is currently a single line west of Maynooth. This will be upgraded to a twin-track between Maynooth and the proposed depot. The new track will generally be parallel to and south of the existing track and will begin at Maynooth Station.

West of Maynooth the twin track configuration will divert onto a new railway embankment, running parallel to the existing railway on the approach to the proposed depot. This is due to pre-existing flooding issues on the site and due to the heritage value of Jackson’s Bridge west of Maynooth.

The proposed works will include trackwork, electrification, signalling and telecommunications works, platform modifications in Maynooth Station, embankment construction, drainage works with attenuation and compensatory storage within the floodplain of the Lyreen River and tributary. The works will also include electrification of the existing siding south of the railway in Maynooth.



View of Jackson’s Bridge

As the space between the Royal Canal and the existing track is narrow along sections of the line, a length of retaining wall is required so the embankment does not encroach into the canal.

The new alignment lies within an area subject to flooding. The installation of the new tracks must be at a sufficiently high level to be above the predicted flood levels.

The new tracks will pass beneath an existing 220 kV ESB line, and the resulting clearance beneath the existing lines is insufficient therefore the ESB line will require raising so that sufficient clearance is achieved.

The new alignment within the floodplain has potential to increase flood risk, however the provision of compensatory storage and flood conveyance culverts through the new railway embankment will mitigate any increase in flood risk. Estimated additional compensatory storage volumes required for this option are in the region 10,000m<sup>3</sup>.

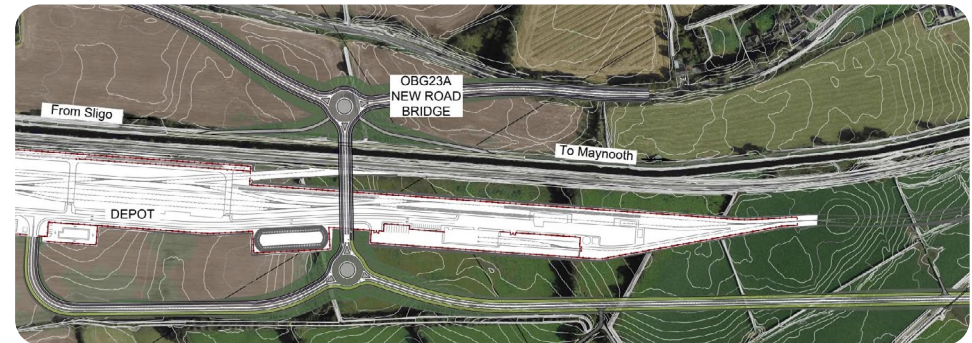


Flooding at Jackson's Bridge - February 2021

## Diversion of existing L5041

Due to the new proposed railway alignment to the south of Jackson's Bridge it is necessary to realign the existing L5041 local road and a section of the R148. South of Jackson's bridge the L5041 will be realigned to the west. The realignment will continue west towards the proposed DART+ West depot for approximately 900m. The L5041 will then turn north via a new roundabout and cross the eastern end of the proposed depot, existing railway and Royal Canal via a new proposed overbridge. The western arm of the new roundabout will provide access to the DART+ West depot. On the northern side of the railway and Royal Canal the realigned L5041 will meet the realigned R148 at a new roundabout. Approximately 800m of the R148 is required to be realigned to provide adequate vertical gradients to allow the new overbridge to connect with the R148.

Access for pedestrians and cyclists will be maintained under the proposed realigned section of railway to Jackson's Bridge.



Graphic of proposed L5041 local road diversion

## Depot

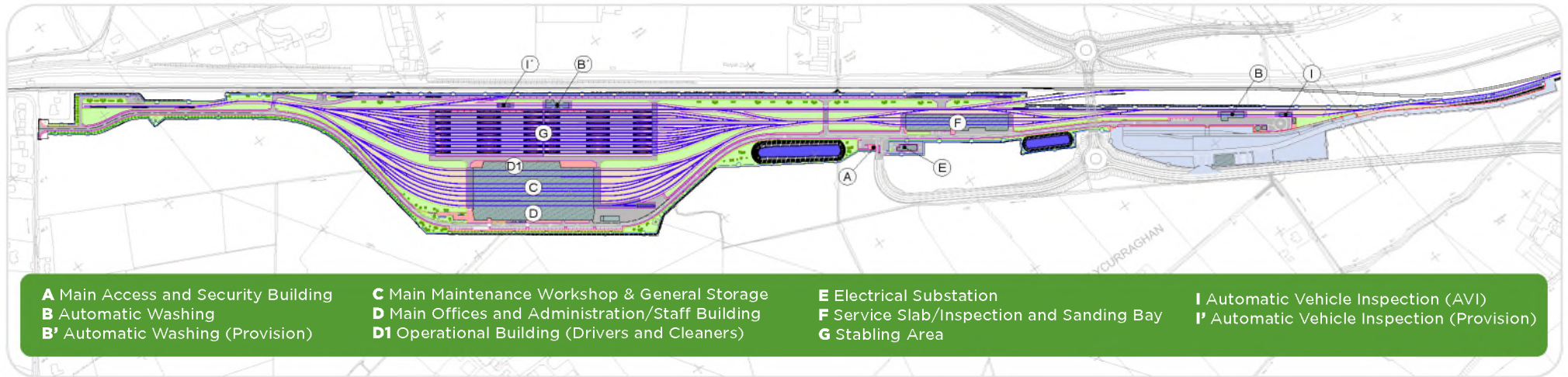
### General Description

The preferred option for the depot near Maynooth includes stabling with two-ended tracks and a main building adjacent in the central area resulting a length along the main line of around 2.58km. The configuration of the depot is a through type, with several two-ended tracks in the maintenance shed. All movements are enabled using shunting tracks when necessary. The access to the workshop and the stabling yard are direct from the main line. However, since the stabling yard is parallel to the maintenance shed, shunting movements will be necessary between both facilities.

The following facilities are located at the eastern side of the site:

- Automatic vehicle inspection (AVI)
- Automatic washing plant (AWP)
- Permanent way compound
- Service Slab building
- Main access and security building
- Substation.

The main building and stabling are located in the central area of the depot site. A shunting track is proposed on the western side to provide connection between the tracks for the stabling area and the workshop. The proposed layout is illustrated in the graphic on the next page.



Graphic of depot preferred option

The main building will be the largest and most complex facility within the depot. Administrative, operational and maintenance tasks will be carried out there. Also, the Depot Control Centre (DCC) will be located within the main building, from where the movement, control and security of vehicles within the depot will be managed.

Staff will be able to access the depot by car, walking or by cycling from the road access. A new track maintenance facility will be provided adjacent to the depot to maintain the railway in the operational phase.

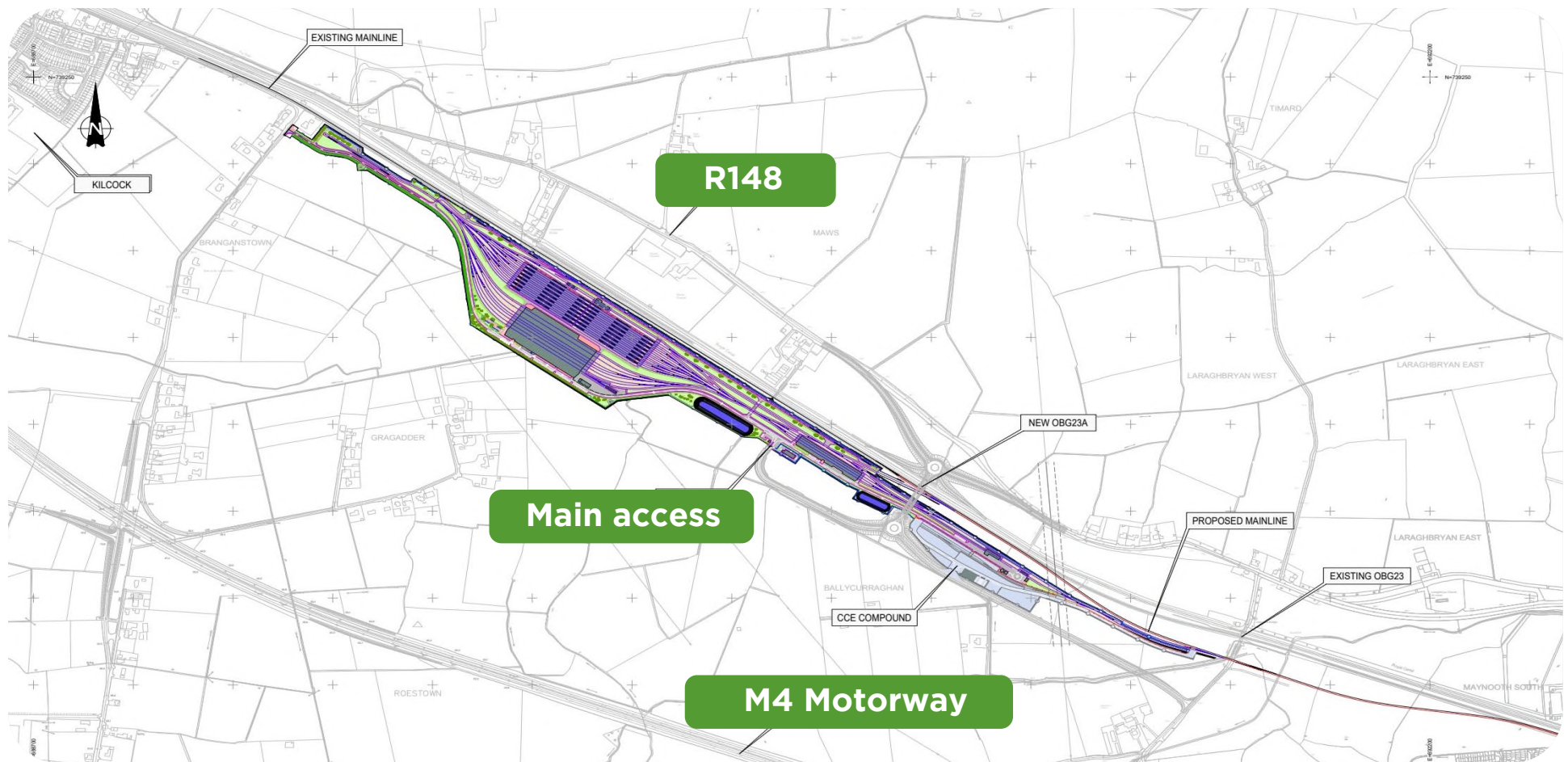


3D image of Depot Preferred Option (Stabling Area and Maintenance Workshop)



3D image of Depot Preferred Option (Stabling Area and Maintenance Workshop)





Plan of Depot Access Area

### Depot Access

The preferred option for access to the new depot site is for a road access to the R148 via the realigned L5041 connecting depot traffic to Maynooth and Kilcock interchanges. The new bridge will provide vehicular access to the R148 across the new depot site, railway and Royal Canal and provide access to the R148 for the realigned L5041. The existing farm road providing access from the R148 to the land south of the railway will

be closed, and access to the local road network south of the railway will be via this new access road.

The internal road layout of the new depot site has been designed to provide heavy goods vehicle access throughout the site and to all facilities for servicing and maintenance. Access for special vehicles required to transport rolling stock has been considered in the design of the road layout.



Slí Amach  
↑ Exit ↑

Slí Amach  
↑ Exit ↑

TURMAS  
Automatic  
door

10

Transport Integration

## 10. Transport Integration

The DART+ West project will provide high frequency electrified railway transit services running from Maynooth and M3 Parkway to Connolly Station and the proposed Spencer Dock Station.

The project will link Iarnród Éireann, DART, Dublin Bus, Luas, proposed MetroLink and Dublin bike services to create a fully integrated public transport system in the Greater Dublin Area.

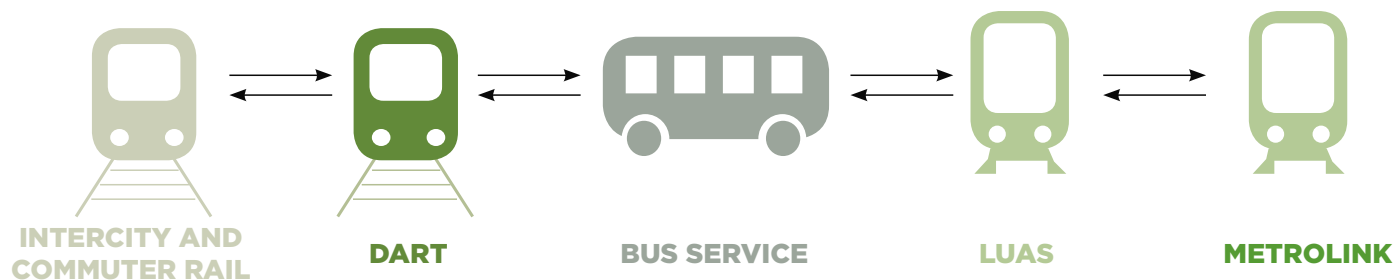
### Public Transport Links

DART+ West is planned to enhance access and movement of pedestrian and cyclists and reduce reliance on private car. DART+ West will integrate with the Metropolitan Cycle Network where potential interfaces are identified.

The DART+ West will form a high-capacity spine of a fully integrated public transport system with links to the other public transport modes, including the Royal Canal Urban Greenway, Dublin Bus, Bus Eireann, BusConnects, Luas and proposed MetroLink. As well as linking major transport hubs such as the M3 Parkway Park and Ride, the project will provide public transport interchanges at:

- Connolly Station to the Luas Red line.
- Spencer Dock Station to the Luas Red line.
- Glasnevin / Phibsborough to the proposed MetroLink and BusConnects schemes.
- Broombridge to the Luas Green Line.

The project will also secure enhanced passenger access for students to St. Patricks National University of Ireland – Maynooth, Dublin City University and Technical University Dublin, along with other major attractors such as The Convention Centre Dublin and Croke Park.



Public Transport Integration



**Increase passenger capacity from 5,000 to 13,200 passengers per hour per direction and increase train frequency**





11

Issues to Consider

# 11. Issues to Consider

All possible efforts will be made to sensitively address issues and challenges associated with the project throughout the design process. Several potential issues are detailed below, and the public consultation and stakeholder engagement phases will help us to better understand some of these issues and challenges.



## Property Acquisition

DART+ West will predominantly consist of works within the existing railway corridor. However, where interventions and modifications are required outside of the existing corridor (such as at the level crossings, new substations, the proposed Spencer Dock Station and the proposed depot) some land acquisition will be required.

We have commenced an extensive programme of consultations 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. 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 development and environmental impact assessment.



## Environmental Impacts

The project will involve changes to the local environment during both the construction and operation stages. These will bring both positive and negative, temporary and permanent impacts to the environment and communities. The design process will make every effort to ensure that negative impacts are avoided, reduced or mitigated as far as practicable, and positive effects are maximized.



## Level Crossing Replacements

The closure of the existing level crossings and the provision of replacement crossings (where required) will involve environmental impacts such as changes to the landscape/public realm, impacts on architectural heritage, impacts on biodiversity (particularly along the Royal Canal which is a proposed Natural Heritage Area) traffic and transport changes. It will also create positive effects such as reducing greenhouse gas emissions.

Temporary construction works are likely to impact on sensitive receptors, particularly residential areas due to noise, dust and landscape changes as a result of the temporary construction works, some of which will take place during the night time to facilitate daytime rail services to meet our existing customer demand. A number of sites of architectural and archaeological heritage significance have been identified in the study area and, as part of the environmental impact assessment, mitigation measures will be proposed to ensure these impacts are avoided, reduced and/or mitigated where possible.

All potential environmental impacts will be considered and assessed as part of the Environmental Impact Assessment Report (EIAR) which will be published as part of the railway order application documents.





## Electrification of the Line

The overhead line equipment (OHLE) will be required to provide electrical power to the DART+ West network to power the 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 construction of substations along the line to provide the power over the proposed 40km of electrification. Some of these substations will require land acquisition and access from the public road network.
- The additional space required for the development of overhead electrification equipment to provide the power to the lines and associated landscape and visual and heritage impacts.
- The equipment carrying the electrified lines require certain vertical height from the trains. A number of bridges on the existing line have been identified as having insufficient height for this electrical equipment and options with varying degrees of intervention have been proposed to ensure the OHLE is provided.
- Boundary walls and fencing along the existing railway will need to be changed. Where necessary, wall heights will need to be increased to prevent any potential that the public could come in contact with the OHLE.



## Depot

The proposed depot will require acquisition of agricultural lands west of Maynooth. The access to the proposed depot from the R148 will require a diversion of the L5041 to the west of Jackson's Bridge which will be closed to vehicular traffic from the south with a road diversion to a replacement bridge to the west.

The depot site is a major piece of infrastructure vital to the whole DART+ Programme extending over 2.5km in length. Potential impacts associated with the construction and operation of the proposed Depot will be addressed in the EIAR and will be informed by consultation with the relevant stakeholders.



Graphic of proposed depot



## Spencer Dock Station

A new station is proposed at Spencer Dock. Spencer Dock Station will have four platforms and will accommodate electric trains originating from Maynooth and M3 Parkway. It will also accommodate the electric trains from the Kildare Line when DART+ South West is delivered.

The proposal is for a state-of-the-art station located in the heart of the Docklands that will provide a pedestrian-friendly passenger experience. The new station will provide much improved transport integration, including the connection with Spencer Dock Luas Station and also direct access to buses and to a drop-off for cars and taxis.

Potential impacts associated with the construction and operation of the proposed station will be addressed in the EIAR and will be informed by consultation with the relevant stakeholders.



Graphic of Entrance to Proposed Spencer Dock station



**12**

**Next Steps**

## 12. Next Steps

### Further design development and option selection

The option selection and design development that has been undertaken have 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 Public Consultation No.2- 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.

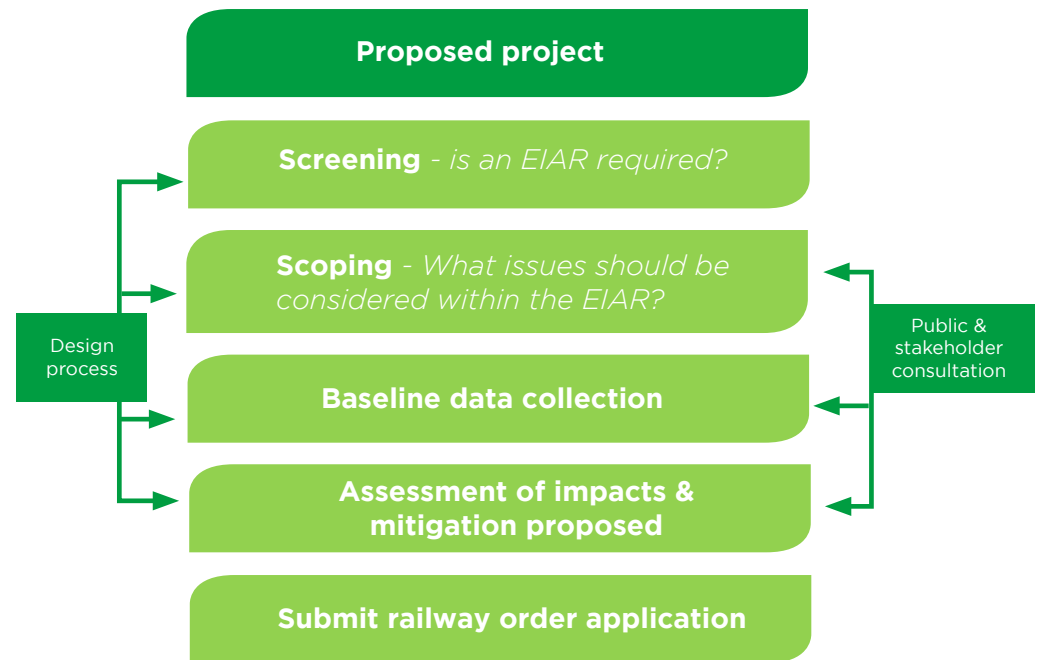
Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phonenumber or by written correspondence. For further details see the 'How to Engage' section.

### 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 Environmental Impact Assessment Report and the compulsory purchase land requirements.



The EIA Process leading to submission of the railway order to An Bord Pleanála





**13**

**How to Engage**

## 13. How to Engage

The project team would like to hear your views on the DART+ West preferred option to inform us in the development of 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 beneficial for you and the communities the route will serve.

**The consultation period is now open, full details including closing dates for receipt of submission are available on the project website.**

Please contact us via the following means:

**Website | [www.DARTplus.ie](http://www.DARTplus.ie)**

**Email | [DARTWest@irishrail.ie](mailto:DARTWest@irishrail.ie)**

**Phoneline | (01) 8235127**

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

**Community Liaison Officer**

**DART+ West**

**Iarnród Éireann**

**Inchicore Works**

**Inchicore Parade**

**Dublin 8**

**D08K6Y3**

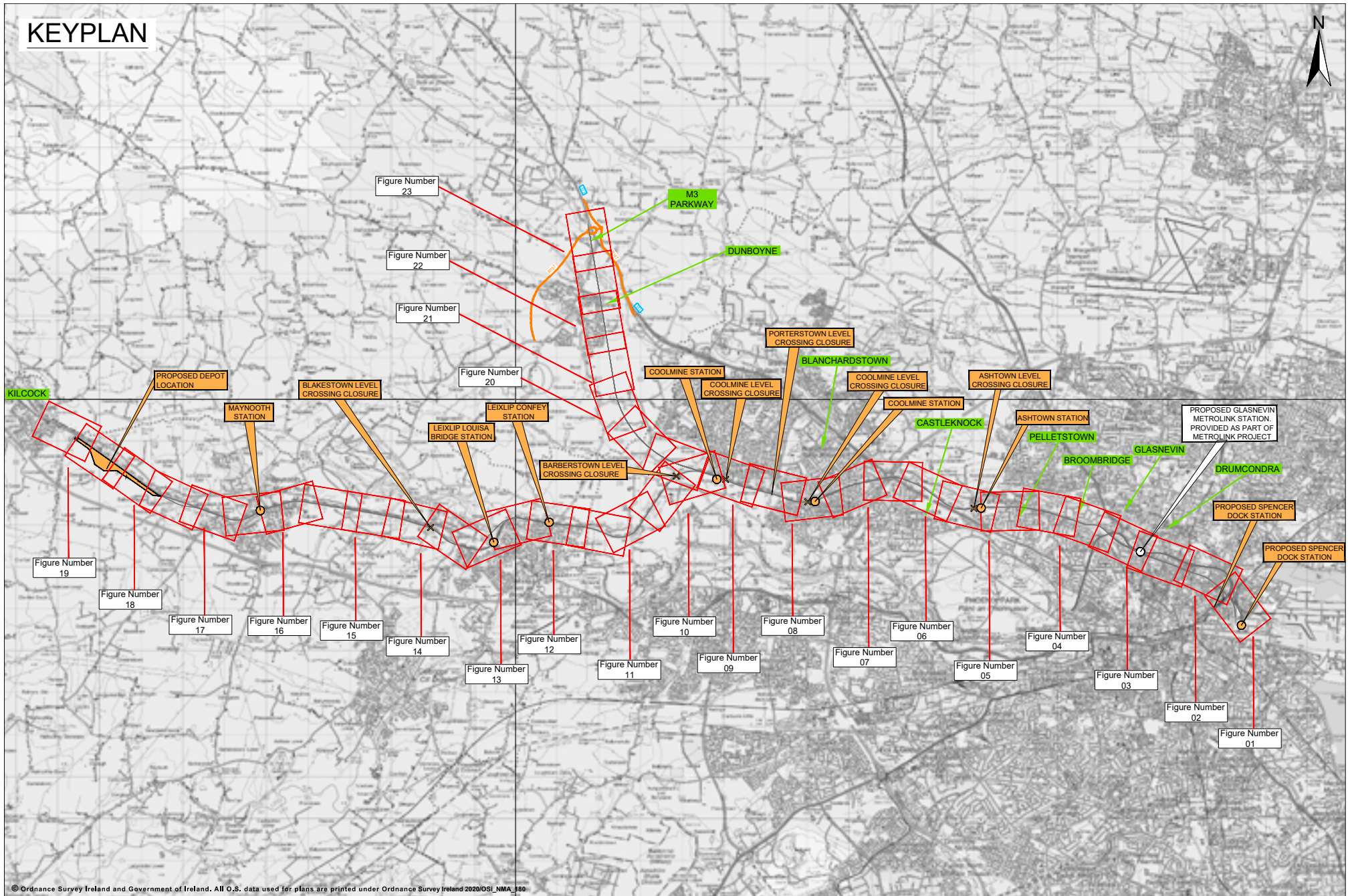




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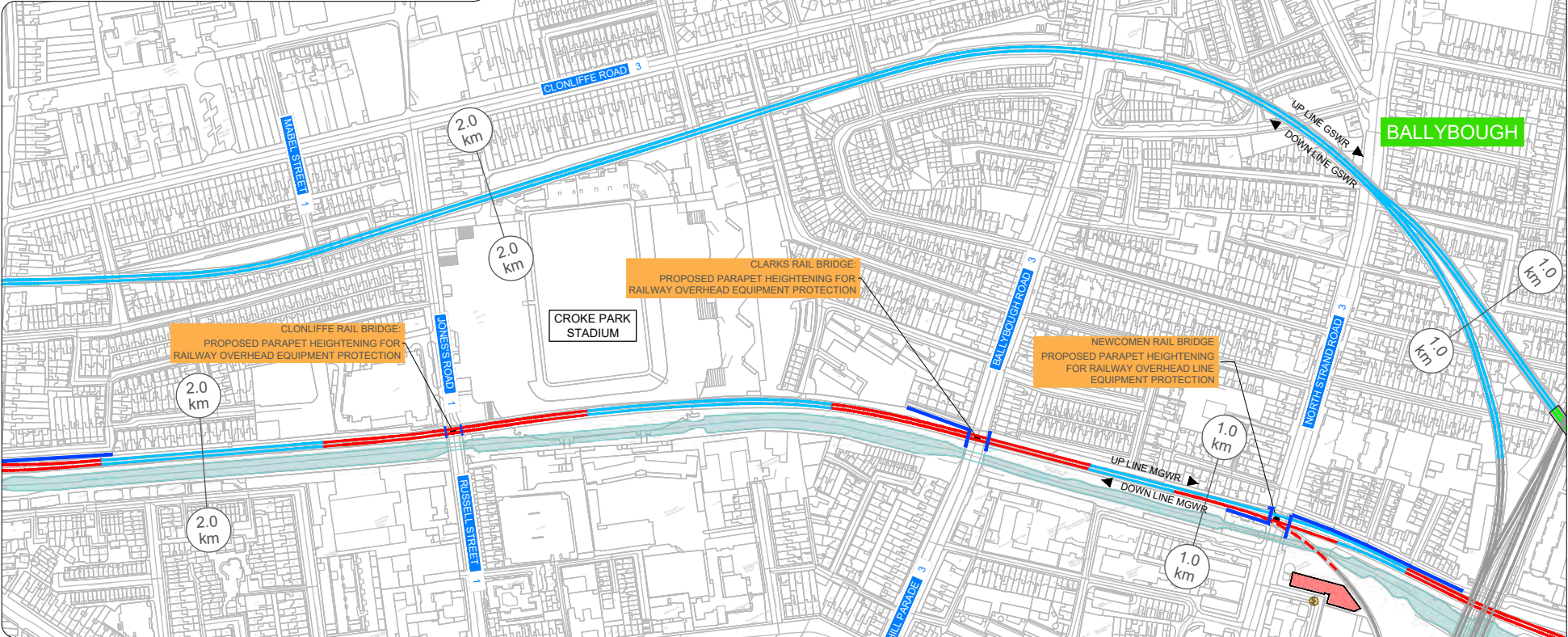
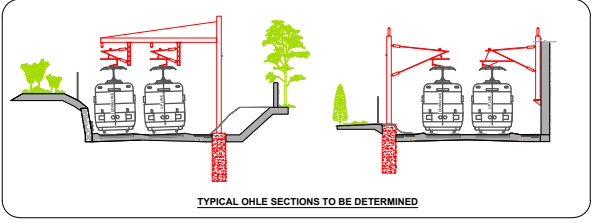
**Alignment Figures**

# KEYPLAN



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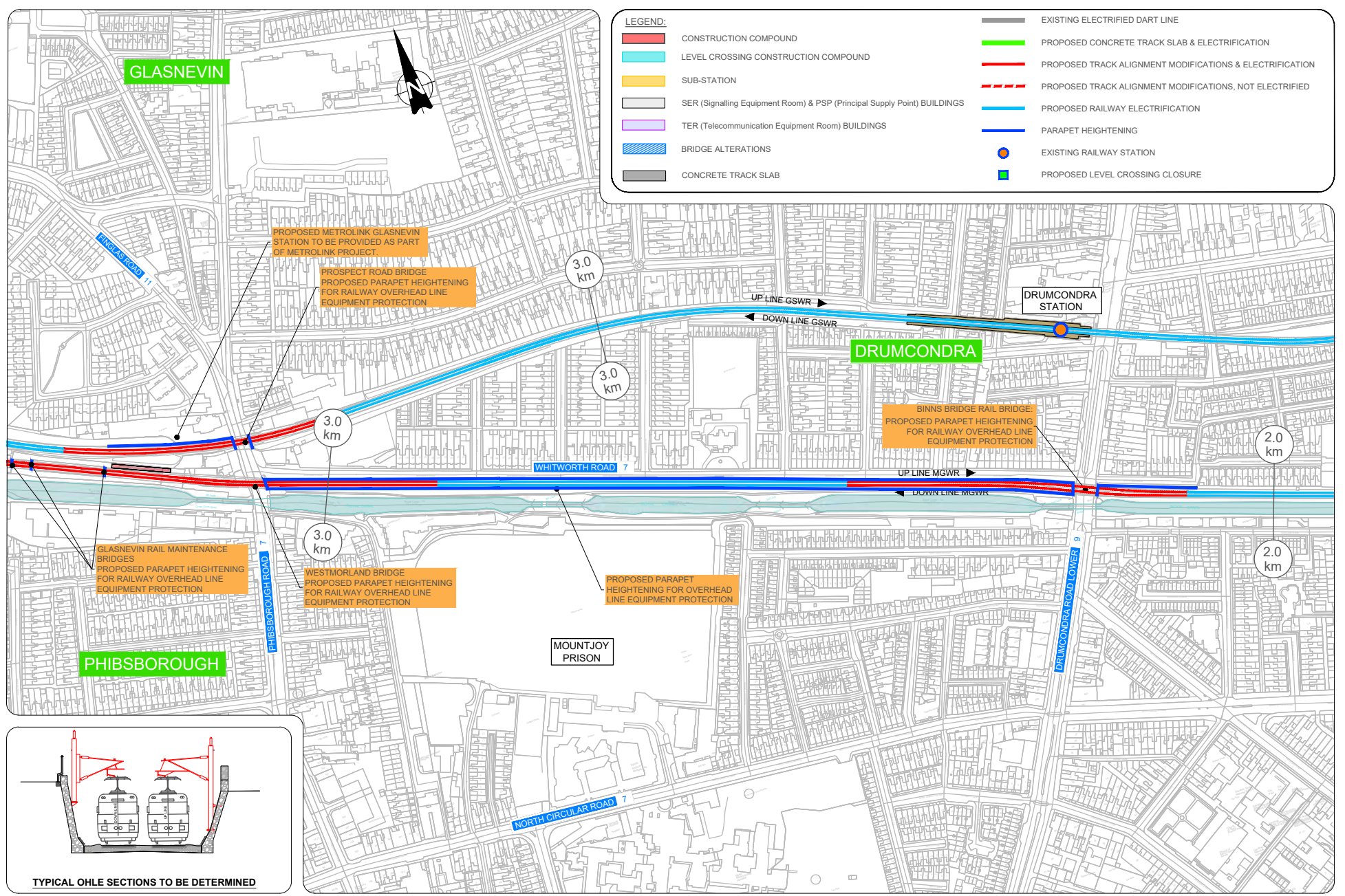




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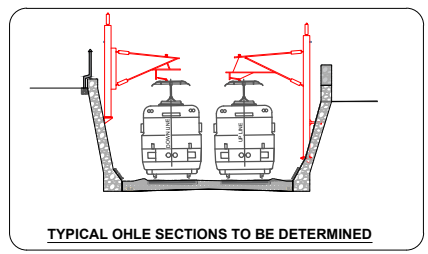
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- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE

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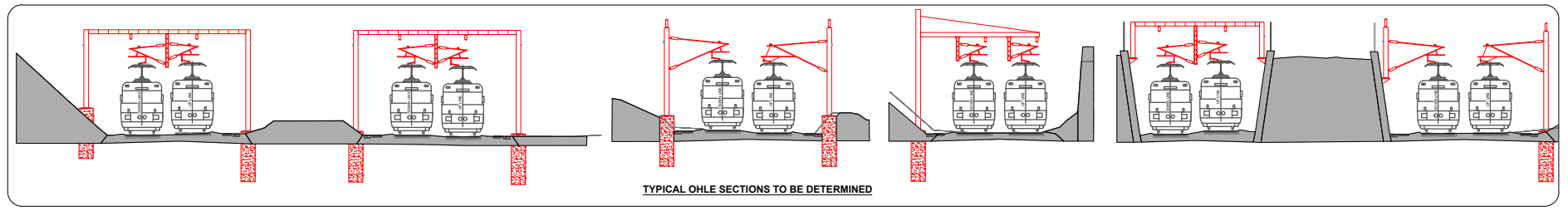
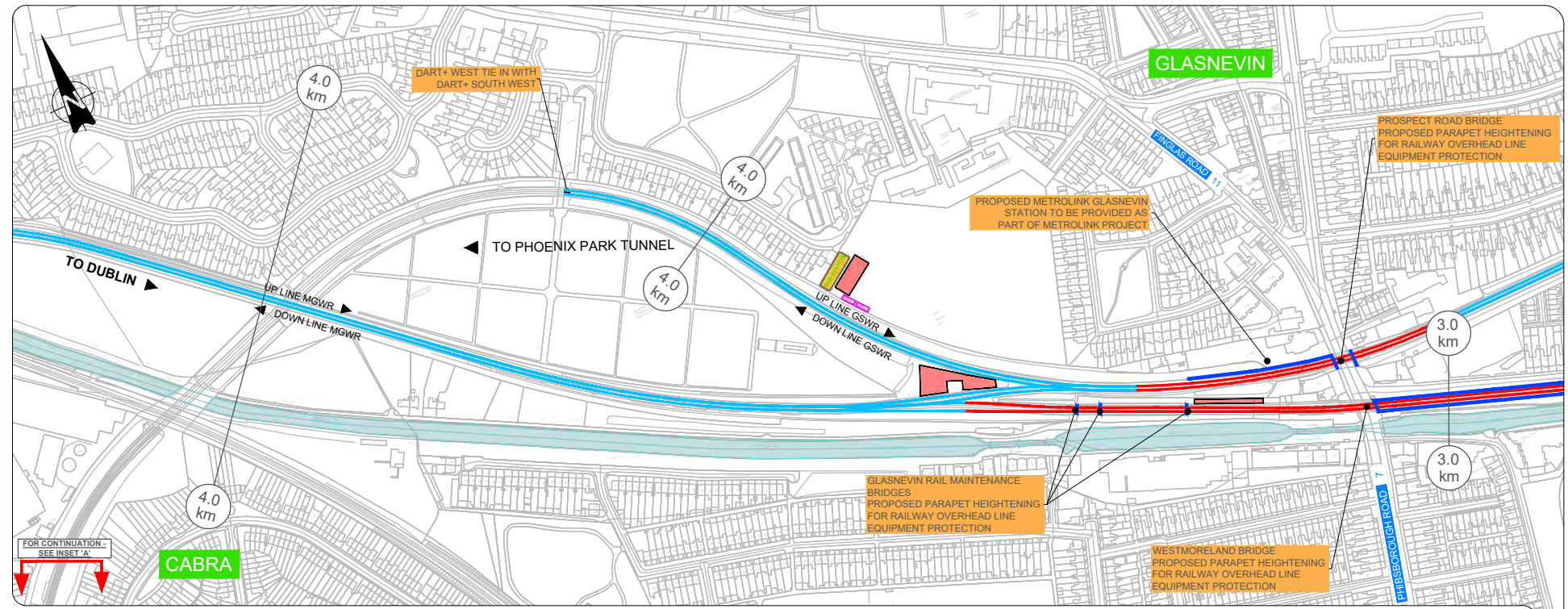
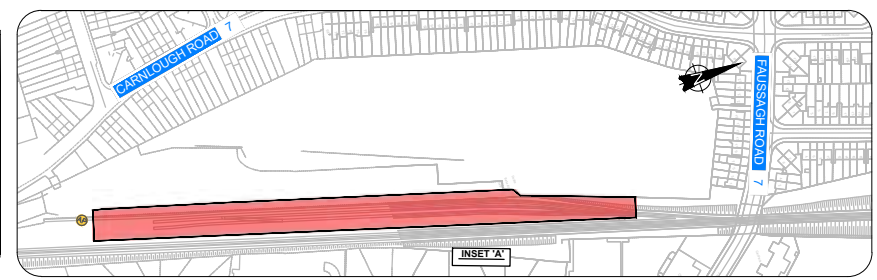
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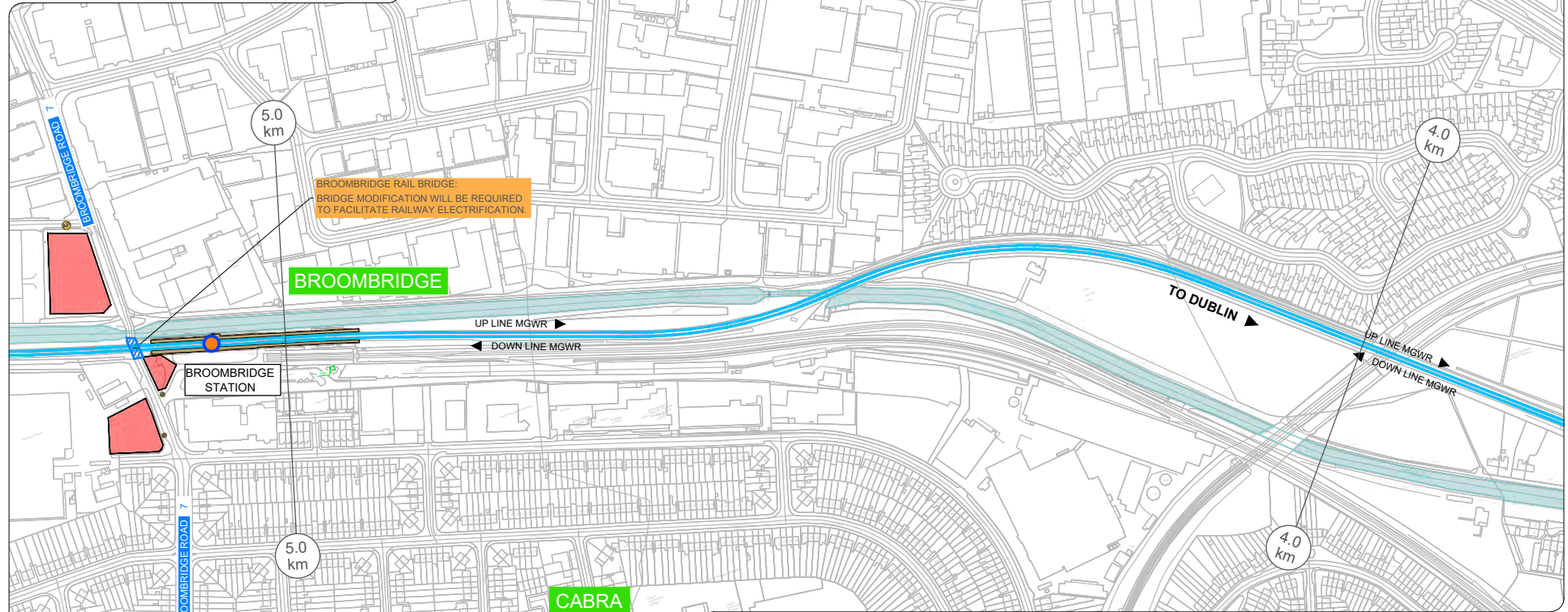
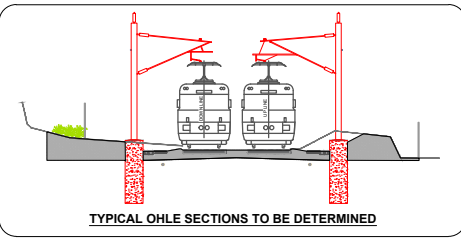
**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



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REV	DATE	DESCRIPTION	BY	CHK	APP																
01		PUBLIC CONSULTATION	MM	TL	BC																
02		PRODUCER REVIEW	MM	TL	BC																





**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHK	APP
V01	May 2021	PUBLIC CONSULTATION			

Client

Consultant

Project

Drawing Title

OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 05 of 39

Scale: 1:1,250 @ A0

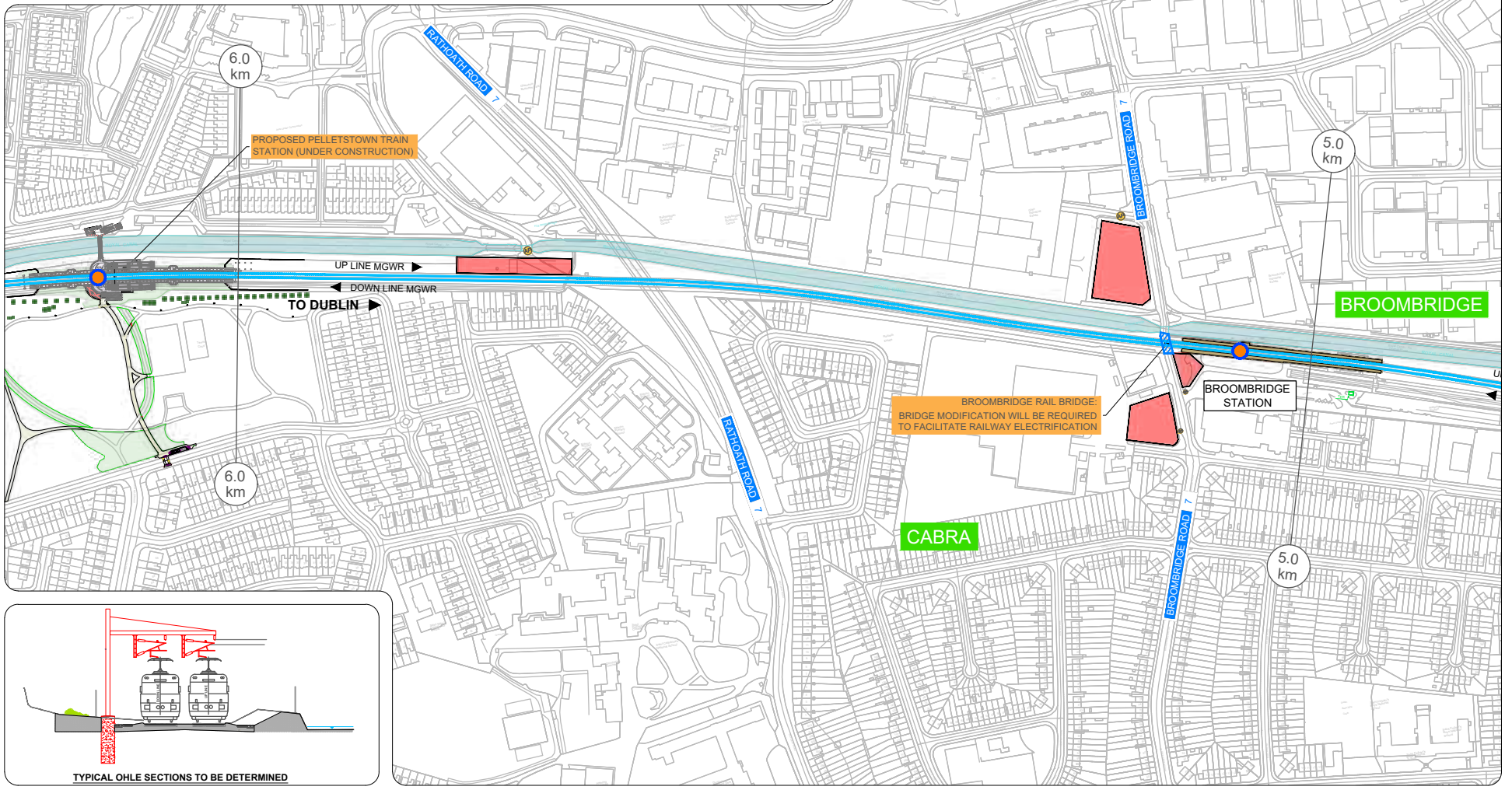
Drawing Number: MAY MDC CIV ROUT DR V 0005 B

Date: May 2021

Sheet 05 of 39

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
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- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK	APP
V.01	May 2021	PUBLIC CONSULTATION	MMG	IL	BC
REV	DATE	DESCRIPTION	BY	CHK	APP

Client:

Consultant:

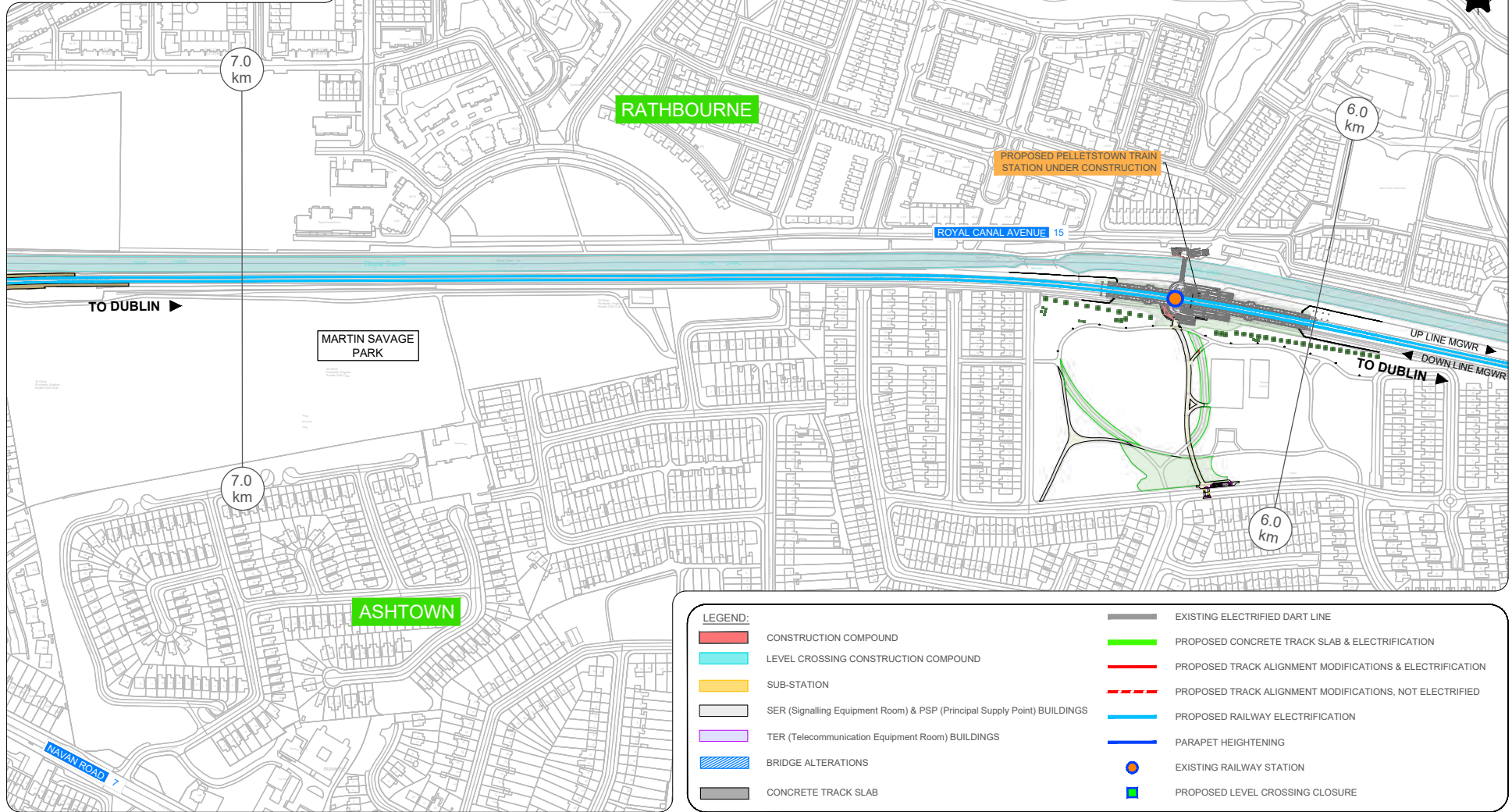
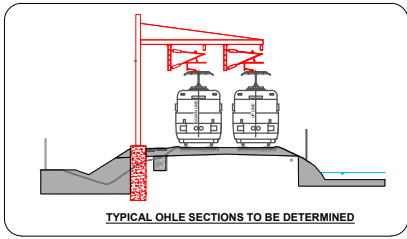
Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 08 of 09

Drawing Number: | Project | Discipline | Location | Type | Title | Number | Phase  
MAY | MDC | CIV | ROUT | DR | V | 0006 | B

Date: May 2021 | Job No: 01/201906 | Status: S4 - Suitable for Acceptance | Rev: V.01 | Sheet: 08 of 09

Scale: 1:1,250 @ A0  
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**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE

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01	May 2021	PUBLIC CONSULTATION	MMAC	TL
02	May 2021	REVISIONS		

Client:

Consultant:

Project:

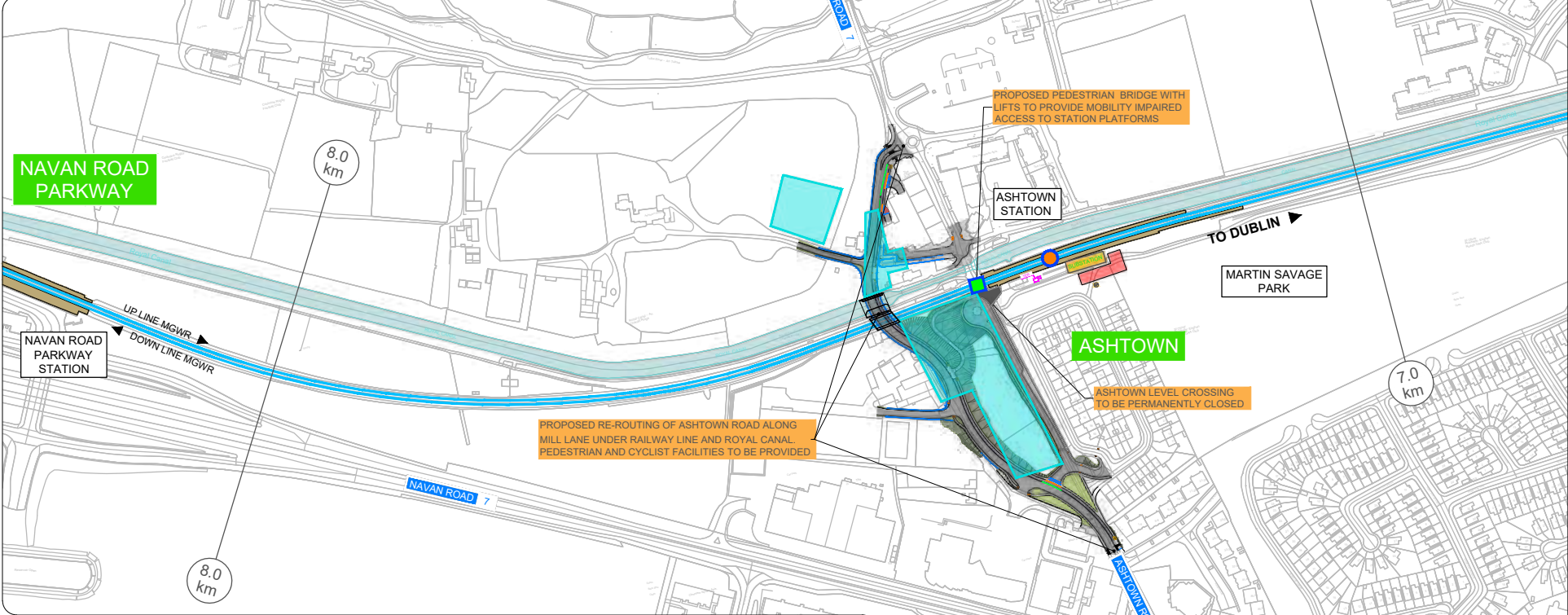
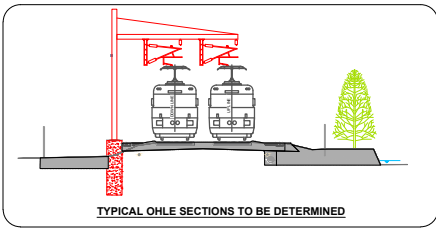
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Sheet 07 of 39

Scale: 1:1,200 @ A3

Drawing Number: **MAY MDC CIV ROUT DR V 0007 B**

Date: May 2021

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LEGEND:			
	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHKD
V.01	May 2021	PUBLIC CONSULTATION	MAC	TL
REV	DATE	DESCRIPTION	BY	CHKD

Client:

Consultant:

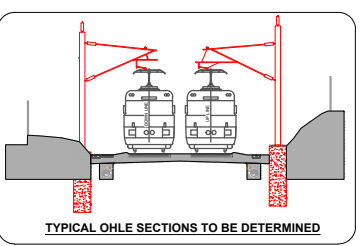
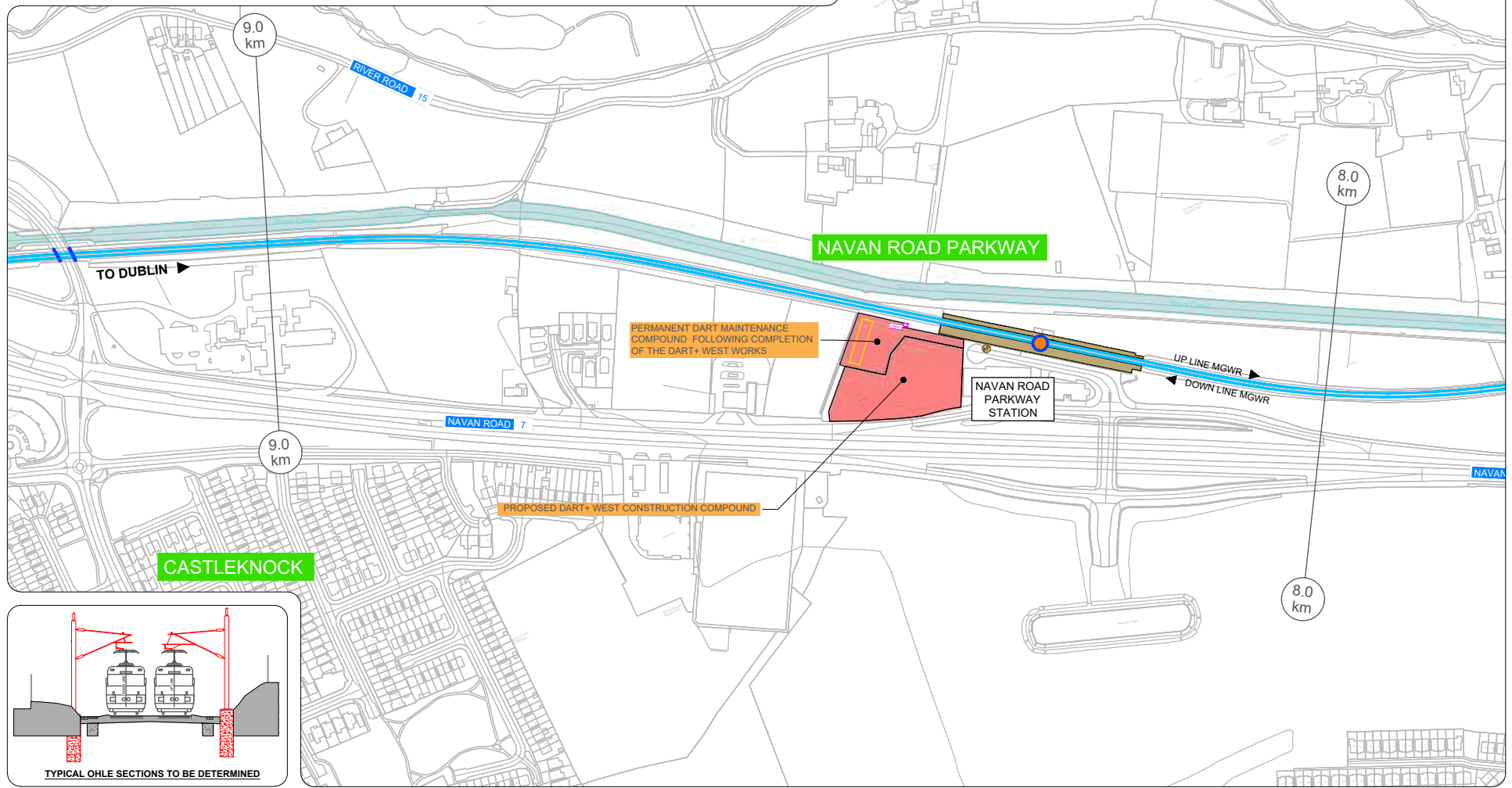
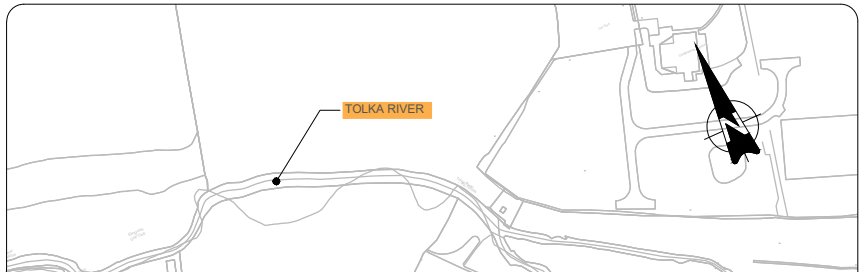
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Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 08 of 39

Drawing Number: 1 Phase 1 (Originator/Designer/Location/Type/Rule/Number/Phase)  
MAY MDC CIV ROUT DR V 0008 B

Scale: 1:1,200 @ A3  
Date: May 2021  
Status: S4 - Suitable for Acceptance  
Sheet: 08 of 39

- LEGEND:**
- CONSTRUCTION COMPOUND
  - LEVEL CROSSING CONSTRUCTION COMPOUND
  - SUB-STATION
  - SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
  - TER (Telecommunication Equipment Room) BUILDINGS
  - BRIDGE ALTERATIONS
  - CONCRETE TRACK SLAB
  - EXISTING ELECTRIFIED DART LINE
  - PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
  - PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
  - PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
  - PROPOSED RAILWAY ELECTRIFICATION
  - PARAPET HEIGHTENING
  - EXISTING RAILWAY STATION
  - PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK	APP
1	May 2021	PUBLIC CONSULTATION	MAC	TL	BC

Client:

Consultant:

Project:

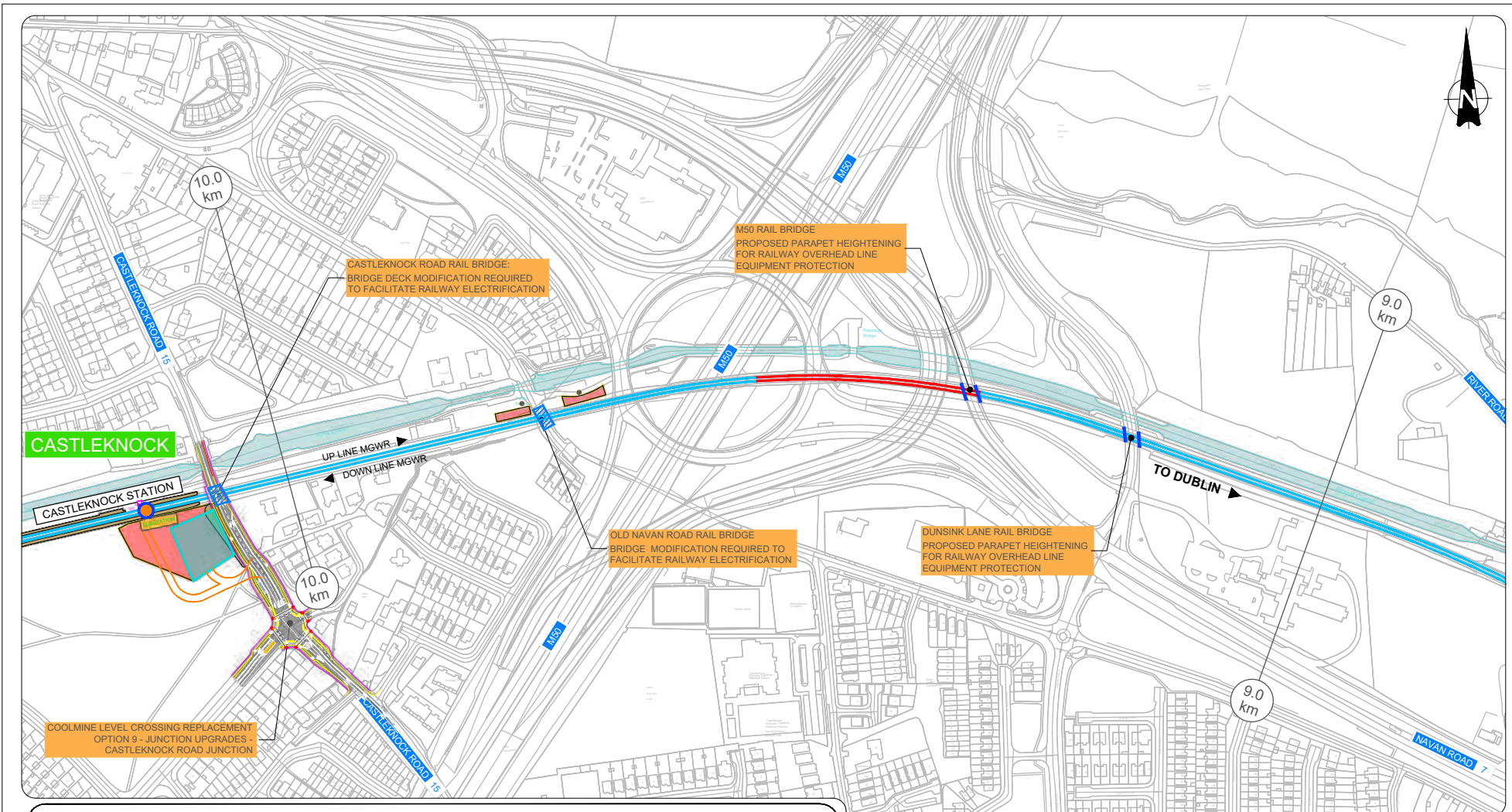
Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 09 of 39

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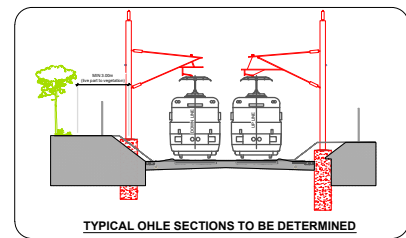
Drawing Number: MAY MDC CIV ROUT DR V 0009 B

Date: May 2021

Sheet 09 of 39



LEGEND:			
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	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	MMAC	TL	BC
1/01	May 2021	PUBLIC CONSULTATION			

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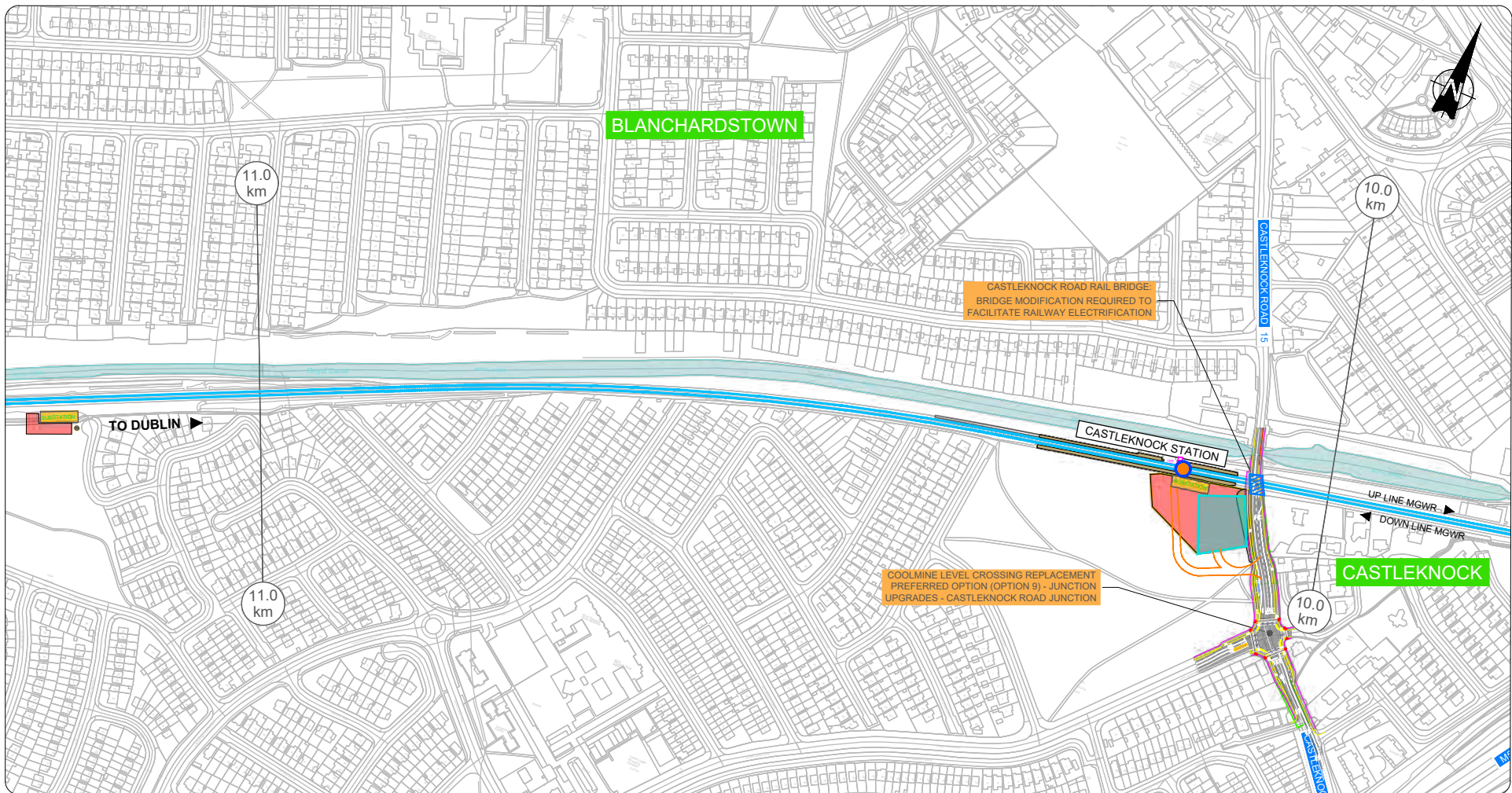
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Project:

Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 10 of 39

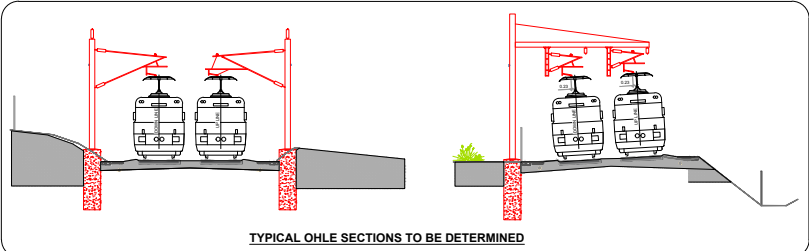
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Project: MAY MDC CIV ROUT DR V 0010 B  
Date: May 2021  
Sheet: 10 of 39



**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK	APP
V.01	May 2021	PUBLIC CONSULTATION			

Client:

Consultant:

Project:

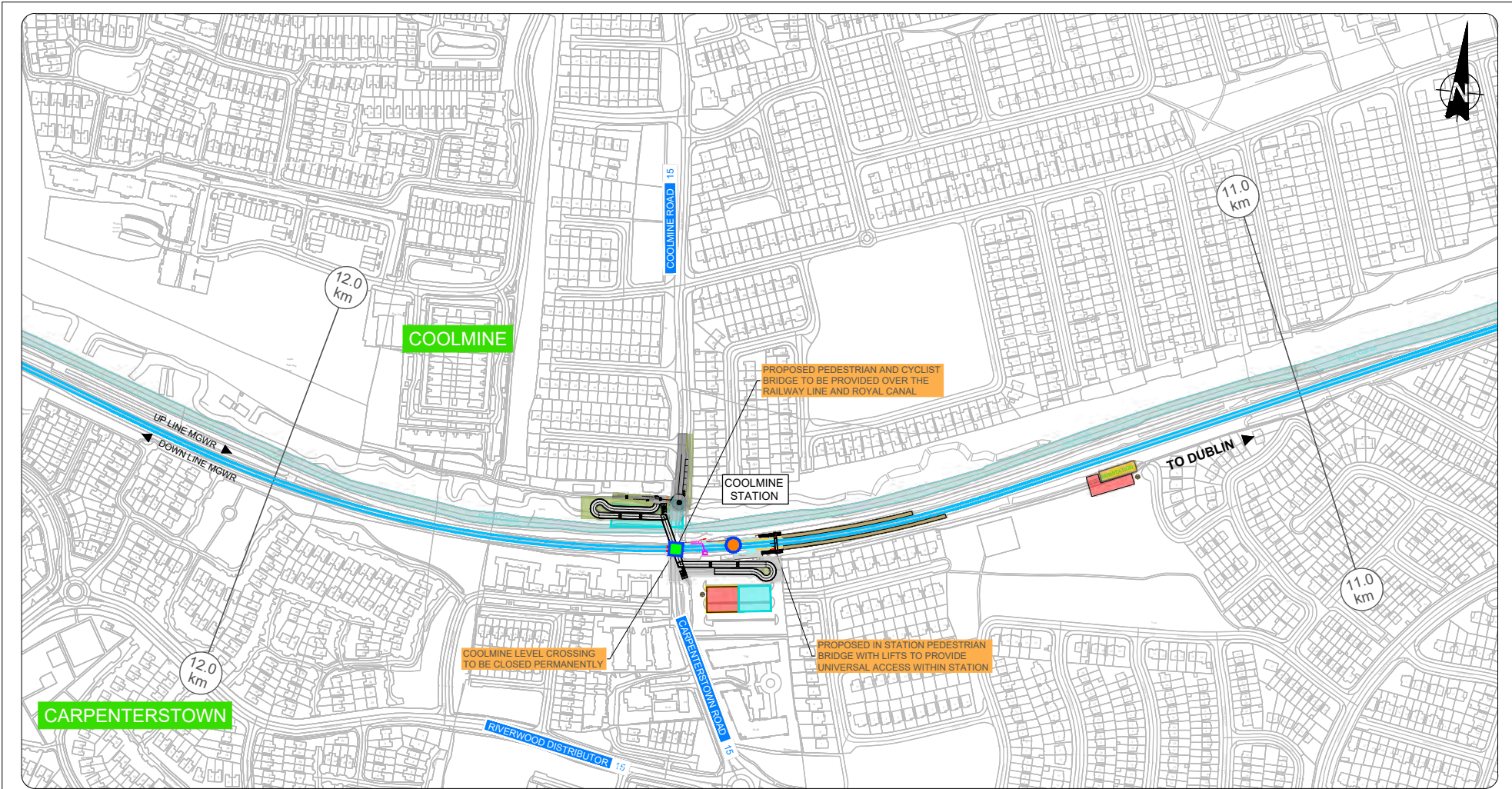
Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 11 of 39

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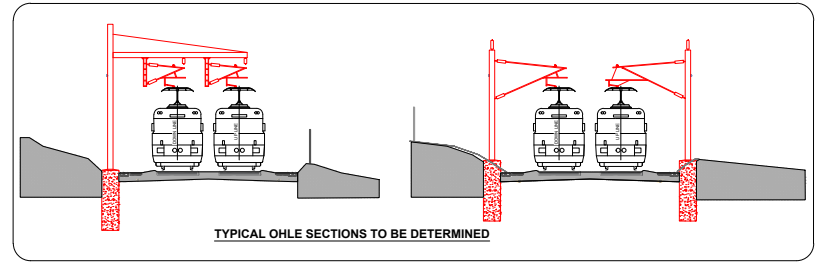
Drawing Number: MAY MDC CIV ROUT DR V 0011 B

Date: May 2021

Sheet: 11 of 39



LEGEND:			
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	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHKD
V.01	May 2021	PUBLIC CONSULTATION	MMAC	TL

Client:

Consultant:

Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 12 of 39

Scale: 1:1,250 @ A0

Drawing Number: **MAY MDC CIV ROUT DR V 0012 B**

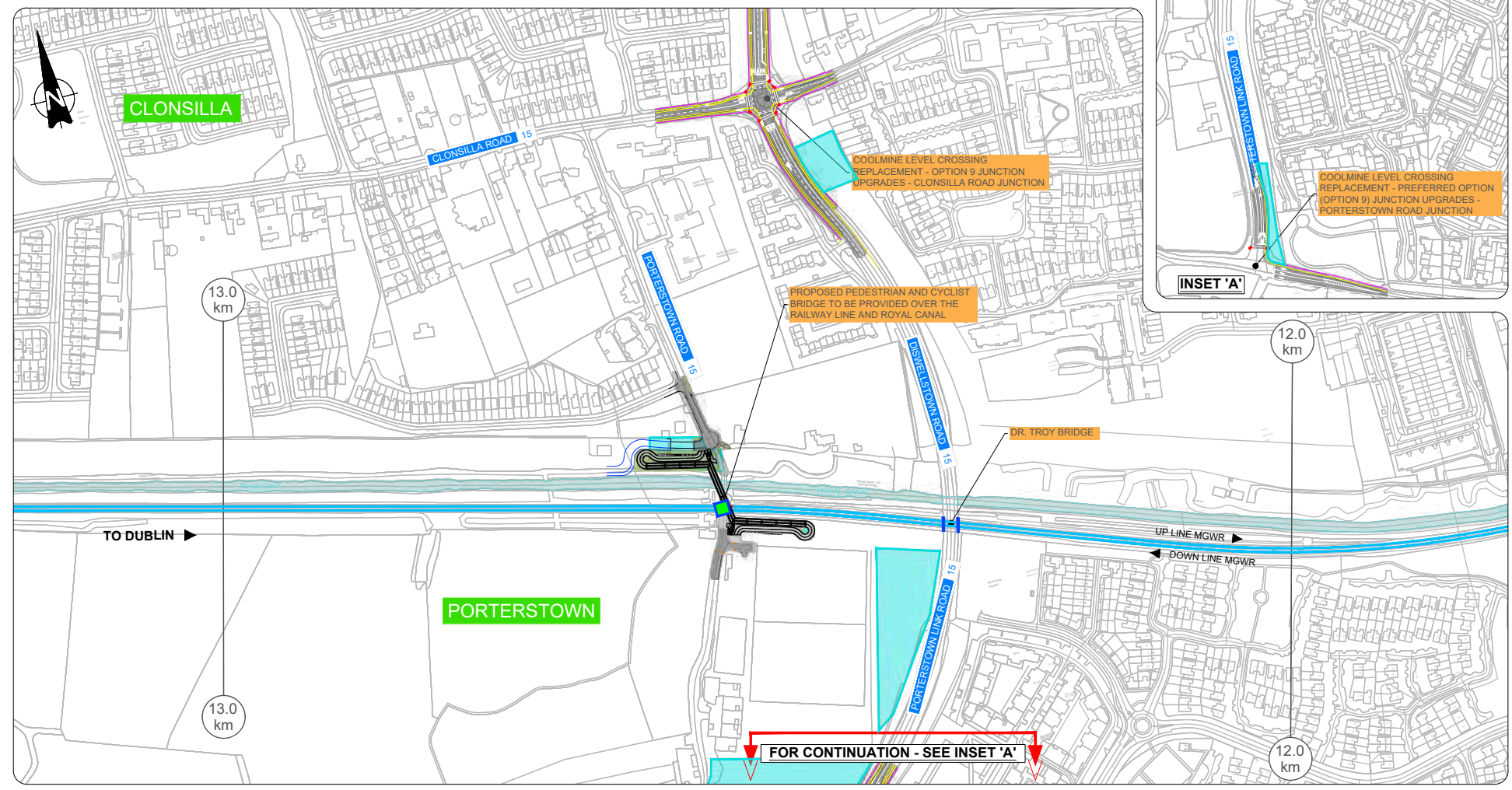
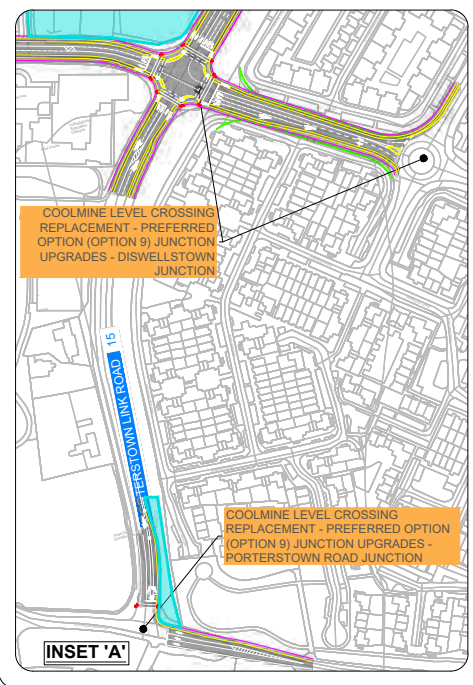
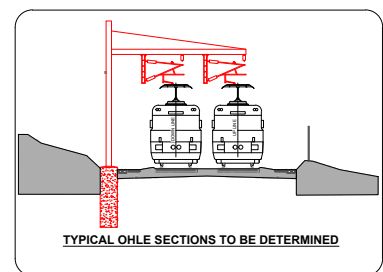
Date: May 2021

Sheet: 12 of 39



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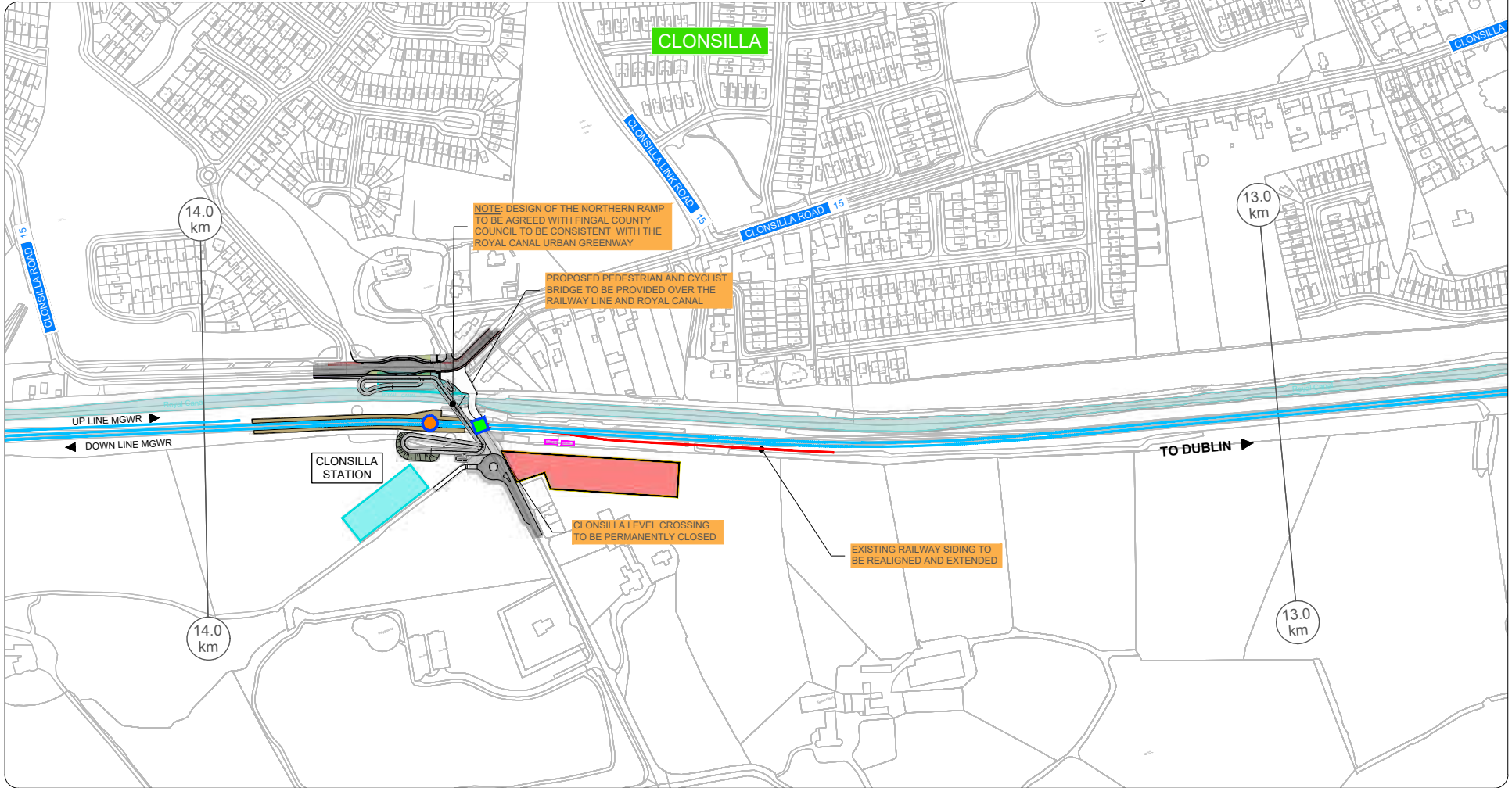
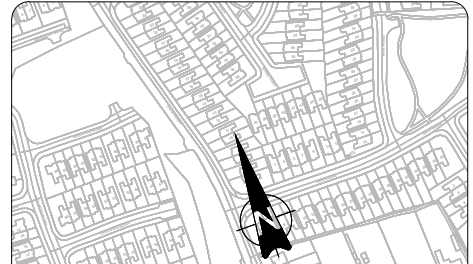
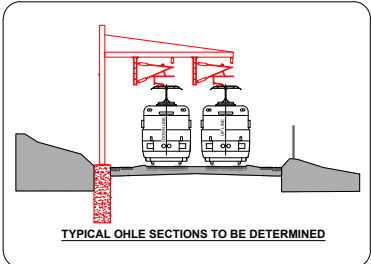
- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



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REV	DATE	DESCRIPTION	BY	CHKD																	
V.01	May 2021	PUBLIC CONSULTATION	MMAC	SL																	
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						Date	May 2021		Sheet 13 of 39												

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHKD
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01/01	01/01	ISSUED FOR CONSTRUCTION	AMC	BD

Client

Consultant

Project

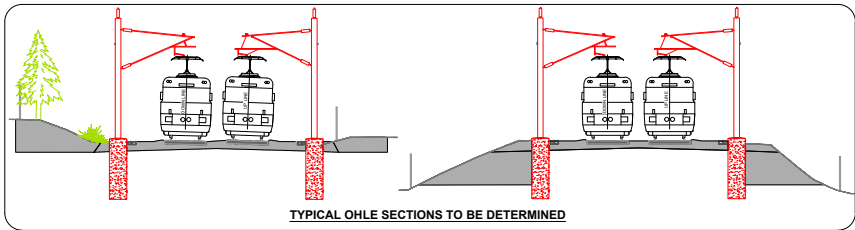
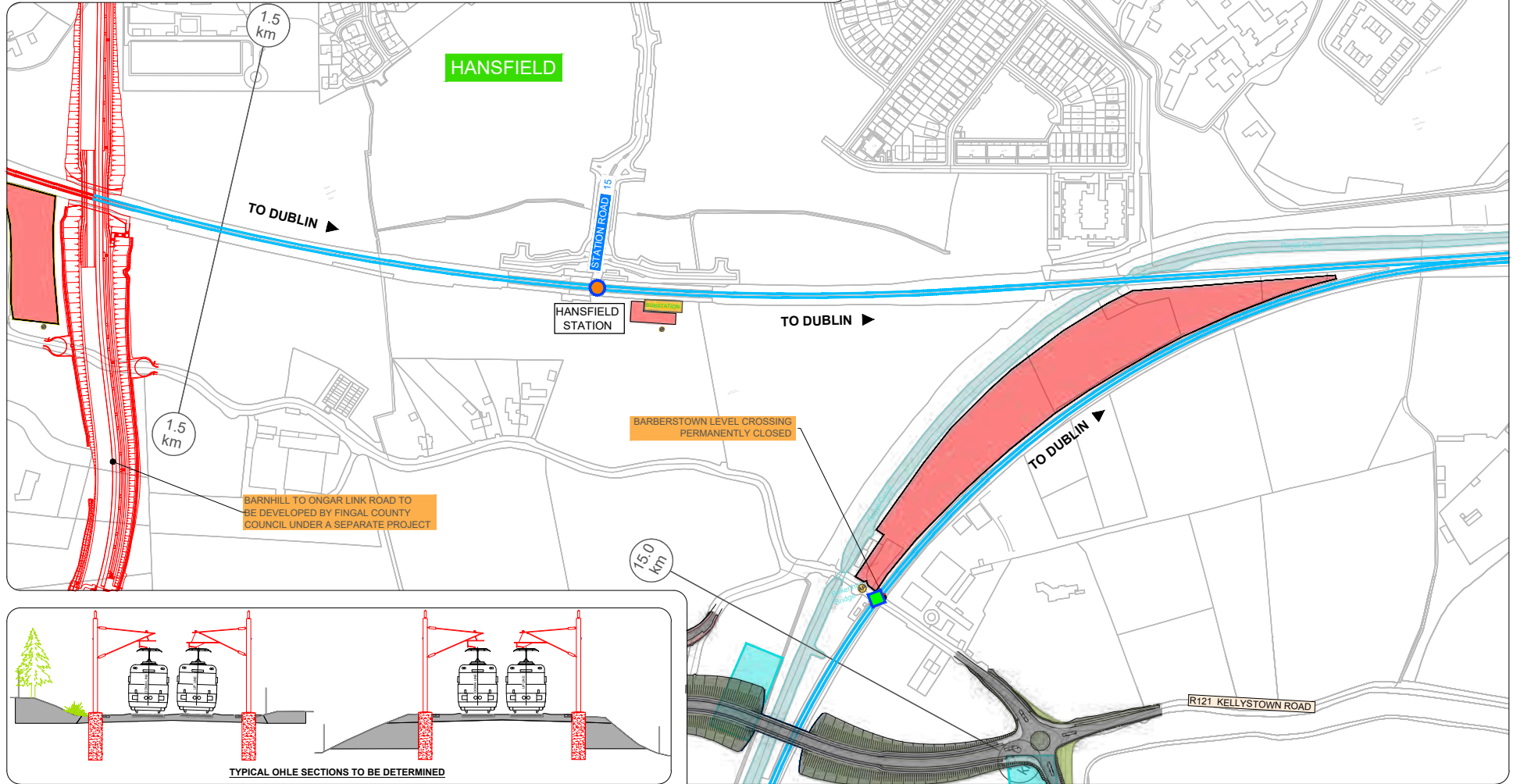
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OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 14 of 39

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**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHECKED
01	May 2021	PUBLIC CONSULTATION	MMAC	TL

Client:

Consultant:

Project:

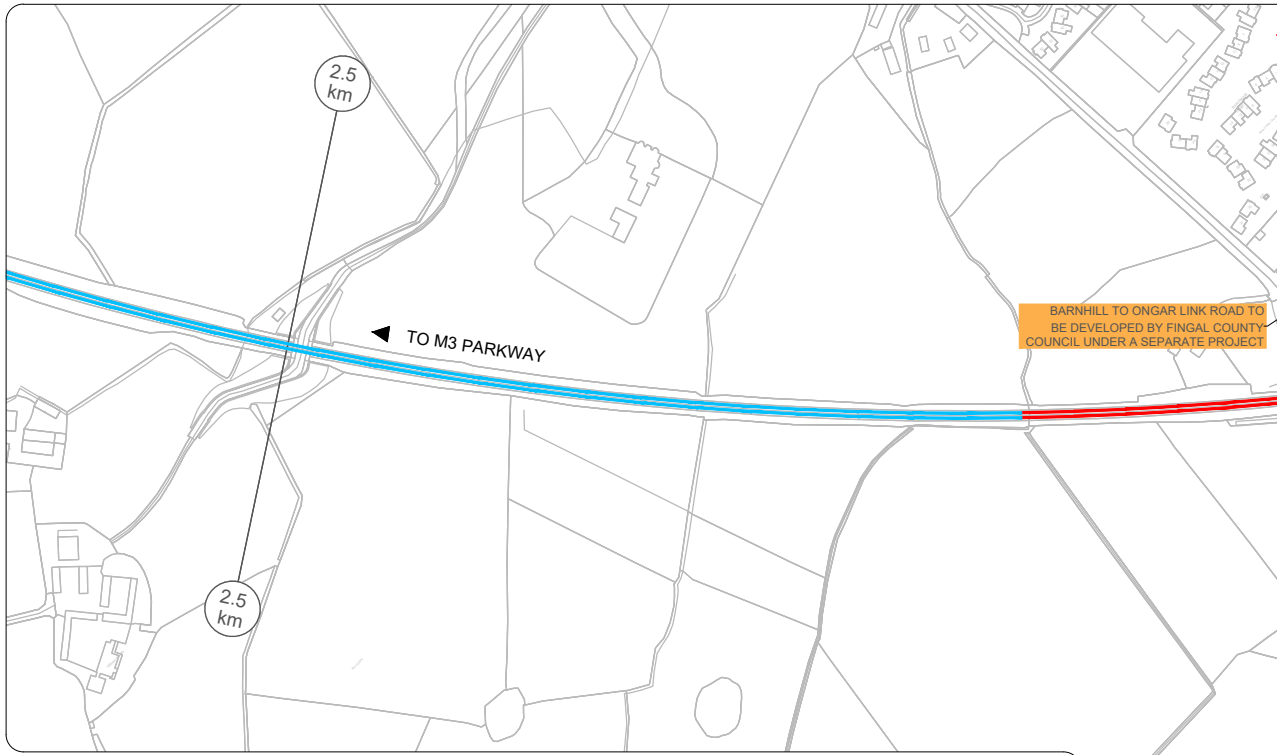
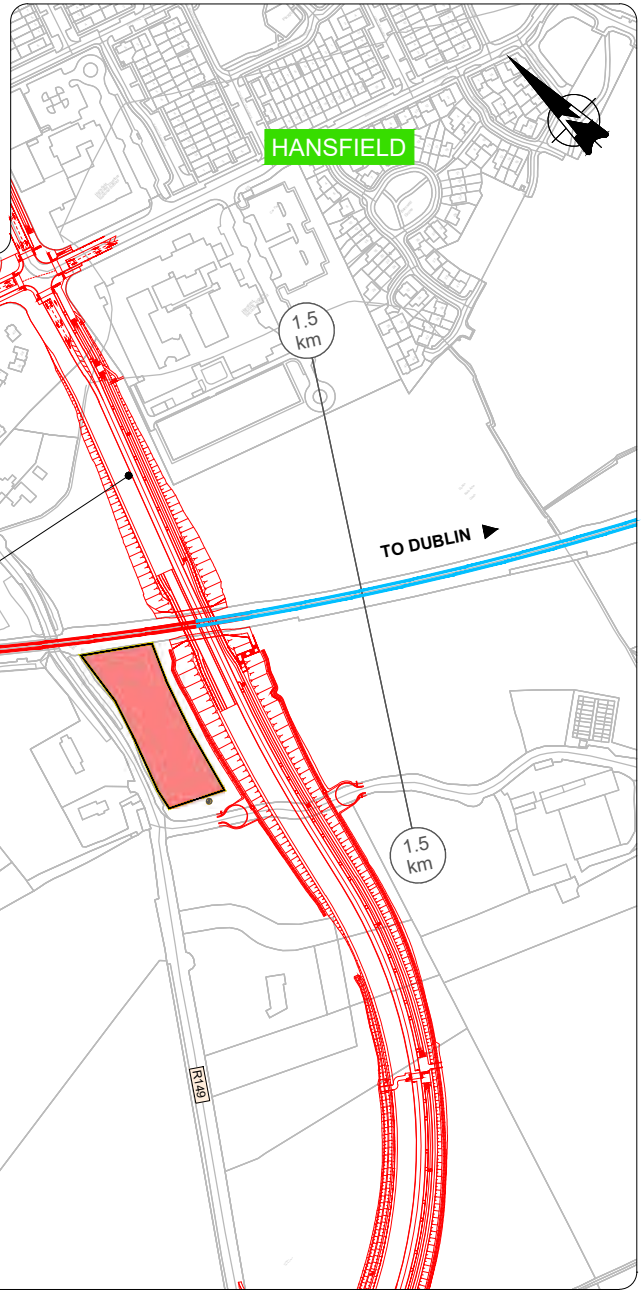
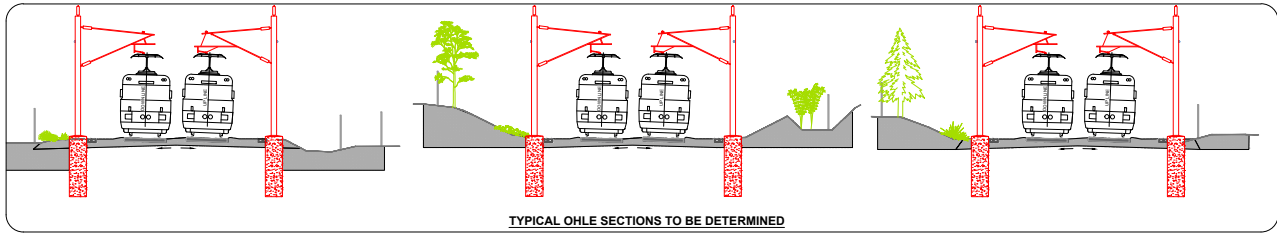
Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 15 of 39

Scale: 1:500 @ A0

Date: May 2021

Drawing Number: MAY MDC CIV ROUT DR V 0015 B

Sheet: 15 of 39



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHECKED
V.01	May 2021	PUBLIC CONSULTATION	AMAC	TL
				BC

Client:

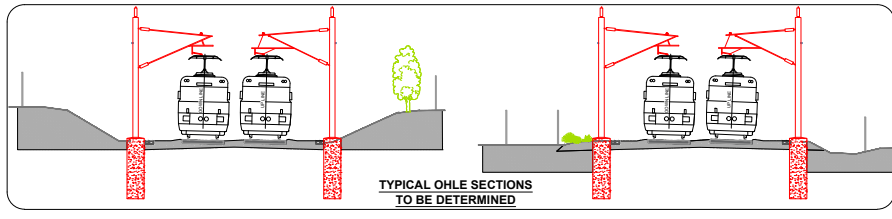
Consultant:

Project:

Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 16 of 39

Drawing Number: 1  
Project: DART+ West  
Location: CIVIL ROUTE  
Type: DR  
Revision: V.0016  
Phase: B

Scale: 1:1,200 @ A0  
Date: May 2021  
Author: P1010086  
Title: S4 - Suitable for Acceptance  
Sheet: 16 of 39



**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHK	APP
01	May 2021	PUBLIC CONSULTATION	MAC	SL	BB
PRODUCED BY REVIEWED BY APPROVED BY					

Client:

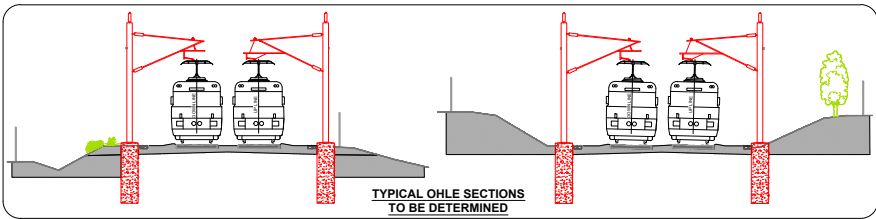
Consultant:

Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 17 of 39

Drawing Number: 1  
Project: (Project/Client/Location) Type I/Rate I/Number I/Phase  
MAY MDC CIV ROUT DR V 0017 B

Scale: 1:1,250 @ A0  
Date: May 2021  
Status: For Acceptance  
Rev: V01  
Sheet: 17 of 39



LEGEND:	
	CONSTRUCTION COMPOUND
	LEVEL CROSSING CONSTRUCTION COMPOUND
	SUB-STATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
	TER (Telecommunication Equipment Room) BUILDINGS
	BRIDGE ALTERATIONS
	CONCRETE TRACK SLAB
	EXISTING ELECTRIFIED DART LINE
	PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	PROPOSED RAILWAY ELECTRIFICATION
	PARAPET HEIGHTENING
	EXISTING RAILWAY STATION
	PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHKD
V.01	May 2021	PUBLIC CONSULTATION	SMC	TL
Final	Final	Final	Final	Final

Client:

Consultant:

Project:

Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 18 of 39

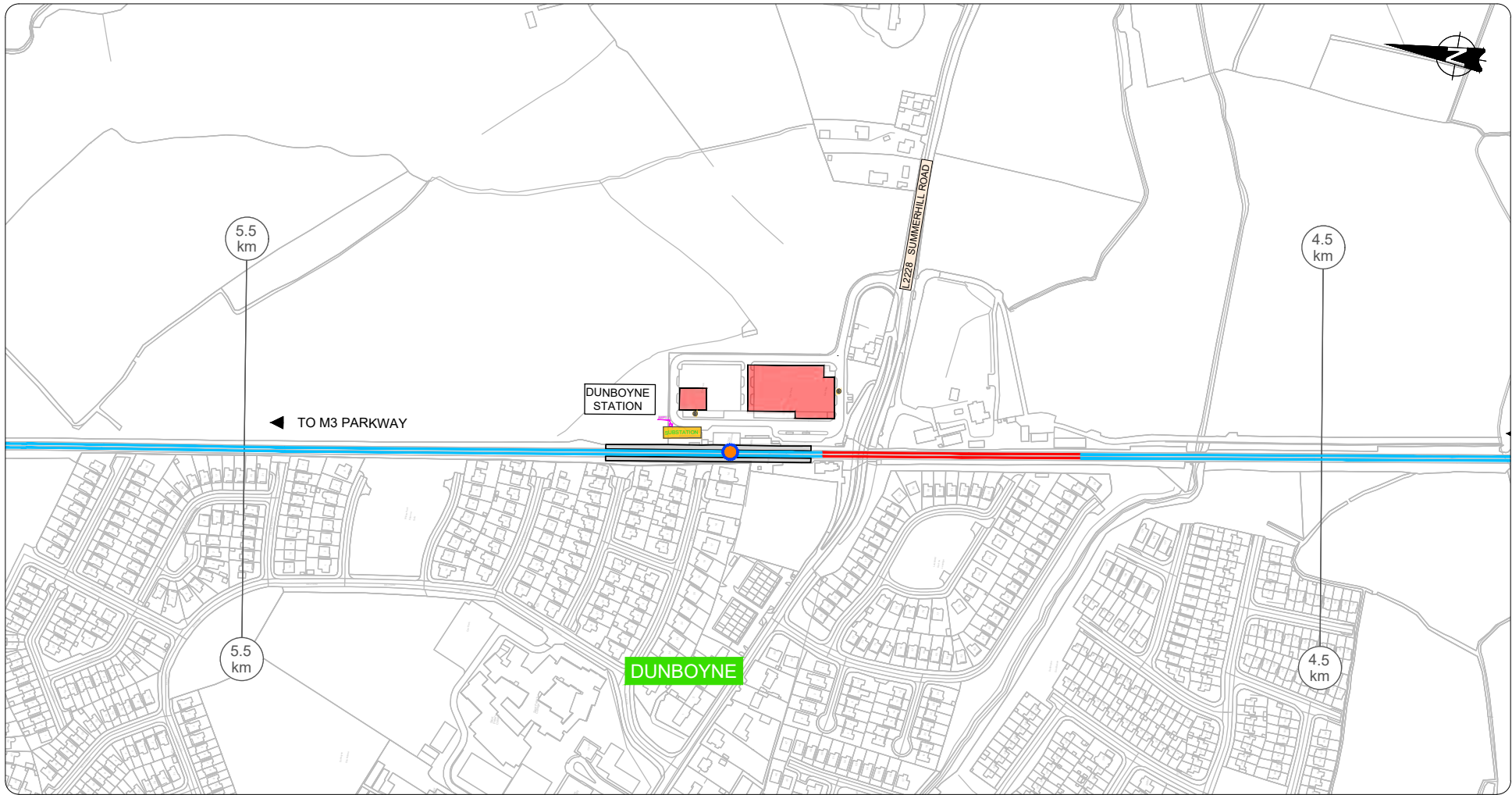
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Date: May 2021

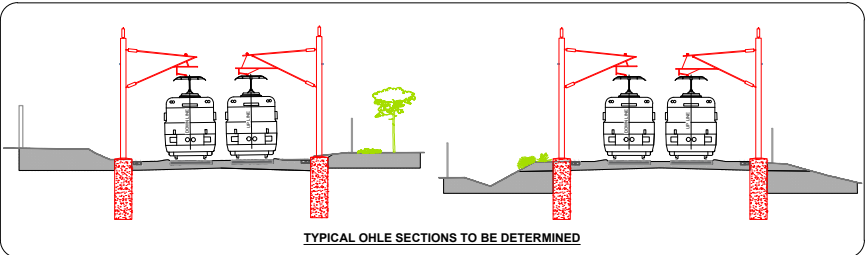
Sheet: S4 - Suitable for Acceptance

Rev: V.01

Drawn: 18 of 39



LEGEND:		EXISTING ELECTRIFIED DART LINE	
	CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	TER (Telecommunication Equipment Room) BUILDINGS		PARAPET HEIGHTENING
	BRIDGE ALTERATIONS		EXISTING RAILWAY STATION
	CONCRETE TRACK SLAB		PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHKD	APP'D
1	17/01	PUBLIC CONSULTATION	MAC	TL	BC

Client:

Consultant:

Project:

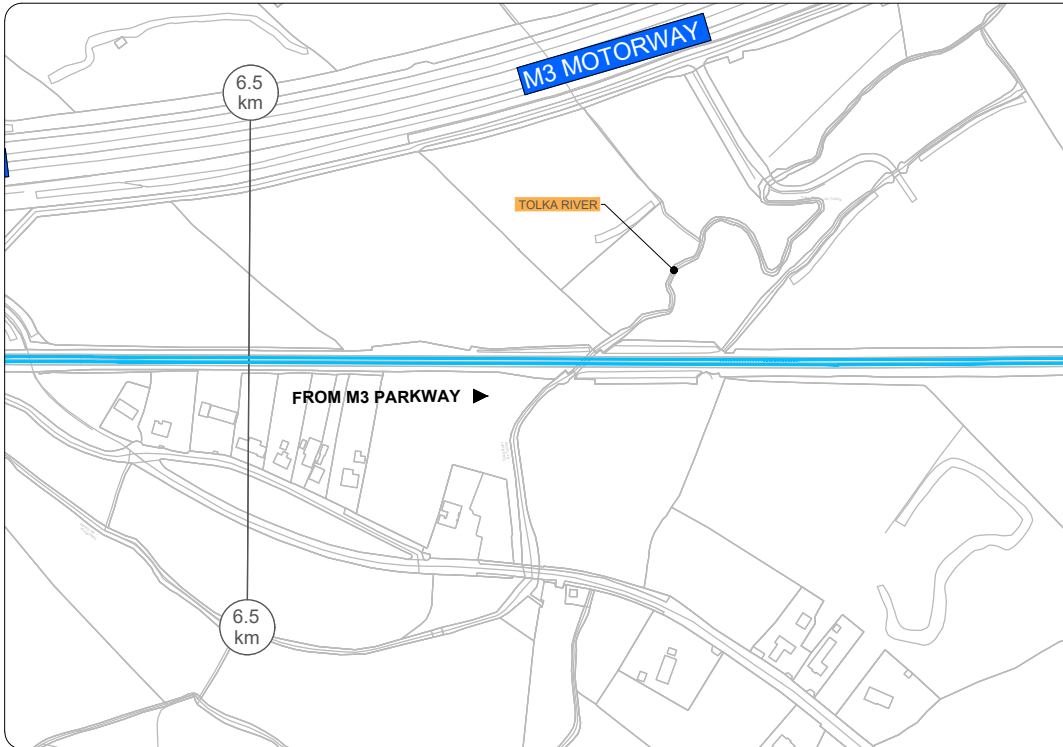
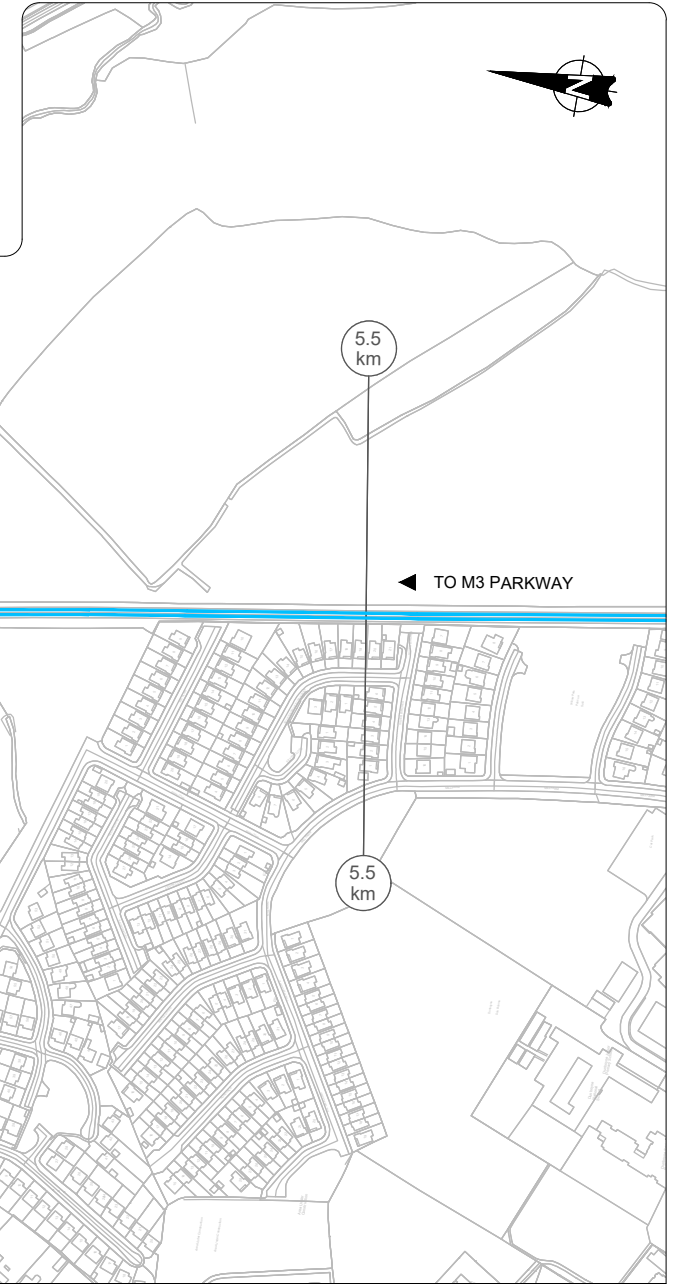
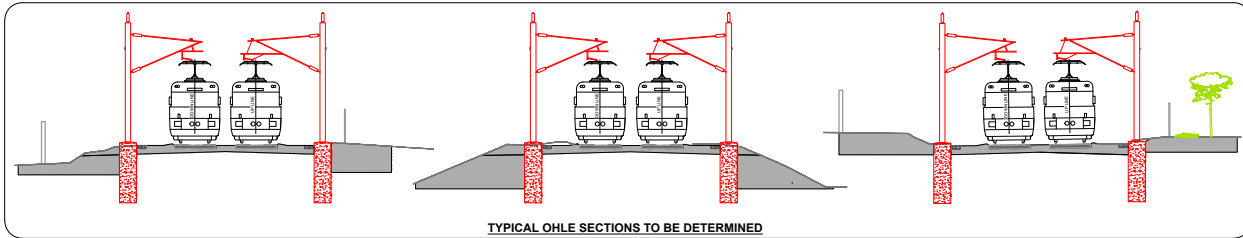
Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 19 of 39

Scale: 1:1,250 @ A4

Drawing Number: MAY MDC CIV ROUT DR V 0019 B

Date: May 2021

Sheet: 19 of 39



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

NO.	DATE	DESCRIPTION	BY	CHECKED BY	APPROVED BY
1	May 2021	PUBLIC CONSULTATION	SMC	SL	MD

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Client:

Consultant:

Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 20 of 39

Scale: 1:1,250 @ A0

Drawing Number: MAY MDC CIV ROUT DR V 0020 B

Date: May 2021

Job No: 20101038

Status: SA - Suitable for Acceptance

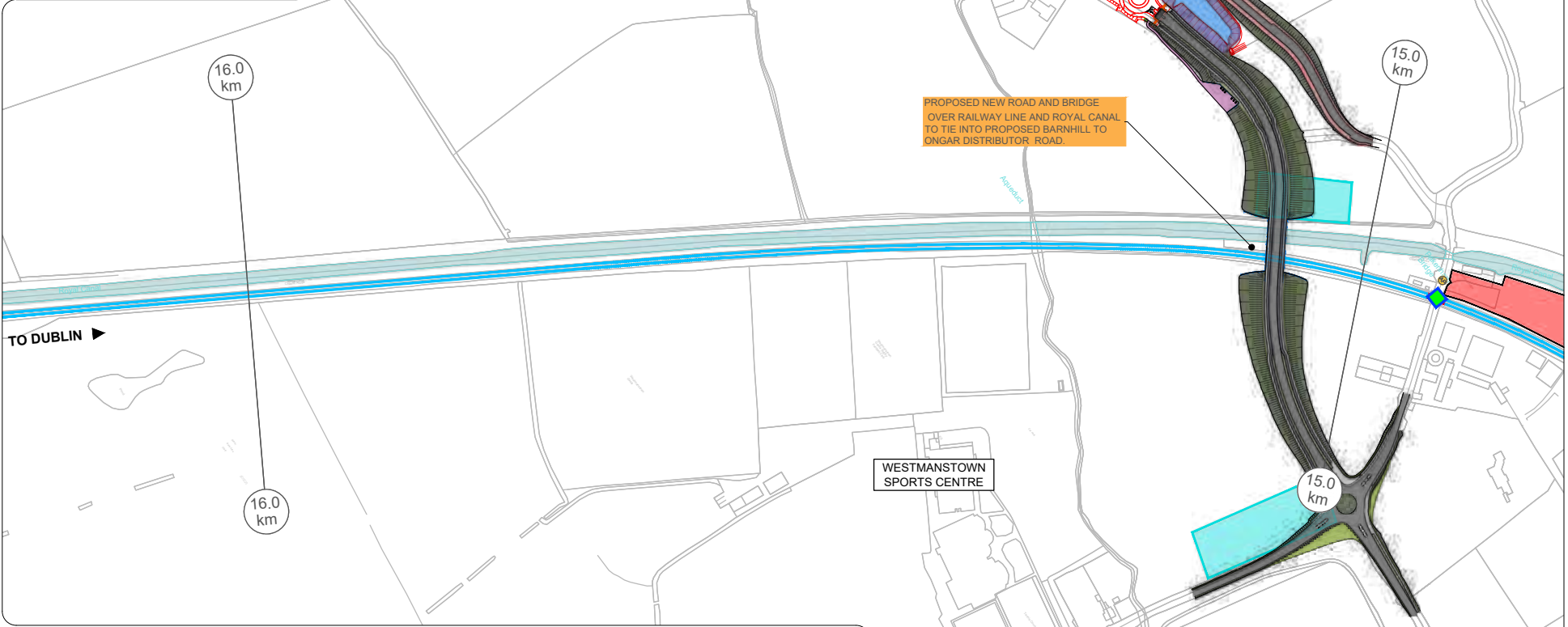
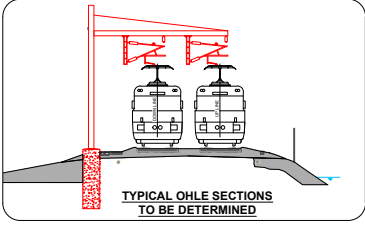
Rev: V-01

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LEGEND:			
	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

NO.	DATE	DESCRIPTION	BY	APPROVED BY
V01	May 2021	PUBLIC CONSULTATION	MMC	TL
		PROCESSED		BC

Client

Consultant

Project

Drawing Title

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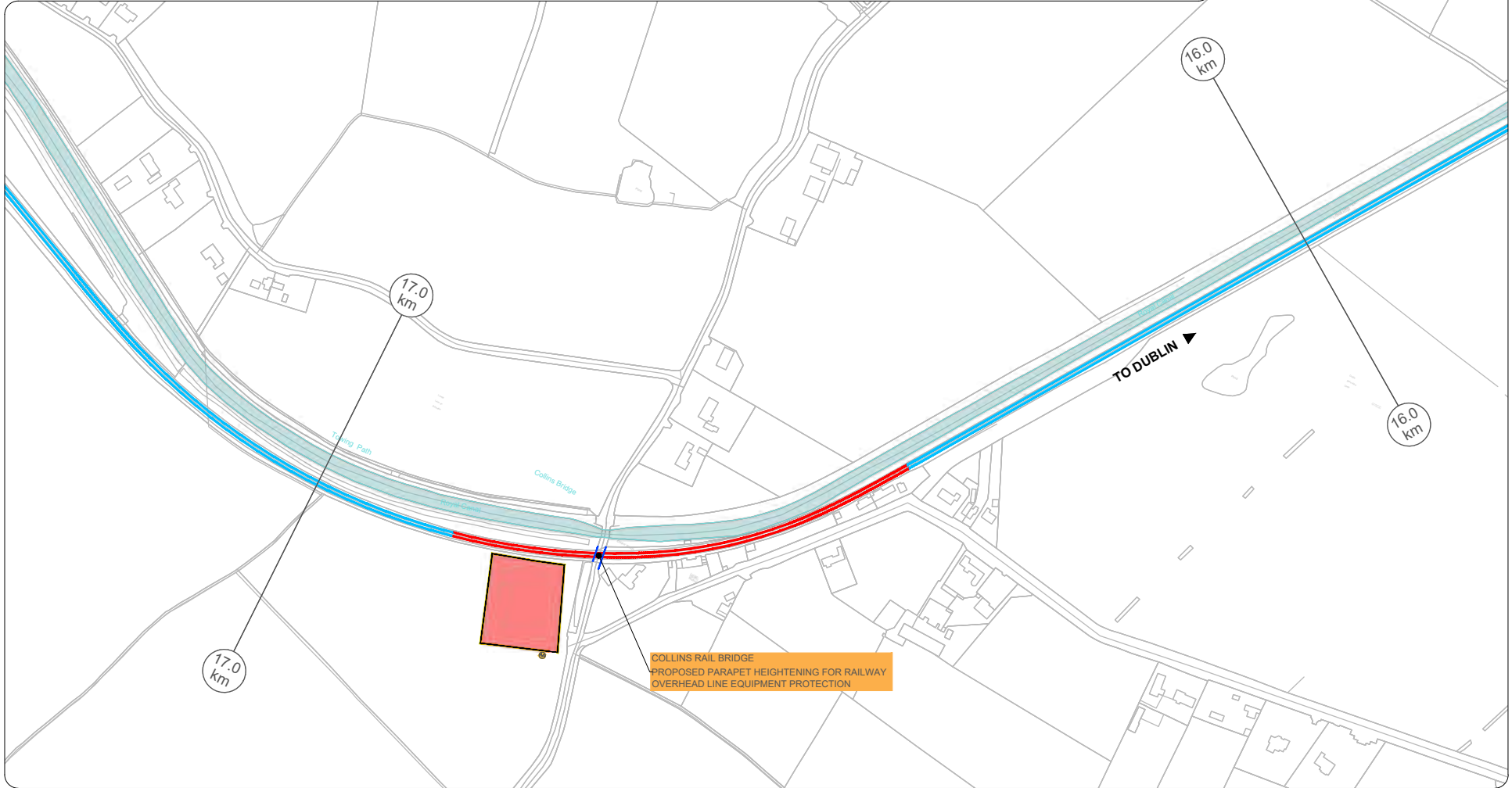
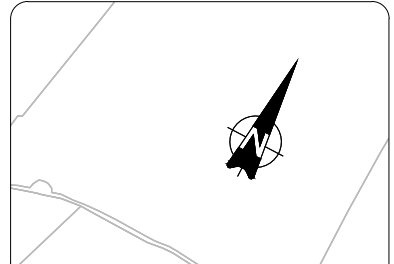
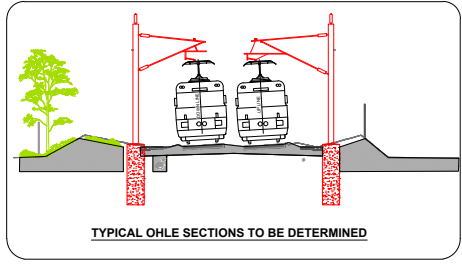
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Options Selection - Schematic Layout  
Sheet 23 of 39

Drawing Number	Project	Revision/Description	Location	Type	Issue	Number	Phase
MAY	MDC	CIV	ROUT	DR	V	0023	B

Date: May 2021  
Sheet: 23 of 39

- LEGEND:**
- CONSTRUCTION COMPOUND
  - LEVEL CROSSING CONSTRUCTION COMPOUND
  - SUB-STATION
  - SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
  - TER (Telecommunication Equipment Room) BUILDINGS
  - BRIDGE ALTERATIONS
  - CONCRETE TRACK SLAB
  - EXISTING ELECTRIFIED DART LINE
  - PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
  - PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
  - PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
  - PROPOSED RAILWAY ELECTRIFICATION
  - PARAPET HEIGHTENING
  - EXISTING RAILWAY STATION
  - PROPOSED LEVEL CROSSING CLOSURE



COLLINS RAIL BRIDGE  
PROPOSED PARAPET HEIGHTENING FOR RAILWAY  
OVERHEAD LINE EQUIPMENT PROTECTION

REV 01	MAY 2021	PUBLIC CONSULTATION	MMC	TL
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Client

Consultant

Project

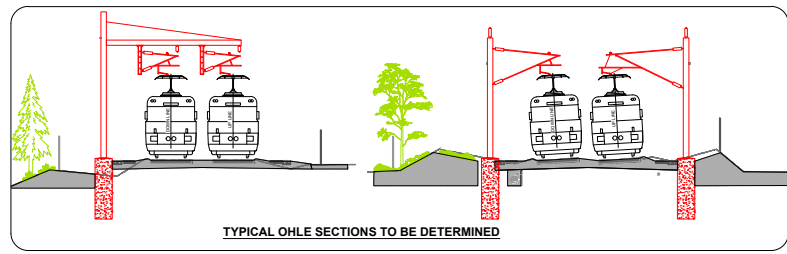
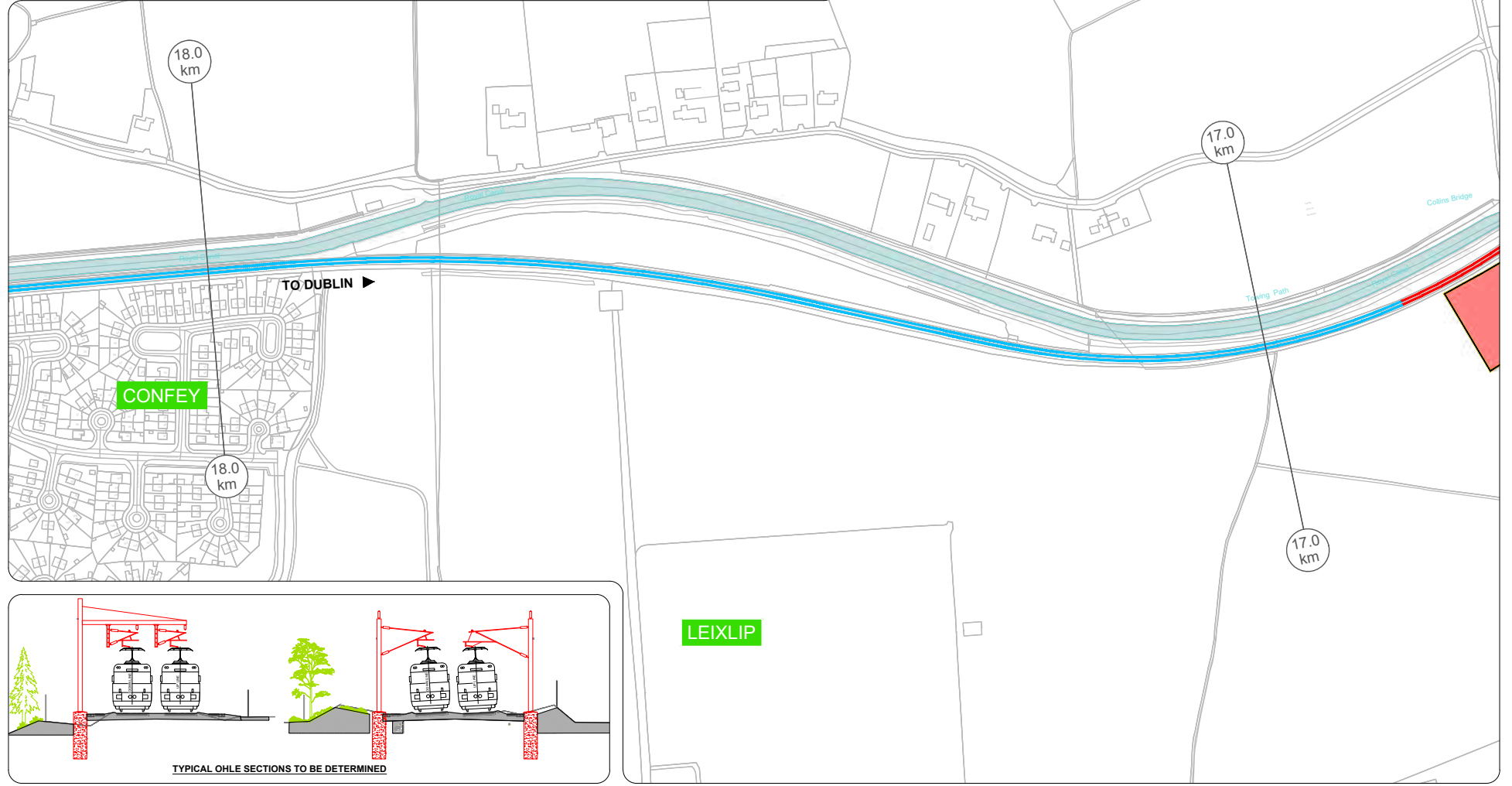
Drawing Title

OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 24 of 39

Scale	Drawing Number	Project	Originator/Designer/Location	Type	Rate	Number	Phase
1:1 250 @ A5	MAY	MDC	CIV	ROUT	DR	V	0024
Date	Rev No	Status	Rev				
May 2021	P121086	S4 - Suitable for Acceptance	V:01	Sheet: 24 of 39			

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	MMAC	TL	BC
V.01	May 2021	PUBLIC CONSULTATION			

Client:

Consultant:

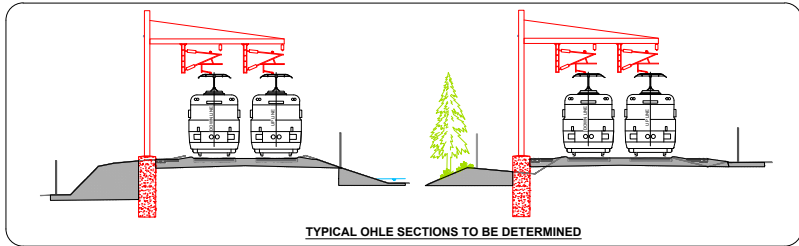
Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 25 of 39

Scale: 1:1,200 @ A0	Drawing Number: 1	Project: Options Selection	Location: 1	Type: 1	Revision: 1	Phase: 1
Date: May 2021	SEP No: 0102089	Status: S4 - Suitable for Acceptance	Rev: V.01	Sheet: 25 of 39		

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHECKED
V.01	May 2021	PUBLIC CONSULTATION	SMC	TL
V.02	May 2021	REVISIONS	SMC	TL

Client:

Consultant:

Project:

Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 26 of 39

Scale: 1:1,200 @ A3

Date: May 2021

Author: P101086

Checked: S4 - Suitable for Acceptance

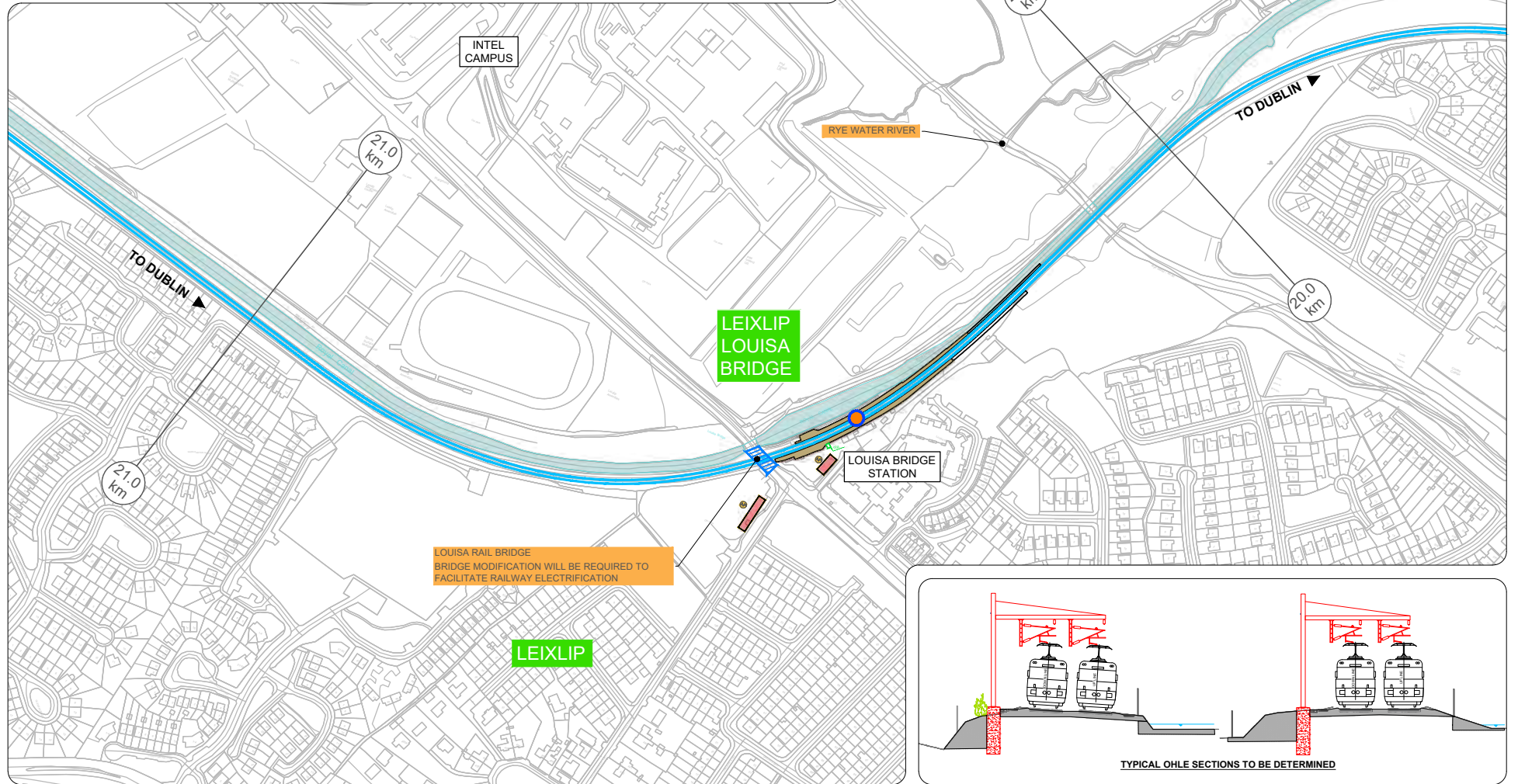
Drawn: V.01

Phase: B



**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	MADE BY	CHKD BY	APPROVED BY
V.01	May 2021	PUBLIC CONSULTATION			
					PRODUCED BY/REVIEWED BY/ APPROVED BY

Client:

Consultant:

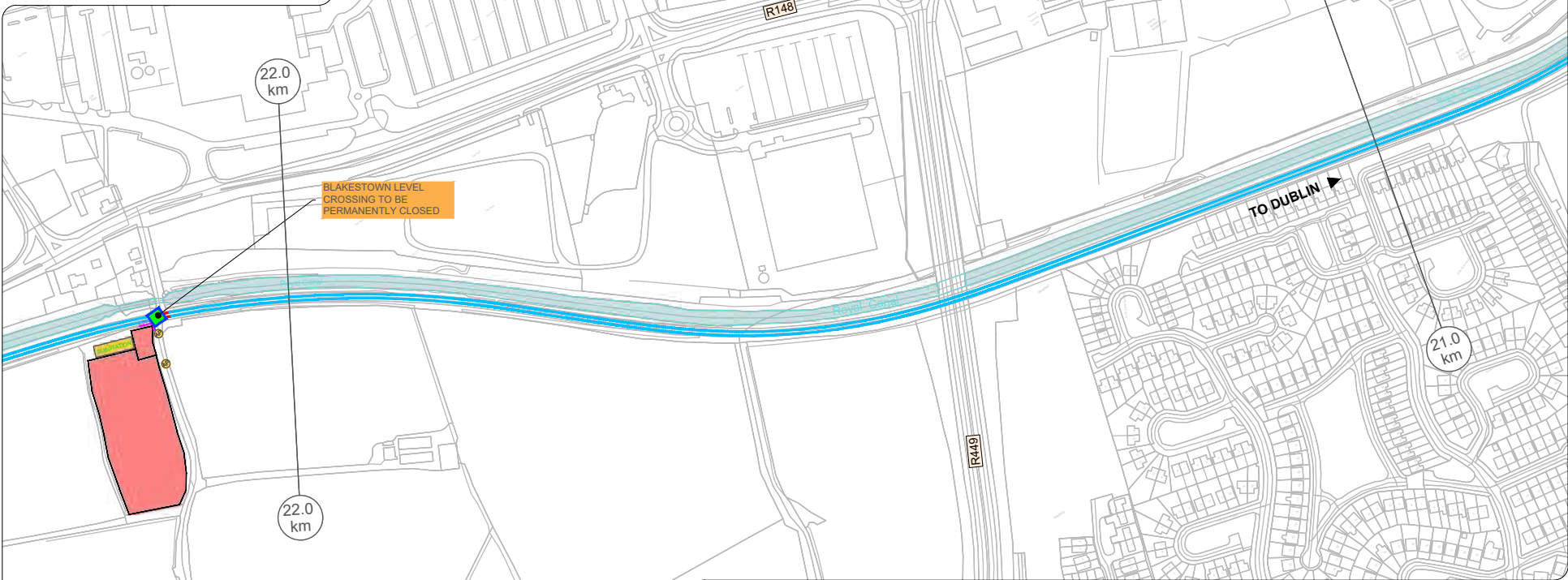
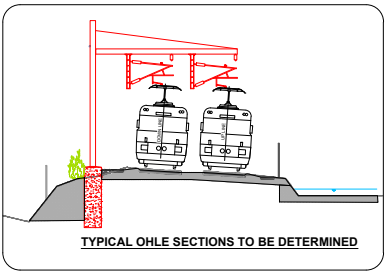
Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 28 of 39

Scale: 1:1,250 @ A0  
Date: May 2021  
Job No: 1701100  
Status: SP - Suitable for Acceptance  
Rev: 01  
Sheet: 28 of 39

Drawing Number: 1  
Project: Options Selection  
Location: Type 1  
Phase: 1  
Number: B  
MAY MDC CIV ROUT DR V 0028 B





**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHK
V01	May 2021	PUBLIC CONSULTATION	MAC	TS

Client:

Consultant:

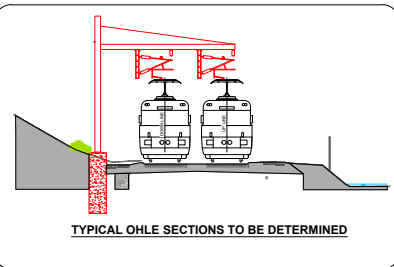
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Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 29 of 39

Scale: 1:1,250 @ A0

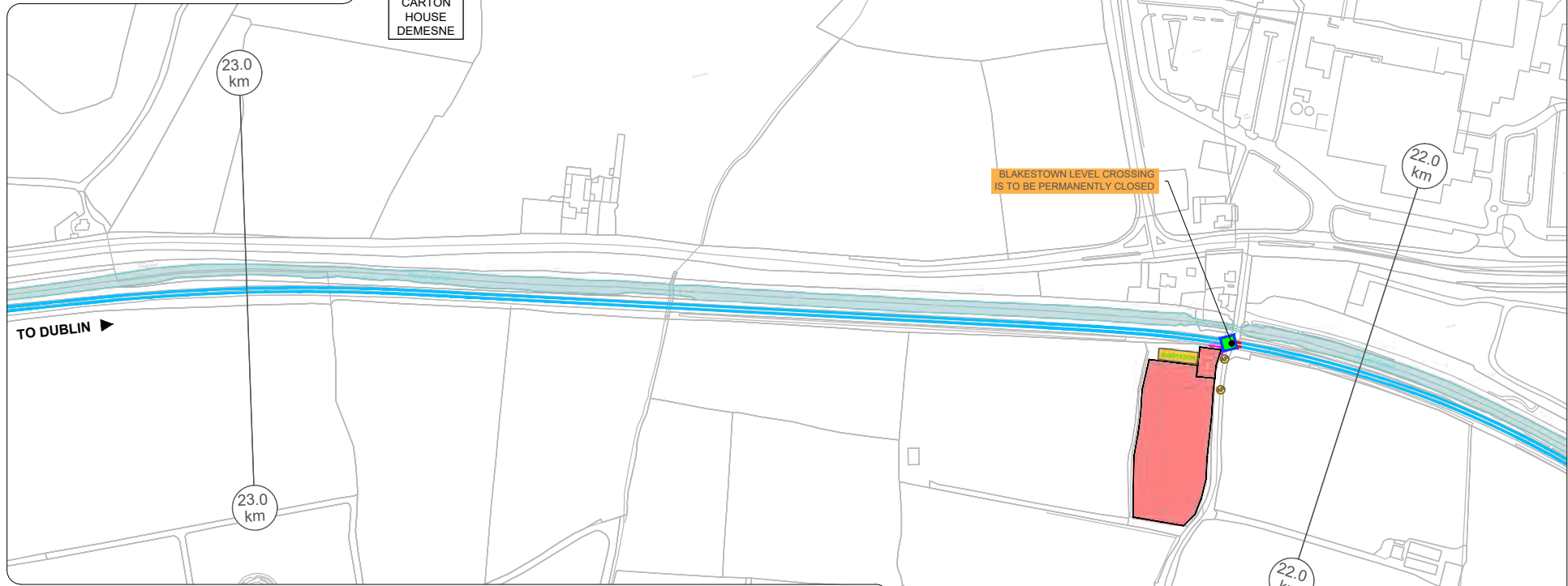
Date: May 2021

Sheet 29 of 39



CARTON HOUSE DEMESNE

BLAKESTOWN



BLAKESTOWN LEVEL CROSSING IS TO BE PERMANENTLY CLOSED

LEGEND:

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHK	APP
V.01	May 2021	PUBLIC CONSULTATION			
			MMC	TL	BC
APPROVED BY:					

Client:

Consultant:

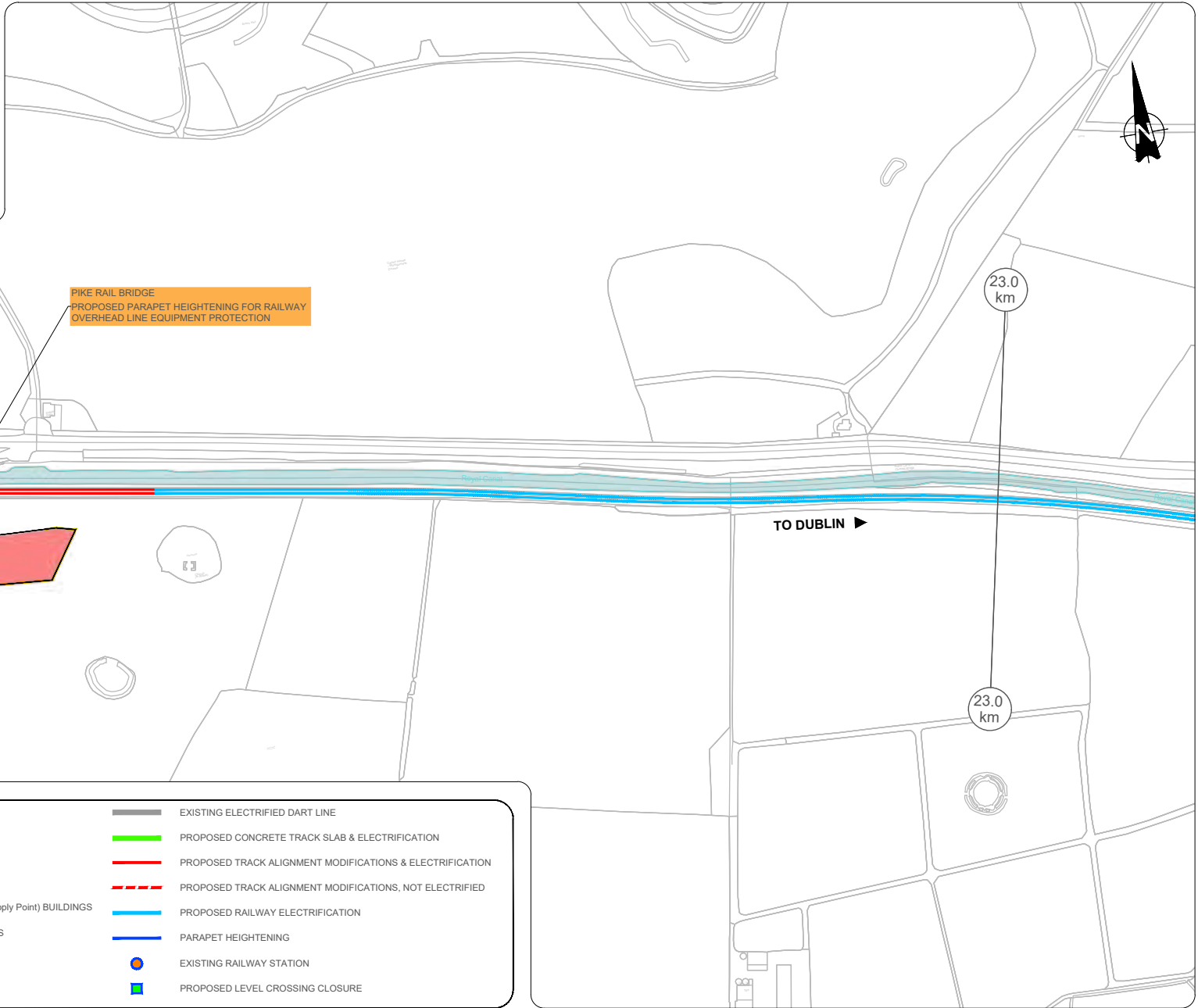
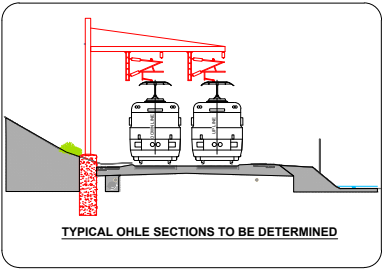
Project:

Drawing Title: OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 30 of 39

Drawing Number: 1  
Project: (Originator/Designer) Location: (Type) Risk: (Number) Phase: (Letter)

Scale: 1:1,250 @ A0

Date: May 2021  
Job No: 0101086  
Status: S4 - Suitable for Acceptance  
Rev: V.01  
Drawn: 30 of 39



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHKD
V.01	May 2021	PUBLIC CONSULTATION	SMAC	TL
				BD

Client:

Consultant:

Project:

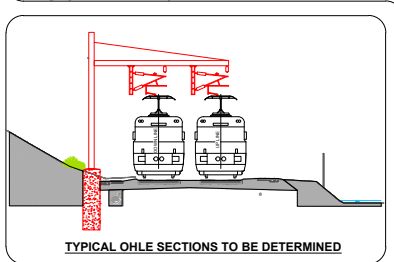
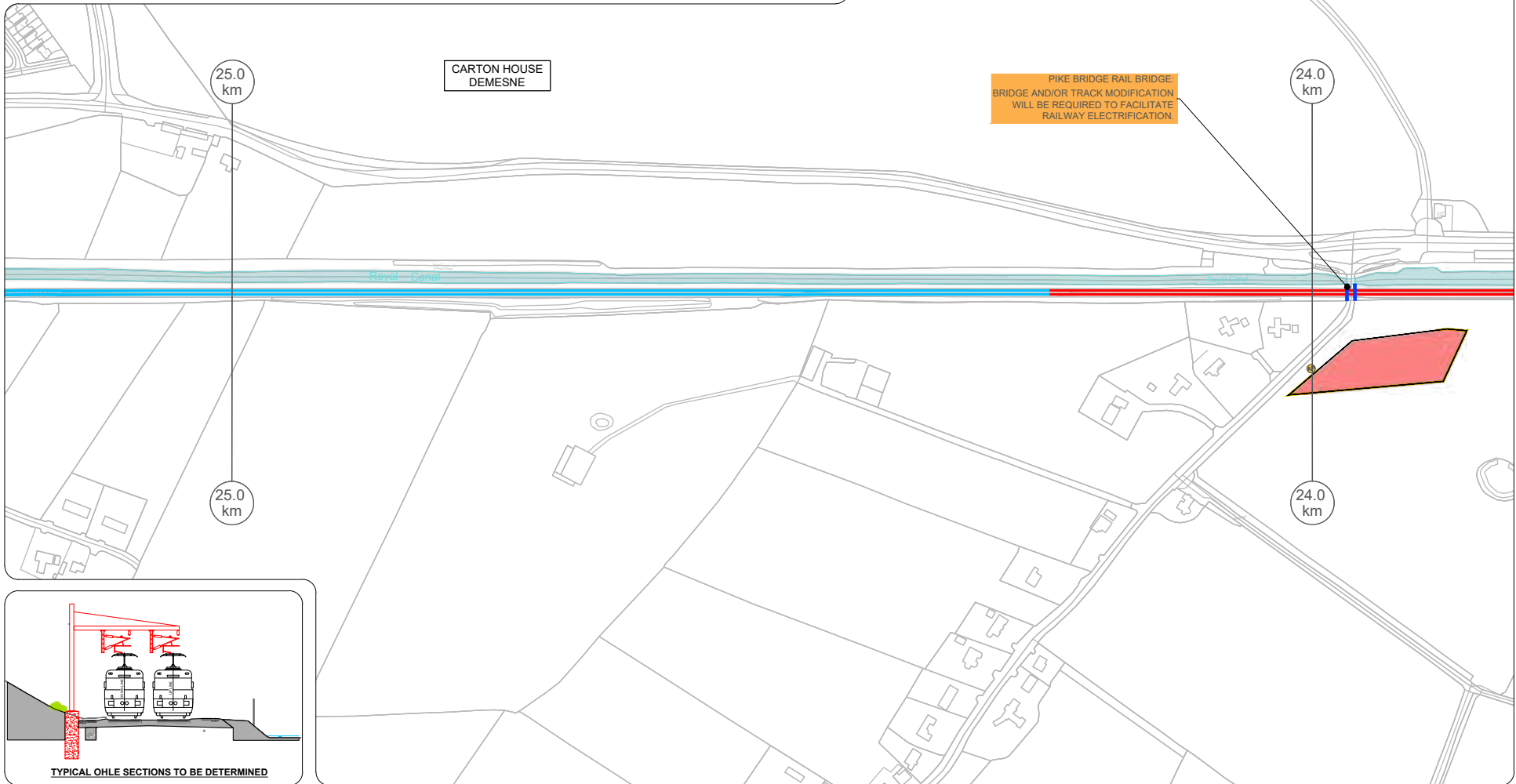
Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 31 of 39

Drawing Number: 1  
Project: (Originator/Disipline) Location: Type: Issue: Number: Phase:  
MAY MDC CIV ROUT DR V 0031 B

Scale: 1:1,250 @ A0  
Date: May 2021  
Status: 04 - Suitable for Acceptance  
Sheet: V.01  
Sheet: 31 of 39

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



CARTON HOUSE  
DEMESNE

PIKE BRIDGE RAIL BRIDGE:  
BRIDGE AND/OR TRACK MODIFICATION  
WILL BE REQUIRED TO FACILITATE  
RAILWAY ELECTRIFICATION.

25.0  
km

25.0  
km

24.0  
km

24.0  
km

REV	DATE	DESCRIPTION	BY	CHK	APP
V.01	May 2021	PUBLIC CONSULTATION	MMC	TL	BC
PRODUCED BY REVIEWED BY APPROVED BY					

Client

Consultant

Project

Drawing Title

OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 32 of 39

Drawing Number | Project | Discipline | Location | Type | Risk | Number | Phase

MAY | MDC | CIV | ROUT | DR | V | 0032 | B

Scale: 1:1,250 @ A0

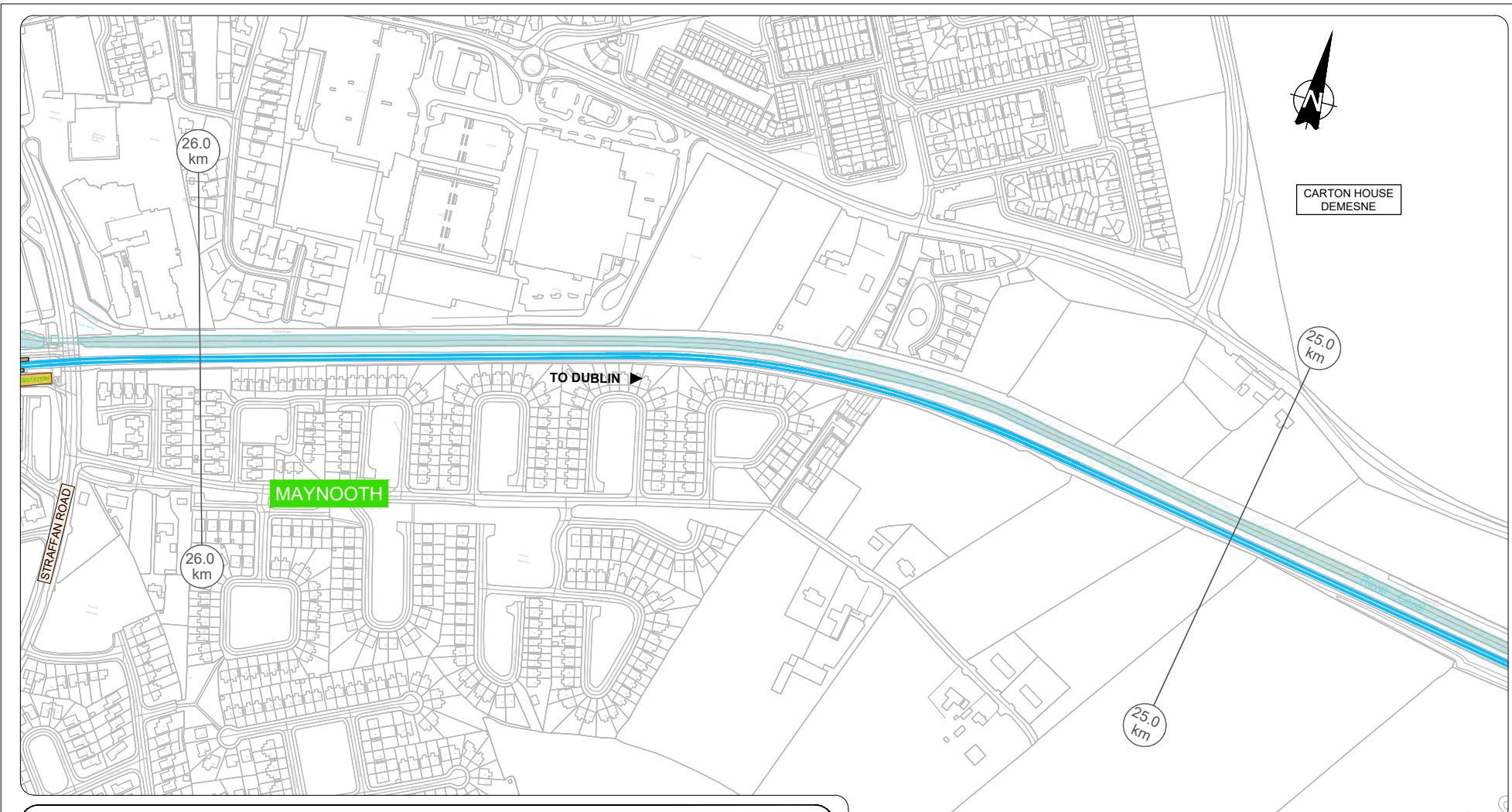
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Job No: 01/201/006

Status: S4 - Suitable for Acceptance

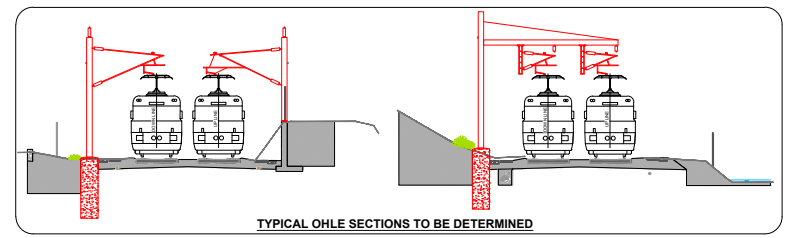
Rev: V.01

Sheet: 32 of 39



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK	APP
V01	May 2021	PUBLIC CONSULTATION	MDC	TL	BC
V02		PRODUCTION			

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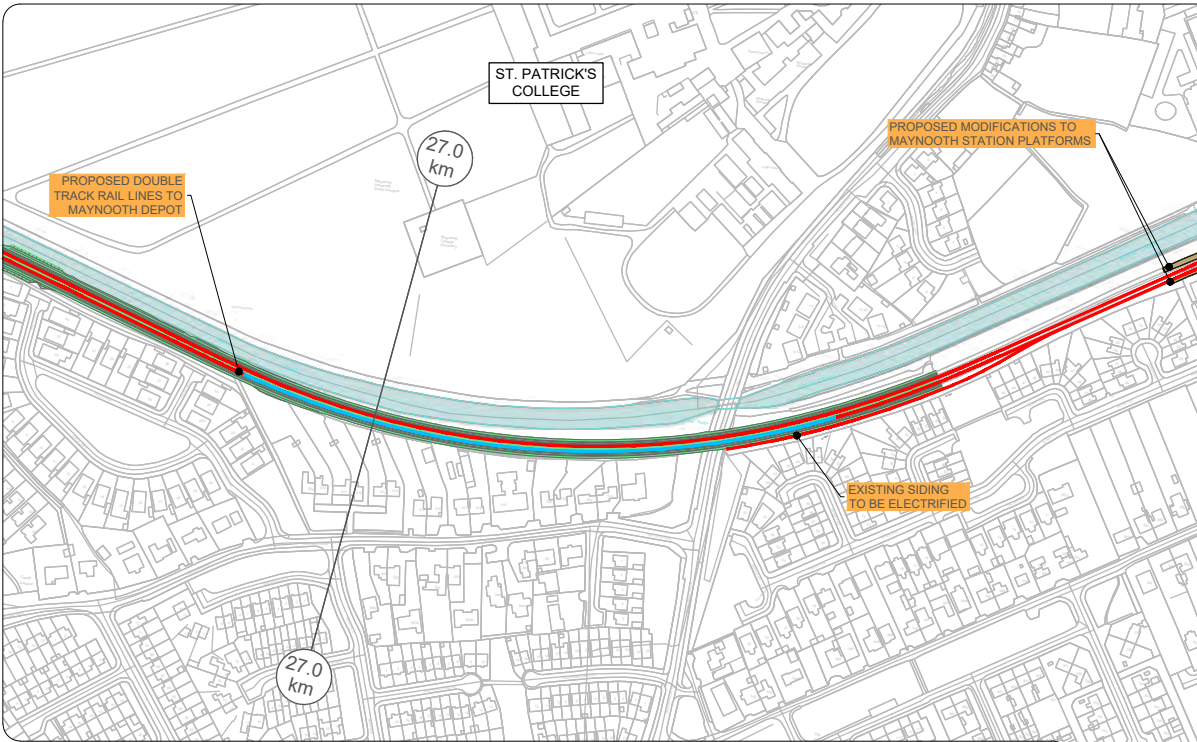
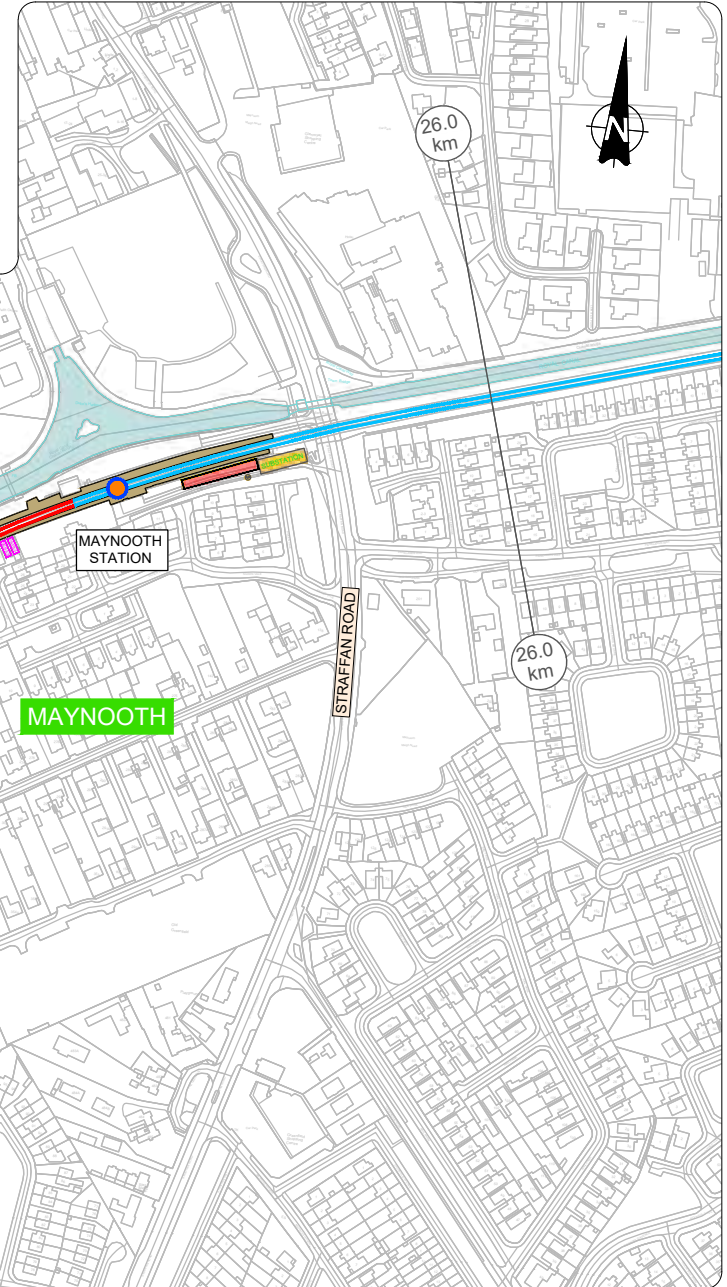
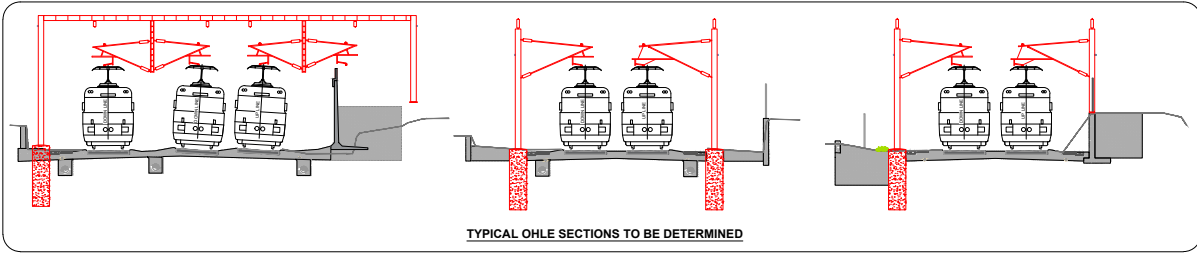
Client:

Consultant:

Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 33 of 39

Scale: 1:1,250 @ A0	Drawing Number: MAY MDC CIV ROUT DR V 0033 B
Date: May 2021	Status: S4 - Suitable for Acceptance
Rev: 0	Rev: V01



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

REV	DATE	DESCRIPTION	BY	CHK	APP
V01	May 2021	PUBLIC CONSULTATION	ABC	IL	BC
		PRODUCED BY		REVIEWED BY	APPROVED BY

Client:

Consultant:

Project:

Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 34 of 39

Drawing Number: 1 Project (Design/Dissemination Location Type 1) Number 1 Phase  
MAY MDC CIV ROUT DR V 0034 B

Scale: 1:1,250 @ A0

Date: May 2021

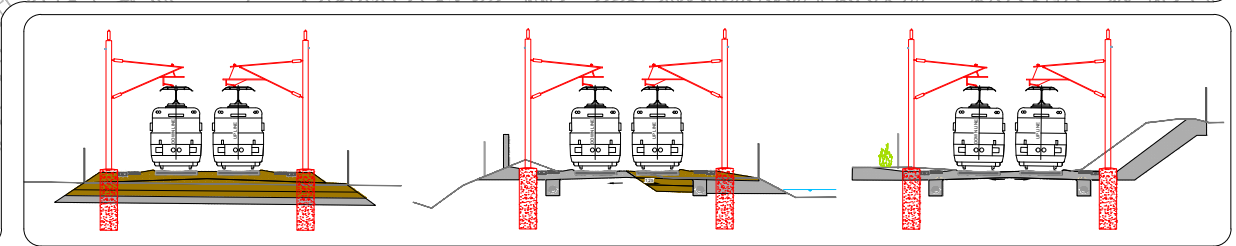
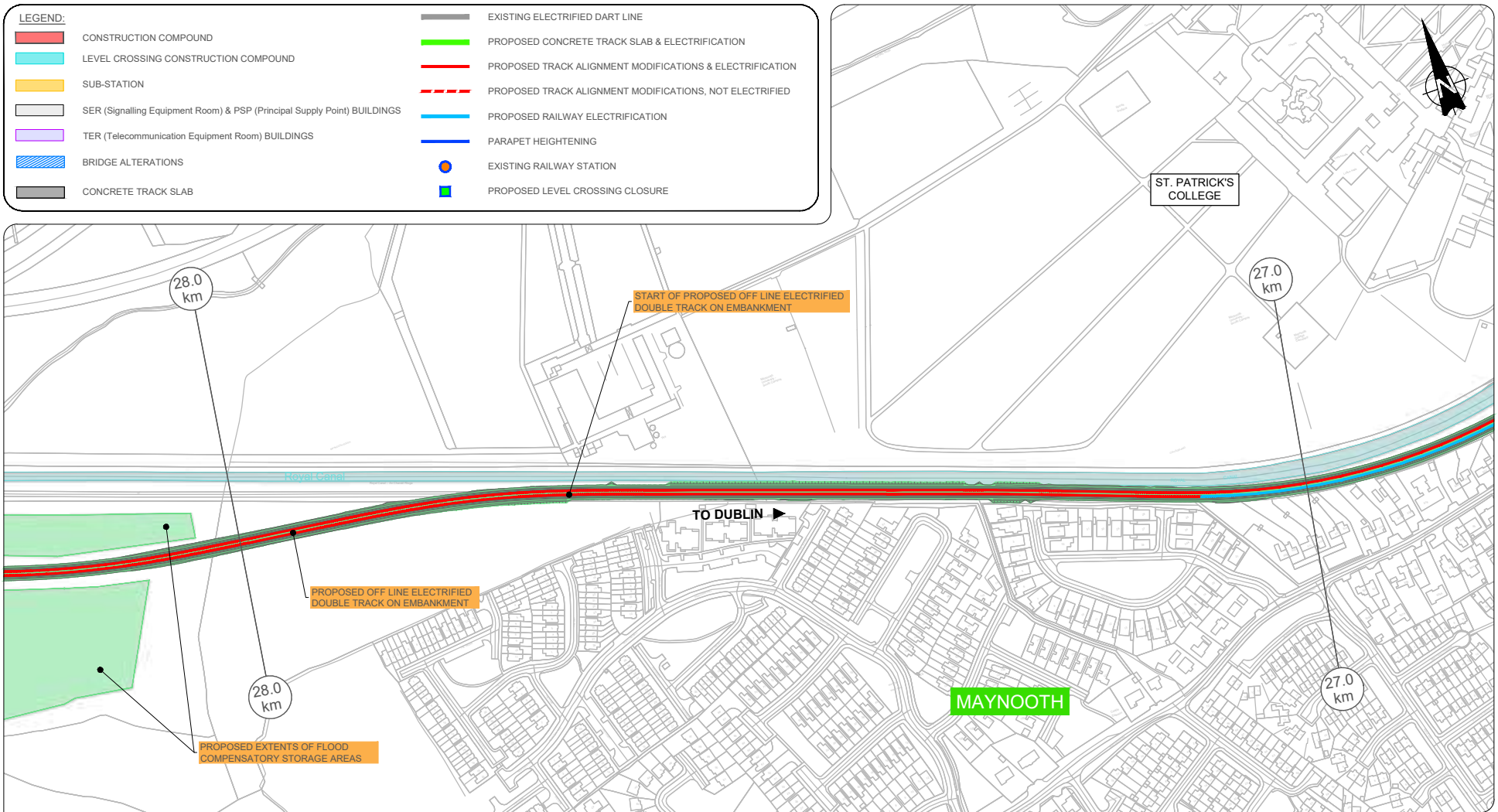
Status: 84 - Suitable for Acceptance

Rev: V 01

Sheet: 34 of 39

**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



Version	Date	Description	Author	Checked	Approved
V.01	May 2021	PUBLIC CONSULTATION	MMC	TL	BC
REV	DATE	DESCRIPTION			

Client

Consultant

Project

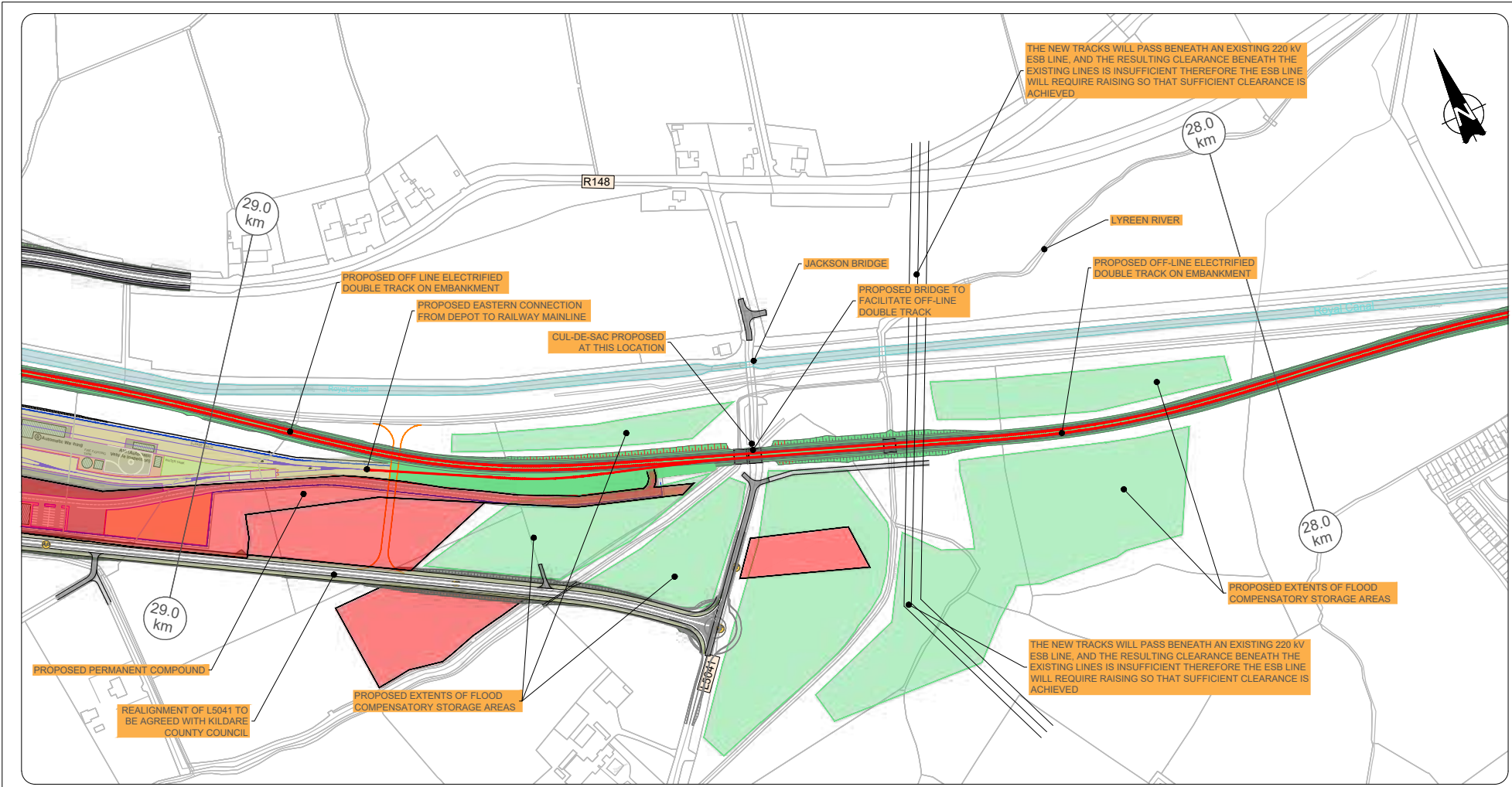
Drawing Title

**OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 35 of 39

Scale: 1:1,250 @ A0  
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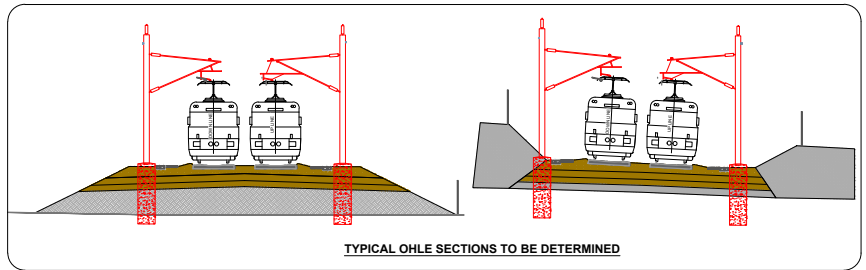
Drawing Number	Project	Originator/Designer	Location	Type	Revision	Number	Phase
MAY	MDC	CIV	ROUT	DR	V	0035	B

Date: May 2021  
Job No: P101086  
Status: S4 - Suitable for Acceptance  
Sheet: V.01  
Sheet 35 of 39



**LEGEND:**

	CONSTRUCTION COMPOUND		EXISTING ELECTRIFIED DART LINE
	LEVEL CROSSING CONSTRUCTION COMPOUND		PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	SUB-STATION		PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS		PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	TER (Telecommunication Equipment Room) BUILDINGS		PROPOSED RAILWAY ELECTRIFICATION
	BRIDGE ALTERATIONS		PARAPET HEIGHTENING
	CONCRETE TRACK SLAB		EXISTING RAILWAY STATION
			PROPOSED LEVEL CROSSING CLOSURE

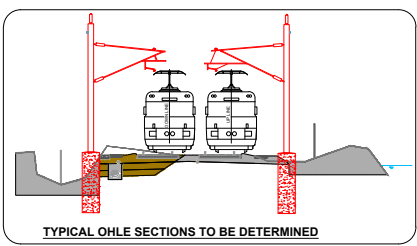
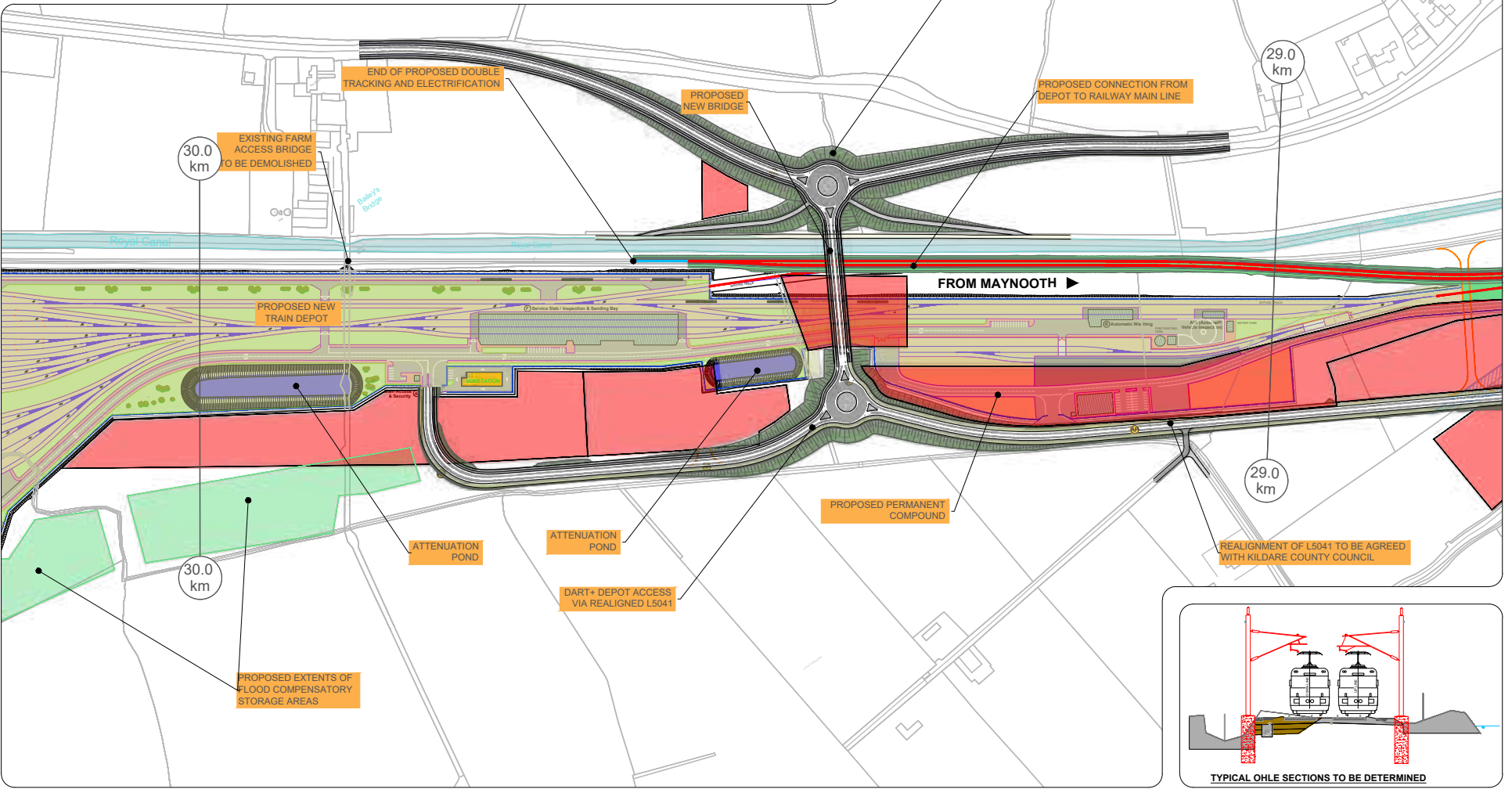


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REV	DATE	DESCRIPTION	BY	CHKD																		
V.01	May 2021	PUBLIC CONSULTATION	SMAC	SL																		
REVISION																						
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						Date	May 2021															
						Sheet No.	P/01086															
						Status	S4 - Suitable for Acceptance															
						Rev	V.01															
						Sheet	36 of 39															



**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHKD
V.01	May 2021	PUBLIC CONSULTATION	MDC	TL
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Client:

Consultant:

Project:

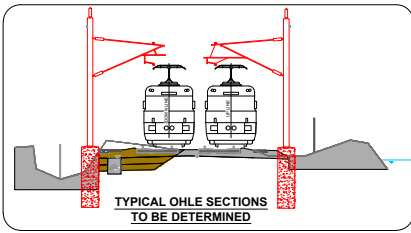
Drawing Title: **OPTIONS SELECTION - SCHEMATIC LAYOUT**  
Sheet 37 of 39

Scale: 1:1,500 @ A0

Client: MAY MDC CIV ROUT DR V 0037 B

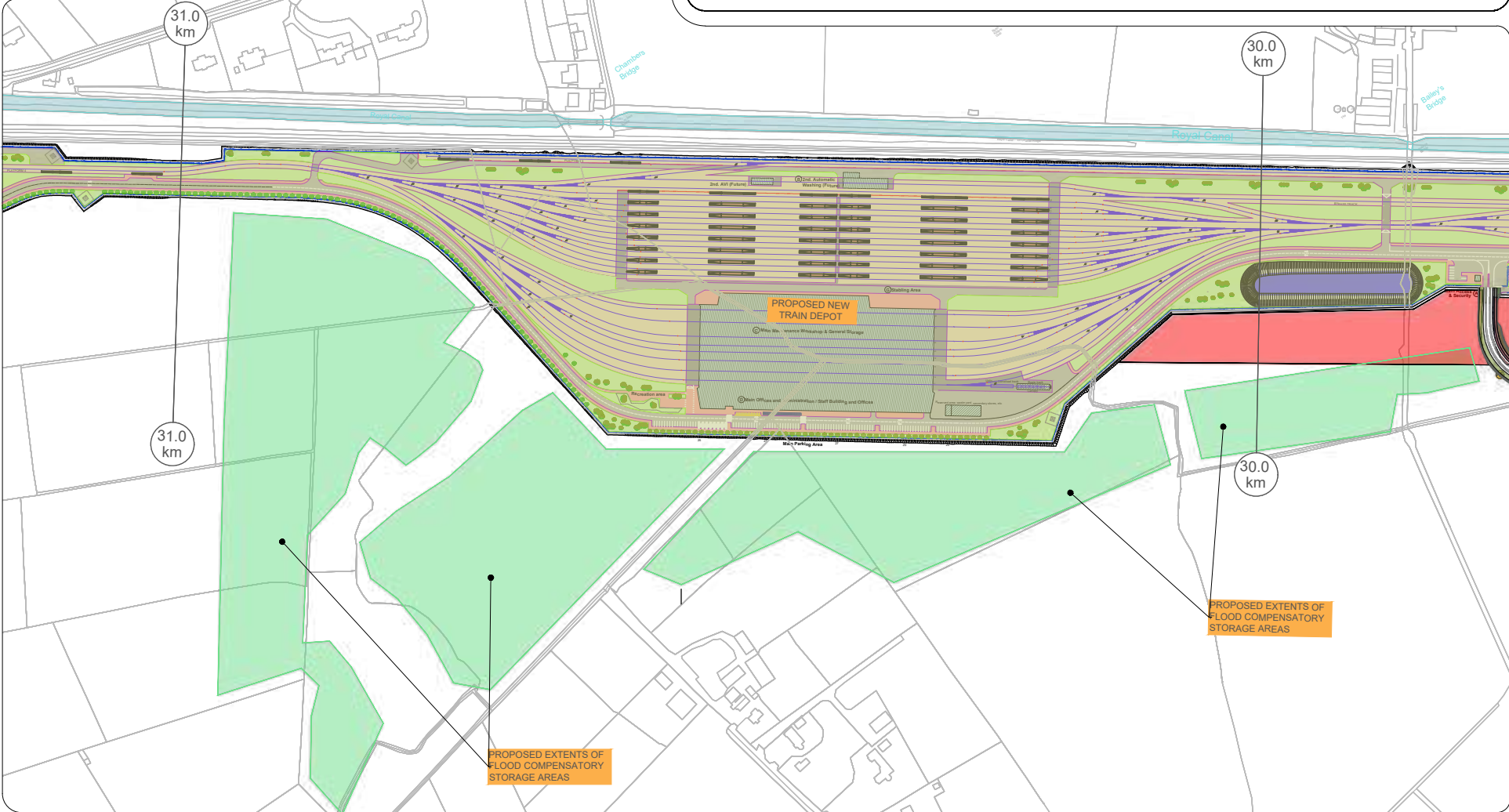
Date: May 2021

Sheet: 37 of 39



**LEGEND:**

- CONSTRUCTION COMPOUND
- LEVEL CROSSING CONSTRUCTION COMPOUND
- SUB-STATION
- SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
- TER (Telecommunication Equipment Room) BUILDINGS
- BRIDGE ALTERATIONS
- CONCRETE TRACK SLAB
- EXISTING ELECTRIFIED DART LINE
- PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
- PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
- PROPOSED RAILWAY ELECTRIFICATION
- PARAPET HEIGHTENING
- EXISTING RAILWAY STATION
- PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK	APP
V.01	May 2021	PUBLIC CONSULTATION	MMC	TL	BC
			PRODUCED BY	REVIEWED BY	APPROVED BY

Client

Consultant

Project

Drawing Title

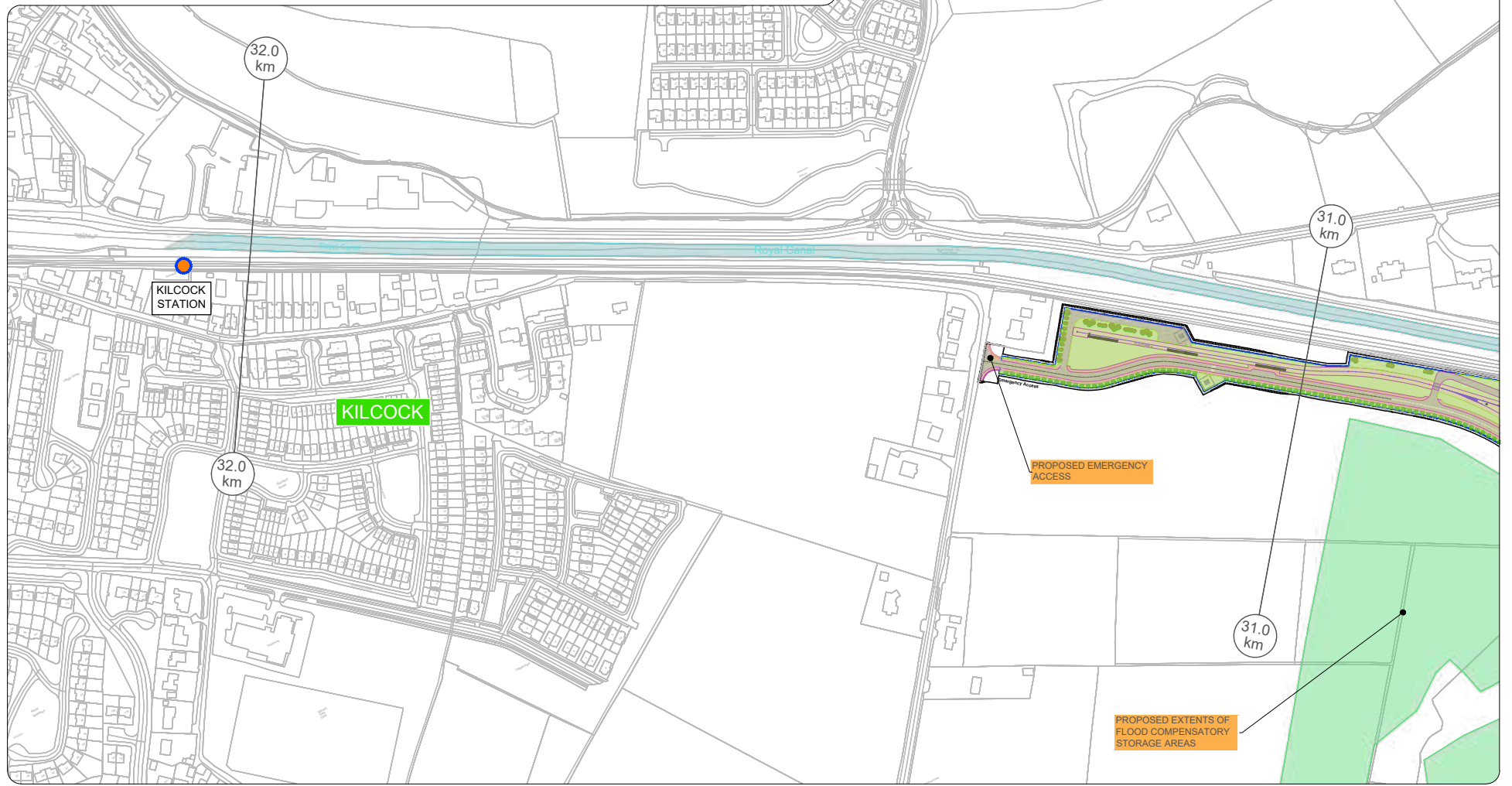
OPTIONS SELECTION - SCHEMATIC LAYOUT  
Sheet 38 of 39

Scale: 1:1,250 @ A0  
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Drawing Number 1 Project: Edgewater (Discipline) Location 1 Type 1 Rate 1 Phase 1  
MAY MDC CIV ROUT DR V 0038 B

Date: May 2021  
Sheet: 38 of 39

LEGEND:	
	CONSTRUCTION COMPOUND
	LEVEL CROSSING CONSTRUCTION COMPOUND
	SUB-STATION
	SER (Signalling Equipment Room) & PSP (Principal Supply Point) BUILDINGS
	TER (Telecommunication Equipment Room) BUILDINGS
	BRIDGE ALTERATIONS
	CONCRETE TRACK SLAB
	EXISTING ELECTRIFIED DART LINE
	PROPOSED CONCRETE TRACK SLAB & ELECTRIFICATION
	PROPOSED TRACK ALIGNMENT MODIFICATIONS & ELECTRIFICATION
	PROPOSED TRACK ALIGNMENT MODIFICATIONS, NOT ELECTRIFIED
	PROPOSED RAILWAY ELECTRIFICATION
	PARAPET HEIGHTENING
	EXISTING RAILWAY STATION
	PROPOSED LEVEL CROSSING CLOSURE



REV	DATE	DESCRIPTION	BY	CHK
V01	May 2021	PUBLIC CONSULTATION	MM	TS

Client:

Consultant:

Project:

Drawing Title		Scale		Drawing Number		Sheet	
OPTIONS SELECTION - SCHEMATIC LAYOUT		1:1,250 @ A0		MAY MDC CIV ROUT DR V 0039 B		Sheet 39 of 39	
Date	May 2021	Scale	0 - 15.000 31.25 62.5	Rev	1/01	Status	SA - Suitable for Acceptance



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