

ENVIRONMENTAL IMPACT STATEMENT – METRO NORTH

BELINSTOWN TO SWORDS STOP

AREA MN101 (PART 1 – CHAPTER 1)
VOLUME 2 – BOOK 1 OF 7

METRO NORTH ROUTE AREA MN101 – MN107

LEGEND

- METRO ROUTE
- AREA BOUNDARY
- METRO ROUTE (DEEP TUNNEL)
- METRO ROUTE (OUT & COVER TUNNEL)
- METRO ROUTE (ELEVATED TRACK)
- METRO WEST
- AREA NAME
- METRO NORTH FUTURE POSSIBLE STOP
- METRO WEST FUTURE POSSIBLE STOP
- METRO STOP NAME
- PARK & RIDE FACILITY
- LIGHT RAIL INTERCHANGE
- BUS INTERCHANGE
- RAIL INTERCHANGE
- POSSIBLE DEPOT



ENVIRONMENTAL IMPACT STATEMENT – METRO NORTH

BELINSTOWN TO SWORDS STOP

AREA MN101
VOLUME 2 – BOOK 1 OF 7

ENVIRONMENTAL IMPACT STATEMENT

For ease of local identification this Environmental Impact Statement (EIS) has been divided into seven areas. These areas are numbered Area MN101 to Area MN107 inclusive going from Belinstown in north County Dublin to St. Stephen's Green in the city centre.

The environmental impact of the proposed scheme in each of these areas is set out in individual books numbered MN101 to MN107 and which collectively make up Volume 2 of this EIS.

The Environmental Impact Statement (EIS) is being published in three separate Volumes as follows:

VOLUME 1

Introduction to the scheme and a description of the receiving environment

Volume 1 of the EIS is set out in 25 Chapters as follows:

- Chapter 1 Introduction
- Chapter 2 Need and Objectives
- Chapter 3 Legislation
- Chapter 4 Planning and Policy Context
- Chapter 5 Alternatives
- Chapter 6 Description of the Scheme
- Chapter 7 Consultation
- Chapter 8 Human Health
- Chapter 9 Difficulties Encountered
- Chapter 10 – 25
Description of the baseline environment

VOLUME 2

- Environmental Impact – Area MN101
- Environmental Impact – Area MN102
- Environmental Impact – Area MN103
- Environmental Impact – Area MN104
- Environmental Impact – Area MN105
- Environmental Impact – Area MN106
- Environmental Impact – Area MN107

Volume 2 of the EIS is set out in 18 Chapters as follows:

- Chapter 1 Introduction to Areas MN101 -107
- Chapter 2 Human Beings: Landuse
- Chapter 3 Human Beings: Socio-economics
- Chapter 4 Human Beings: Noise
- Chapter 5 Human Beings: Vibration
- Chapter 6 Human Beings: Radiation and Stray Current
- Chapter 7 Human Beings: Traffic
- Chapter 8 Flora and Fauna
- Chapter 9 Soil and Geology
- Chapter 10 Groundwater
- Chapter 11 Surface Water
- Chapter 12 Air and Climatic Factors
- Chapter 13 Landscape and Visual
- Chapter 14 Material Assets: Agronomy
- Chapter 15 Material Assets: Archaeology, Architectural Heritage and Cultural Heritage
- Chapter 16 Material Assets: Non Agricultural Property
- Chapter 17 Material Assets: Utilities
- Chapter 18 Interrelationships, Interactions and Cumulative Impacts

VOLUME 3

- Book 1 of 2
Specialist maps – baseline and impact
- Book 2 of 2
Annexes to the EIS

Volume 3 of the EIS is set out in 2 books.

Book 1 of 2 contains all baseline and impact assessment maps and Book 2 of 2 contains annexes to the EIS e.g. technical reports.

EIS NON-TECHNICAL SUMMARY (NTS)

EIS METHODOLOGY

The methodology used in this EIS generally involves the following steps:

- Definition of the study area;
- Data collection and description;
- Baseline description and evaluation;
- Identification of potential environmental impacts and the potential areas to be affected;
- Description and evaluation of the impacts;
- Derivation of mitigation measures to minimise the impact;
- Description of the residual impacts of the scheme.

Further detail in relation to the EIS methodology is provided in Volume 1 of the EIS.

ENVIRONMENTAL IMPACT STATEMENT STUDY TEAM

The EIS was prepared on behalf of the Railway Procurement Agency (RPA) by a study team led by Environmental Resources Management (Ireland) Ltd, who were responsible for the overall assessment management and co-ordination as well as for the production of the Landuse, Socio-economics, Noise, Vibration (part), Radiation and Stray current, Flora and Fauna, Soil and Geology (part), Air and Climatic factors, Non Agricultural Property and Utilities chapters of this EIS. The other members of the study team are outlined in the table below.

Input	Contributor
Human Health	EHA Consulting Group
Human Beings: Vibration	Rupert Taylor F.I.O.A
Human Beings: Traffic	MVA Consulting
Soil and Geology	Jacobs Engineering Ireland Ltd.
Groundwater	AWN Consulting
Surface Water	AWN Consulting
Landscape and Visual (photomontages)	Digitech
Material Assets: Agronomy	Curtin Agricultural Consultants
Material Assets: Archaeology, Architectural Heritage and Cultural Heritage	CRDS Ltd.

AVAILABILITY OF THE EIS

This EIS is available to download for free through the RPA website at www.dublinmetronorth.ie

Copies of this EIS including the Non-Technical Summary may be purchased by any member of the public during normal office hours at the following location:

Railway Procurement Agency (RPA)
Parkgate Street
Dublin 8

The EIS may be purchased as a complete document for a sum of €170.00 (Volumes 1, 2 & 3)

The EIS can also be purchased as individual books e.g:

- Copies of Volume 1 may be purchased for €30.00 each;
- Copies of Volume 2 (individual book e.g. MN101) may be purchased for €15.00 each;
- Copies of Volume 3 (individual books e.g. Book 1 of 2) may be purchased for €15.00 each;
- Copies of the NTS of this EIS may be purchased for €5.00 each.

A DVD version of the whole EIS may be purchased for €15.00 which includes Volume 1; Volume 2 (Area MN101 – MN107); Volume 3 (Book 1 of 2 and Book 2 of 2) and the Non-Technical Summary.

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01

INTRODUCTION TO AREA MN101



Metro North is the next phase of Dublin's integrated light rail network. The proposed scheme will serve an 18km corridor from Belinstown in the north of County Dublin to St. Stephen's Green in the city centre via Dublin Airport.

Metro North is a light rail system running on a line of sight basis, at grade, in underpasses or on elevated sections between Belinstown and Fosterstown and under full signal control on a segregated alignment between Fosterstown Stops and St. Stephen's Green. Metro North will run in a mix of bored and cut and cover tunnels beneath the city and Dublin Airport.

For ease of local identification, in this EIS the proposed scheme is divided into seven areas. These areas are numbered Area MN101 to Area MN107 inclusive going from Belinstown in north County Dublin to St Stephen's Green in the city centre. The environmental impact of the proposed scheme in each of these areas is set out in individual books numbered MN101 to MN107 which collectively make up Volume 2 of this EIS. This document relates to **Area MN101** Belinstown to Swords Stop.

Area MN101 begins at Belinstown which is located approximately 1.6km to the north of Swords, adjacent to and directly west of the M1 motorway, on land that is currently used for agriculture. The maintenance and stabling facilities for the proposed scheme are located at the depot in this area. A 110kV substation serving the scheme is to be located in this area. The northern terminus stop of the scheme, Belinstown, lies immediately southwest of the depot. A Park & Ride facility with 2,000 parking spaces, designed as a multi-storey car park, is planned adjacent to the stop.

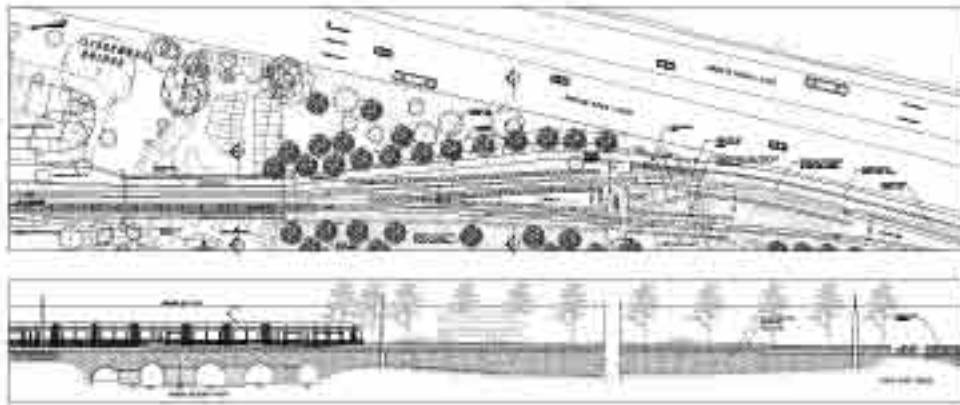
From Belinstown, the proposed route passes southwards, across green field land at surface level, to a provisional stop at Lissenhall. This stop is located in a green field site to the west of the interchange between the M1 and R132 in an area of potential development proposed by Fingal County Council. The route continues southwards and crosses the Broad Meadow River and the Ward River and then runs at surface level along the western verge of the R132 to a second provisional stop at Estuary. The route then rises up onto an elevated section of track which crosses over the Estuary Roundabout, travels along the median of the R132 and over the Seatown Roundabout before descending to reach the next at grade stop, at Seatown. The Seatown Stop is located in the central median of the R132. The Estuary and Seatown Roundabouts are to be converted to signal controlled junctions.

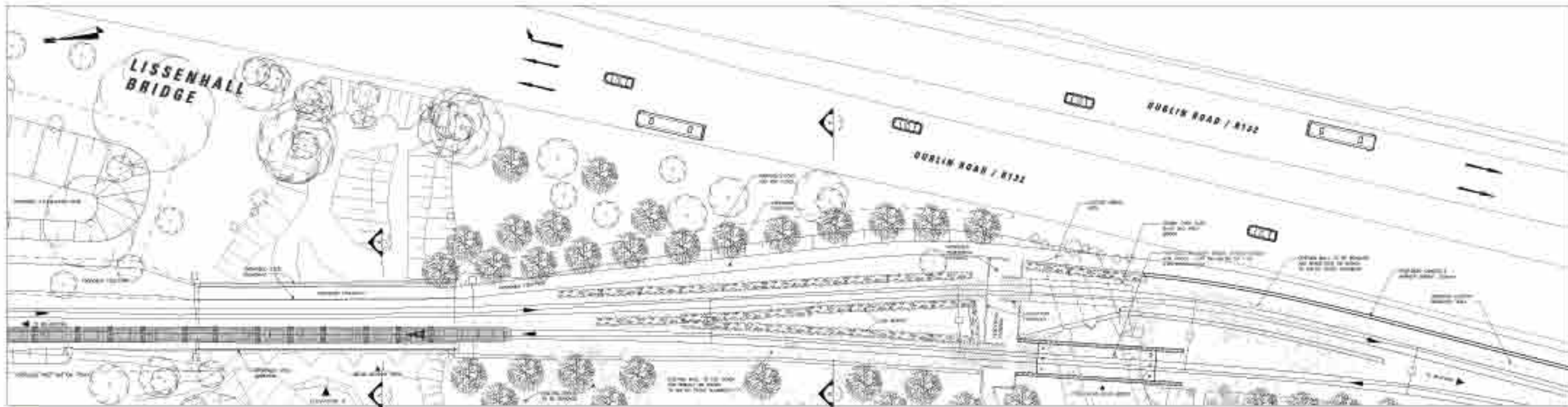
After Seatown Stop, the route proceeds southwards on the surface along the central median of the R132 and then descends to pass under the Malahide Roundabout. To the south of the roundabout, the route emerges from the underpass and rises to the surface in the median of the R132 to the Swords Stop which is located opposite the Pavilions Shopping Centre. Initially, access to this stop is by pedestrian crossings of the R132. However, provision is made to allow this stop to be accessed from a possible future east-west bridge over the R132. Swords Stop marks the end of Area MN101.

Structure drawings

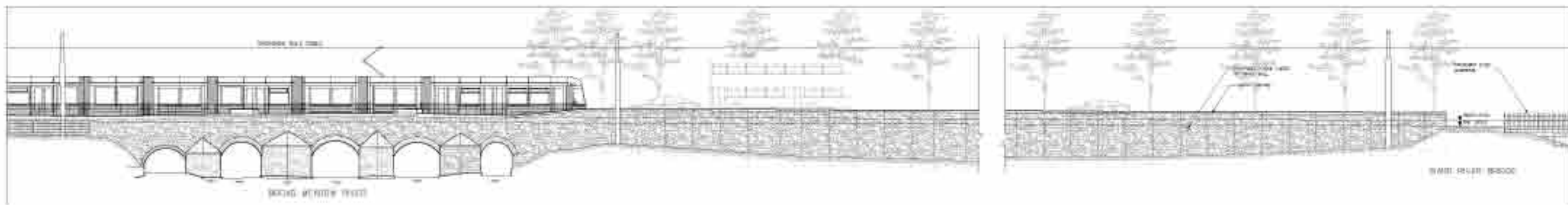
Structure drawings

Lissenhall Bridge





Plan

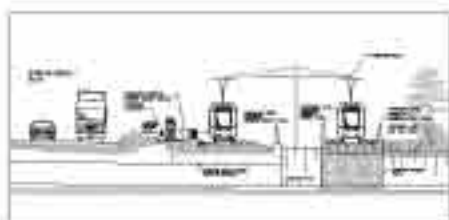
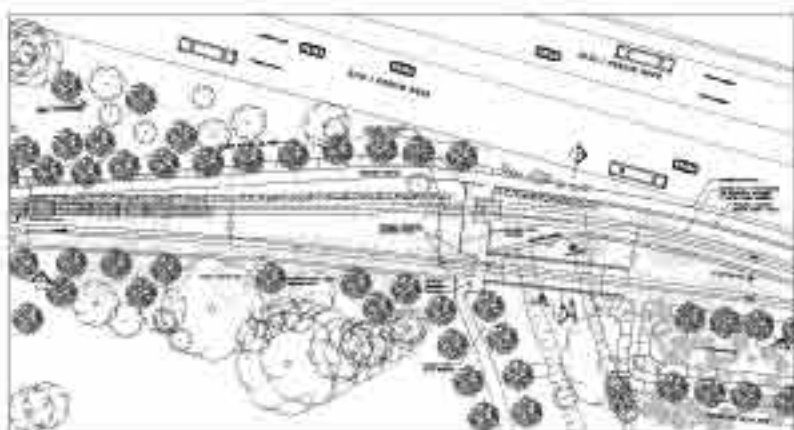


Sectional elevation A

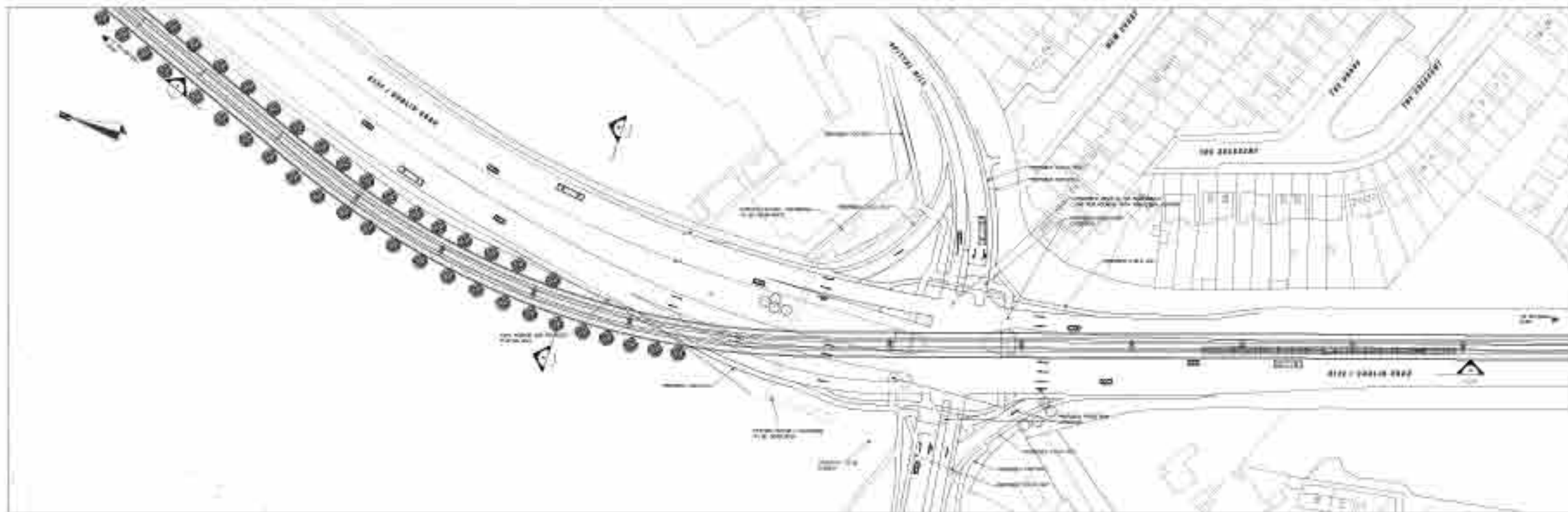
Structure drawings

Structure drawings

Balheary Bridge and Ward River Bridge



Structure drawings



Plan



Straightened elevation A-A



Sectional elevation B-B

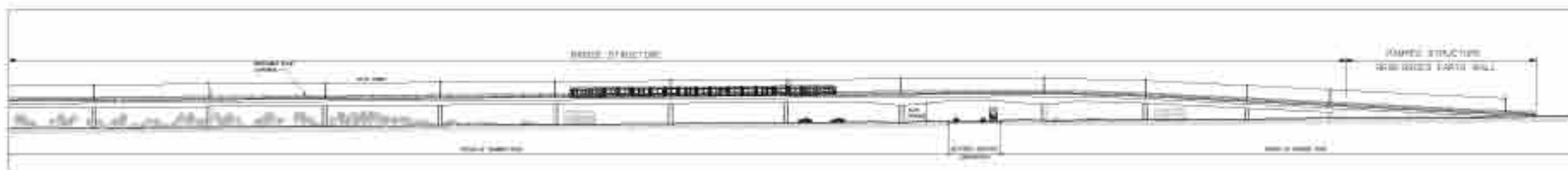
Structure drawings Estuary Viaduct (Sheet 1)



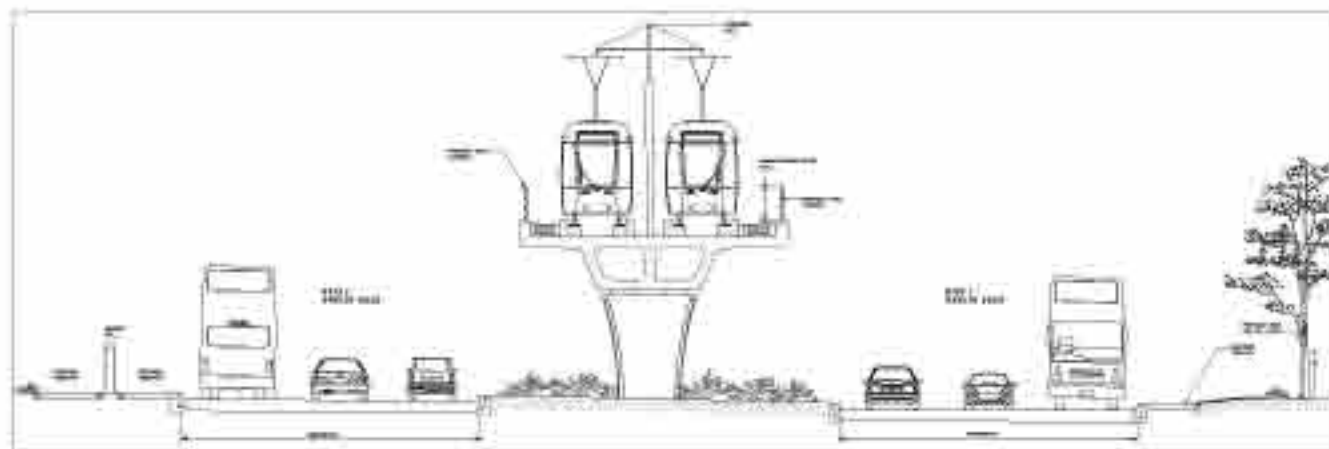
Structure drawings



Plan

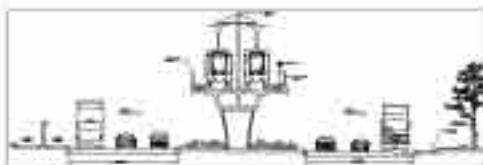
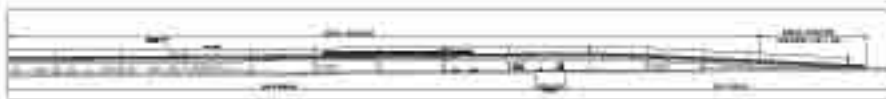


Straightened elevation A-A



Sectional elevation B-B

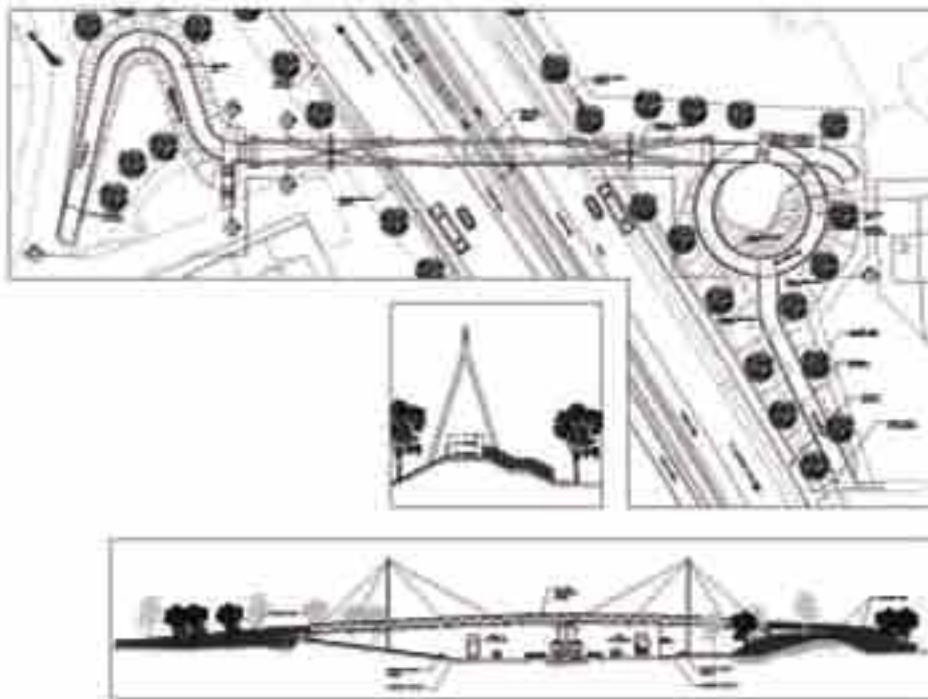
Structure drawings Estuary Viaduct (Sheet 2)

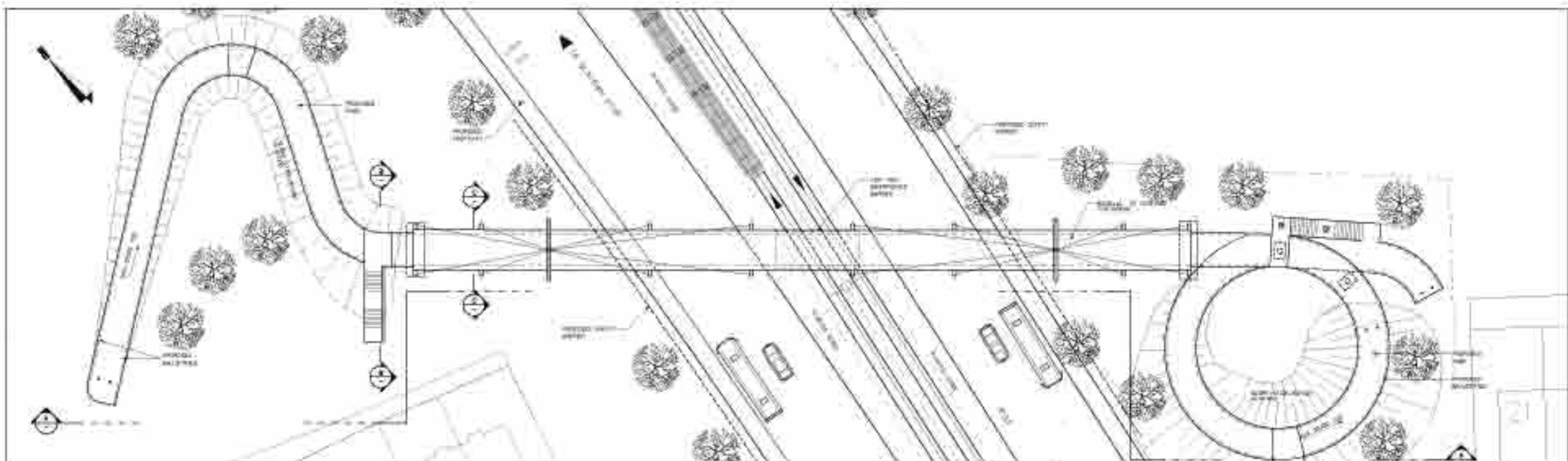


Structure drawings

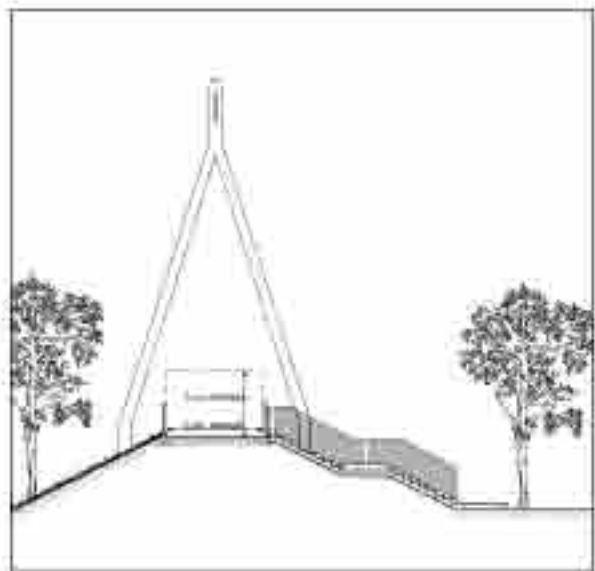
Structure drawings

Chapel Lane Footbridge

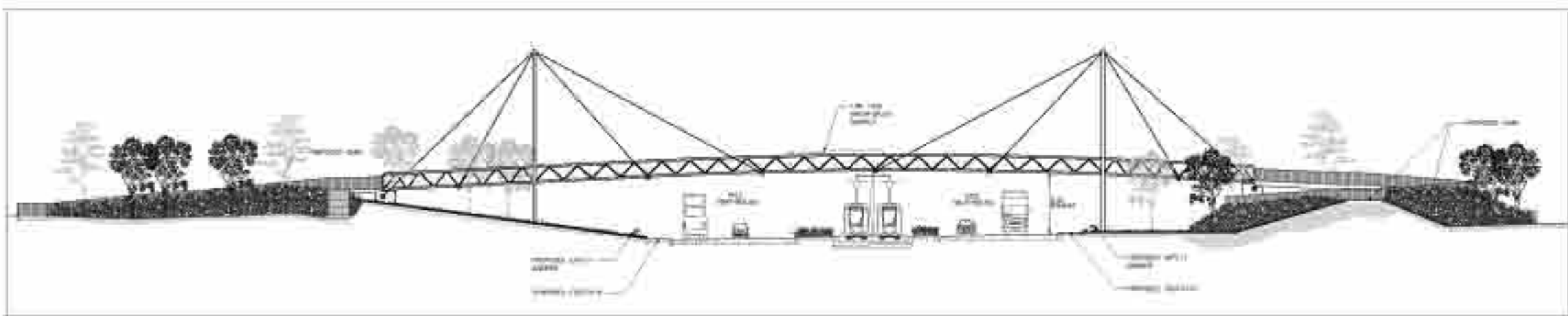




Plan

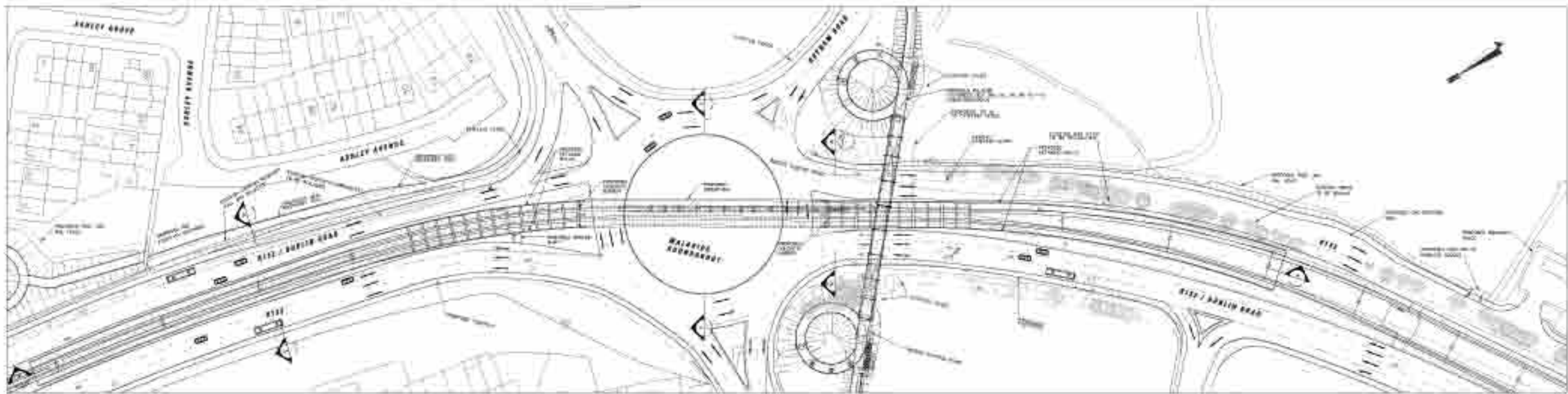


Sectional B-B

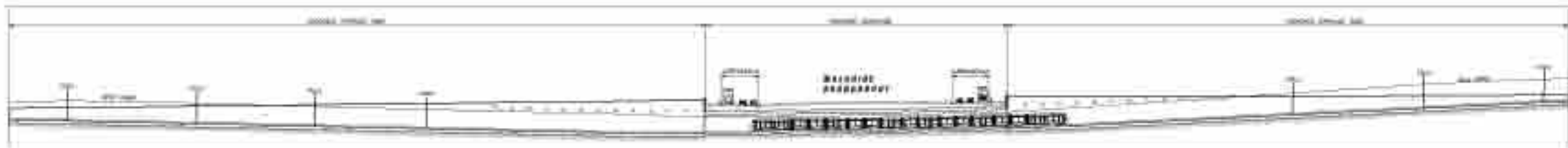


Sectional elevation A-A

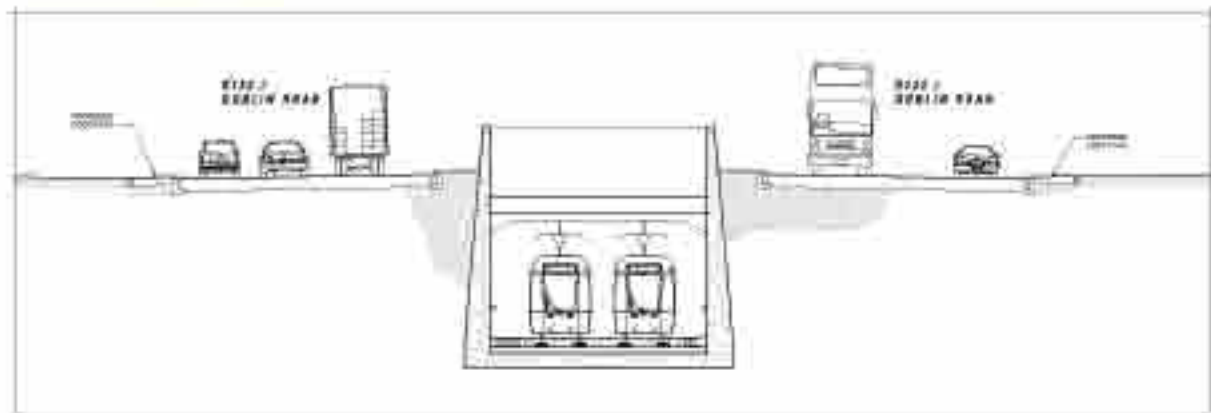
Structure drawings



Plan



Straightened long section 4-4

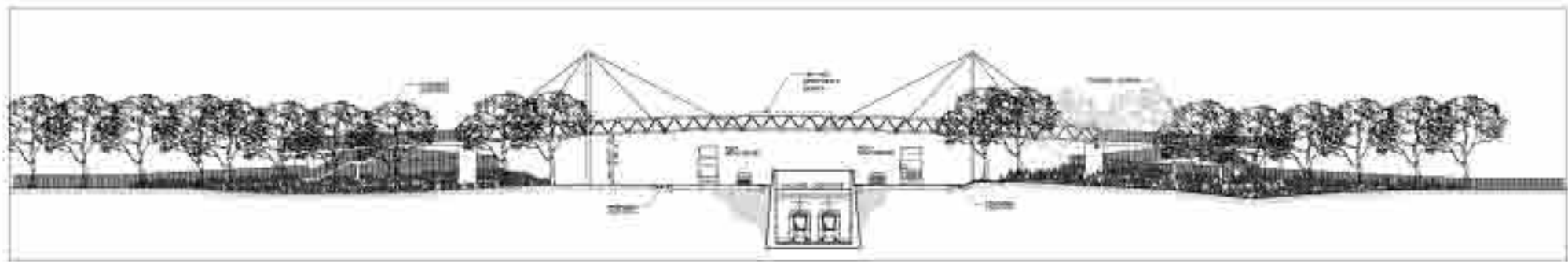


Section 7-7 Underpass

Structure drawings



Plan



Sectional elevation A-A

Structure drawings

Malahide South Footbridge Replacement



