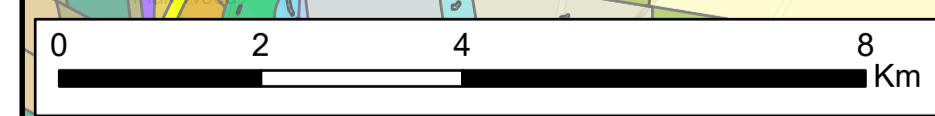


**LEGEND**

<ul style="list-style-type: none"> <li>RAILWAY STATIONS</li> <li>DEVELOPMENT BOUNDARY</li> <li>100M BUFFER</li> </ul> <p><b>GEOLOGICAL LINEWORK (GSI)</b></p> <ul style="list-style-type: none"> <li>NO DESCRIPTION IN DATASET</li> <li>ANTICLINAL AXIS</li> <li>FAULT</li> <li>GHOST LINE</li> <li>SYNCLINAL AXIS</li> <li>UNCONFORMITY</li> <li>DOTS ON YOUNGER SIDE</li> </ul> <p><b>STRUCTURAL SYMBOLS (BEDROCK) (GSI)</b></p> <ul style="list-style-type: none"> <li>STRIKE AND DIP OF BEDDINGS</li> <li>RIGHT WAY UP</li> <li>STRIKE AND DIP OF BEDDING, WAY UP</li> <li>UNKNOWN</li> <li>STRIKE AND DIP OF FIRST FOLIATION</li> <li>STRIKE AND DIP OF OVERTURNED BEDDING</li> </ul> <p><b>BEDROCK OUTCROPS (GSI)</b></p> <ul style="list-style-type: none"> <li>BEDROCK OUTCROP</li> </ul> <p><b>BEDROCK GEOLOGY 100K (GSI)</b></p> <ul style="list-style-type: none"> <li>BALBRIGGAN FORMATION</li> <li>BELCAMP FORMATION</li> <li>BROOMFIELD FORMATION</li> <li>BRITTISTOWN FORMATION</li> <li>BRYANSTOWN FORMATION</li> <li>BRAY GROUP</li> <li>DRUMLECK FORMATION</li> <li>ELSINORE FORMATION</li> <li>GASKINS LEAP FORMATION</li> <li>HIPPY HOLE FORMATION</li> <li>PIPERS GUT FORMATION</li> <li>CARNES FORMATION</li> <li>BALLYSTEEN FORMATION</li> </ul>	<ul style="list-style-type: none"> <li>BOSTON HILL FORMATION</li> <li>BOYNE FORMATION</li> <li>BEAUPARC MEMBER</li> <li>KILN HILL MEMBER</li> <li>CLONLUISK FORMATION</li> <li>CRUFTY FORMATION</li> <li>DONABATE FORMATION</li> <li>FENNOR FORMATION</li> <li>HERBERTSTOWN FORMATION</li> <li>HOLMPATRICK FORMATION</li> <li>LANE FORMATION</li> <li>LOUGHSHINNY FORMATION</li> <li>MATTOCK MEMBER</li> <li>LUCAN FORMATION</li> <li>MALAHIDE FORMATION</li> <li>MORNINGTON FORMATION</li> <li>MOORETOWN FORMATION</li> <li>MULLAGHFIN FORMATION</li> <li>NAUL FORMATION</li> <li>NAVAN BEDS</li> <li>PLATIN FORMATION</li> <li>RUSH FORMATION</li> <li>CONGLOMERATE FORMATION</li> <li>SLANE CASTLE FORMATION</li> <li>SMUGGLERS CAVE FORMATION</li> <li>TOBER COLLEEN FORMATION</li> <li>TULLYALLEN FORMATION</li> <li>WALSORTIAN LIMESTONES</li> <li>GLASHFORD HOUSE FORMATION</li> <li>CLOGHERHEAD FORMATION</li> <li>BALRICKARD FORMATION</li> <li>DONORE FORMATION</li> </ul>	<ul style="list-style-type: none"> <li>CRUICERATH MEMBER</li> <li>WALSHSTOWN FORMATION</li> <li>COLLON FORMATION</li> <li>CLATTERSTOWN FORMATION</li> <li>CARRICKDEXTER FORMATION</li> <li>OLD RED SANDSTONE (UNDIFF.)</li> <li>DENHAMSTOWN FORMATION</li> <li>FIELDSTOWN FORMATION</li> <li>FOURNOCKS FORMATION</li> <li>GLASPISTOL FORMATION</li> <li>HILLTOWN FORMATION</li> <li>HILL OF SLANE FORMATION</li> <li>DROGHEDA GRANITE</li> <li>KNOCKERK FORMATION</li> <li>KENNETSTOWN FORMATION</li> <li>LAMBAY FORMATION</li> <li>VOLCANIC FORMATION</li> <li>DIORITE</li> <li>LITTLE HARBOUR FORMATION</li> <li>MUDBANK</li> <li>NAVAN LIMESTONE</li> <li>ORIEL BROOK FORMATION</li> <li>PORTRANE FORMATION</li> <li>PORTRANE LIMESTONE</li> <li>VOLCANIC FORMATION</li> <li>PRIORYLAND FORMATION</li> <li>RED MANS COVE FORMATION</li> <li>RATHKENNY FORMATION</li> <li>ST. MARYS</li> <li>BASALT</li> <li>SNOWTOWN FORMATION</li> <li>SKERRIES FORMATION</li> <li>ST. ITAS FORMATION</li> <li>WHITE ISLAND BRIDGE FORMATION</li> </ul>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



Disclaimer: © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLLG).

© OpenStreetMap contributors.  
© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

Notes

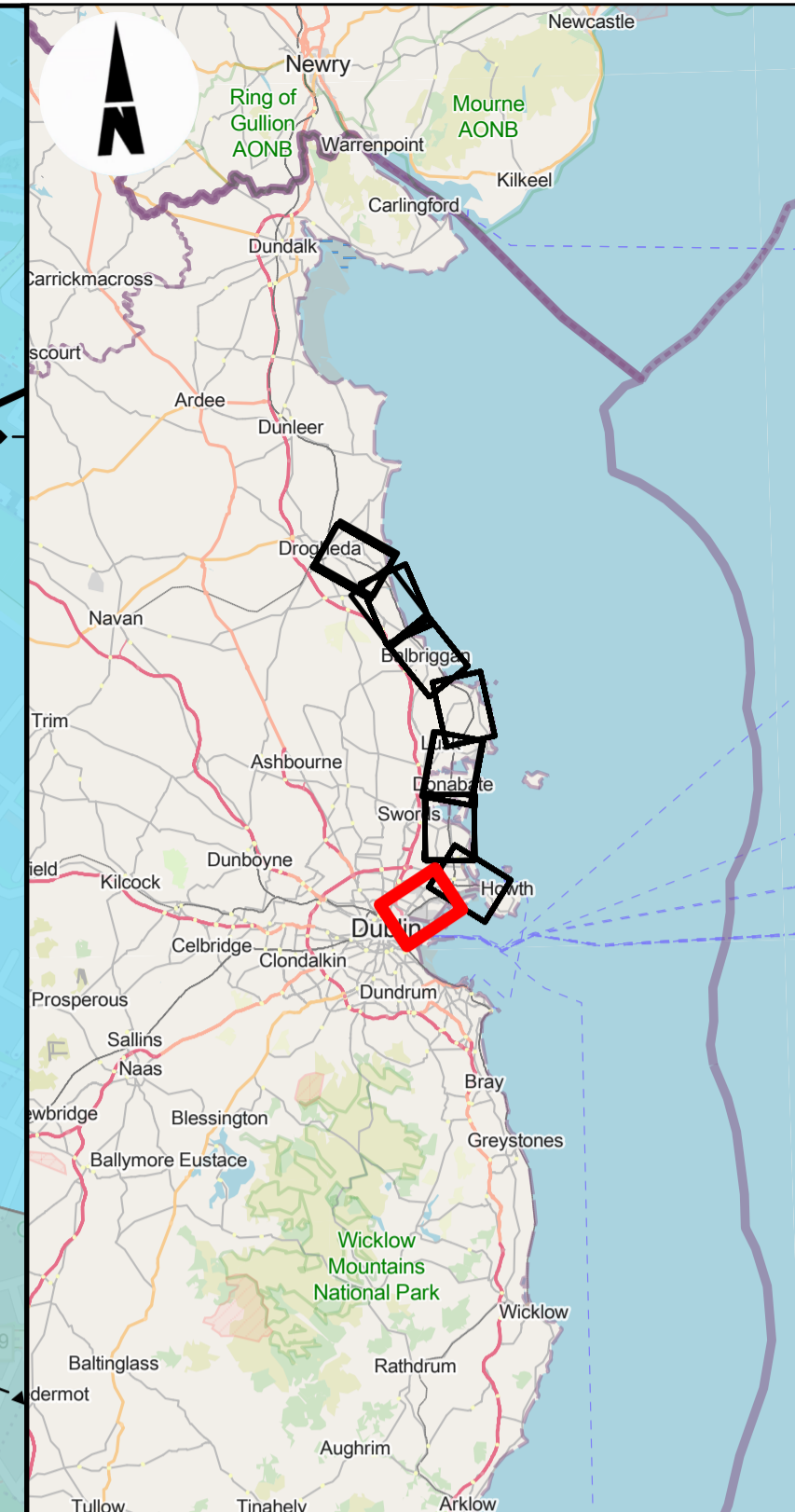
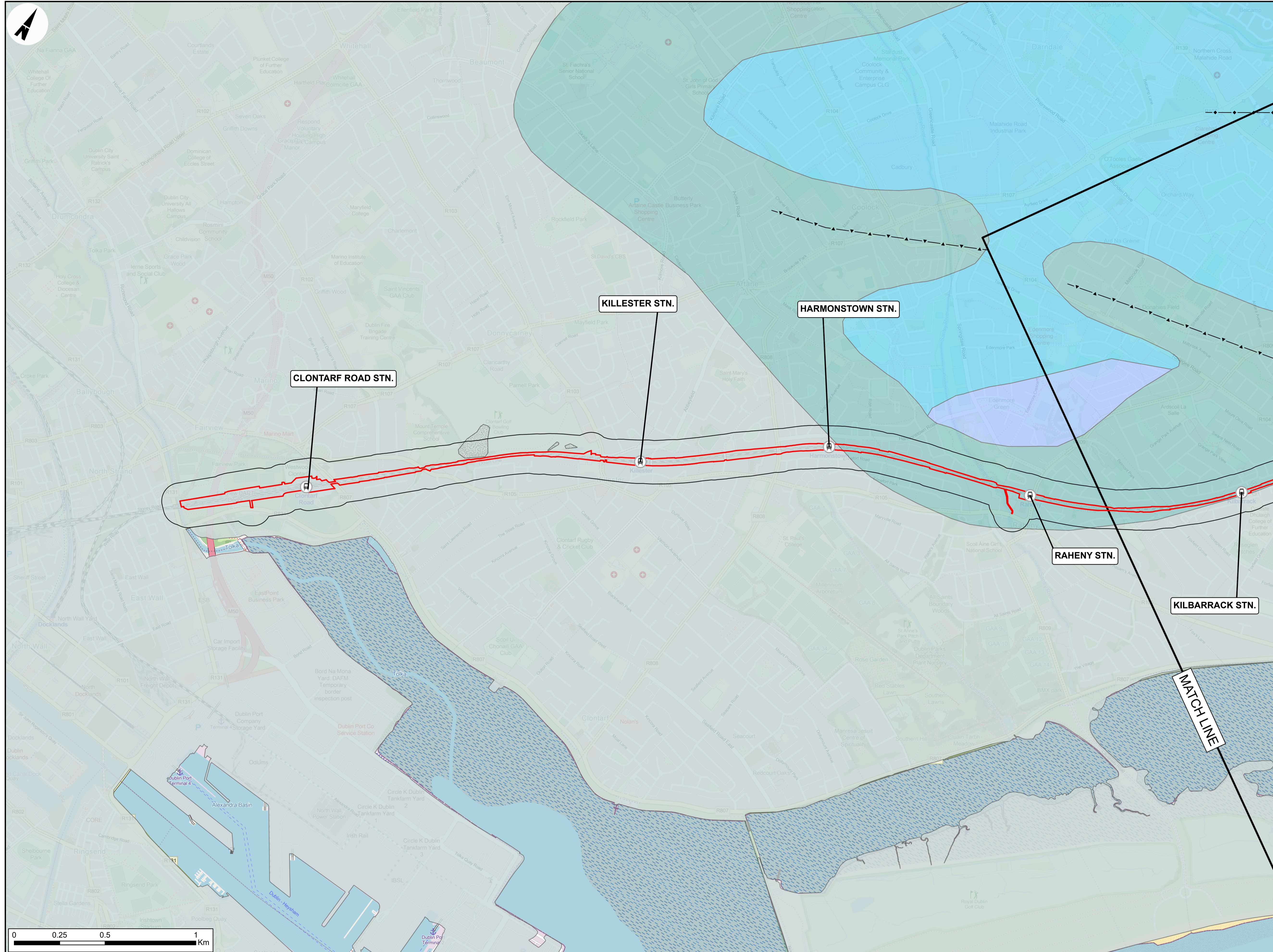
Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client	Iarnród Éireann Irish Rail		
Engineering Designer	ARUP		
Date	07/09/2023	Scale	1:75000 @ A1 1:150000 @ A3
Project Code	D+WP56	Originator Code	ARP
OMS Code	279933-00		

Project Title	DART+ COASTAL NORTH		
Drawing Title	LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY OVERVIEW		
Drawing File Name	D+WP56-ARP-ZZ-NL-DR-EVGT-100031	Sheet Number	1 of 9
Status	S4	Rev	P02

Project Title	DART+ COASTAL NORTH		
Drawing Title	LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY OVERVIEW		
Drawing File Name	D+WP56-ARP-ZZ-NL-DR-EVGT-100031	Sheet Number	1 of 9
Status	S4	Rev	P02





- LEGEND**
- RAILWAY STATIONS
  - DEVELOPMENT BOUNDARY
  - 100M BUFFER
  - GEOLOGICAL LINEWORK (GSI)**
    - ANTICLINAL AXIS
    - SYNCLINAL AXIS
  - BEDROCK OUTCROPS (GSI)**
    - BEDROCK OUTCROP
  - BEDROCK GEOLOGY 100K (GSI)**
    - LUCAN FORMATION
    - MALAHIDE FORMATION
    - TOBER COLLEEN FORMATION
    - WAULSORTIAN LIMESTONES

0 0.25 0.5 1 Km

**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.  
 © OpenStreetMap contributors.  
 © Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.  
 © Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLG).

**Notes**

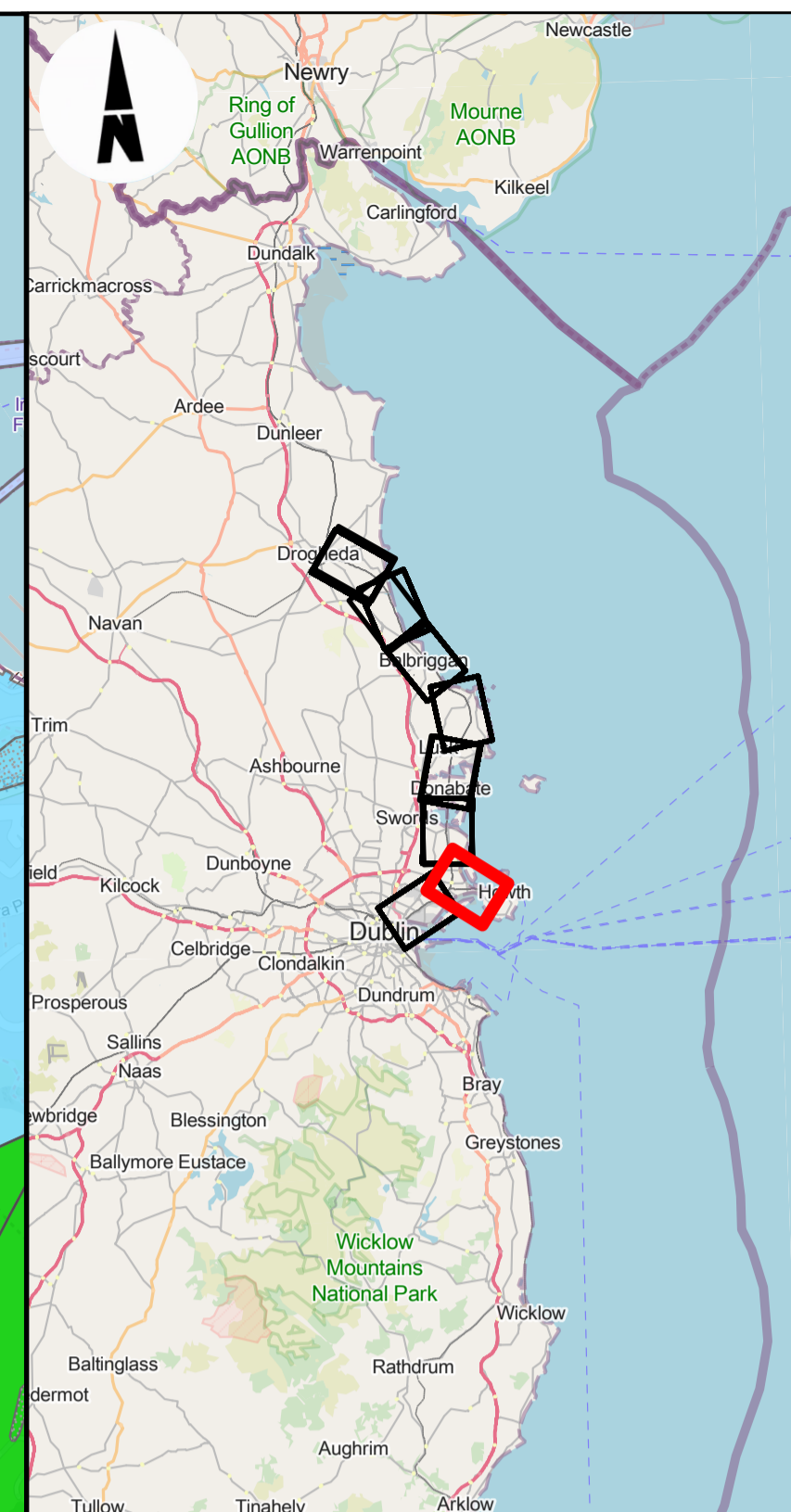
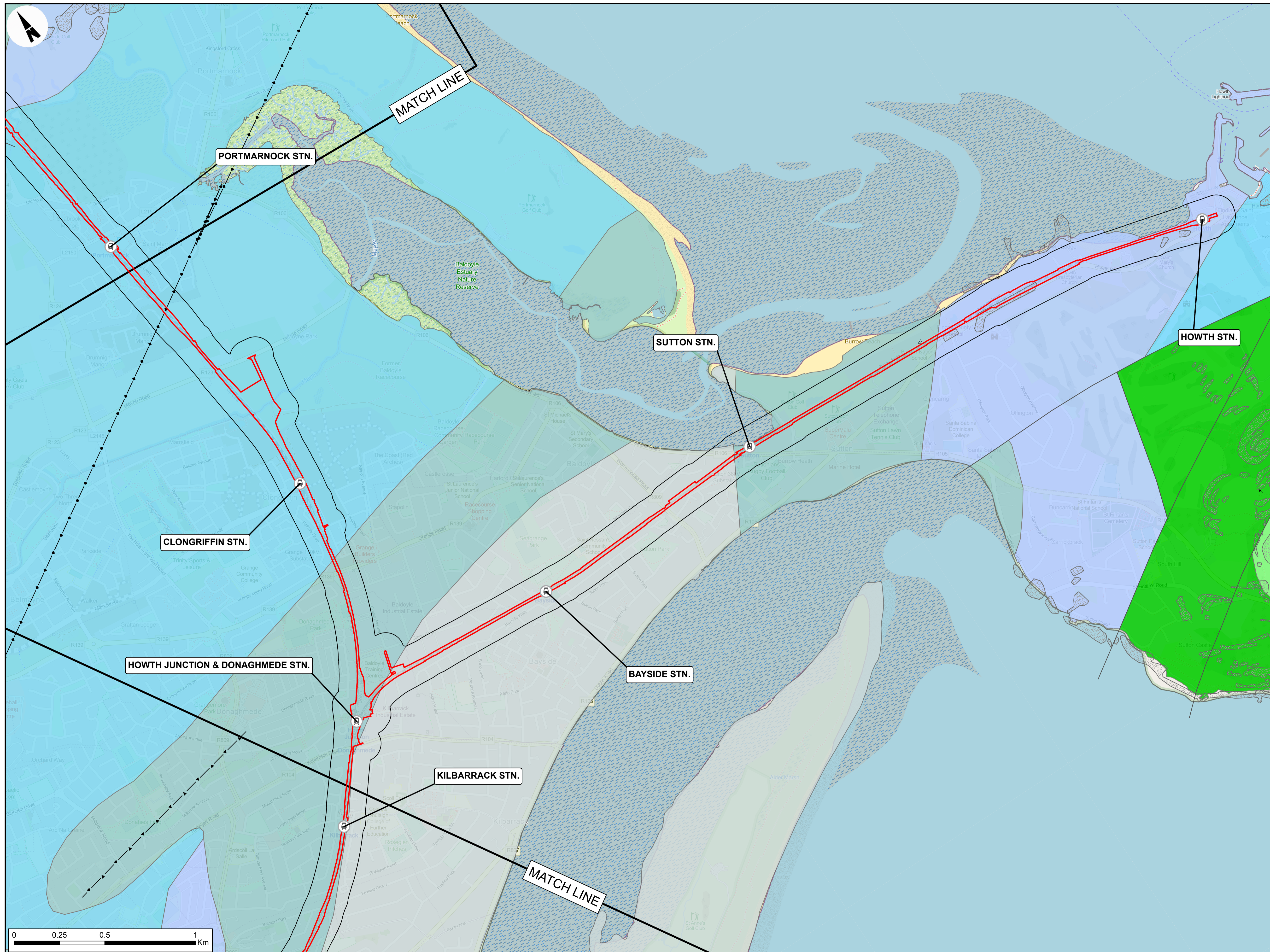
Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE



Client	Iarnród Éireann Irish Rail		
Engineering Designer	ARUP		
Date	07/09/2023	Scale	1:10000 @ A1 1:20000 @ A3
Project Code	D+WP56	Originator Code	ARP
OMS Code	279933-00	Drawn	DM
		Checked	MF
		Approved	GS

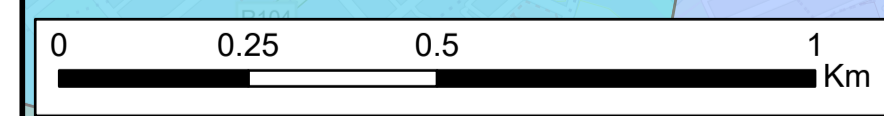
Project Title	DART+ COASTAL NORTH		
Drawing Title	LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY		
Drawing File Name	D+WP56-ARP-ZZ-NL-DR-EVGT-100032	Sheet Number	2 of 9
Status	S4	Rev	P02





**LEGEND**

- RAILWAY STATIONS
- DEVELOPMENT BOUNDARY
- 100M BUFFER
- GEOLOGICAL LINEWORK (GSI)**
  - ANTICLINAL AXIS
  - FAULT
  - SYNCLINAL AXIS
- STRUCTURAL SYMBOLS (BEDROCK) (GSI)**
  - STRIKE AND DIP OF BEDDING, RIGHT WAY UP
  - STRIKE AND DIP OF FIRST FOLIATION
- BEDROCK OUTCROPS (GSI)**
  - BEDROCK OUTCROP
- BEDROCK GEOLOGY 100K (GSI)**
  - DRUMLECK FORMATION
  - ELSINORE FORMATION
  - BALLYSTEEN FORMATION
  - LUCAN FORMATION
  - MALAHIDE FORMATION
  - TOBER COLLEEN FORMATION
  - WAULSORTIAN LIMESTONES



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLG).

**Notes**

Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 | Scale: 1:10000 @ A1 | 1:20000 @ A3

Project Code: D+WP56 | Originator Code: ARP

QMS Code: 279933-00

Drawn: DM | Checked: MF | Approved: GS

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY**

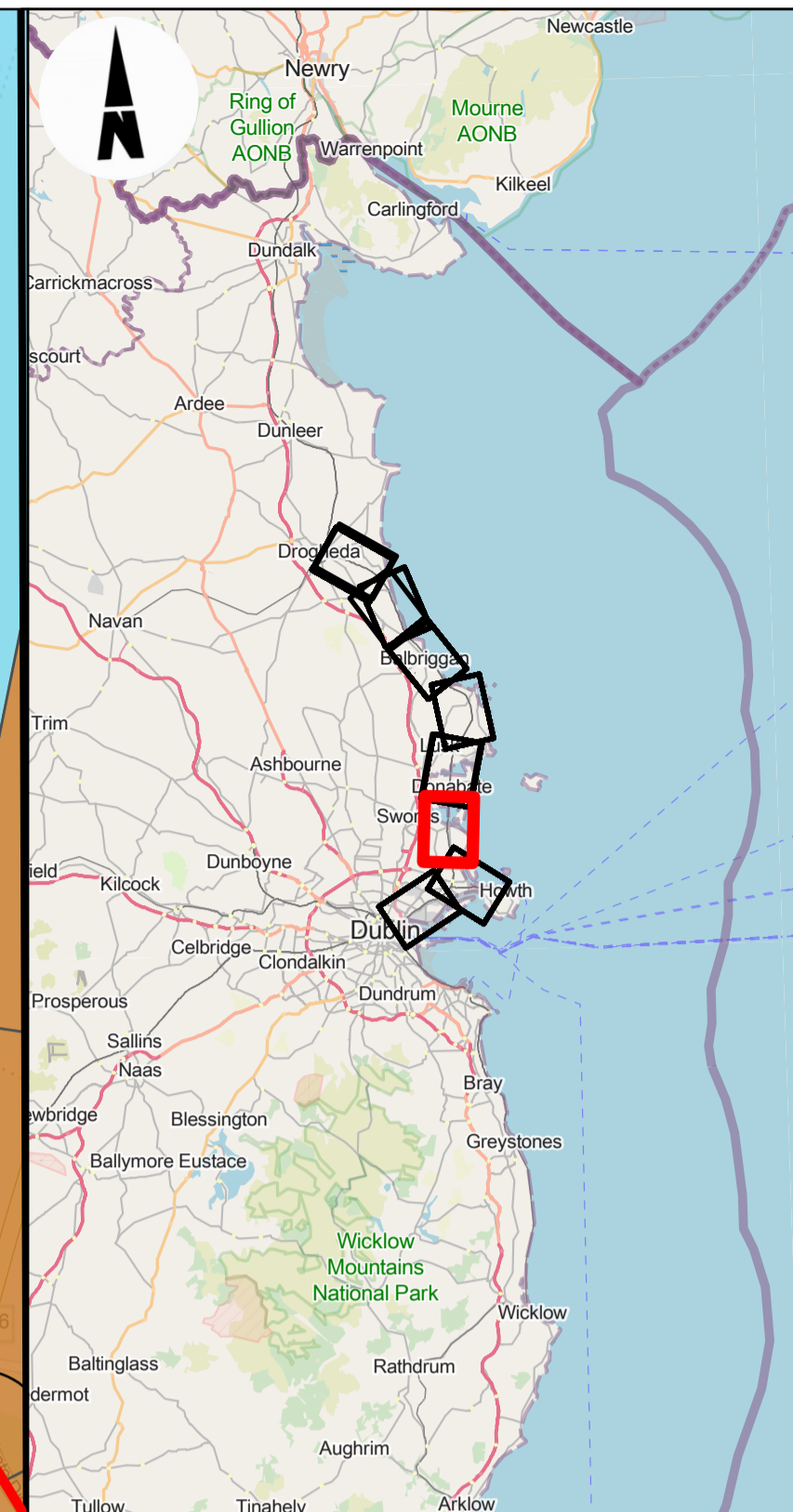
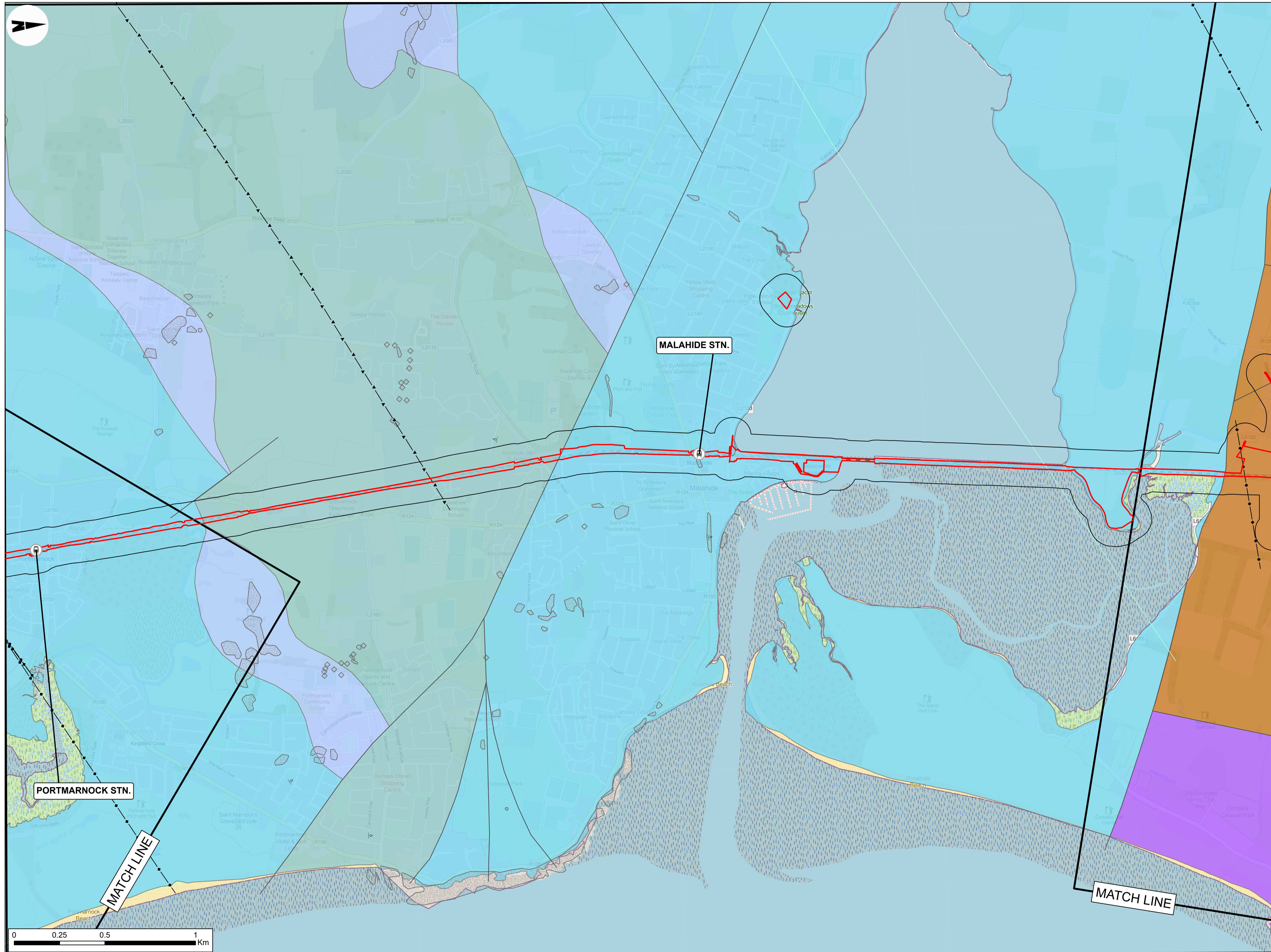
Drawing File Name: D+WP56-ARP-ZZ-NL-DR-EVGT-100033

Sheet Number: 3 of 9

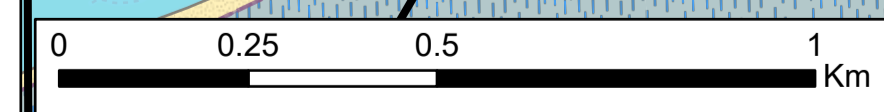
Status: S4

Rev: P02





- LEGEND**
- RAILWAY STATIONS
  - DEVELOPMENT BOUNDARY
  - 100M BUFFER
- GEOLOGICAL LINEWORK (GSI)**
- NO DESCRIPTION IN DATASET
  - ANTICLINAL AXIS
  - FAULT
  - SYNCLINAL AXIS
- STRUCTURAL SYMBOLS (BEDROCK) (GSI)**
- STRIKE AND DIP OF BEDDING, RIGHT WAY UP
- BEDROCK OUTCROPS (GSI)**
- BEDROCK OUTCROP
- BEDROCK GEOLOGY 100K (GSI)**
- DONABATE FORMATION
  - MALAHIDE FORMATION
  - TOBER COLLEEN FORMATION
  - WAULSORTIAN LIMESTONES
  - PORTRANE
  - VOLCANIC FORMATION



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLG).

**Notes**



Rev	Date	Dn	Chkd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 Scale: 1:10000 @ A1 1:20000 @ A3

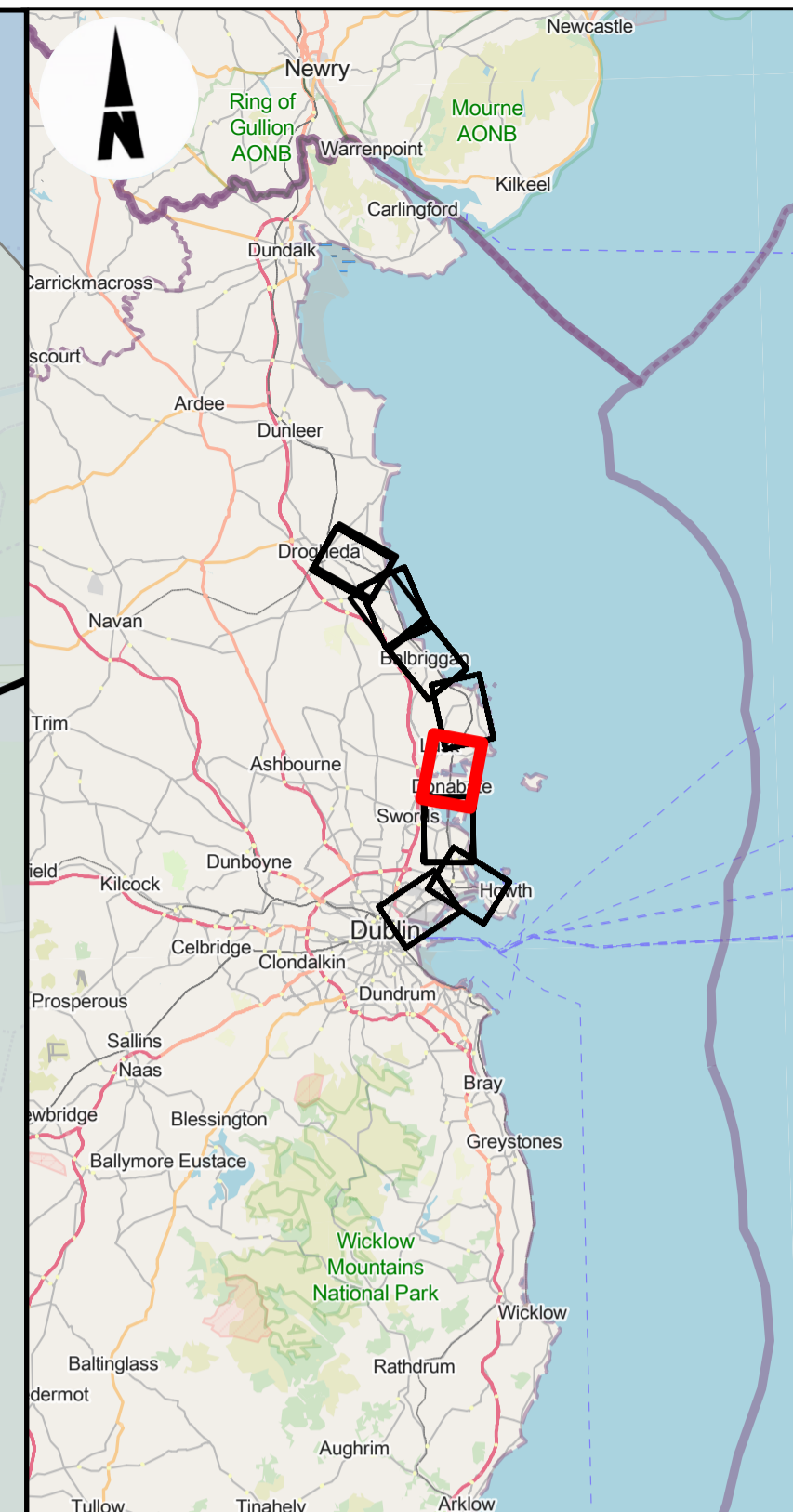
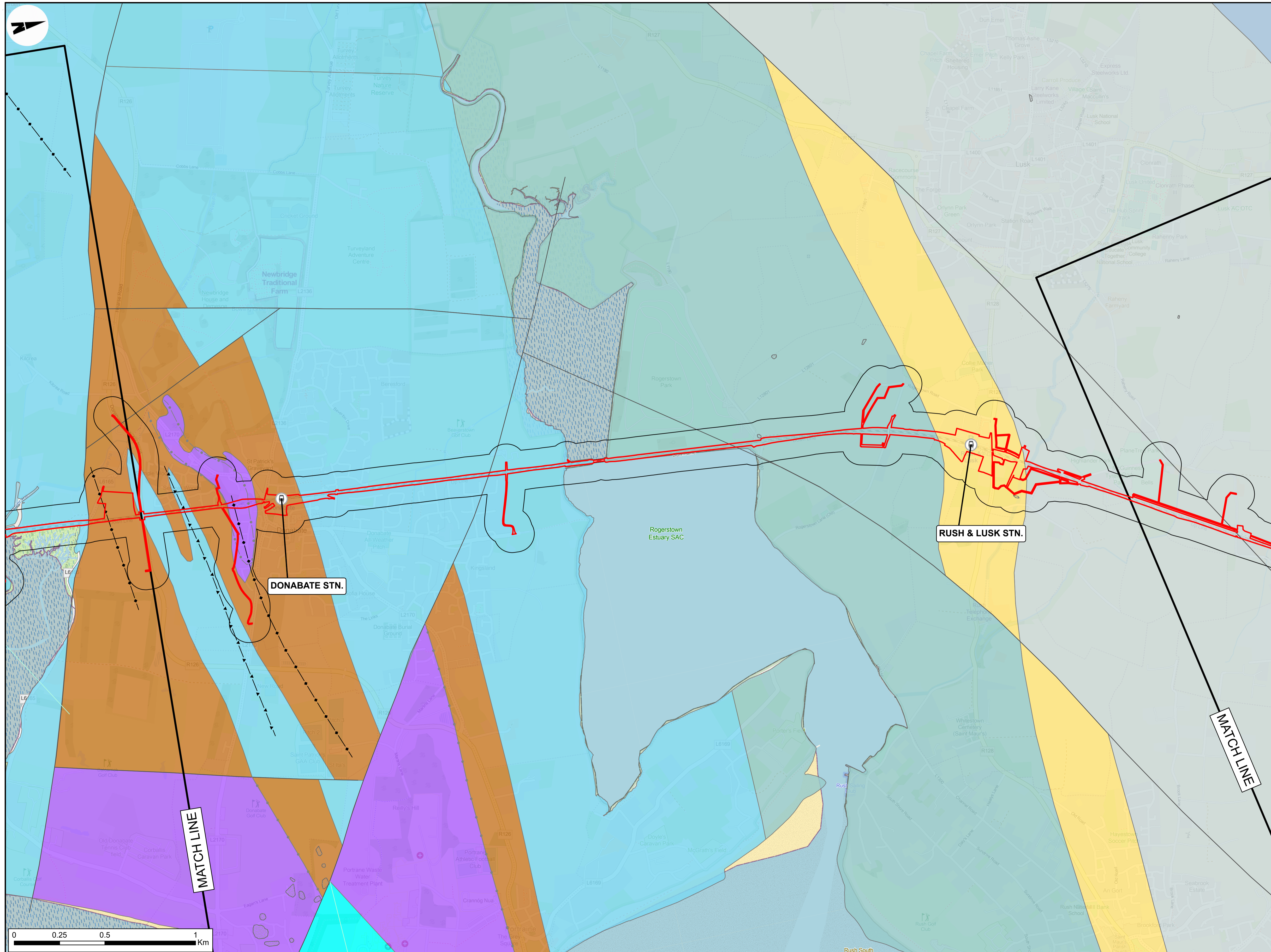
Project Code: D+WP56 Originator Code: ARP

QMS Code: 279933-00

Drawn: DM Checked: MF Approved: GS

Project Title	DART+ COASTAL NORTH		
Drawing Title	LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY		
Drawing File Name	D+WP56-ARP-ZZ-NL-DR-EVGT-100034	Sheet Number	4 of 9
Status	S4	Rev	P02





**LEGEND**

- RAILWAY STATIONS
- DEVELOPMENT BOUNDARY
- 100M BUFFER

**GEOLOGICAL LINEWORK (GSI)**

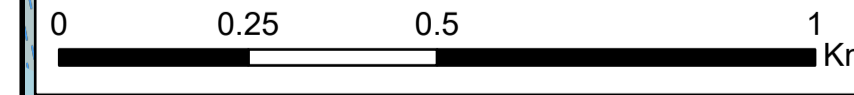
- NO DESCRIPTION IN DATASET
- ANTICLINAL AXIS
- FAULT
- SYNCLINAL AXIS
- UNCONFORMITY, DOTS ON YOUNGER SIDE

**BEDROCK OUTCROPS (GSI)**

- BEDROCK OUTCROP

**BEDROCK GEOLOGY 100K (GSI)**

- DONABATE FORMATION
- LUCAN FORMATION
- MALAHIDE FORMATION
- NAUL FORMATION
- RUSH CONGLOMERATE FORMATION
- TOBER COLLEEN FORMATION
- PORTRANE LIMESTONE FORMATION
- PORTRANE VOLCANIC FORMATION



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.  
 © Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLG).

**Notes**



Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 | Scale: 1:10000 @ A1 | 1:20000 @ A3

Project Code: D+WP56 | Originator Code: ARP | OMS Code: 279933-00

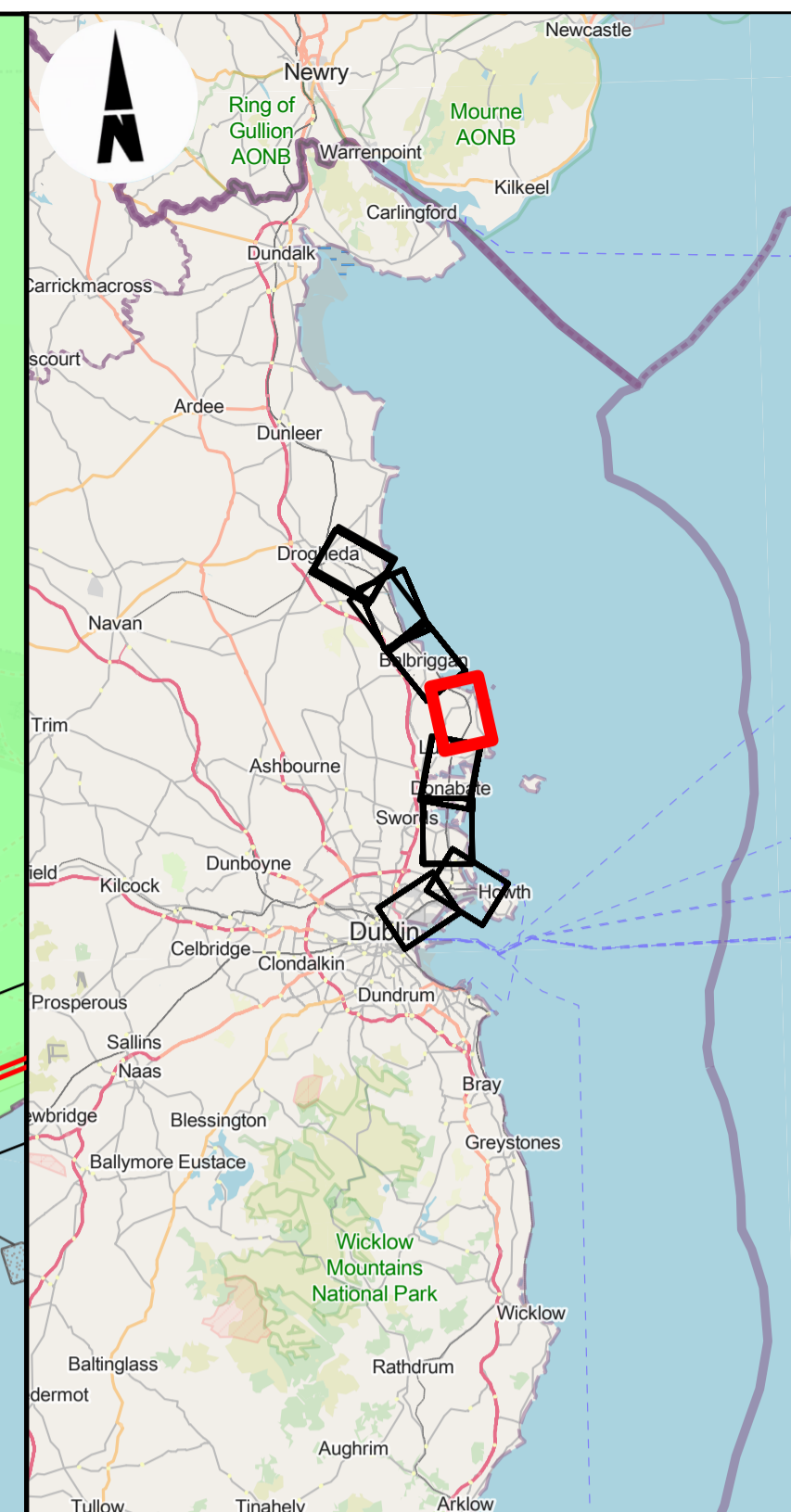
Drawn: DM | Checked: MF | Approved: GS

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **LAND AND SOIL  
FIGURE 9.4: BEDROCK GEOLOGY**

Drawing File Name: D+WP56-ARP-ZZ-NL-DR-EVGT-100035 | Sheet Number: 6 of 9 | Status: S4 | Rev: P02





**LEGEND**

<ul style="list-style-type: none"> <li>⊙ RAILWAY STATIONS</li> <li>▭ DEVELOPMENT BOUNDARY</li> <li>□ 100M BUFFER</li> </ul> <p><b>GEOLOGICAL LINEWORK (GSI)</b></p> <ul style="list-style-type: none"> <li>→ ANTICLINAL AXIS</li> <li>— FAULT</li> <li>↔ SYNCLINAL AXIS</li> <li>UNCONFORMITY, DOTS ON YOUNGER SIDE</li> </ul> <p><b>STRUCTURAL SYMBOLS (BEDROCK) (GSI)</b></p> <ul style="list-style-type: none"> <li>↘ STRIKE AND DIP OF BEDDING, RIGHT WAY UP</li> <li>↙ STRIKE AND DIP OF FIRST FOLIATION</li> </ul> <p><b>BEDROCK OUTCROPS (GSI)</b></p> <ul style="list-style-type: none"> <li>▨ BEDROCK OUTCROP</li> </ul>	<p><b>BEDROCK GEOLOGY 100K (GSI)</b></p> <ul style="list-style-type: none"> <li>■ HOLMPATRICK FORMATION</li> <li>■ LANE FORMATION</li> <li>■ LOUGHSHINNY FORMATION</li> <li>■ LUCAN FORMATION</li> <li>■ MULLAGHFIN FORMATION</li> <li>■ NAUL FORMATION</li> <li>■ SMUGGLERS CAVE FORMATION</li> <li>■ BALRICKARD FORMATION</li> <li>■ WALSHESTOWN FORMATION</li> <li>■ MUDBANK LIMESTONE</li> <li>■ SKERRIES FORMATION</li> </ul>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLLG).

**Notes**

Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **Irish Rail**

Engineering Designer: **ARUP**

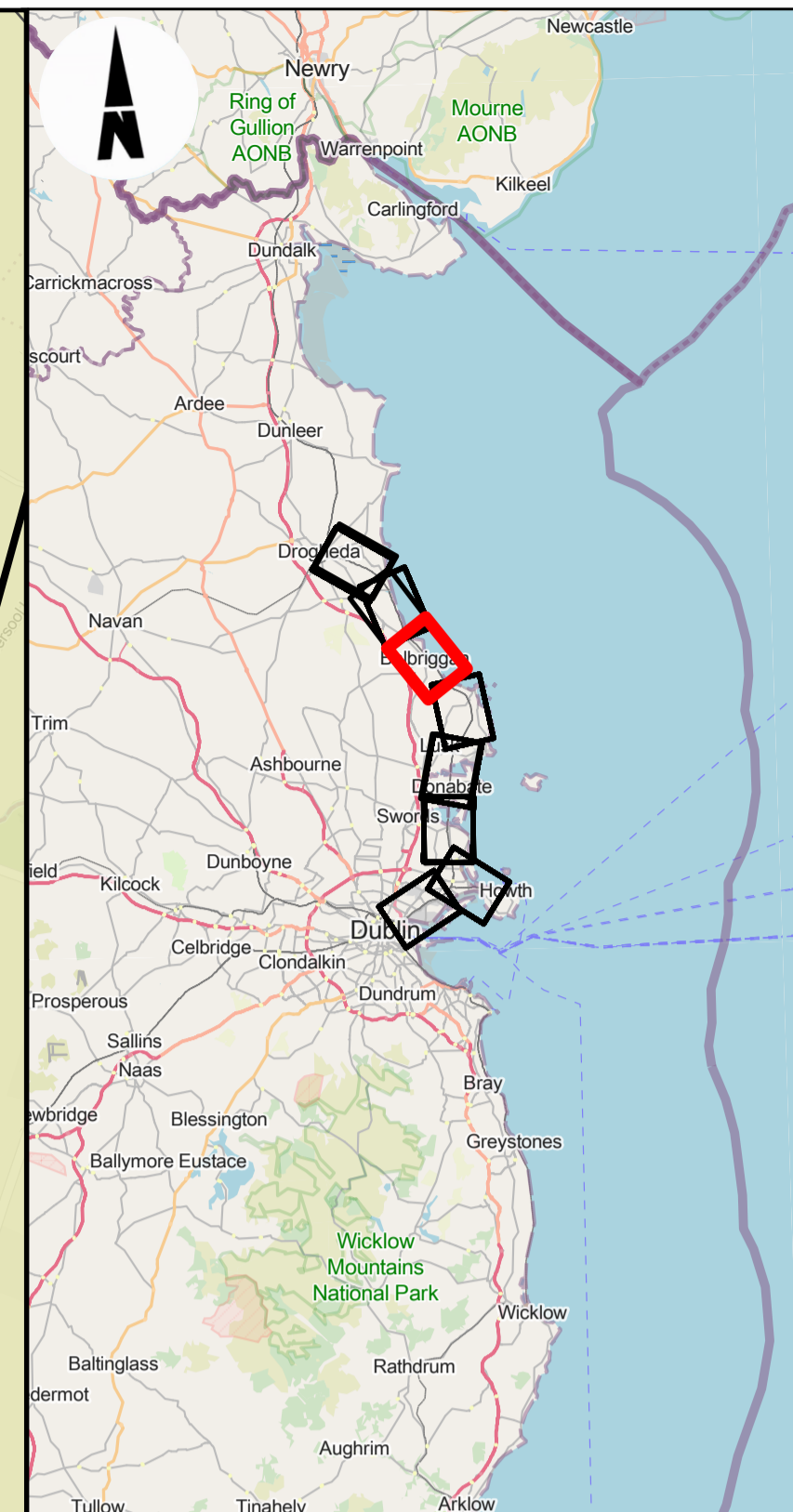
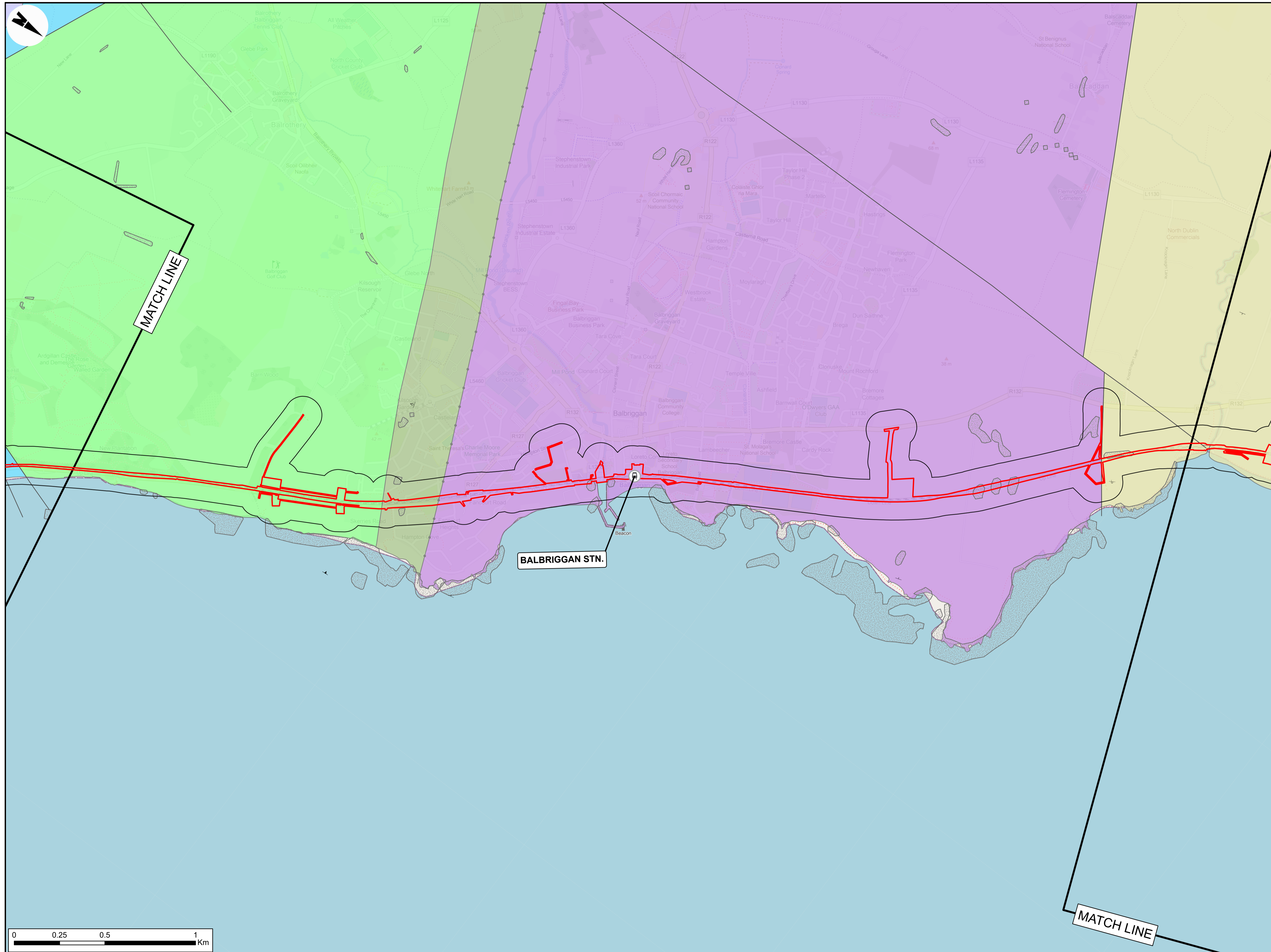
Date: 07/09/2023 | Scale: 1:10000 @ A1 1:20000 @ A3

Project Code: D+WP56 | Originator Code: ARP | OMS Code: 279933-00

Drawn: DM | Checked: MF | Approved: GS

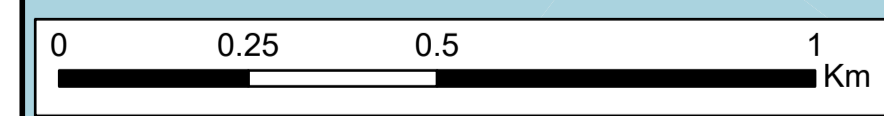
Project Title: <b>DART+ COASTAL NORTH</b>			
Drawing Title: <b>LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY</b>			
Drawing File Name: <b>D+WP56-ARP-ZZ-NL-DR-EVGT-100036</b>	Sheet Number: <b>6 of 9</b>	Status: <b>S4</b>	Rev: <b>P02</b>





**LEGEND**

- RAILWAY STATIONS
- DEVELOPMENT BOUNDARY
- 100M BUFFER
- GEOLOGICAL LINEWORK (GSI)**
  - FAULT
  - UNCONFORMITY, DOTS ON YOUNGER SIDE
- STRUCTURAL SYMBOLS (BEDROCK) (GSI)**
  - STRIKE AND DIP OF BEDDING, RIGHT WAY UP
  - STRIKE AND DIP OF BEDDING, WAY UP
  - UNKNOWN
  - STRIKE AND DIP OF FIRST FOLIATION
  - STRIKE AND DIP OF OVERTURNED BEDDING
- BEDROCK OUTCROPS (GSI)**
  - BEDROCK
  - OUTCROP
- BEDROCK GEOLOGY 100K (GSI)**
  - BALBRIGGAN FORMATION
  - BELCAMP FORMATION
  - MULLAGHFIN FORMATION
  - DENHAMSTOWN FORMATION
  - MUDBANK LIMESTONE
  - SKERRIES FORMATION



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLLG).

**Notes**

Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **larnród Éireann Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 Scale: 1:10000 @ A1, 1:20000 @ A3

Project Code: D+WP56 Originator Code: ARP QMS Code: 279933-00

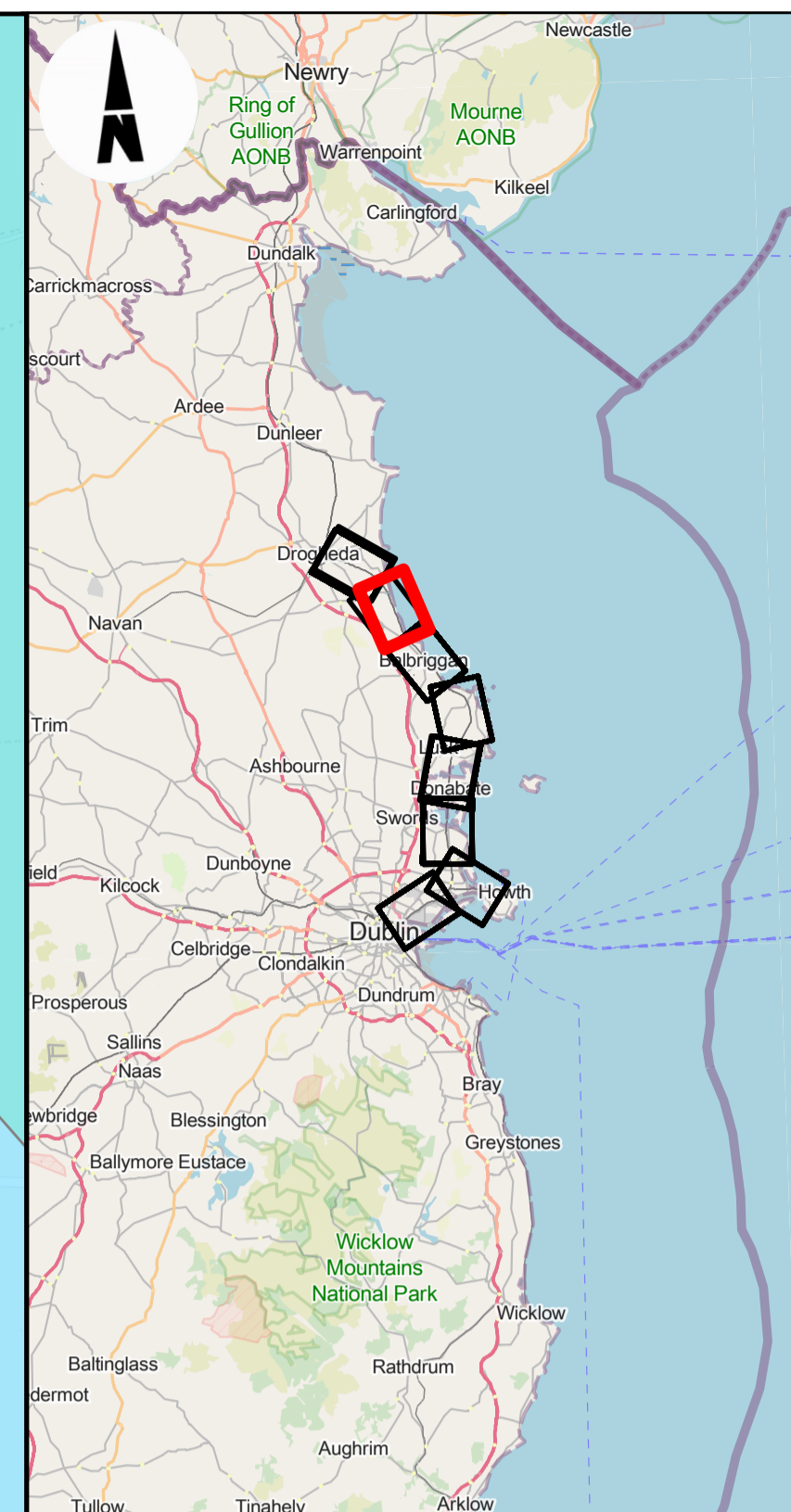
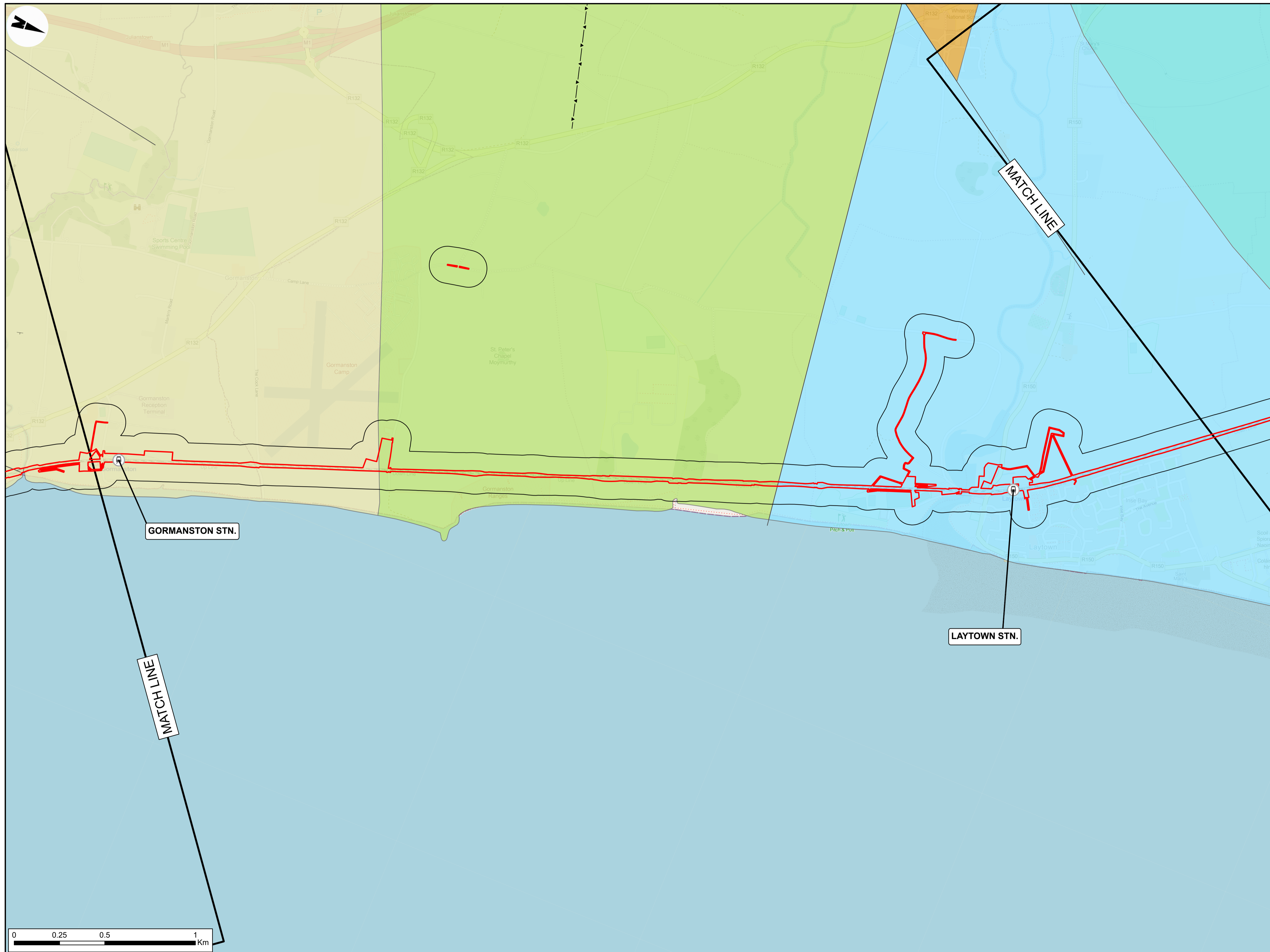
Drawn: DM Checked: MF Approved: GS

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY**

Drawing File Name: D+WP56-ARP-ZZ-NL-DR-EVGT-100037 Sheet Number: 7 of 9 Status: S4 Rev: P02





**LEGEND**

- RAILWAY STATIONS
- DEVELOPMENT BOUNDARY
- 100M BUFFER

**GEOLOGICAL LINEWORK (GSI)**

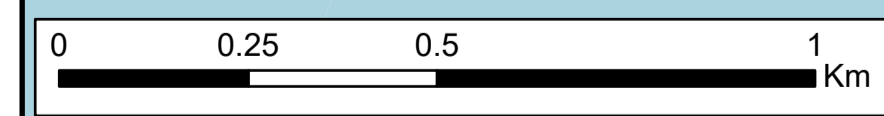
- FAULT
- SYNCLINAL AXIS

**STRUCTURAL SYMBOLS (BEDROCK) (GSI)**

- STRIKE AND DIP OF BEDDING, WAY UP UNKNOWN

**BEDROCK GEOLOGY 100K (GSI)**

- CRUFTY FORMATION
- TULLYALLEN FORMATION
- CLATTERSTOWN FORMATION
- DENHAMSTOWN FORMATION
- HILLTOWN FORMATION



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© OpenStreetMap contributors.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Ghd (ITM) as defined by OSI active GPS station Tallaght College (TLLG).

**Notes**

Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **larnród Éireann Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 Scale: 1:10000 @ A1 1:20000 @ A3

Project Code: D+WP56 Originator Code: ARP QMS Code: 279933-00

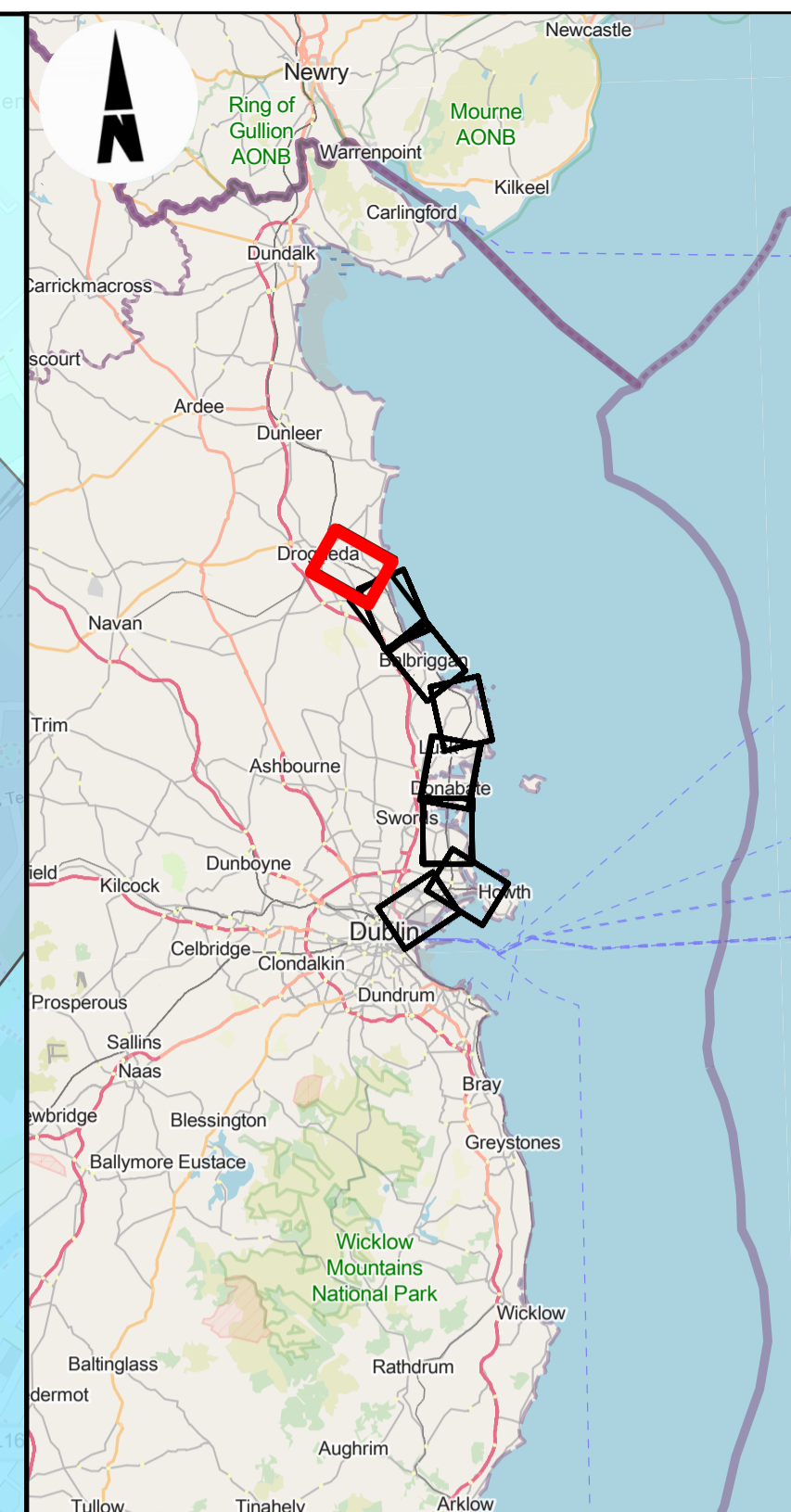
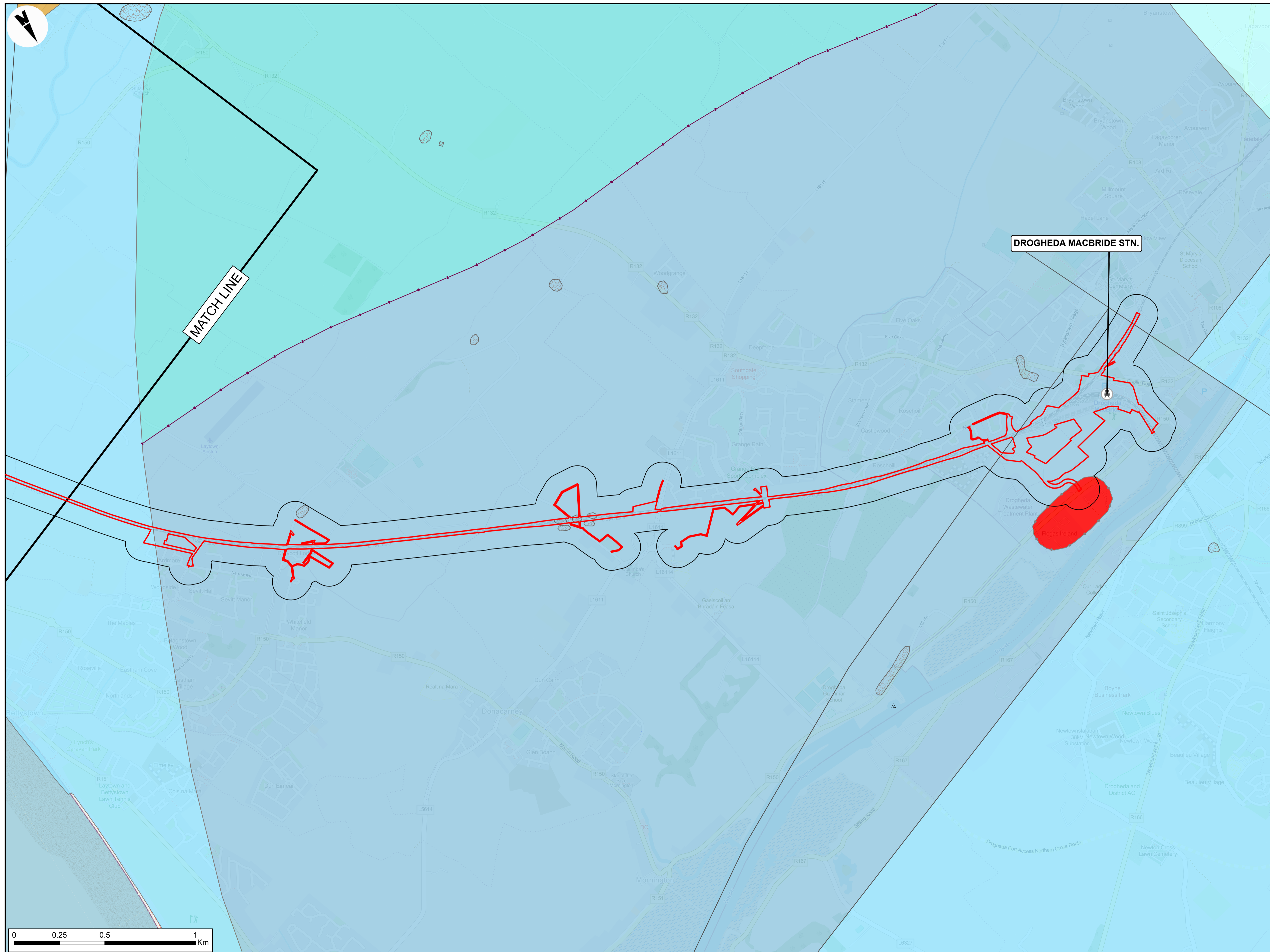
Drawn: DM Checked: MF Approved: GS

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **LAND AND SOIL FIGURE 9.4: BEDROCK GEOLOGY**

Drawing File Name: D+WP56-ARP-ZZ-NL-DR-EVGT-100038 Sheet Number: 8 of 9 Status: S4 Rev: P02





**LEGEND**

- RAILWAY STATIONS
- DEVELOPMENT BOUNDARY
- 100M BUFFER

**GEOLOGICAL LINEWORK (GSI)**

- FAULT
- GHOST LINE
- UNCONFORMITY, DOTS ON YOUNGER SIDE

**STRUCTURAL SYMBOLS (BEDROCK) (GSI)**

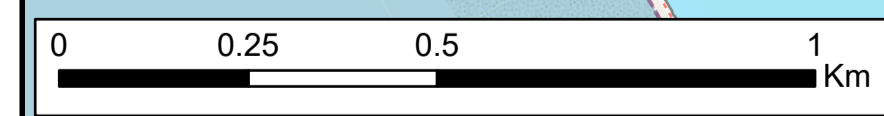
- STRIKE AND DIP OF BEDDING, RIGHT WAY UP

**BEDROCK OUTCROPS (GSI)**

- BEDROCK OUTCROP

**BEDROCK GEOLOGY 100K (GSI)**

- CRUFFY FORMATION
- MORNINGTON FORMATION
- PLATIN FORMATION
- TULLYALLEN FORMATION
- HILLTOWN FORMATION
- DROGHEDA GRANITE



**Disclaimer**  
 © Irish Rail (2023). This drawing is confidential and the copyright in it is owned by Irish Rail. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of Irish Rail.

© Contains Irish Public Sector Data (Geological Survey Ireland) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

© Ordnance Survey Ireland and Government of Ireland. All O.S. data used for plans are printed under "Copyright Ordnance Survey Ireland 0039723 (OSI Aerial Data or OSI Lidar Data) & 2023/ OSI, NMA, 180 (OSI Vector Data)". All elevations are in metres and relate to OSI Geoid Model (OSGM02) Malin Head as defined by existing Project Control. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active GPS station Tallaght College (TLLG).

**Notes**

Rev	Date	Dn	Ch'd	App'd	Description
P02	31/05/2024	DM	MF	GS	PLANNING ISSUE

Client: **Irish Rail**

Engineering Designer: **ARUP**

Date: 07/09/2023 | Scale: 1:10000 @ A1 | 1:20000 @ A3

Project Code: D+WP56 | Originator Code: ARP | QMS Code: 279933-00

Drawn: DM | Checked: MF | Approved: GS

Project Title: **DART+ COASTAL NORTH**

Drawing Title: **LAND AND SOIL  
FIGURE 9.4: BEDROCK GEOLOGY**

Drawing File Name: D+WP56-ARP-ZZ-NL-DR-EVGT-100039 | Sheet Number: 9 of 9 | Status: S4 | Rev: P02