

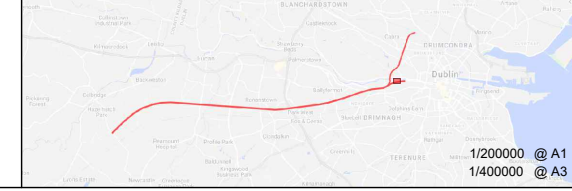
- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
 - EXISTING WATER MAIN
 - EXISTING NTL / UPC / VIRGIN
 - EXISTING BT
 - EXISTING AURORA TELECOM

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- LEGEND:**
- IE TROUGHING-AT GRADE
 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

U:\15 199586\6 Dwg\Graphics\6 AutoCad\DP-04-23-DWG-UE-TTA-51151-51157.dwg

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Rev	Date	Drn	Ch'kd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group) supported by **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: RG | Checked: DB | Approved: DM

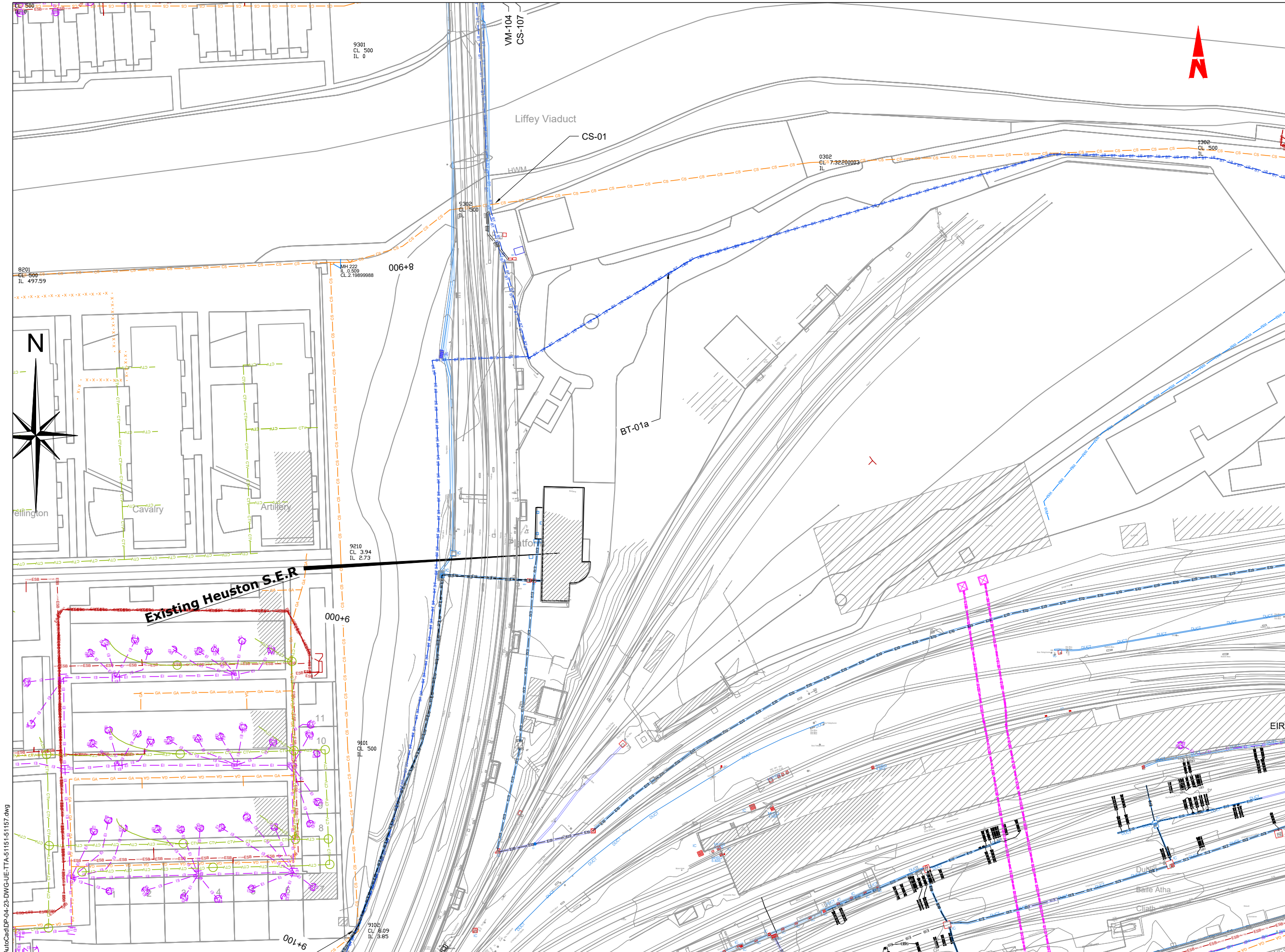
Project Code: 5199586 | Issuer: TTA | QMS Code: []

Project Title: **DART + SOUTH WEST**

Drawing Title: **HEUSTON YARD TO OBC1 BRIDGE EXISTING UTILITIES SHEET 2**

Drawing File Name: DP-04-23-DWG-UE-TTA-51152 | Version: v01 | Status: S3

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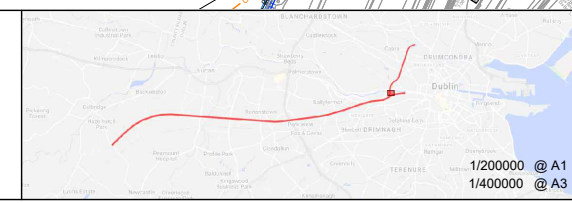


- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
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 - EXISTING BT
 - EXISTING AURORA TELECOM

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 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: 5199586 | Issuer: TTA

Drawn: RG | Checked: DB | Approved: DM

QMS Code: _____

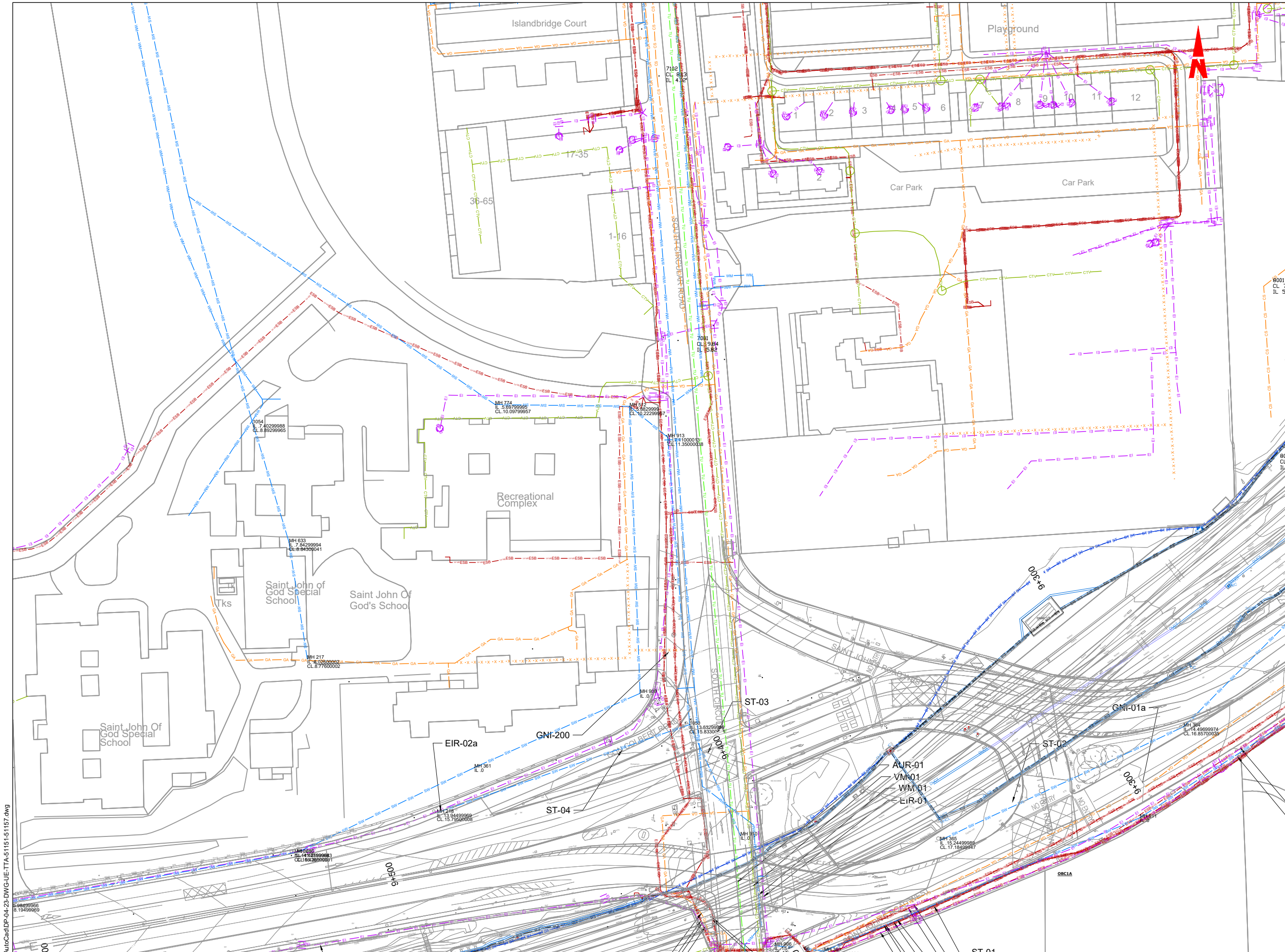
Project Title: **DART + SOUTH WEST**

Drawing Title: **HEUSTON YARD TO OBC1 BRIDGE EXISTING UTILITIES SHEET 3**

Drawing File Name: DP-04-23-DWG-UE-TTA-51153

Version: v01 | Status: S3

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

UTILITIES NOTES

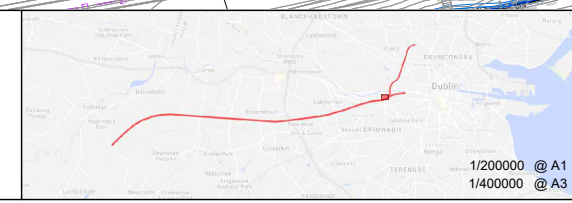
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LEGEND:

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- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

U:\15\199586\6 Dwg\Graphics\6 AutoCad\DP-04-23-DWG-UE-TTA-51151-51157.dwg

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: 5199586 | Issuer: TTA

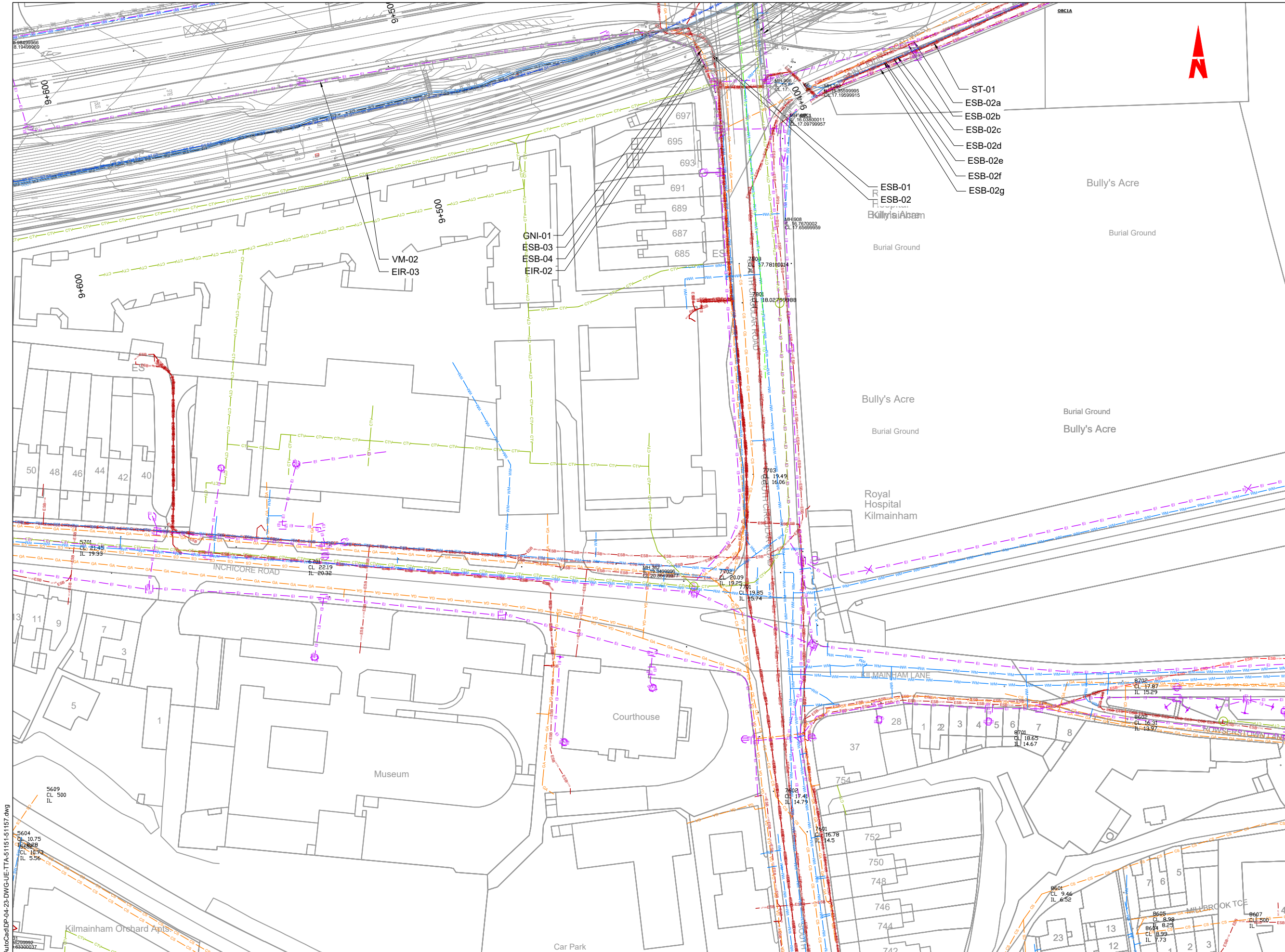
QMS Code: | Drawn: RG | Checked: DB | Approved: DM

Project Title: **DART + SOUTH WEST**

Drawing Title: **HEUSTON YARD TO OBC1 BRIDGE EXISTING UTILITIES SHEET 5**

Drawing File Name: DP-04-23-DWG-UE-TTA-51155 | Version: v01 | Status: S3

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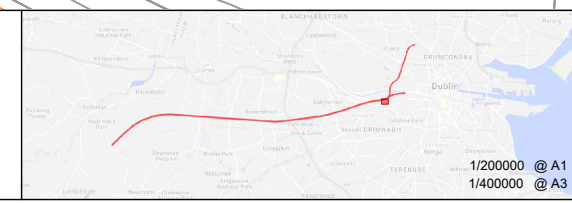
- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
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 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
 - EXISTING WATER MAIN
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 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: RG | Checked: DB | Approved: DM

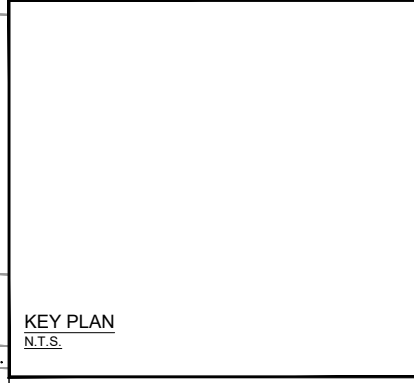
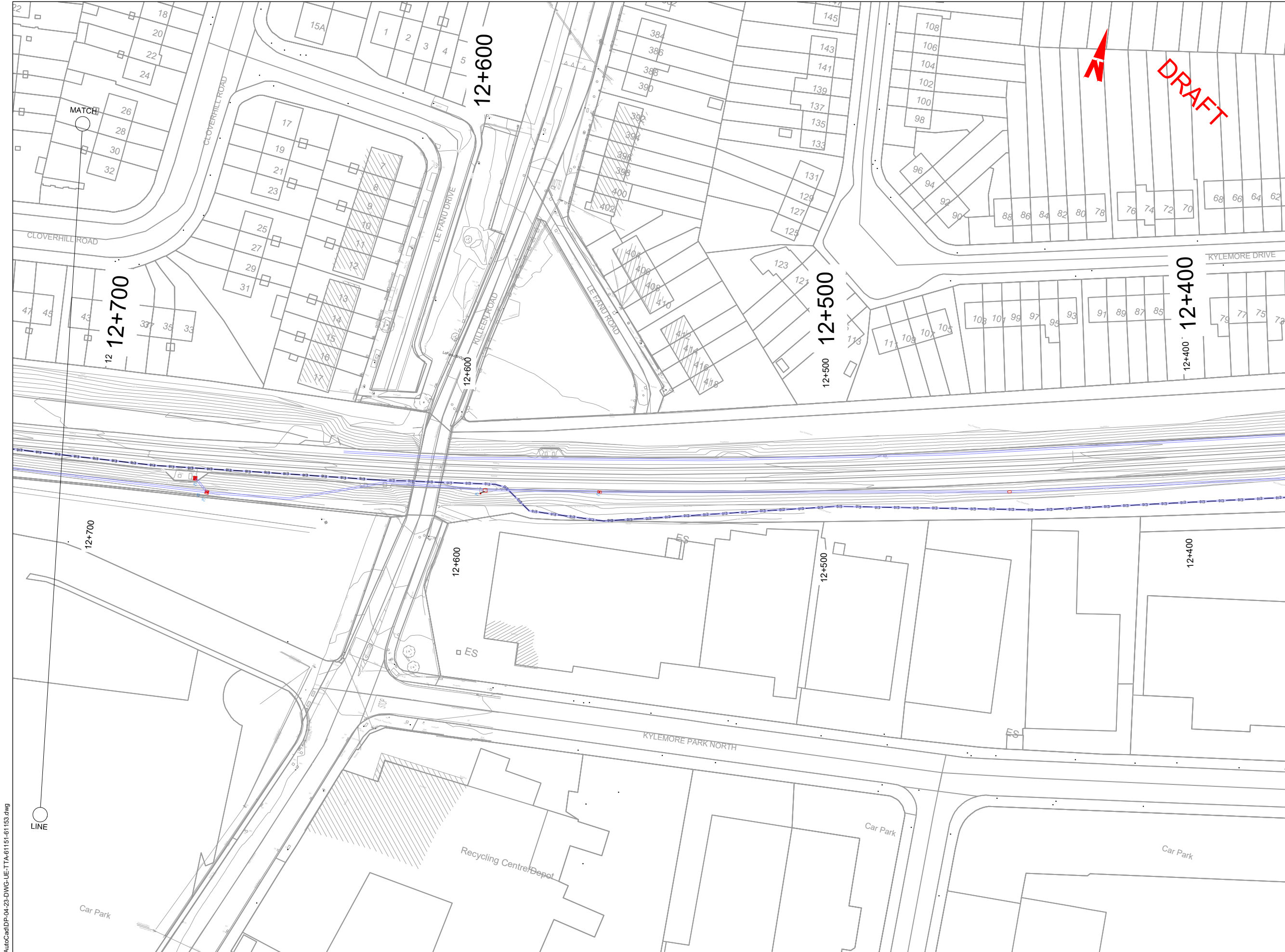
Project Code: 5199586 | Issuer: TTA | QMS Code: []

Project Title: **DART + SOUTH WEST**

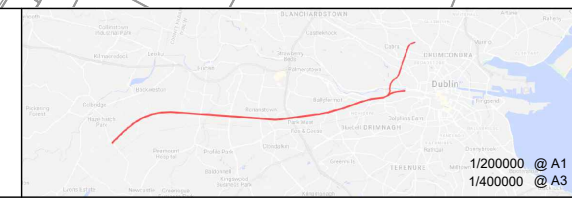
Drawing Title: **HEUSTON YARD TO OBC1 BRIDGE EXISTING UTILITIES SHEET 6**

Drawing File Name: DP-04-23-DWG-UE-TTA-51156 | Version: v01 | Status: S3

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Rev	Date	Drn	Chk'd	App'd	Description
v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group) supported by **rps**

Date: 30.09.20 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: --- Issuer: ATK

Drawn: RG Checked: DB Approved: DM

Project Title: **DART + SOUTH WEST**

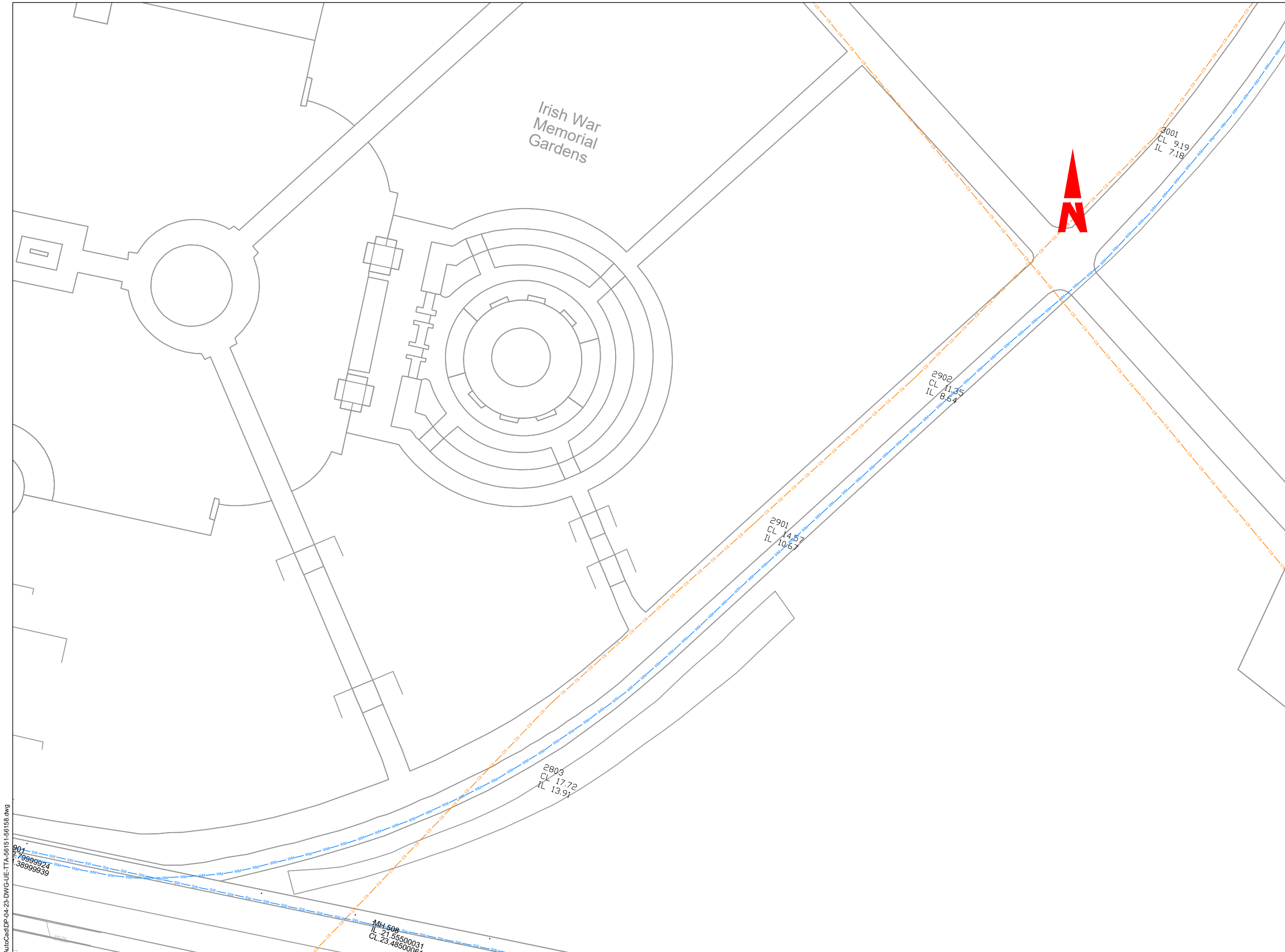
Drawing Title: **KYLEMORE ROAD BRIDGE TO CHERRY ORCHARD FOOT BRIDGE EXISTING UTILITIES SHEET 1**

Drawing File Name: DP-04-23-DWG-UE-TTA-61151

Version: v05 Status: S0

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LEGEND:

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- ESB MV OVERHEAD
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- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
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- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EI EXISTING EIR
- GA EXISTING BGE DISTRIBUTION PIPE
- X-X-X EXISTING BGE ABANDONED PIPE
- CS EXISTING COMBINED SEWER
- SW EXISTING SURFACE WATER SEWER
- WM EXISTING WATER MAIN
- CTV EXISTING NTL / UPC / VIRGIN
- BT EXISTING BT
- TU EXISTING AURORA TELECOM

UTILITIES NOTES

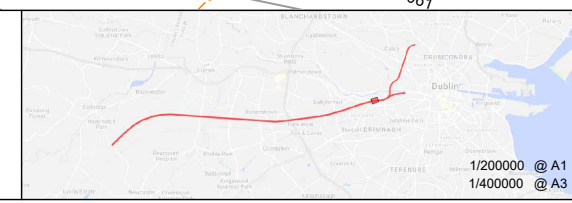
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- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

U:\15\1995806 Dwg\Graphics\61 AutoCad\DP-04-23-DWG-UE-TTA-56151-56158.dwg

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client

Date: 30.09.20
 Scale: 1:500 @ A1, 1:1000 @ A3
 Project Code: 5199586
 Issuer: TTA

Engineering Designer

 Supported by:

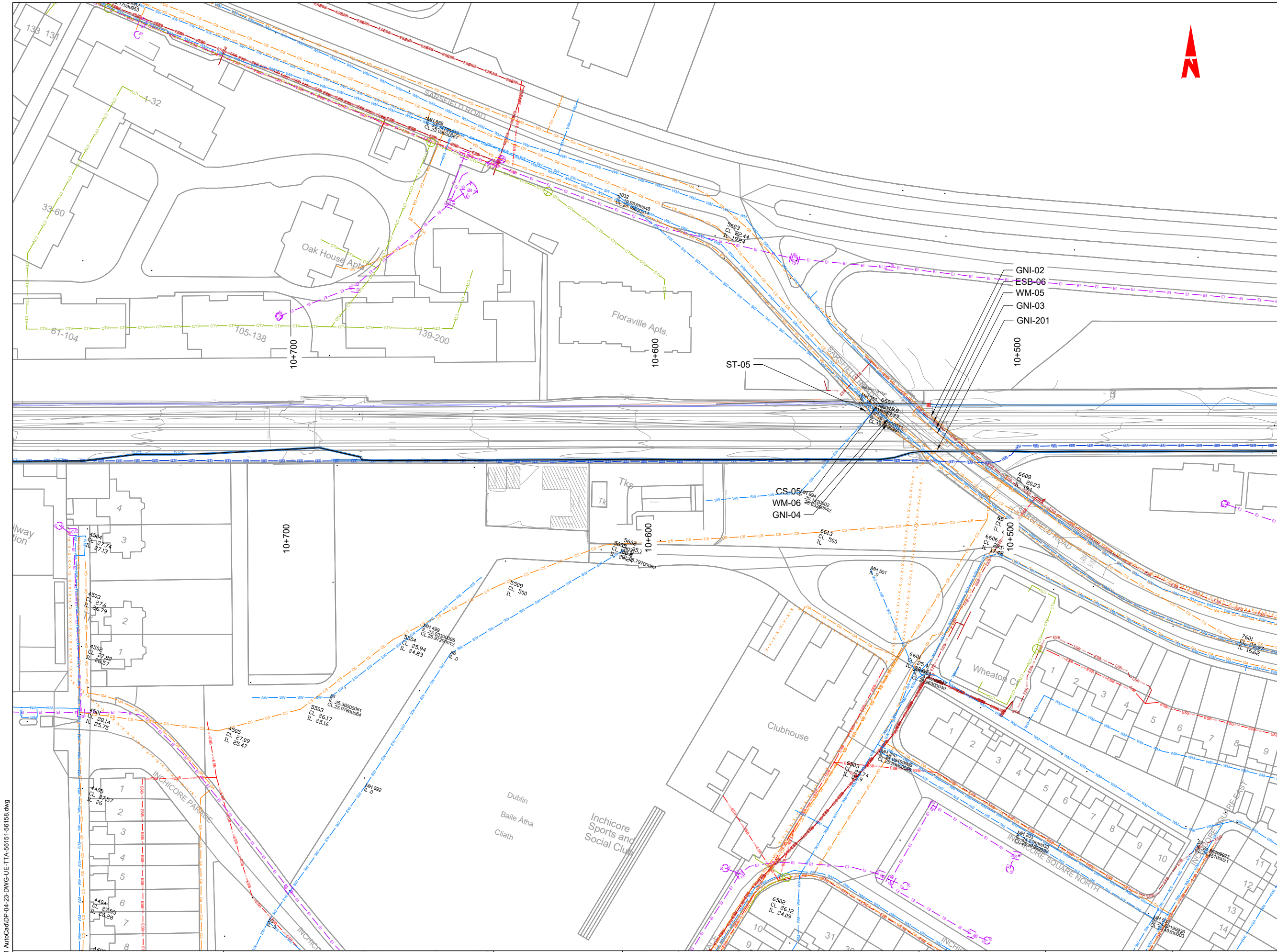
Drawn: RG
 Checked: DB
 Approved: DM

Project Title
DART + SOUTH WEST

Drawing Title
**OBC1 BRIDGE TO KYLEMORE ROAD BRIDGE
 EXISTING UTILITIES
 SHEET 1**

Drawing File Name: DP-04-23-DWG-UE-TTA-56151
 Version: v01
 Status: S3

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

UTILITIES NOTES

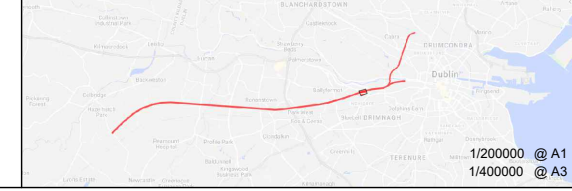
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LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (TYPSA Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: 5199586 | Issuer: TTA

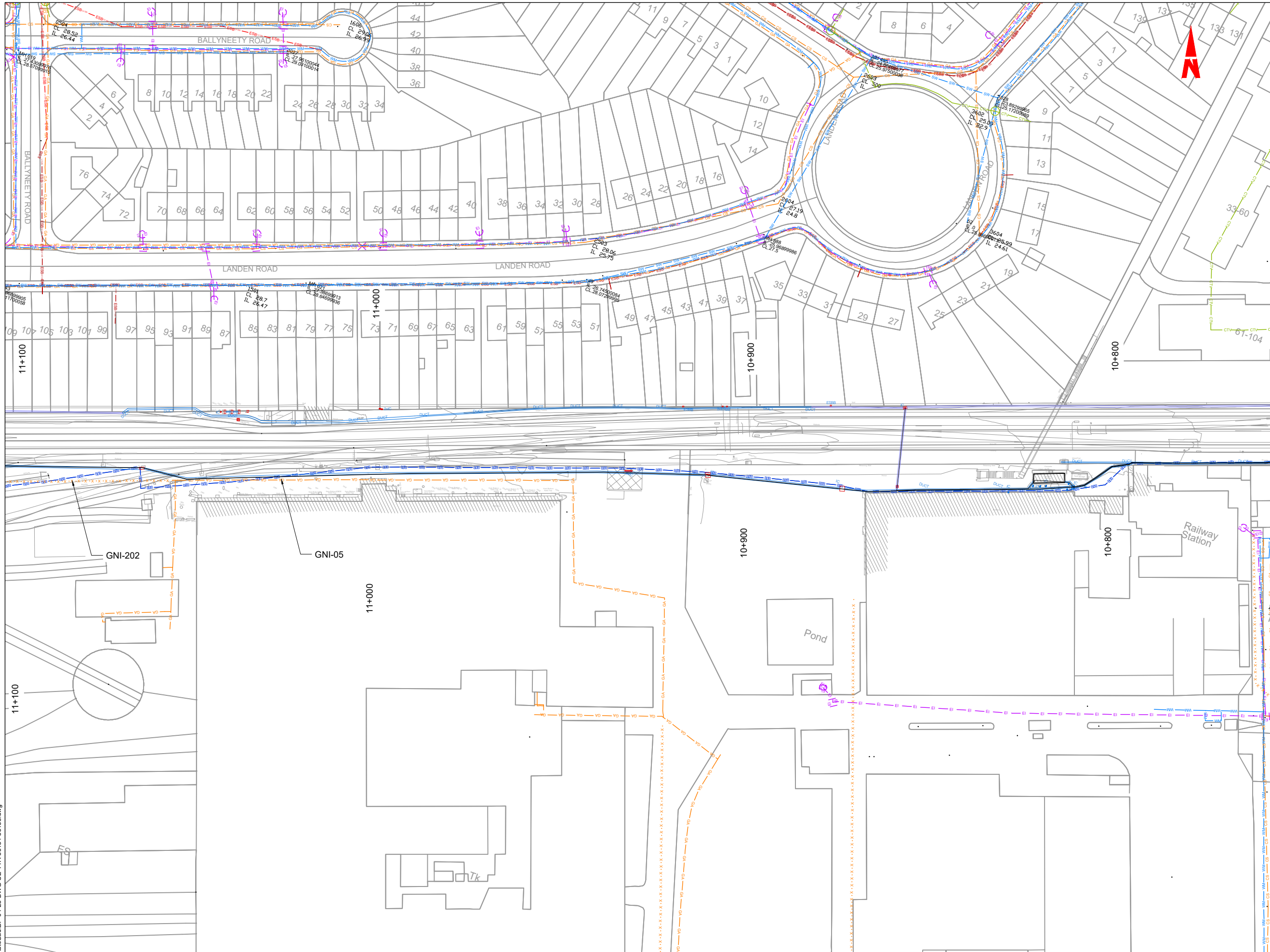
Drawn: RG | Checked: DB | Approved: DM

Project Title: **DART + SOUTH WEST**

Drawing Title: **OBC1 BRIDGE TO KYLEMORE ROAD BRIDGE EXISTING UTILITIES SHEET 3**

Drawing File Name: DP-04-23-DWG-UE-TTA-56153 | Version: v01 | Status: S3

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
 - EXISTING WATER MAIN
 - EXISTING NTL / UPC / VIRGIN
 - EXISTING BT
 - EXISTING AURORA TELECOM

- UTILITIES NOTES**
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- LEGEND:**
- IE TROUGHING-AT GRADE
 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: RG | Checked: DB | Approved: DM

Project Code: 5199586 | Issuer: TTA | QMS Code: []

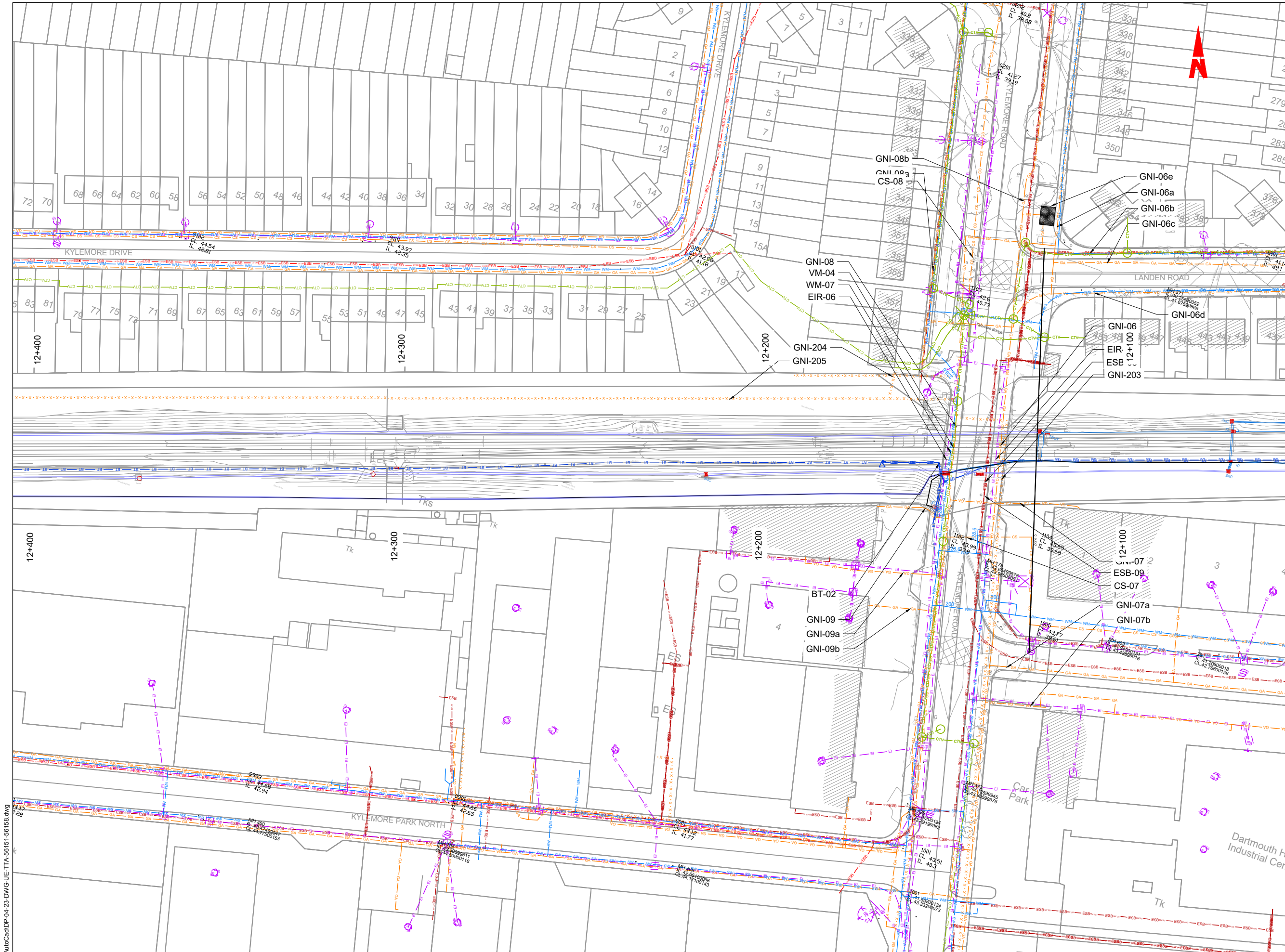
Project Title: **DART + SOUTH WEST**

Drawing Title: **OBC1 BRIDGE TO KYLEMORE ROAD BRIDGE EXISTING UTILITIES SHEET 4**

Drawing File Name: DP-04-23-DWG-UE-TTA-56154 | Version: v01 | Status: S3

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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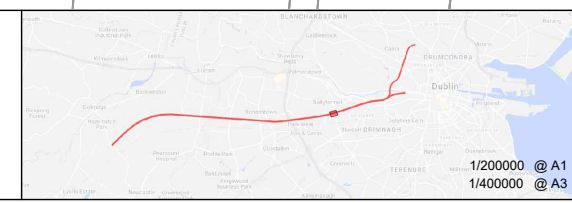


- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
 - EXISTING WATER MAIN
 - EXISTING NTL / UPC / VIRGIN
 - EXISTING BT
 - EXISTING AURORA TELECOM

- UTILITIES NOTES**
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- LEGEND:**
- IE TROUGHING-AT GRADE
 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: RG | Checked: DB | Approved: DM

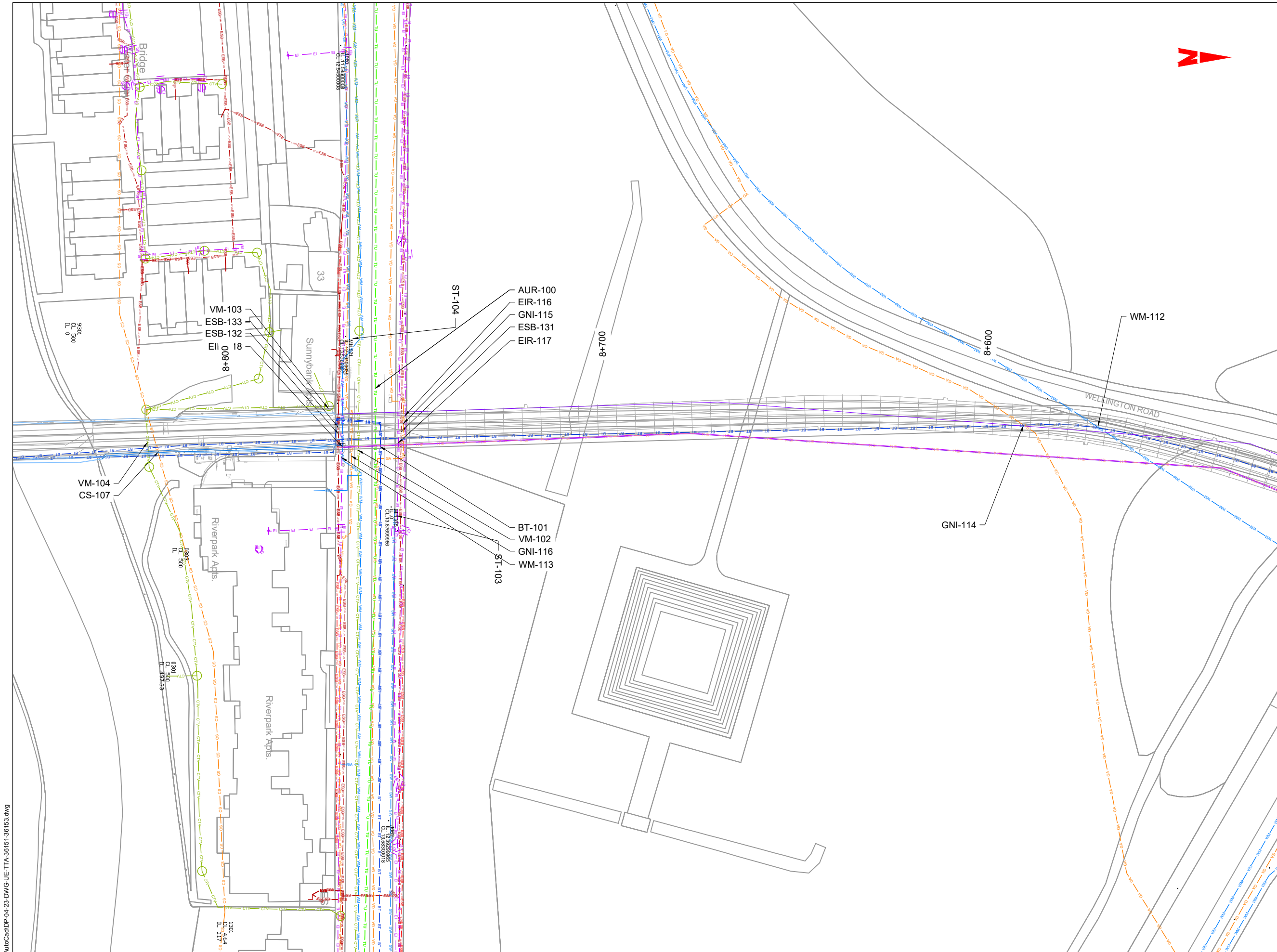
Project Code: 5199586 | Issuer: TTA | QMS Code: []

Project Title: **DART + SOUTH WEST**

Drawing Title: **OBC1 BRIDGE TO KYLEMORE ROAD BRIDGE EXISTING UTILITIES SHEET 8**

Drawing File Name: DP-04-23-DWG-UE-TTA-56158 | Version: v01 | Status: S3

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

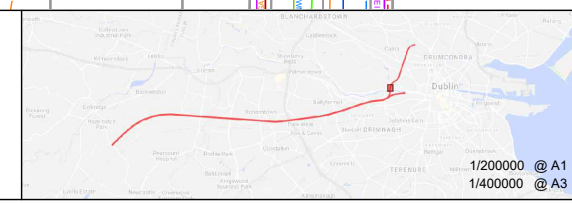
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LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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DART+ South West

NTA National Transport Authority

Member of the SNC Lavalin Group

2040

Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client
Iarnród Éireann Irish Rail

Engineering Designer
ATKINS

Supported by
FPS

Date 30.09.20 **Scale** 1:500 @ A1, 1:1000 @ A3

Drawn RG **Checked** DB **Approved** DM

Project Code 5199586 **Issuer** TTA **QMS Code**

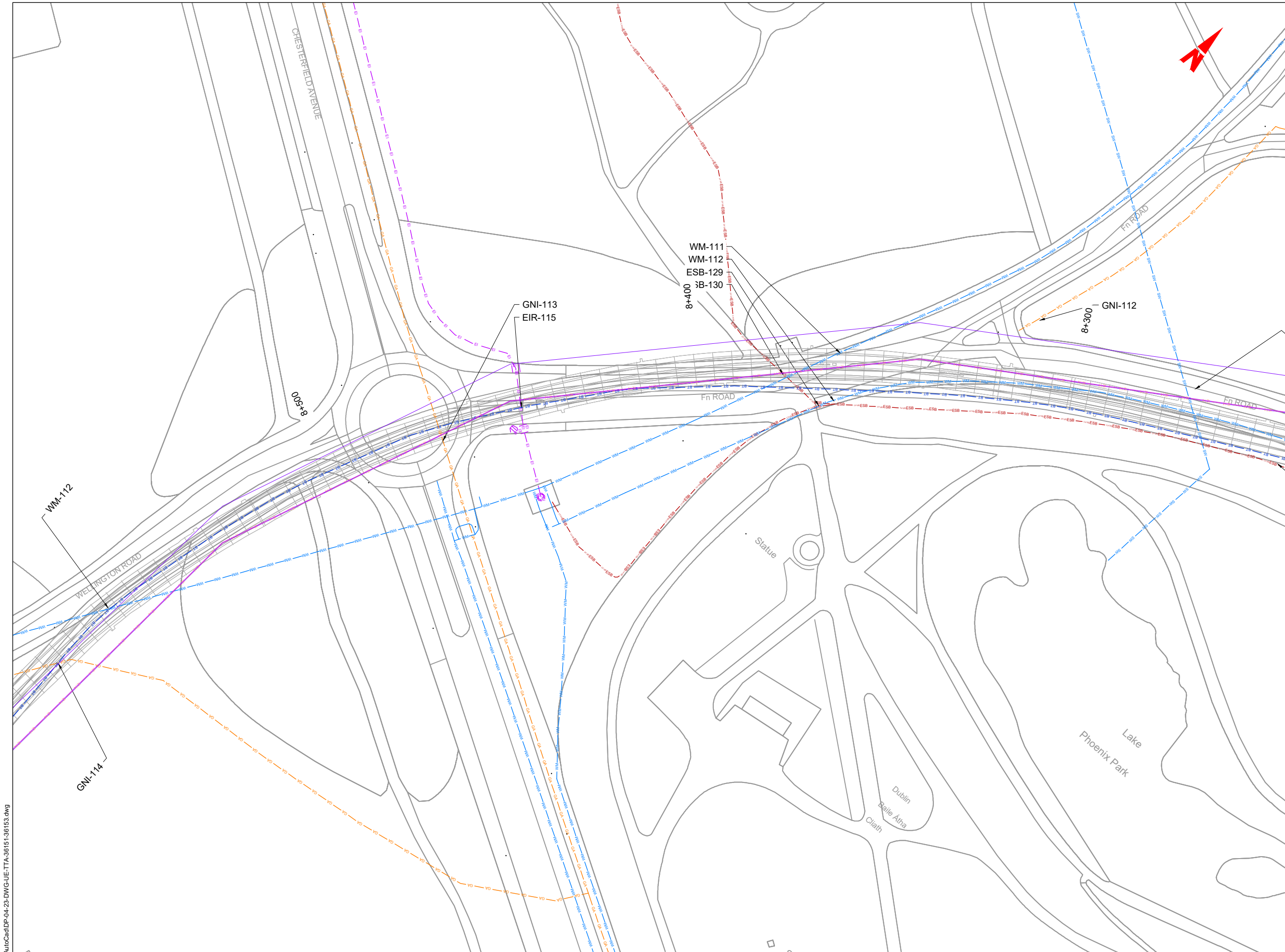
Project Title
DART + SOUTH WEST

Drawing Title
PHOENIX PARK TUNNEL EXISTING UTILITIES SHEET 1

Drawing File Name DP-04-23-DWG-UE-TTA-36151 **Version** v01 **Status** S3

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
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- EXISTING BT
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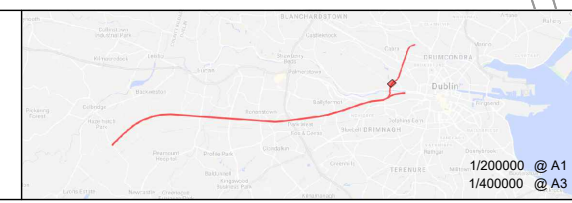
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- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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Rev	Date	Drn	Chk'd	App'd	Description
v01	10.11.22	RG	DB	DM	PLANNING ISSUE

Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: 5199586 | Issuer: TTA

Drawn: RG | Checked: DB | Approved: DM

QMS Code: _____

Project Title: **DART + SOUTH WEST**

Drawing Title: **PHOENIX PARK TUNNEL EXISTING UTILITIES SHEET 2**

Drawing File Name: DP-04-23-DWG-UE-TTA-36152

Version: v01 | Status: S3

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U:\15 199586\6 Dvgs\Graphics\61 AutoCad\DP-04-23-DWG-UE-TTA-36151-36153.dwg



LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

UTILITIES NOTES

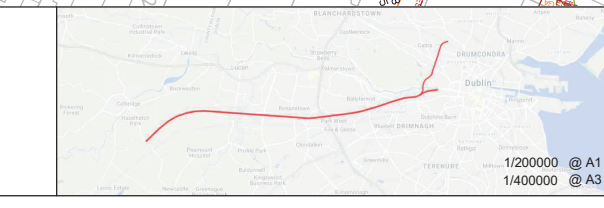
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LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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Rev	Date	Dm	Chkd	App'd	Description
v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client: **Irish Rail**
 Date: 30.09.20
 Project Code: ---
 Issuer: ATK

Engineering Designer: **ATKINS**
 Member of the SNC-Lavalin Group
 Supported by: **rps**
 Drawn: RG
 Checked: DB
 Approved: DM

Project Title: **DART+ SOUTH WEST**
 Drawing Title: **PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 1**
 Drawing File Name: DP-04-23-DWG-UE-TTA-42301
 Version: v05
 Status: S0

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

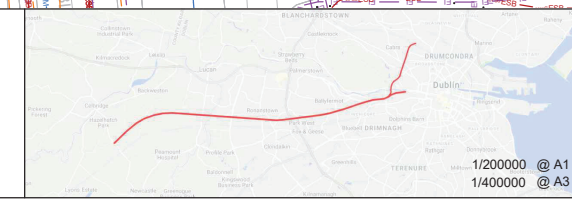
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LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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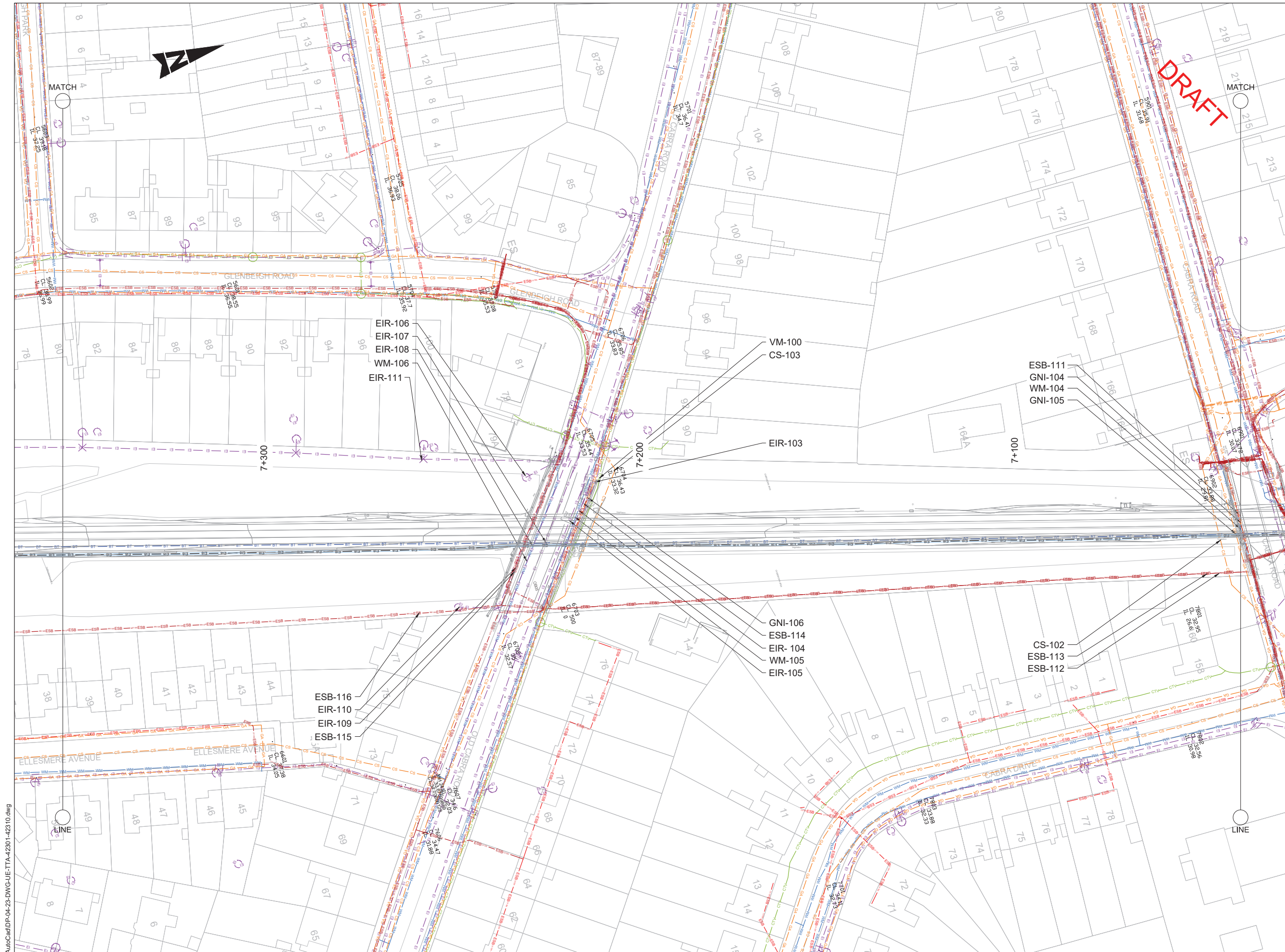


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v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
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v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client Irish Rail		Engineering Designer ATKINS		Project Title DART+ SOUTH WEST	
Date 30.09.20	Scale 1:500 @ A1 1:1000 @ A3	Drawn RG	Checked DB	Approved DM	Drawing Title PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 2
Project Code ---	Issuer ATK	QMS Code ---			Drawing File Name DP-04-23-DWG-UE-TTA-42302

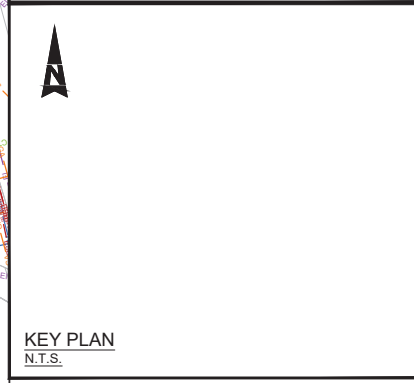
Version v05	Status S0
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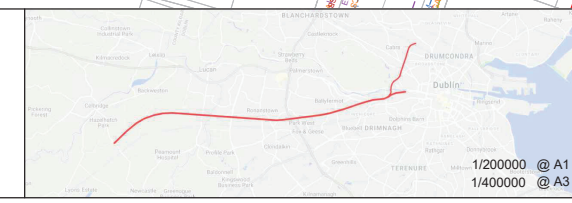
- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
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 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
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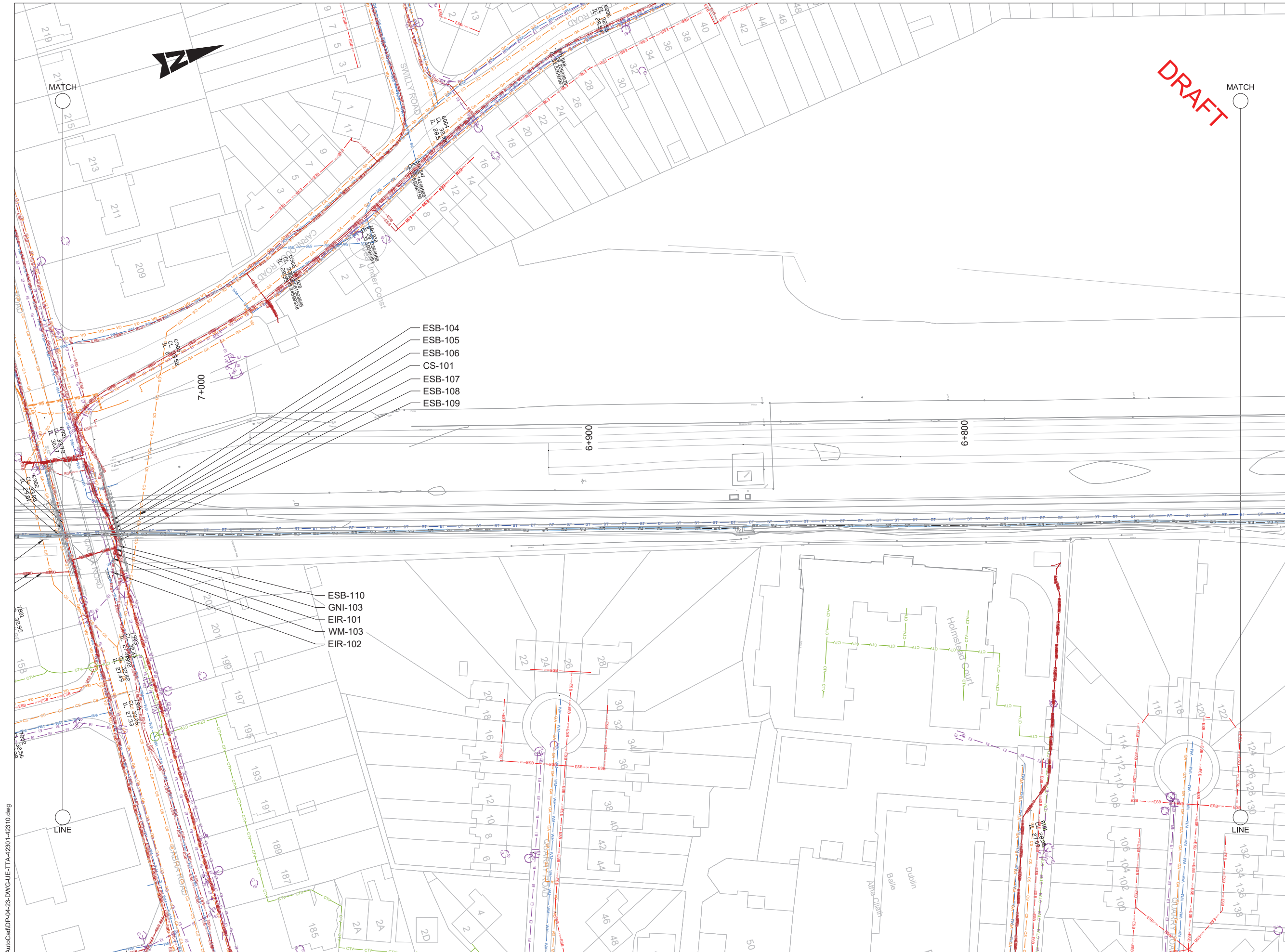
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v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client
Iarnród Éireann
 Date 30.09.20 Scale 1:500 @ A1
 Project Code --- Issuer ATK

Engineering Designer
ATKINS
 Supported by **RPS**
 Drawn RG Checked DB Approved DM

Project Title
DART+ SOUTH WEST
 Drawing Title
PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 3
 Drawing File Name DP-04-23-DWG-UE-TTA-42303 Version v05 Status S0

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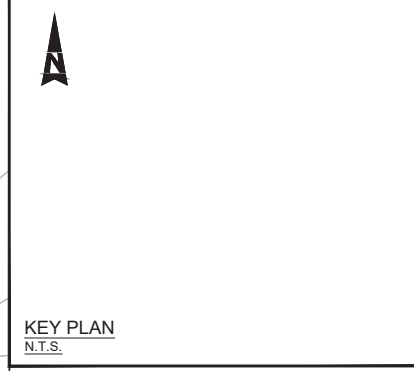


- LEGEND:**
- ESB LV UNDERGROUND
 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
 - EXISTING BGE ABANDONED PIPE
 - EXISTING COMBINED SEWER
 - EXISTING SURFACE WATER SEWER
 - EXISTING WATER MAIN
 - EXISTING NTL / UPC / VIRGIN
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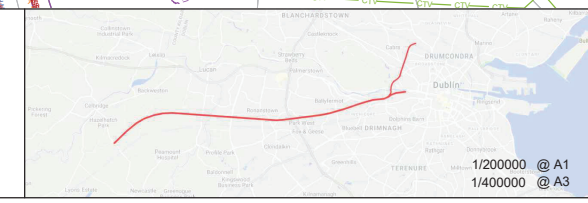
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ESB-105
ESB-106
CS-101
ESB-107
ESB-108
ESB-109

ESB-110
GNI-103
EIR-101
WM-103
EIR-102



- LEGEND:**
- IE TROUGHING-AT GRADE
 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
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Client: **Iarnród Éireann Irish Rail**

Engineering Designer: **ATKINS** (Member of the SNC-Lavalin Group)

Supported by: **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: --- | Issuer: ATK

QMS Code: ---

Drawn: RG | Checked: DB | Approved: DM

Project Title: **DART+ SOUTH WEST**

Drawing Title: **PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 4**

Drawing File Name: DP-04-23-DWG-UE-TTA-42304

Version: v05 | Status: S0

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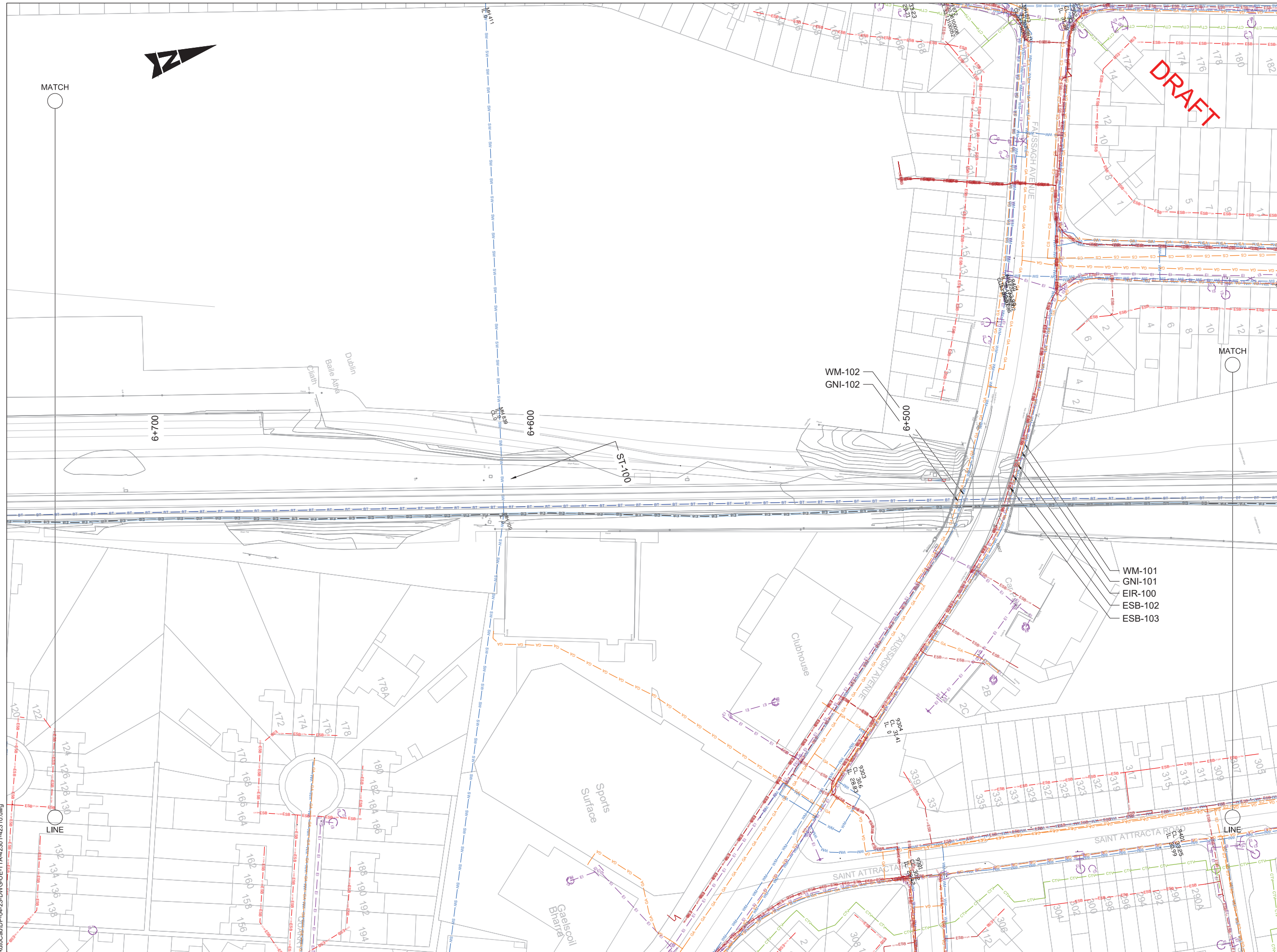
MATCH

DRAFT

- LEGEND:**
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 - ESB LV OVERHEAD
 - ESB MV UNDERGROUND
 - ESB MV OVERHEAD
 - ESB 38kV UNDERGROUND
 - ESB 38kV OVERHEAD
 - ESB 110kV UNDERGROUND
 - ESB 110kV OVERHEAD
 - ESB 220kV UNDERGROUND
 - ESB 220kV OVERHEAD
 - ESB 400kV UNDERGROUND
 - ESB 400kV OVERHEAD EXISTING EIR
 - EXISTING EIR
 - EXISTING BGE DISTRIBUTION PIPE
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- KEY PLAN**
N.T.S.
- LEGEND:**
- IE TROUGHING-AT GRADE
 - IE TROUGHING-ABOVE GROUND
 - IE TROUGHING-UNDERGROUND
 - IE MANHOLES
 - IE WATER MAIN
 - IE OVERHEAD WIRES
 - IE ELECTRICAL CHAMBER
 - IE ELECTRICAL NETWORK
 - IE ESAT
 - IE COMMS
 - IE SIGNALS
 - IE KRP
 - IE UNKNOWN
 - IE SMART TEL
 - IE GAS MAIN
 - IE TELECOM ABOVE GROUND
 - IE AGS & DCC DUCTS

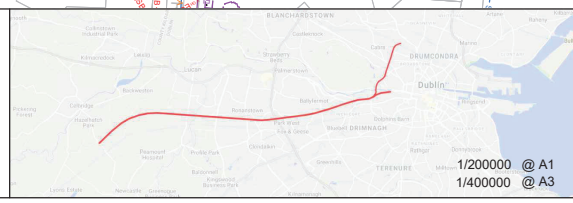


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Rev	Date	Dm	Chkd	App'd	Description
v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client
Irish Rail
Iarnród Éireann

Engineering Designer
ATKINS
TYPSA
Member of the SNC-Lavalin Group
Supported by:
rps

Date	Scale	Drawn	Checked	Approved
30.09.20	1:500 @ A1 1:1000 @ A3	RG	DB	DM
Project Code	Issuer	QMS Code		
---	ATK	---		

Project Title
DART+ SOUTH WEST

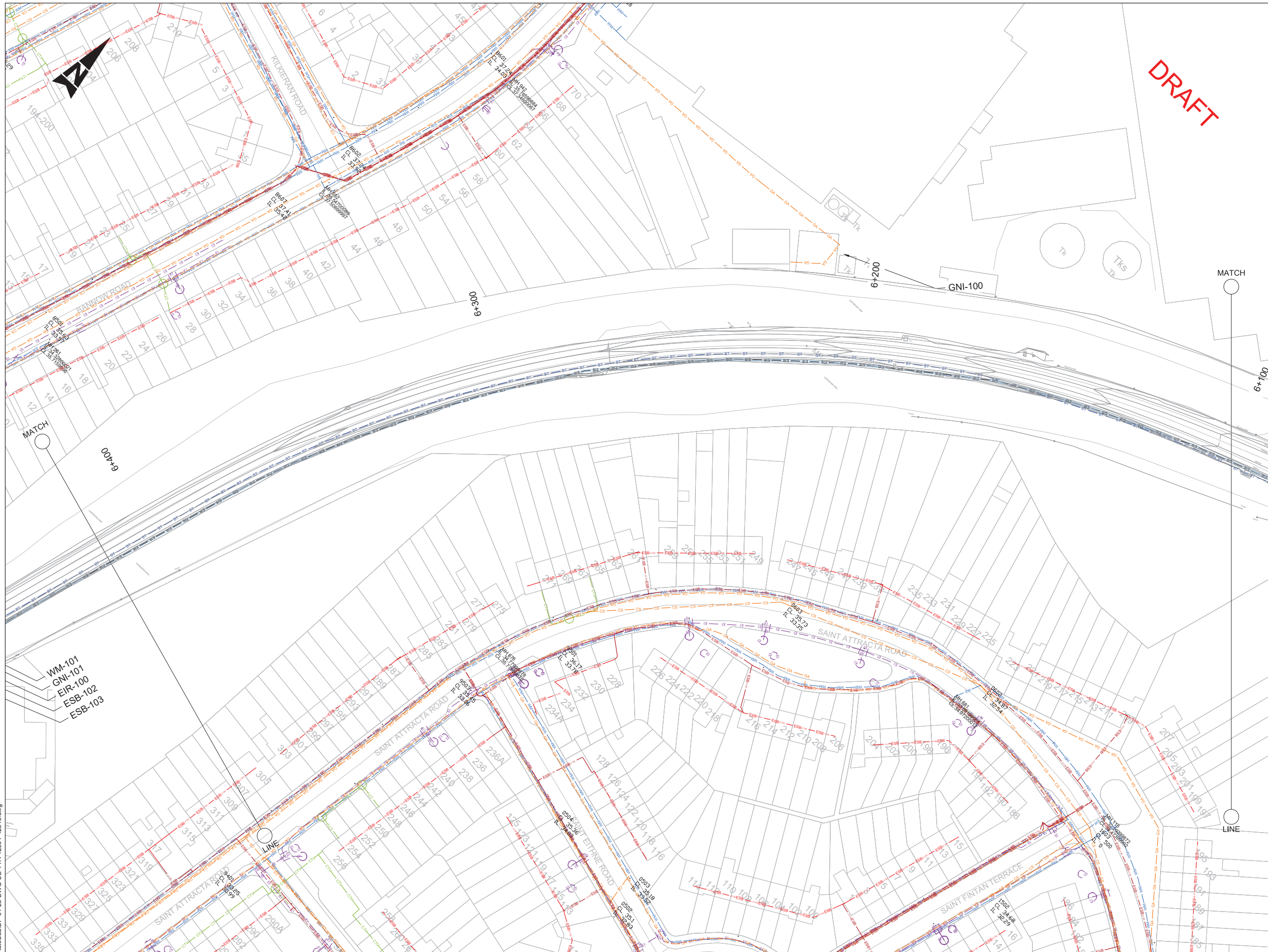
Drawing Title
PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 5

Drawing File Name
DP-04-23-DWG-UE-TTA-42305

Version
v05

Status
S0

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



DRAFT

LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

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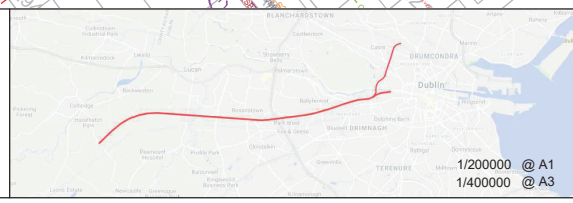


KEY PLAN
N.T.S.

LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
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v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

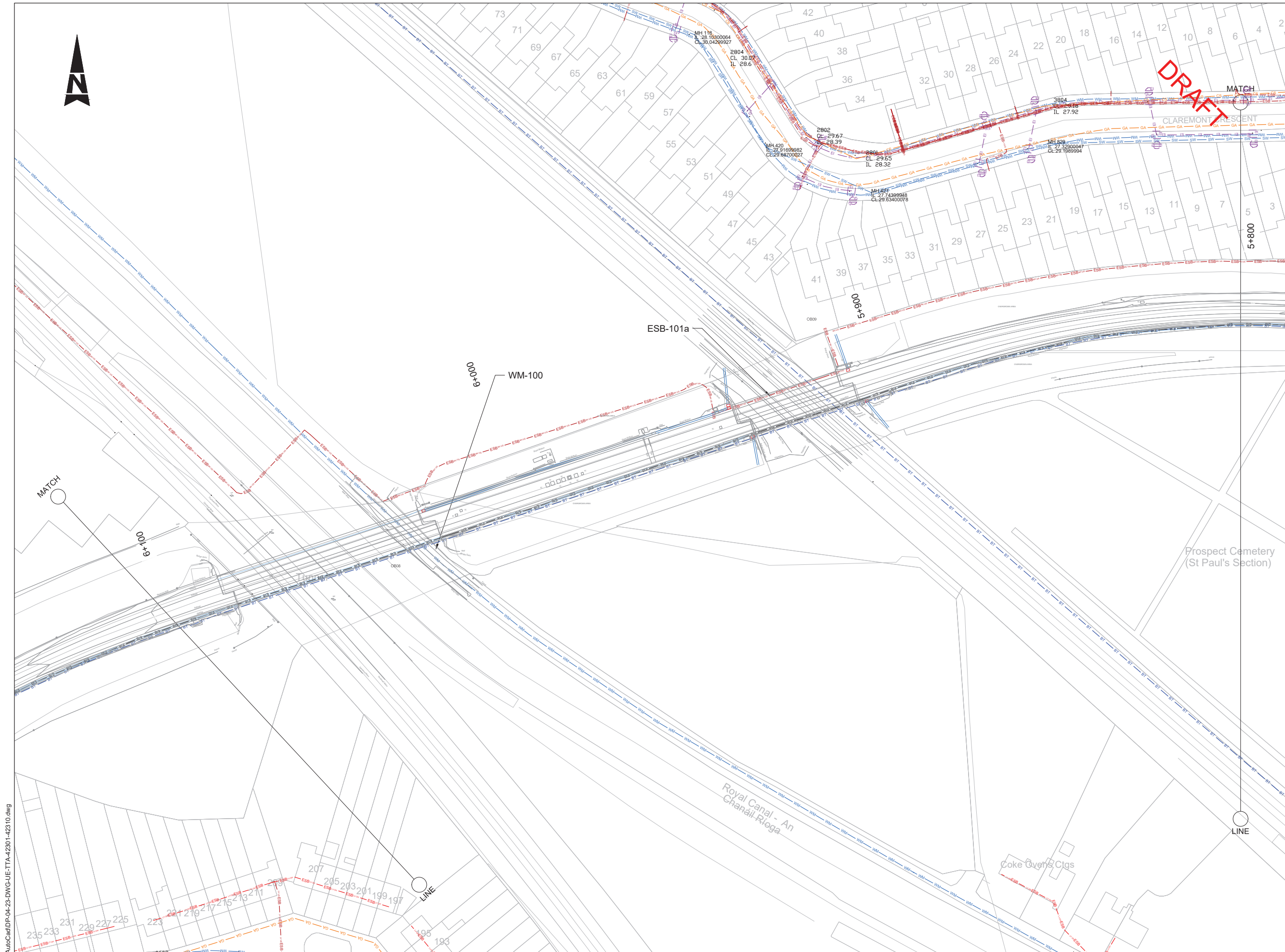
Client
Iarnród Éireann
 Irish Rail

Engineering Designer
ATKINS
 Member of the SNC Lavalin Group
 Supported by: **RPS**

Project Title		DART+ SOUTH WEST	
Drawing Title		PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 6	
Date	Scale	Drawn	Checked
30.09.20	1:500 @ A1 1:1000 @ A3	RG	DB
Project Code	Issuer	Approved	DM
---	ATK	---	---
Drawing File Name		Version	Status
DP-04-23-DWG-UE-TTA-42306		v05	S0

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38KV UNDERGROUND
- ESB 38KV OVERHEAD
- ESB 110KV UNDERGROUND
- ESB 110KV OVERHEAD
- ESB 220KV UNDERGROUND
- ESB 220KV OVERHEAD
- ESB 400KV UNDERGROUND
- ESB 400KV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

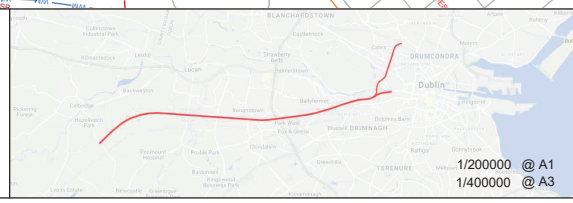
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KEY PLAN
N.T.S.

LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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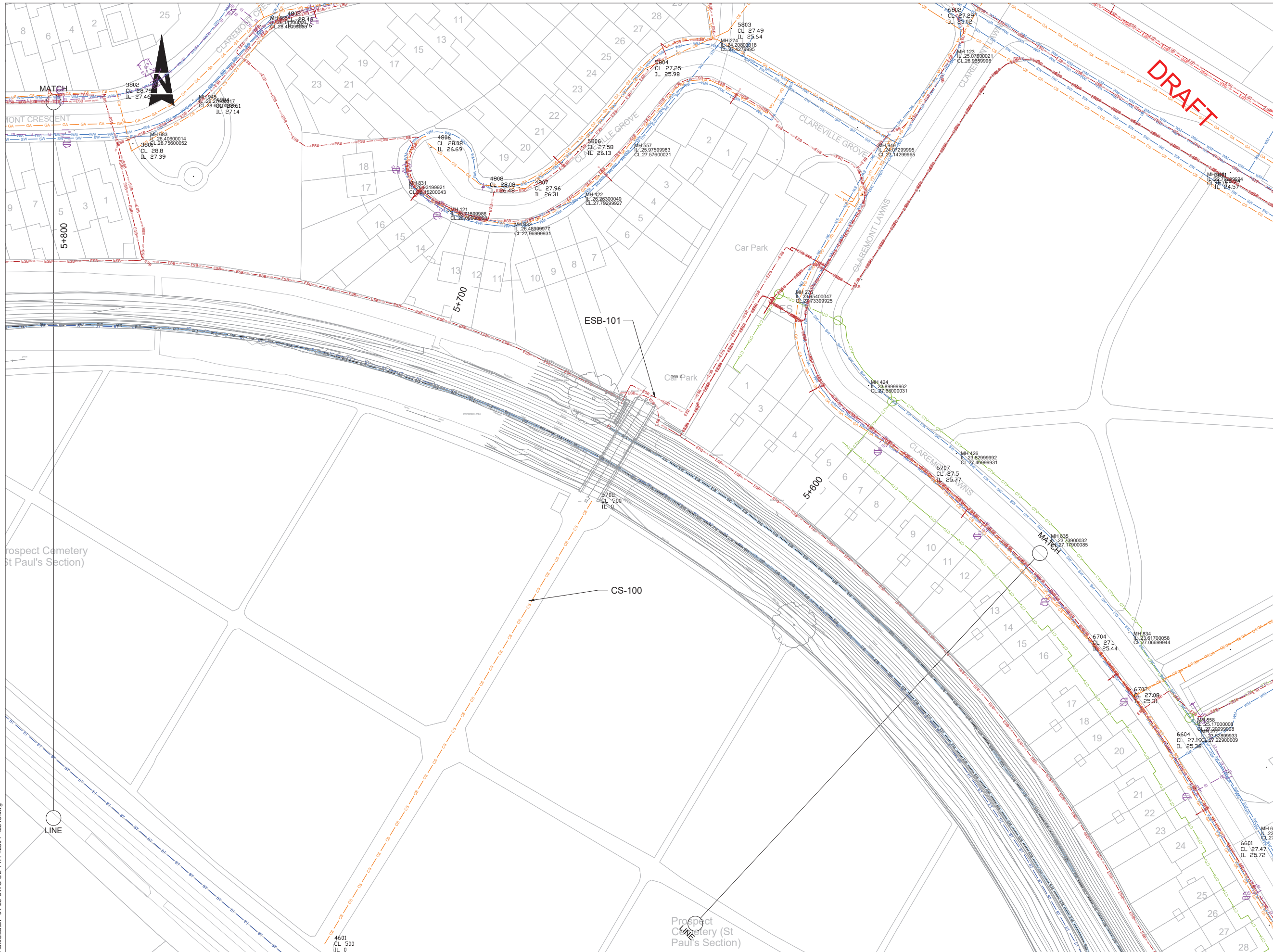
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v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client Iarnród Éireann Irish Rail		Engineering Designer ATKINS Supported by: rps	
Date 30.09.20	Scale 1:500 @ A1 1:1000 @ A3	Drawn RG	Checked DB
Project Code ---	Issuer ATK	Approved DM	QMS Code ---

Project Title DART+ SOUTH WEST		Drawing Title PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 7	
Drawing File Name DP-04-23-DWG-UE-TTA-42307	Version v05	Status S0	

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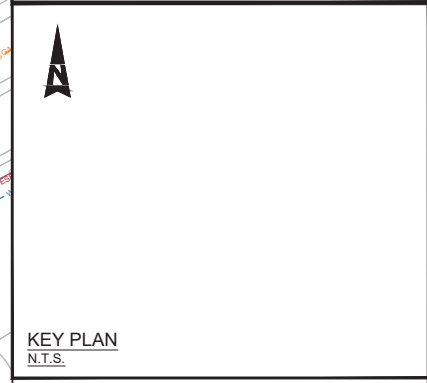


LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
- EXISTING NTL / UPC / VIRGIN
- EXISTING BT
- EXISTING AURORA TELECOM

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LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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Rev	Date	Dm	Chk'd	App'd	Description
v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client: **Irish Rail** / **Iarnród Éireann**

Engineering Designer: **ATKINS** / **TYPSA** / **rps**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: --- | Issuer: ATK

QMS Code: ---

Drawn: RG | Checked: DB | Approved: DM

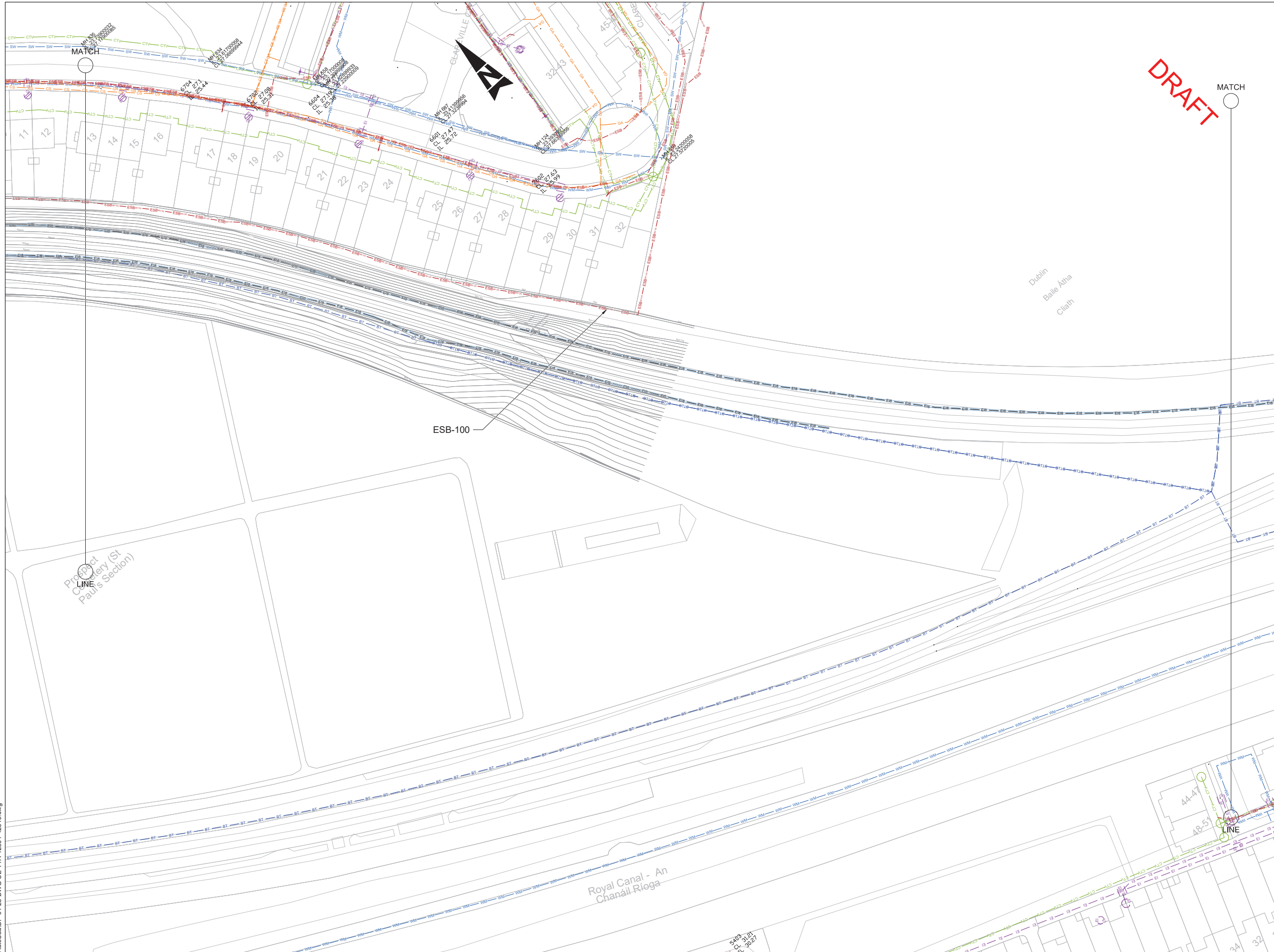
Project Title: **DART+ SOUTH WEST**

Drawing Title: **PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 8**

Drawing File Name: DP-04-23-DWG-UE-TTA-42308

Version: v05 | Status: S0

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DRAFT

LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING WATER MAIN
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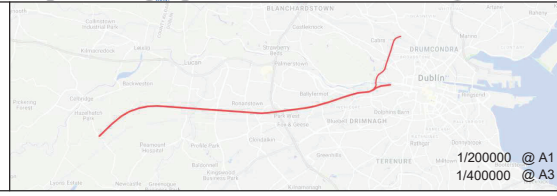


KEY PLAN
N.T.S.

LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
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- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client
Iarnród Éireann
 Supported by:
ATKINS
TPSA
RPS

Engineering Designer

Drawn	Checked	Approved
RG	DB	DM

Date: 30.09.20
 Scale: 1:500 @ A1, 1:1000 @ A3
 Project Code: ---
 Issuer: ATK

Project Title
DART+ SOUTH WEST

Drawing Title
PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 9

Drawing File Name: DP-04-23-DWG-UE-TTA-42309
 Version: v05
 Status: S0

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LEGEND:

- ESB LV UNDERGROUND
- ESB LV OVERHEAD
- ESB MV UNDERGROUND
- ESB MV OVERHEAD
- ESB 38kV UNDERGROUND
- ESB 38kV OVERHEAD
- ESB 110kV UNDERGROUND
- ESB 110kV OVERHEAD
- ESB 220kV UNDERGROUND
- ESB 220kV OVERHEAD
- ESB 400kV UNDERGROUND
- ESB 400kV OVERHEAD EXISTING EIR
- EXISTING EIR
- EXISTING BGE DISTRIBUTION PIPE
- EXISTING BGE ABANDONED PIPE
- EXISTING COMBINED SEWER
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8. IRISH WATER GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND NETWORK AS A GENERAL GUIDE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST AVAILABLE INFORMATION PROVIDED BY EACH LOCAL AUTHORITY IN IRELAND. IT SHOULD NOT BE RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS BEING CARRIED OUT IN THE VICINITY OF THE NETWORK. THE ONUS IS ON THE PARTIES CARRYING OUT THE WORKS TO ENSURE THE EXACT LOCATION OF THE NETWORK IS IDENTIFIED PRIOR TO MECHANICAL WORKS BEING CARRIED OUT. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED. © IRISH WATER

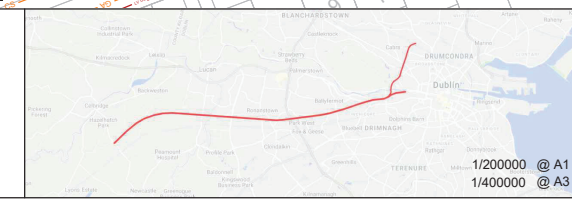


KEY PLAN
N.T.S.

LEGEND:

- IE TROUGHING-AT GRADE
- IE TROUGHING-ABOVE GROUND
- IE TROUGHING-UNDERGROUND
- IE MANHOLES
- IE WATER MAIN
- IE OVERHEAD WIRES
- IE ELECTRICAL CHAMBER
- IE ELECTRICAL NETWORK
- IE ESAT
- IE COMMS
- IE SIGNALS
- IE KRP
- IE UNKNOWN
- IE SMART TEL
- IE GAS MAIN
- IE TELECOM ABOVE GROUND
- IE AGS & DCC DUCTS

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 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).



Rev	Date	Dm	Chkd	App'd	Description
v05	13.10.21	RG	DB	DM	SURVEY INFO ADDED
v04	18.03.21	AK	DM	DM	ISSUED FOR INFORMATION
v03	11.02.21	RG	DM	DM	ESB RECORDS UPDATED
v02	22.01.21	AK	DM	DM	ISSUED FOR INFORMATION
v01	30.09.20	RG	DB	DM	ISSUED FOR INFORMATION

Client: **Iarnród Éireann Irish Rail**

Date: 30.09.20 | Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: --- | Issuer: ATK

Engineering Designer: **ATKINS** (Member of the SNC-Lavalin Group)

Supported by: **rps**

Drawn: RG | Checked: DB | Approved: DM

Project Title: **DART+ SOUTH WEST**

Drawing Title: **PHOENIX PARK TUNNEL TO GLASNEVIN EXISTING UTILITIES SHEET 10**

Drawing File Name: DP-04-23-DWG-UE-TTA-42310 | Version: v05 | Status: S0

DO NOT SCALE USE FIGURED DIMENSIONS ONLY