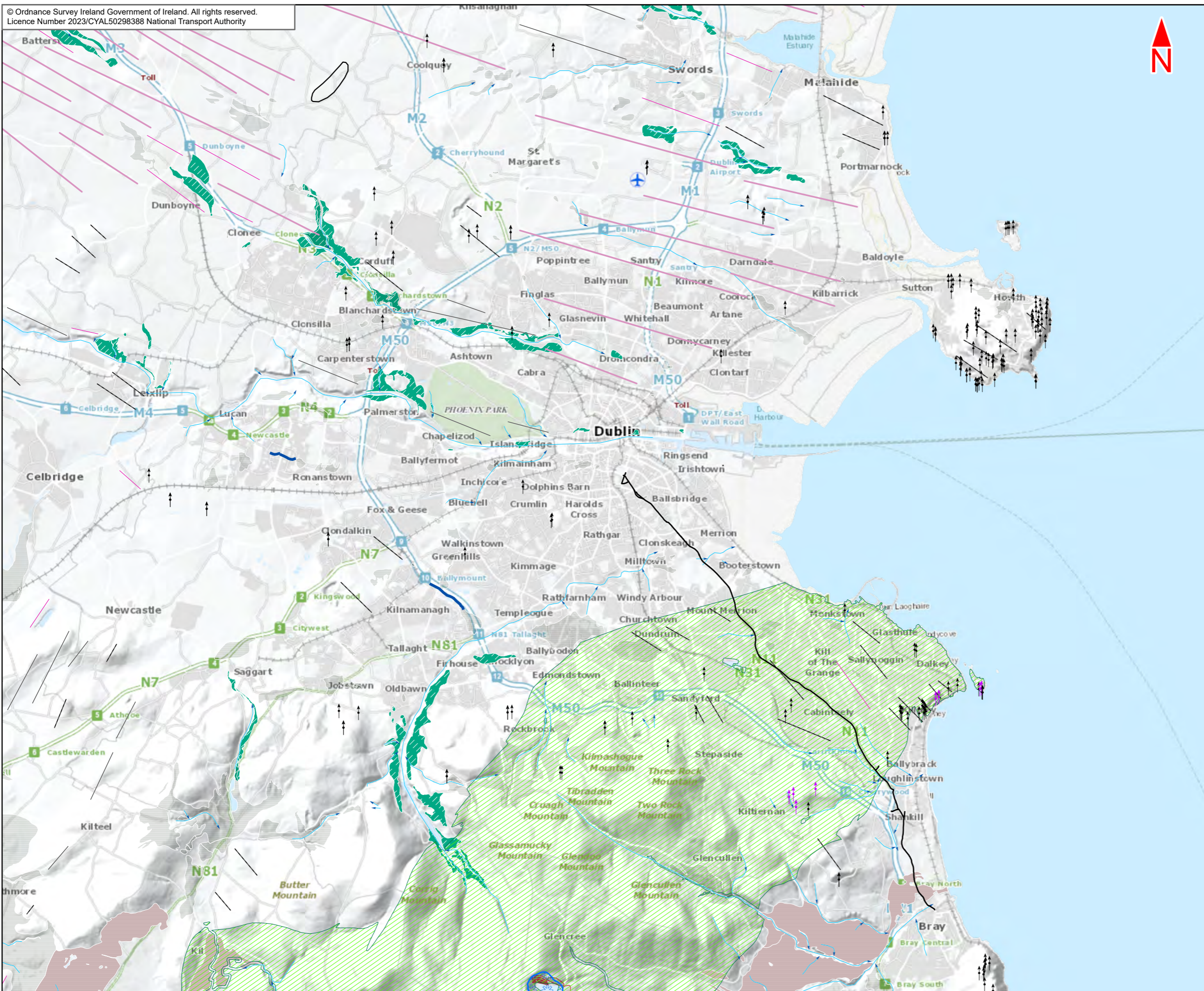


The background is a vibrant yellow. It features several abstract, organic shapes in shades of blue and green. These shapes are interconnected and layered, creating a sense of depth and movement. Interspersed among these shapes are several white circles of varying sizes, some of which are partially enclosed by the blue and green forms. The overall aesthetic is modern and graphic.

# 14.1 Regional Geomorphology



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - Landform**
  - ↑ Striae
  - ↑ Roche Moutonnee
  - LANDFORM**
  - Crag-and-Tail
  - Drumlin
  - Mega scale glacial lineation
  - Streamlined Bedrock
  - LANDFORM**
  - Esker ridge
  - Meltwater channel
  - Description**
  - Composite Thrust Block Moraine
  - Landform**
  - Corries
  - Landform**
  - Indicator erratic source area
  - Deglacial Landforms**
  - Delta
  - Glaciofluvial Terrace
  - Hummocky Sand and Gravel
  - Moraine Ridge

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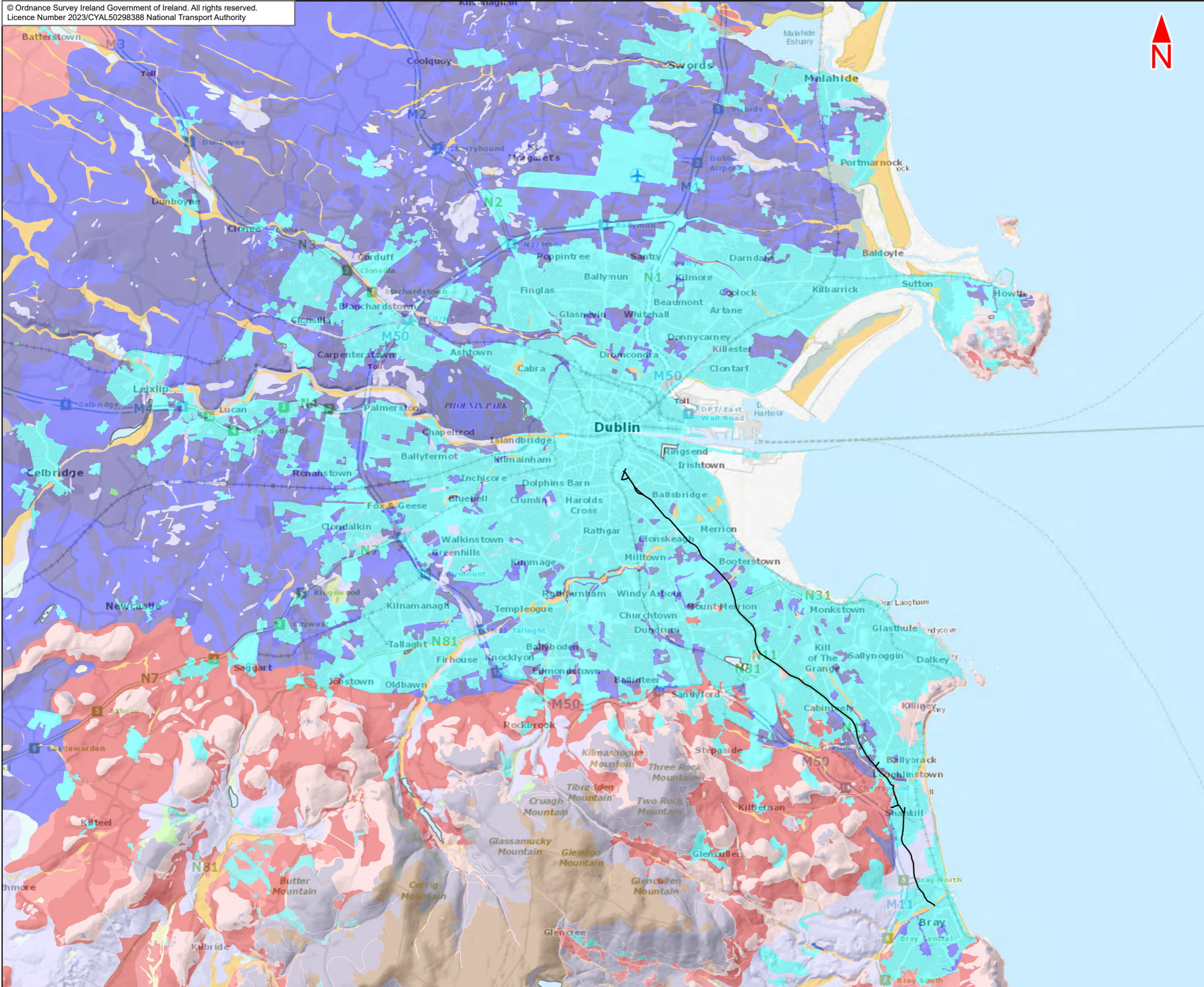
Client  
**NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant  
**JACOBS**  
**ARUP SYSTRA**

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Centre Core Bus Corridor Scheme Figure 14.1 Regional Geomorphology				
Date 08/05/2023	Scale @ A3 1:125 000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0001
Sheet Number 1 of 1		Status A	Rev M01	

# 14.2 Regional Soils





**Legend :**

Bray to City Centre Core Bus Corridor Scheme	BminPD - Surface water Gleys / Ground water Gleys Basic
<b>Teagasc Soils</b>	BminPDP - Peaty Gleys Basic Parent Materials Basic
AeOUND - Aeolian Undifferentiated	BminSP - Surface water Gleys / Ground water Gleys Shallow
AlluvMIN - Mineral alluvium	BminSPPT - Peaty Gleys Shallow
AminDW - Acid Brown Earths / Brown Podzolics	BminSRPT - Lithosols Peats
AminPD - Surface water Gleys / Ground water Gleys Acidic	BminSW - Renzinas / Lithosols
AminPDP - Peaty Gleys Acidic	Cut - Raised Bog cutaway/cutover
AminSP - Surface water Gleys / Ground water Gleys Shallow	FenPT - Fen peat
AminSRPT - Podzols Peaty	Lac
AminSW - Lithosols / Regosols	Made
BkIPT - Blanket peat	MarSands
BminDW - Grey Brown Podzolics / Brown Earths Basic	MarSed
	Scree
	Water

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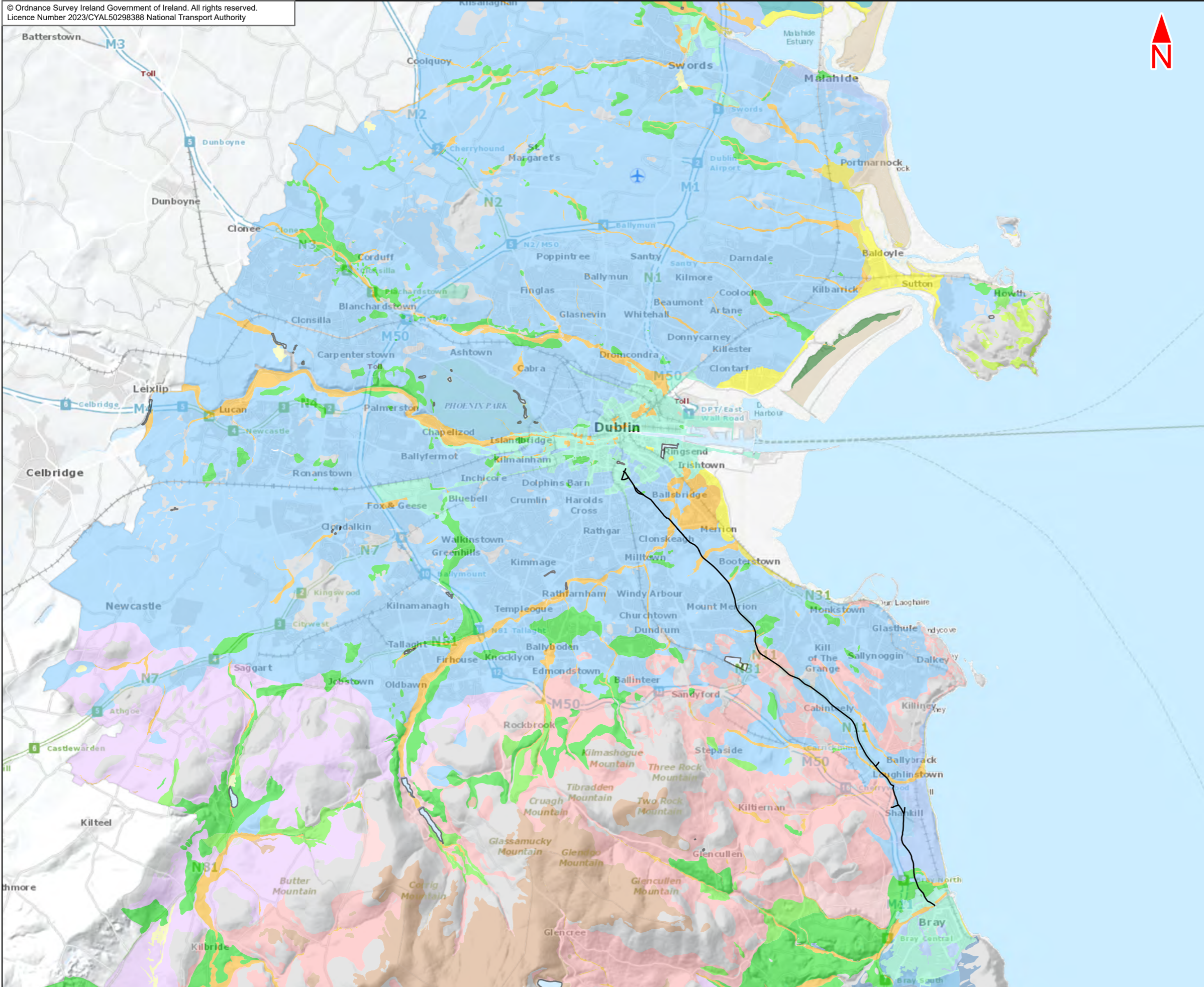
Client  
**NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant  
**JACOBS**  
**ARUP SYSTRA**

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Centre Core Bus Corridor Scheme Figure 14.2 Regional Soils				
Date 08/05/2023	Scale @ A3 1:125 000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0002
Sheet Number 1 of 1	Status A	Rev M01		

# 14.3 Regional Subsoils





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - Quaternary Sediments - 1:50,000**
  - A, Alluvium
  - Ag, Alluvium (gravelly)
  - As, Alluvium (sandy)
  - Asi, Alluvium (silty)
  - BktPt, Blanket Peat
  - Cut, Cut over raised peat
  - GCh, Gravels derived from chert
  - GLs, Gravels derived from Limestones
  - GMP, Gravels derived from Metamorphic rocks
  - GGr, Gravels derived from granite
  - Rck, Bedrock outcrop or subcrop
  - Scree, Scree
  - L, Lacustrine sediments
  - Lsi, Lacustrine silts
  - Mbs, Marine beach sands
  - Mesc, Estuarine silts and clays
  - TdIMr, Tidal Marsh
  - IrSTCSs, Irish Sea Till derived from Cambrian sandstones and shales
  - IrSTLPSs, Irish Sea Till derived from Lower Palaeozoic sandstones and shales
  - IrSTLs, Irish Sea Till derived from Limestones
  - TCSs, Till derived from Cambrian sandstones and shales
  - TGr, Till derived from granites
  - TLPsS, Till derived from Lower Palaeozoic sandstones and shales
  - TLs, Till derived from limestones
  - TMp, Till derived from Metamorphic rocks
  - TQz, Till derived from quartzites
  - Ws, Windblown sands
  - Wsd, Windblown sands and dunes
  - Dam
  - Embankment
  - Landfill
  - Urban
  - Water

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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

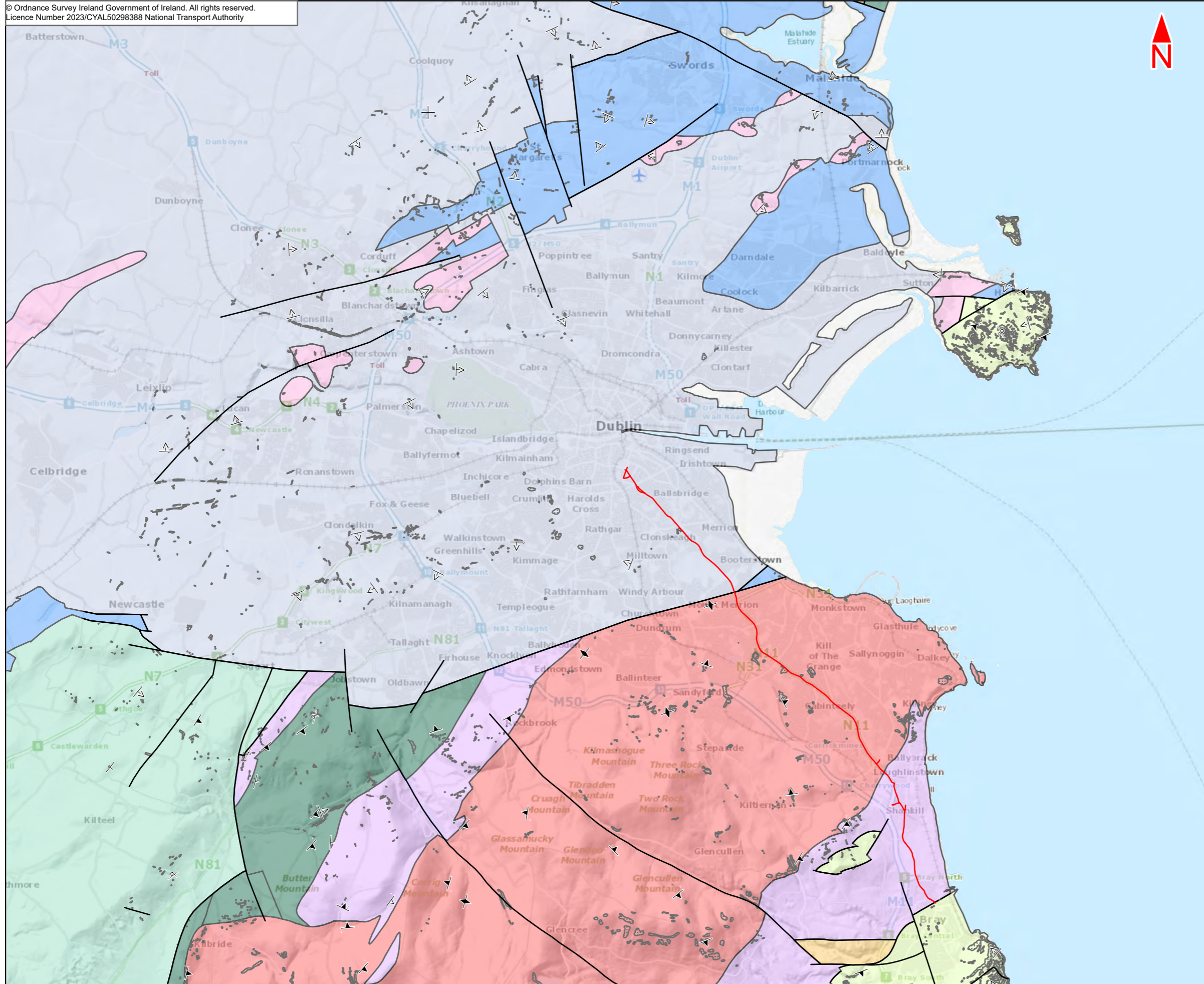
Date: 08/05/2023 | Scale @ A3: 1:125 000  
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Centre Core Bus Corridor Scheme Figure 14.3 Regional Subsoils</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0003	Sheet Number: 1 of 1	Status: A	Rev: M01

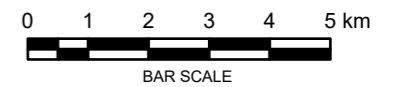
14.4  
Regional Bedrock





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - GSI Bedrock Geological Faults - 1:500,000
  - GSI Bedrock Structural Symbols - 1:100,000**
    - First foliation parallel to bedding
    - Horizontal Bedding
    - 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
    - Strike and dip of second foliation
    - Strike of vertical first foliation
  - GSI Bedrock Outcrop - 1:100,000**
    - GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:500,000**
    - Visean basinal limestone "Calp"
    - Waulsortian mudbank
    - Courceyan limestone
    - Up Dev-Lr Carb ORS
    - Caledonian granite
    - Silurian sandstone, g'wacke, shale
    - Mid-Up Ordovician basic volcanics
    - Lr-Mid Ordovician slate
    - Lr-Mid Ordovician acid volcanics
    - Lr-Mid Ordovician basic volcanics
    - Cambrian greywacke, sandst, qtzite

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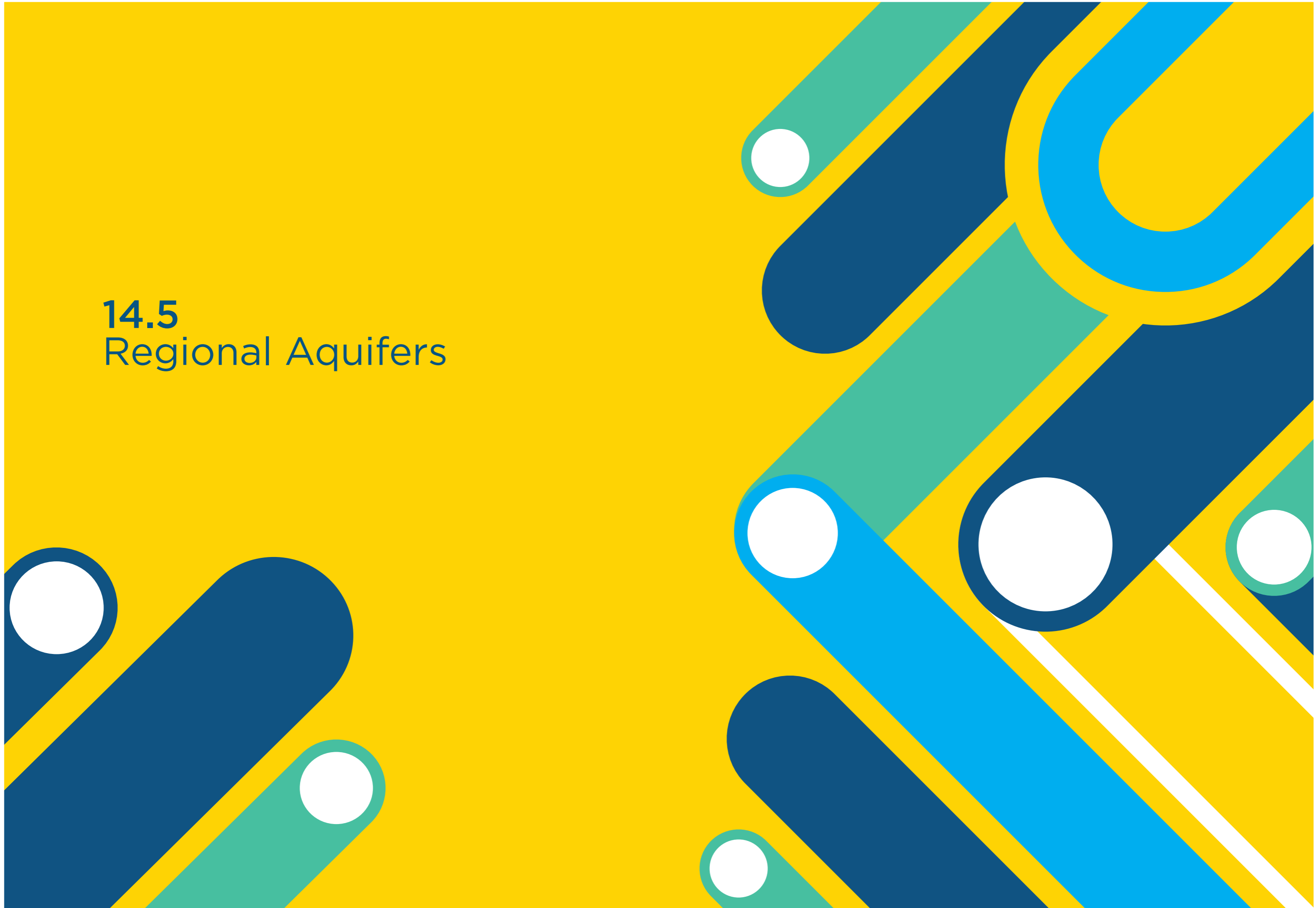
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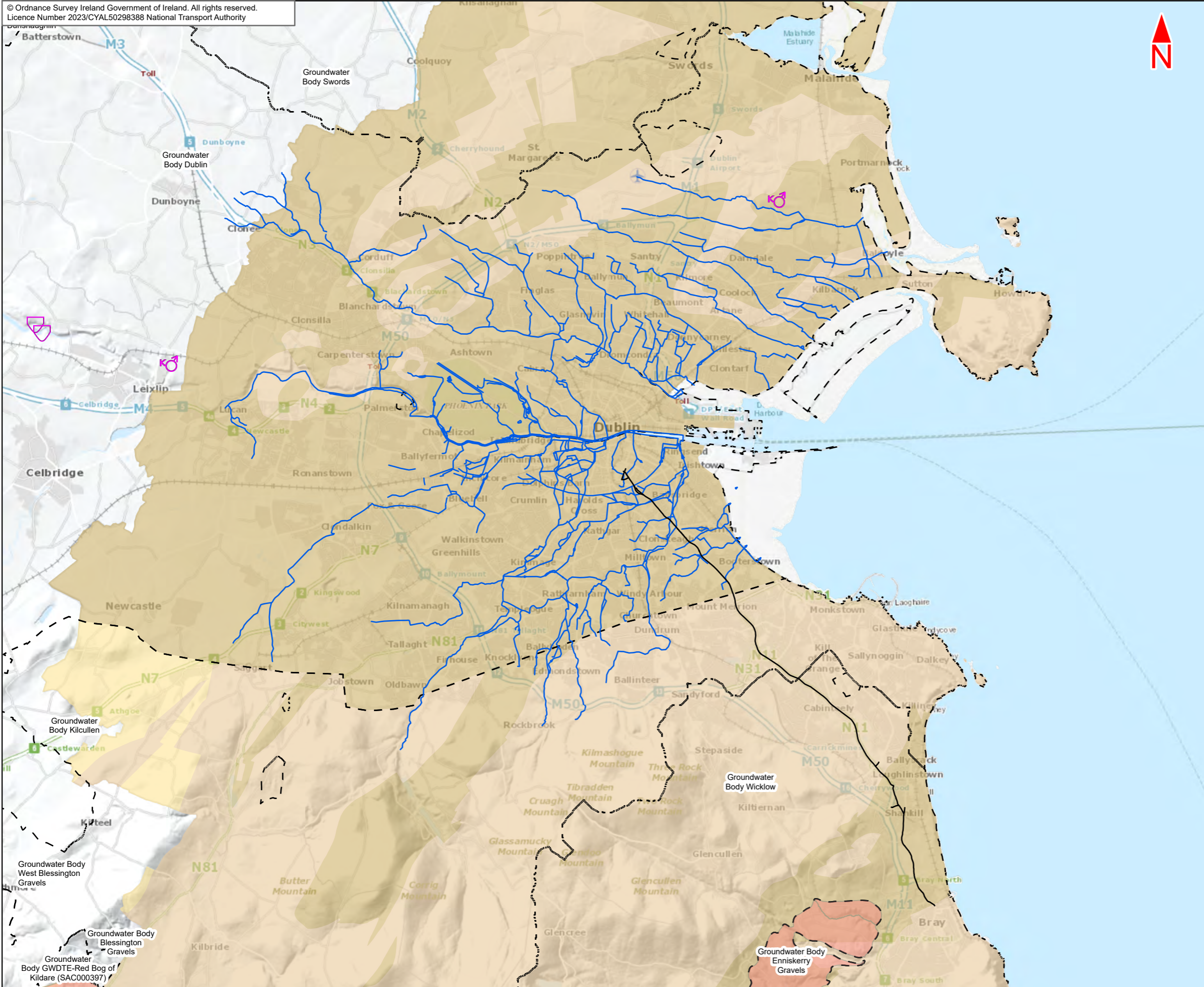
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS ARUP SYSTRA</b>		
Date 08/05/2023	Scale @ A3 1:125 000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Centre Core Bus Corridor Scheme Figure 14.4 Regional Bedrock				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0004	Sheet Number 1 of 1	Status A	Rev M01	



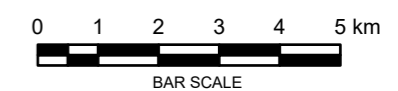
# 14.5 Regional Aquifers





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - Rivers Of Dublin
  - GSI Sand And Gravel Aquifers
  - Groundwater Bodies - Water Framework Directive
  - GSI Karst**
    - CAVE
    - SPRING
  - GSI Bedrock Aquifer**
    - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
    - Locally Important Aquifer - Bedrock which is Generally Moderately Productive (Lm)
    - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)
    - Poor Aquifer - Bedrock which is Generally Unproductive (Pu)

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 Building Ireland's Future

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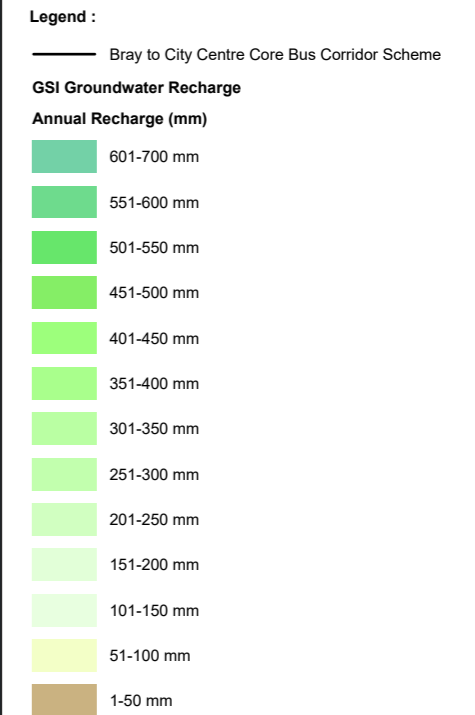
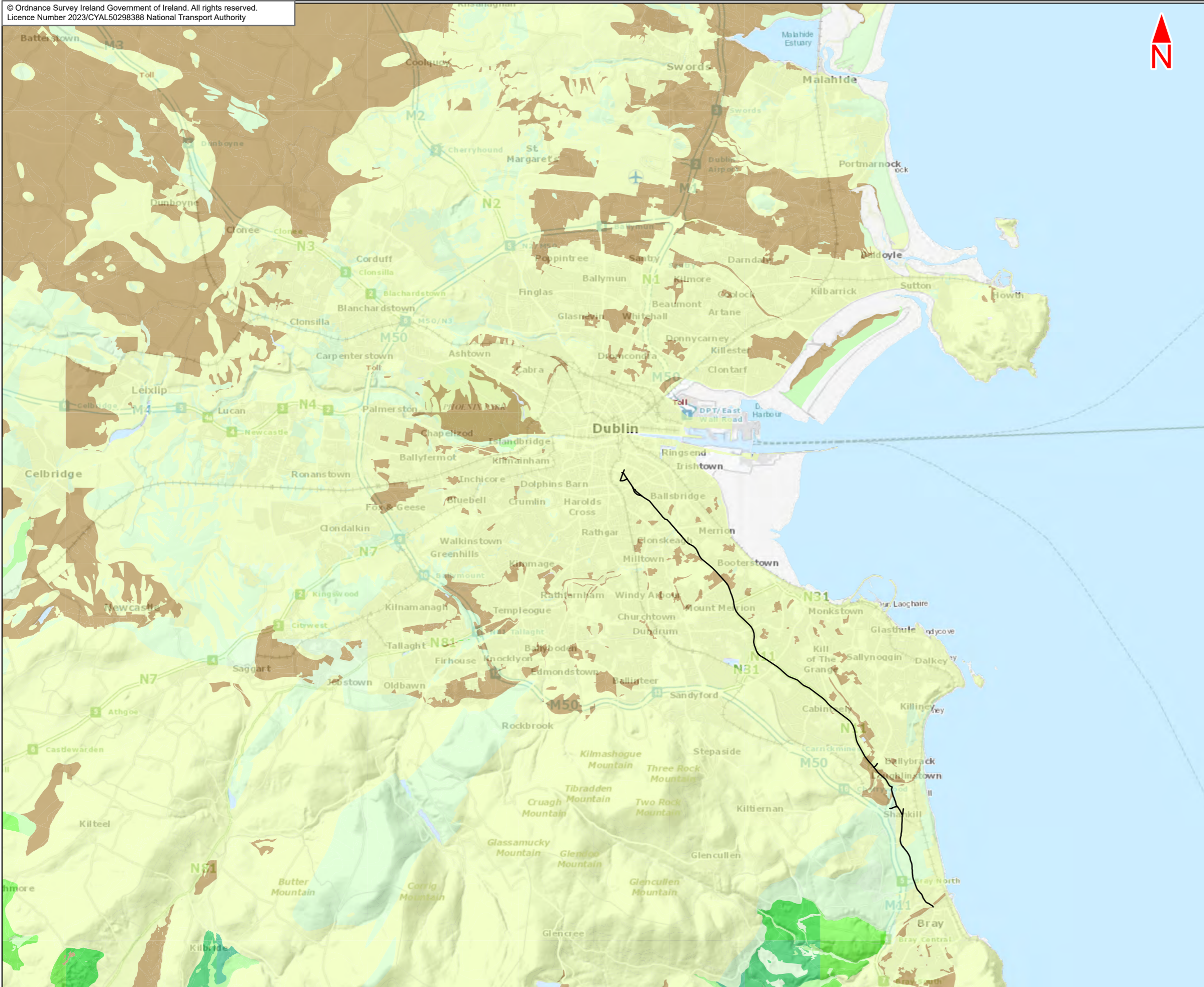
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 Project Code: BCIDE Originator Code: JAC

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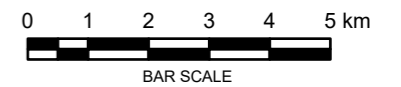
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Centre Core Bus Corridor Scheme Figure 14.5 Regional Aquifers</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0005	Sheet Number: 1 of 1	Status: A	Rev: M01

**14.6**  
Regional Groundwater  
Recharge





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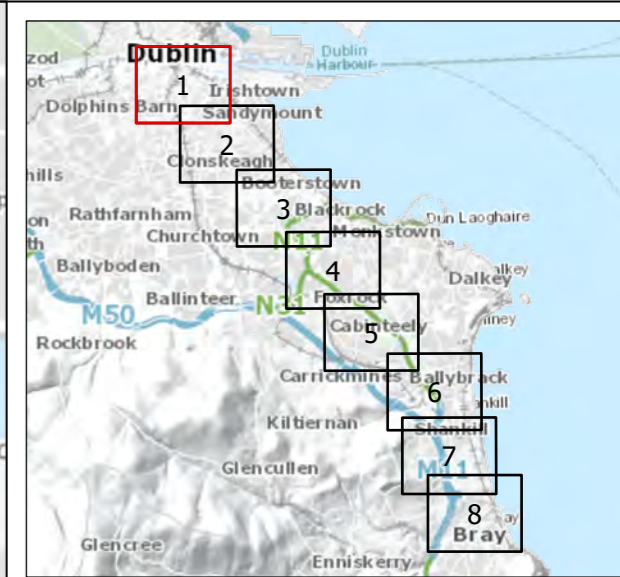
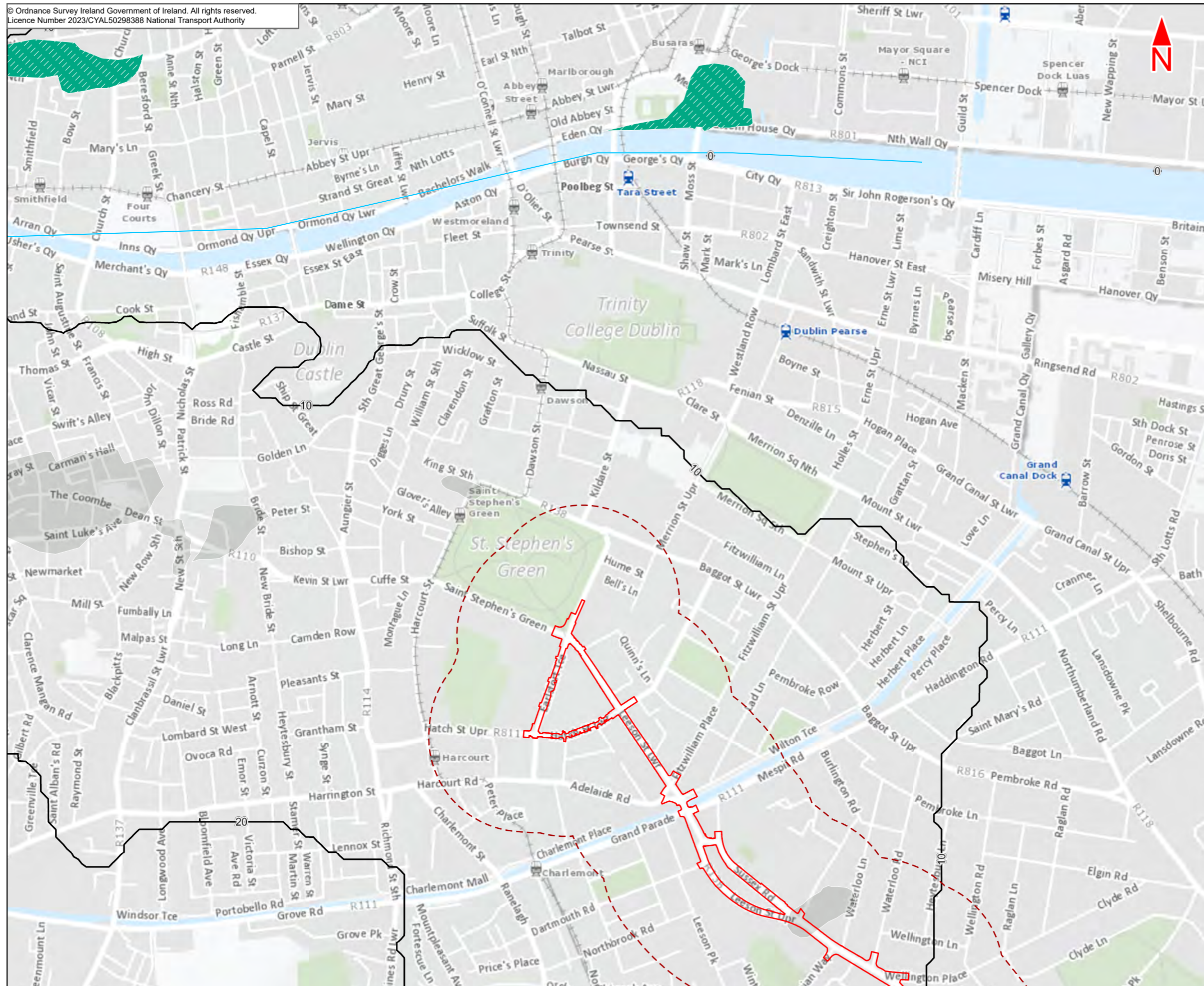
Date: 08/05/2023 Scale @ A3: 1:125 000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Centre Core Bus Corridor Scheme Figure 14.6 Regional Groundwater Recharge</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0006	Sheet Number: 1 of 1	Status: A	Rev: M01

14.7  
Topography and  
Geomorphology





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - EPA Contours
  - Meltwater Landforms**
  - LANDFORM**
  - Meltwater channel
  - Deglacial Landforms**
  - Landform**
  - Glaciofluvial Terrace
  - Hummocky Sand and Gravel

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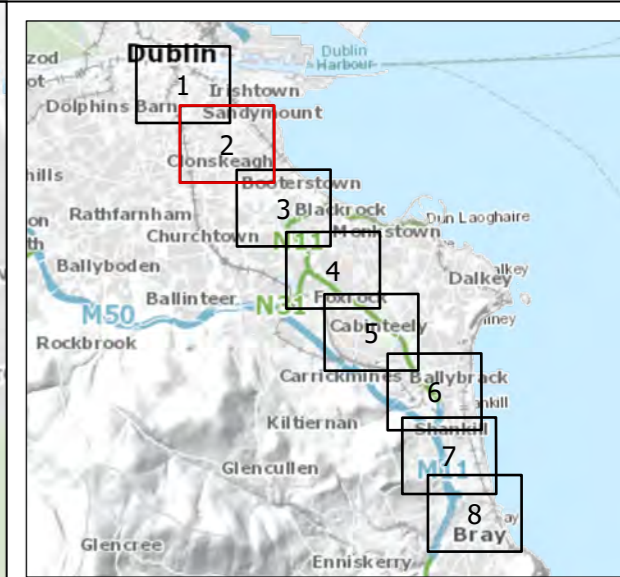
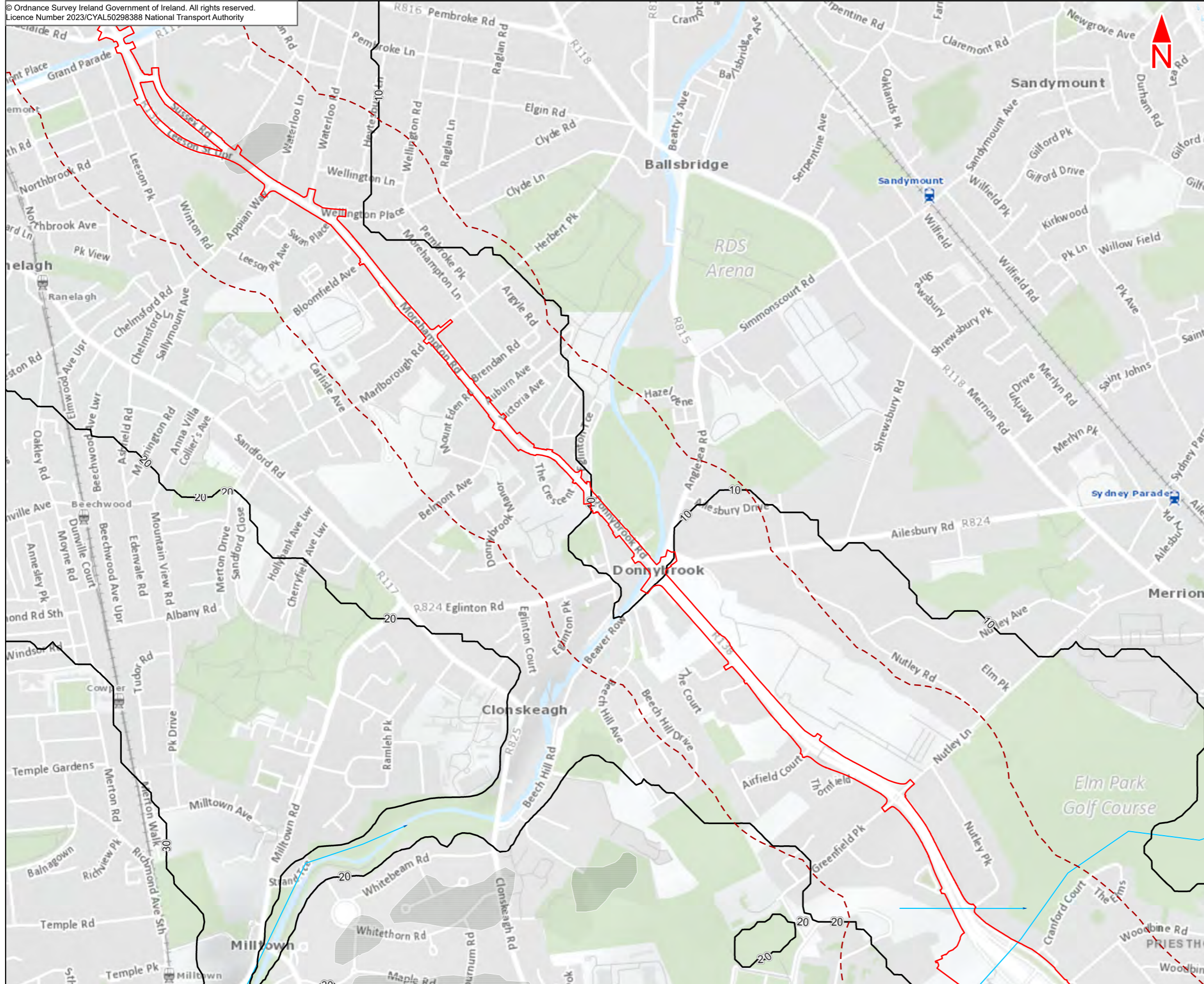
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

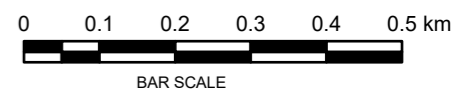
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 Project Code: BCIDE | Originator Code: JAC  
 Drawn: FG | Checked: PW | Approved: DK

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0101	Sheet Number: 1 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - EPA Contours
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Deglacial Landforms**
  - Landform
  - Hummocky Sand and Gravel

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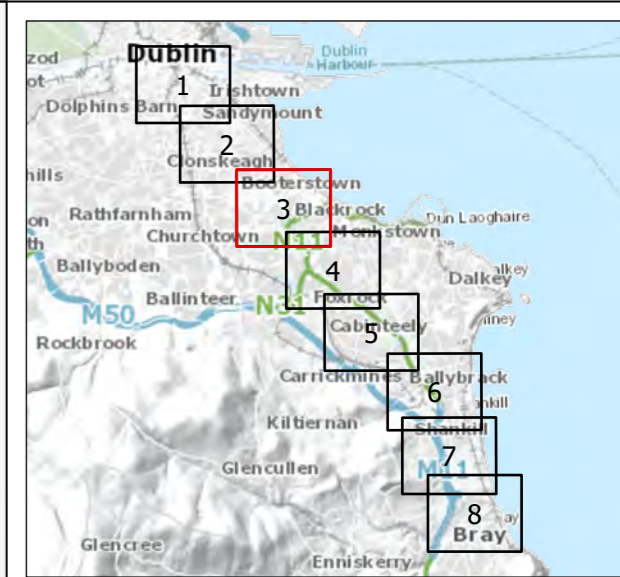
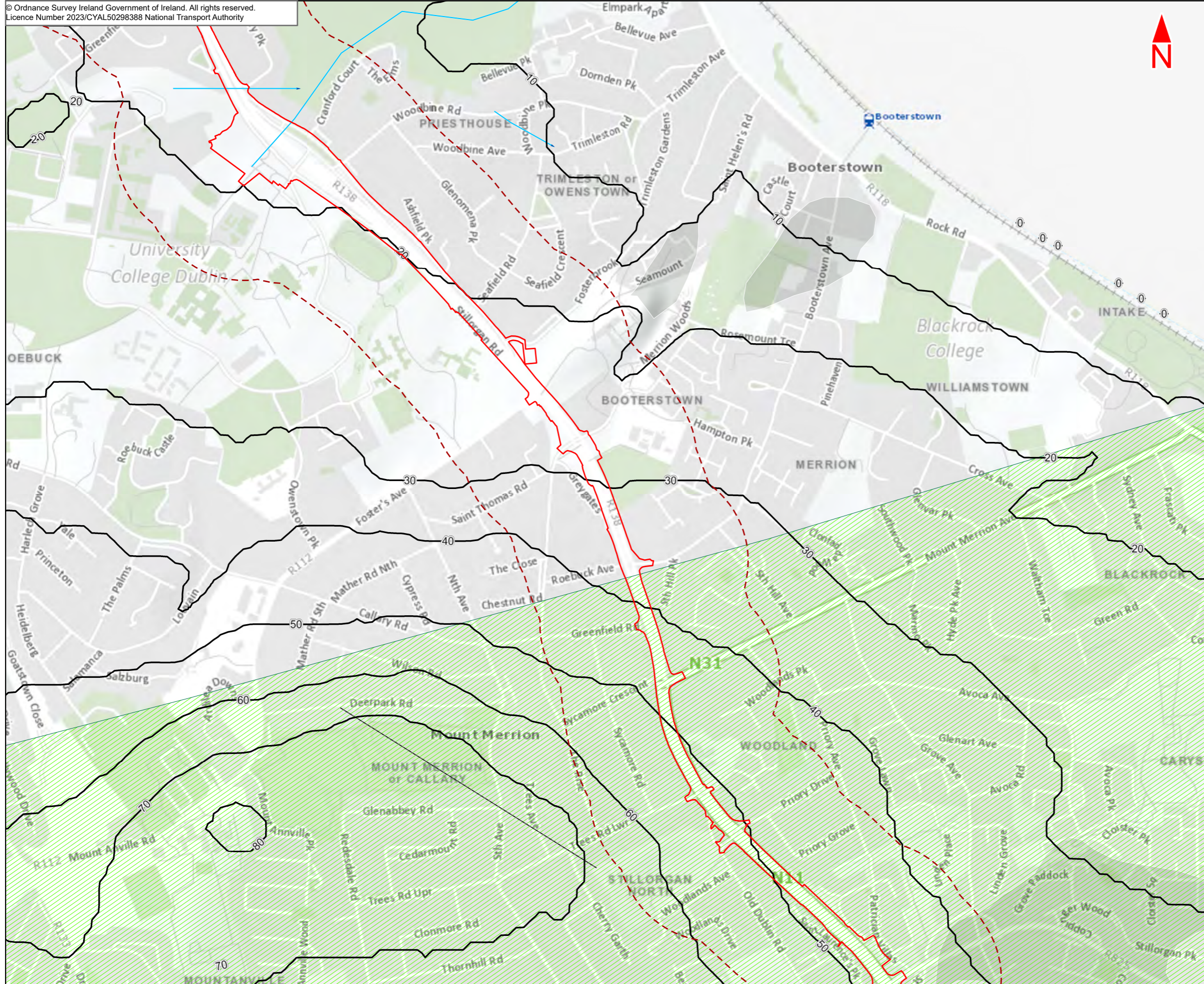
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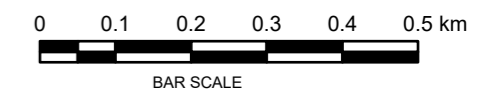
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 Project Code: BCIDE Originator Code: JAC  
 Drawn: FG Checked: PW Approved: DK

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0102	Sheet Number: 2 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - EPA Contours
  - Subglacial Lineation Landforms**
  - Streamlined Bedrock
  - Meltwater Landforms**
  - Meltwater channel
  - Erratic Carriage Source**
  - Indicator erratic source area
  - Deglacial Landforms**
  - Hummocky Sand and Gravel

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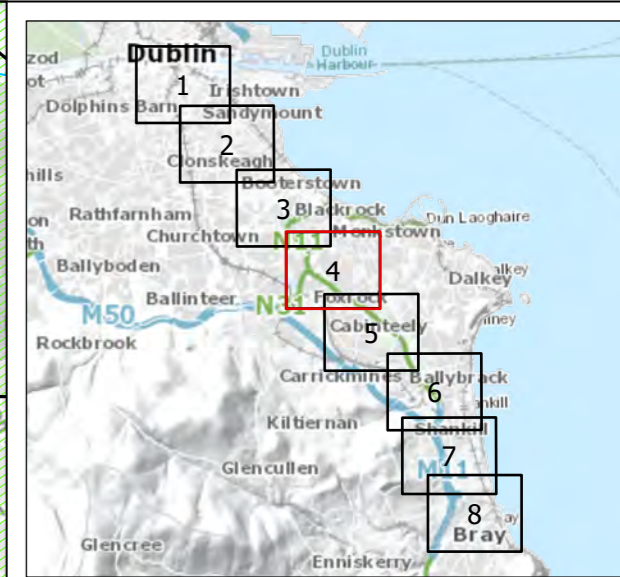
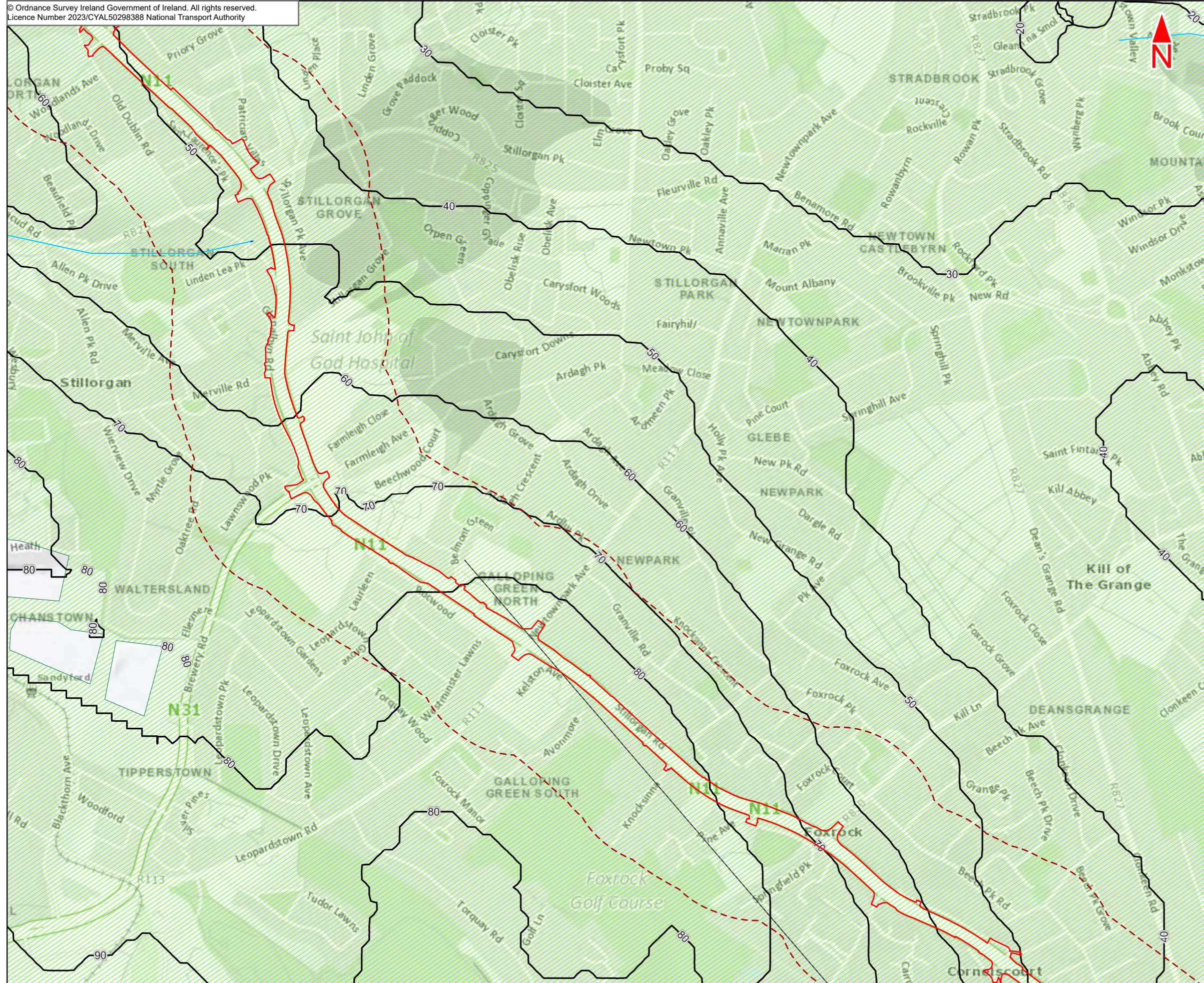
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Consultant  
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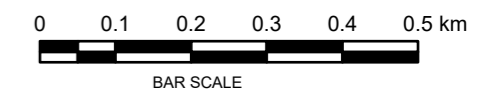
Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology				
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0103
Sheet Number 3 of 8		Status A	Rev M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - EPA Contours
  - Subglacial Lineation Landforms**
  - LANDFORM
  - Streamlined Bedrock
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Erratic Carriage Source**
  - Landform
  - Indicator erratic source area
  - Deglacial Landforms**
  - Landform
  - Hummocky Sand and Gravel

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**d.** Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.  
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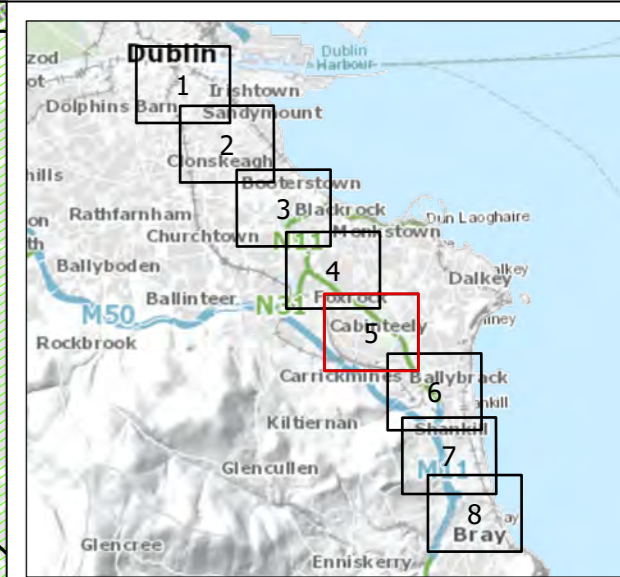
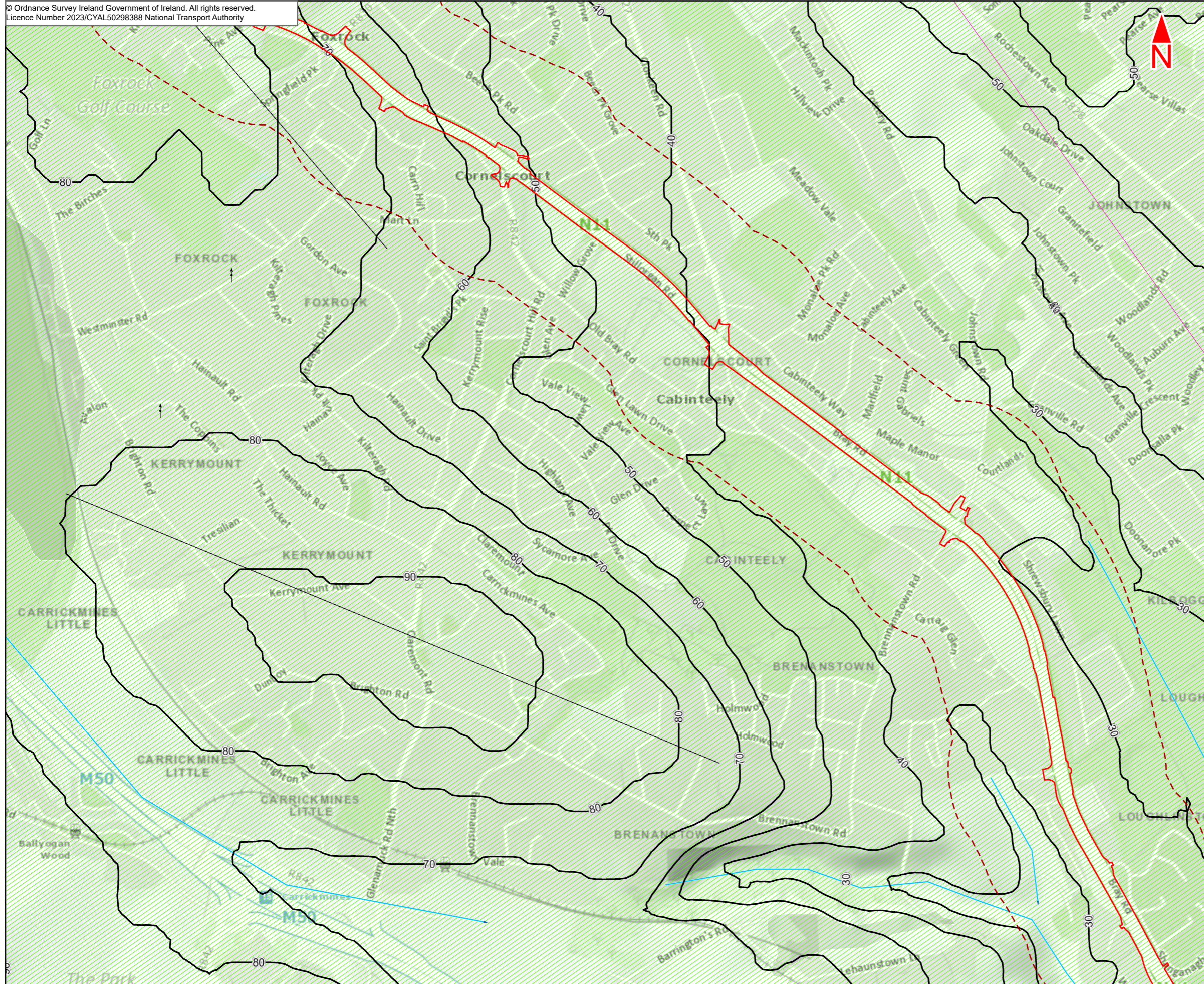
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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

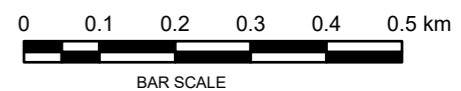
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 Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0104	Sheet Number: 4 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - EPA Contours
  - Subglacial Lineation Landforms**
  - Landform
  - ↑ Striae
  - Subglacial Lineation Landforms**
  - LANDFORM
  - Drumlin
  - Streamlined Bedrock
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Erratic Carriage Source**
  - Landform
  - Indicator erratic source area
  - Deglacial Landforms**
  - Landform
  - Hummocky Sand and Gravel

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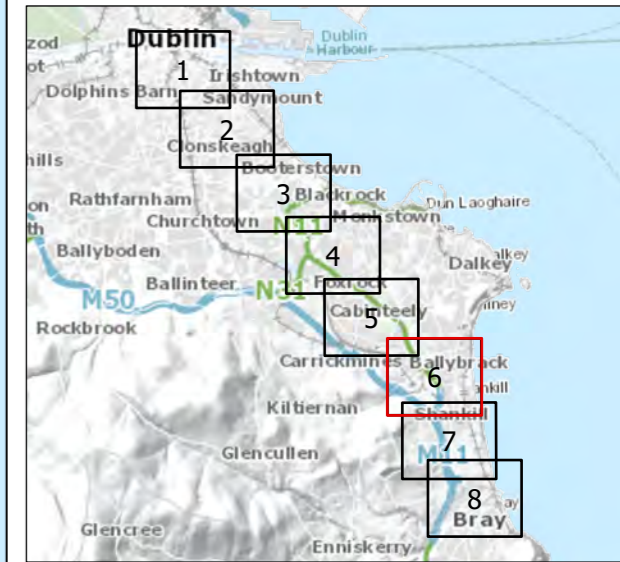
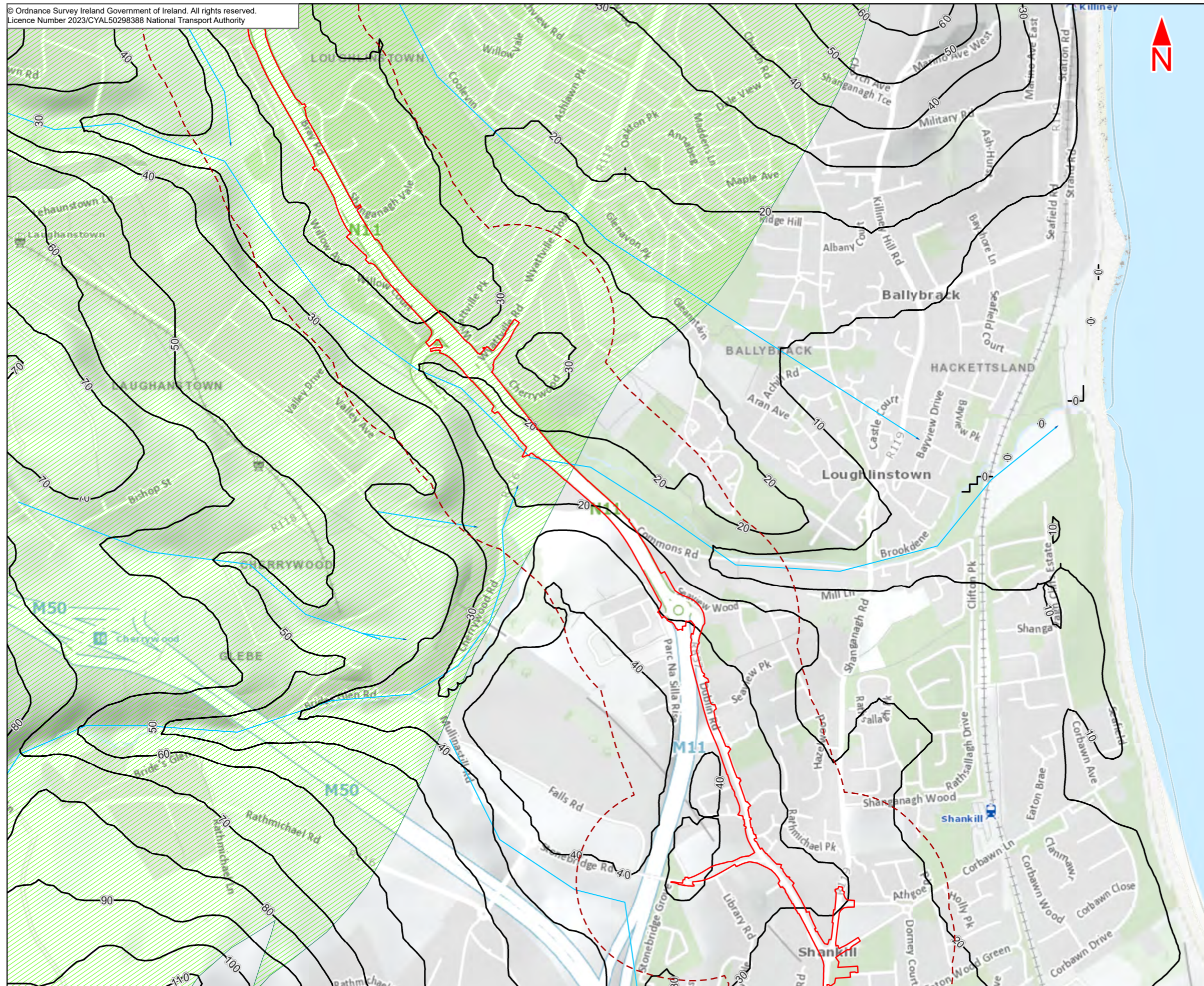
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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 | Scale @ A3: 1:10000 | Drawn: FG | Checked: PW | Approved: DK

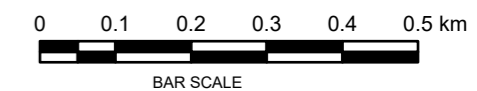
Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology				
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0105	Sheet Number: 5 of 8	Status: A	Rev: M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - EPA Contours
  - Subglacial Lineation Striae**
  - Landform
  - Striae
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Erratic Carriage Source**
  - Landform
  - Indicator erratic source area
  - Deglacial Landforms**
  - Landform
  - Hummocky Sand and Gravel

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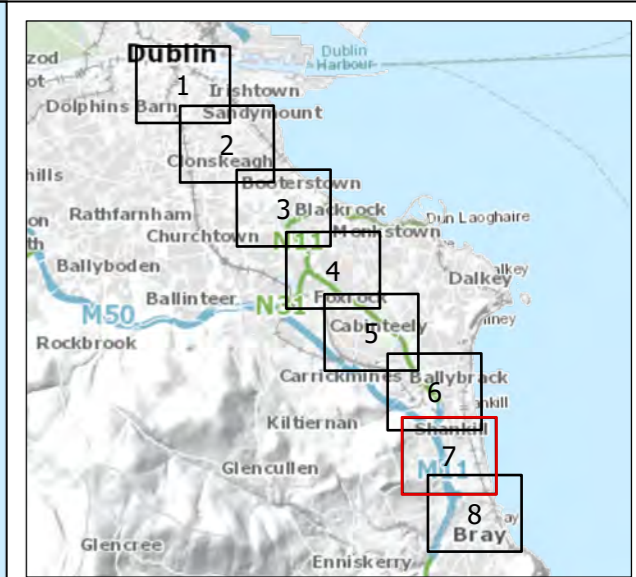
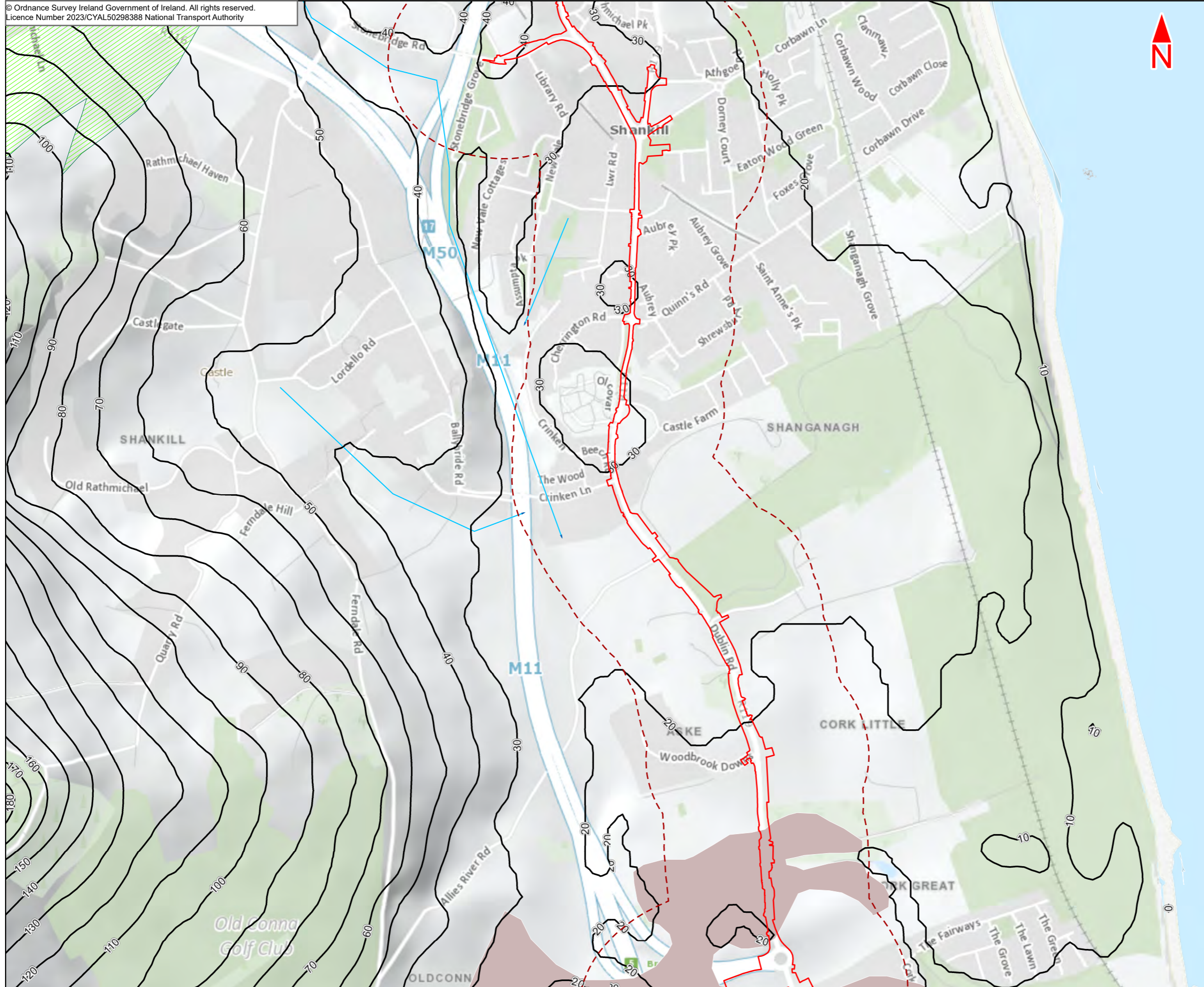
Rev	Date	Drn	Chk'd	App'd	Description
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Client: **NTA**  
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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 | Scale @ A3: 1:10000  
 Drawn: FG | Checked: PW | Approved: DK  
 Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0106	Sheet Number: 6 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - EPA Contours
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Erratic Carriage Source**
  - Landform
  - Indicator erratic source area
  - Deglacial Landforms**
  - Landform
  - Delta
  - Hummocky Sand and Gravel

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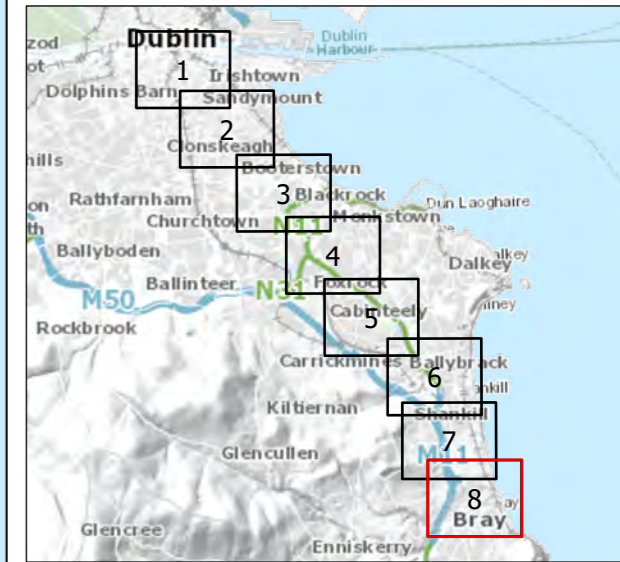
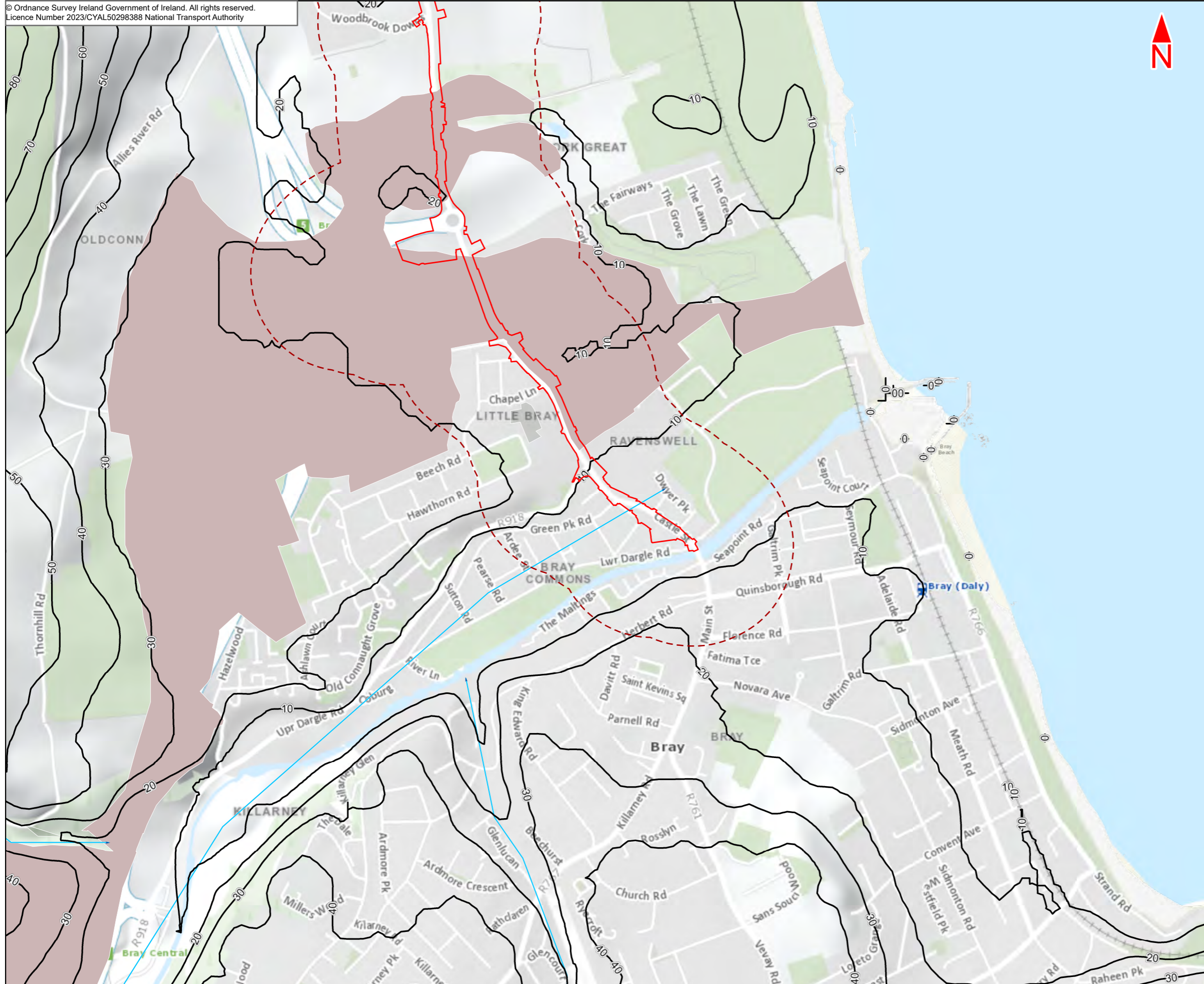
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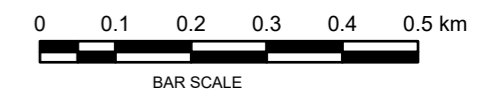
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0107	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - EPA Contours
  - Meltwater Landforms**
  - LANDFORM
  - Meltwater channel
  - Deglacial Landforms**
  - Landform
  - Delta
  - Hummocky Sand and Gravel

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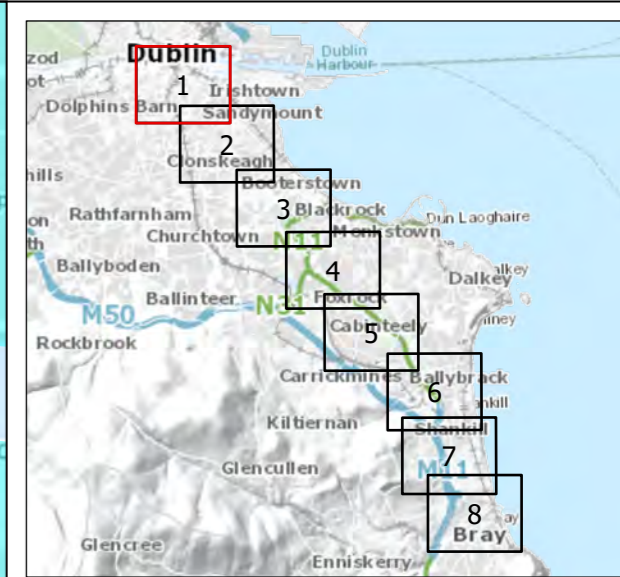
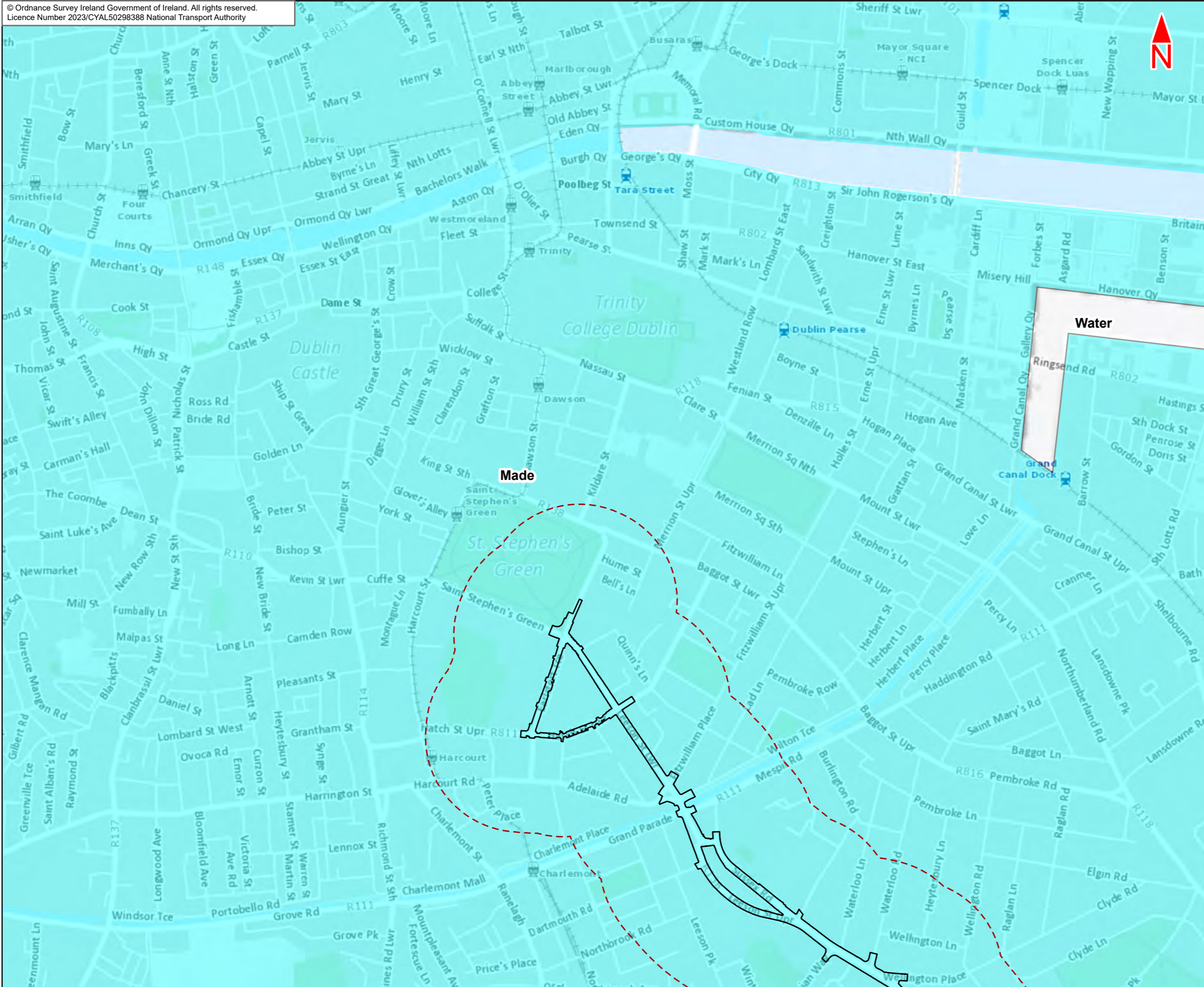
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		<b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0108	8 of 8	A	M01	

# 14.8 Soil Deposits





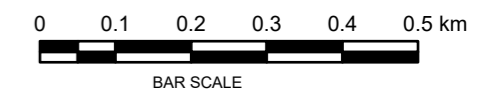
**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area

**Teagasc Soils**

- Made
- Water

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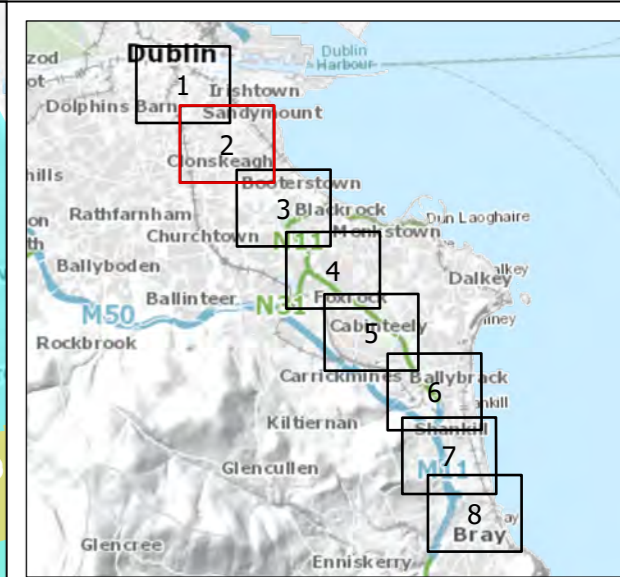
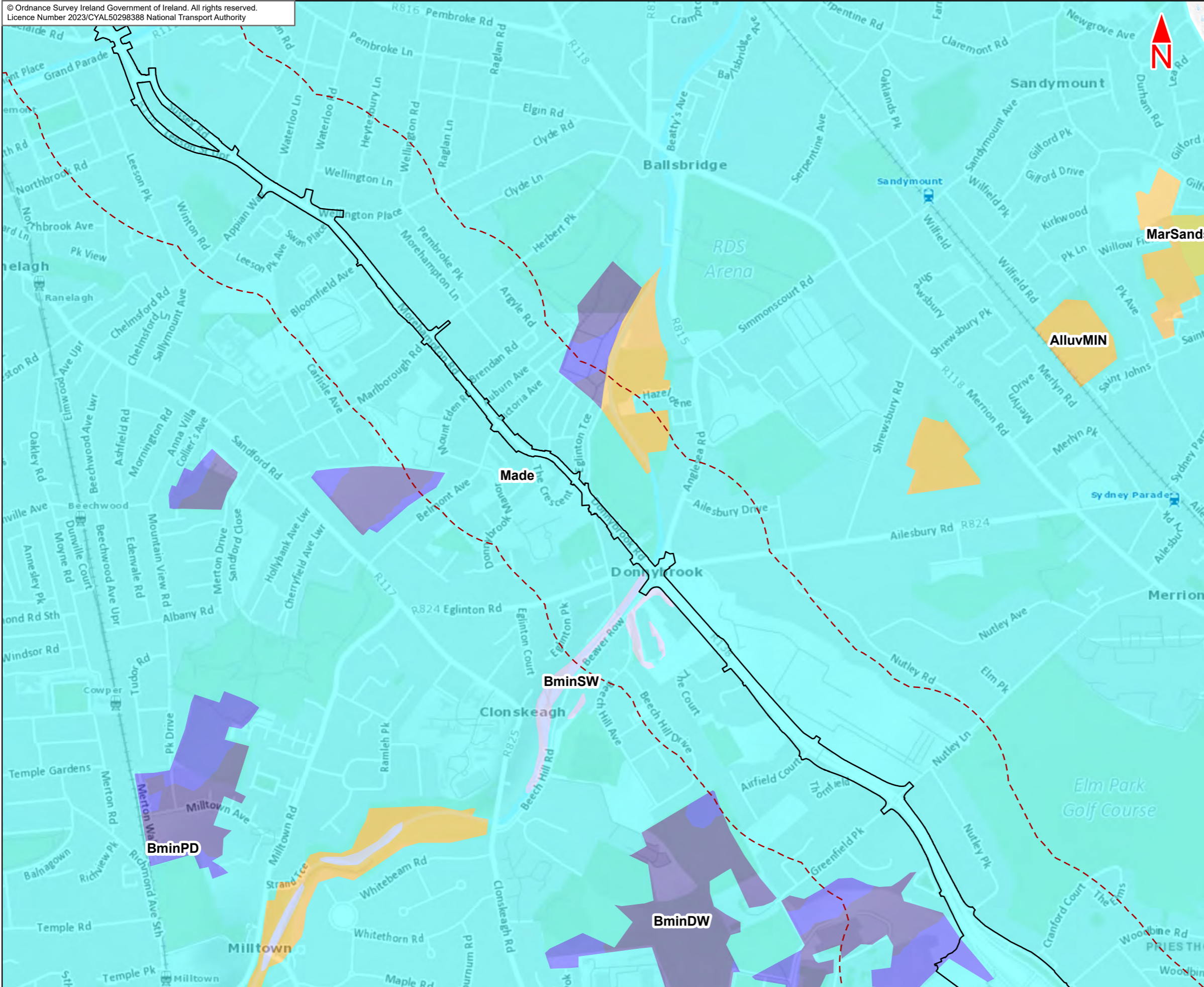
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Centre Core Bus Corridor Scheme Figure 14.8 Soil Deposits			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0201	Sheet Number: 1 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
- Teagasc Soils**
- AlluvMIN - Mineral alluvium
  - BminDW - Grey Brown Podzolics / Brown Earths Basic
  - BminPD - Surface water Gleys / Ground water Gleys Basic
  - BminSW - Renzinas / Lithosols
  - Made
  - MarSands

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Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

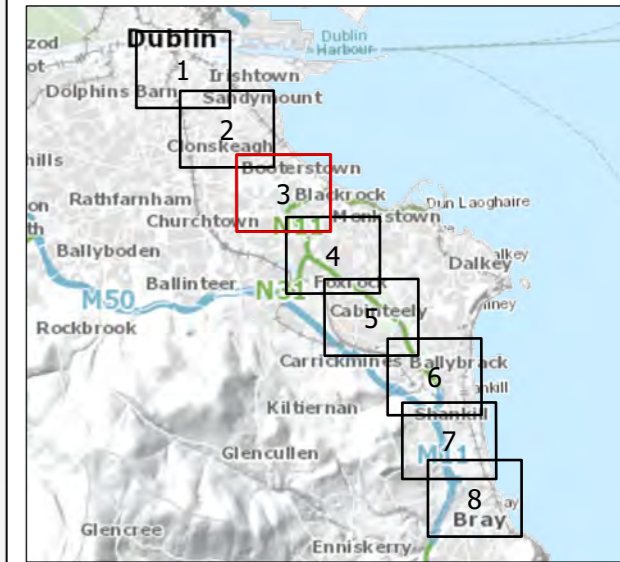
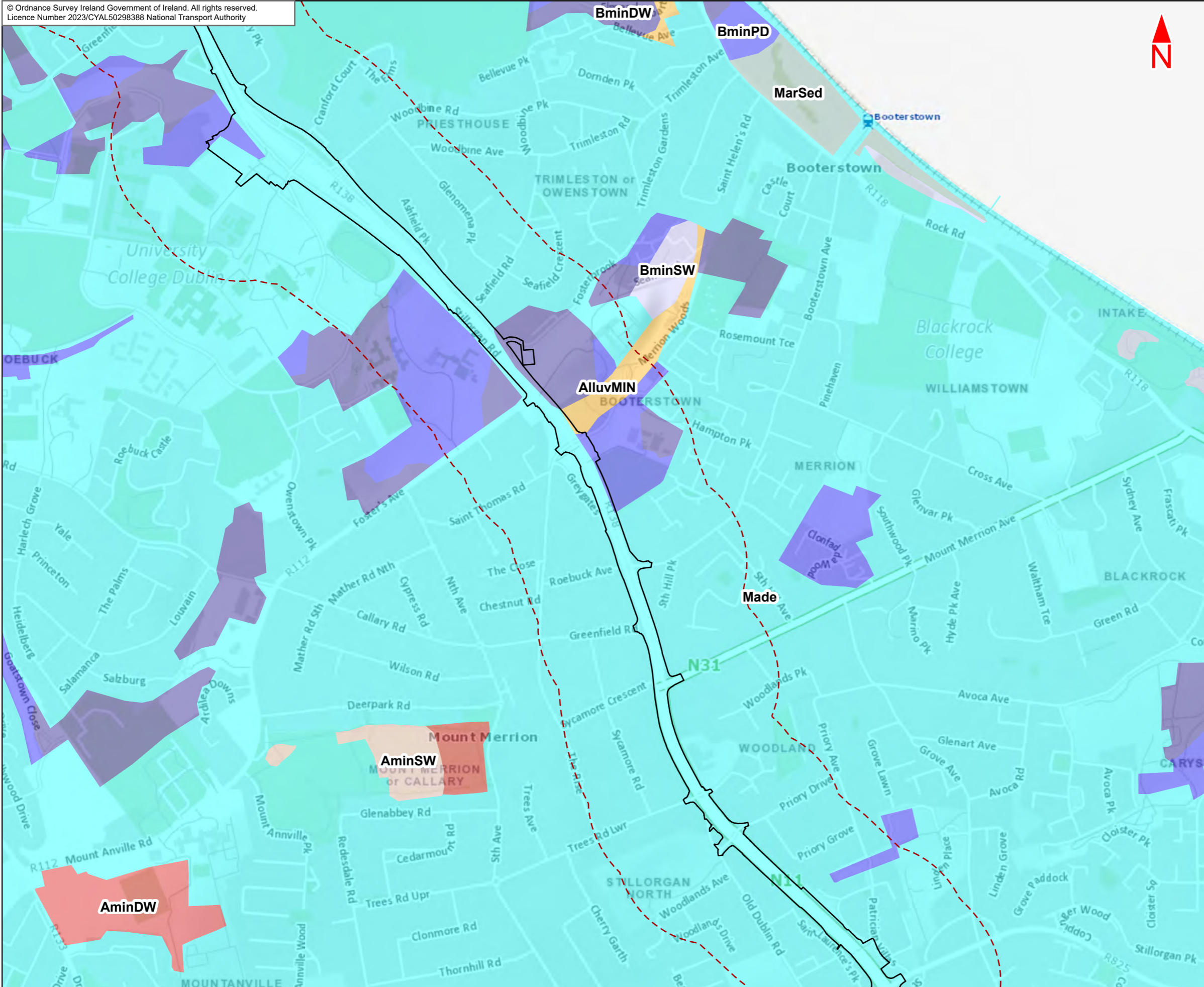
Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3 1:10000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code:

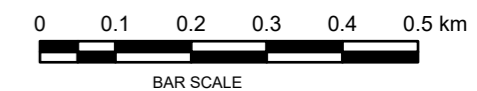
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0202	Sheet Number: 2 of 8	Status: A	Rev: M01





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Teagasc Soils**
  - AlluvMIN - Mineral alluvium
  - AminDW - Acid Brown Earths / Brown Podzolics
  - AminSW - Lithosols / Regosols
  - BminDW - Grey Brown Podzolics / Brown Earths Basic
  - BminPD - Surface water Gleys / Ground water Gleys Basic
  - BminSW - Renzinas / Lithosols
  - Made
  - MarSed

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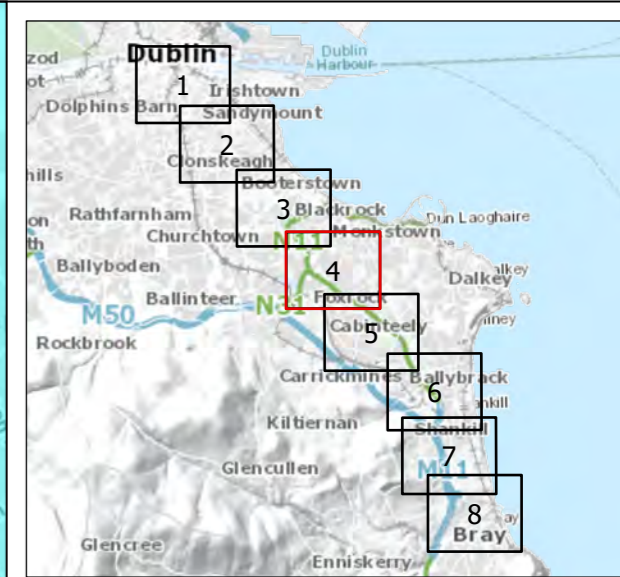
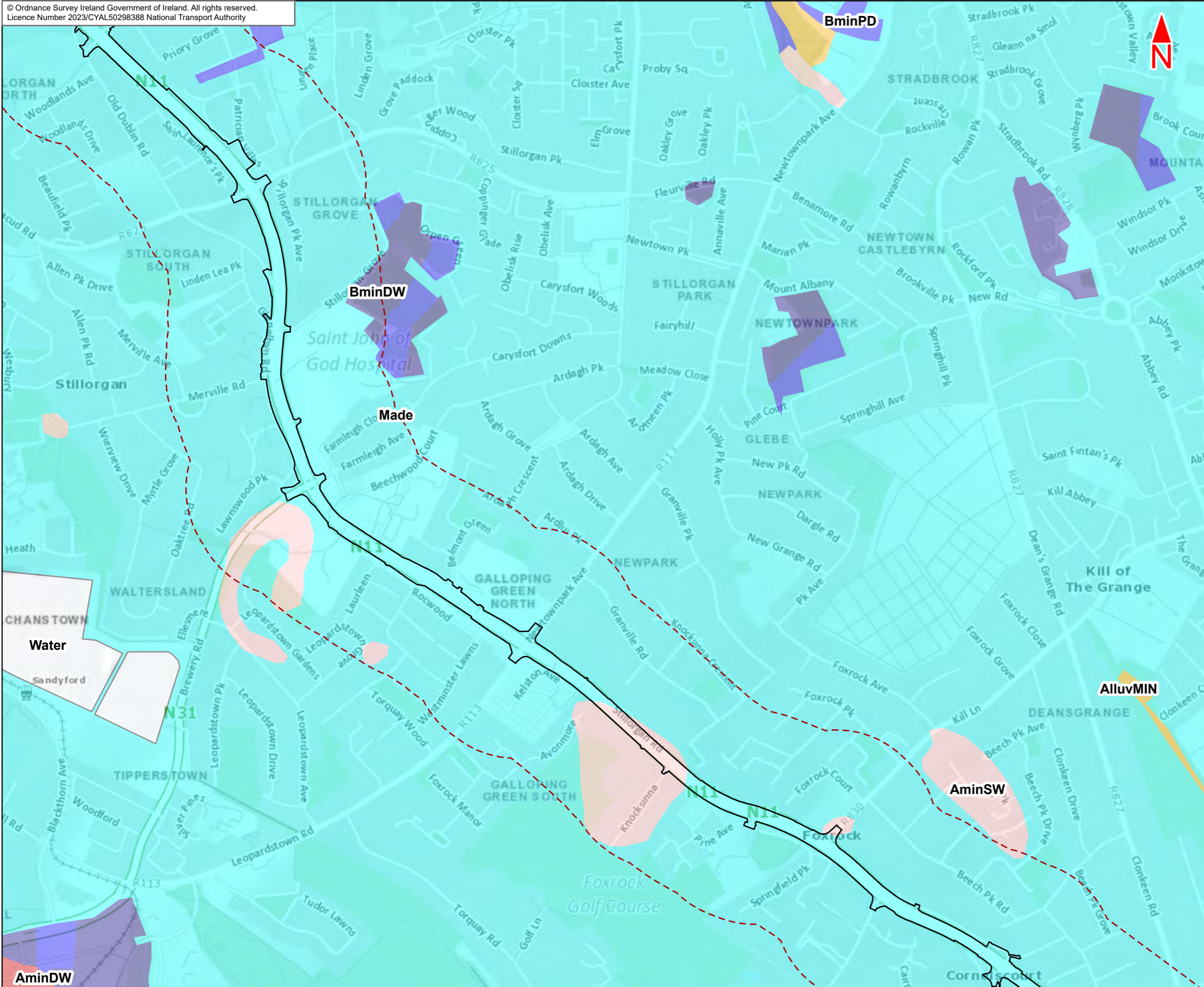
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 | Scale @ A3: 1:10000  
 Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

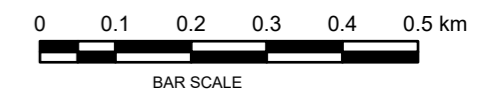
Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits			
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0203	Sheet Number 3 of 8	Status A	Rev M01



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- Teagasc Soils**
- AlluvMIN - Mineral alluvium
- AminDW - Acid Brown Earths / Brown Podzolics
- AminSW - Lithosols / Regosols
- BminDW - Grey Brown Podzolics / Brown Earths Basic
- BminPD - Surface water Gleys / Ground water Gleys Basic
- Made
- Water

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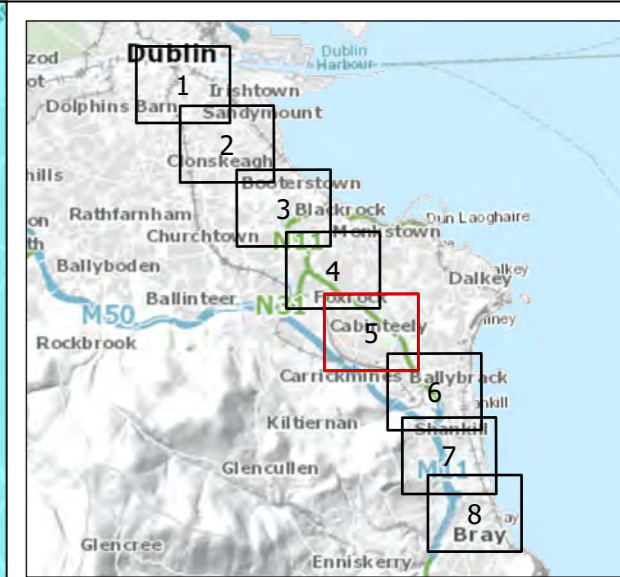
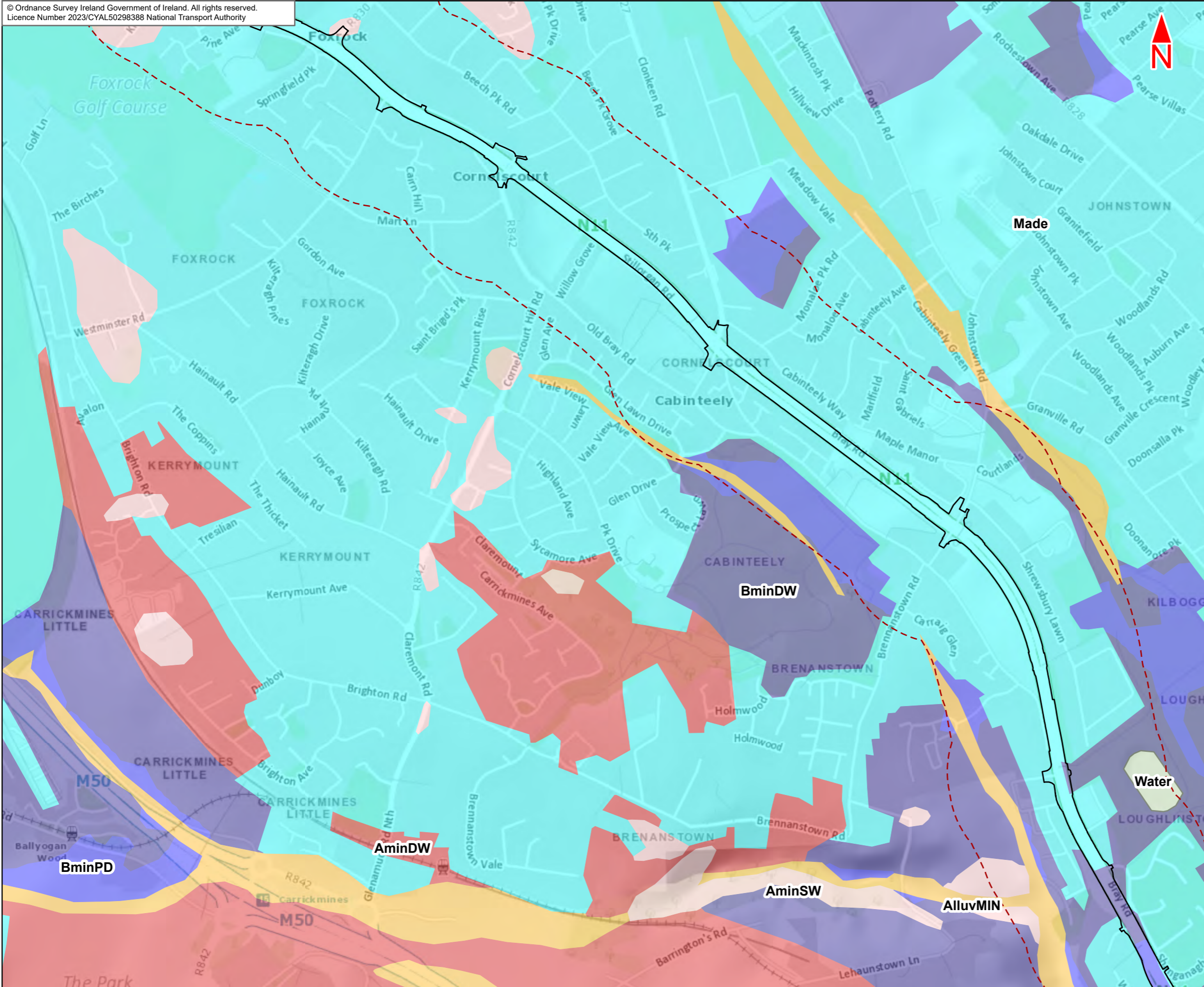
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 | Scale @ A3: 1:10000  
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK  
QMS Code: \_\_\_\_\_

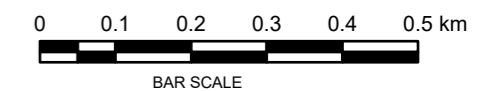
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits</b>			
Drawing File Name: <b>BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0204</b>	Sheet Number: <b>4 of 8</b>	Status: <b>A</b>	Rev: <b>M01</b>



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- Teagasc Soils**
- AlluvMIN - Mineral alluvium
- AminDW - Acid Brown Earths / Brown Podzolics
- AminSW - Lithosols / Regosols
- BminDW - Grey Brown Podzolics / Brown Earths Basic
- BminPD - Surface water Gleys / Ground water Gleys Basic
- Made
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National Transport Authority

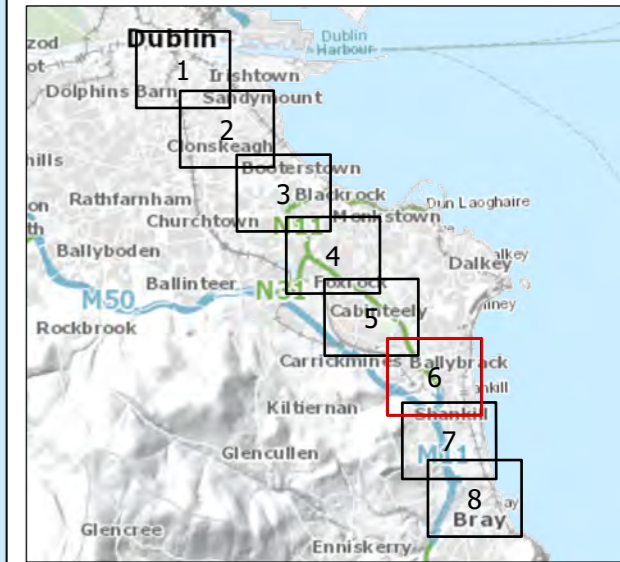
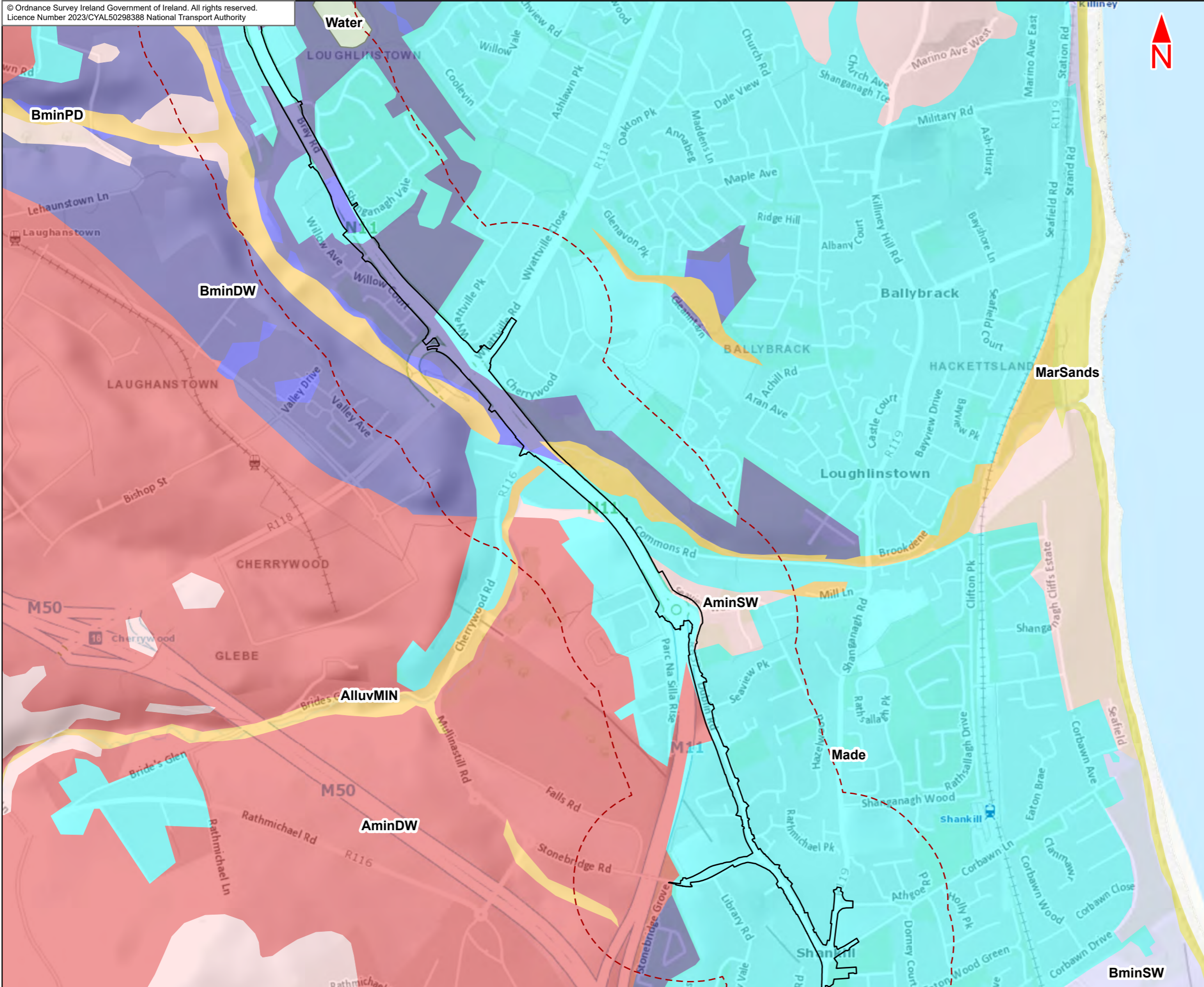
Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023  
Scale @ A3: 1:10000

Project Code: BCIDE  
Originator Code: JAC

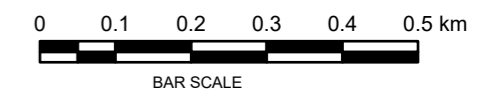
Drawn: FG  
Checked: PW  
Approved: DK

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0205	Sheet Number: 5 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Teagasc Soils**
  - AlluvMIN - Mineral alluvium
  - AminDW - Acid Brown Earths / Brown Podzolics
  - AminSW - Lithosols / Regosols
  - BminDW - Grey Brown Podzolics / Brown Earths Basic
  - BminPD - Surface water Gleys / Ground water Gleys Basic
  - BminSW - Renzinas / Lithosols
  - Made
  - MarSands
  - Water

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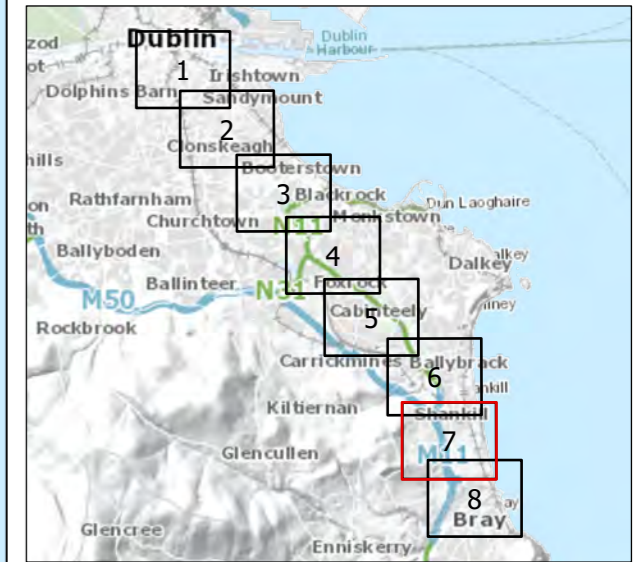
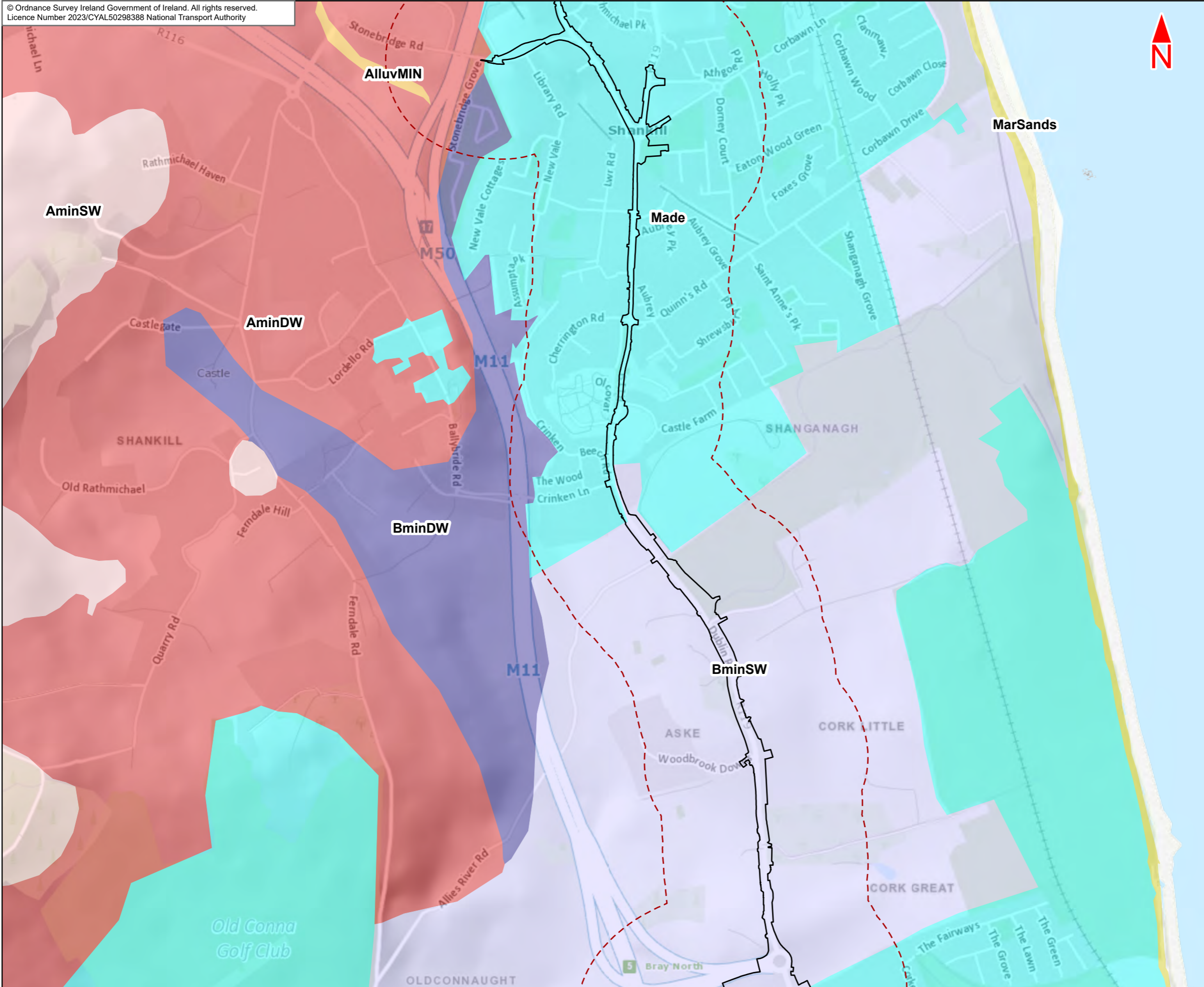
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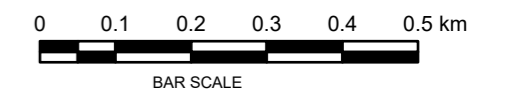
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0206	Sheet Number 6 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Teagasc Soils**
  - AlluvMIN - Mineral alluvium
  - AminDW - Acid Brown Earths / Brown Podzolics
  - AminSW - Lithosols / Regosols
  - BminDW - Grey Brown Podzolics / Brown Earths Basic
  - BminSW - Renzinas / Lithosols
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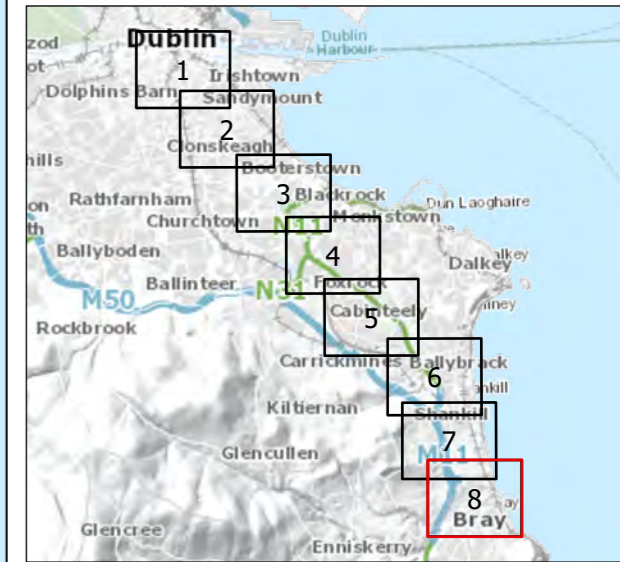
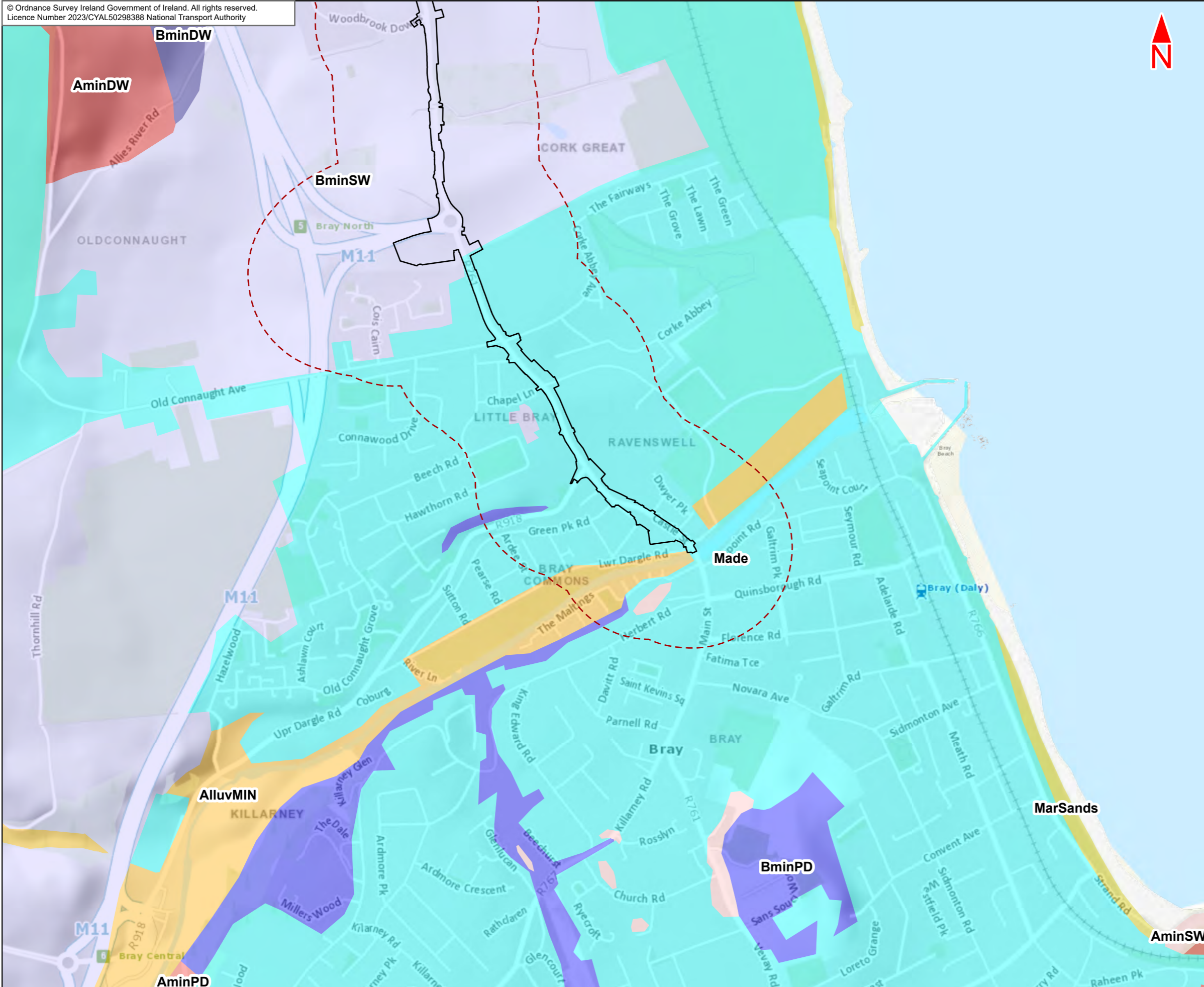
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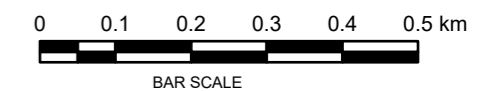
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0207	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Teagasc Soils**
  - AlluvMIN - Mineral alluvium
  - AminDW - Acid Brown Earths / Brown Podzolics
  - AminPD - Surface water Gleys / Ground water Gleys Acidic
  - AminSW - Lithosols / Regosols
  - BminDW - Grey Brown Podzolics / Brown Earths Basic
  - BminPD - Surface water Gleys / Ground water Gleys Basic
  - BminSW - Renzinas / Lithosols
  - Made
  - MarSands

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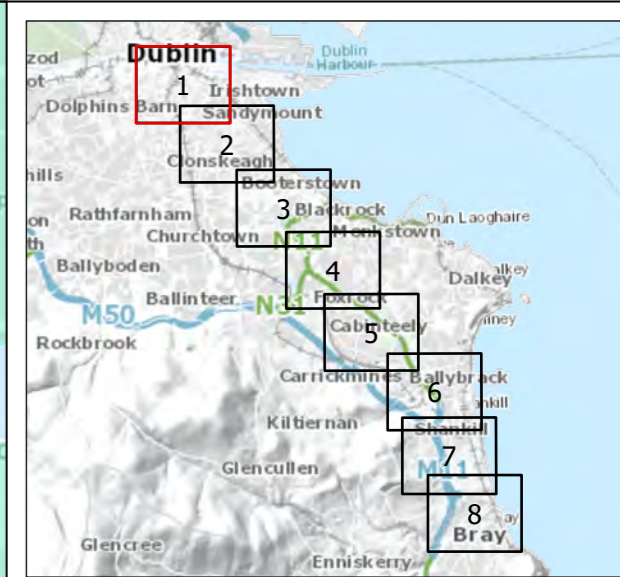
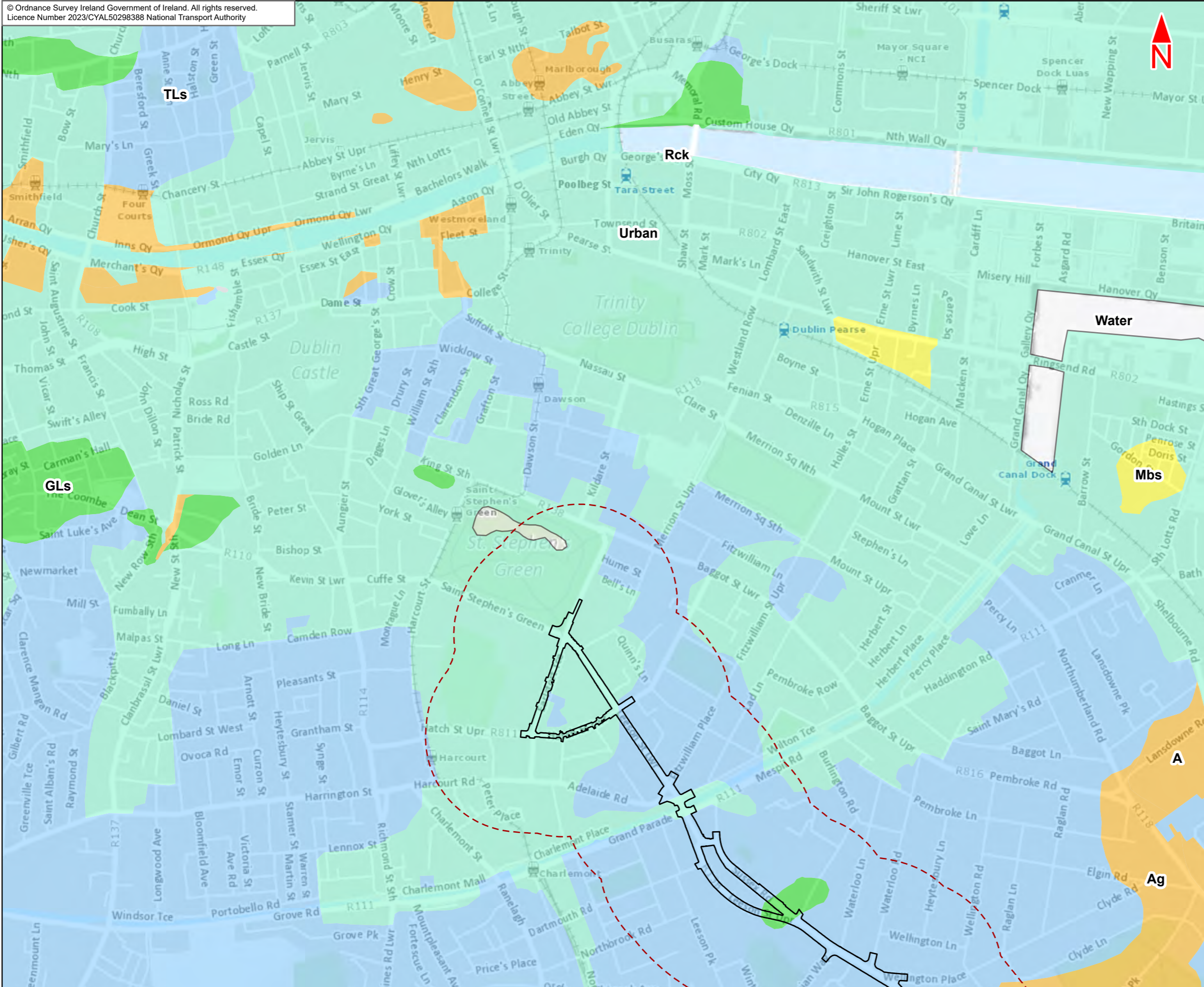
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.8 Soil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0208	Sheet Number 8 of 8	Status A	Rev M01	

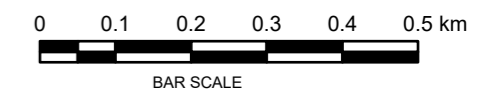
# 14.9 Subsoil Deposits





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - Quaternary Sediments - 1:50,000
  - A, Alluvium
  - Ag, Alluvium (gravelly)
  - GLs, Gravels derived from Limestones
  - Rck, Bedrock outcrop or subcrop
  - Mbs, Marine beach sands
  - TLs, Till derived from limestones
  - Urban
  - Water

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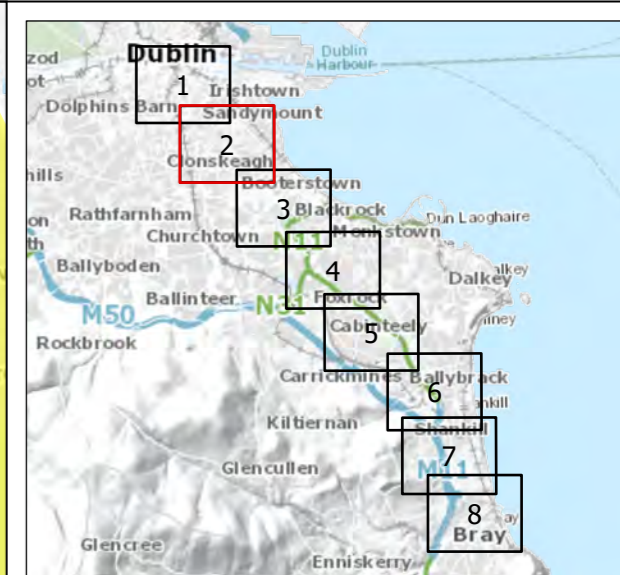
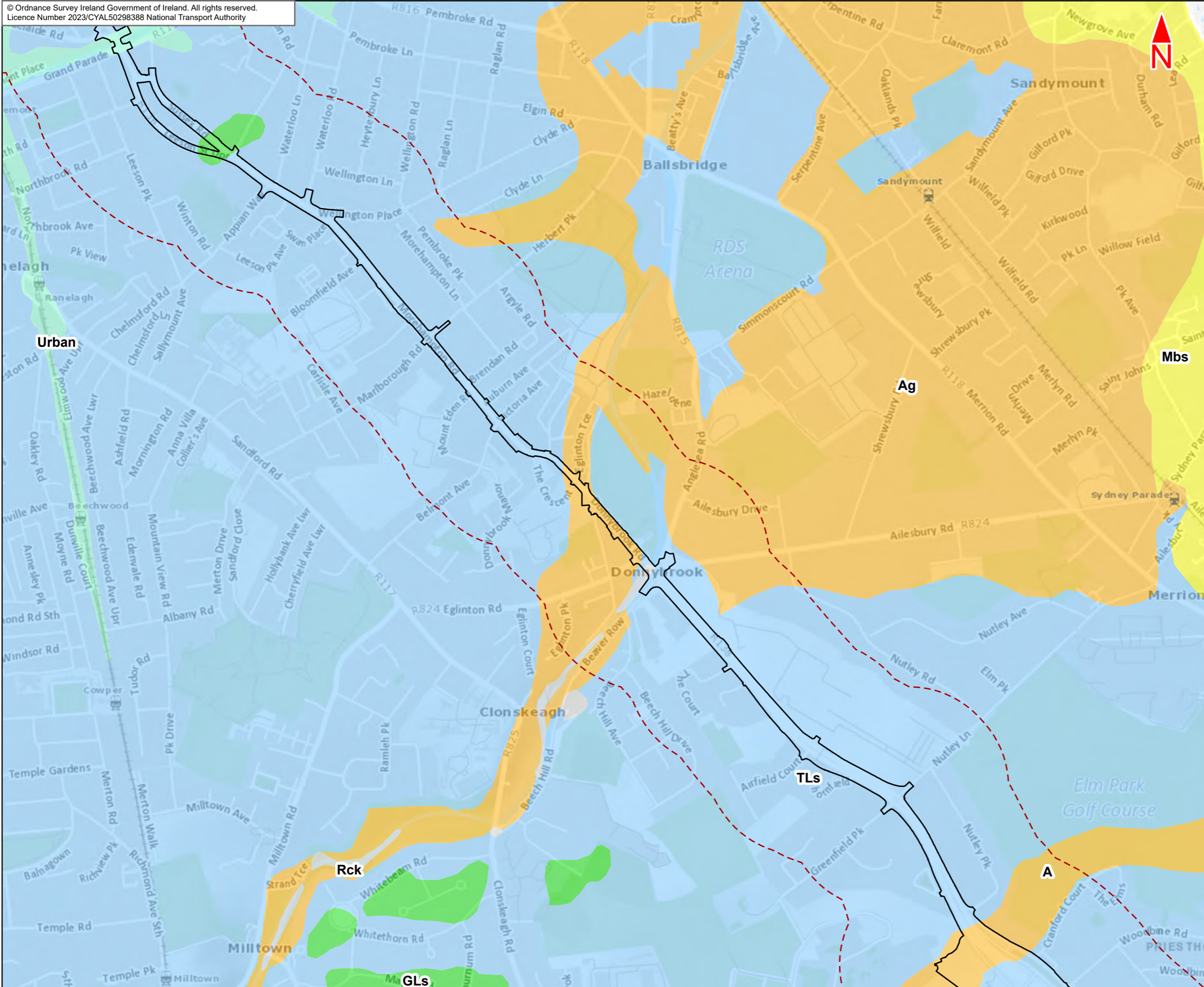
Rev	Date	Drn	Chk'd	App'd	Description
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Client  
**NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant  
**JACOBS**  
**ARUP SYSTRA**

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0301
Sheet Number 1 of 8	Status A	Rev M01		





**Legend :**

— Bray to City Centre  
Core Bus Corridor  
Scheme

- - - 250m Study Area

Quaternary Sediments -  
1:50,000

- A, Alluvium
- Ag, Alluvium (gravelly)
- GLs, Gravels derived from Limestones
- Rck, Bedrock outcrop or subcrop
- Mbs, Marine beach sands
- TLs, Till derived from limestones
- Urban

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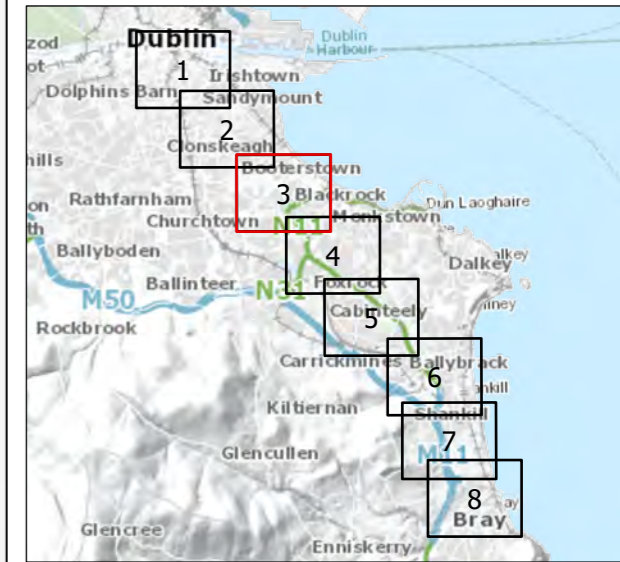
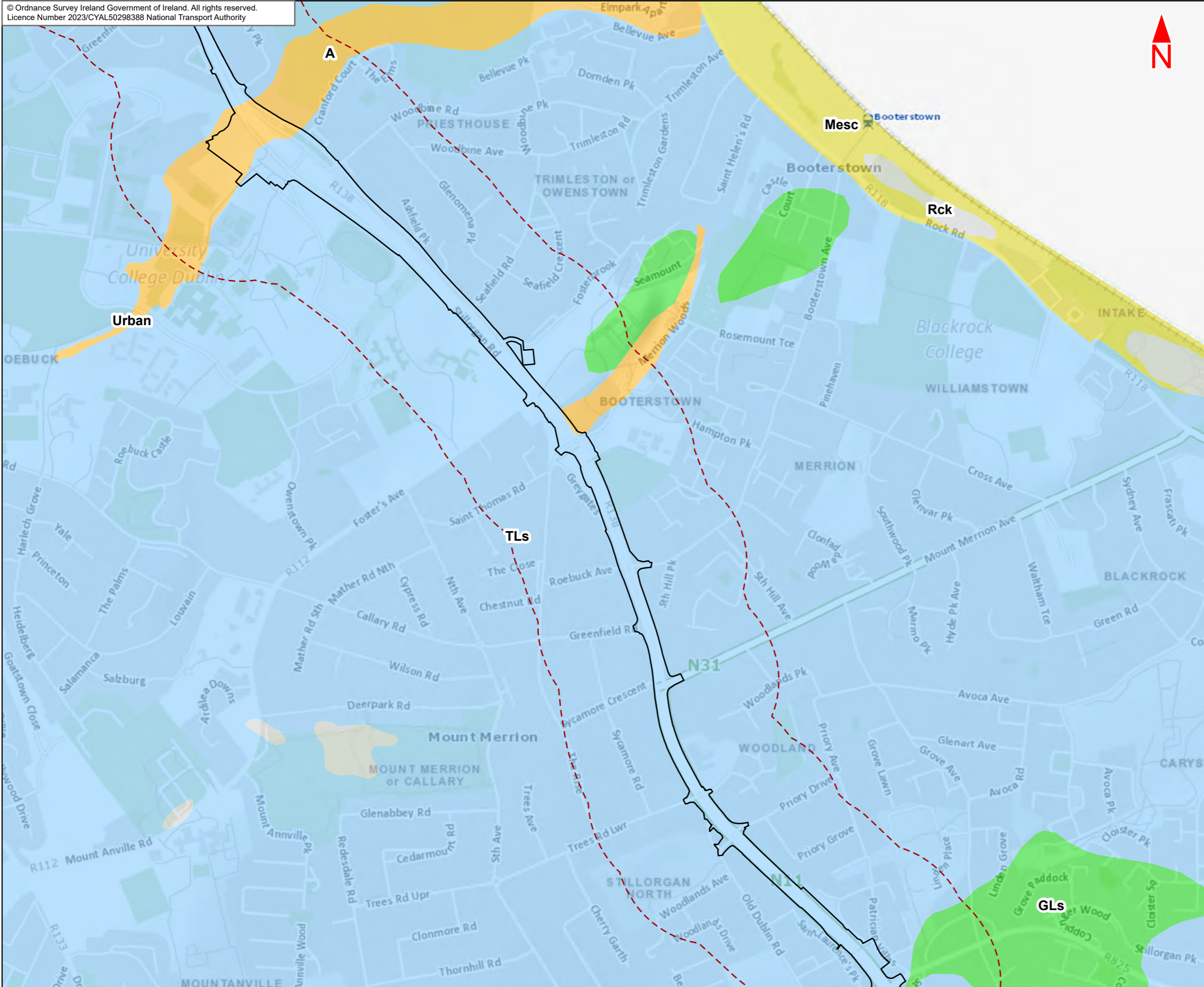
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<b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		<b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

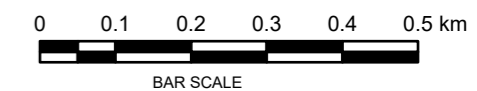
<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0302	2 of 8	A	M01	



**Legend :**

- Bray to City Core Bus Corridor Scheme
- - - 250m Study Area
- Quaternary Sediments - 1:50,000
- A, Alluvium
- GLs, Gravels derived from Limestones
- Rck, Bedrock outcrop or subcrop
- Mesc, Estuarine silts and clays
- TLs, Till derived from limestones
- Urban

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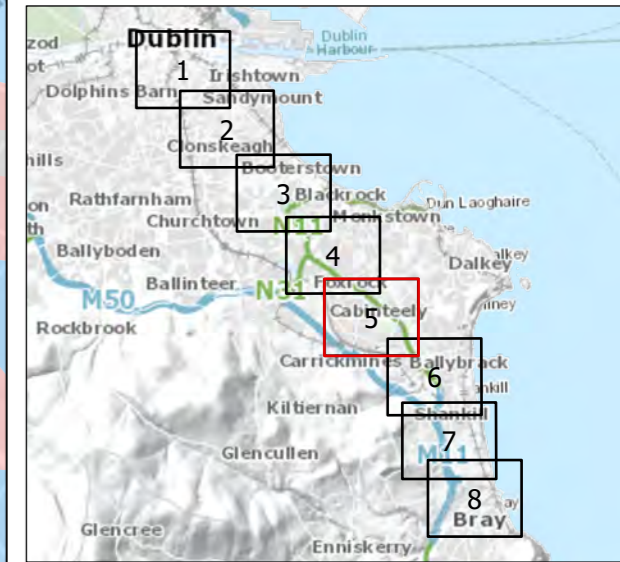
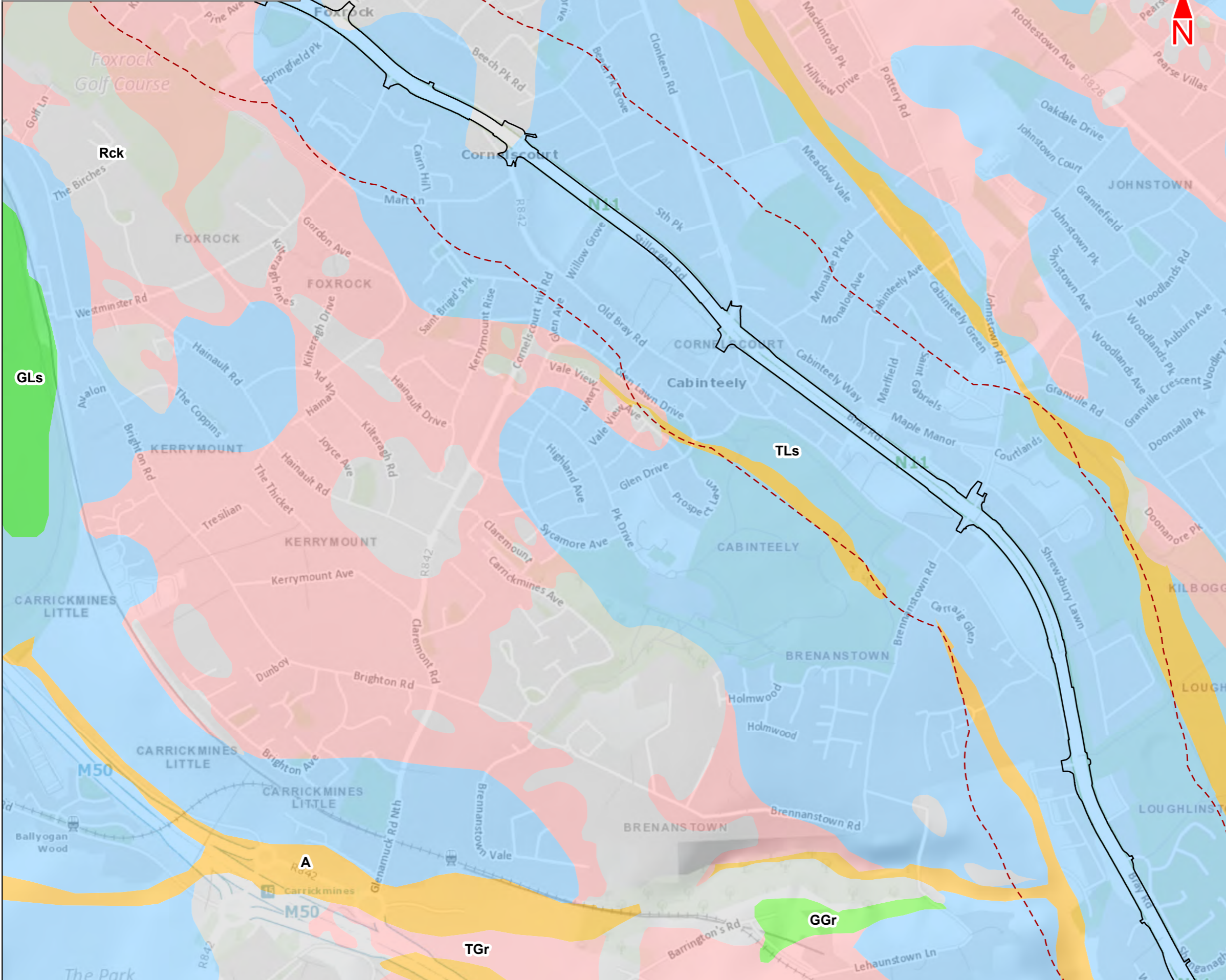


Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		<b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

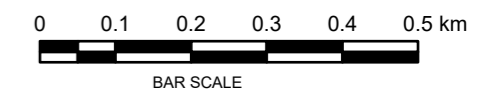
<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0303	3 of 8	A	M01	





- Legend :**
- Bray to City Core Bus Corridor Scheme
  - 250m Study Area
- Quaternary Sediments - 1:50,000
- A, Alluvium
  - GLs, Gravels derived from Limestones
  - GGr, Gravels derived from granite
  - Rck, Bedrock outcrop or subcrop
  - TGr, Till derived from granites
  - TLs, Till derived from limestones

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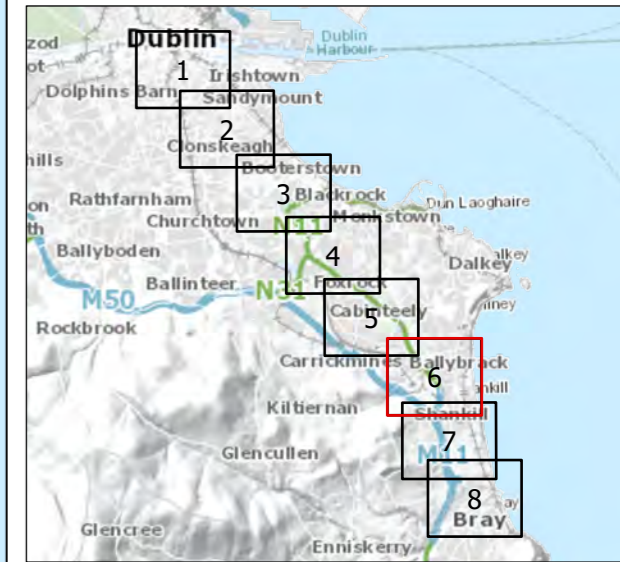
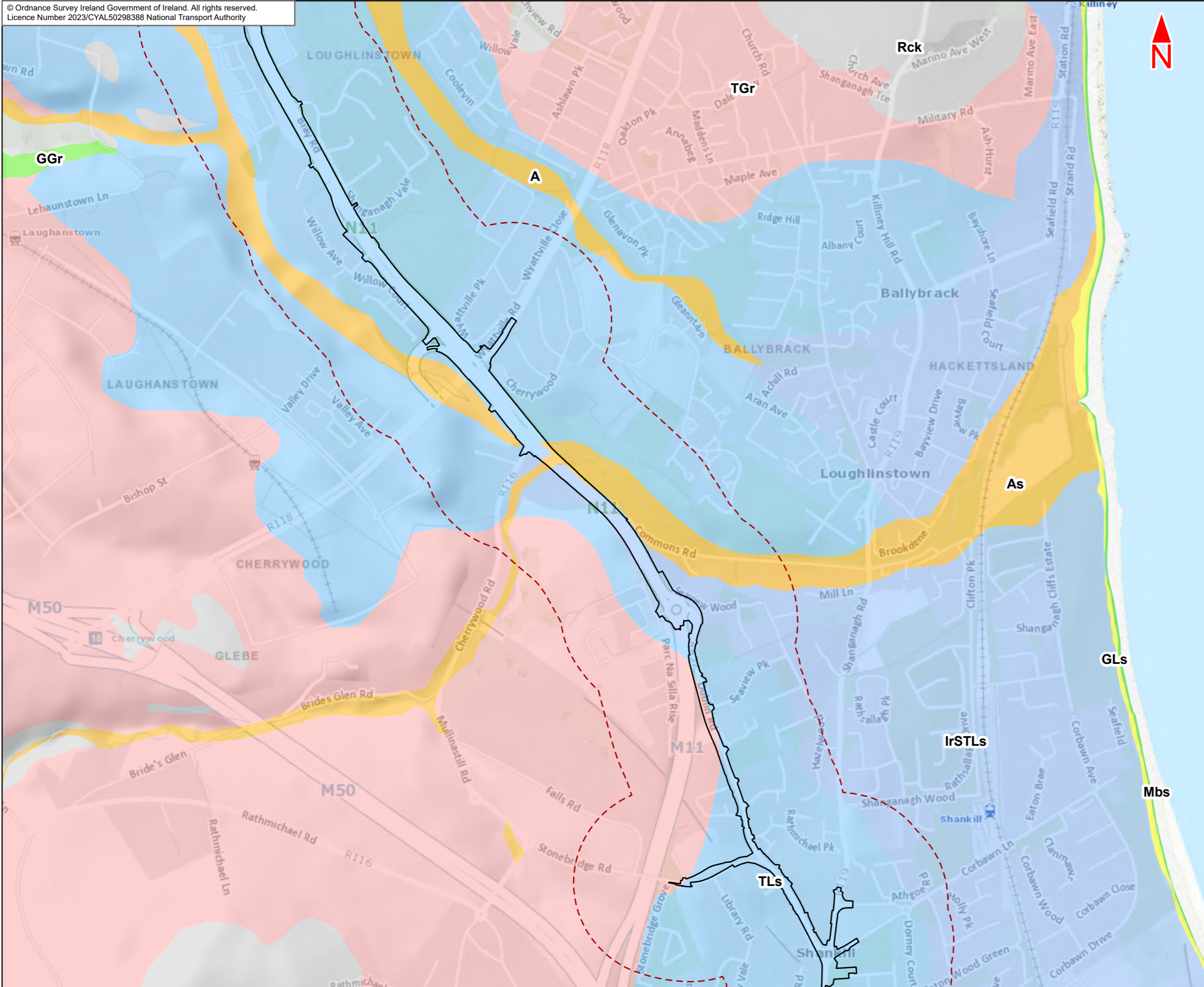
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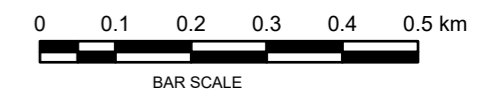
<b>Client</b> Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> Jacobs ARUP SYSTRA		
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0305	5 of 8	A	M01	



- Legend :**
- Bray to City Core Bus Corridor Scheme
  - 250m Study Area
  - Quaternary Sediments - 1:50,000**
  - A, Alluvium
  - As, Alluvium (sandy)
  - GLs, Gravels derived from Limestones
  - GGr, Gravels derived from granite
  - Rck, Bedrock outcrop or subcrop
  - Mbs, Marine beach sands
  - IrSTLs, Irish Sea Till derived from Limestones
  - TGr, Till derived from granites
  - TLs, Till derived from limestones

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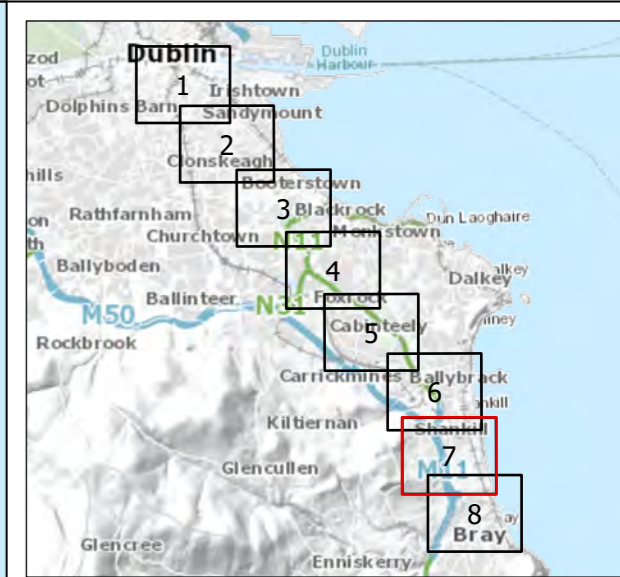
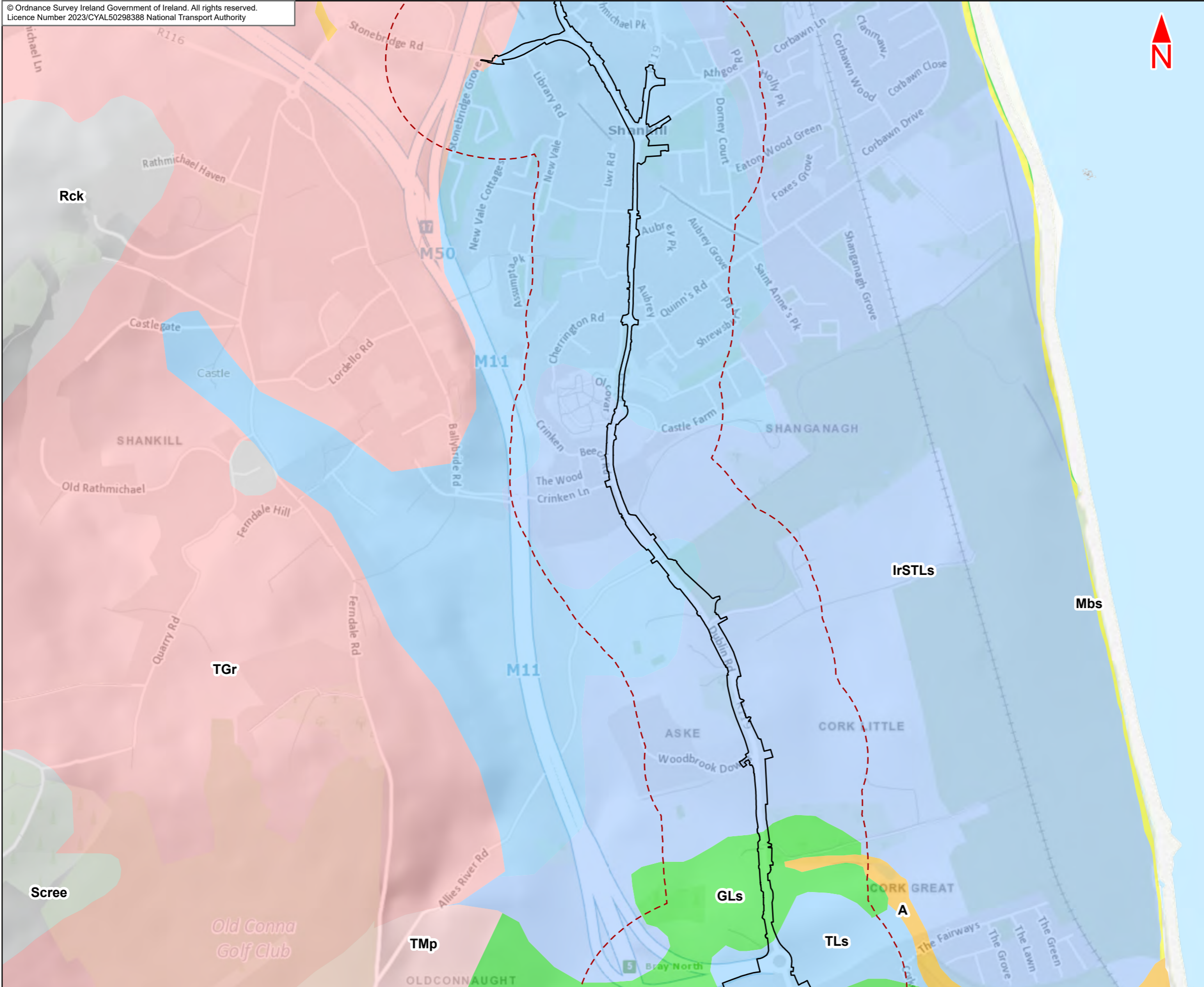
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Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0306	6 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - Quaternary Sediments - 1:50,000
  - A, Alluvium
  - GLs, Gravels derived from Limestones
  - Rck, Bedrock outcrop or subcrop
  - Scree, Scree
  - Mbs, Marine beach sands
  - IrSTLs, Irish Sea Till derived from Limestones
  - TGr, Till derived from granites
  - TLs, Till derived from limestones
  - TMp, Till derived from Metamorphic rocks

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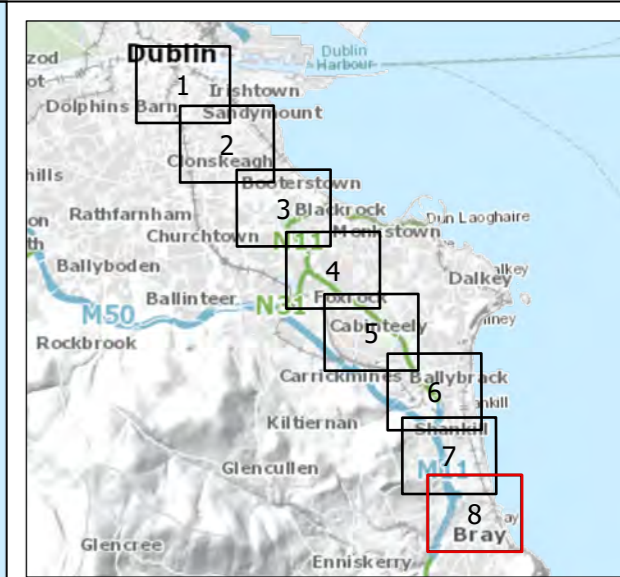
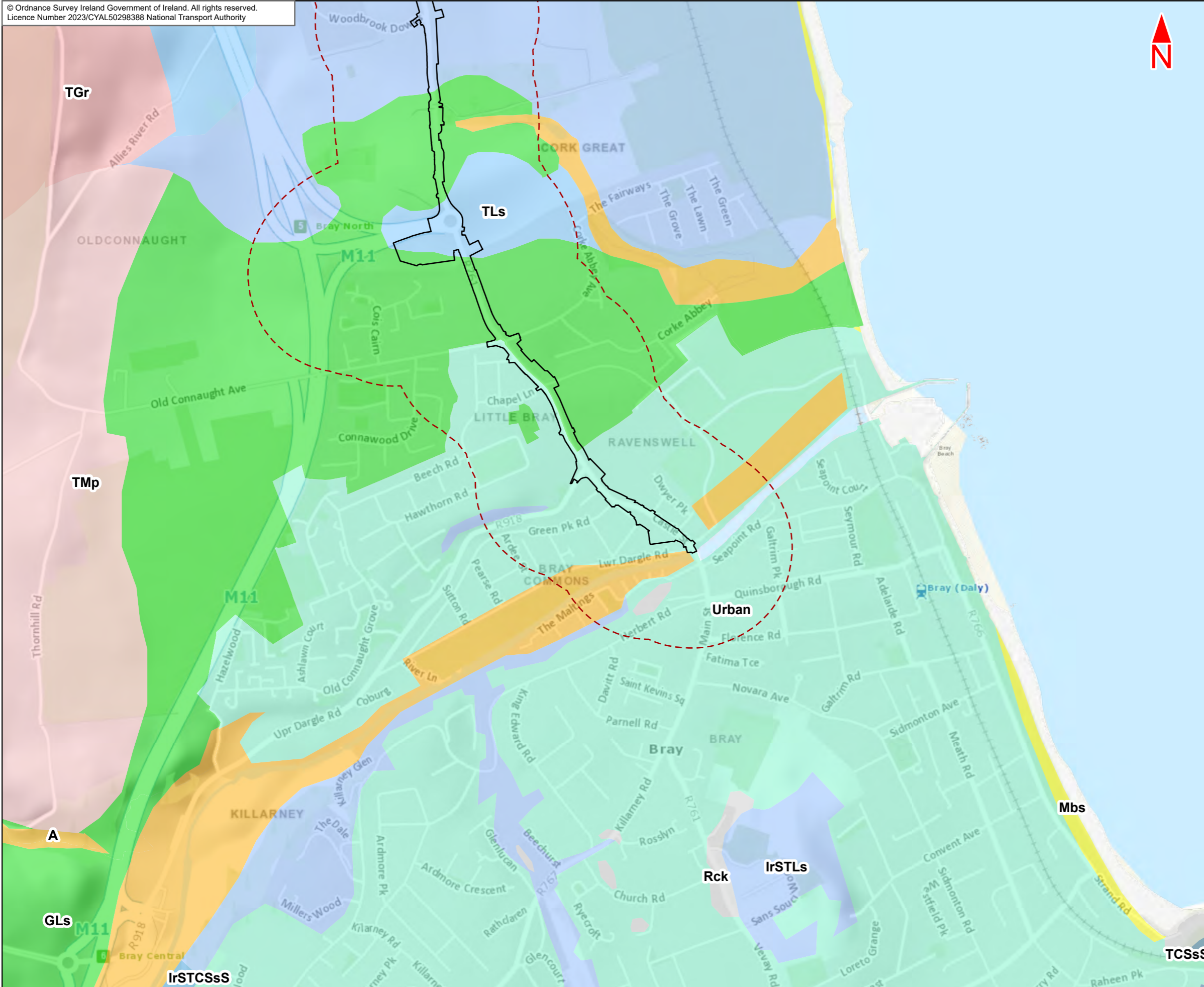
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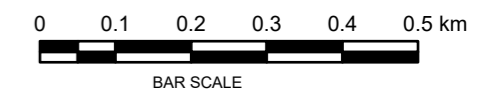
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0307	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Core Bus Corridor Scheme
  - - - 250m Study Area
- Quaternary Sediments - 1:50,000
- A, Alluvium
  - GLs, Gravels derived from Limestones
  - Rck, Bedrock outcrop or subcrop
  - Mbs, Marine beach sands
  - IrSTCSs, Irish Sea Till derived from Cambrian sandstones and shales
  - IrSTLs, Irish Sea Till derived from Limestones
  - TCSSs, Till derived from Cambrian sandstones and shales
  - TGr, Till derived from granites
  - TLs, Till derived from limestones
  - Tmp, Till derived from Metamorphic rocks
  - Urban

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**Project Ireland 2040**  
Building Ireland's Future

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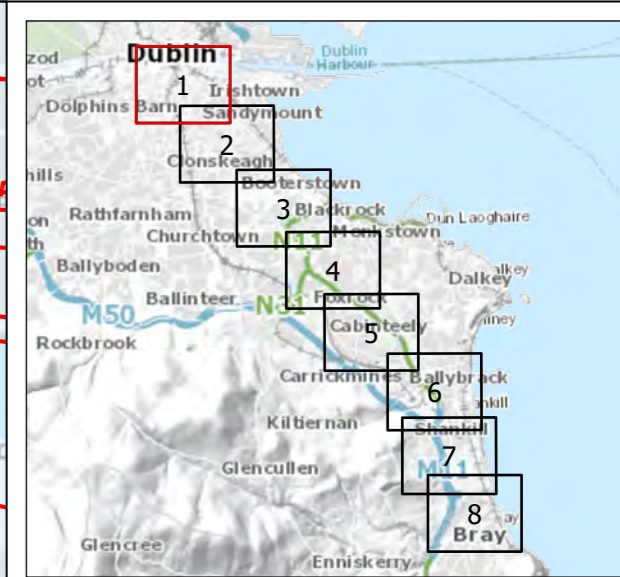
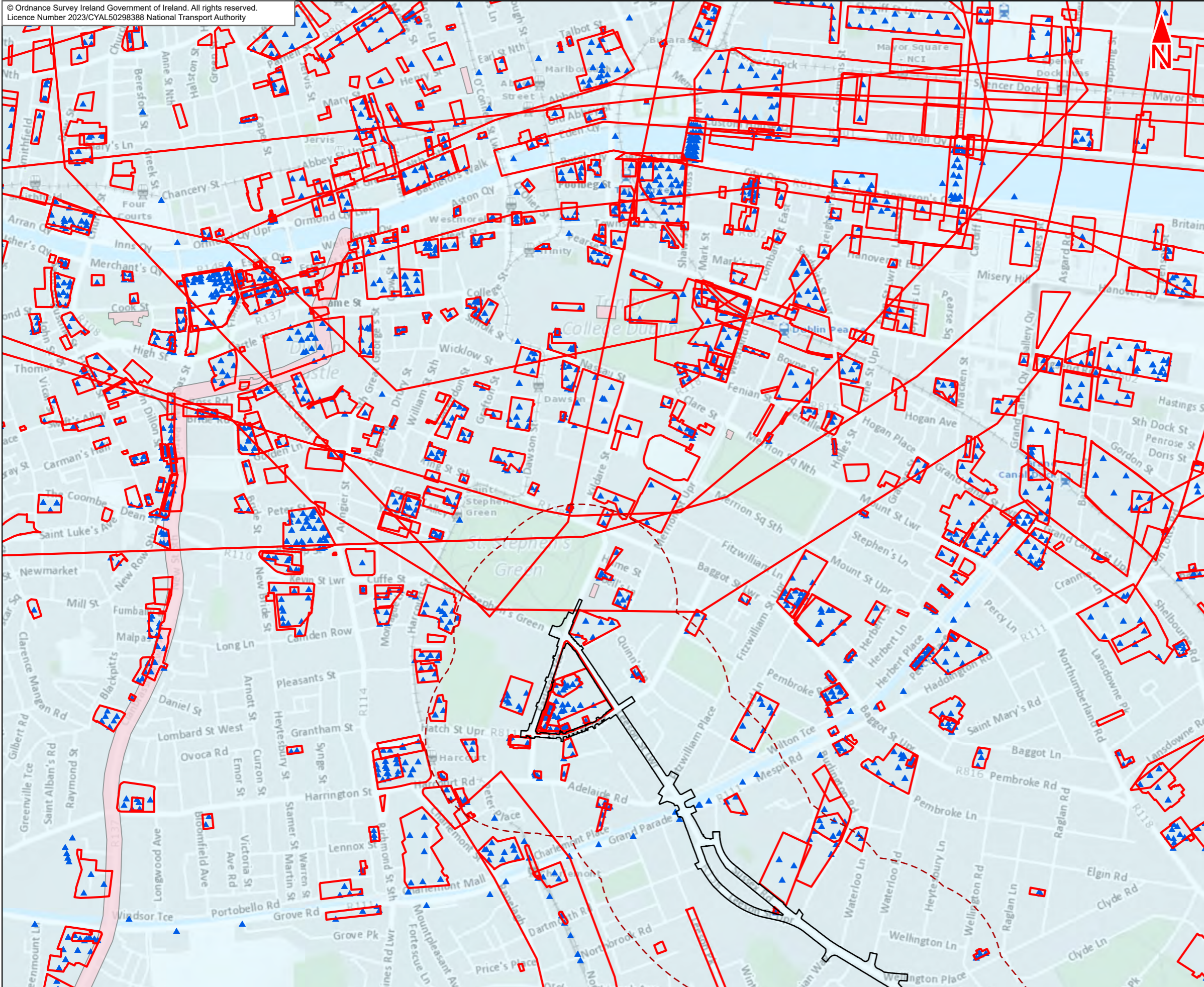
Client		Consultant	
 Udarás Náisiúnta Iompair National Transport Authority			
Date	Scale @ A3	Drawn	Checked
12/05/2023	1:10000	FG	PW
Project Code	Originator Code	QMS Code	
BCIDE	JAC		

Programme Title			
<b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title			
Bray to City Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits			
Drawing File Name	Sheet Number	Status	Rev
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0308	8 of 8	A	M01

**14.10**  
Bedrock Geology

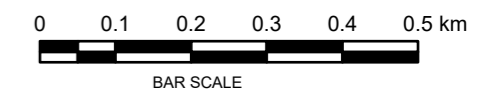






- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Geotechnical Sites
  - Geological Heritage Site
  - GSI Geotechnical Boreholes
- GSI Bedrock Geology - 1:100,000**
- Lucan Formation

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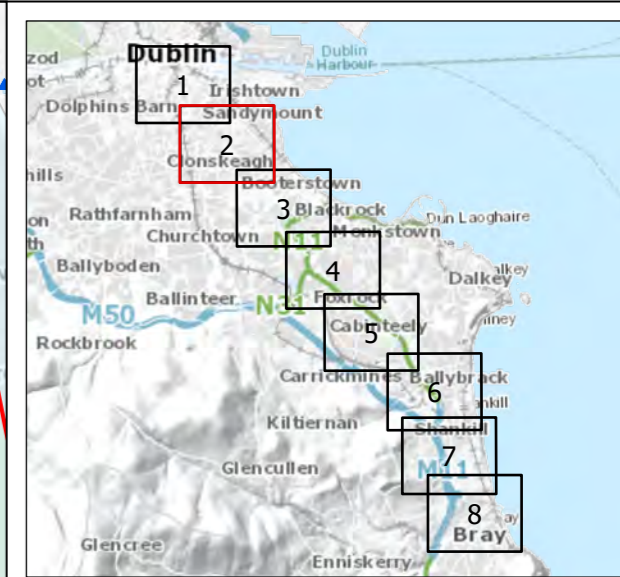
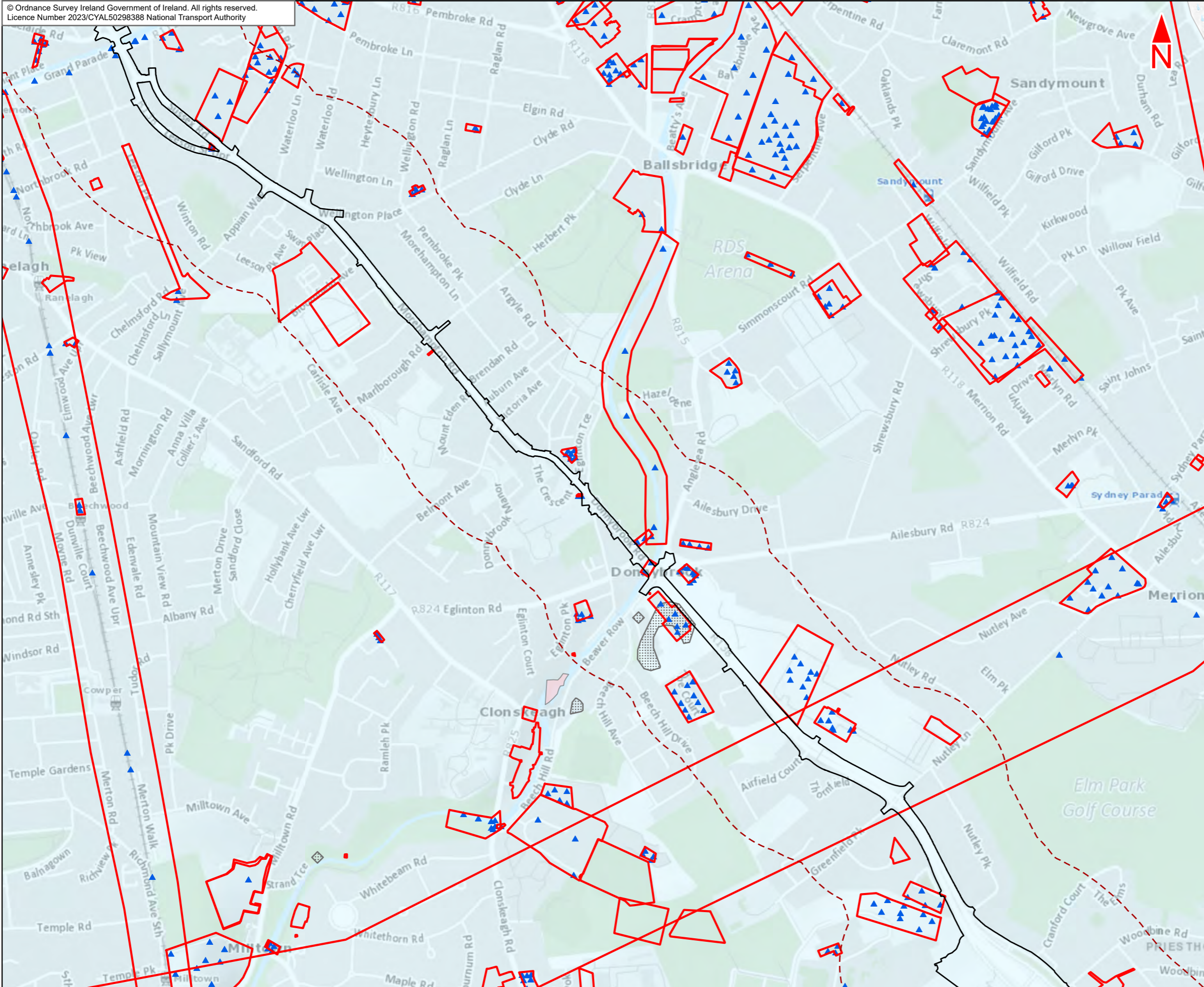


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Client  
**NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

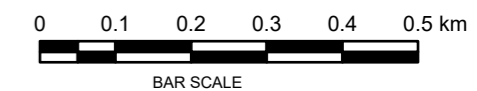
Consultant  
**JACOBS**  
**ARUP SYSTRA**

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0401	Sheet Number 1 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - GSI Geotechnical Sites
  - Geological Heritage Site
  - ▲ GSI Geotechnical Boreholes
  - GSI Bedrock Outcrop - 1:100,000**
  - ▨ GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - Lucan Formation

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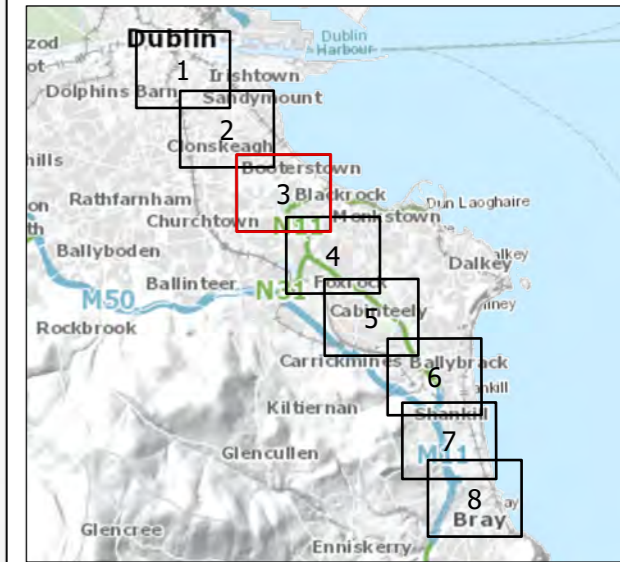
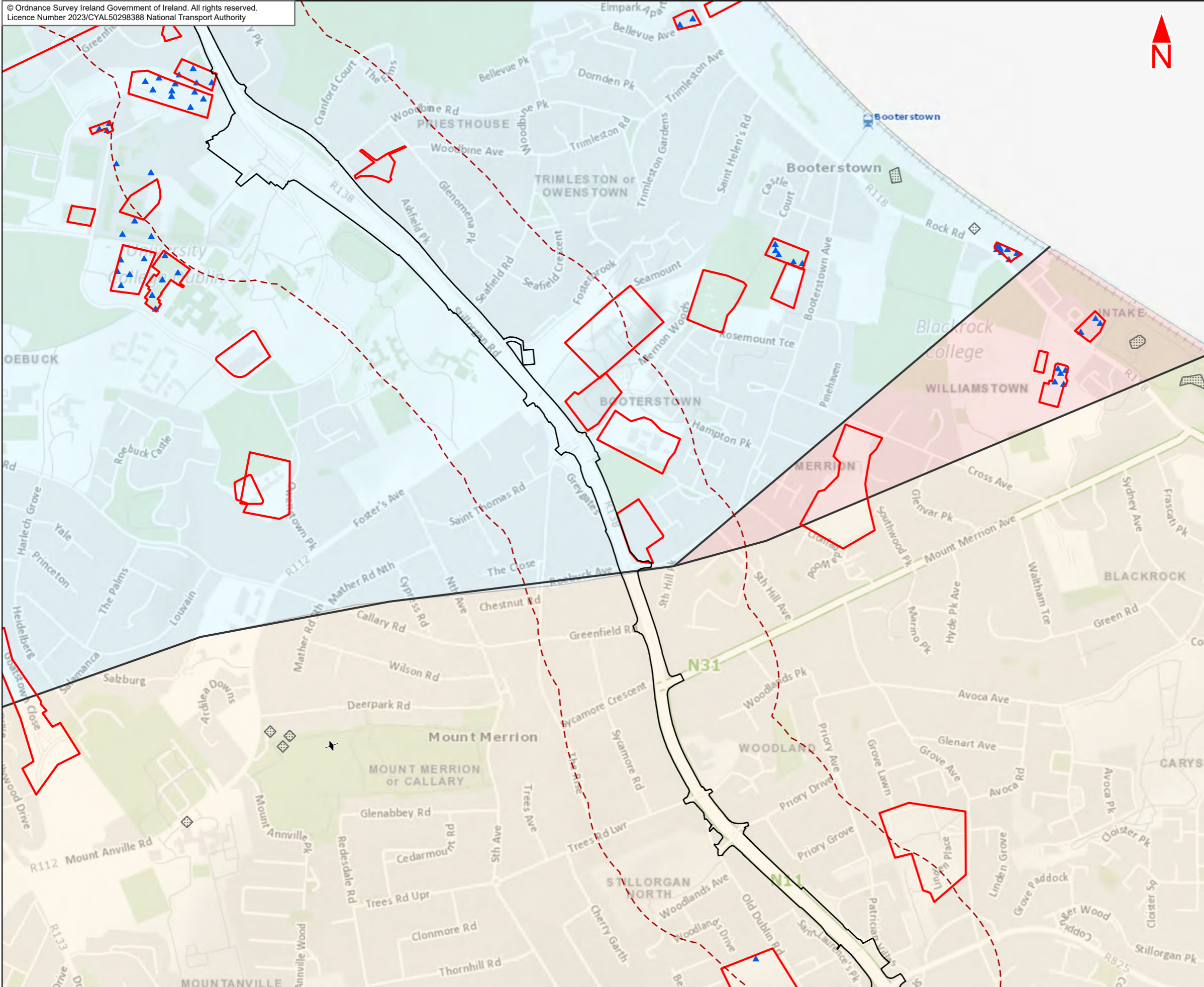
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 12/05/2023 | Scale @ A3: 1:10000  
Project Code: BCIDE | Originator Code: JAC

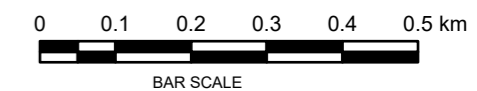
Drawn: FG | Checked: PW | Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0402	Sheet Number: 2 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - ▭ GSI Geotechnical Sites
  - ▲ GSI Geotechnical Boreholes
- GSI Bedrock Structural Symbols - 1:100,000**
- ✦ Strike of vertical first foliation
  - Fault
- GSI Bedrock Outcrop - 1:100,000**
- ▨ GSI Bedrock Outcrop - 1:100,000
- GSI Bedrock Geology - 1:100,000**
- Lucan Formation
  - Ballysteen Formation
  - Type 2p microcline porphyritic

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Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

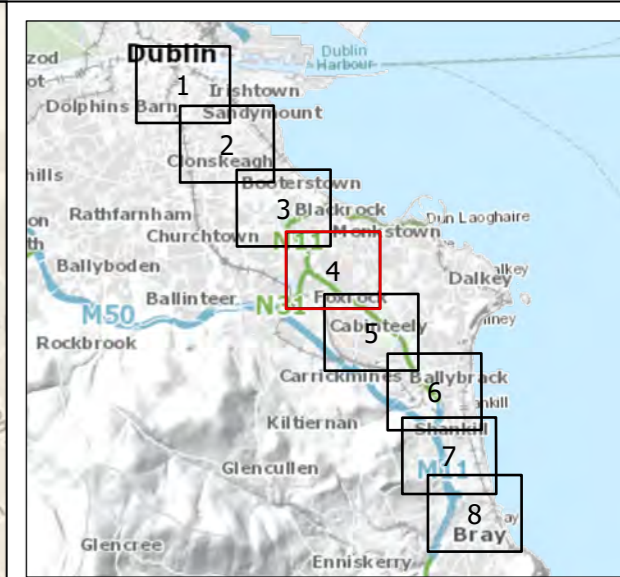
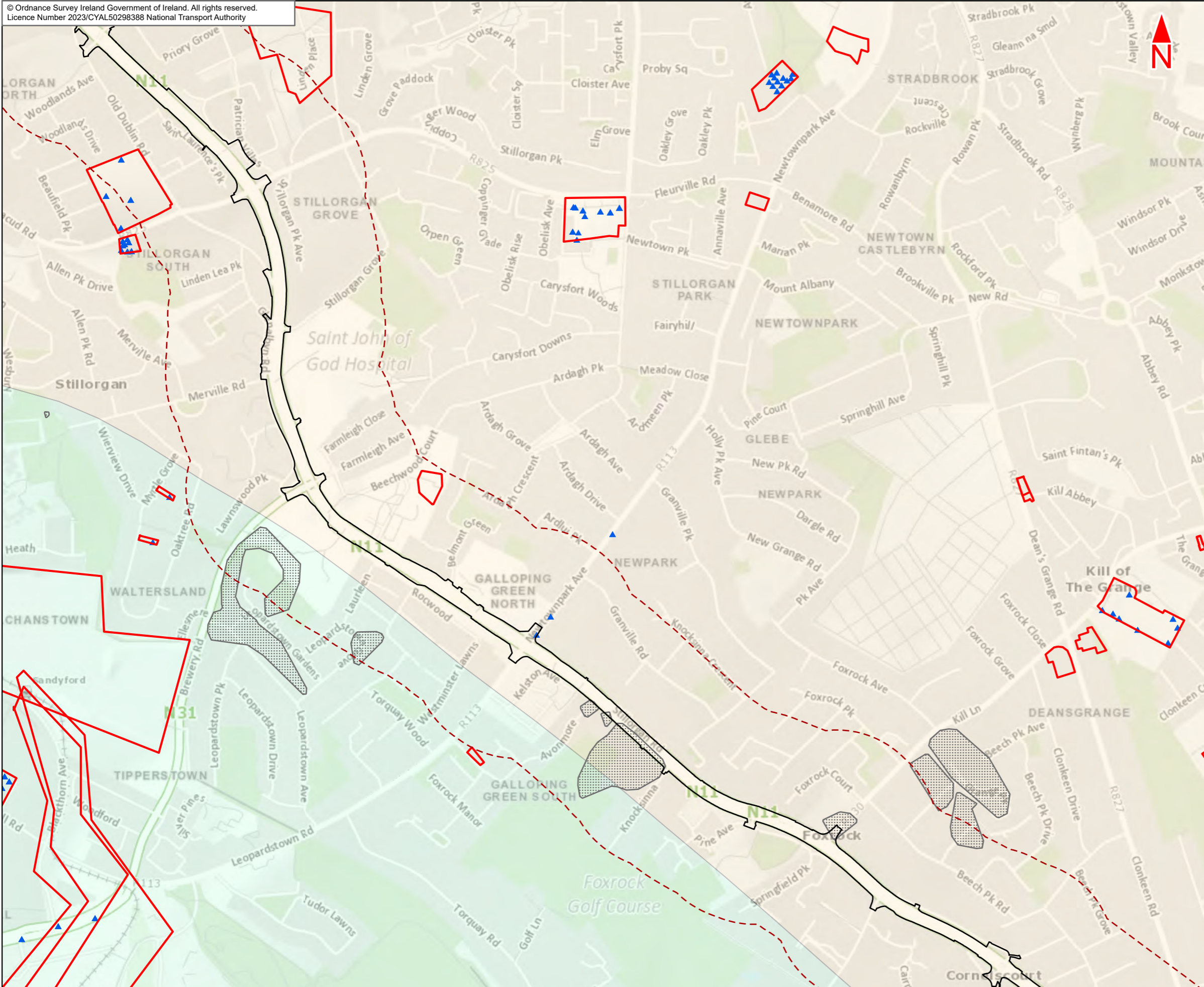
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Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK

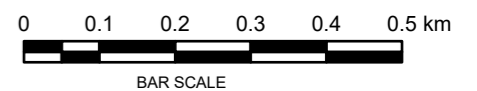
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0403	Sheet Number: 3 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Geotechnical Sites
  - GSI Geotechnical Boreholes
  - GSI Bedrock Outcrop - 1:100,000**
  - GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - Type 2p microcline porphyritic
  - Type 2e equigranular

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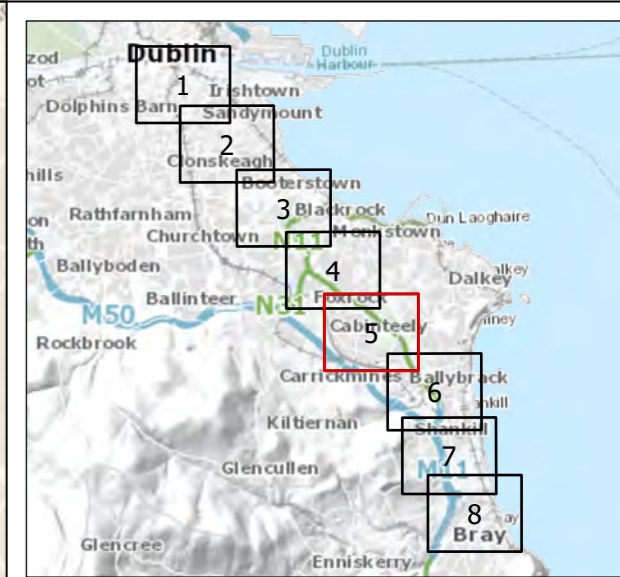
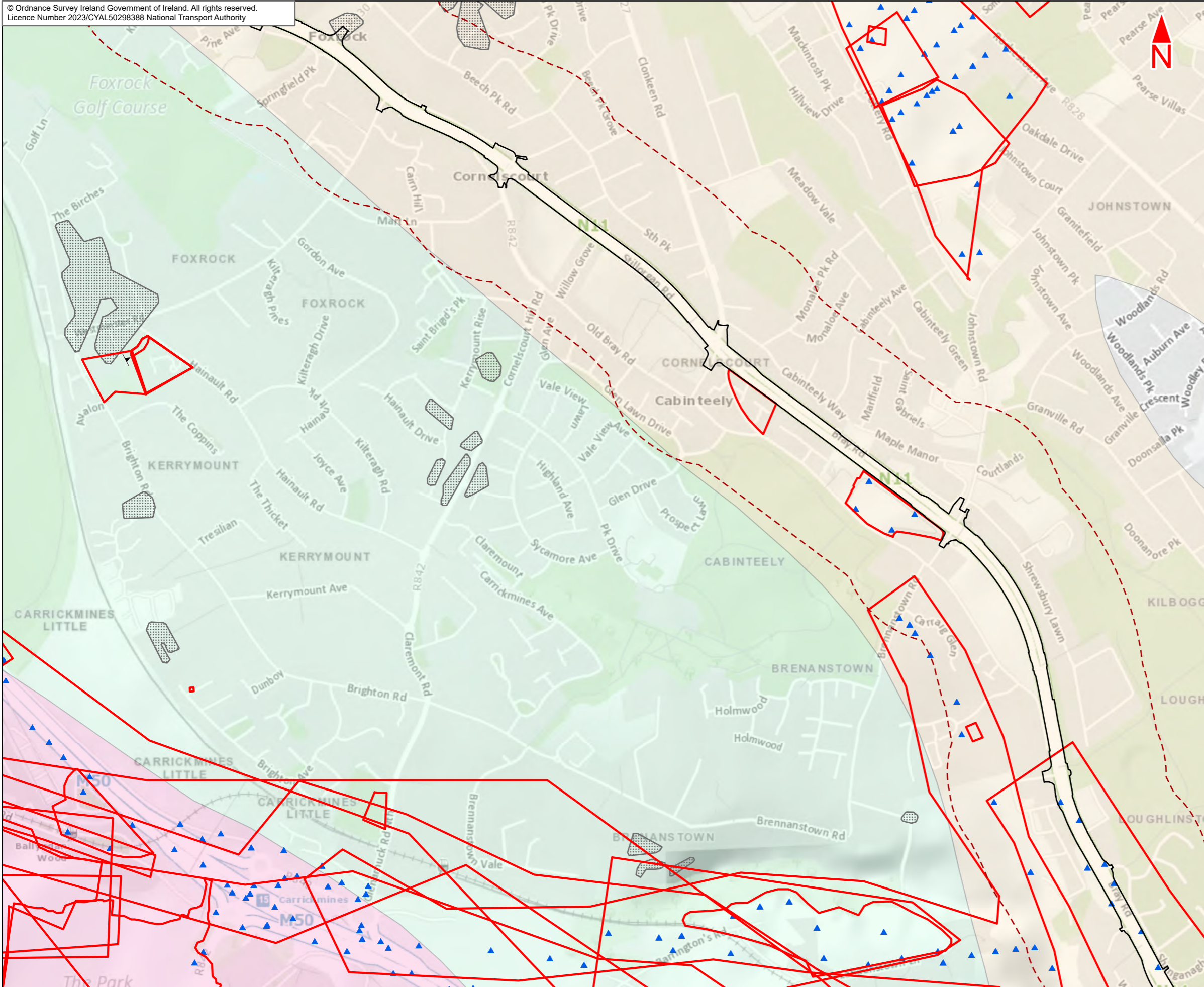
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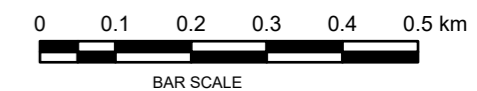
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0404	Sheet Number 4 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - ▭ GSI Geotechnical Sites
  - ▲ GSI Geotechnical Boreholes
  - GSI Bedrock Structural Symbols - 1:100,000**
  - ↖ Strike and dip of first foliation
  - GSI Bedrock Outcrop - 1:100,000**
  - ▨ GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - Type 2p microcline porphyritic
  - Type 2e equigranular
  - Type 3 muscovite porphyritic

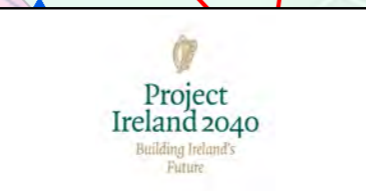
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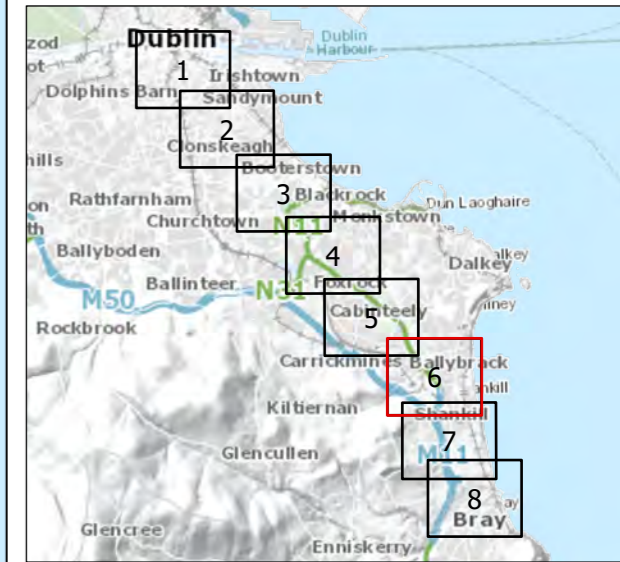
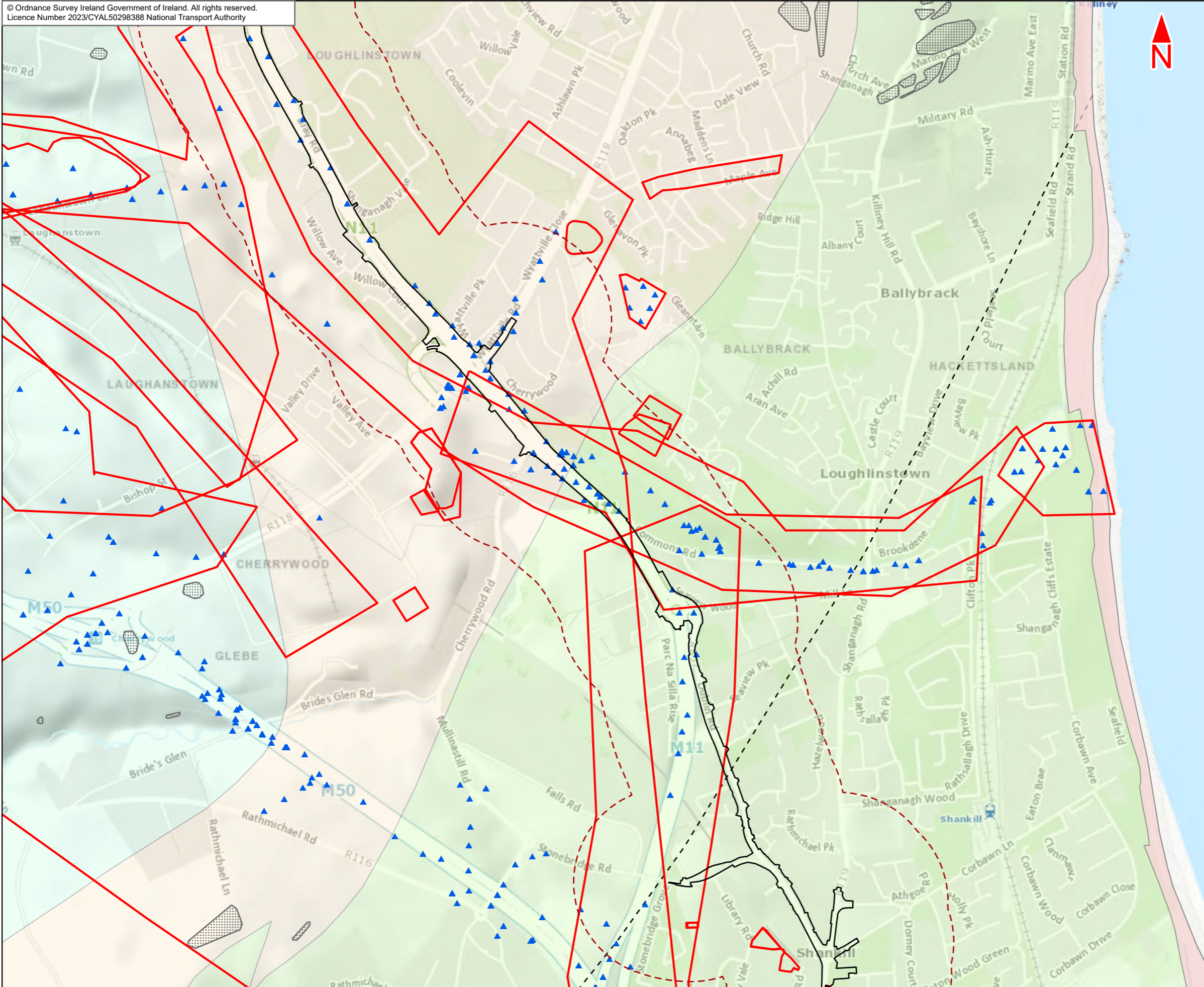
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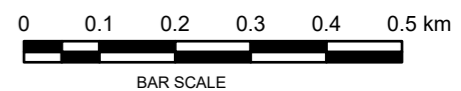
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0405	Sheet Number 5 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - ▭ GSI Geotechnical Sites
  - ▭ Geological Heritage Site
  - ▲ GSI Geotechnical Boreholes
  - - - Aureole
  - GSI Bedrock Outcrop - 1:100,000**
  - ▭ GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - ▭ Type 2p microcline porphyritic
  - ▭ Type 2e equigranular
  - ▭ Maulin Formation

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Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

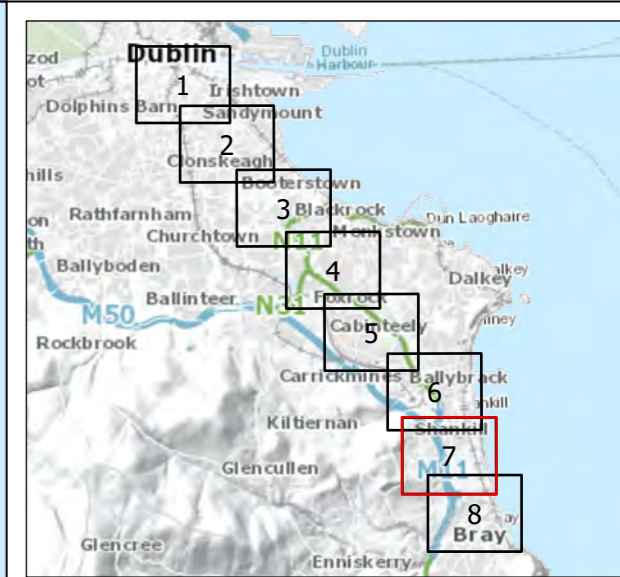
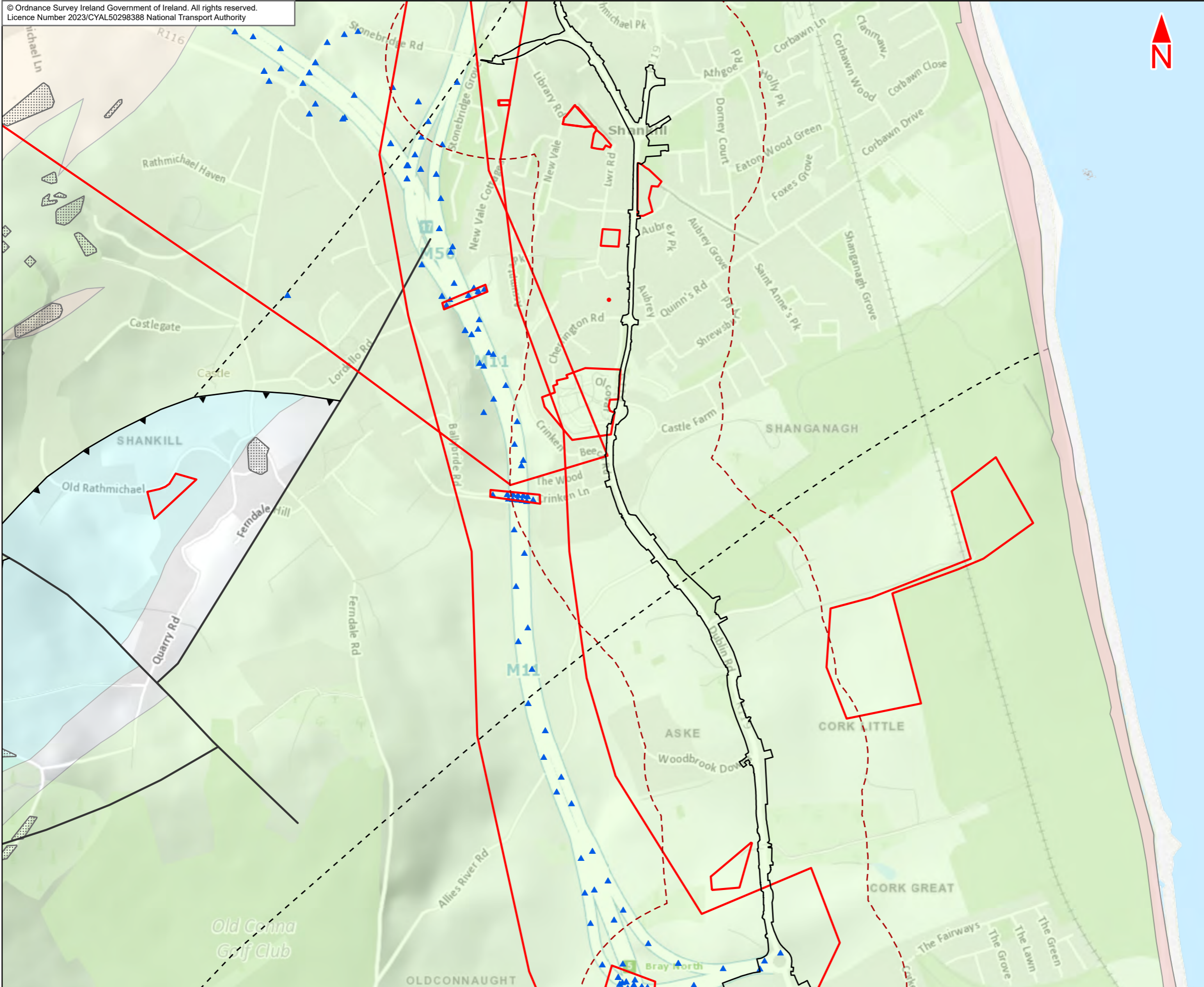
Date: 12/05/2023 Scale @ A3: 1:10000

Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK

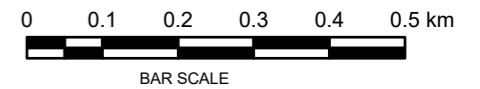
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0406	Sheet Number: 6 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Geotechnical Sites
  - Geological Heritage Site
  - GSI Geotechnical Boreholes
  - Aureole
  - Fault
  - Thrust, bars on hanging-wall side
  - GSI Bedrock Outcrop - 1:100,000**
  - GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - Type 2p microcline porphyritic
  - Maulin Formation
  - Bray Head Formation

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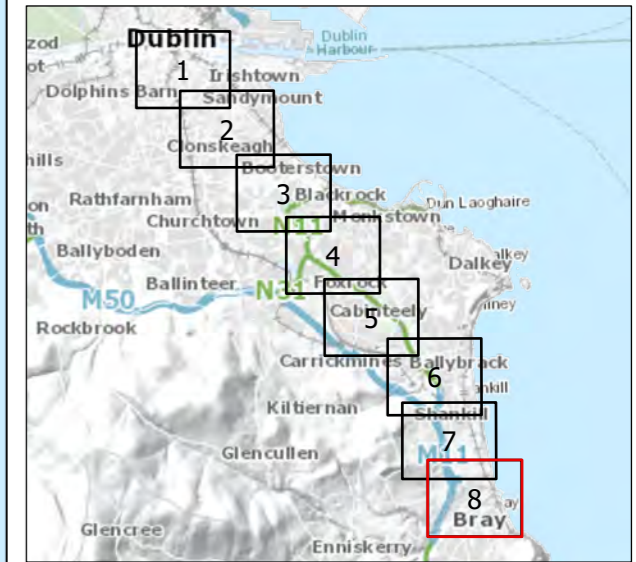
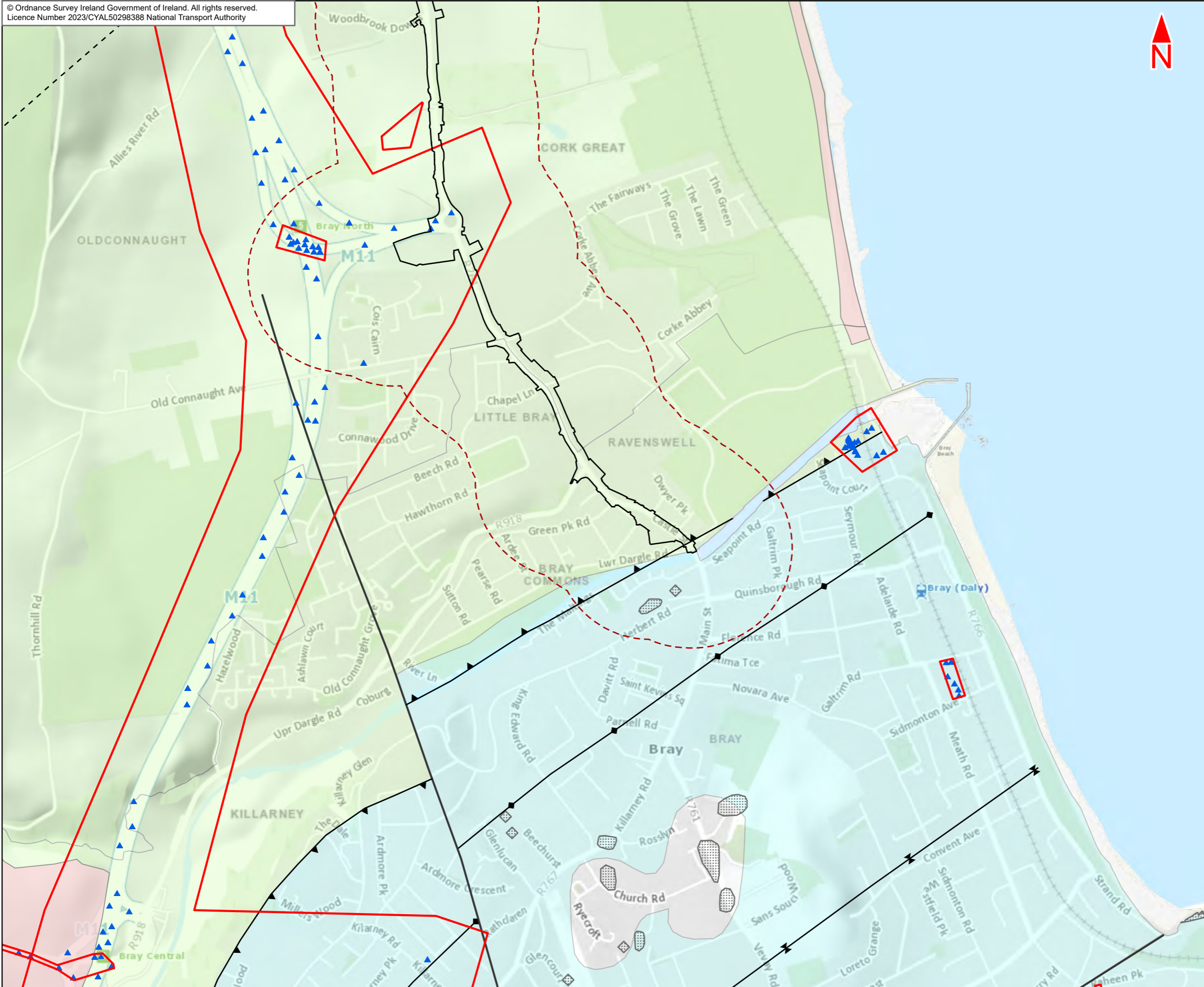
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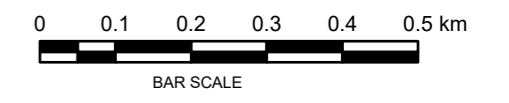
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0407	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Geotechnical Sites
  - Geological Heritage Site
  - GSI Geotechnical Boreholes
  - Anticlinal Axis
  - Aureole
  - Fault
  - Synclinal Axis
  - Thrust, bars on hanging-wall side
  - GSI Bedrock Outcrop - 1:100,000**
  - GSI Bedrock Outcrop - 1:100,000
  - GSI Bedrock Geology - 1:100,000**
  - Maulin Formation
  - Bray Head Formation

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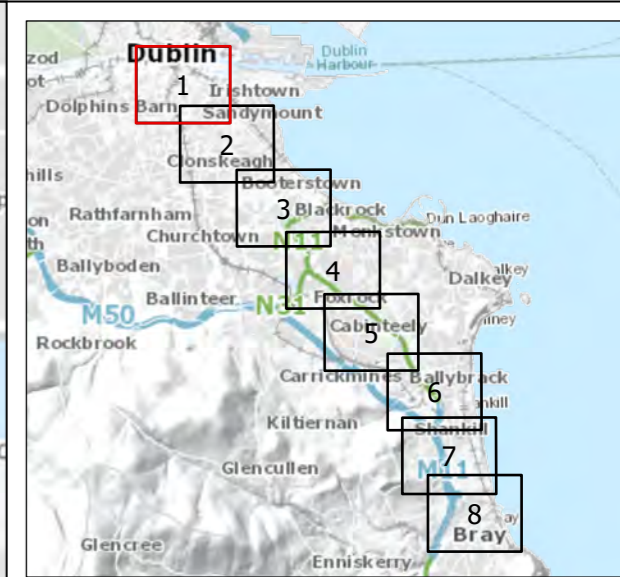
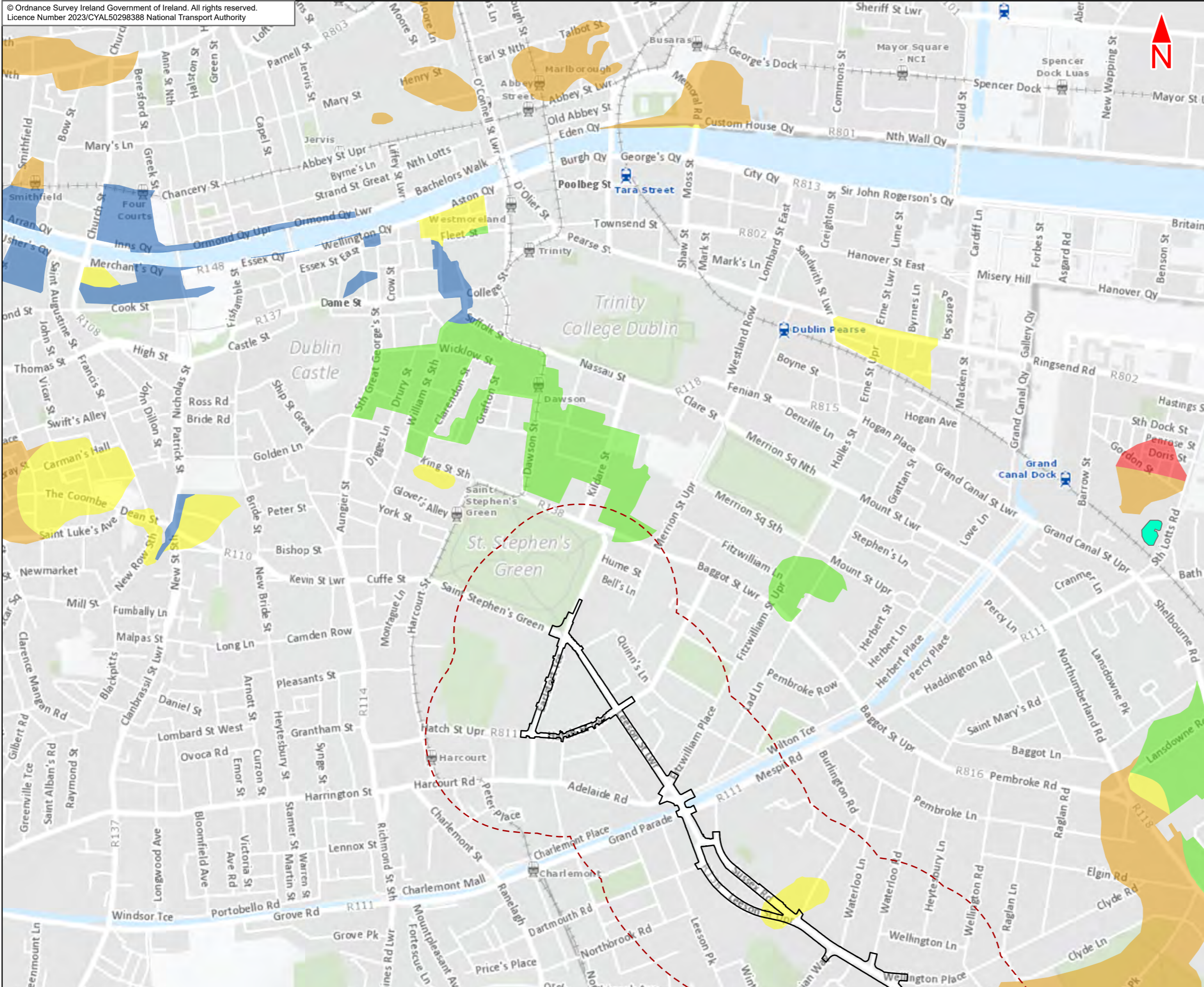
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0408	Sheet Number 8 of 8	Status A	Rev M01	



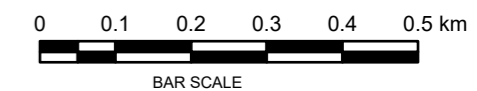


**14.11**  
Granular Aggregate Potential



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Pits and Quarries Areas
  - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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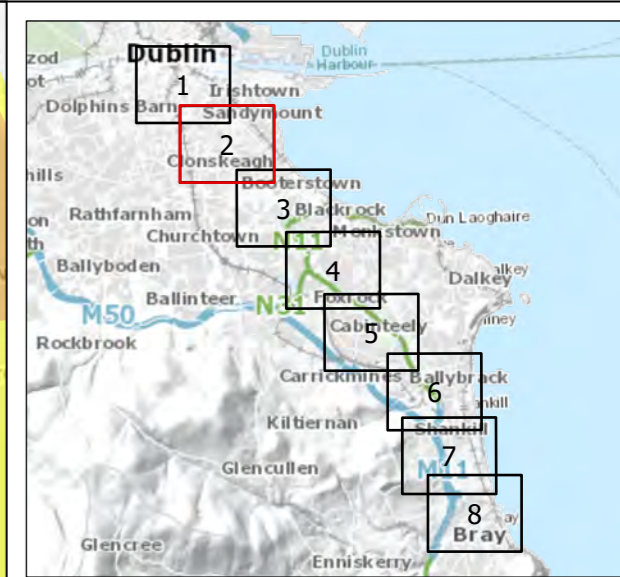
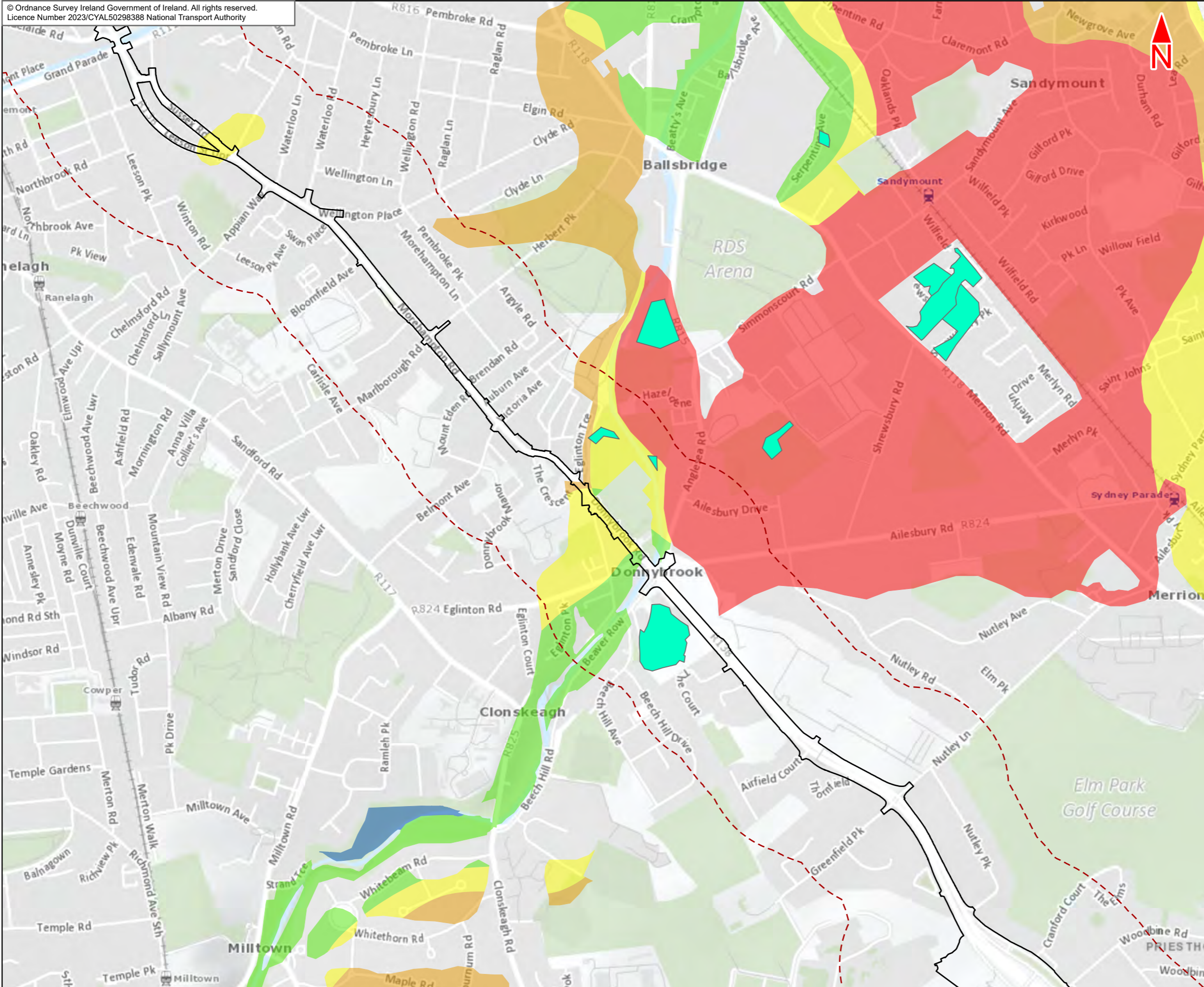
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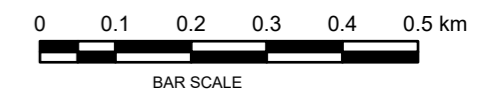
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0501	1 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Pits and Quarries Areas
  - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

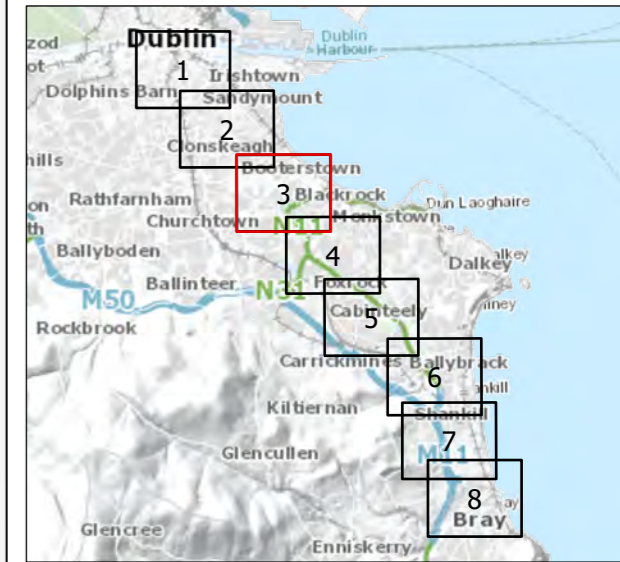
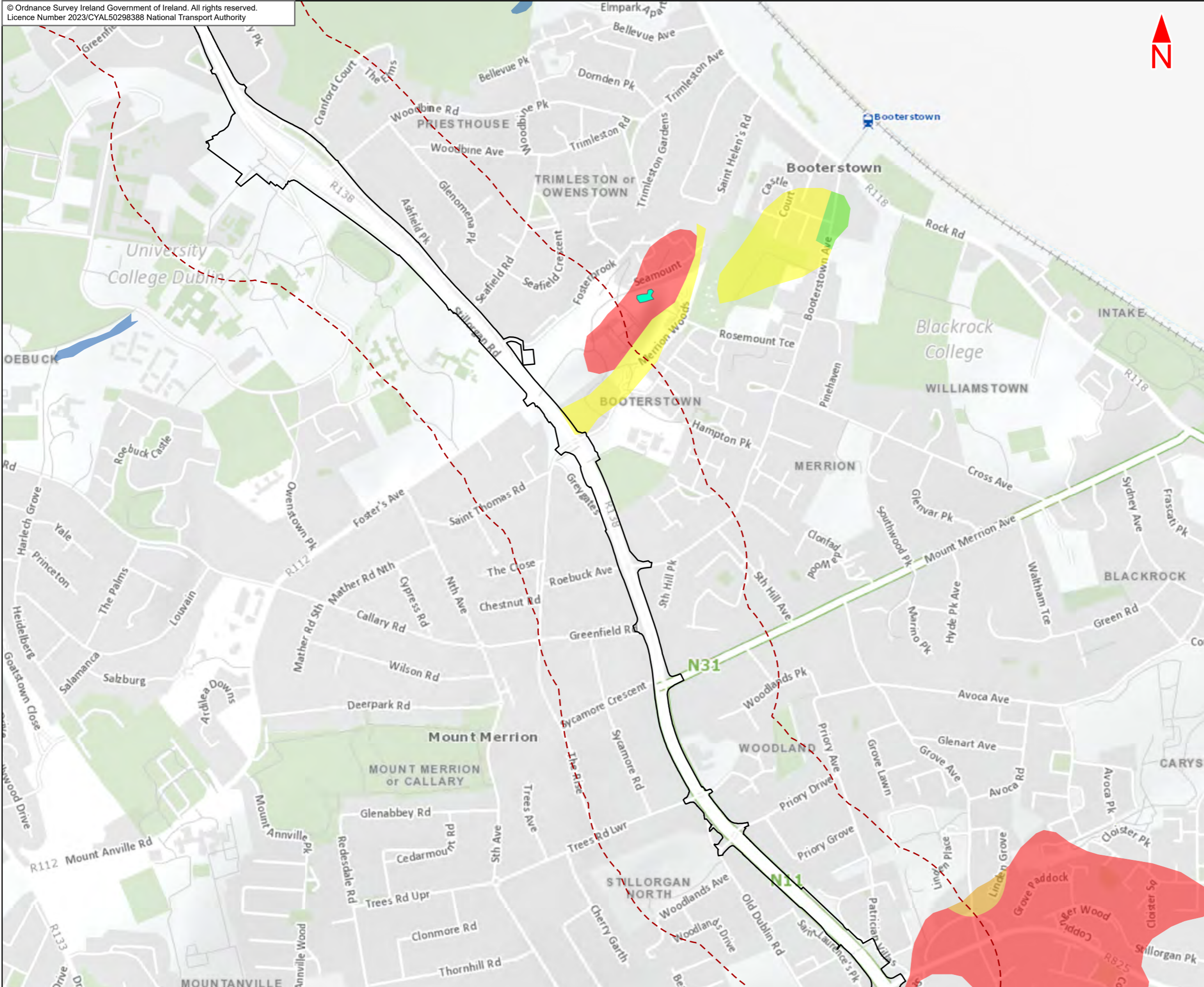
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Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

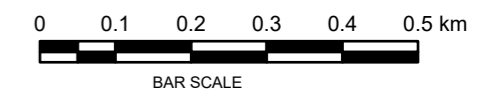
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0502	Sheet Number: 2 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Pits and Quarries Areas
  - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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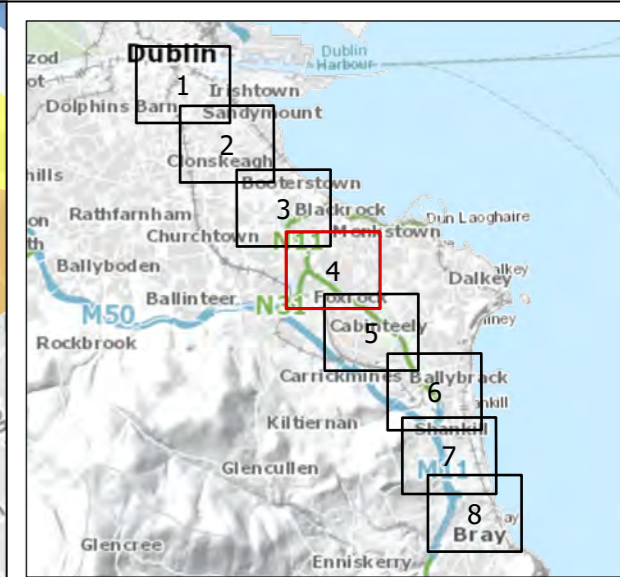
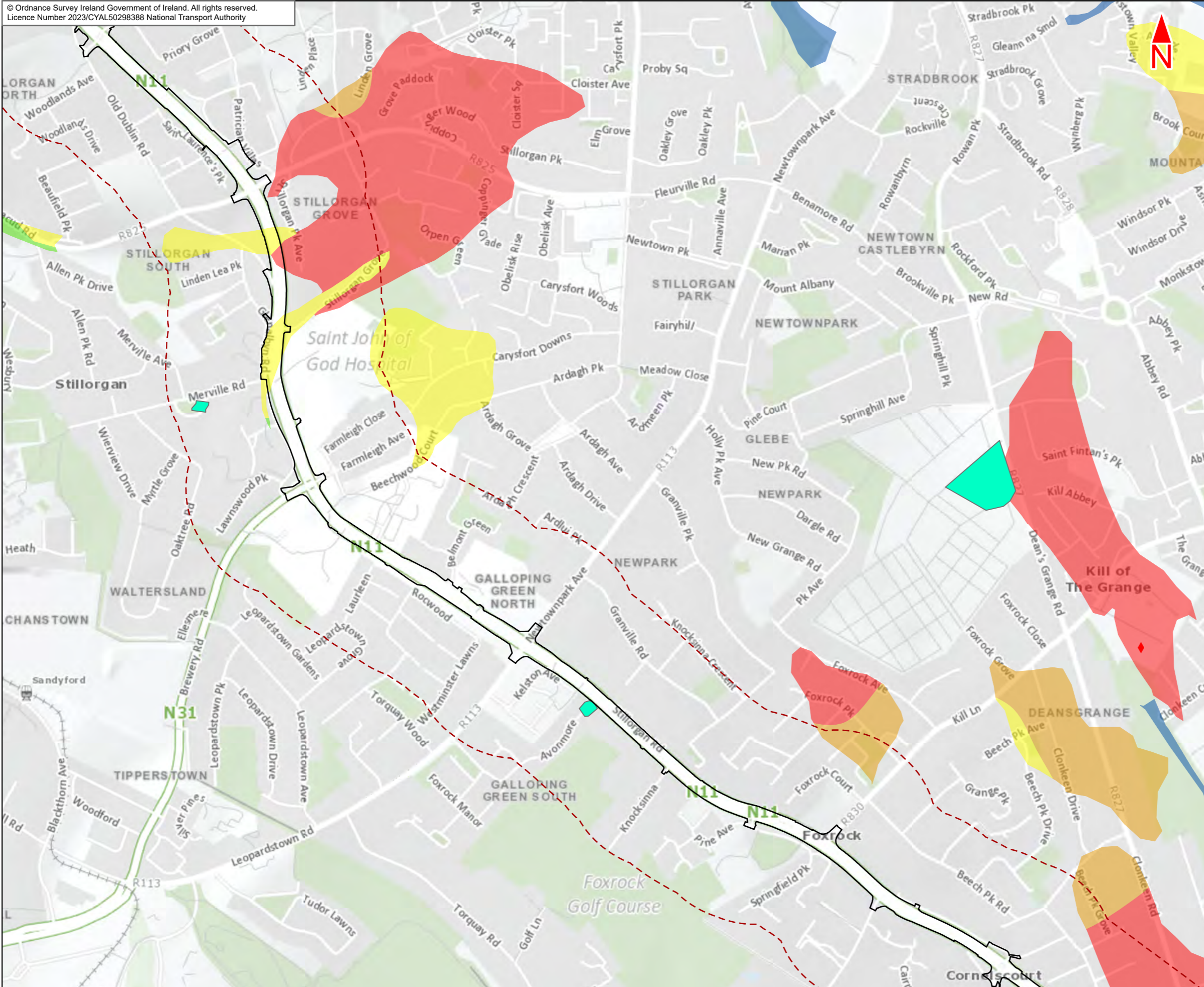
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M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>Client</b> Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> Jacobs ARUP SYSTRA		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0503	3 of 8	A	M01	



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- Mineral Locations**
- Non-metallic
- Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
- Very High potential
- High potential
- Moderate potential
- Low potential
- Very Low potential

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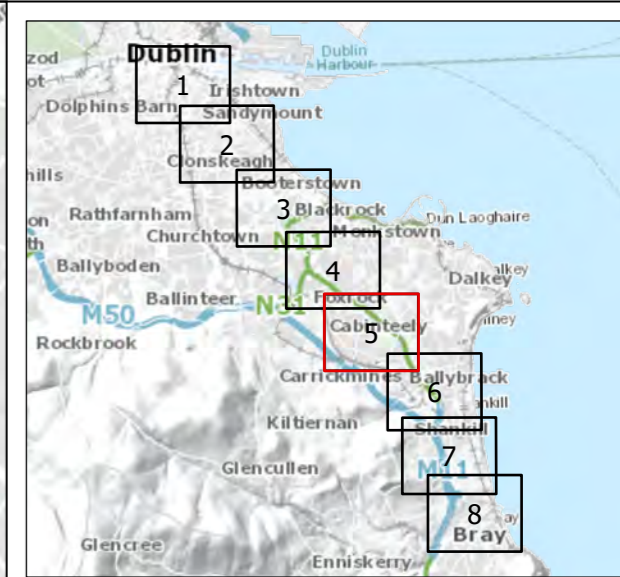
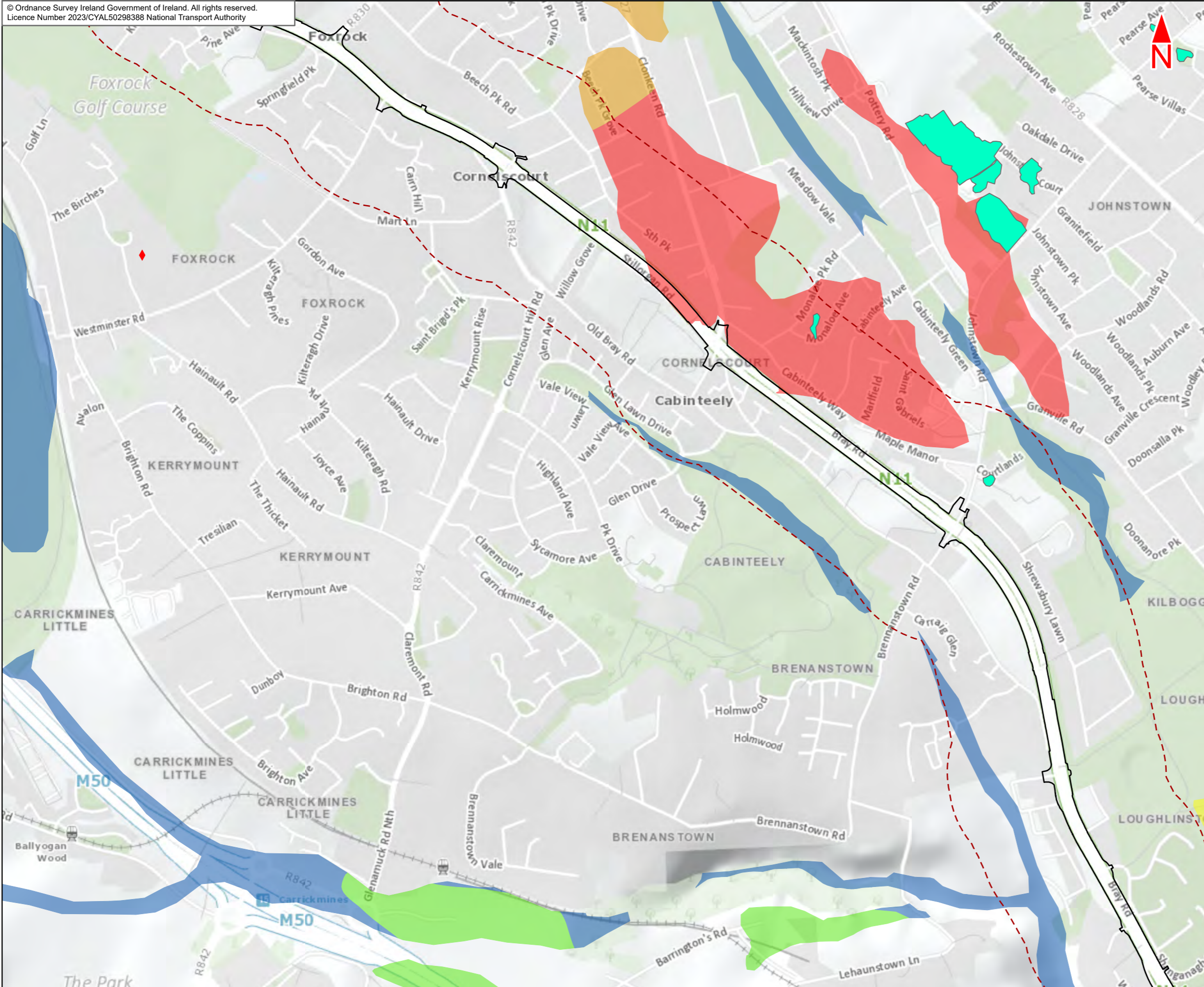
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3 1:10000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

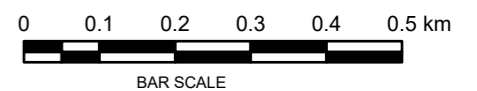
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0504	Sheet Number: 4 of 8	Status: A	Rev: M01



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- Mineral Locations**
  - Non-metallic
  - Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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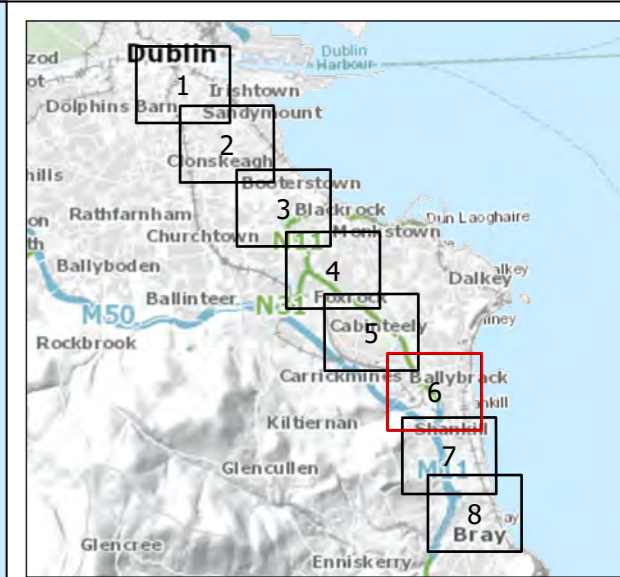
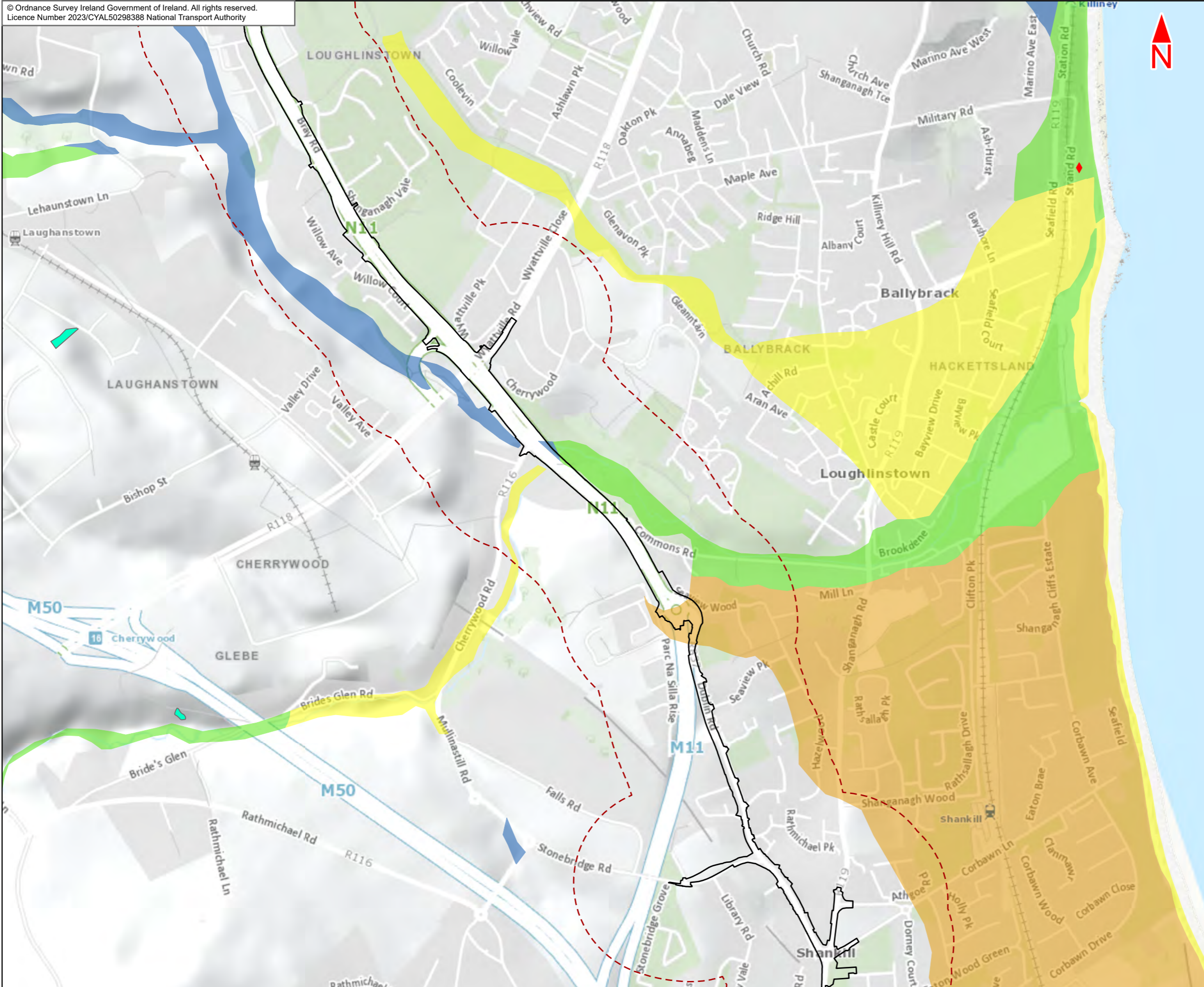
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3 1:10000  
Project Code: BCIDE Originator Code: JAC  
Drawn: FG Checked: PW Approved: DK

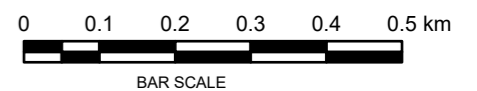
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0505	Sheet Number: 5 of 8	Status: A	Rev: M01



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- Mineral Locations**
  - Non-metallic
- Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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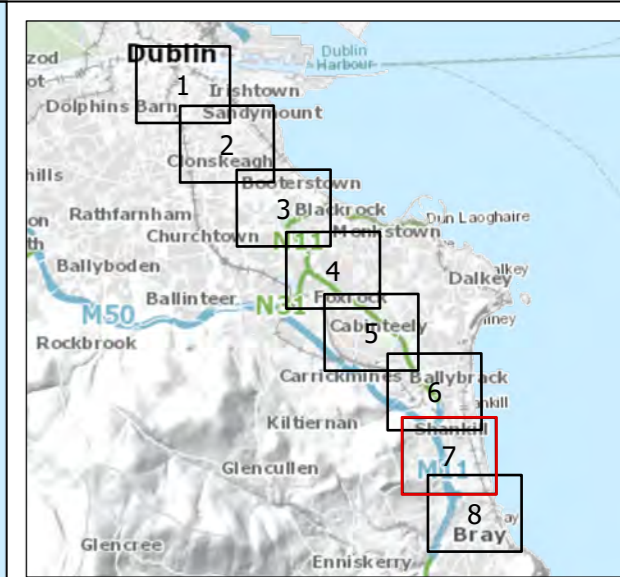
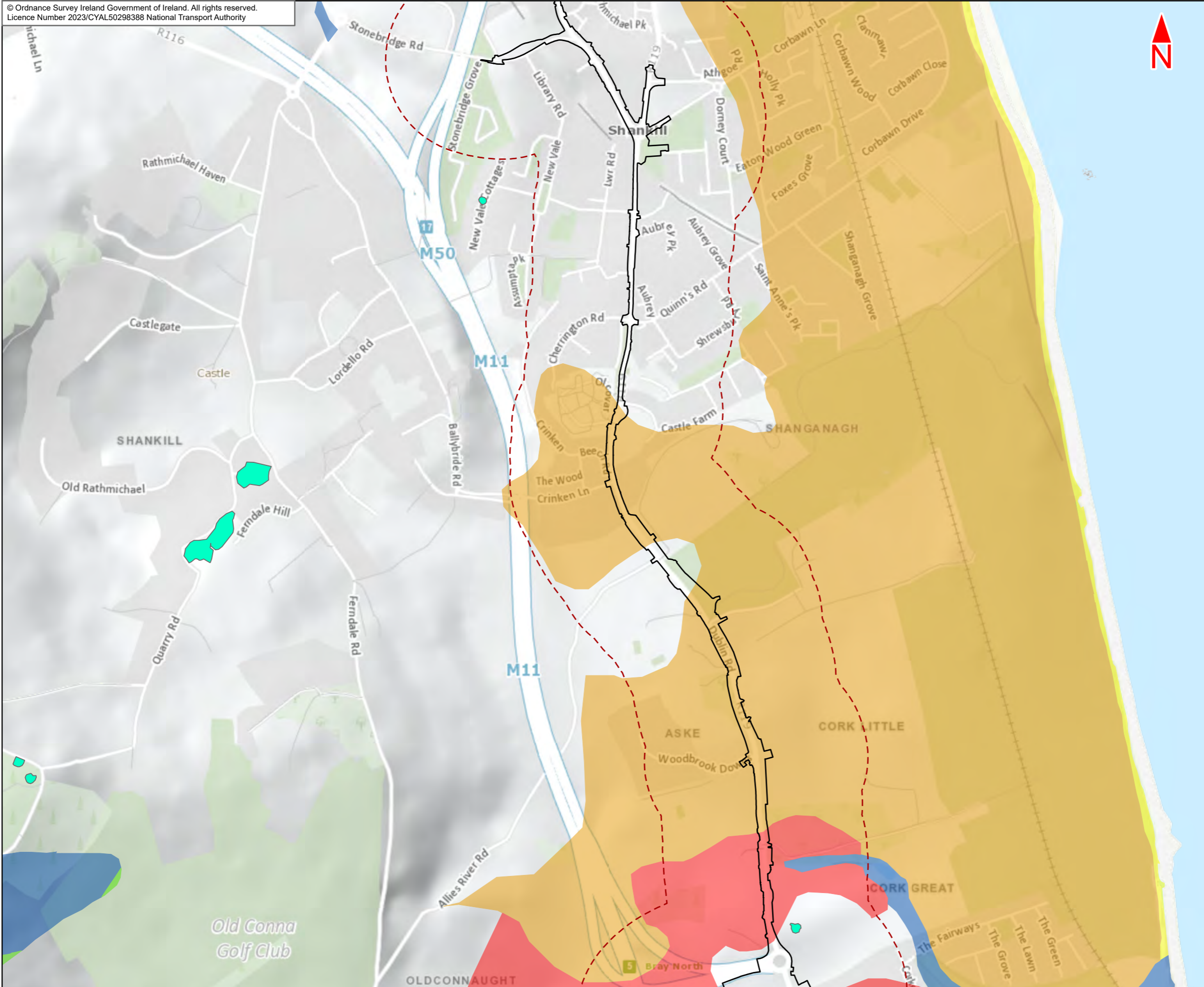
Client: **NTA**  
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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
 Project Code: BCIDE Originator Code: JAC  
 Drawn: FG Checked: PW Approved: DK  
 QMS Code:

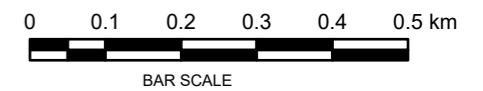
Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0506	Sheet Number: 6 of 8	Status: A	Rev: M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Pits and Quarries Areas
  - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
  - Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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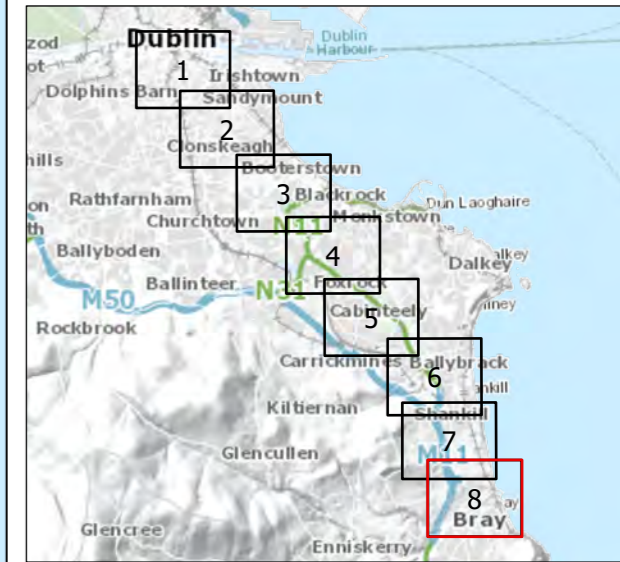
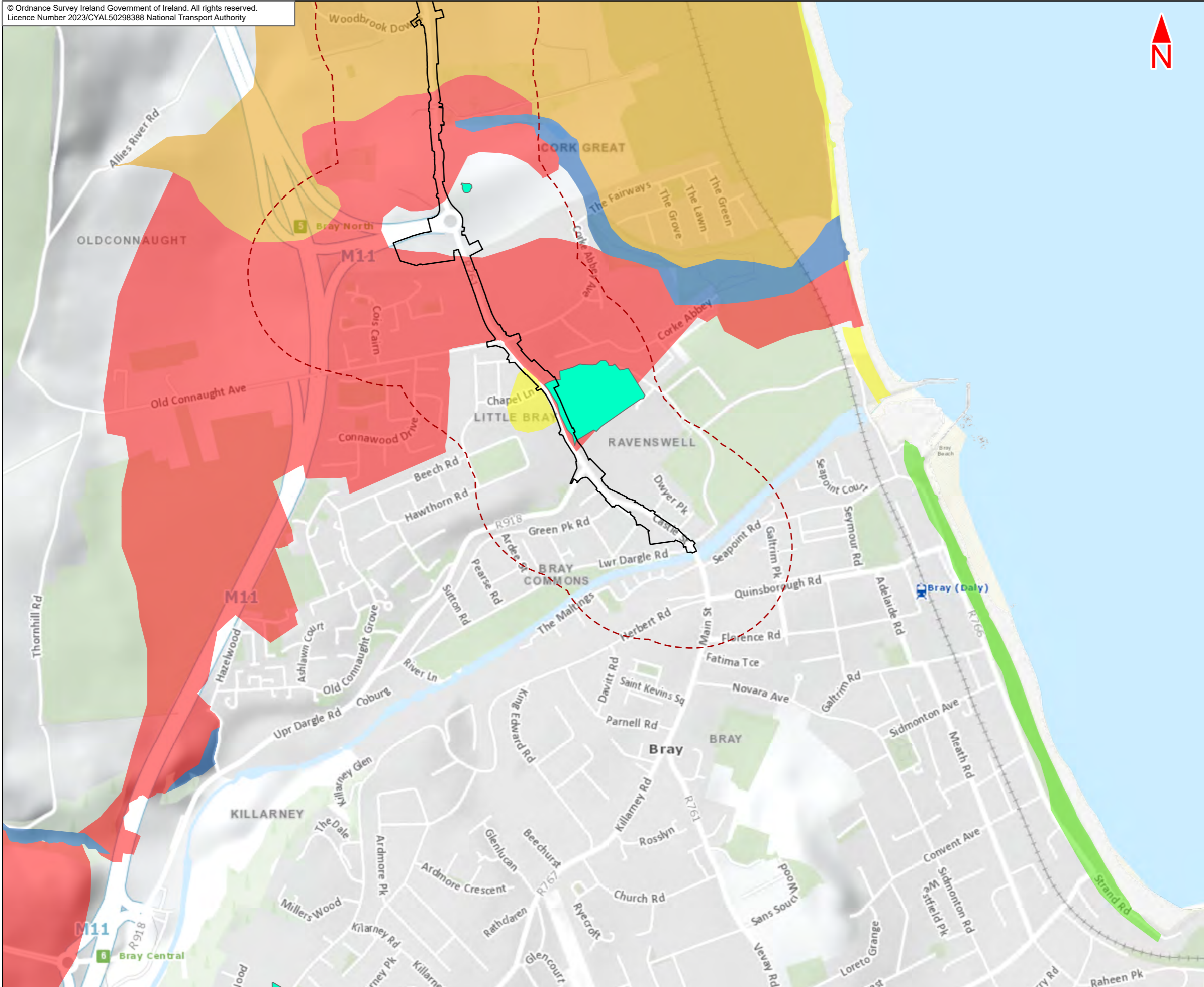


Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

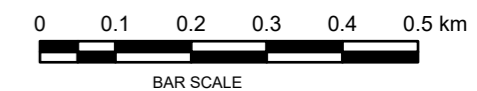
Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0507	Sheet Number 7 of 8	Status A	Rev M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
- Very High potential
  - High potential
  - Moderate potential
  - Low potential
  - Very Low potential

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Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 | Scale @ A3: 1:10000

Project Code: BCIDE | Originator Code: JAC

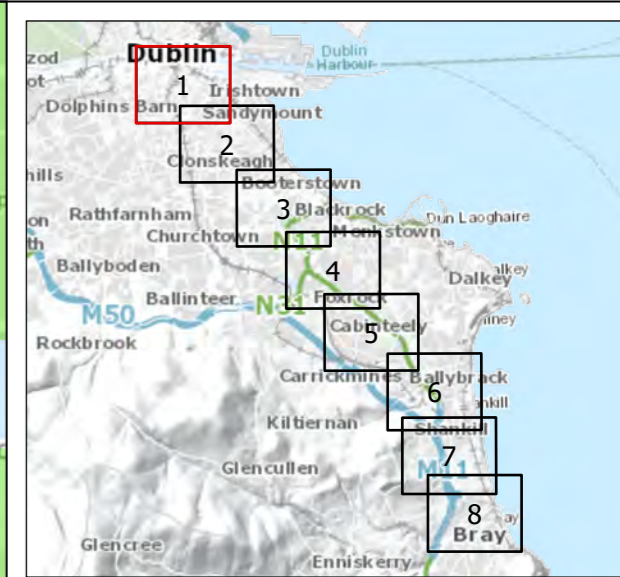
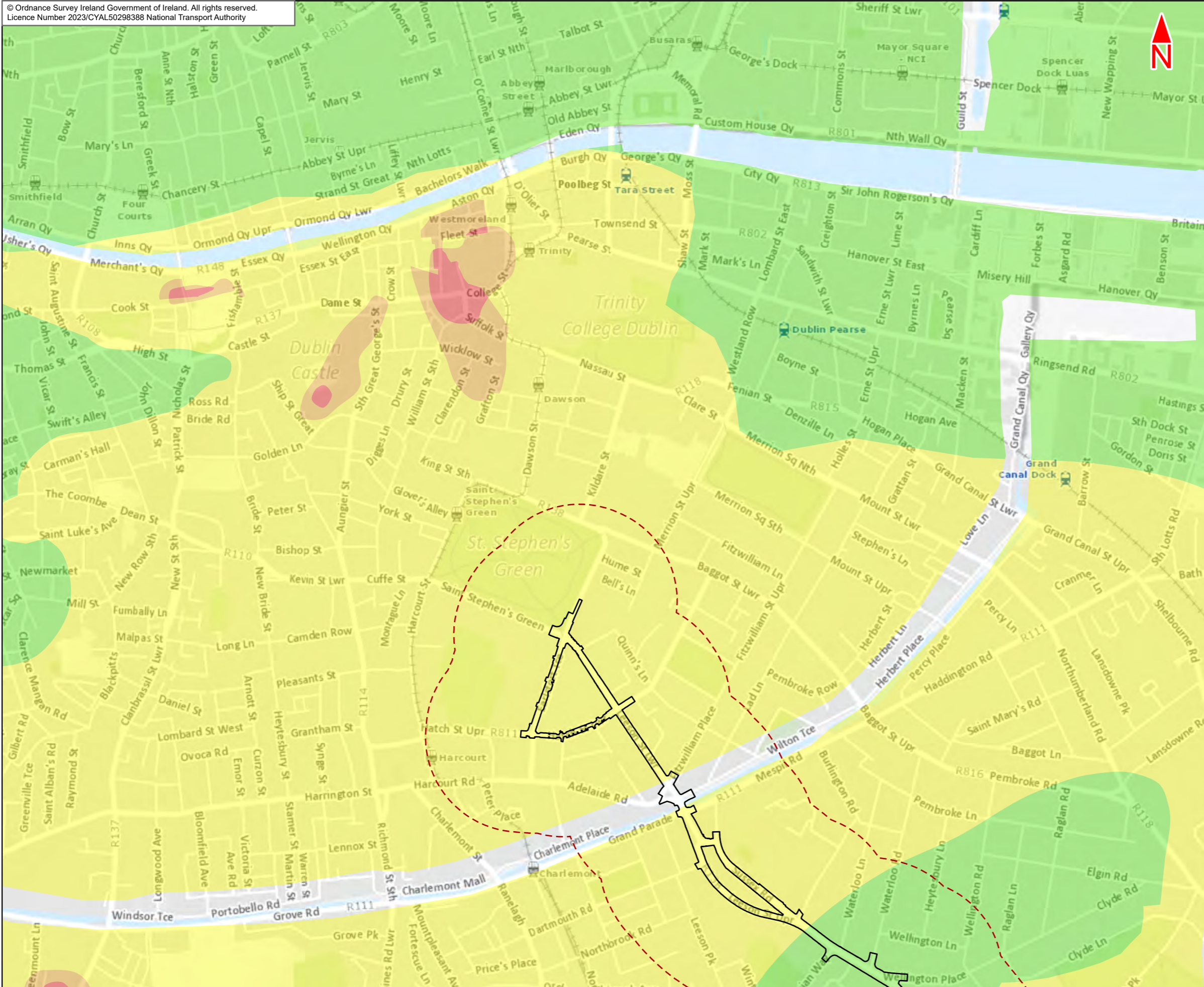
Drawn: FG | Checked: PW | Approved: DK

QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0508	Sheet Number: 8 of 8	Status: A	Rev: M01	

**14.12**  
Crushed Rock  
Aggregate Potential

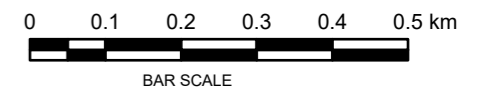




**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**
- Very high potential
- High potential
- Moderate potential
- Low potential

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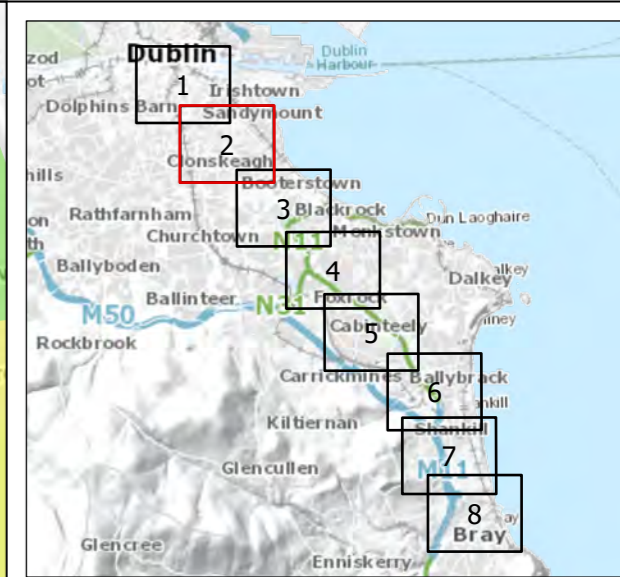
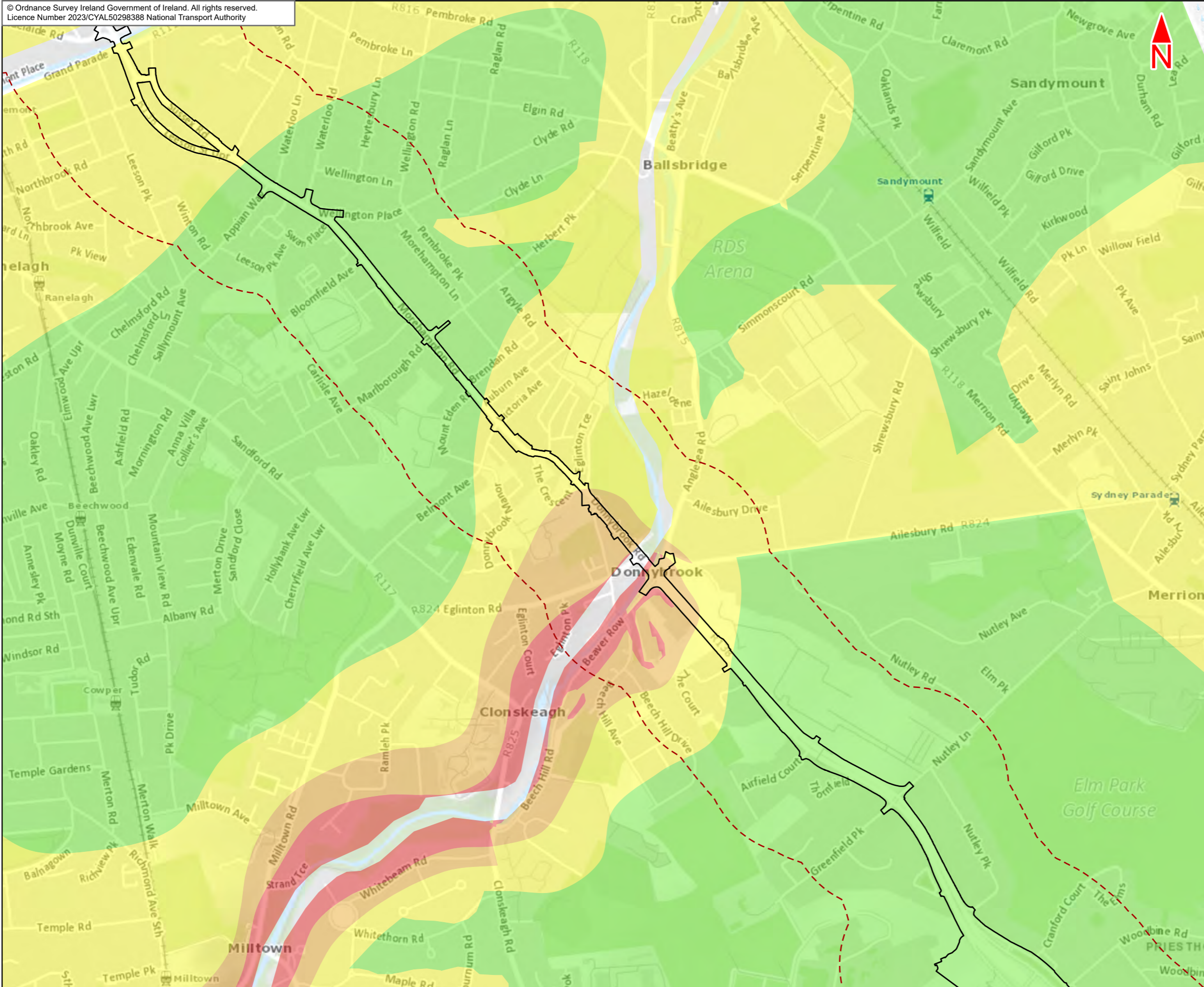
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<b>Client</b> Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> 		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0601	1 of 8	A	M01	



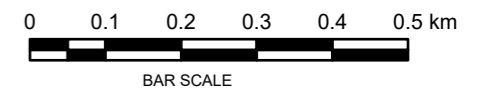
**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area

**GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**

- Very high potential
- High potential
- Moderate potential
- Low potential

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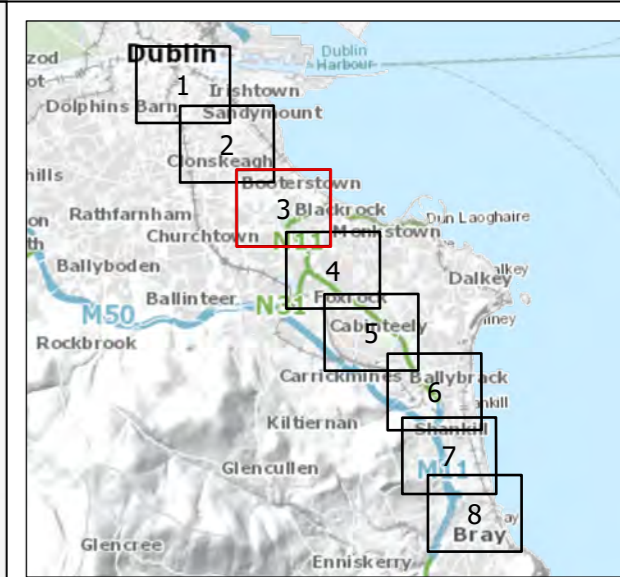
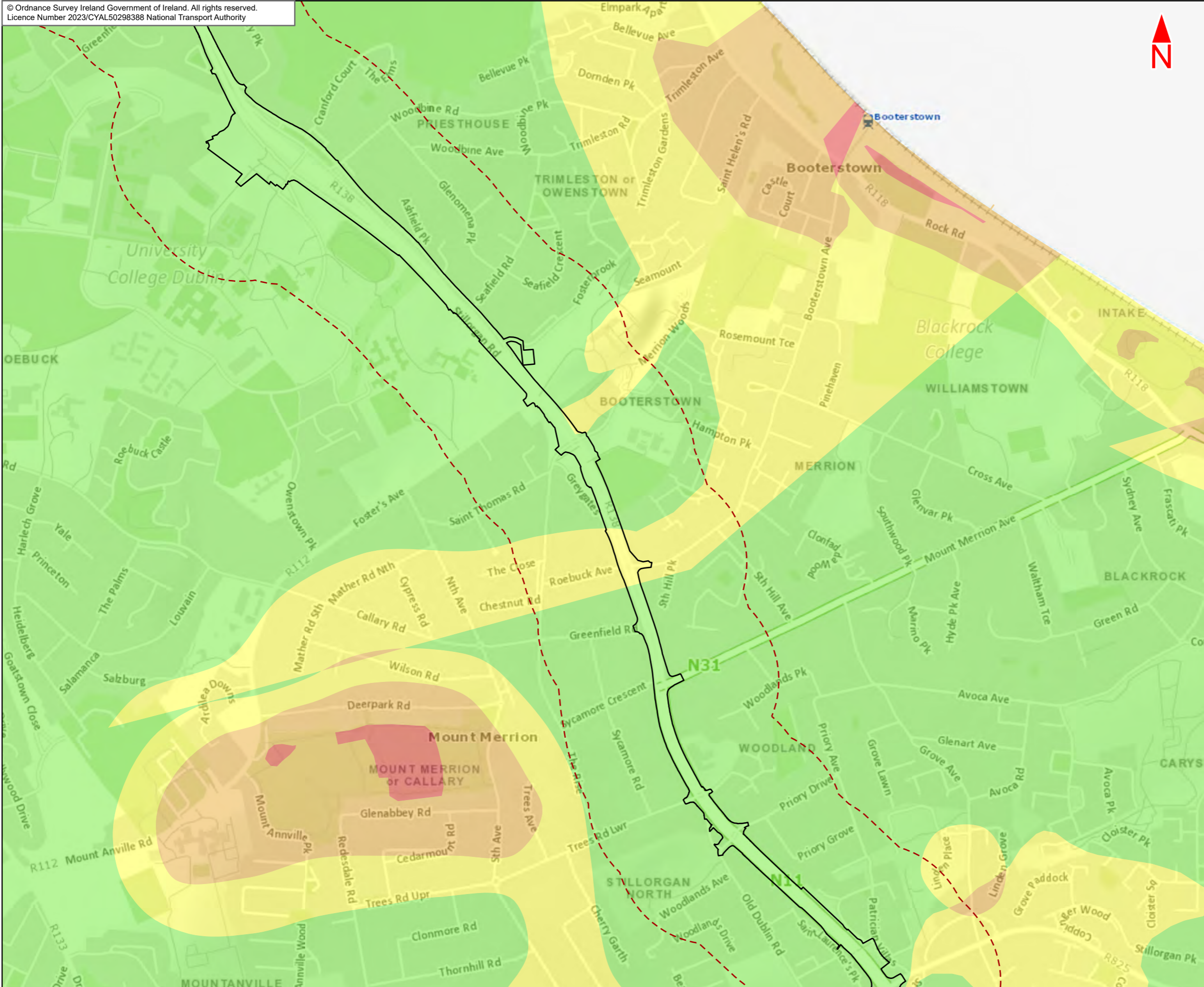
Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0602	Sheet Number: 2 of 8	Status: A	Rev: M01





**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area

**GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**

- Very high potential
- High potential
- Moderate potential
- Low potential

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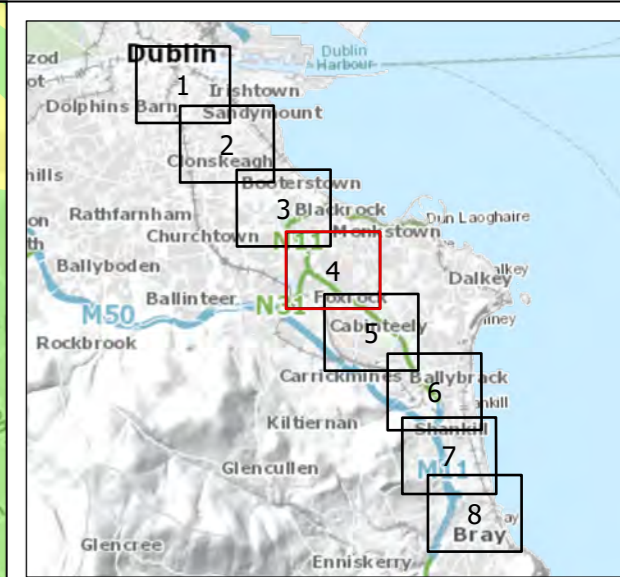
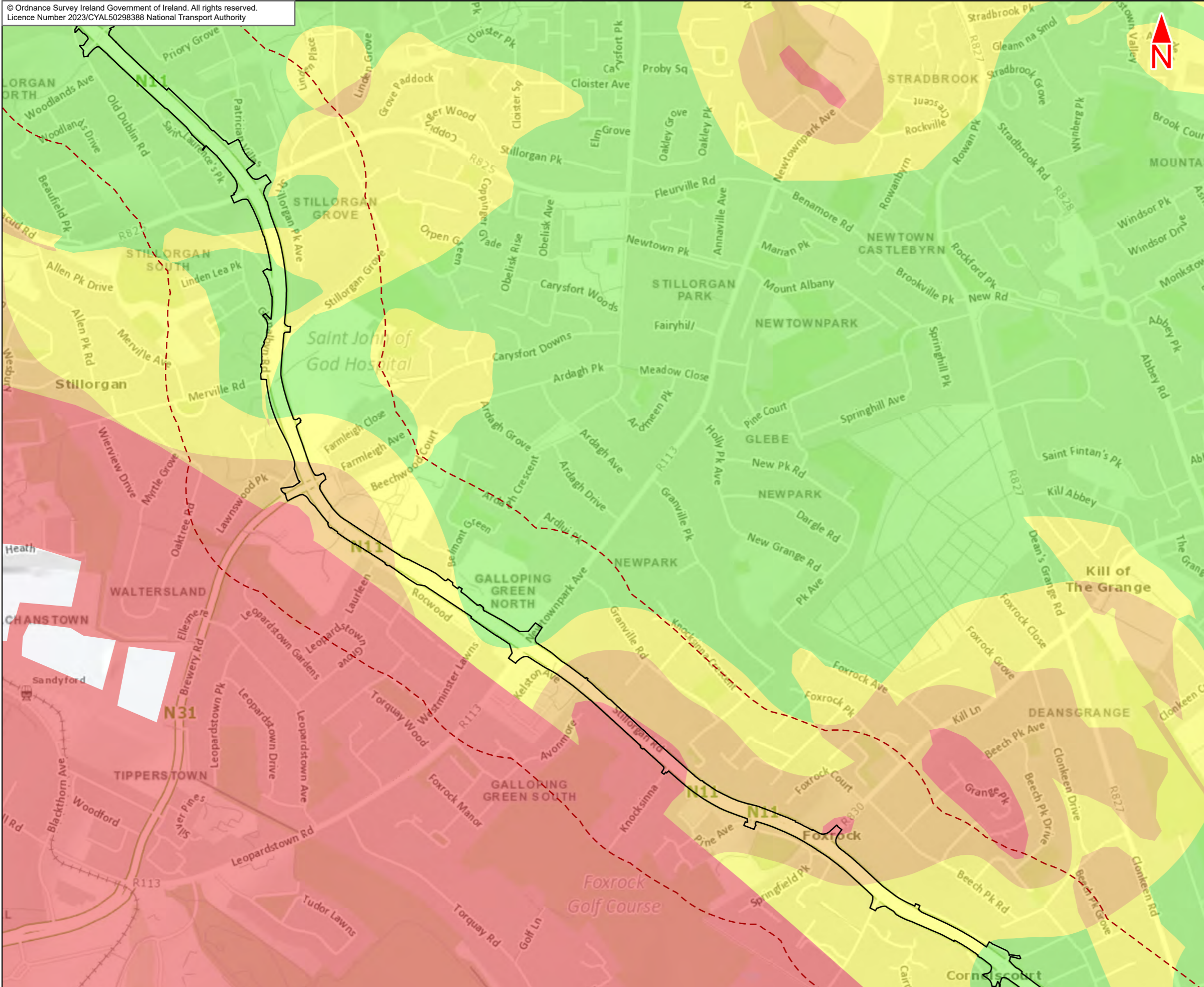
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Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0603	3 of 8	A	M01	



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area

**GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**

- Very high potential
- High potential
- Moderate potential
- Low potential

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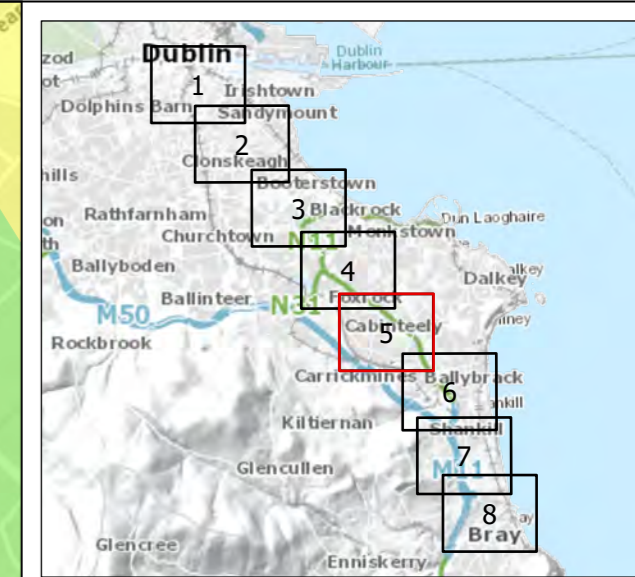
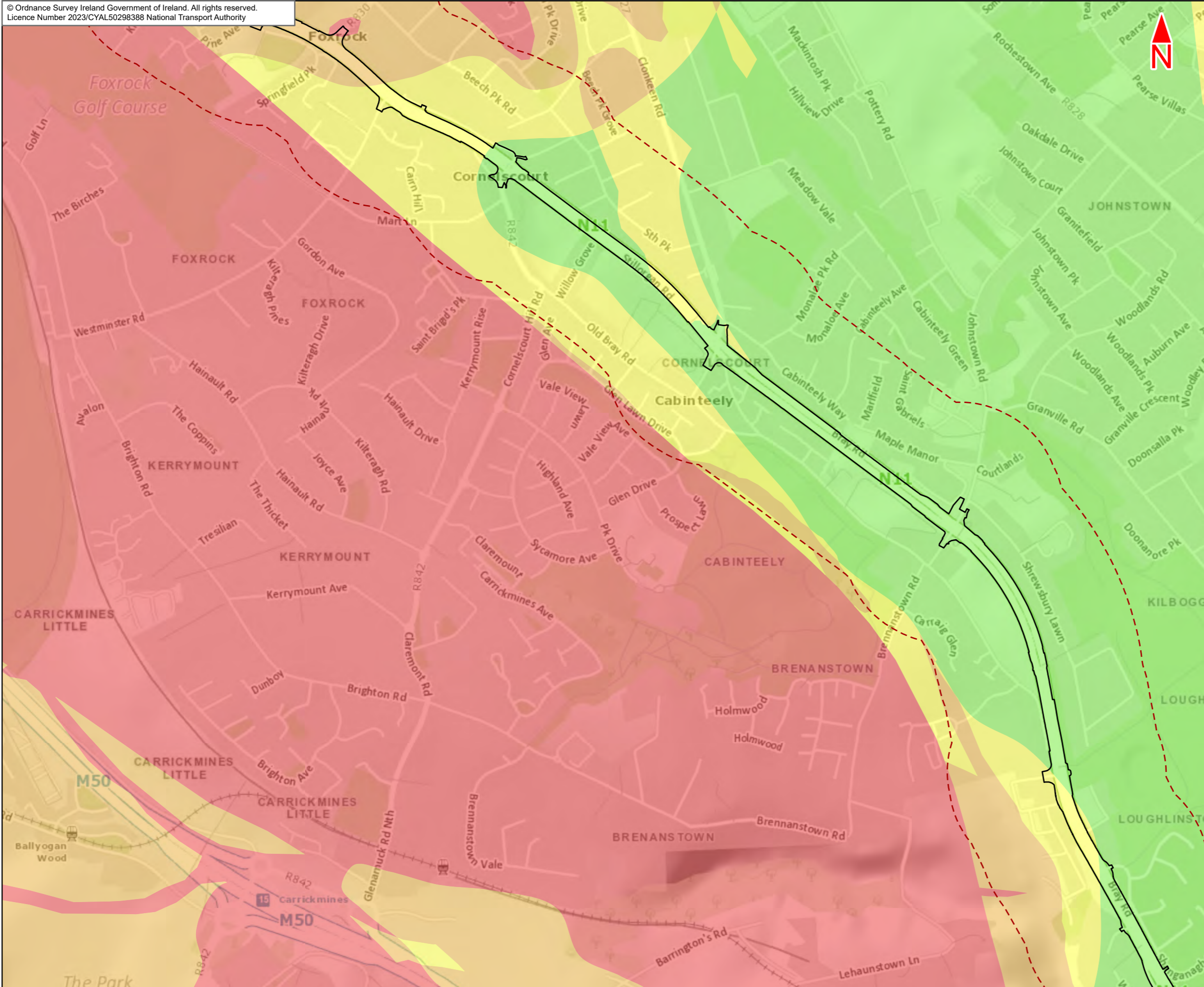
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National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0604	Sheet Number: 4 of 8	Status: A	Rev: M01	



**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

**GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**

- Very high potential
- High potential
- Moderate potential
- Low potential

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0 0.1 0.2 0.3 0.4 0.5 km  
BAR SCALE

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M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

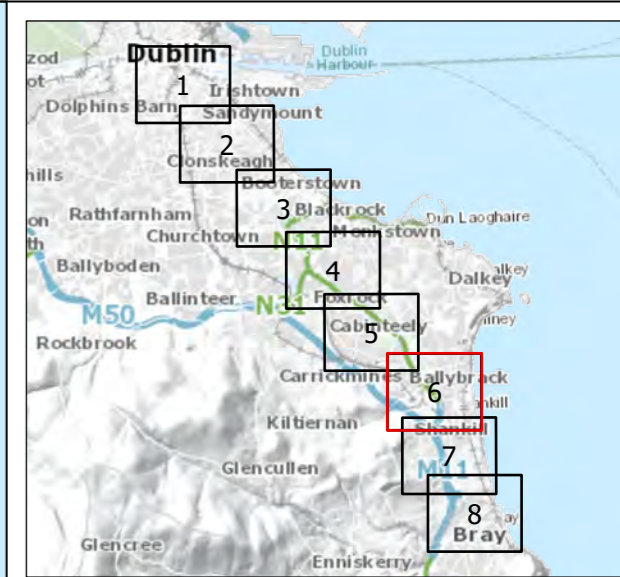
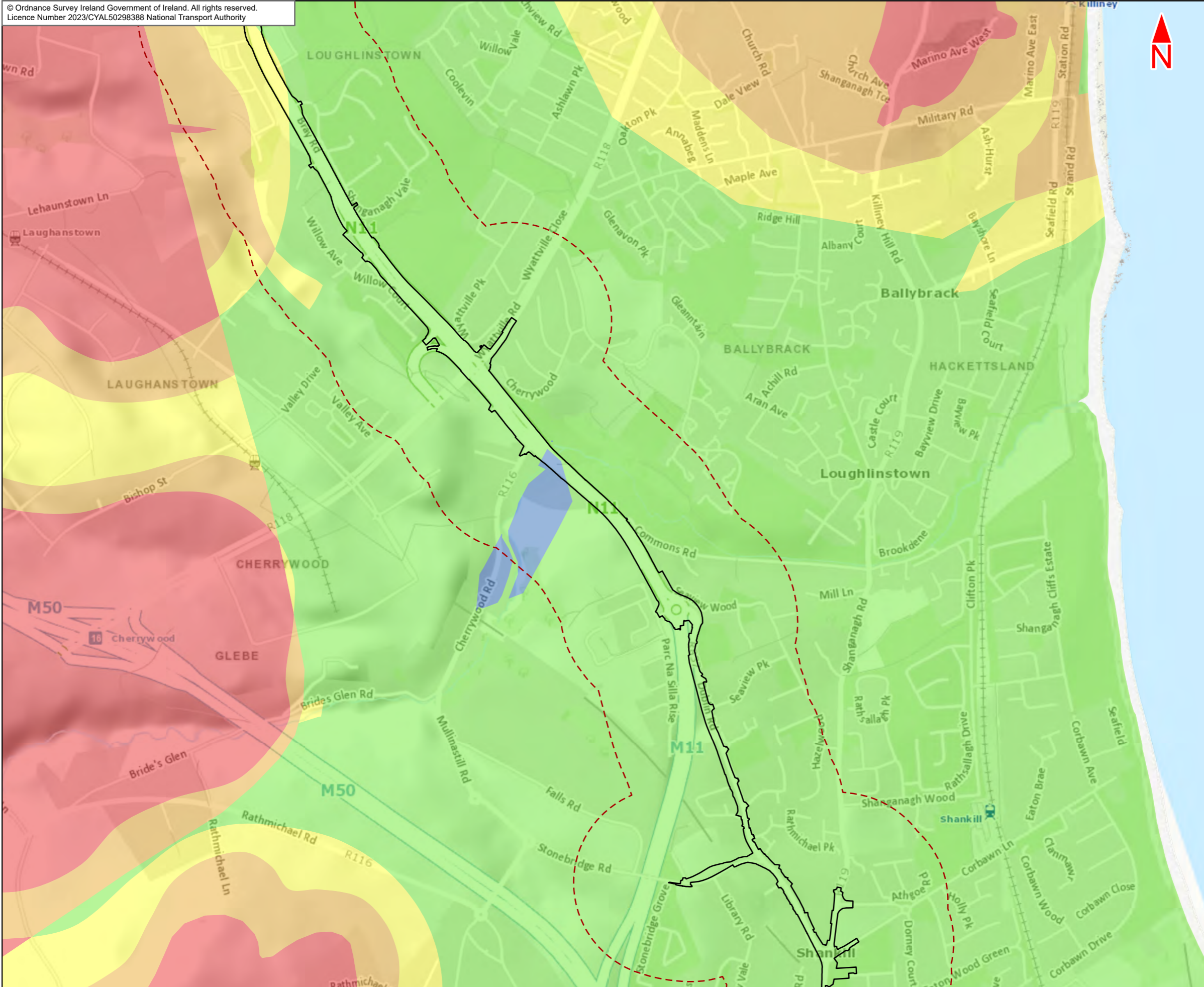
Client: **NTA**  
Udárás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

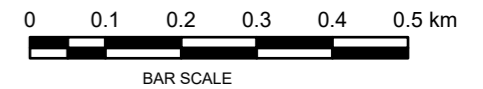
Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0605	Sheet Number: 5 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
- GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**
- Very high potential
  - High potential
  - Moderate potential
  - Low potential
  - Very low potential

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Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

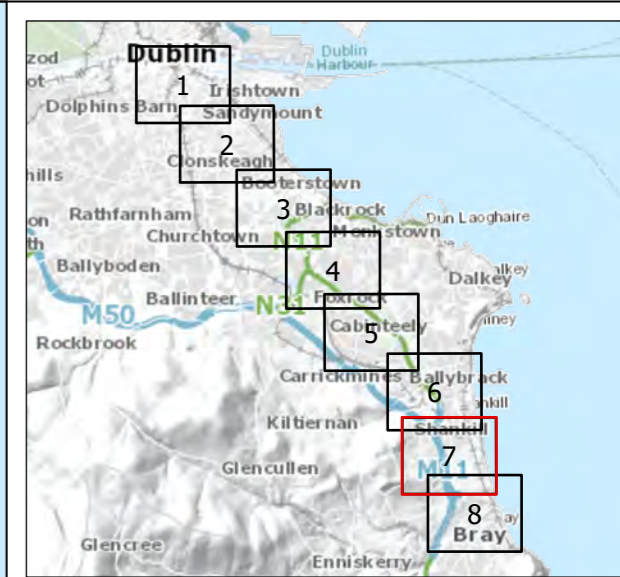
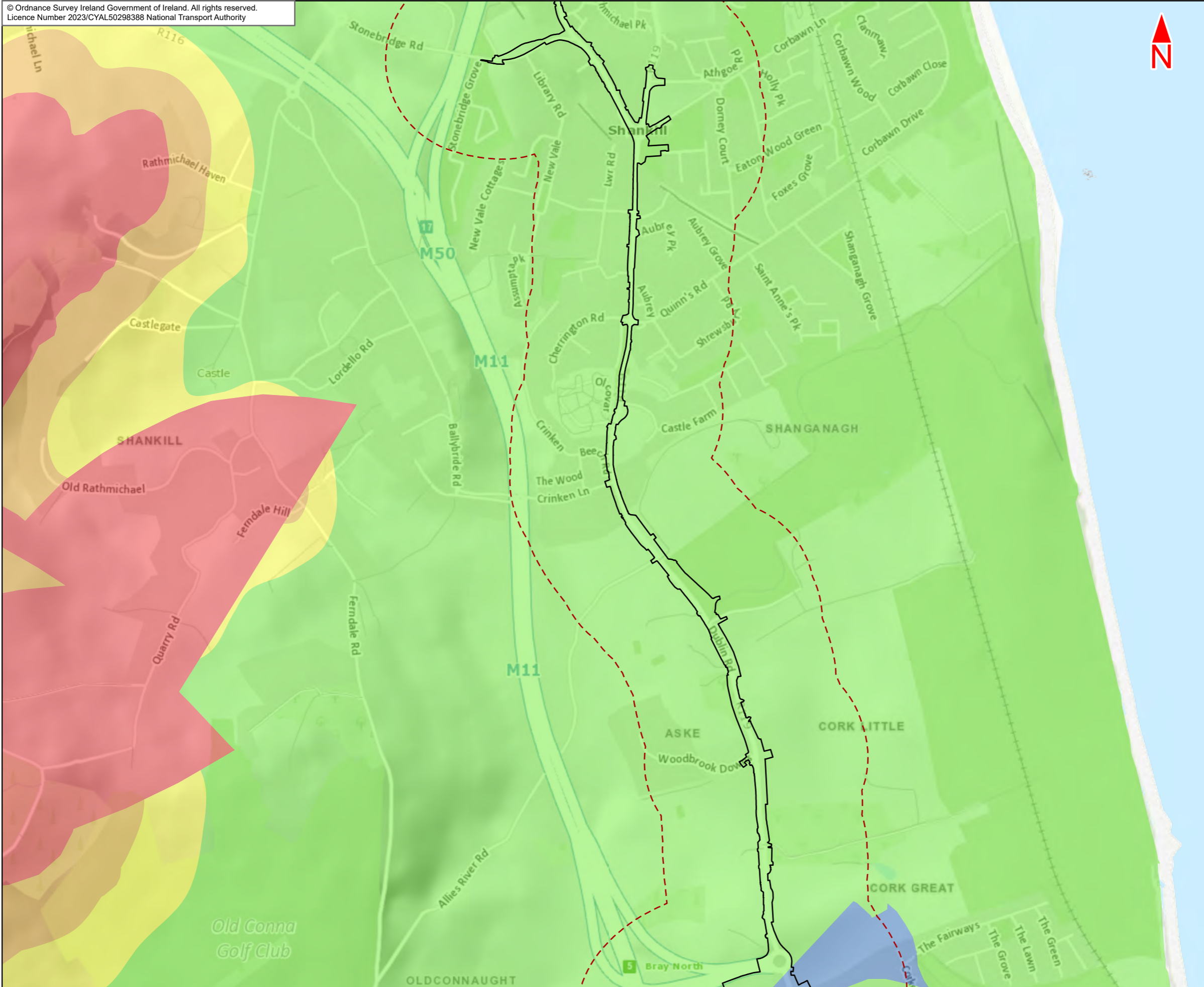
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Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0606	Sheet Number: 6 of 8	Status: A	Rev: M01

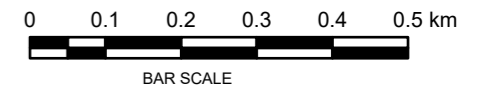






- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
- GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**
- Very high potential
  - High potential
  - Moderate potential
  - Low potential
  - Very low potential

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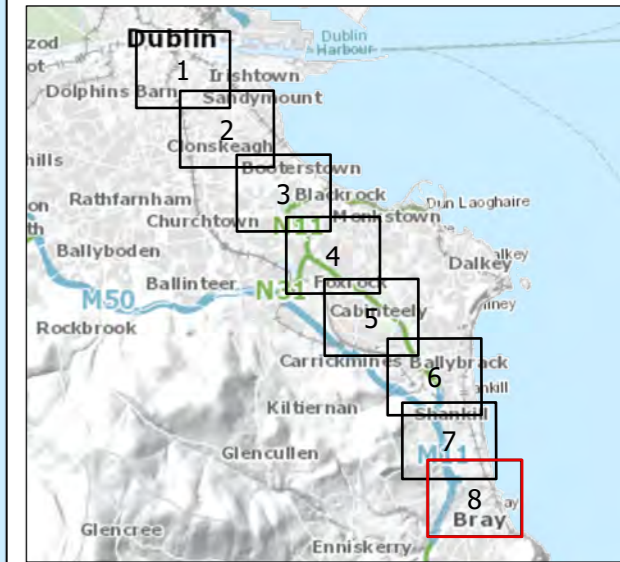
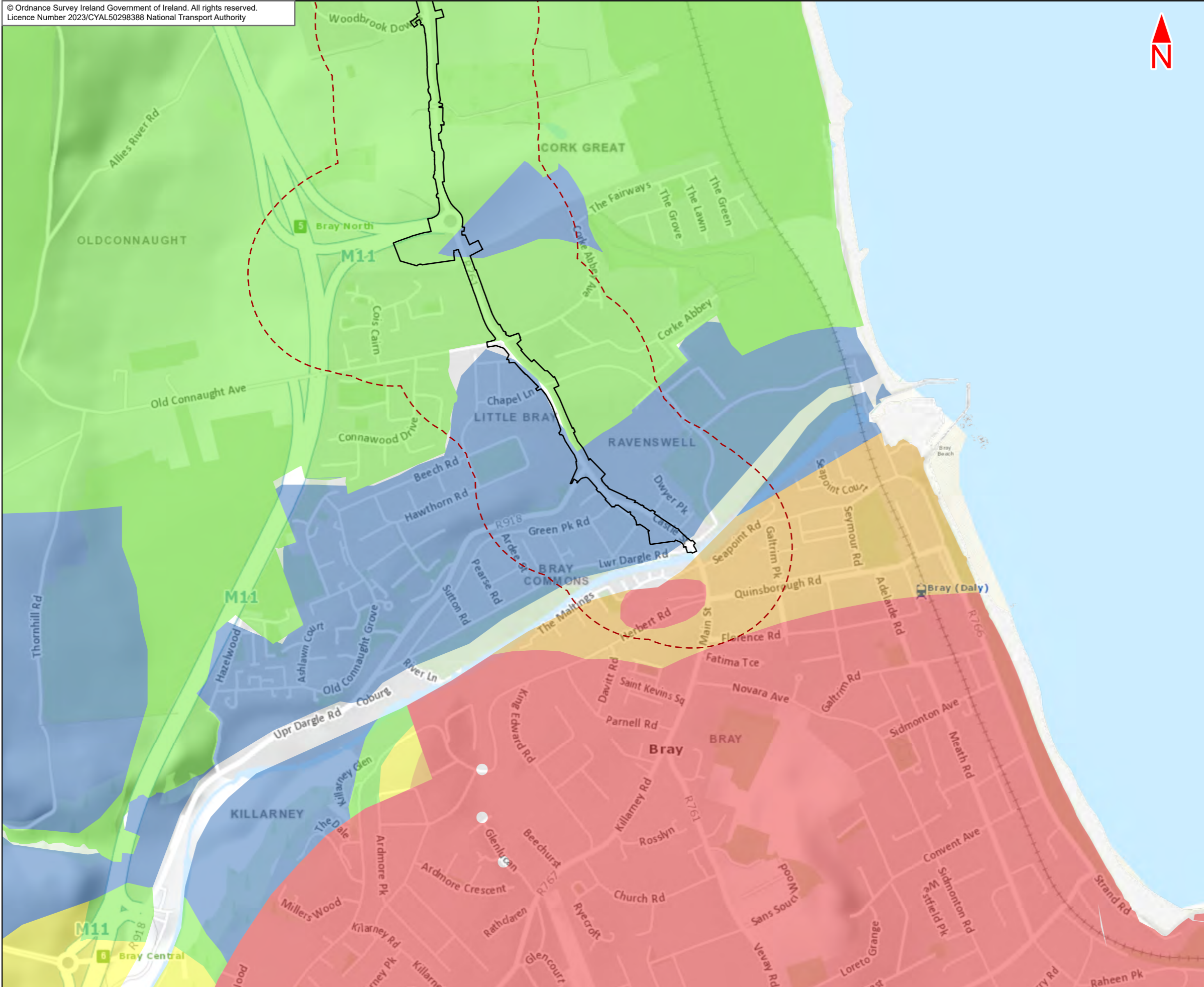
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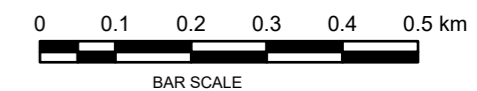
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0607	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential**
  - Very high potential
  - High potential
  - Moderate potential
  - Low potential
  - Very low potential

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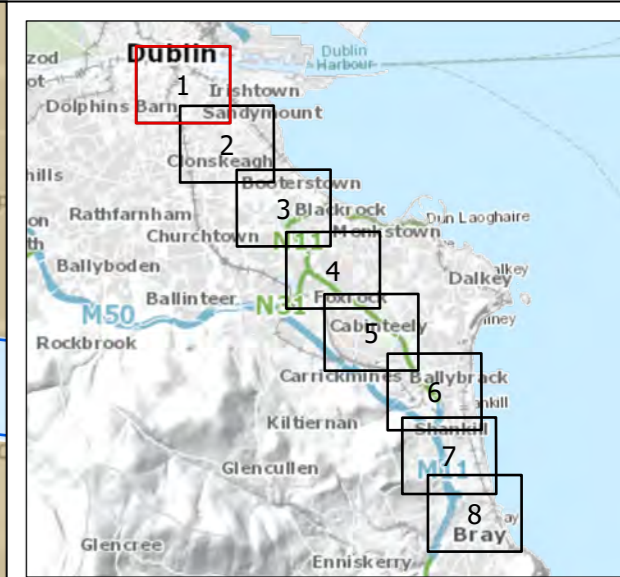
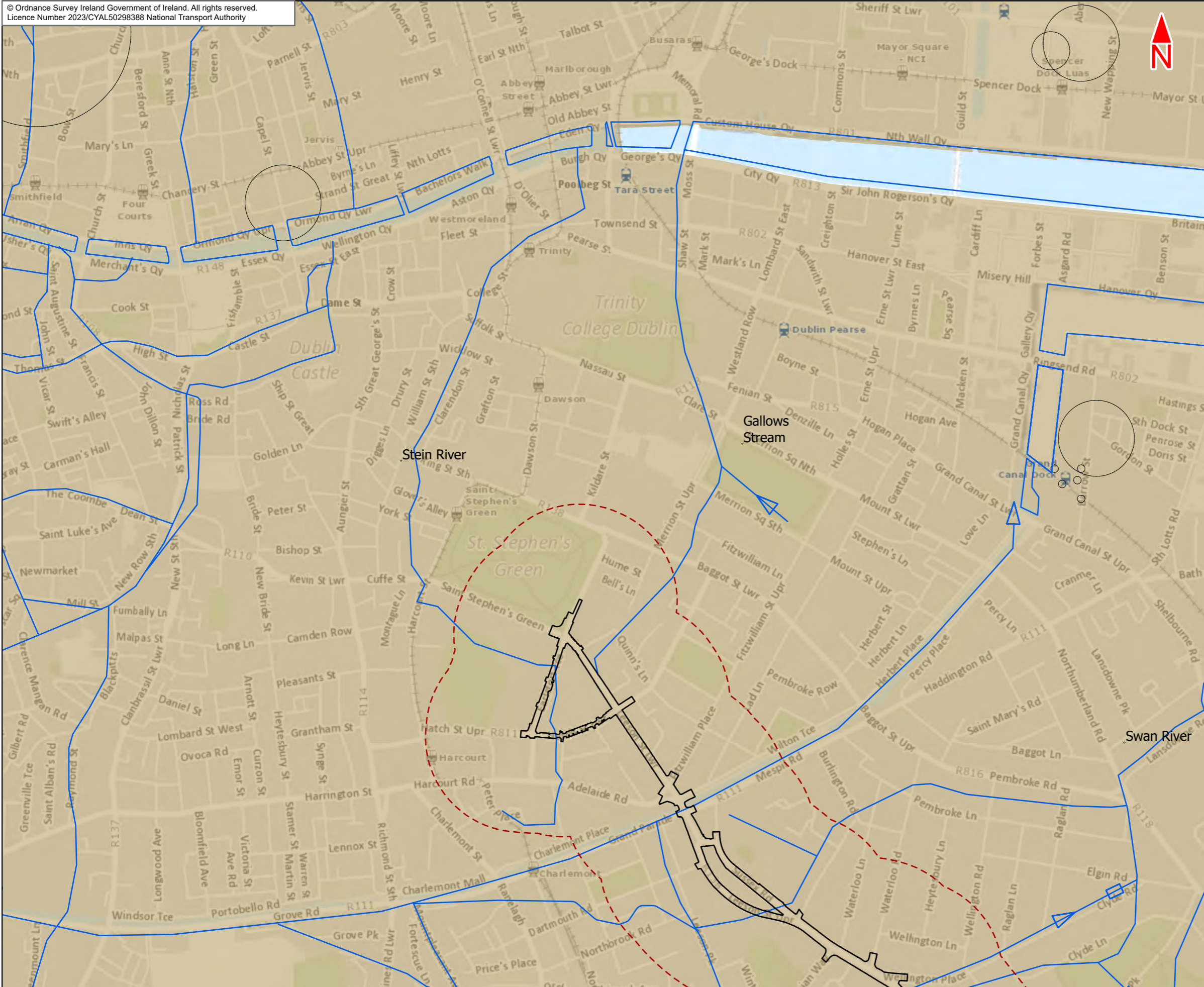
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0608	Sheet Number 8 of 8	Status A	Rev M01	

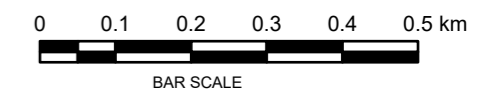
14.13  
Aquifers





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Rivers Of Dublin
  - Groundwater Wells and Springs
  - GSI Bedrock Aquifer**
  - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

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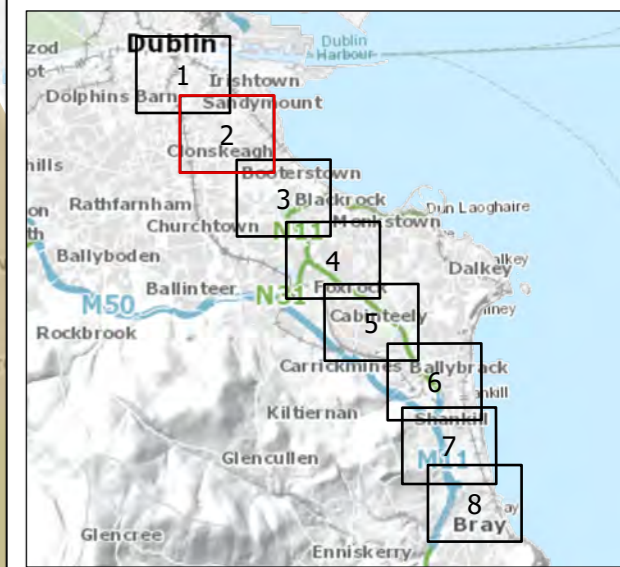
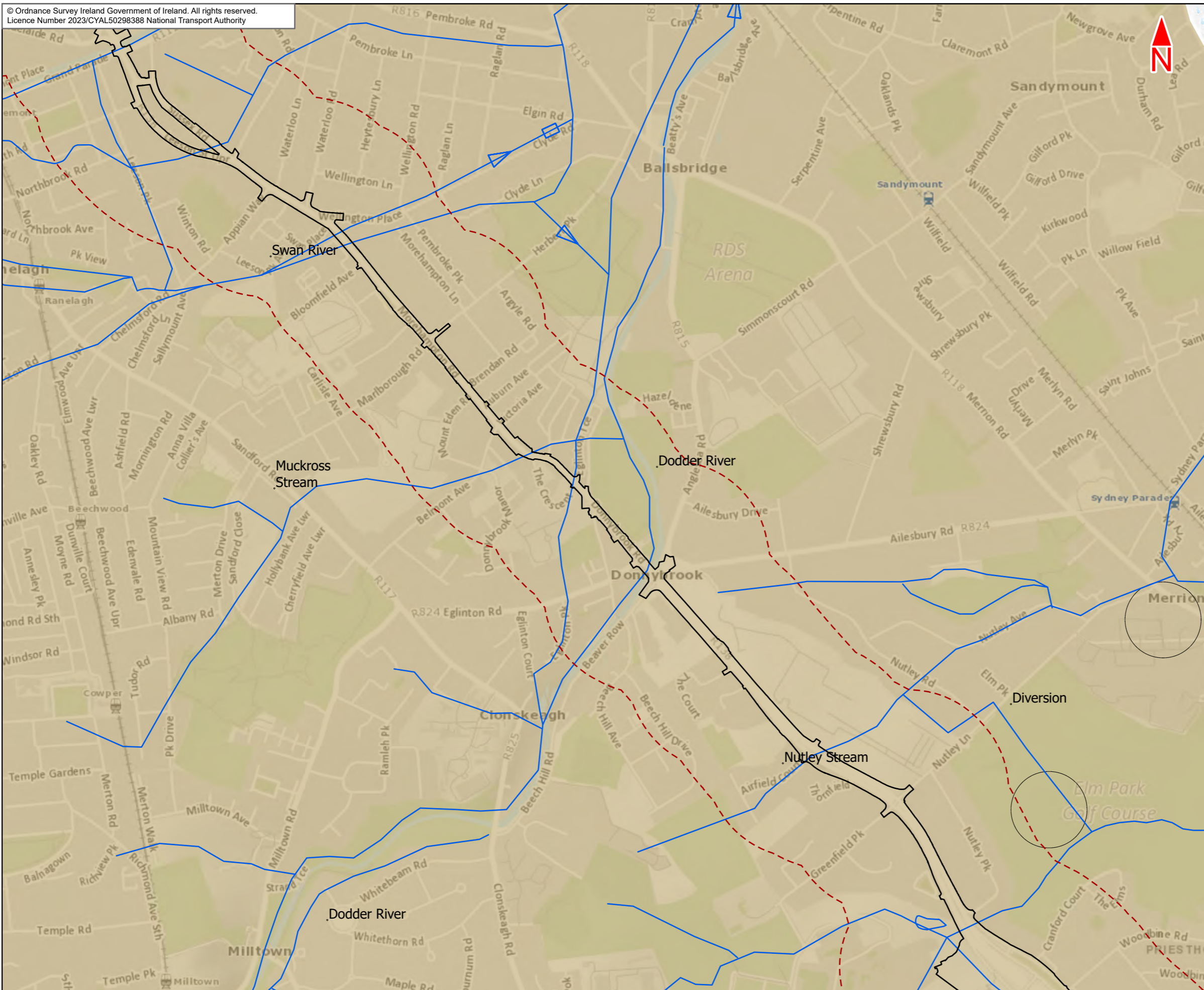
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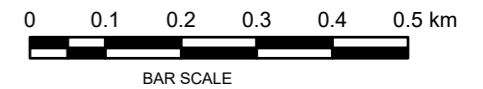
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0701	1 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Rivers Of Dublin
  - Groundwater Wells and Springs
  - GSI Bedrock Aquifer**
  - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

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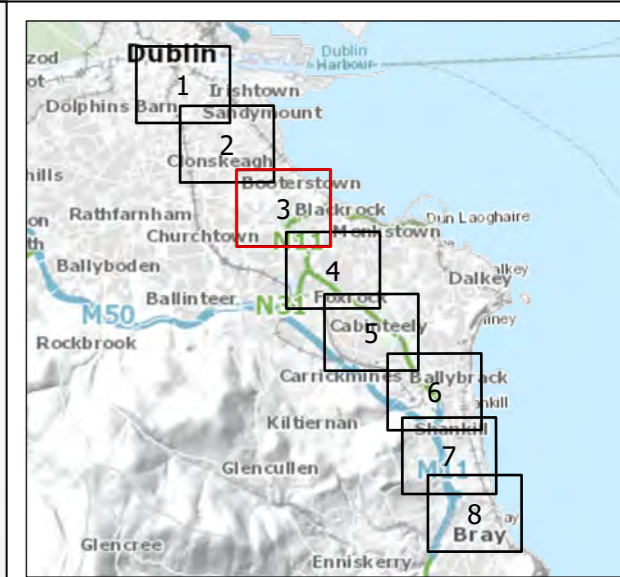
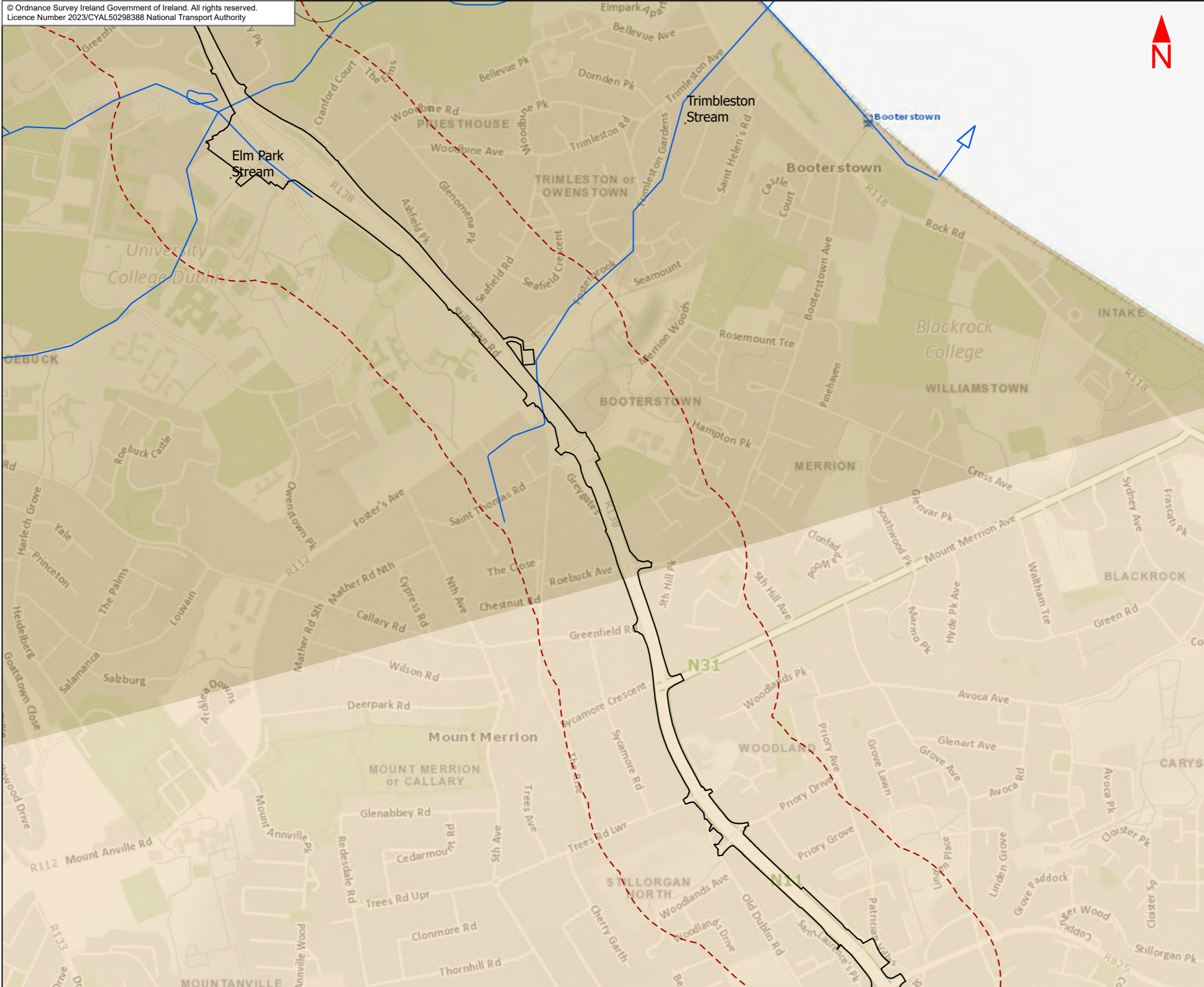
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 12/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

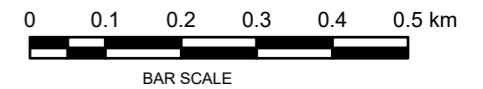
Drawn: FG Checked: PW Approved: DK  
QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Aquifers Figure 14.13			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0702	Sheet Number: 2 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Rivers Of Dublin
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
  - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)

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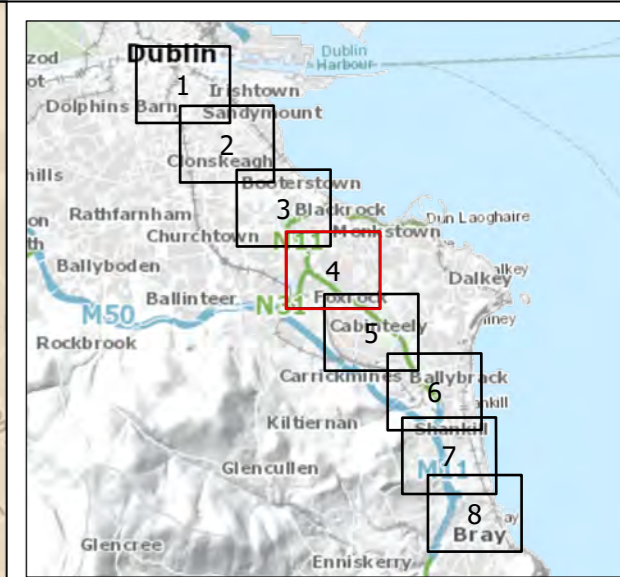
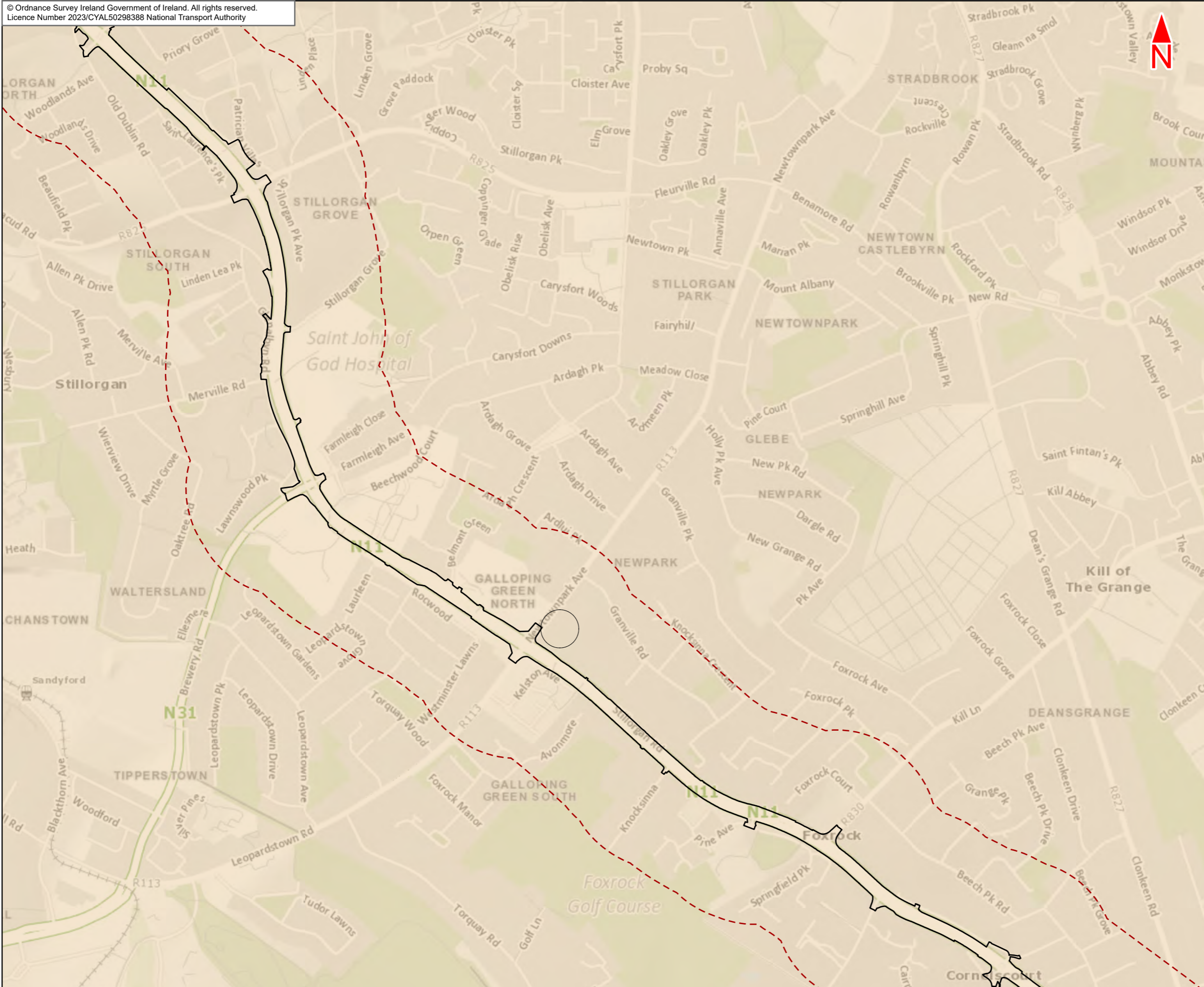
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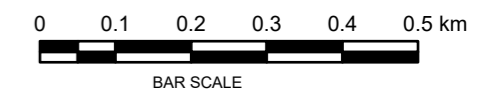
<b>Client</b>  Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> 		
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0703	3 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)

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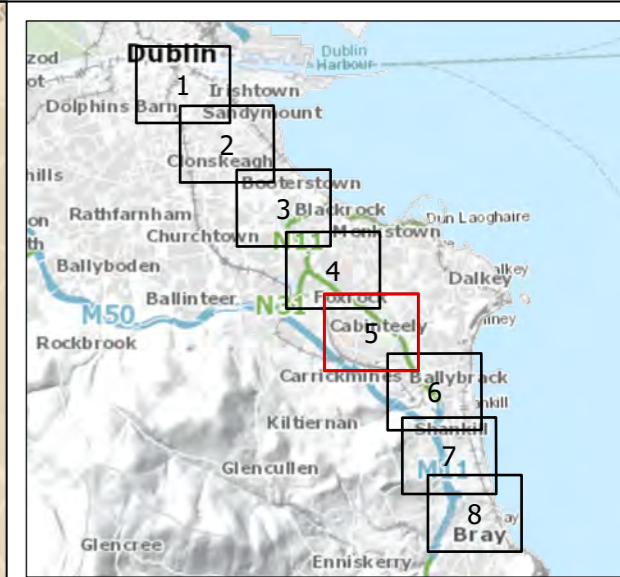
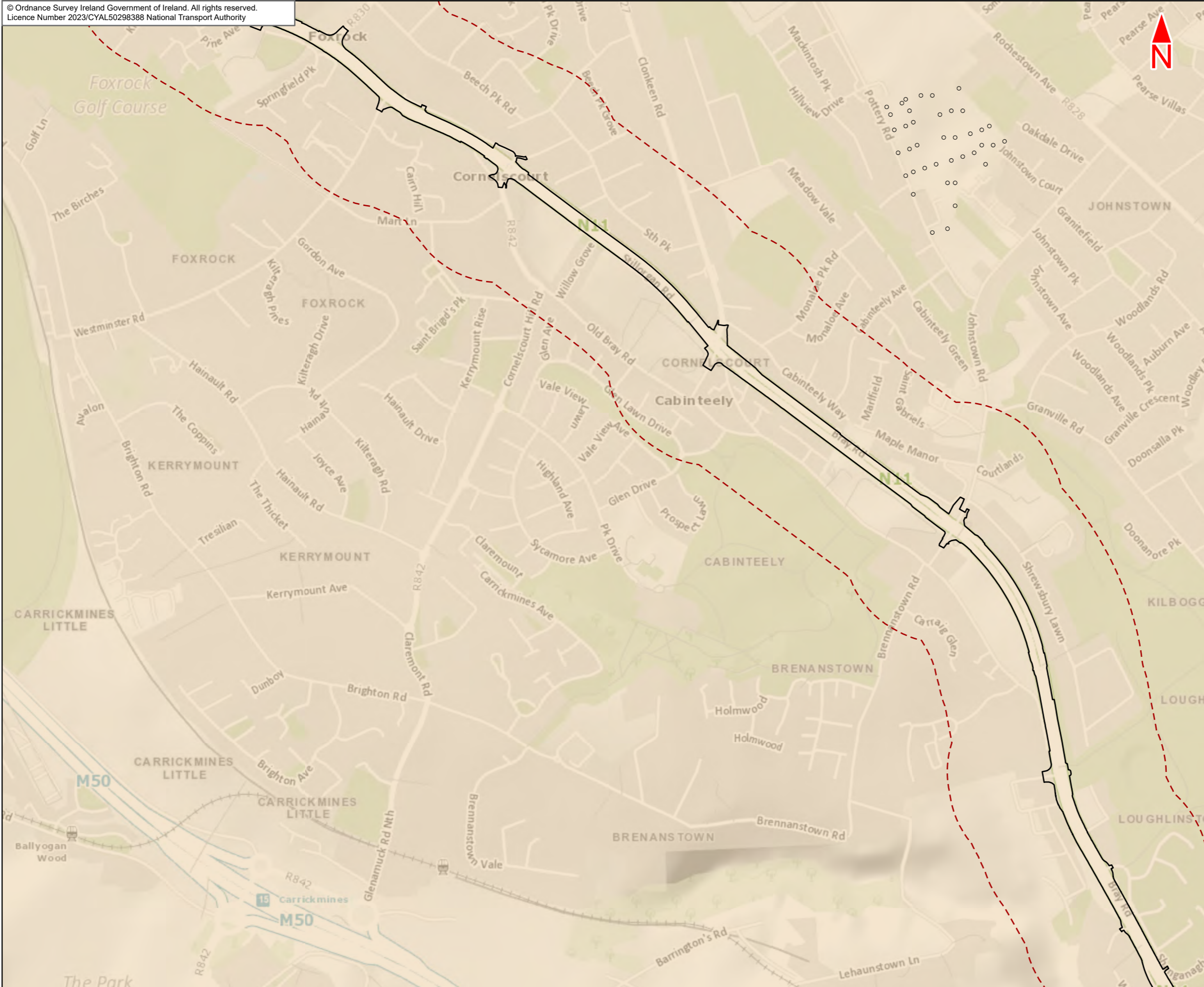
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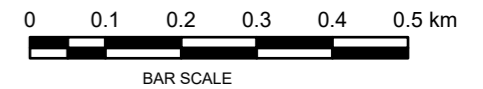
<b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		<b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date	Scale @ A3	Drawn	Checked	Approved
12/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0704	4 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)

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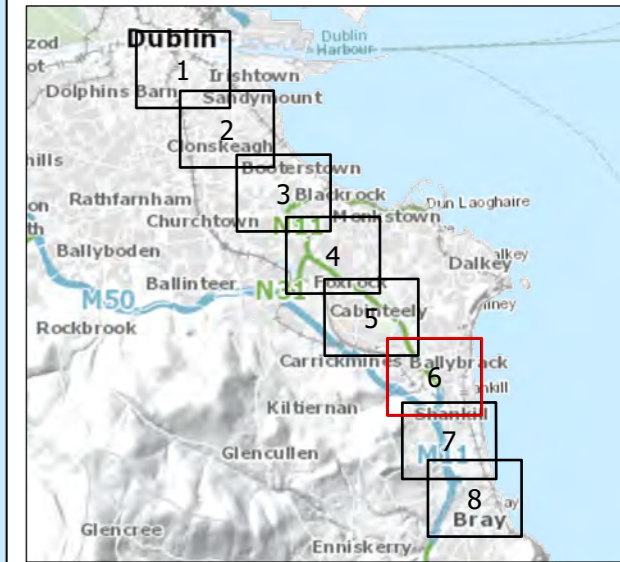
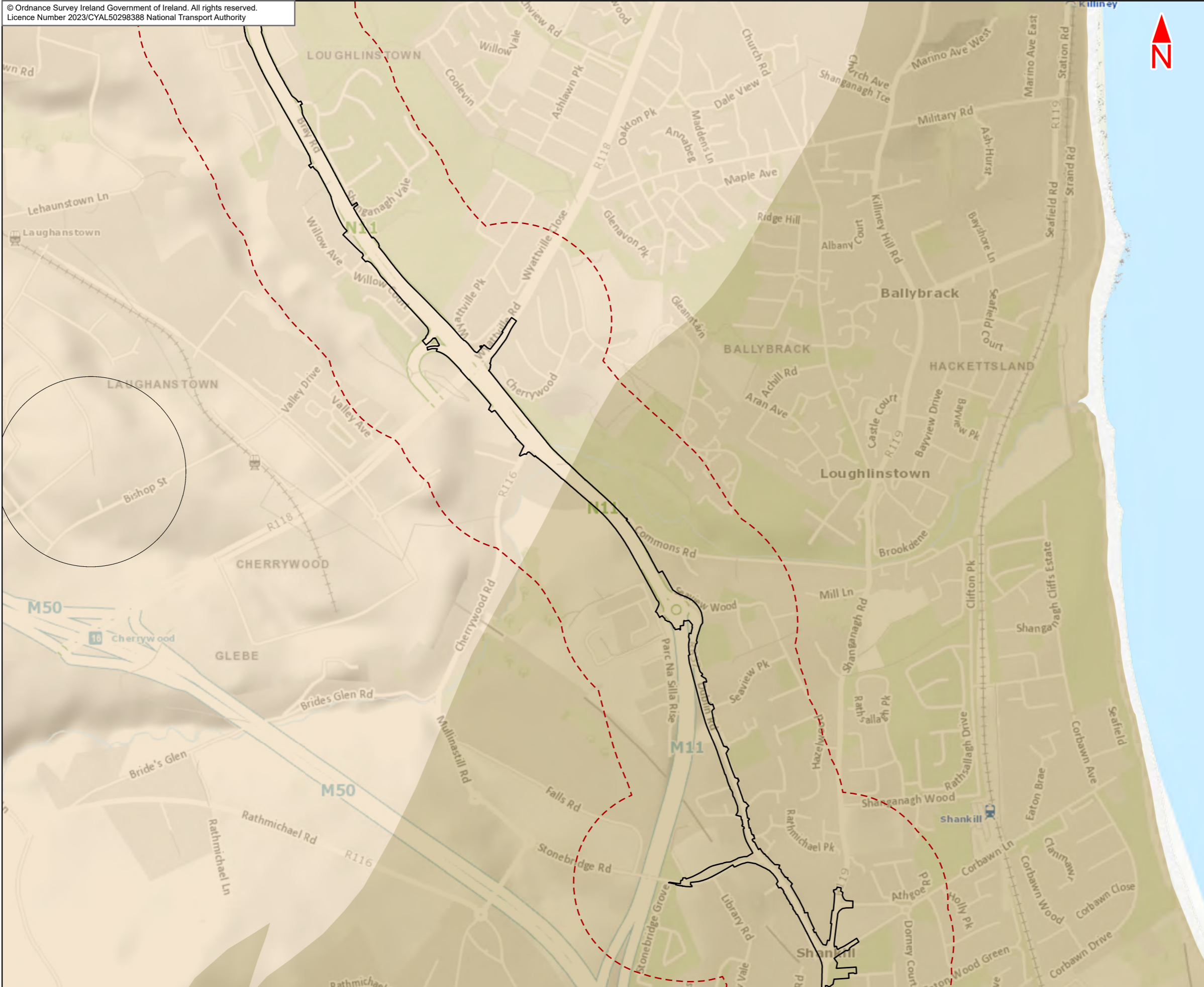


Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

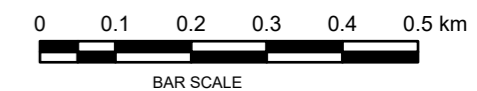
Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0705	Sheet Number 5 of 8	Status A	Rev M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
  - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)

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Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

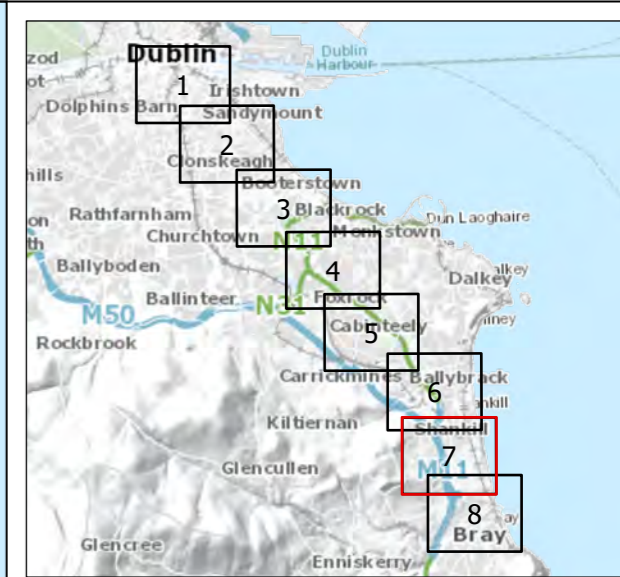
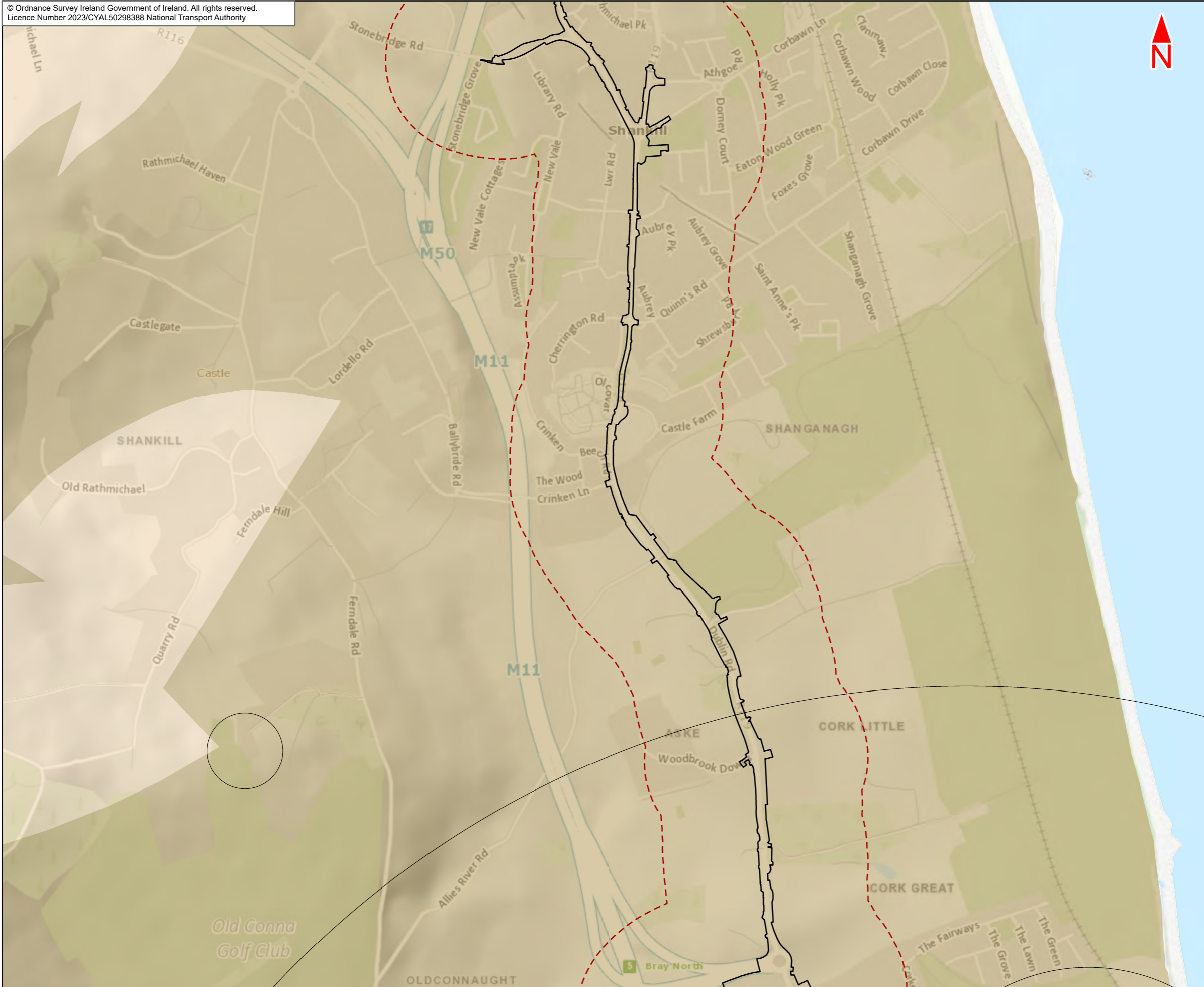
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Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK

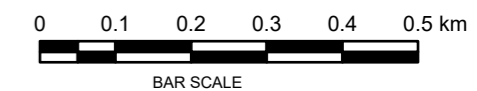
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Aquifers</b>				
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0706	Sheet Number: 6 of 8	Status: A	Rev: M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
  - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)

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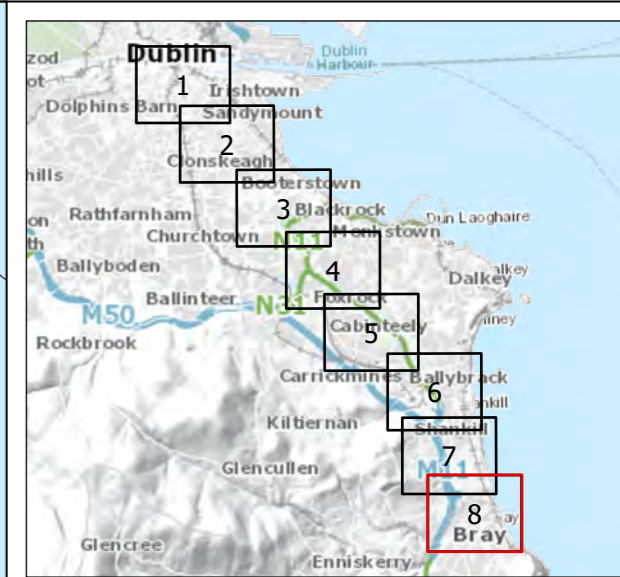
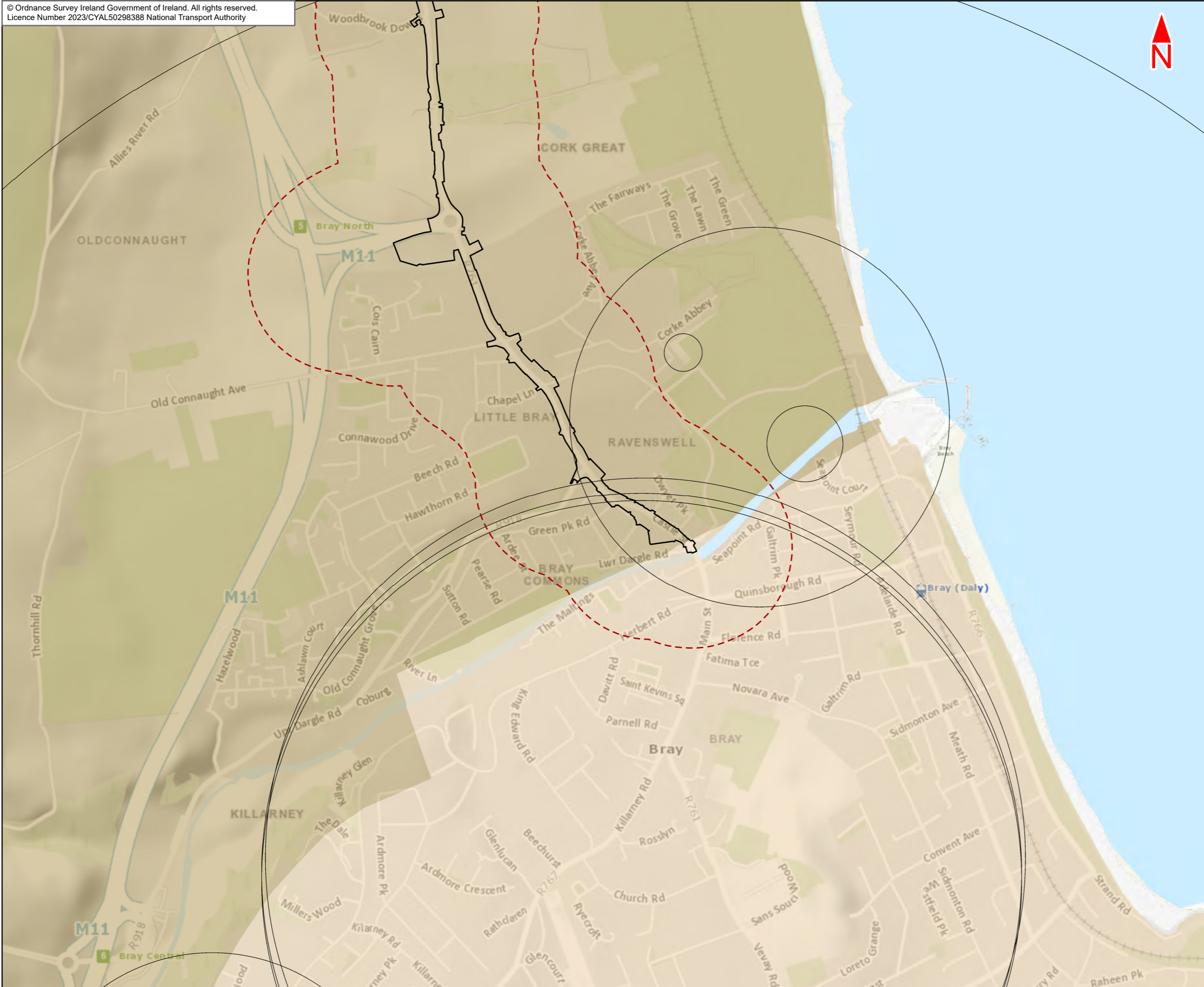
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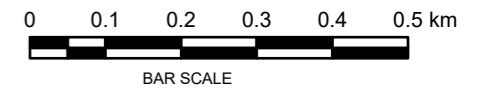
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0707	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
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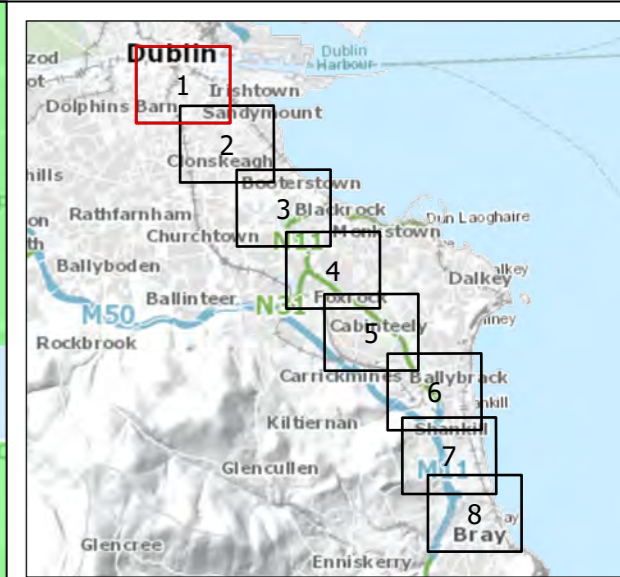
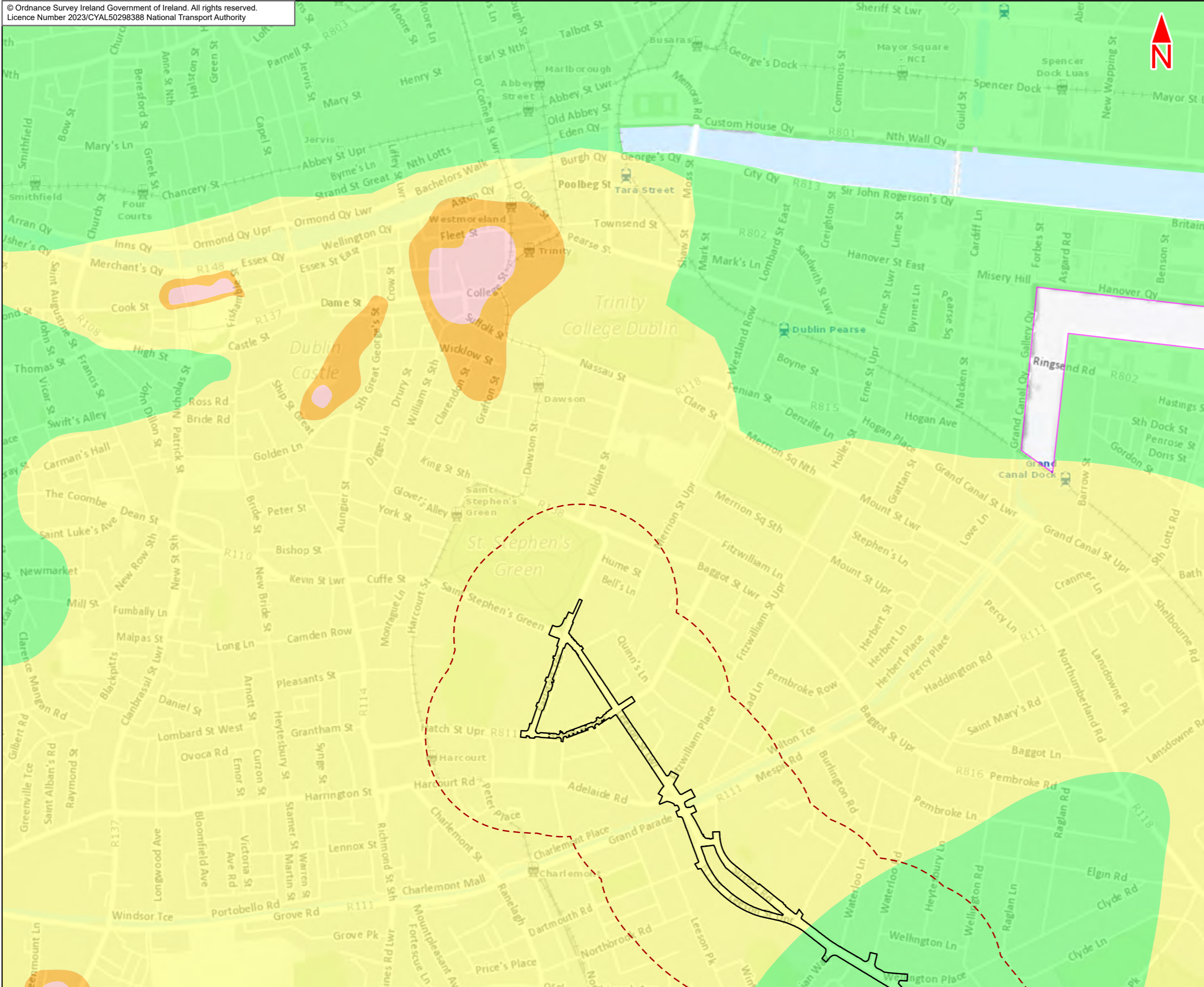
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 12/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0708	Sheet Number 8 of 8	Status A	Rev M01	

**14.14**  
Groundwater Vulnerability

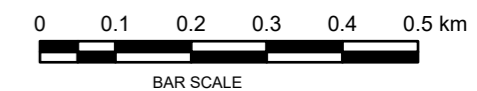




**Legend :**

- Bray to City Centre Core Bus Corridor Scheme
- 250m Study Area
- GSI National Groundwater Vulnerability**
- Extreme
- High
- Moderate
- Low
- Water

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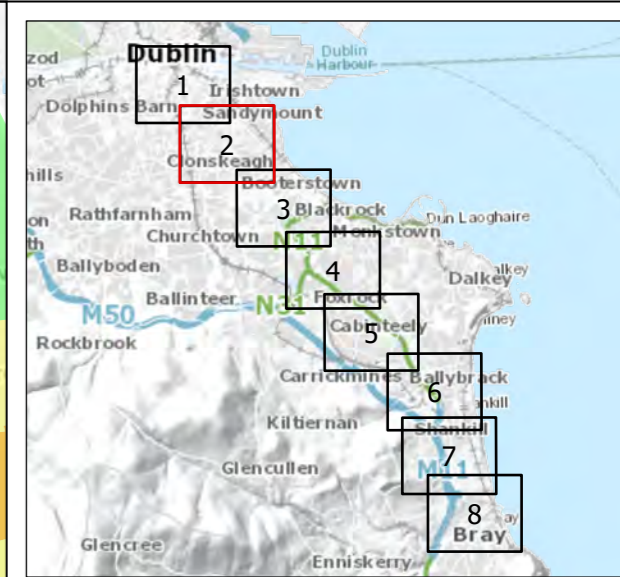
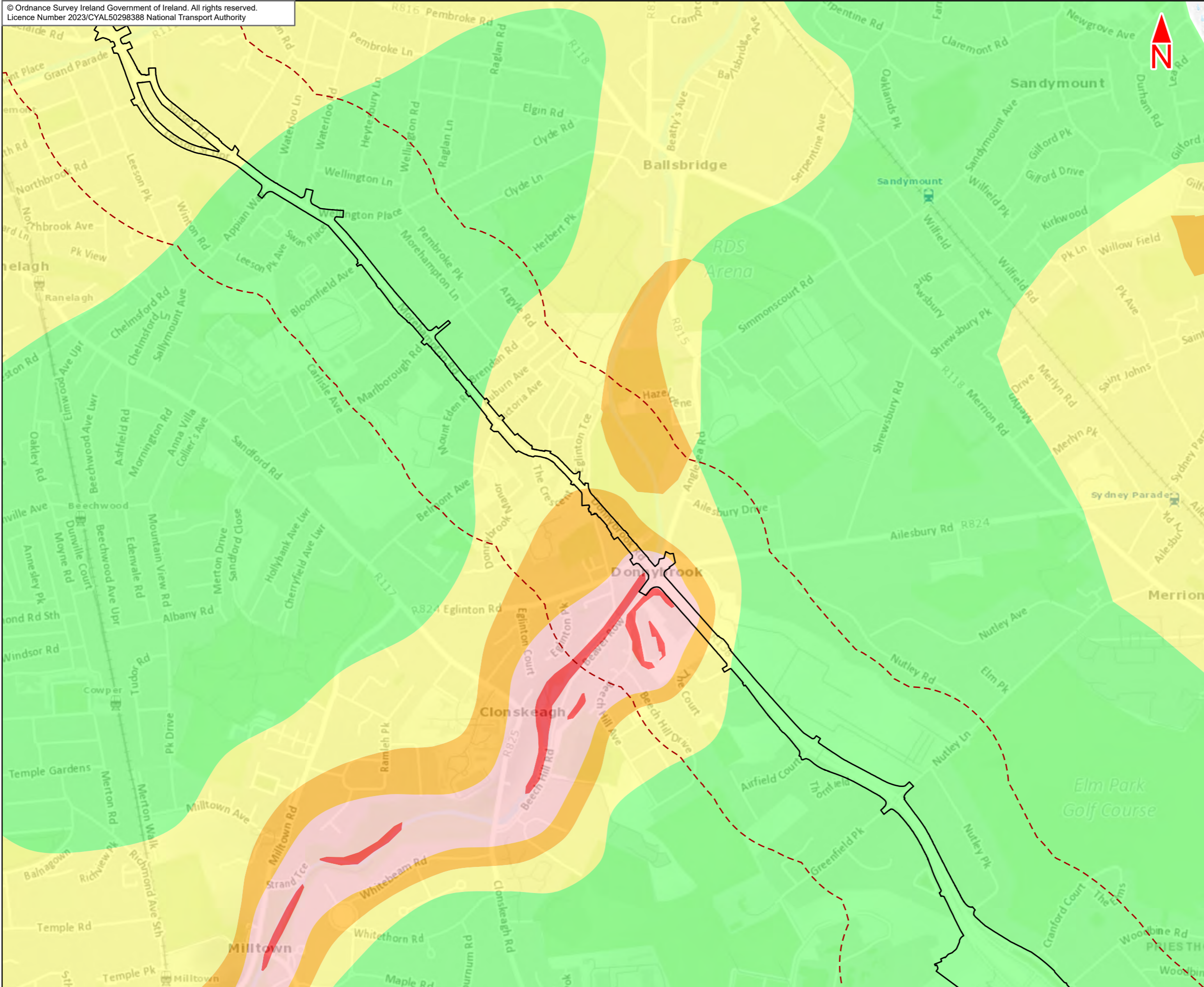
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

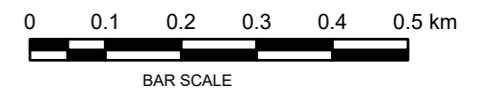
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QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0801	Sheet Number: 1 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low

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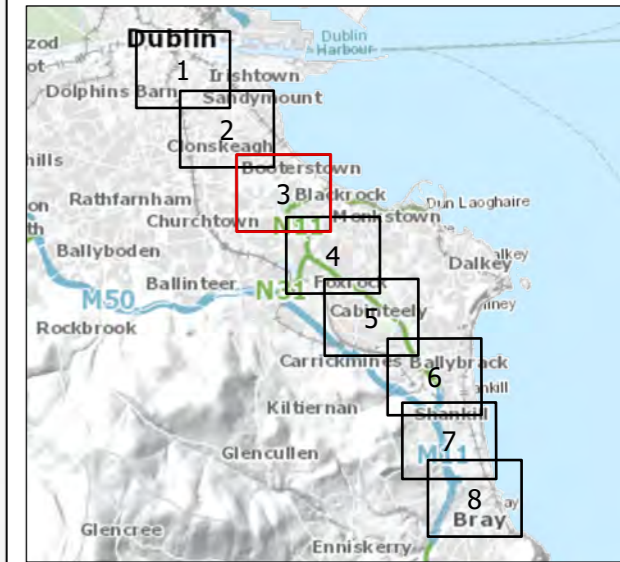
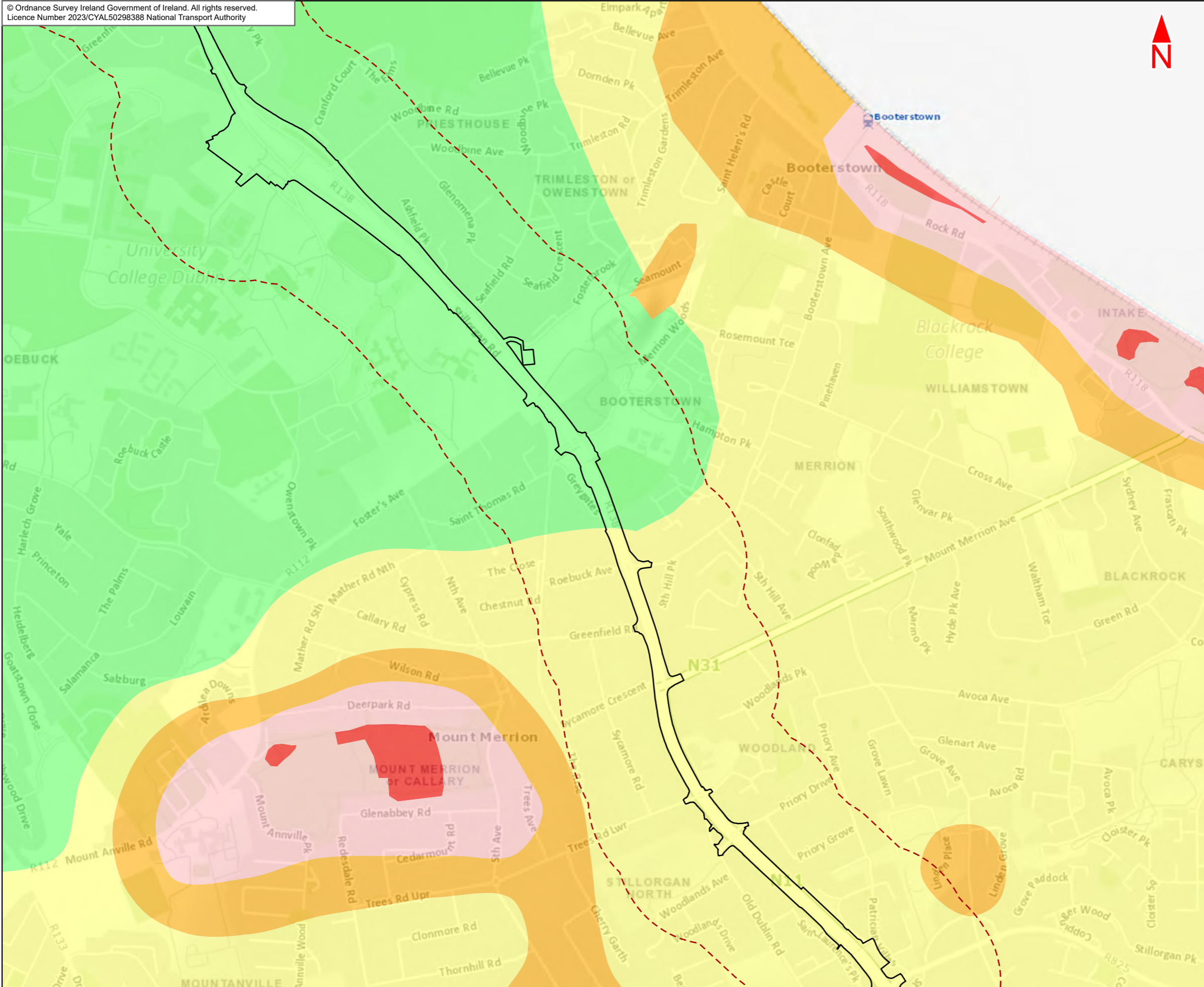
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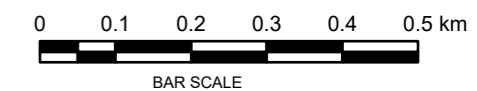
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0802	Sheet Number 2 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low

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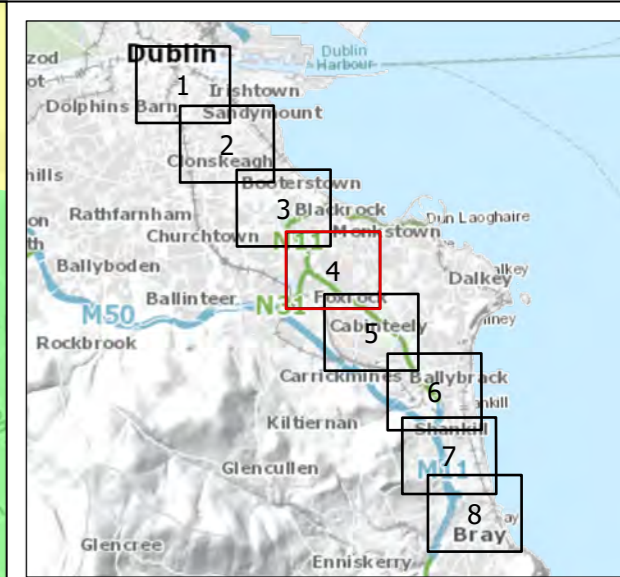
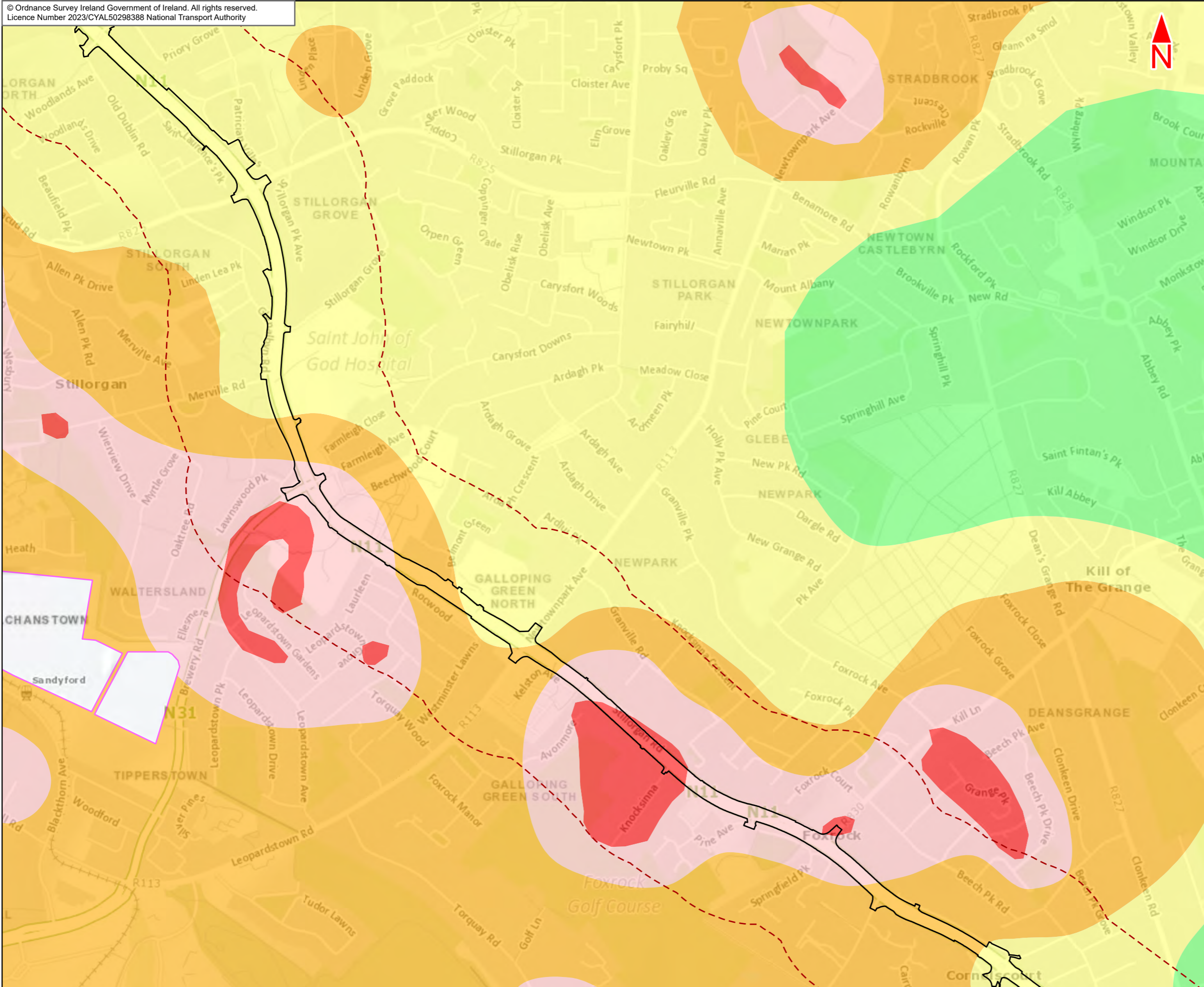
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

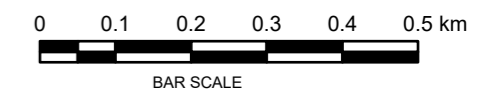
Date: 09/05/2023 Scale @ A3 1:10000  
 Project Code: BCIDE Originator Code: JAC  
 Drawn: FG Checked: PW Approved: DK  
 QMS Code: \_\_\_\_\_

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability			
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0803	Sheet Number 3 of 8	Status A	Rev M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low
  - Water

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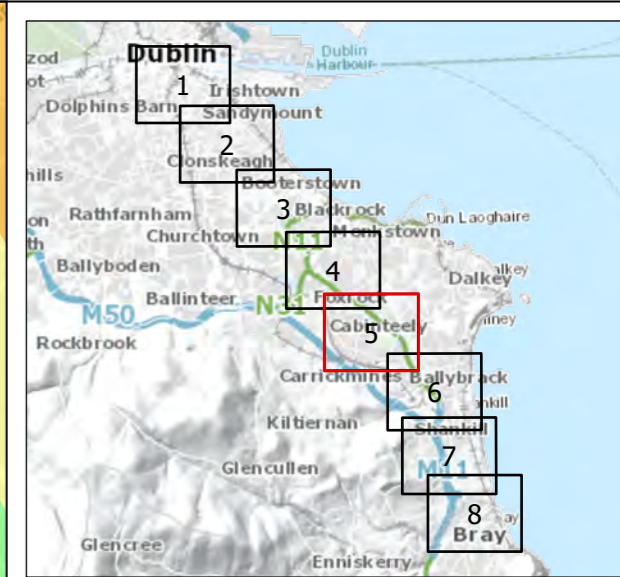
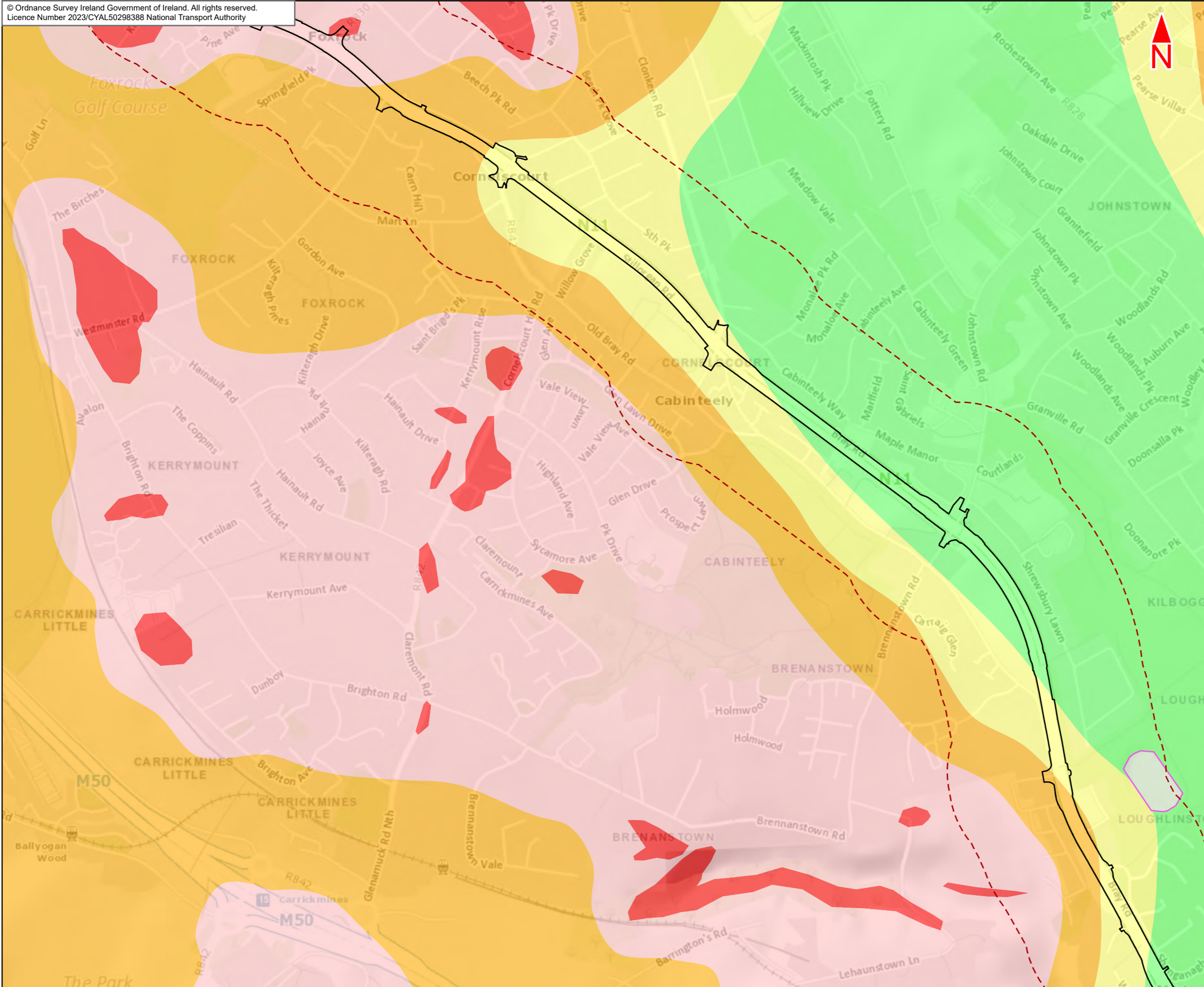


Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>Client</b> Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> Jacobs ARUP SYSTRA		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

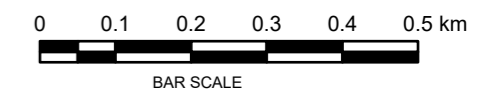
<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0804	4 of 8	A	M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
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  - Water

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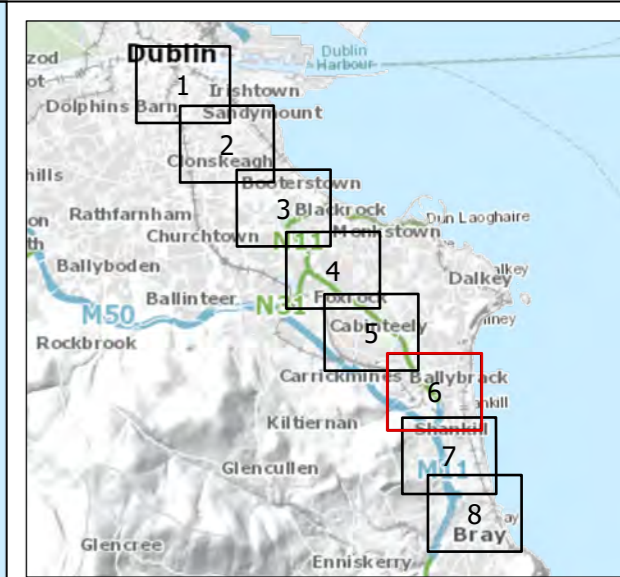
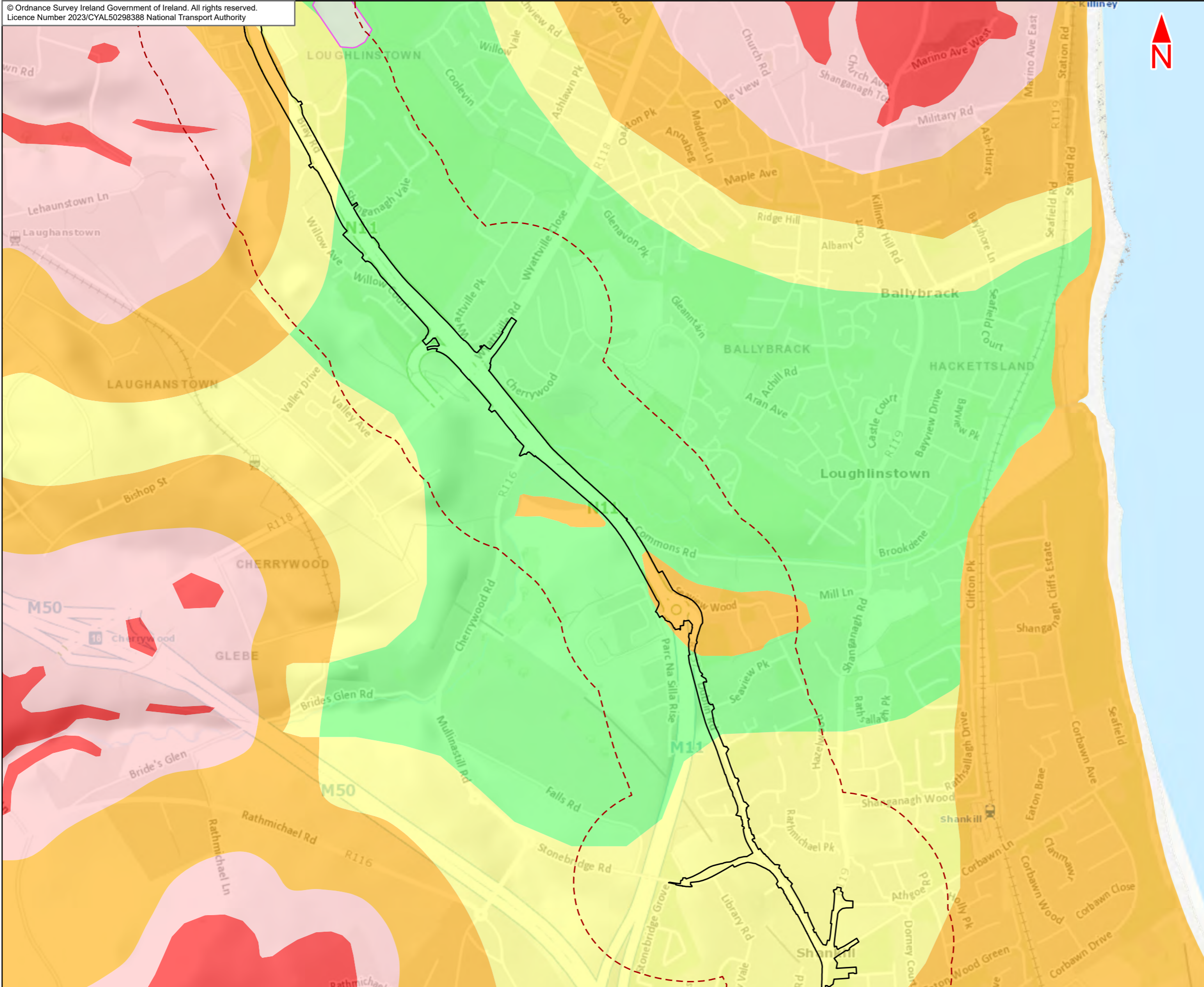
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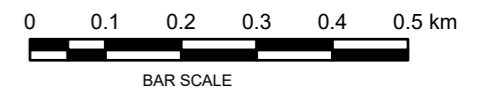
<b>Client</b>  Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> 		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0805	5 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low
  - Water

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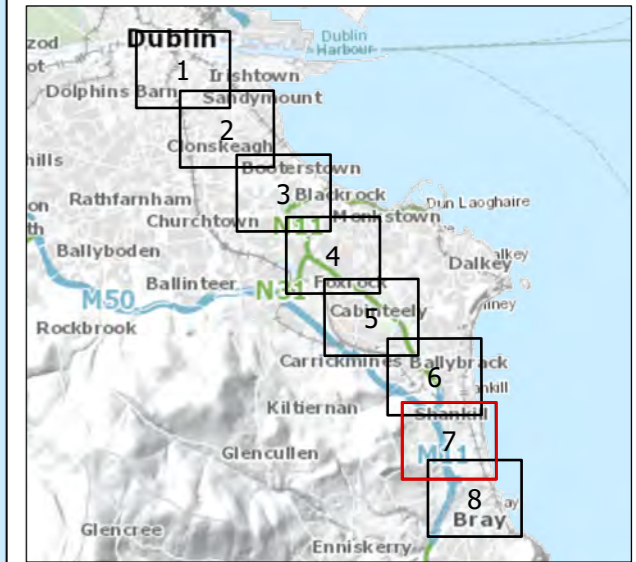
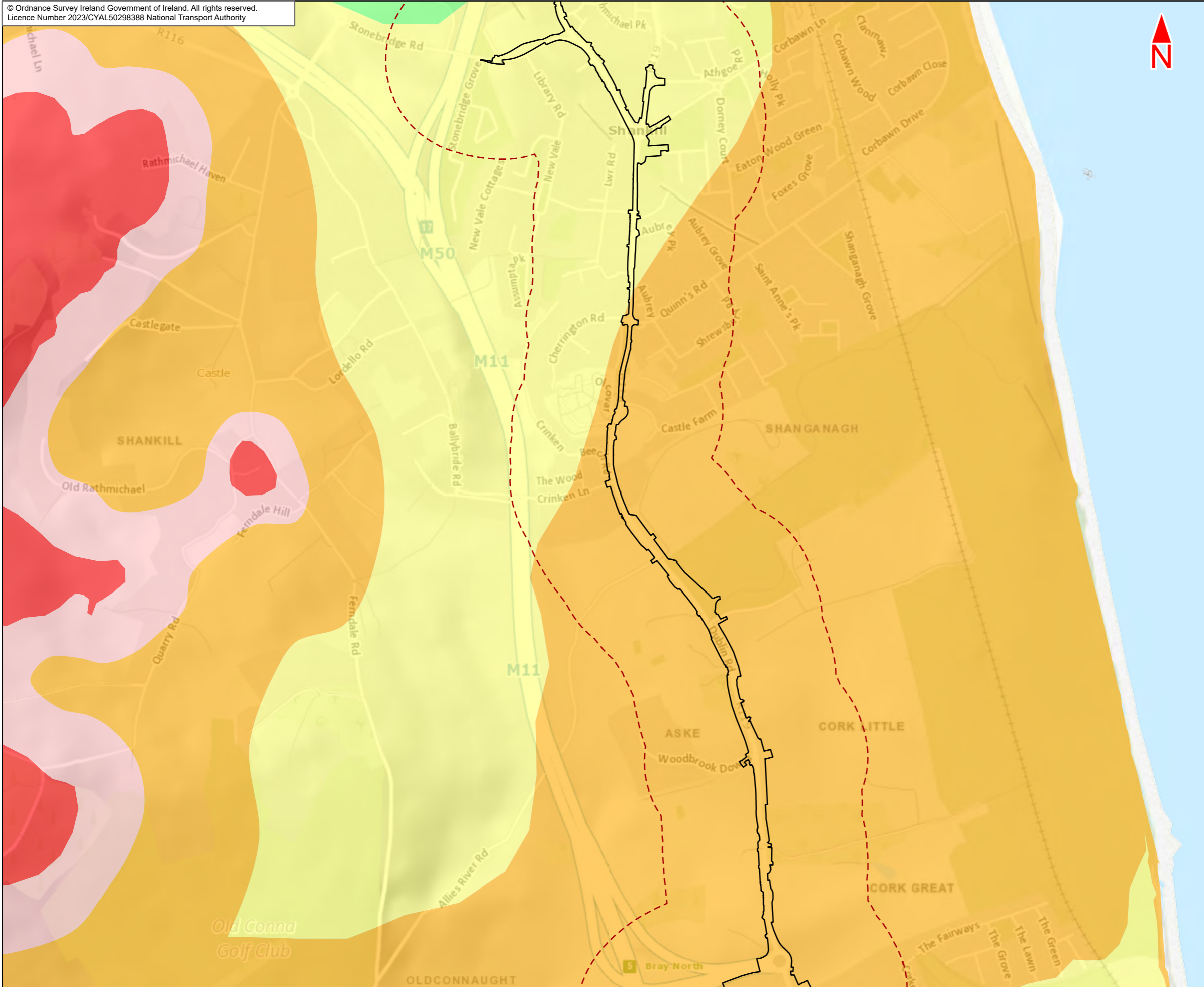
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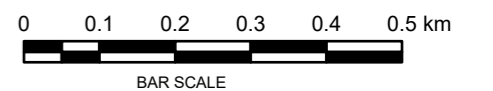
 Udarás Náisiúnta Iompair National Transport Authority					
Date	09/05/2023	Scale @ A3	1:10000	Drawn	FG
Project Code	BCIDE	Originator Code	JAC	Checked	PW
				Approved	DK
				QMS Code	

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability			
Drawing File Name	BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0806	Sheet Number	6 of 8
Status	A	Rev	M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low

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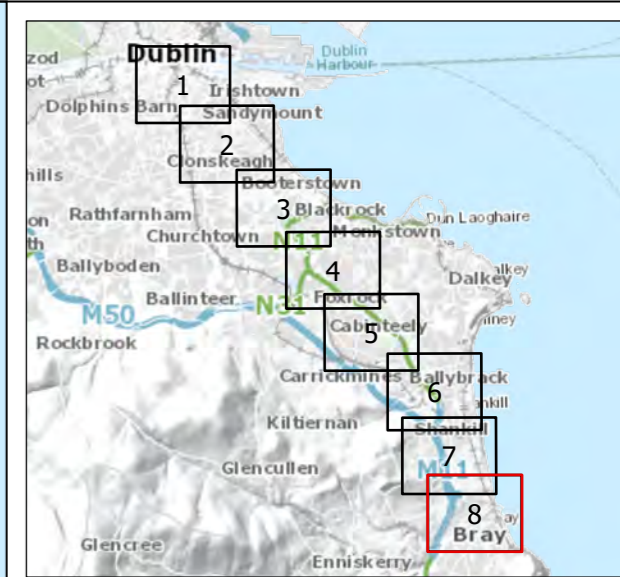
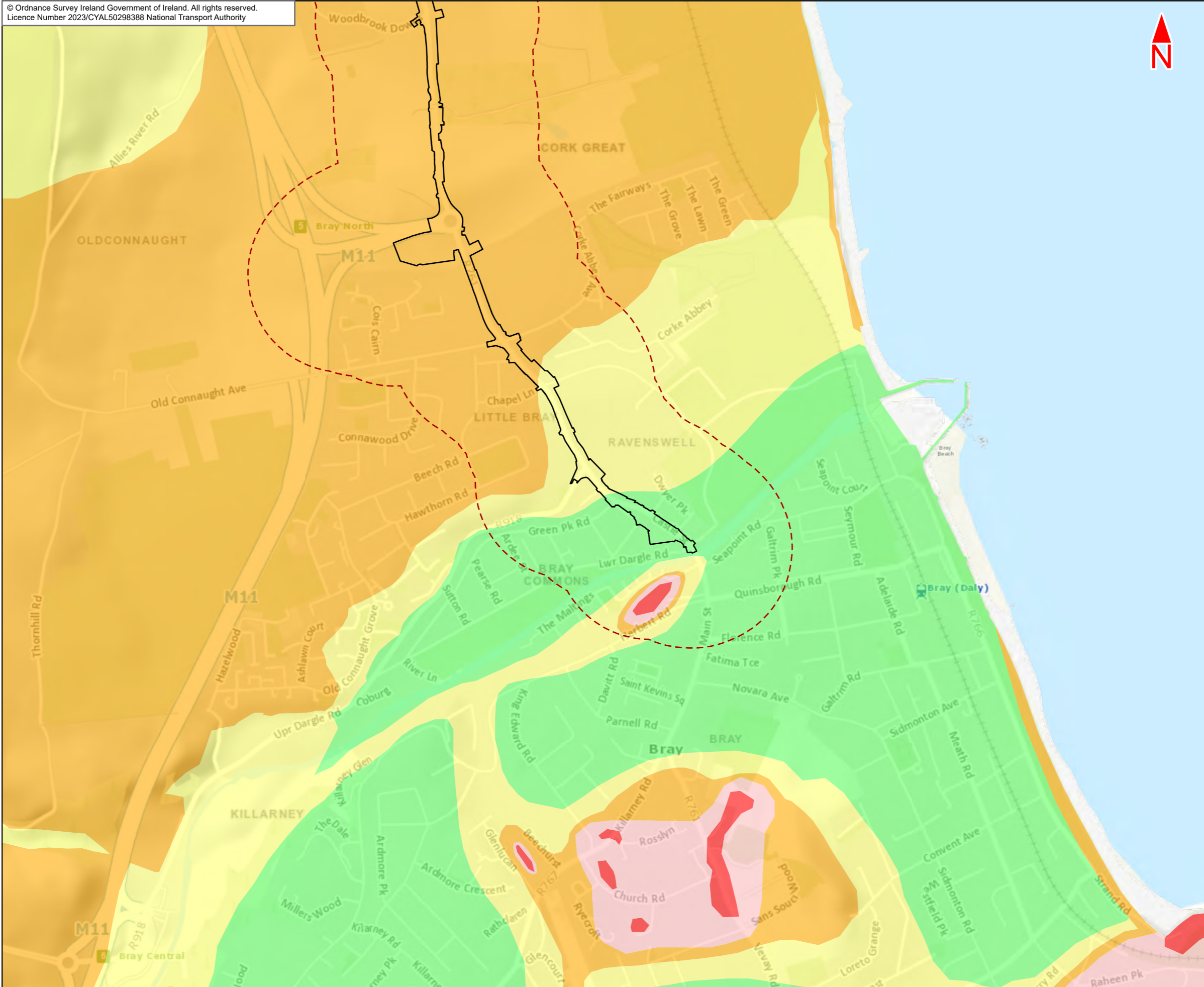
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M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

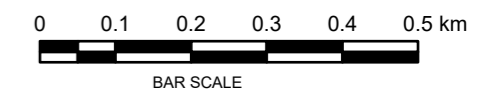
Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0807	Sheet Number 7 of 8	Status A	Rev M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - GSI National Groundwater Vulnerability**
  - Extreme (X) Rock at/close to surface or Karst
  - Extreme
  - High
  - Moderate
  - Low

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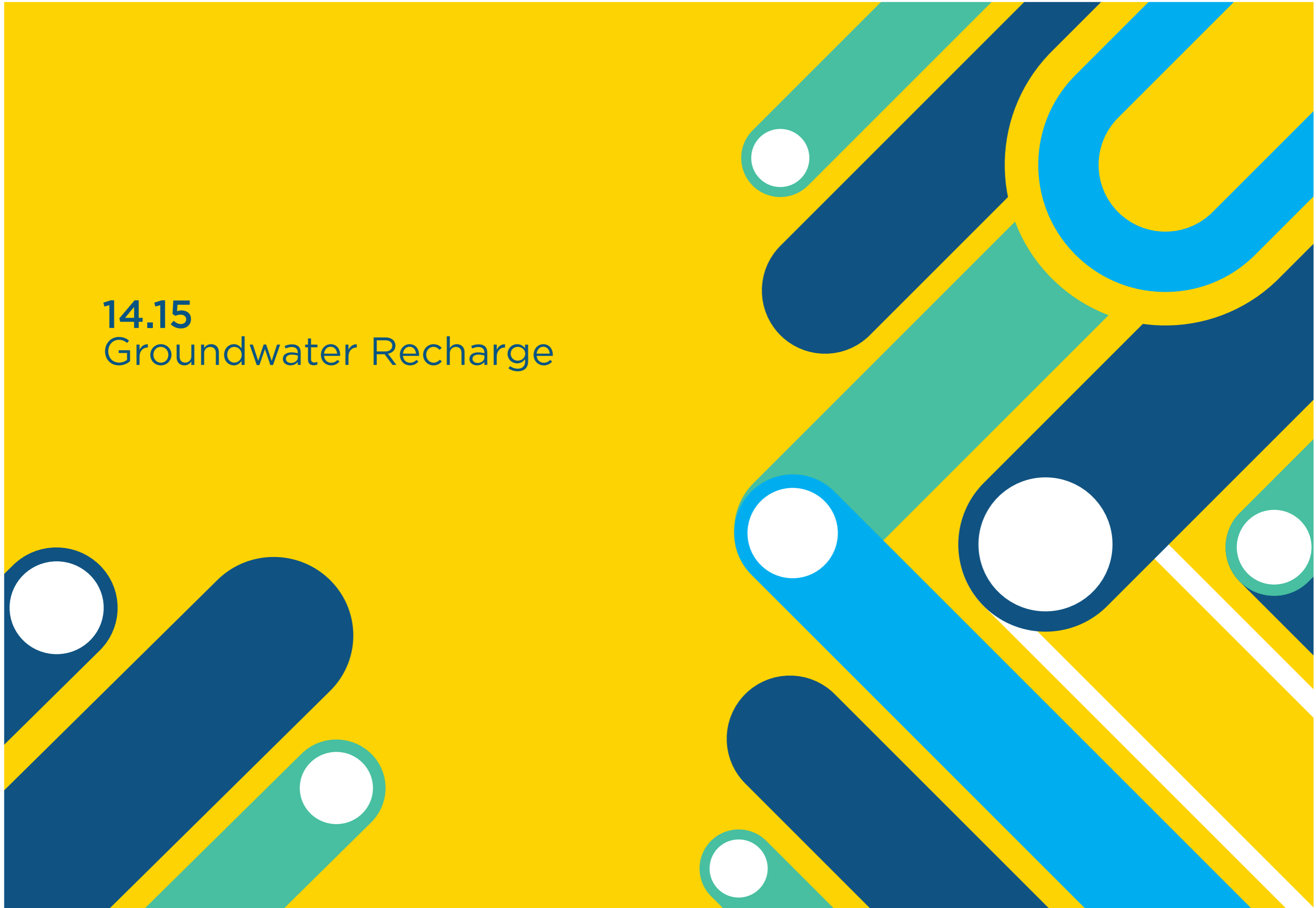


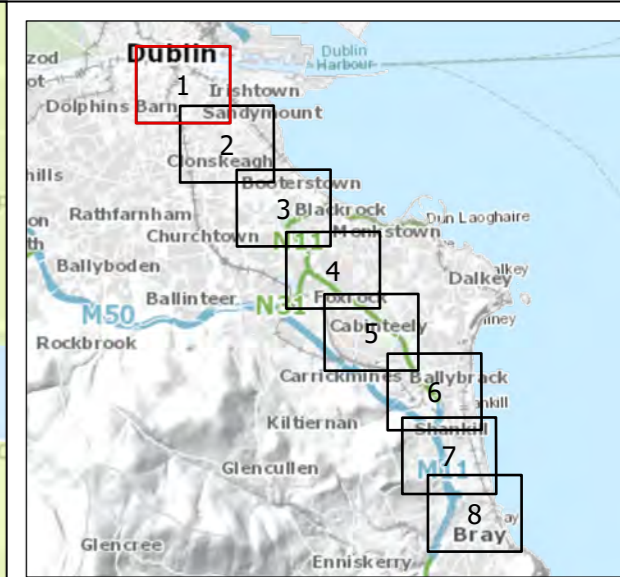
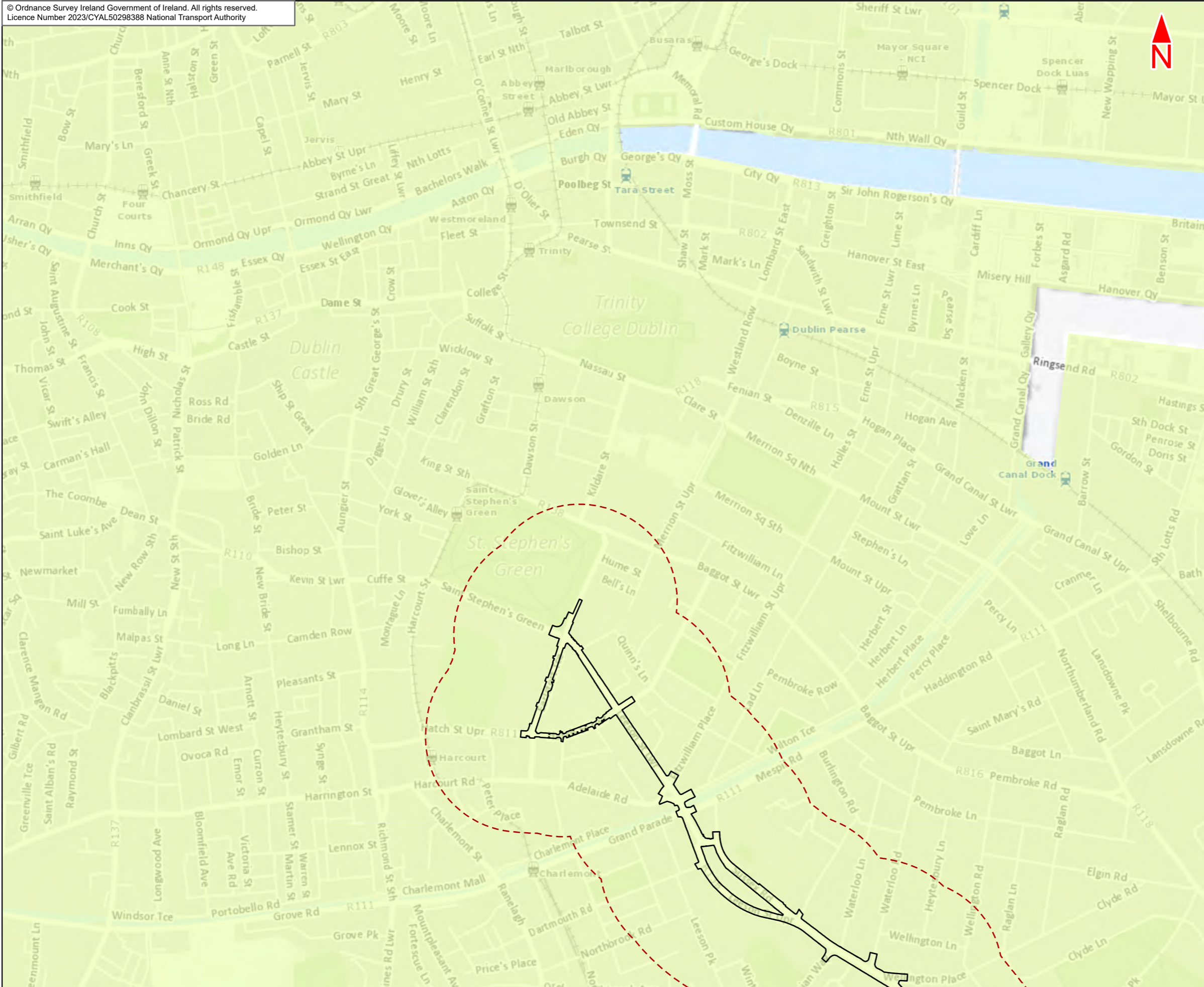
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client <b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		Consultant <b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0808	Sheet Number 8 of 8	Status A	Rev M01	

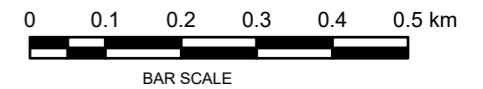
**14.15**  
Groundwater Recharge





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Groundwater Recharge**
  - Annual Recharge (mm)**
  - 51-100 mm

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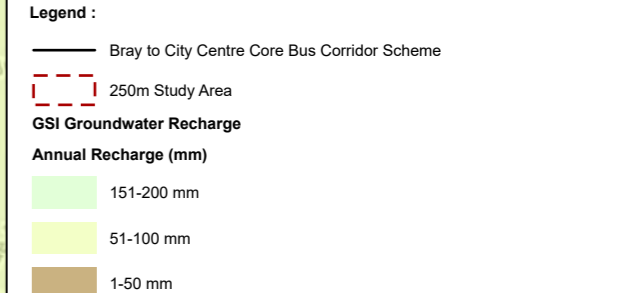
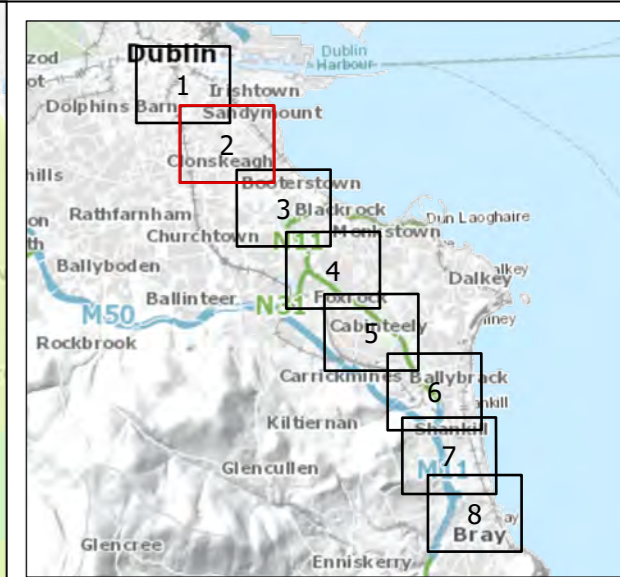
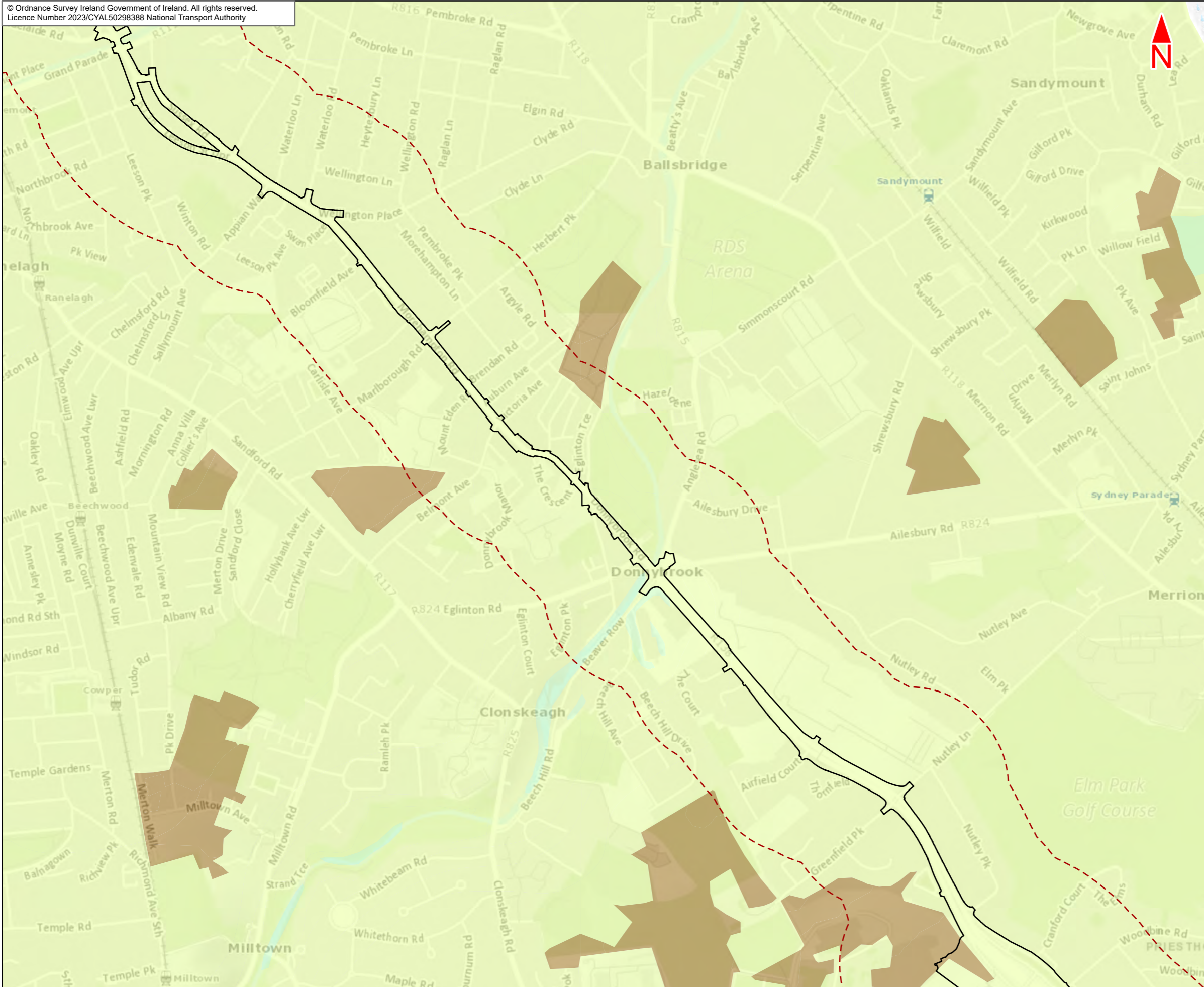
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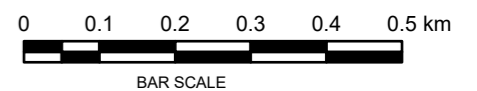
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0901	1 of 8	A	M01	



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Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

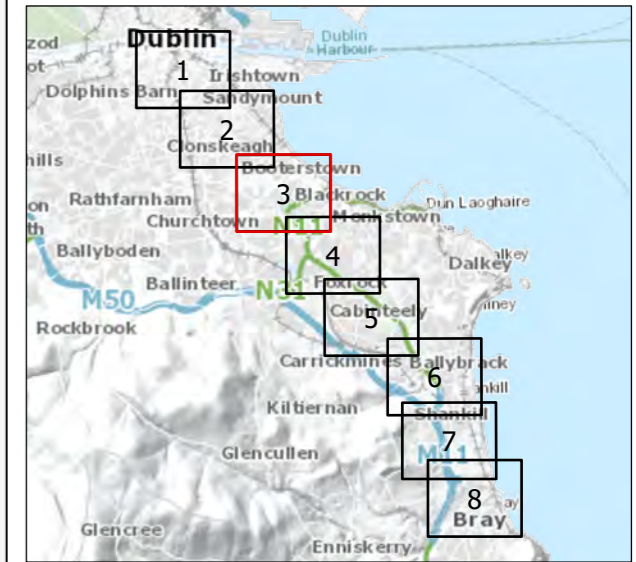
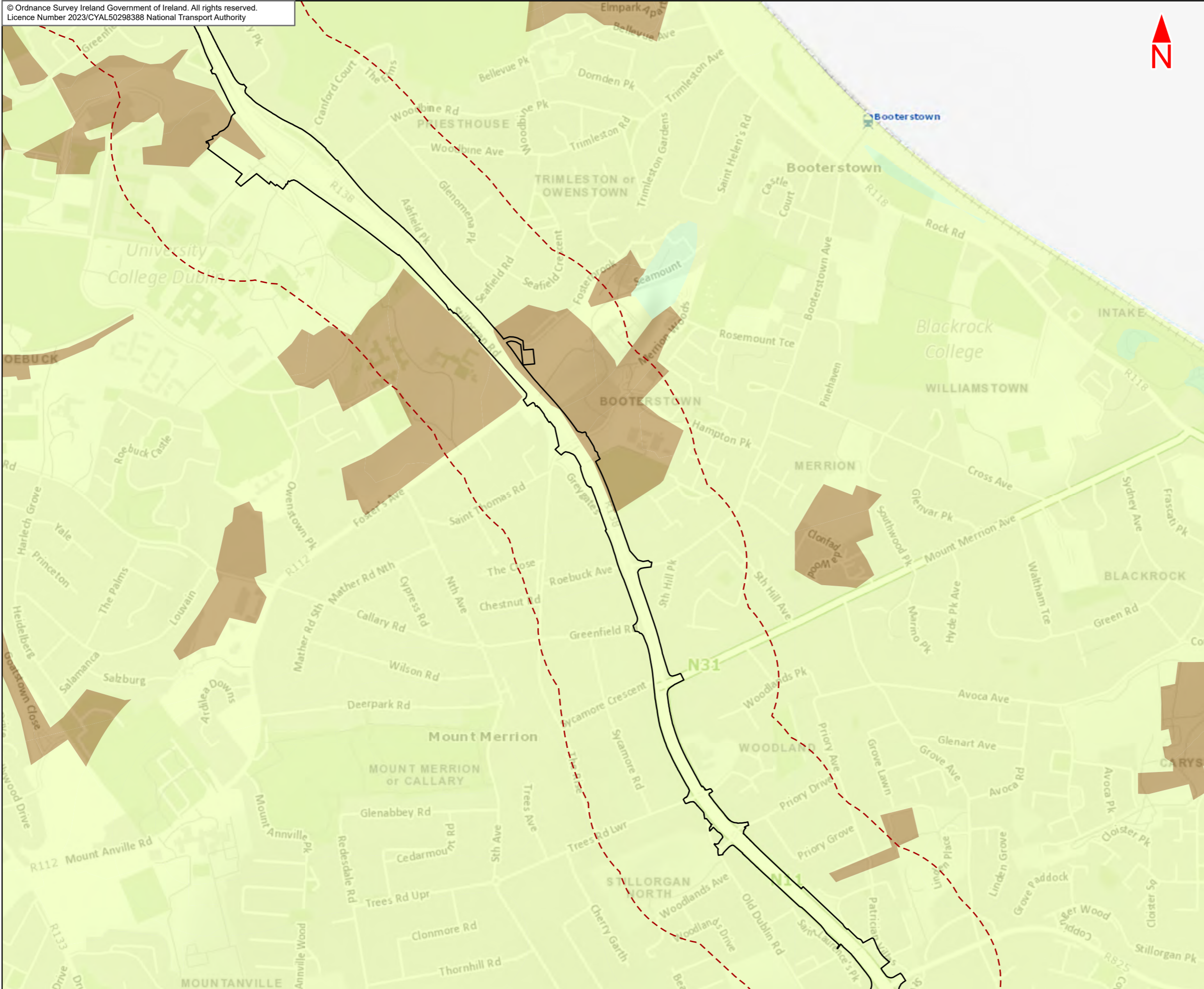
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

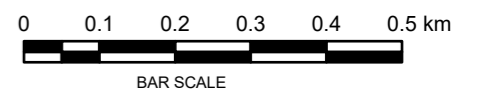
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QMS Code: \_\_\_\_\_

Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0902	Sheet Number: 2 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - GSI Groundwater Recharge**
  - Annual Recharge (mm)**
  - 151-200 mm
  - 51-100 mm
  - 1-50 mm

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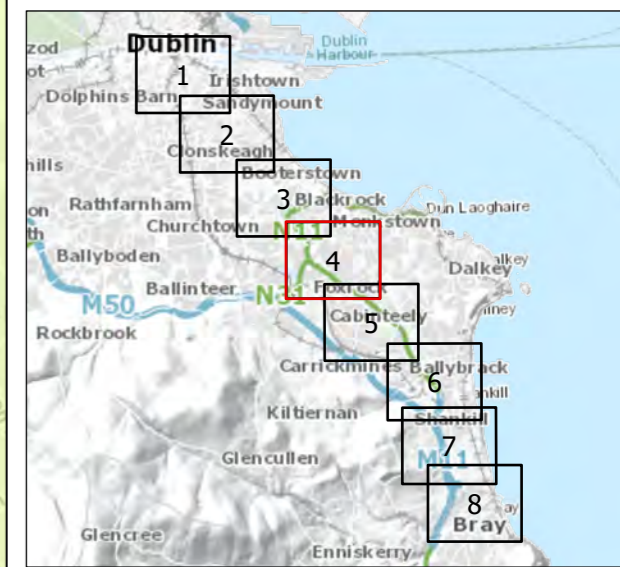
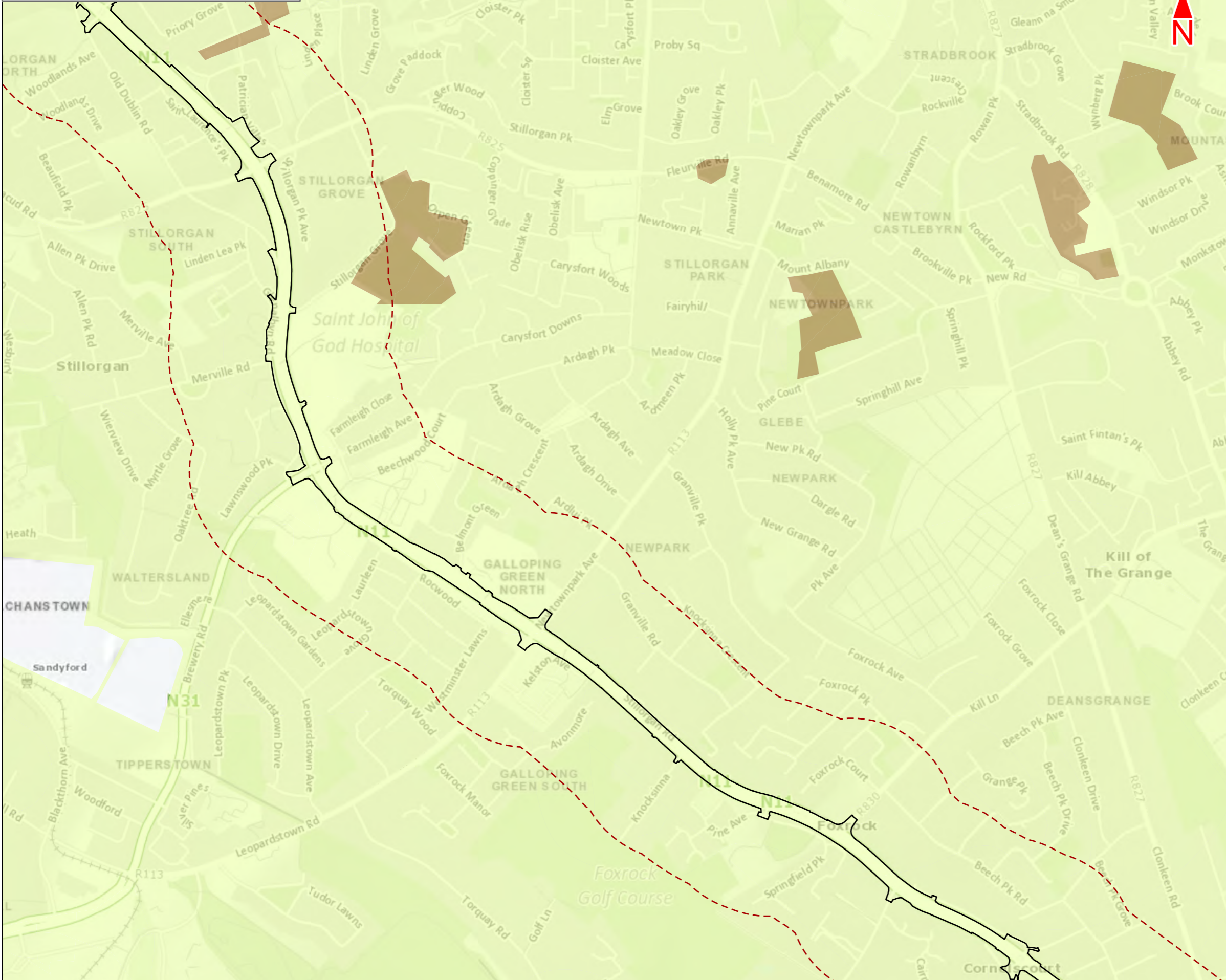


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M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>Client</b>  Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> 		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

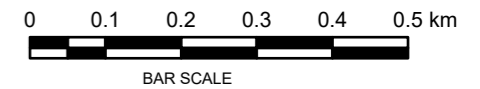
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BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b>				
Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0903	3 of 8	A	M01	





- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Groundwater Recharge**
  - Annual Recharge (mm)**
  - 51-100 mm
  - 1-50 mm

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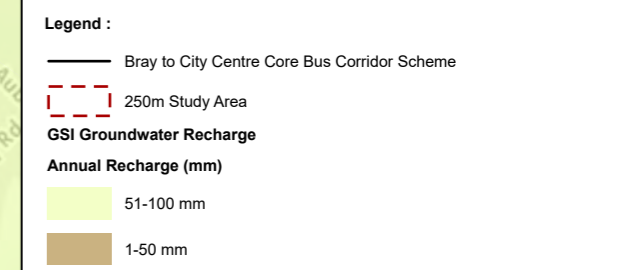
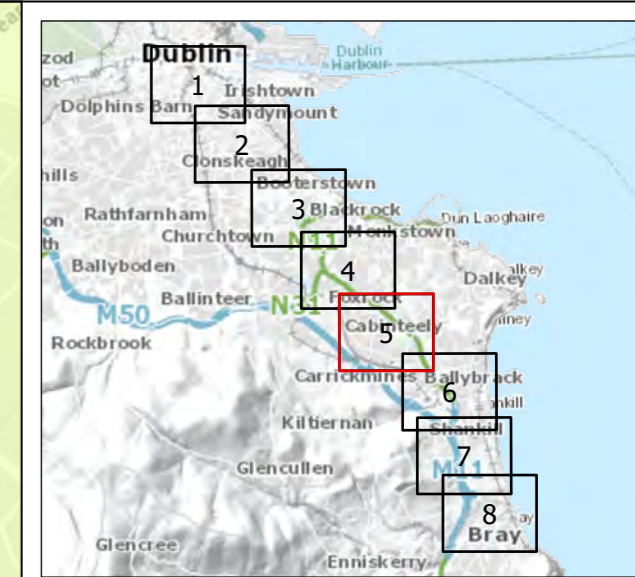
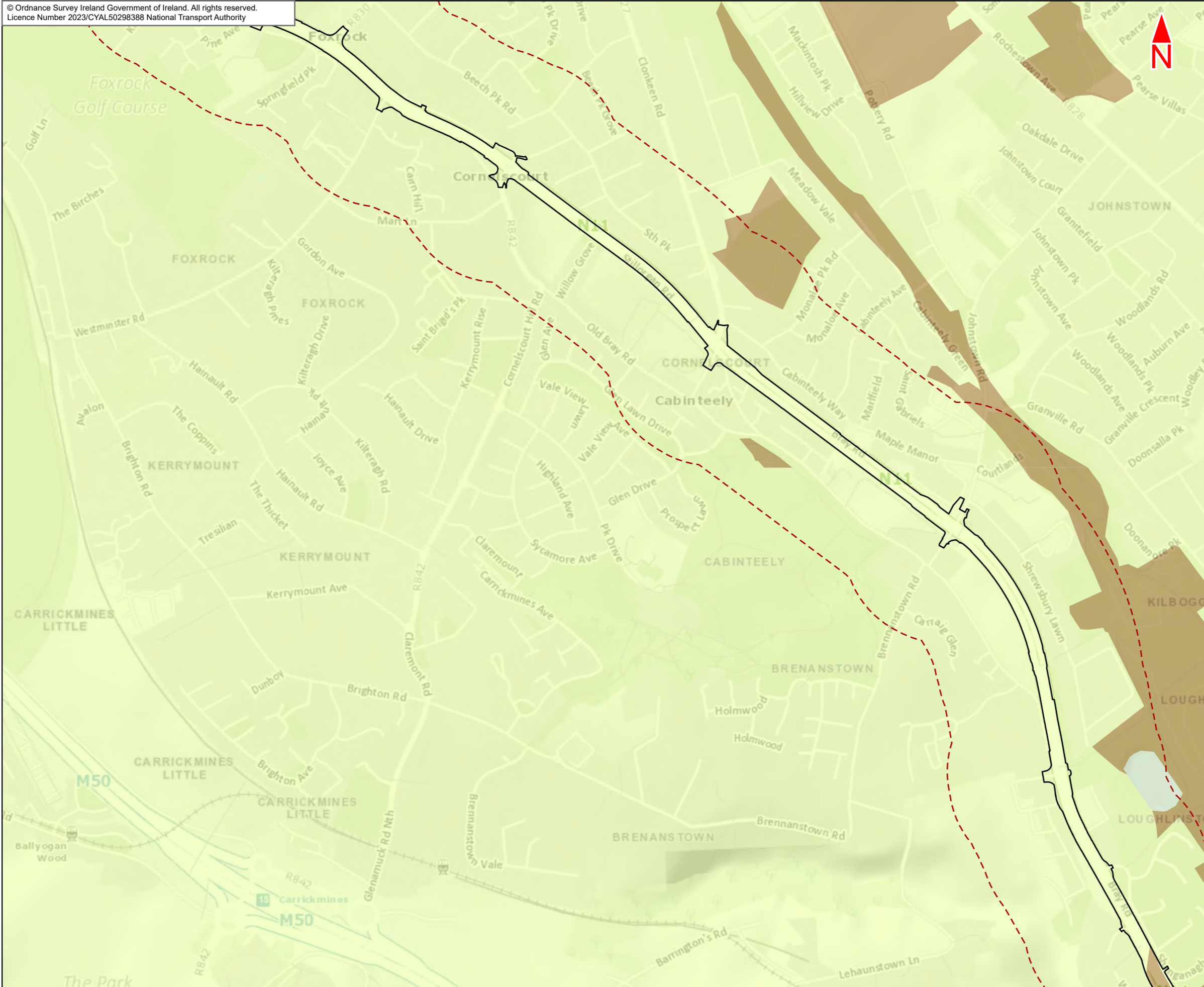
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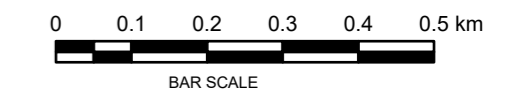
Rev	Date	Drn	Chk'd	App'd	Description
M01	May 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

<b>Client</b> Udarás Náisiúnta Iompair National Transport Authority		<b>Consultant</b> Jacobs ARUP SYSTRA		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0904	4 of 8	A	M01	



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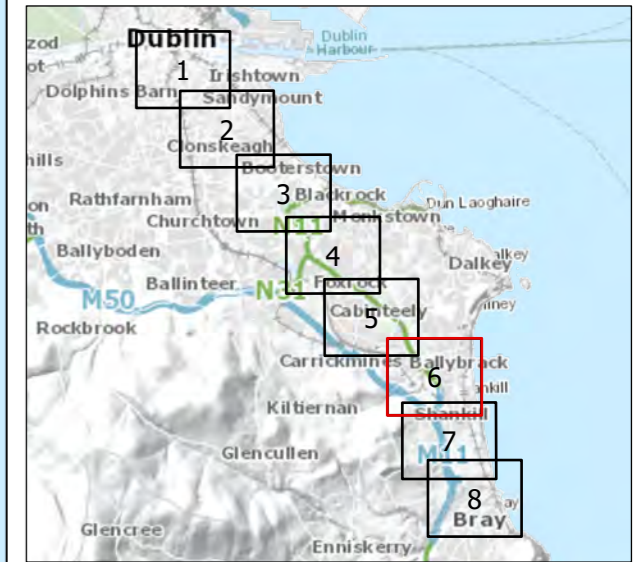
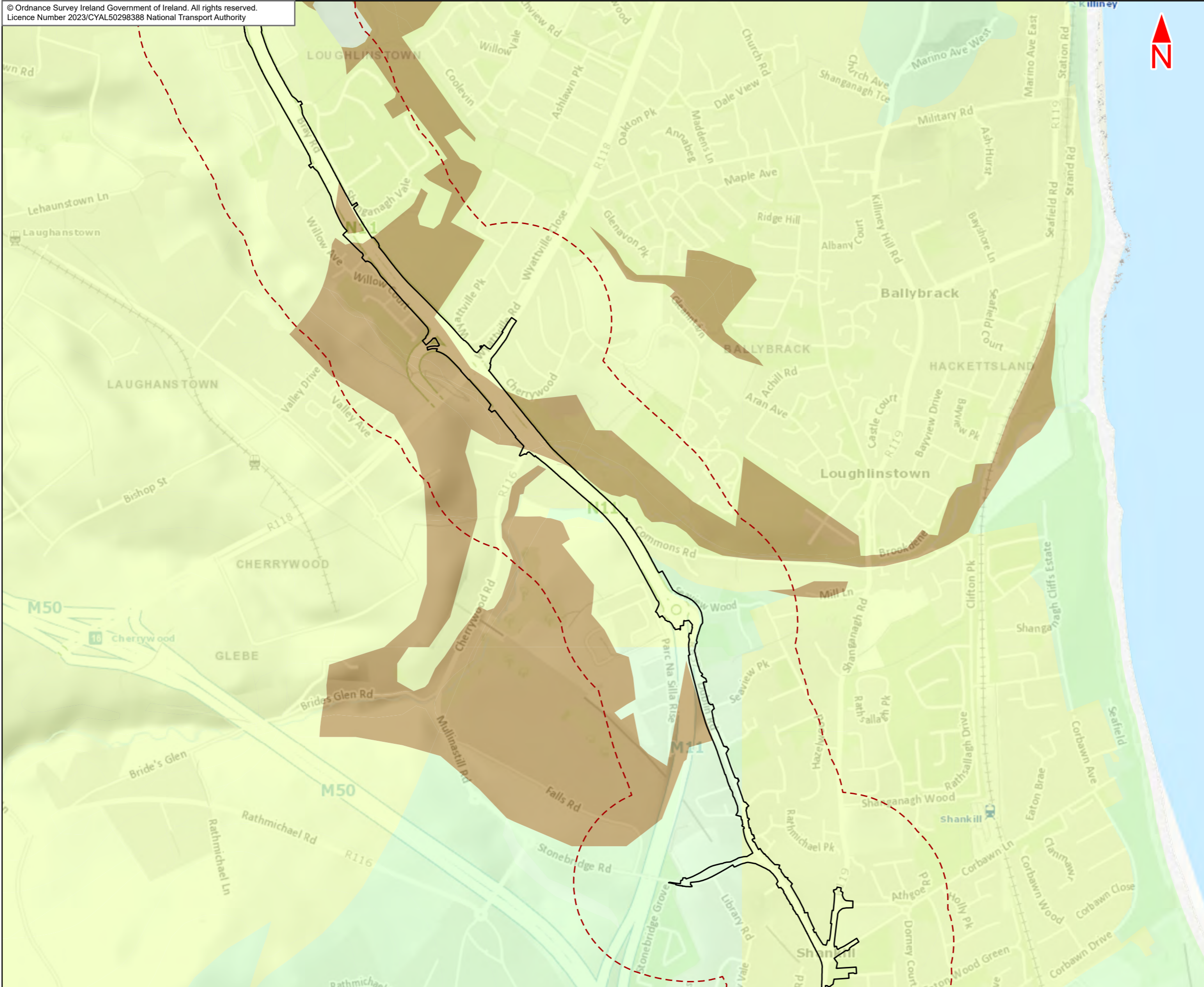
Client: **NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 09/05/2023 Scale @ A3: 1:10000  
Project Code: BCIDE Originator Code: JAC

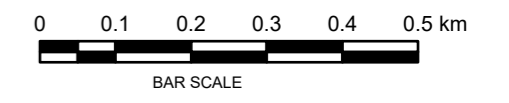
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Programme Title: <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>			
Drawing Title: <b>Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge</b>			
Drawing File Name: BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0905	Sheet Number: 5 of 8	Status: A	Rev: M01



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - 250m Study Area
  - GSI Groundwater Recharge**
  - Annual Recharge (mm)**
  - 151-200 mm
  - 101-150 mm
  - 51-100 mm
  - 1-50 mm

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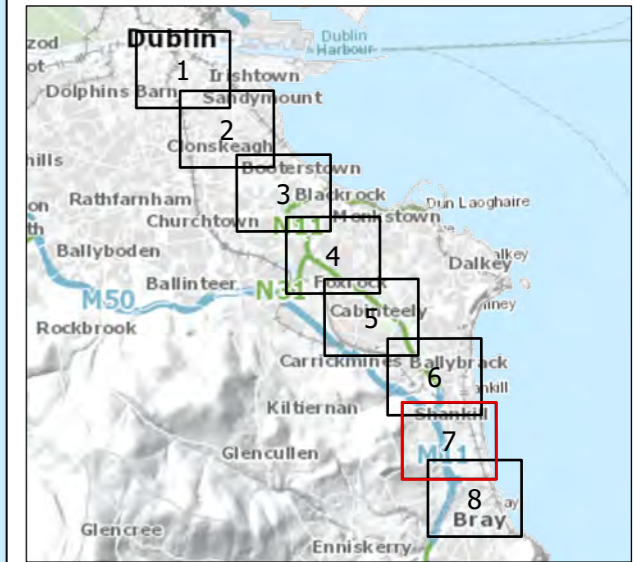
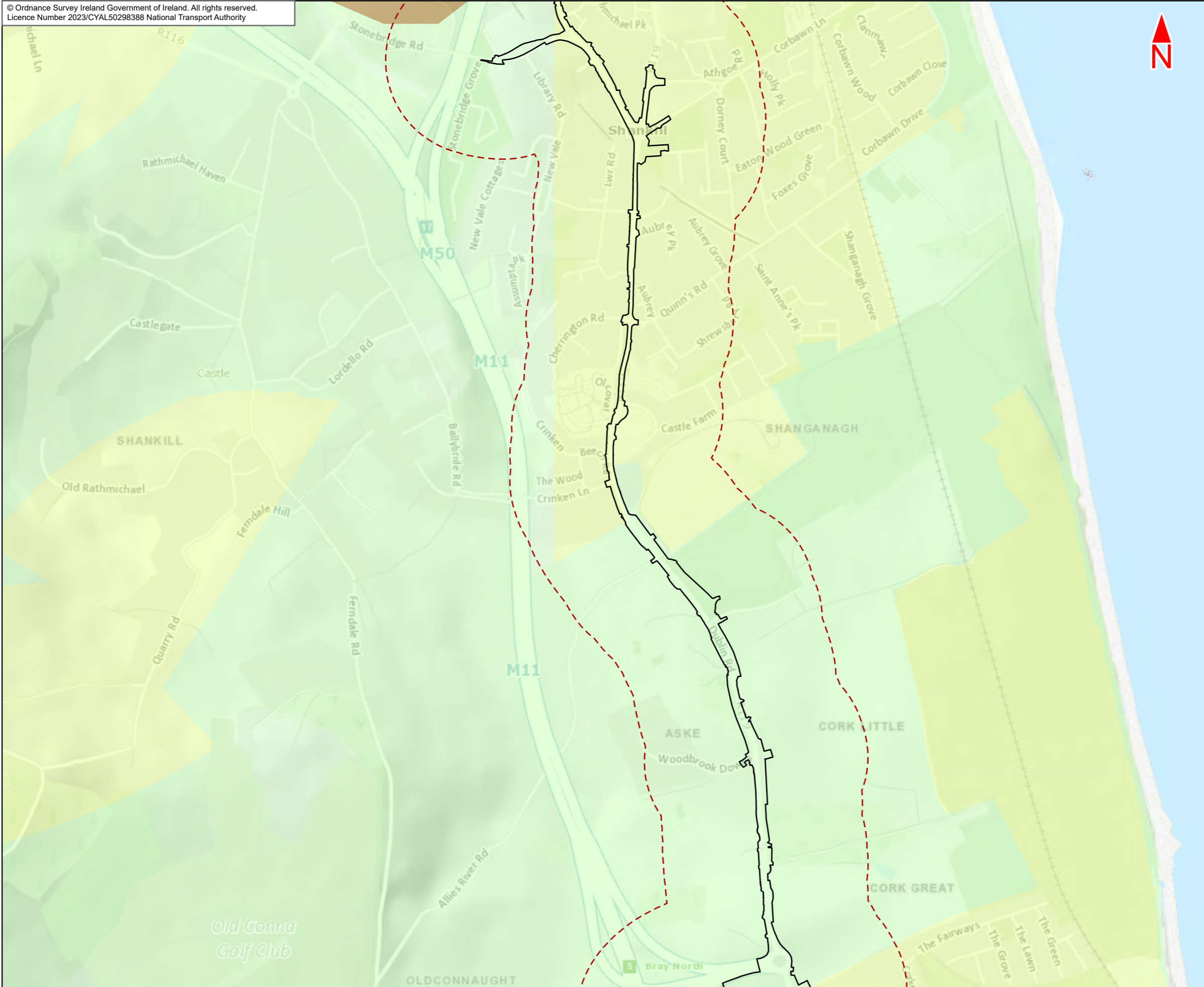
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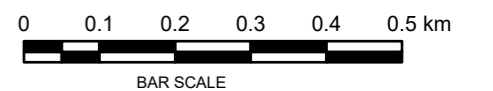
<b>NTA</b> Udarás Náisiúnta Iompair National Transport Authority		<b>JACOBS</b> <b>ARUP SYSTRA</b>		
Date	Scale @ A3	Drawn	Checked	Approved
09/05/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

<b>Programme Title</b> BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
<b>Drawing Title</b> Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0906	6 of 8	A	M01	



- Legend :**
- Bray to City Centre Core Bus Corridor Scheme
  - - - 250m Study Area
  - GSI Groundwater Recharge**
  - Annual Recharge (mm)**
  - 151-200 mm
  - 101-150 mm
  - 51-100 mm
  - 1-50 mm

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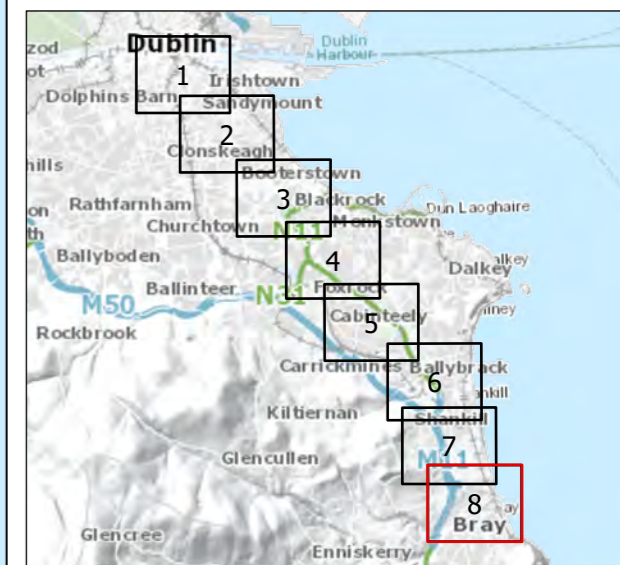
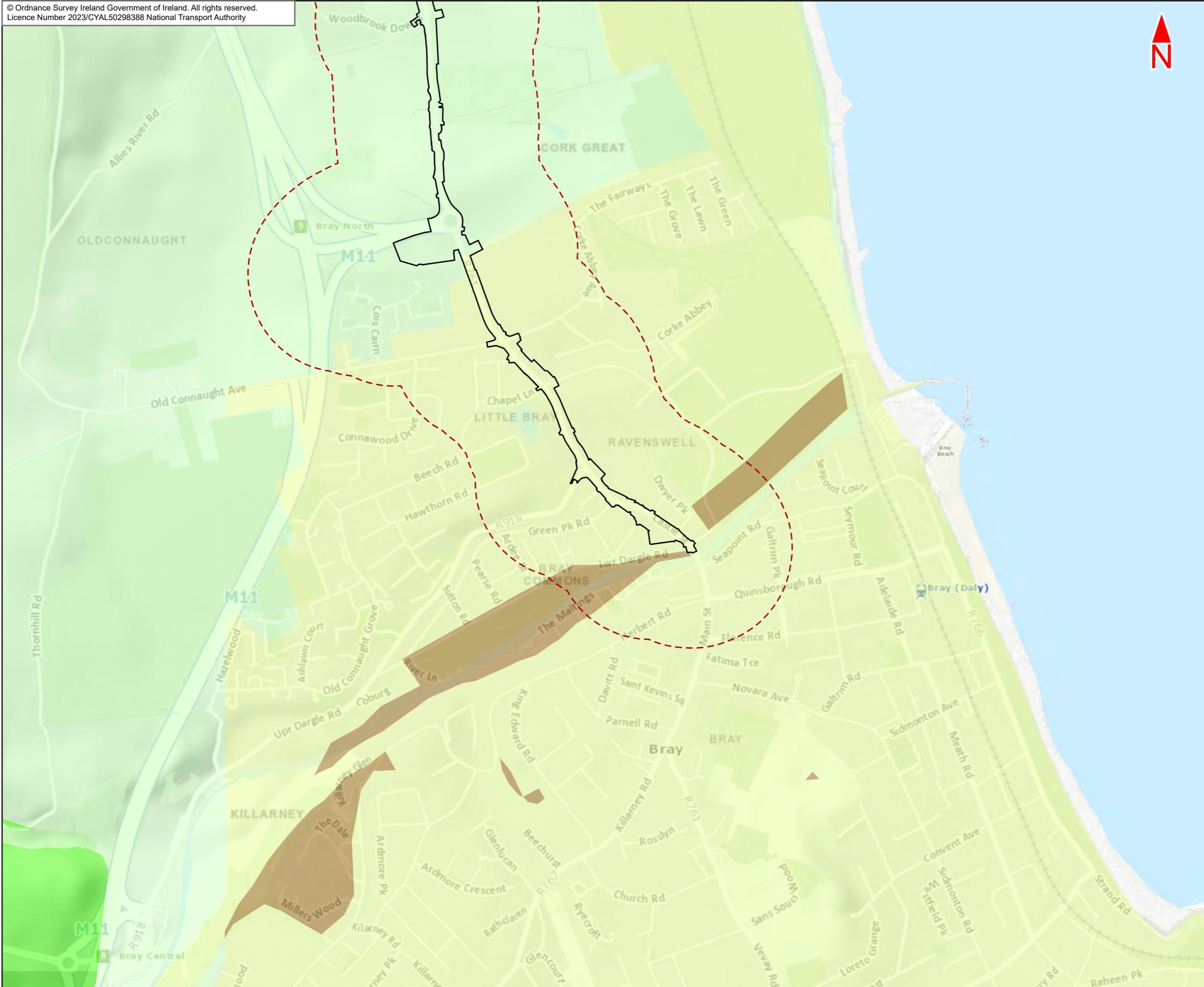


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Client  
**NTA**  
Udarás Náisiúnta Iompair  
National Transport Authority

Consultant  
**JACOBS**  
**ARUP SYSTRA**

Programme Title <b>BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0907
Sheet Number 7 of 8	Status A	Rev M01		



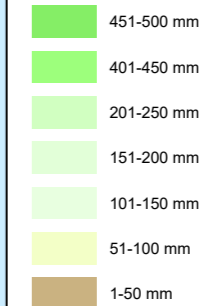
**Legend :**

— Bray to City Centre Core Bus Corridor Scheme

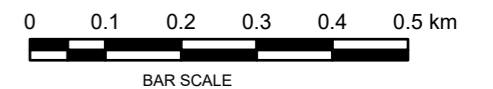
- - - 250m Study Area

**GSI Groundwater Recharge**

**Annual Recharge (mm)**



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Date 09/05/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title <b>BUSCONNECTS DUBLIN</b> <b>CORE BUS CORRIDORS INFRASTRUCTURE WORKS</b>				
Drawing Title Bray to City Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name BCIDE-JAC-ENV_GT-0013_XX_00-DR-GG-0908	Sheet Number 8 of 8	Status A	Rev M01	