

Chapter 3 Alternatives and Design Evolution

Figure 3.1 Appraisal of Longlist Options

Figure 3.2 Appraisal of Shortlist Options

Figure 3.3 Converter Station within Site 3

Figure 3.4 Proposed Onshore Scheme Emerging Preferences

Figure 3.5 Proposed Onshore Scheme Preferred Options

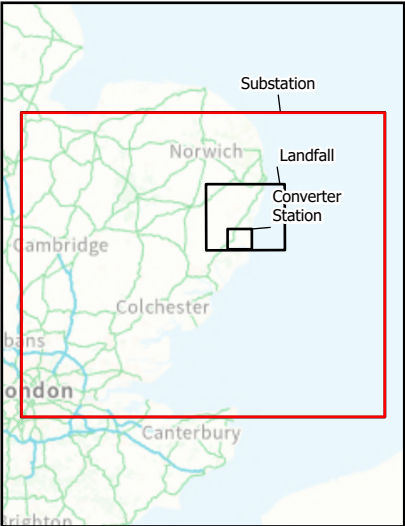
Figure 3.6 Offshore Connection Points and Offshore HVDC Cable Corridor Options

Figure 3.7 Offshore HVDC Cable Corridor Development KP52 - KP64

Figure 3.8 Offshore HVDC Cable Corridor Development Aggregate Area 2109



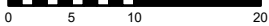
Substation Options



Contains OS data © Crown Copyright and database right 2025

Coordinate System: British National Grid

Kilometres



P01	05/08/2025	JM	JM	CP	CE
-----	------------	----	----	----	----

Rev	Date	By	Chkd	Appd	Authd
-----	------	----	------	------	-------

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

Figure 3.1 Appraisal of Longlist
Options - Substation

Scale at A3

1:600,000

Role

Environment

Suitability

S2

Project Number

287334-00

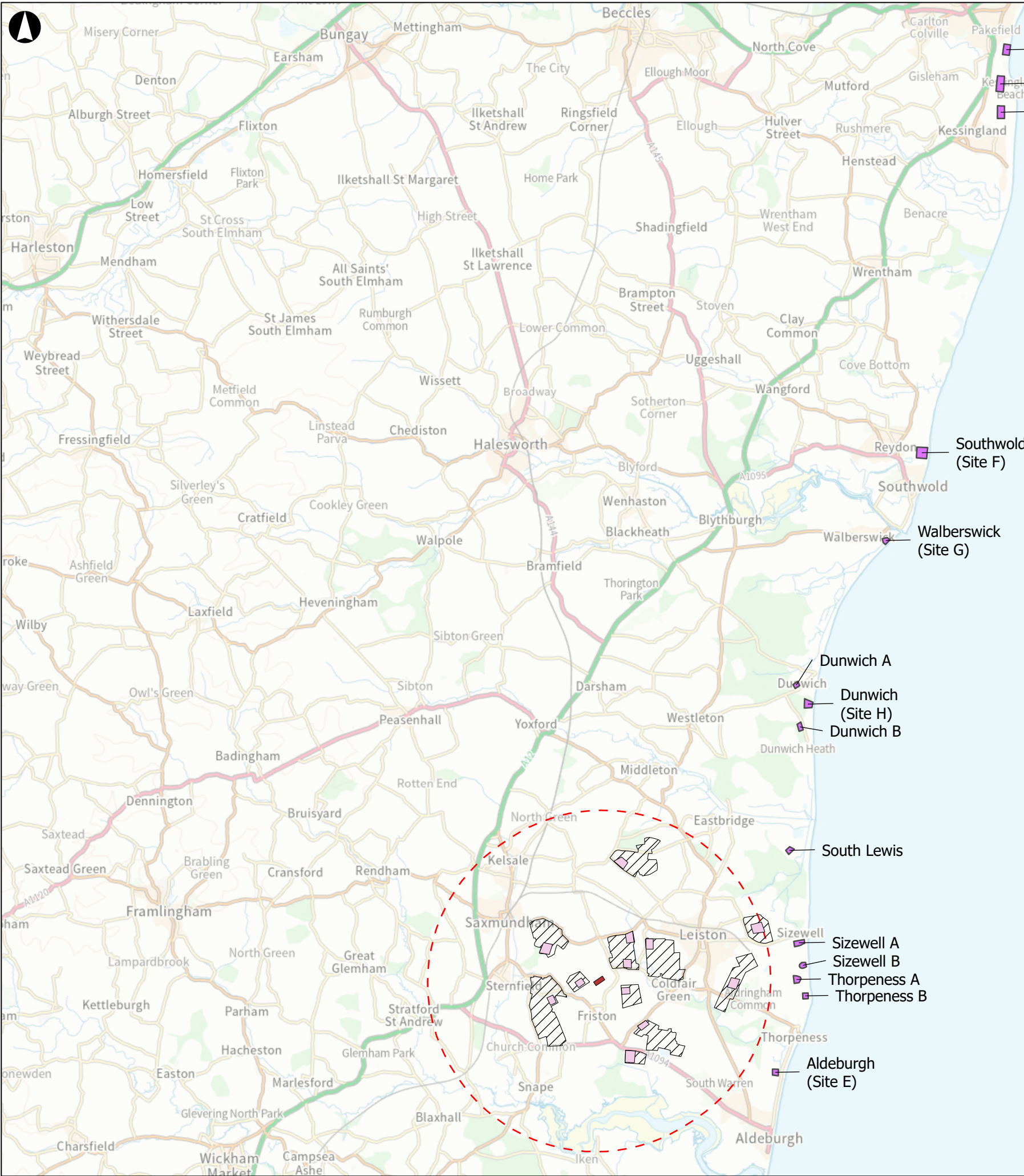
Rev

P01

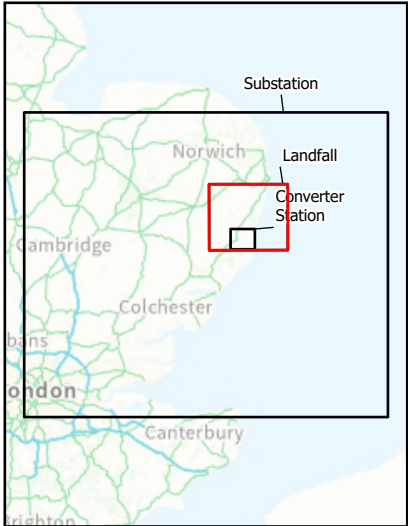
Drawing Number

LLK1-ARU-DWG-ENV-00082

A3

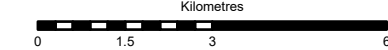


- Landfall Sites
- Converter Station Sites
- Nautilus Converter Station Sites
- Kiln Lane Substation (formerly known as Friston Substation)
- Converter Station Study Area



Contains OS data © Crown Copyright and database right 2025

Coordinate System: British National Grid



P01	05/08/2025	JM	JM	CP	CE
-----	------------	----	----	----	----

Rev	Date	By	Chkd	Appd	Authd
-----	------	----	------	------	-------

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

Figure 3.1 Appraisal of Longlist Options - Landfall

Scale at A3

1:130,000

Role

Environment

Suitability

S2

Project Number

287334-00

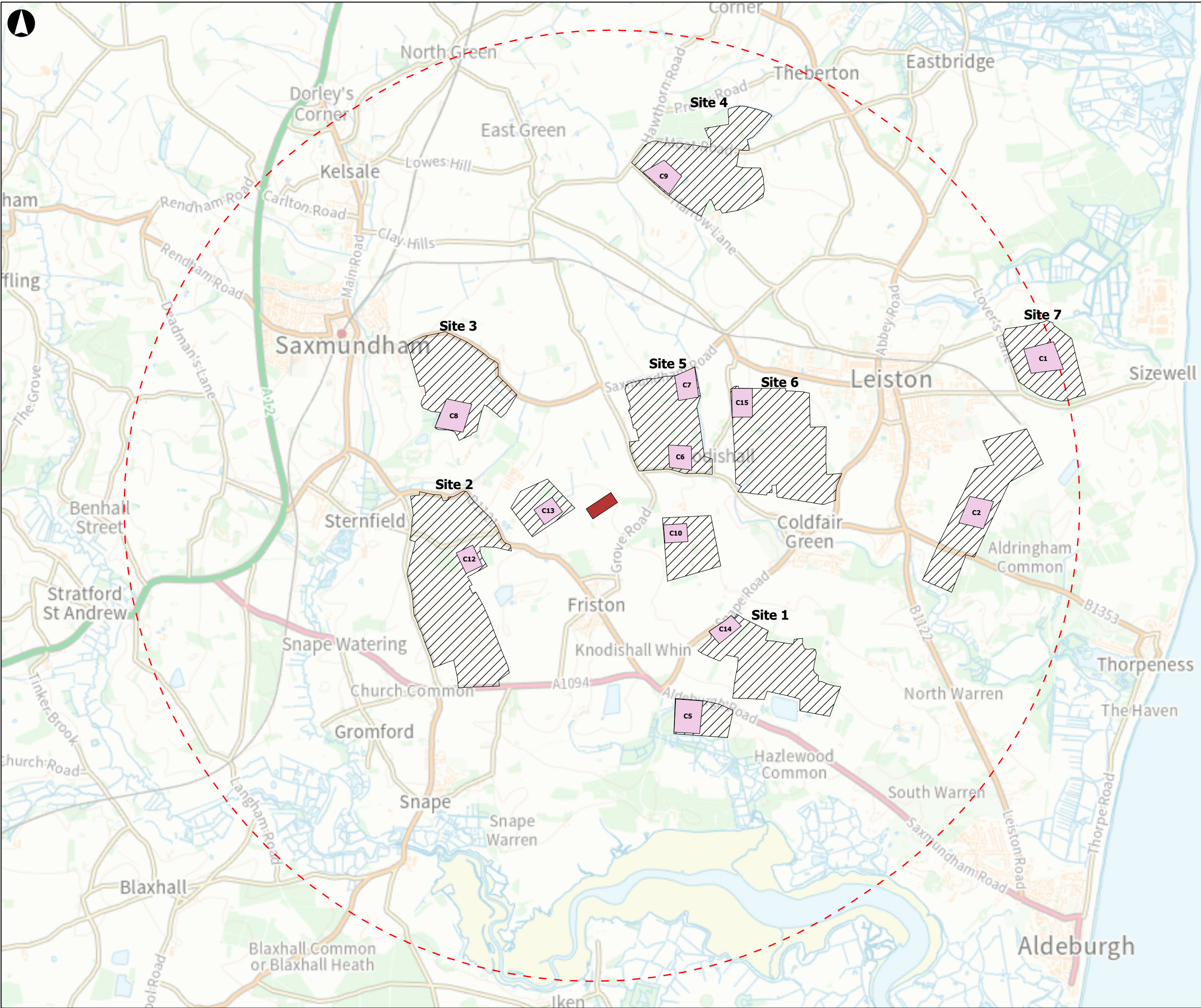
Rev

P01

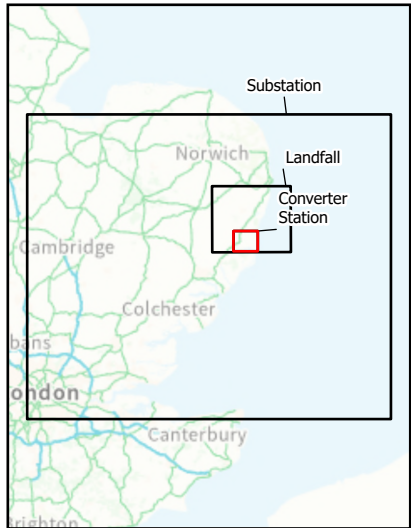
Drawing Number

LLK1-ARU-DWG-ENV-00082

A3



- Converter Station Sites
- Nautilus Converter Station Sites
- Kiln Lane Substation (formerly known as Friston Substation)
- Converter Station Study Area



Contains OS data © Crown Copyright and database right 2025

Coordinate System: British National Grid

Kilometres



P01	05/08/2025	JM	JM	CP	CE
-----	------------	----	----	----	----

Rev	Date	By	Chkd	Appd	Authd
-----	------	----	------	------	-------

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

Figure 3.1 Appraisal of Longlist
Options - Converter Station

Scale at A3

1:40,000

Role

Environment

Suitability

S2

Project Number

287334-00

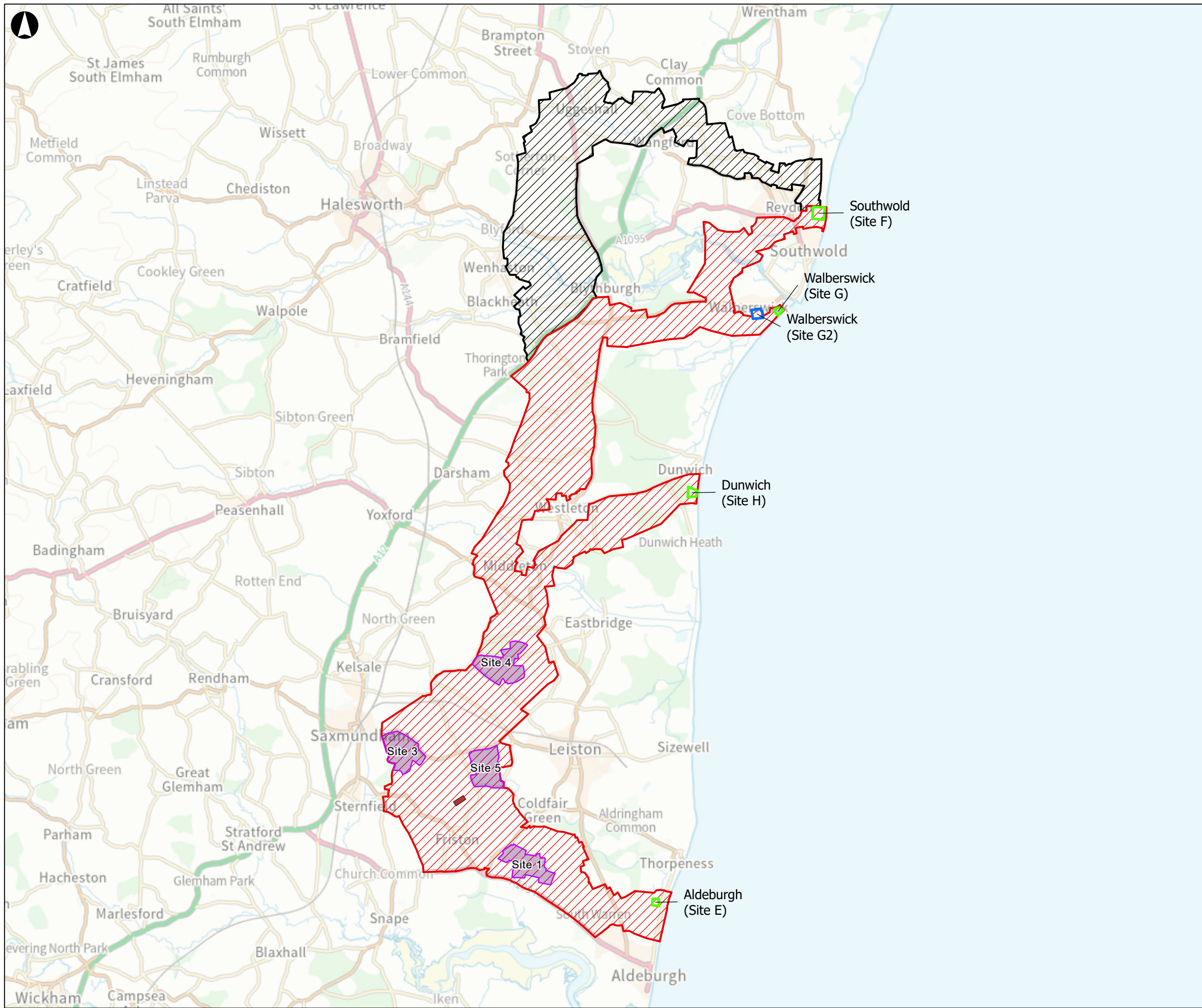
Rev

P01

Drawing Number

LLK1-ARU-DWG-ENV-00082

A3



- Kiln Lane Substation (formerly known as Friston Substation)
- Converter Station Site Option
- Non-Statutory Consultation (2022) Landfall Site
- Non-Statutory Consultation (2023) Landfall Site
- Non-Statutory Consultation (2022) Onshore Underground Cable Search Area
- Non-Statutory Consultation (2023) Onshore Underground Cable Search Area

Contains OS data © Crown Copyright and database right 2025
Coordinate System: British National Grid
Kilometres

0	1.25	2.5	5
---	------	-----	---

P01	05/08/2025	JM	JM	CP	CE
-----	------------	----	----	----	----

Rev	Date	By	Chkd	Appd	Authd
-----	------	----	------	------	-------

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

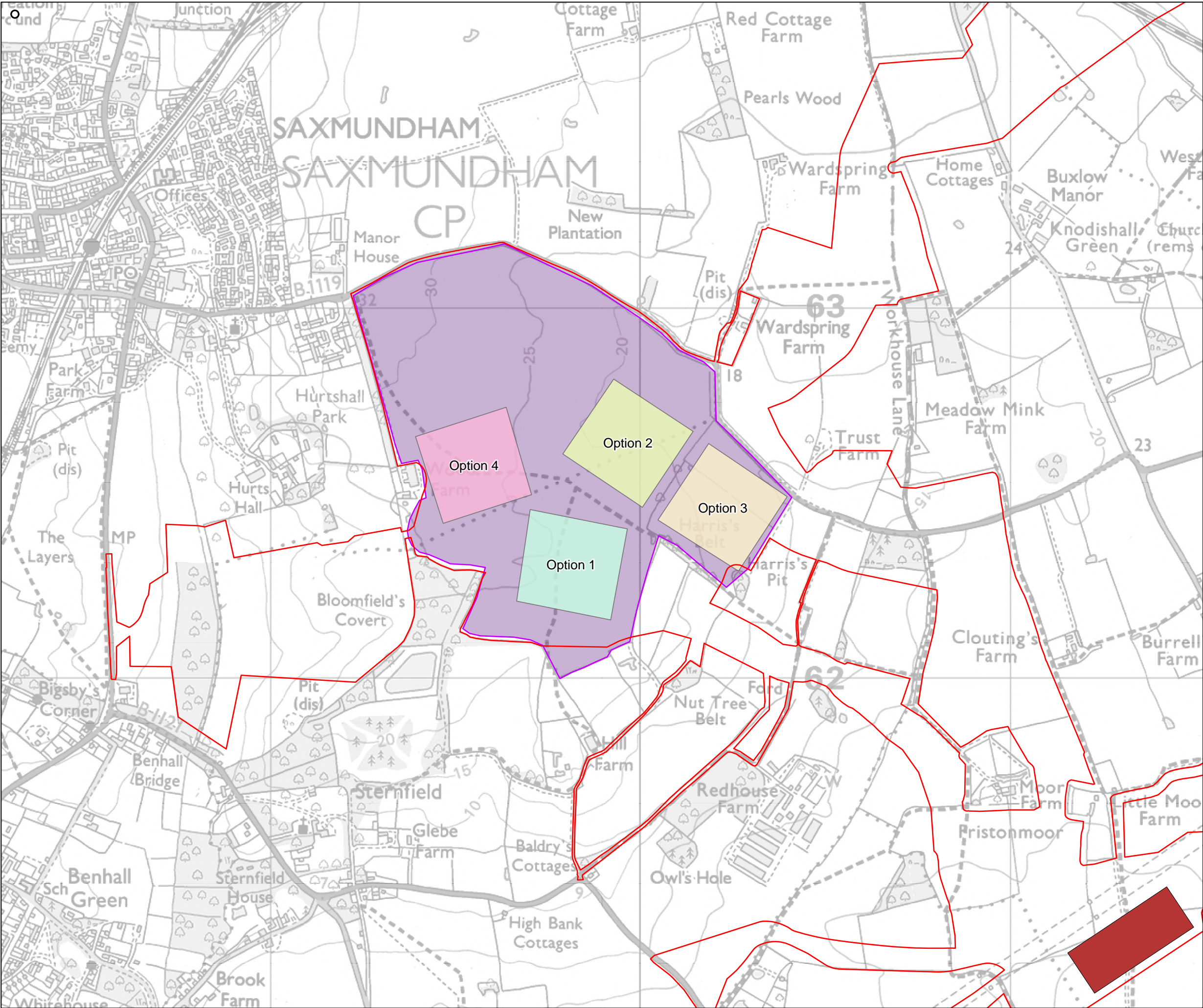
Project Name

LIONLINK

Drawing Title

Figure 3.2 Appraisal of Shortlist Options

Scale at A3	1:100,000
Role	Environment
Suitability	S2
Project Number	287334-00
Drawing Number	LLK1-ARU-DWG-ENV-00083
Rev	P01



- Proposed Onshore Scheme Draft
Order Limits
- Converter Station Site 3 Option
- Kiln Lane Substation
- Converter Station Location
- Option 1
 - Option 2
 - Option 3
 - Option 4

Contains OS data © Crown Copyright and database right 2025
Coordinate System: British National Grid

Meters

0 250 500

P02	26/09/2025	JM	JM	CP	CE
Rev	Date	By	Chkd	Appd	Authd

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK

Drawing Title
Figure 3.3 Converter Station within Site 3

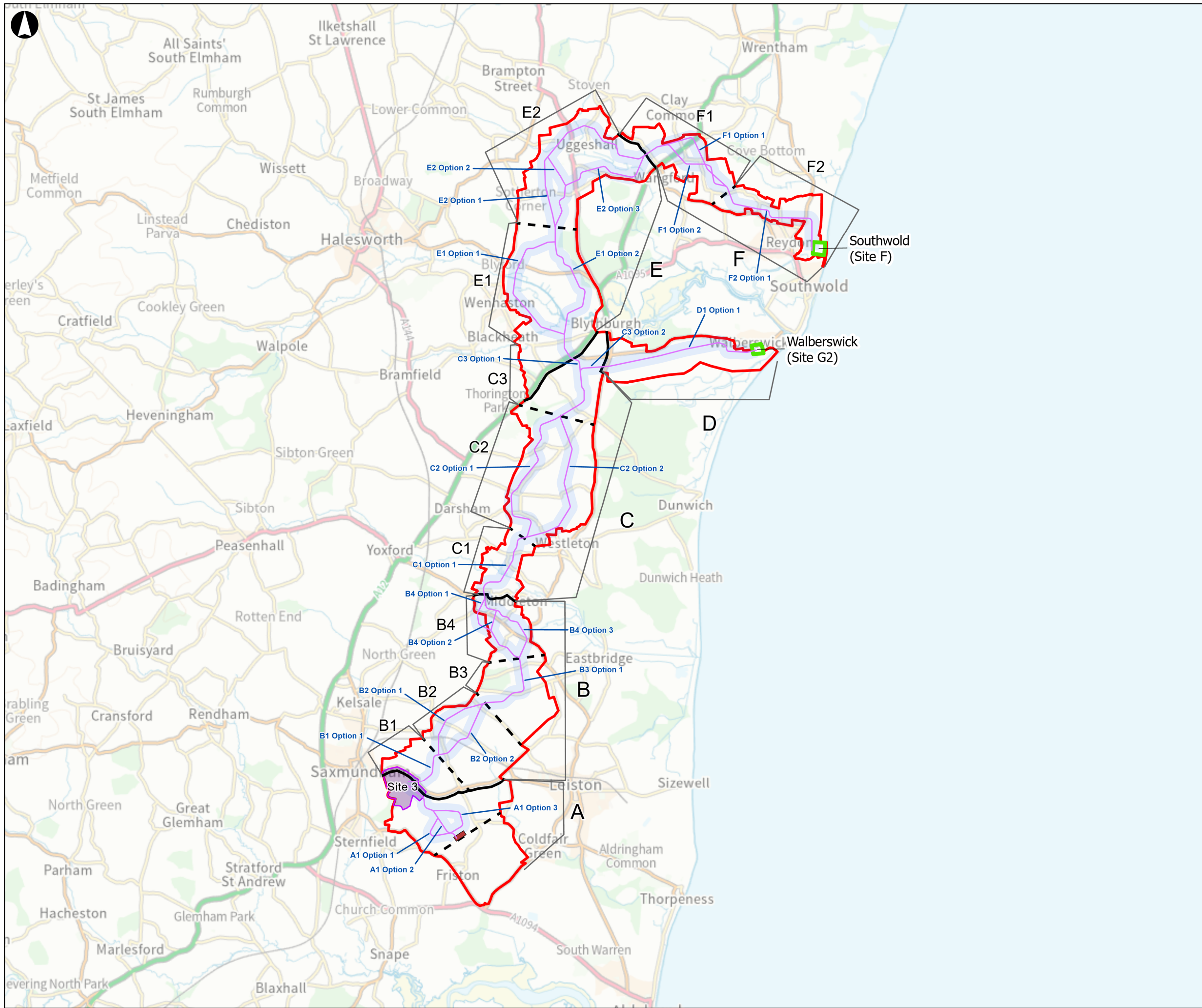
Scale at A3
1:10,000

Role
Environment

Suitability
S2

Project Number 287334-00	Rev P02
Drawing Number LLK1-ARU-DWG-ENV-00086	

A3



- Onshore Cable Centreline
- Onshore Cable Corridor (400m)
- Landfall
- Kiln Lane Substation (formerly known as Friston Substation)
- Converter Station Site Option
- EIA Scoping Boundary
- Onshore Cable Route Sub-Section
- Onshore Cable Route Sectioning

Contains OS data © Crown Copyright and database right 2025
Coordinate System: British National Grid

Kilometres

0 1 2 3 4 5

P02	26/09/2025	JM	JM	CP	CE
Rev	Date	By	Chkd	Appd	Authd

ARUP

8 Filtroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

Figure 3.4 Proposed Onshore Scheme
Emerging Preferences

Scale at A3

1:100,000

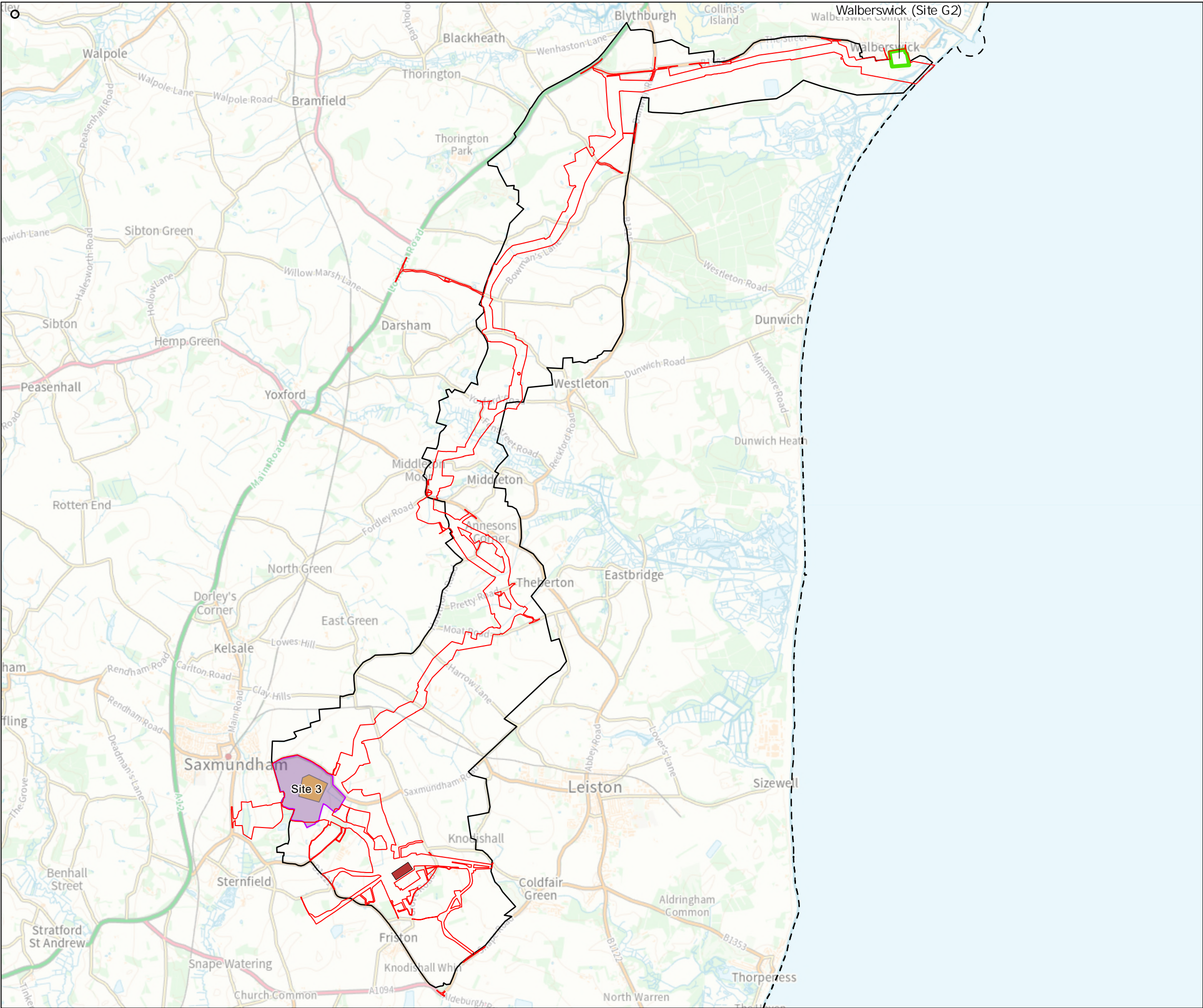
Role

Environment

Suitability

S2

Project Number	Rev
287334-00	P02
Drawing Number	
LLK1-ARU-DWG-ENV-00084	



- Proposed Onshore Scheme Draft Order Limits
- Mean Low Water Springs
- Landfall
- Kiln Lane Substation
- Converter Station Site Option
- Converter Station Limits of Deviation
- Underground Cable Search Area

Contains OS data © Crown Copyright and database right 2025

Coordinate System: British National Grid

Kilometres



P02	26/09/2025	JM	JM	CP	CE
-----	------------	----	----	----	----

Rev	Date	By	Chkd	Appd	Authd
-----	------	----	------	------	-------

ARUP

8 Fitzroy Street
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

Figure 3.5 Proposed Onshore Scheme Preferred Options

Scale at A3

1:60,000

Role

Environment

Suitability

S2

Project Number

287334-00

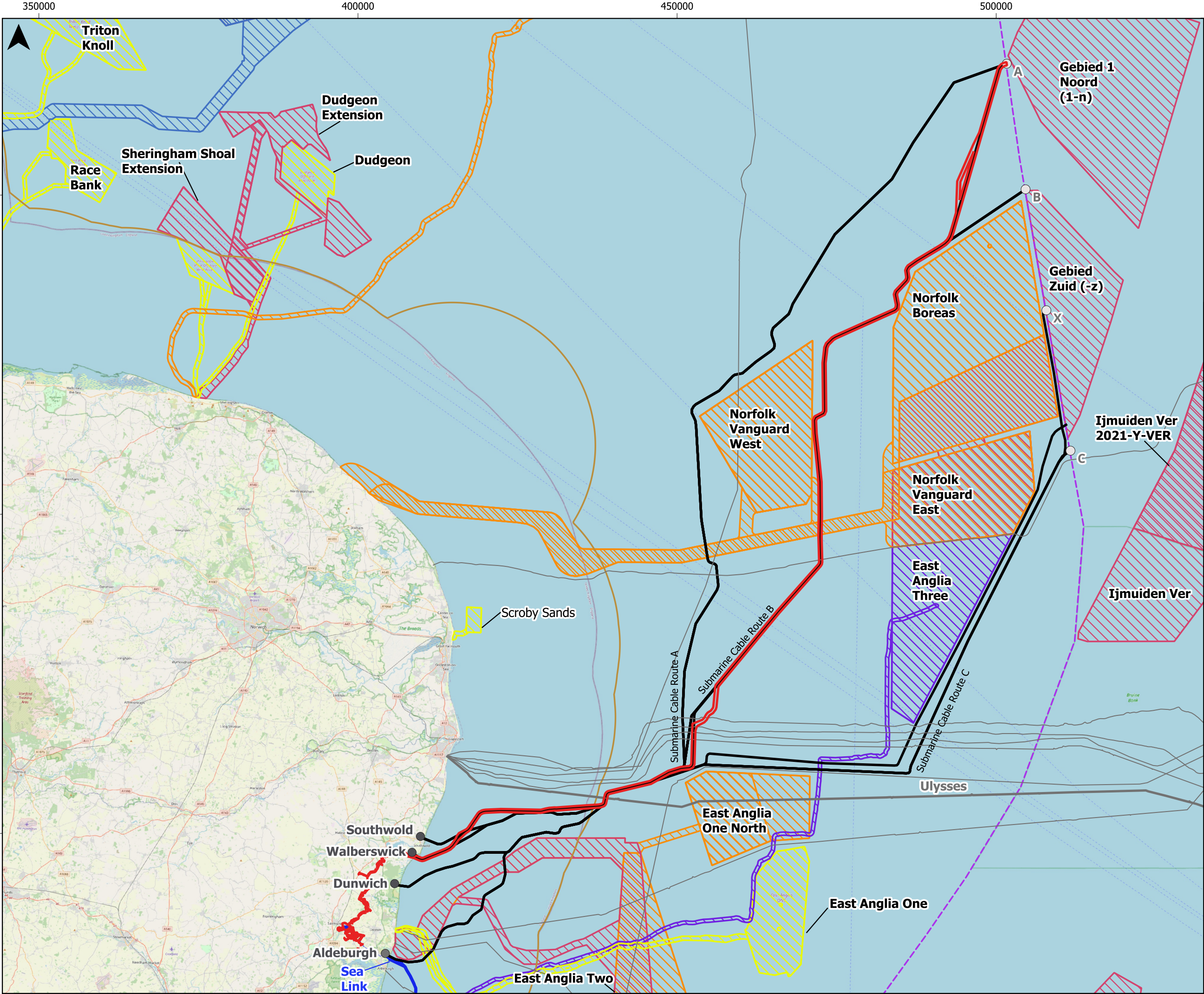
Rev

P02

Drawing Number

LLK1-ARU-DWG-ENV-00085

A3



Proposed Scheme Draft

Order Limits

Submarine Cable Corridor

Option

Ulysses Cable

Telecommunication Cable (Active)

Sea Link Draft Order Limits

Offshore Connection Point

Wind Farms and Cables

Active/In Operation

Consented

In Planning

Under Construction

12NM

Exclusive Economic Zone Limit

A3



Coordinate System

ETRS89 / UTM zone 31N

Kilometres

0

10

20

P01	29/10/2025	JC	AN	DS	AF
Rev	Date	By	Chkd	Appd	Authd



Project Name

LIONLINK

Client

National Grid LionLink Limited (NGLLL)

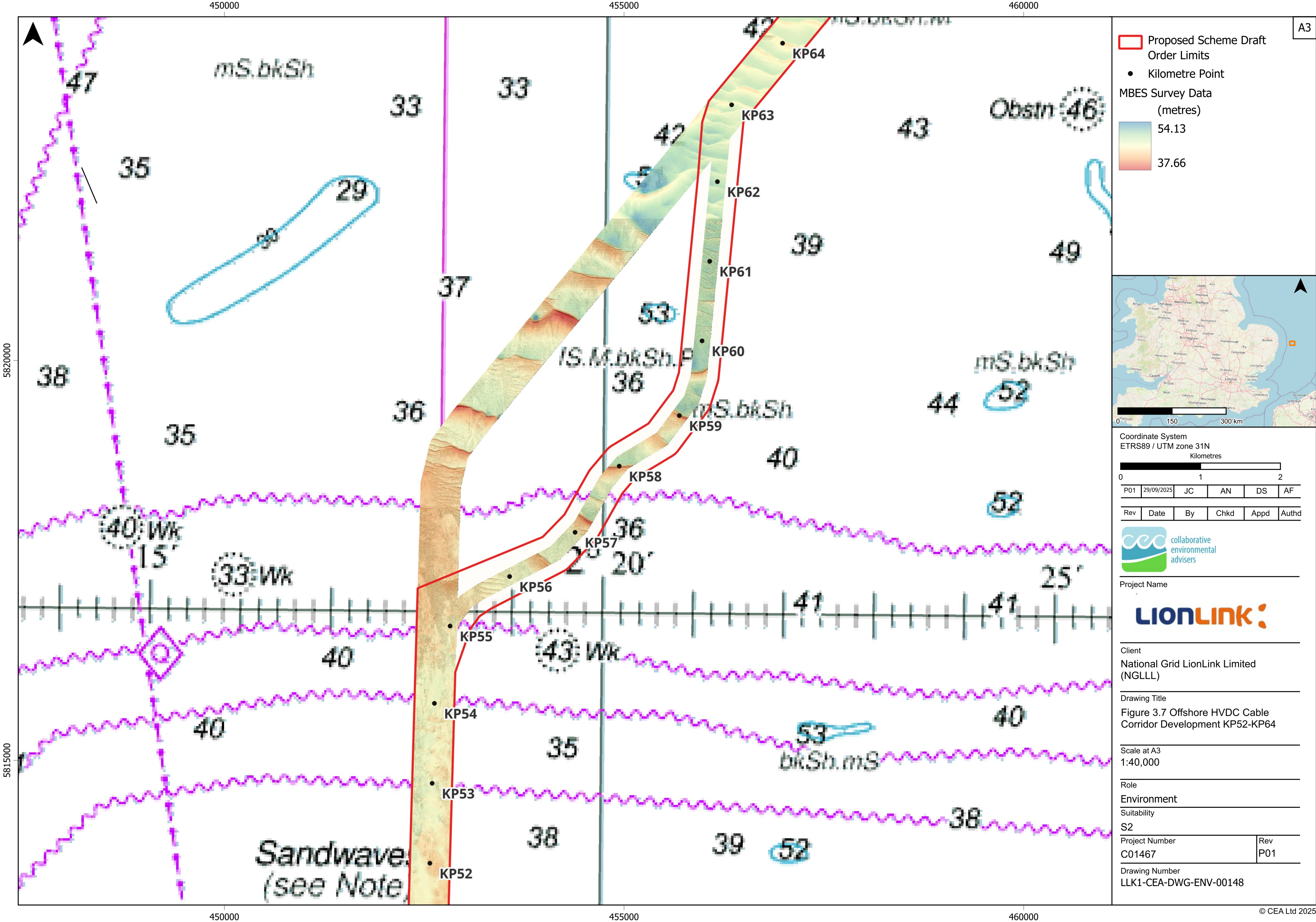
Drawing Title

Figure 3.6 Offshore Connection Points and Offshore HVDC Cable Corridor Options

Scale at A3

1:550,000

Role	
Environment	
Suitability	
S2	
Project Number	Rev
C01467	P01
Drawing Number	
LLK1-CEA-DWG-ENV-00147	



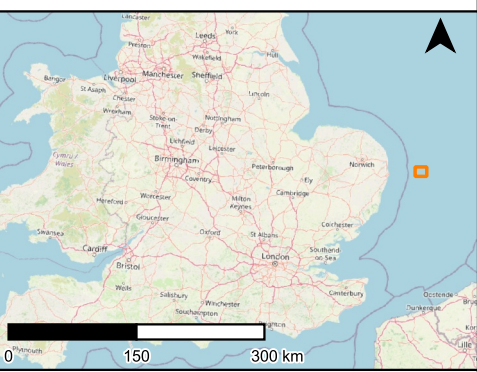
Proposed Scheme Draft Order Limits

Kilometre Point

MBES Survey Data (metres)

54.13

37.66



Coordinate System
ETRS89 / UTM zone 31N
Kilometres

P01	29/09/2025	JC	AN	DS	AF

Rev	Date	By	Chkd	Appd	Authd

Project Name

Client
National Grid LionLink Limited (NGLLL)

Drawing Title
Figure 3.7 Offshore HVDC Cable Corridor Development KP52-KP64

Scale at A3
1:40,000

Role
Environment
Suitability
S2

Project Number C01467	Rev P01
--------------------------	------------

Drawing Number
LLK1-CEA-DWG-ENV-00148

