

**Offshore Wind Farm** 

# **ENVIRONMENTAL STATEMENT**

Chapter 29 Figures (Part 2 of 6)

Document Reference:3.2.25Volume:3.2APFP Regulation:5(2)(a)Date:July 2024Revision:0

NorthFallsOffshore.com



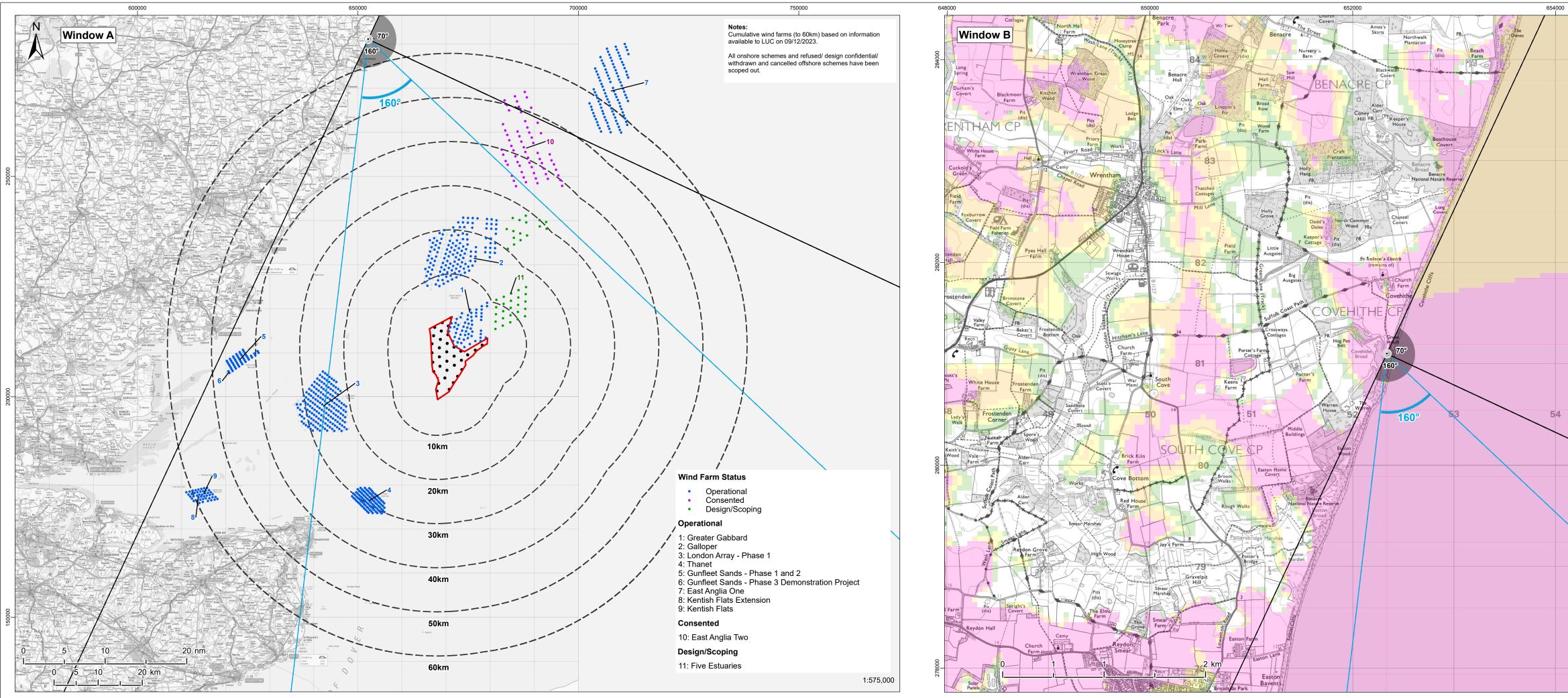


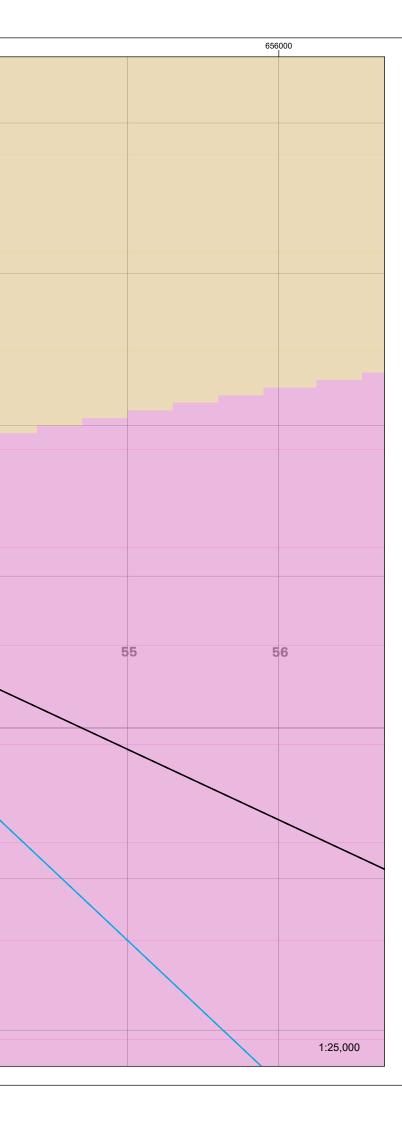
# **Project Reference: EN010119**

Project	North Falls Offshore Wind Farm
Document Title	Environmental Statement Chapter 29 Figures
Document Reference	3.2.25
APFP Regulation	5(2)(a)
Supplier	Royal HaskoningDHV
Supplier Document ID	PB9244-RHD-ES-OF-RP-OF-0213

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Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
0	0 July 2024 Sul		RHDHV	NFOW	NFOW







	North Falls Array Area
٠	Turbine (indicative layout)
	Turbine buffers - 10km intervals
$\odot$	Viewpoint
Bareg	ground ZTV to Tip (381.39m)
	1 - 10 Turbines visible
	11 - 20 Turbines visible
	21 - 30 Turbines visible
	31 - 34 Turbines visible
$\vee$	53.5° Field of View
$\vee$	90° Field of View

## Notes:

The ZTV is calculated to turbine tip height (381.39m) from a viewing height of 2m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 50 height data (obtained from Ordnance Survey in 2022). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.1.0 software

Data Source: OS, LUC, RHDHV Basemap Sources: OS, Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors rawing Title

## Viewpoint 1 - Covehithe

Rev	Date	Ren	Remarks					
01	13/03/2024	First issue			RW	JN		
Dra	wing Number			Figure Numb	er			
PB9244-LUC-ZZ-OF-DR-GS-0022 29.3						.2.1		
Sca	le	Plot Size Double Width A3	Datum OSGB36	Projection BN	IG			
NORTH FALLS								
			Offsh	ore Wind Farm				



LUC

OS reference: 652337E 281100N AOD: 4 m Direction of view: 70° Nearest turbine: 65.96 km

Horizontal field of view:90° (cylindrical projection)Principal distance:522 mm Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm

NIKON D750 50mm Fixed Focal Length Camera: Lens:

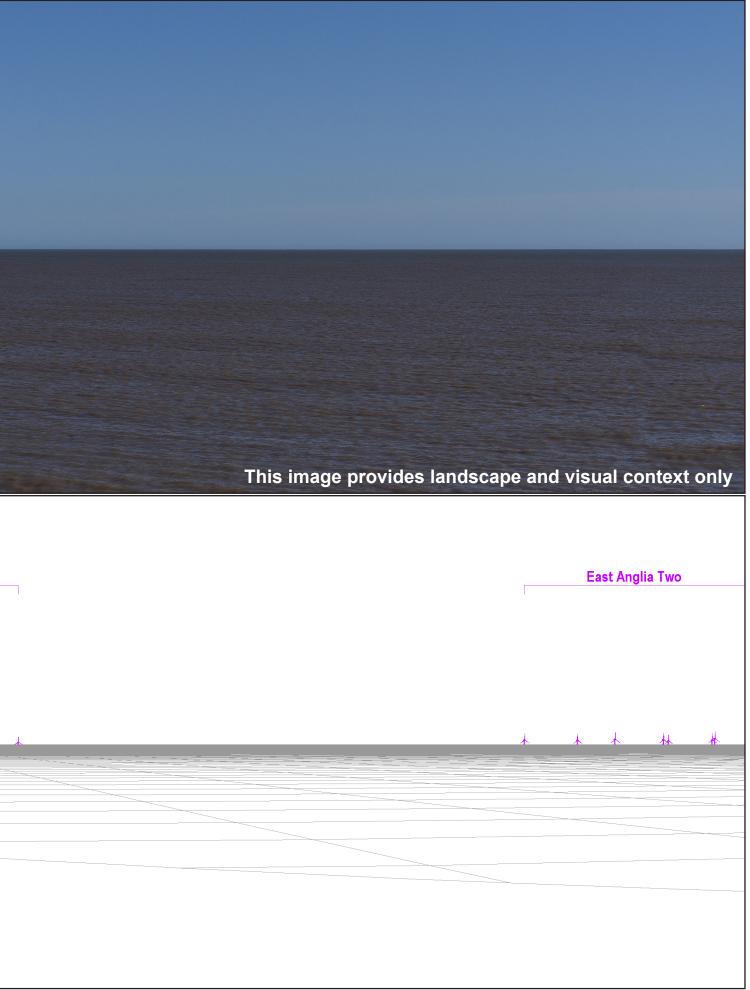
Photography Date: 17/03/2022 Photography Time: 12:40

East Anglia One North

Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.



North Falls Figure: 29.2.1a Viewpoint 1: Covehithe

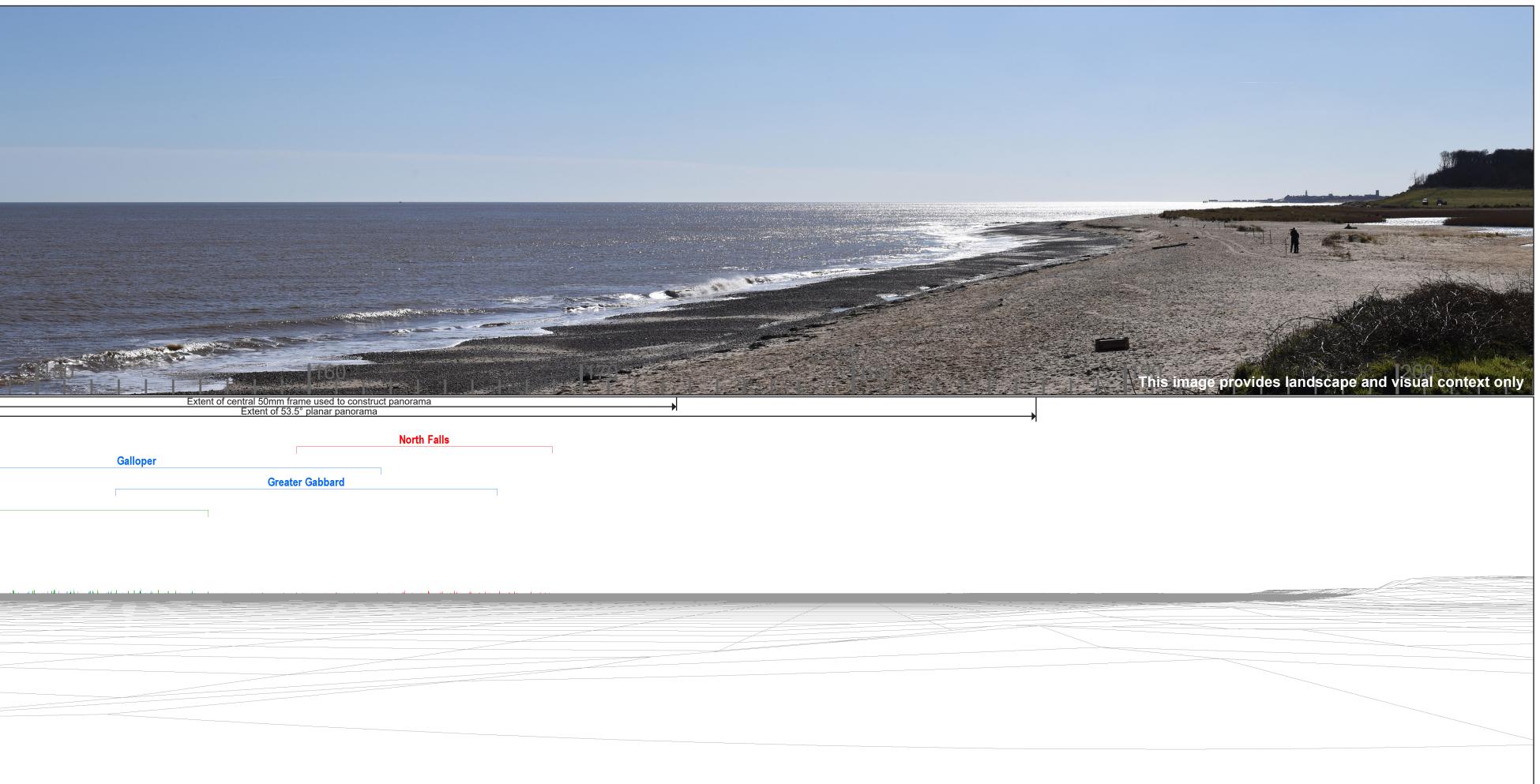
Baseline photograph	Provide a second and the second s	
Wireline drawing	<b>←</b>	Ν
East Anglia Two		
		Five Estuaries
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OS reference: 652337E 281100N AOD: 4 m Direction of view: 160° Nearest turbine: 65.96 km

Horizontal field of view:90° (cylindrical projection)Camera:Principal distance:522 mmLens: Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm

NIKON D750 50mm Fixed Focal Length

Photography Date: 17/03/2022 Photography Time: 12:40



Wind Farm Developments key (by status):

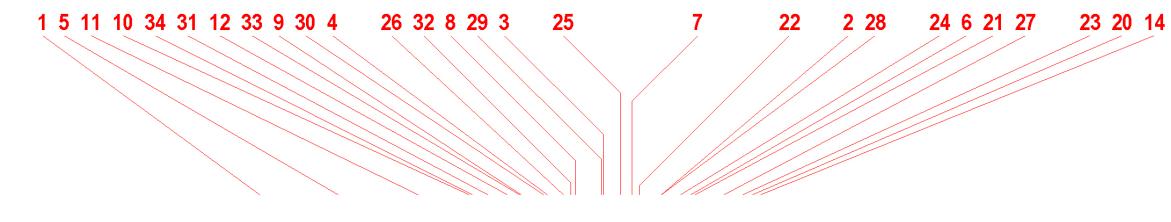
Proposed scheme Operational Consented Scoping

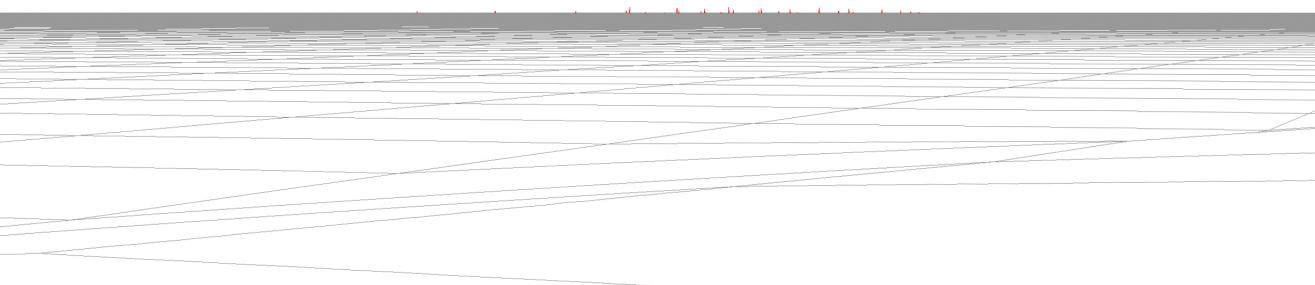
**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.

North Falls Figure: 29.2.1b Viewpoint 1: Covehithe



OS reference:652337E 281100NHorizontal field of view:53.5° (planar projection)AOD:4 mPrincipal distance:812.5 mmDirection of view:160°Paper size:841 x 297 mm (half A1)Nearest turbine:65.96 kmCorrect printed image size:820 x 260 mm





Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping



View flat at a comfortable arm's length

North Falls Figure: 29.2.1c Viewpoint 1: Covehithe

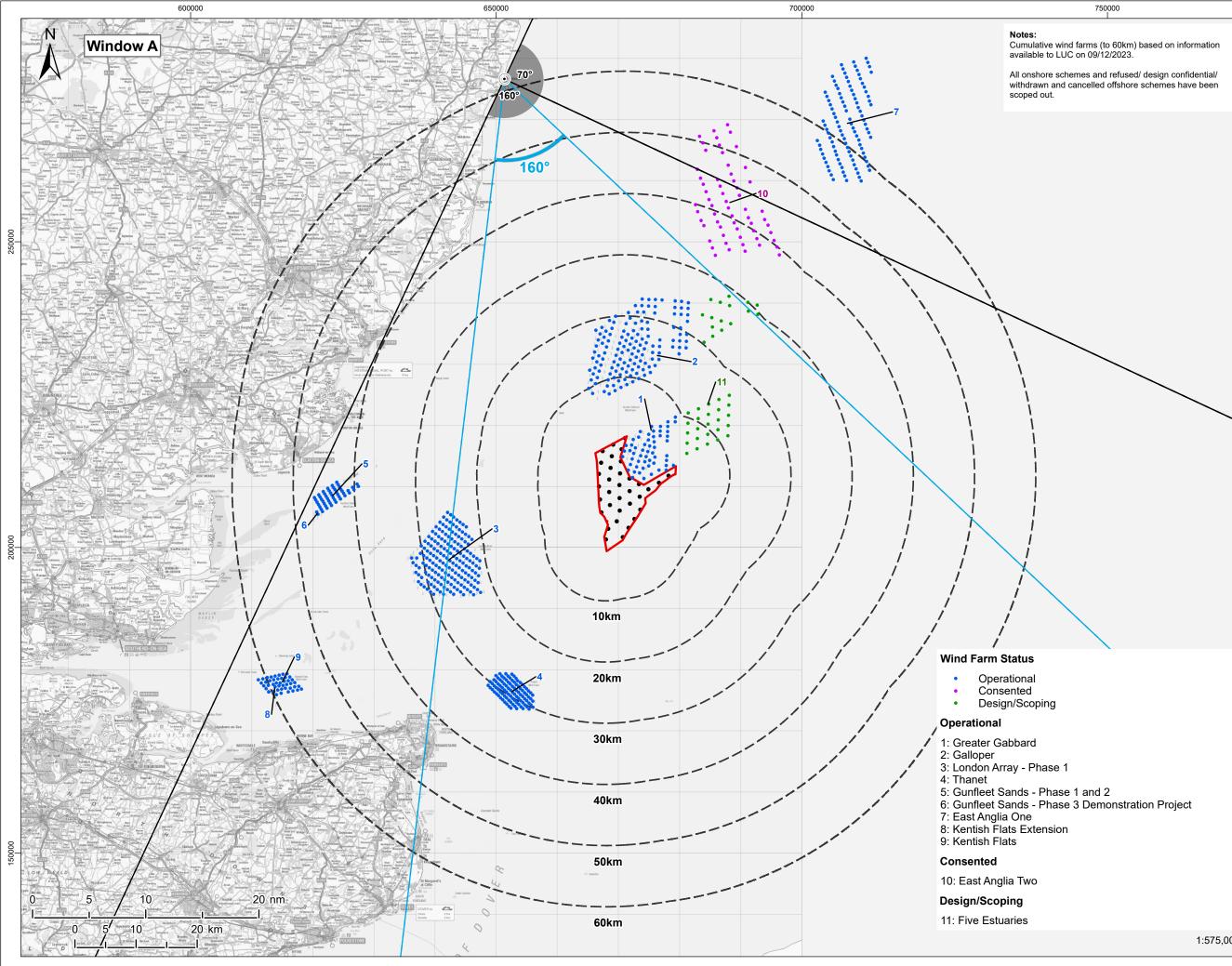


OS reference: 652337E 281100N AOD: 4 m Direction of view: 160° Nearest turbine: 65.96 km

Horizontal field of view:53.5° (planar projection)Camera:NIKON D750Principal distance:812.5 mmLens:50mm Fixed Focal LengthPaper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm1.5 m

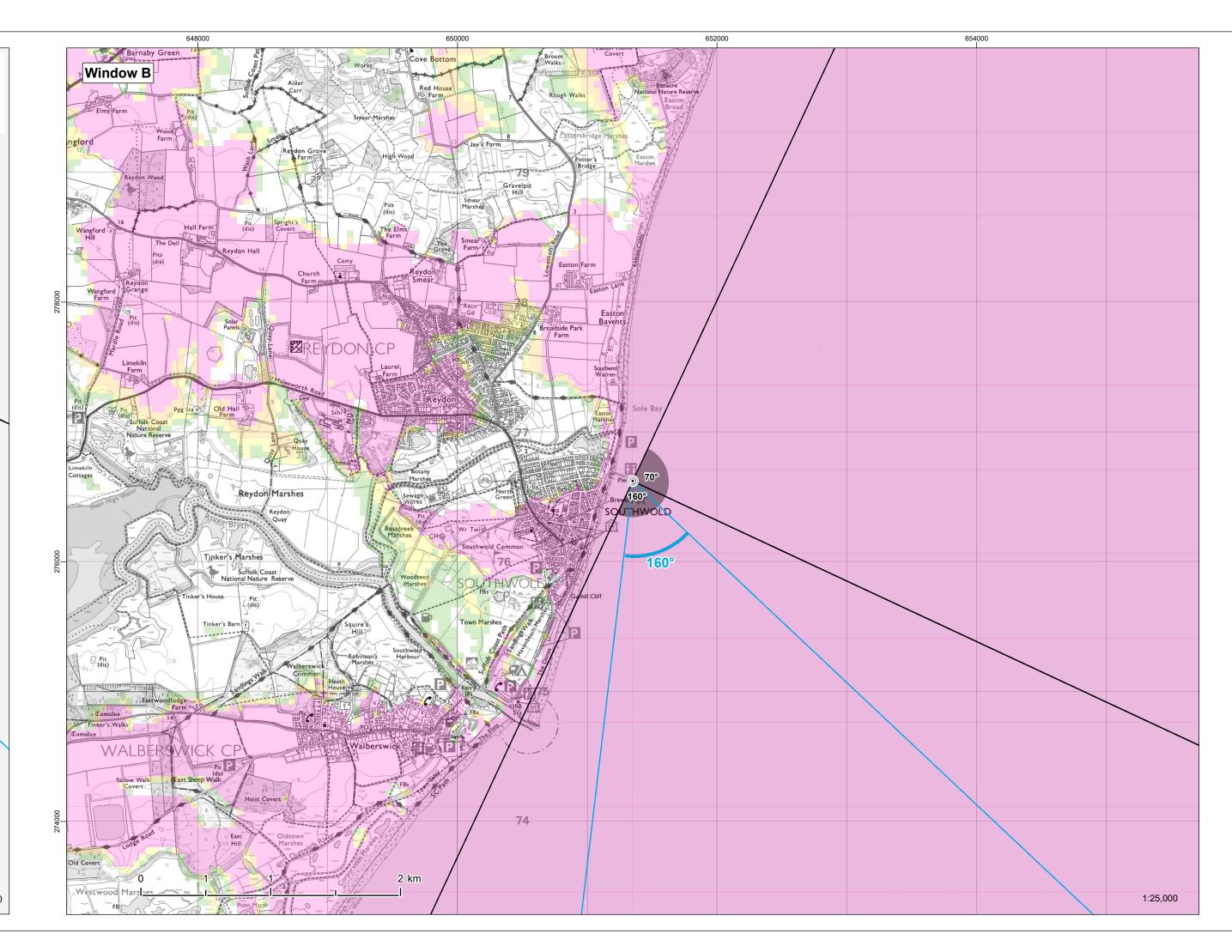
Photography Date: 17/03/2022 Photography Time: 12:40

North Falls Figure: 29.2.1d Viewpoint 1: Covehithe

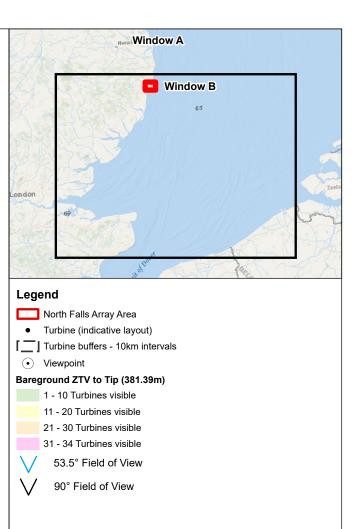


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All onshore schemes and refused/ design confidential/ withdrawn and cancelled offshore schemes have been



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## Notes

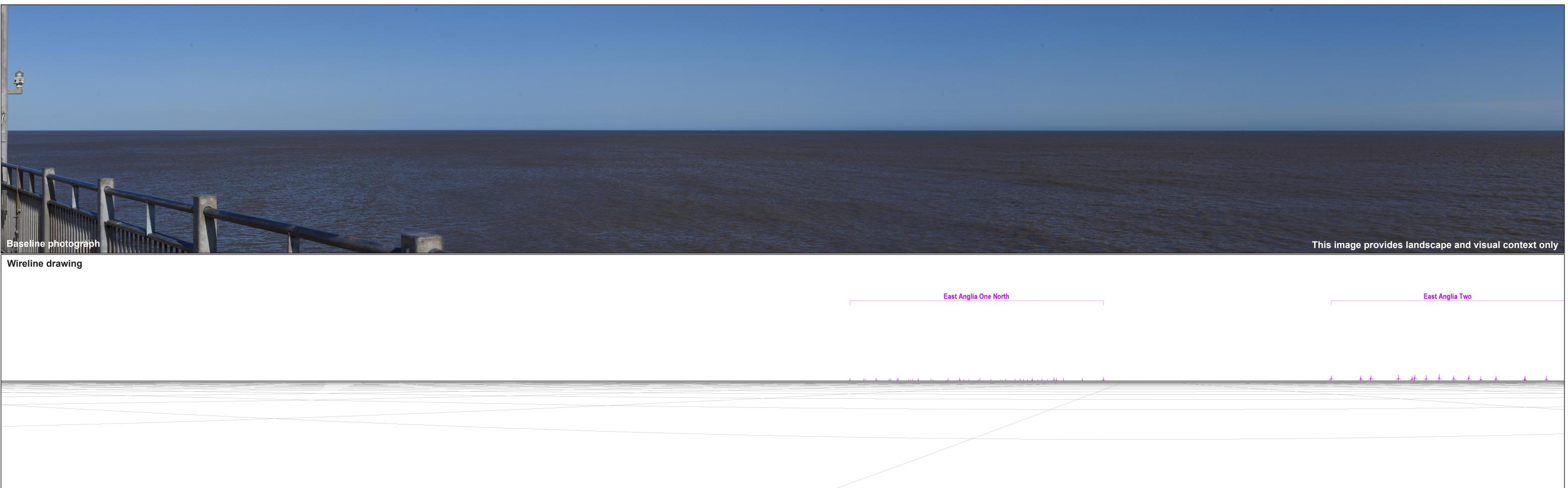
The ZTV is calculated to turbine tip height (381.39m) from a viewing height of 2m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 50 height data (obtained from Ordnance Survey in 2022). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.1.0 software

Data Source: OS, LUC, RHDHV Basemap Sources: OS, Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors awing Title

## Viewpoint 2 - Southwold Pier

Rev	Date	Re	Remarks					
01	13/03/2024	First issue			RW	JN		
Dra	wing Number			Figure Numb	er			
PB9244-LUC-ZZ-OF-DR-GS-0023 29.								
Sca	le	Plot Size Double Width A3	Datum OSGB36	Projection BN	IG			
NORTH FALLS								
Offshore Wind Farm								



OS reference: 651350E 276621N AOD: 0 m Direction of view: 70° Nearest turbine: 61.98 km

Horizontal field of view:90° (cylindrical projection)Principal distance:522 mm Paper size: 841 x 297 mm (half A1) Correct printed image size: 820 x 260 mm

NIKON D750 50mm Fixed Focal Length Camera: Lens: Camera height: 1.5 m

Photography Date: 17/03/2022 Photography Time: 13:20

Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

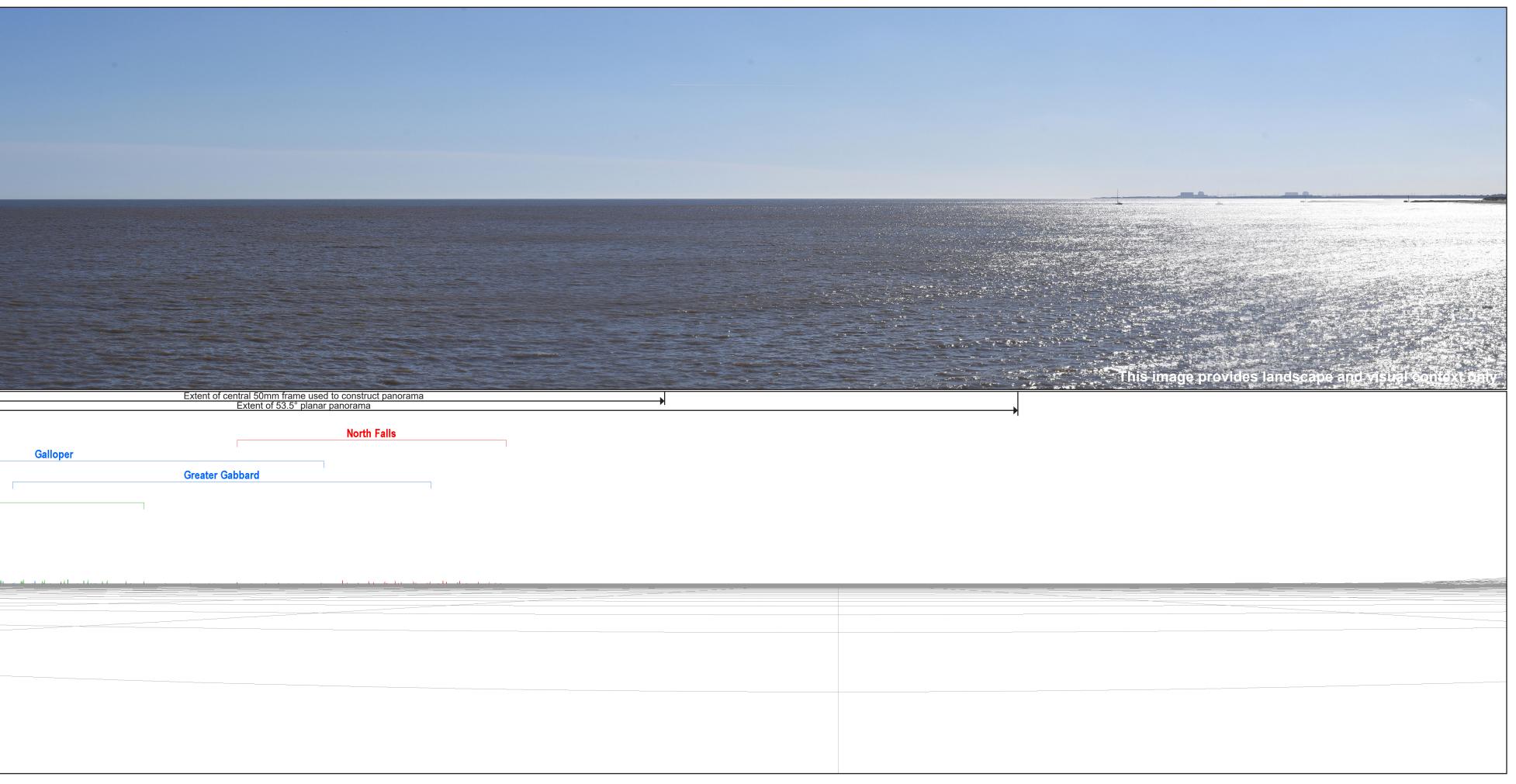
**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.

North Falls Figure: 29.2.2a Viewpoint 2: Southwold Pier

Baseline photograph							
Wireline drawing	ast Anglia Two			•		Fire Faturation	
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LUC	OS reference: AOD:	651350E 276621N 0 m	Horizontal field of view: Principal distance:	90° (cylindrical projection) 522 mm	Camera: Lens:	NIKON D750 50mm Fixed Focal Length	Photography Photography

Direction of view: 160° Nearest turbine: 61.98 km

Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm



Wind Farm Developments key (by status):

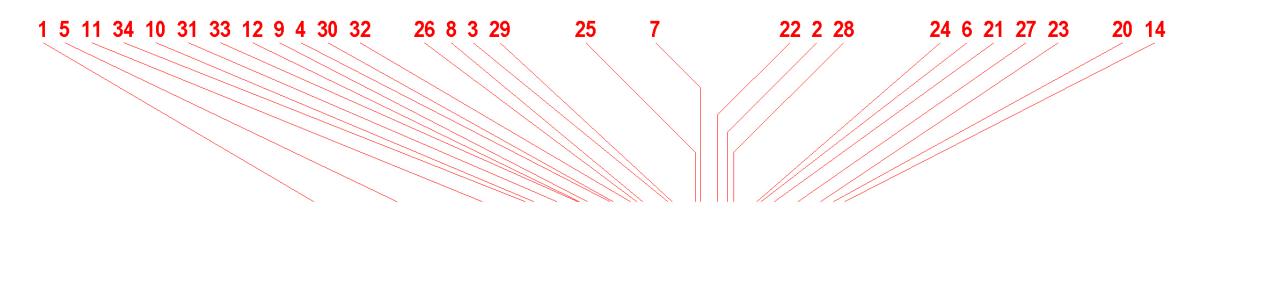
Proposed scheme Operational Consented Scoping

**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.

North Falls Figure: 29.2.2b Viewpoint 2: Southwold Pier



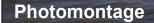
OS reference:651350E 276621NHorizontal field of view:53.5° (planar projection)AOD:0 mPrincipal distance:812.5 mmDirection of view:160°Paper size:841 x 297 mm (half A1)Nearest turbine:61.98 kmCorrect printed image size:820 x 260 mm



Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

View tist at a comtertable arm's length
View flat at a comfortable arm's length
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OS reference: 651350E 276621N AOD: 0 m Direction of view: 160° Nearest turbine: 61.98 km

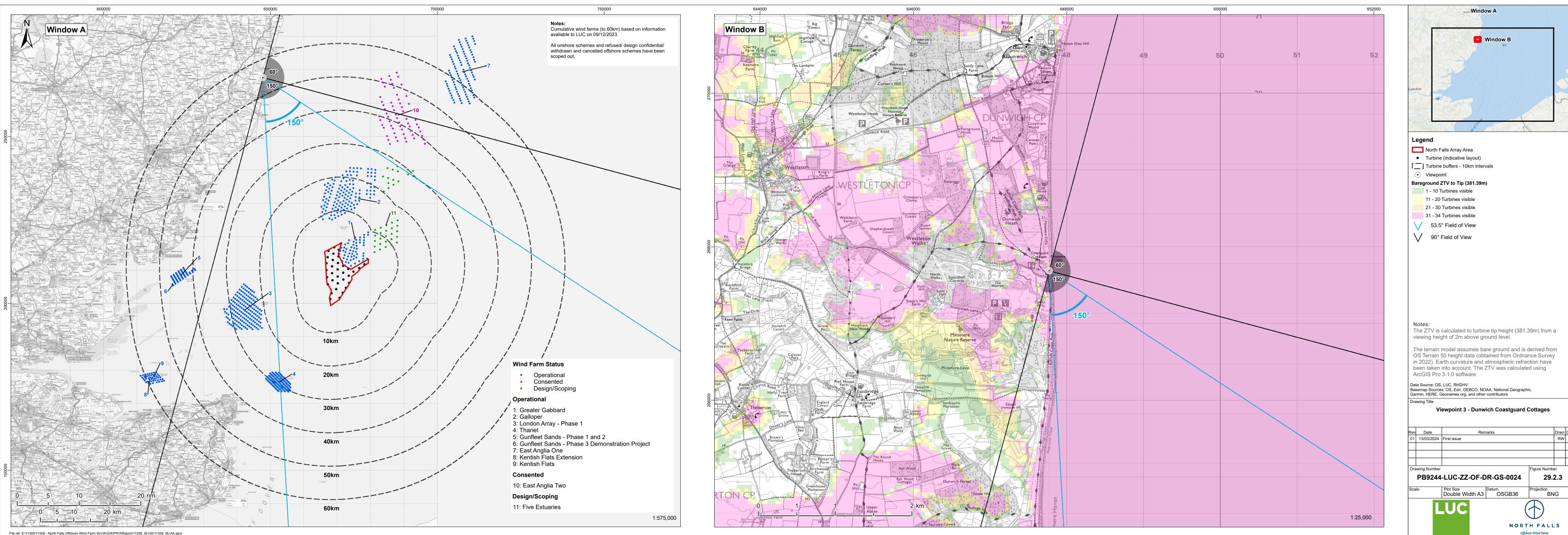
Horizontal field of view:53.5° (planar projection)Camera:NIKON DPrincipal distance:812.5 mmLens:50mm FixPaper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm1.5 m

NIKON D750 50mm Fixed Focal Length



Photography Date: 17/03/2022 Photography Time: 13:20

North Falls Figure: 29.2.2d Viewpoint 2: Southwold Pier



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LUC

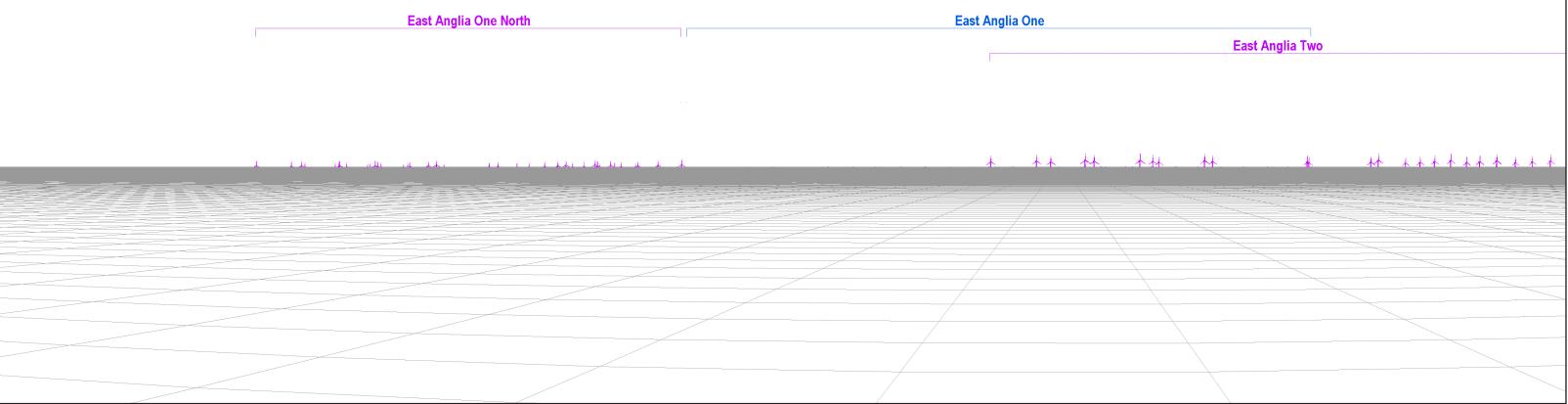
OS reference: 647769E 267687N AOD: 14 m Direction of view: 60° Nearest turbine: 55.01 km

Horizontal field of view:90° (cylindrical projection)Camera:Principal distance:522 mmLens: Paper size: Correct printed image size: 820 x 260 mm

841 x 297 mm (half A1) Camera height: 1.5 m

NIKON D750 50mm Fixed Focal Length

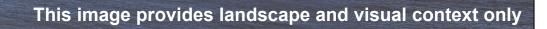
Photography Date: 17/03/2022 Photography Time: 14:15



Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.



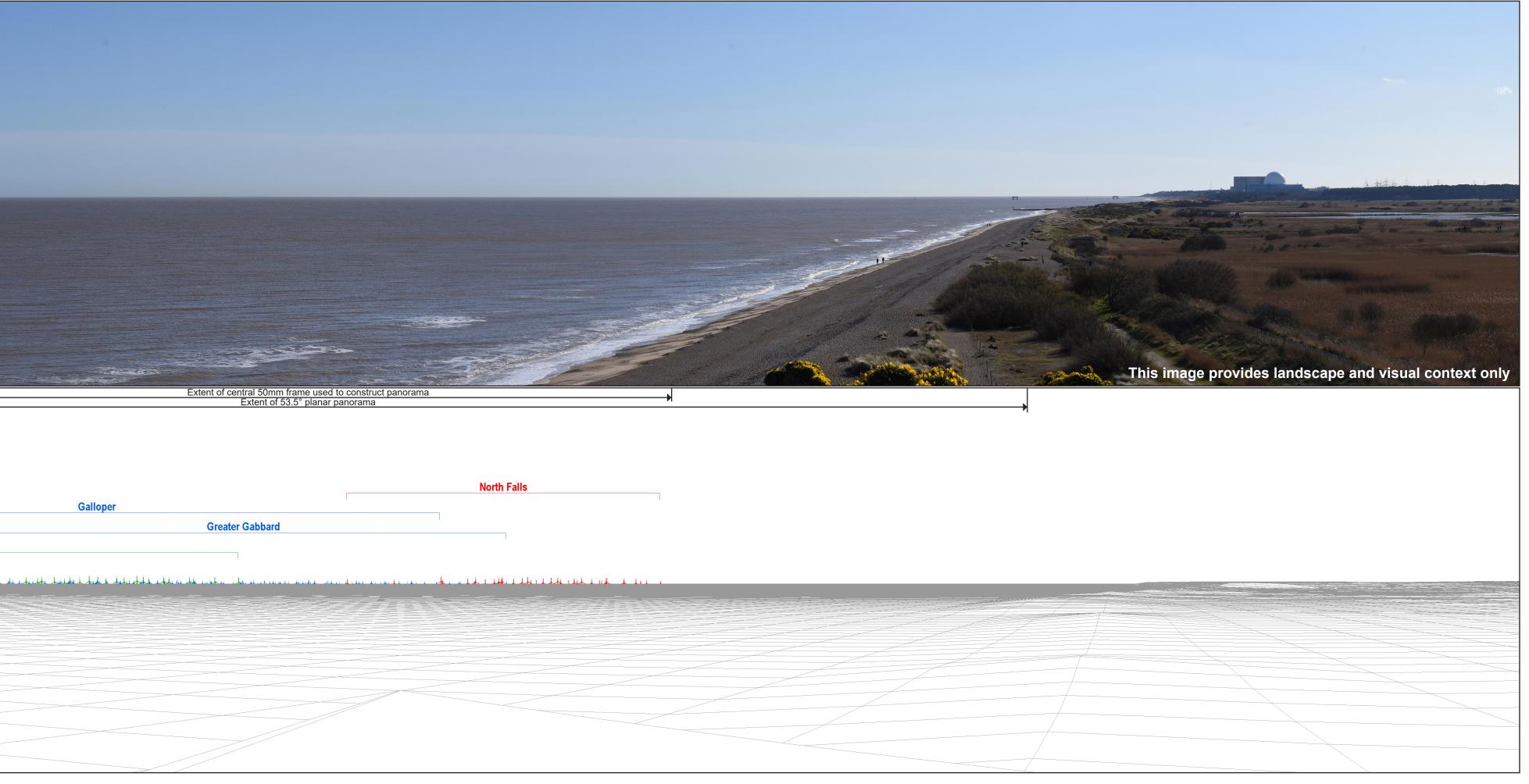
North Falls Figure: 29.2.3a Viewpoint 3: Dunwich Coastguard Cottages

Baseline photograph	
Baseline photograph	
Baseline photograph Wireline drawing	Extent of central 50mm frame used to construct panorama Extent of 53.5° planar panorama
	Extent of central 50mm frame used to construct panorama Extent of 53.5° planar panorama
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Wireline drawing	Extent of 53.5° planar panorama  North Falls  Galloper  Greater Gabbard
Wireline drawing	Extent of 53.5° planar panorama
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Wireline drawing East Anglia Two	Extent of 53.5° planar panorama  North Falls  Galloper  Greater Gabbard  Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
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Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries
Wireline drawing       East Anglia Two	Extent of 53.5° planar panorama   North Falls   Galloper   Five Estuaries   Five Estuaries

OS reference: 647769E 267687N AOD: 14 m Direction of view: 150° Nearest turbine: 55.01 km

Horizontal field of view:90° (cylindrical projection)Camera:Principal distance:522 mmLens: Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm

NIKON D750 50mm Fixed Focal Length



Photography Date: 17/03/2022 Photography Time: 14:15

Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

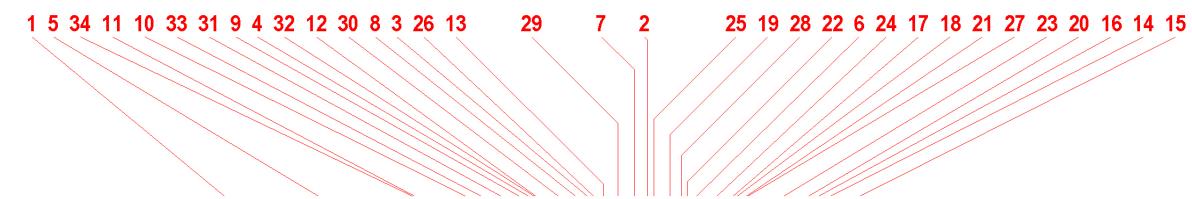
**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.

North Falls Figure: 29.2.3b Viewpoint 3: Dunwich Coastguard Cottages

LUC

Direction of view: 150° Nearest turbine: 55.01 km

OS reference:647769E 267687NHorizontal field of view:53.5° (planar projection)AOD:14 mPrincipal distance:812.5 mmDirection of view:150°Paper size:841 x 297 mm (half A1) Correct printed image size: 820 x 260 mm





Wind Farm	Developments key
(by status):	

Proposed scheme Operational Consented Scoping

View flat at a comfortable arm's length

North Falls Figure: 29.2.3c Viewpoint 3: Dunwich Coastguard Cottages

Photomontage



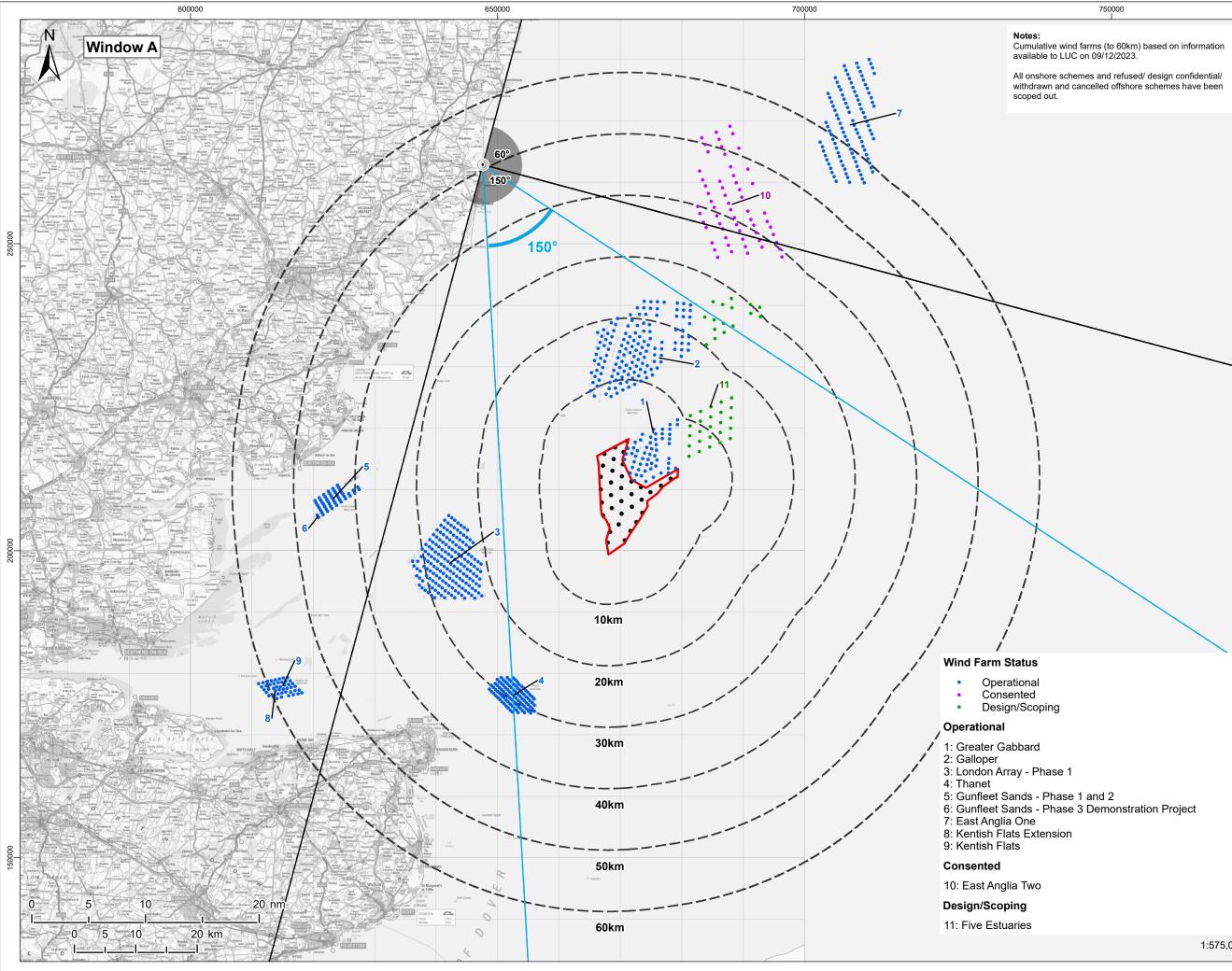
OS reference: 647769E 267687N AOD: 14 m Direction of view: 150° Nearest turbine: 55.01 km

Horizontal field of view:53.5° (planar projection)Camera:NIKON D750Principal distance:812.5 mmLens:50mm Fixed Focal LengthPaper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mmS0mmS0mm

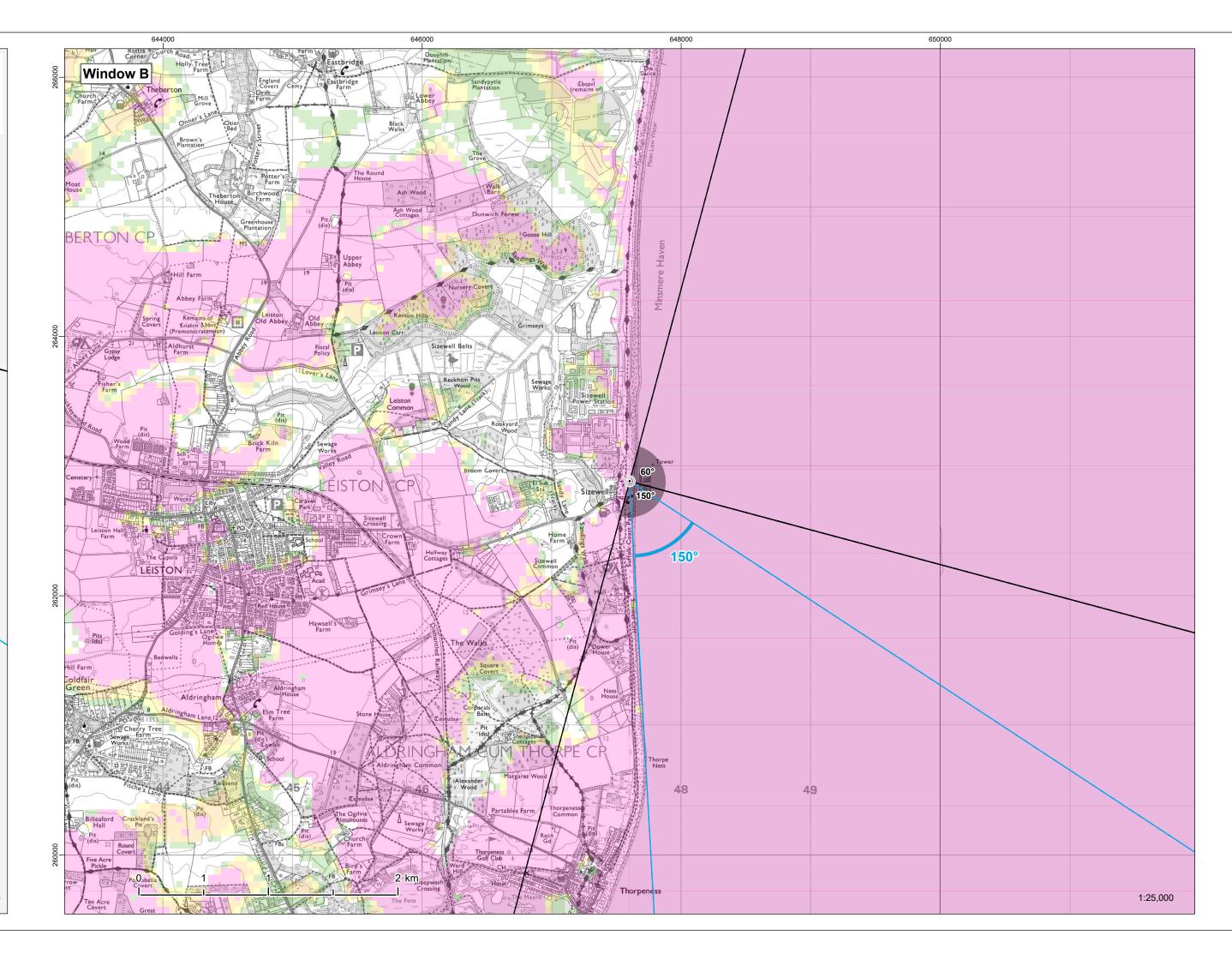


Photography Date: 17/03/2022 Photography Time: 14:15

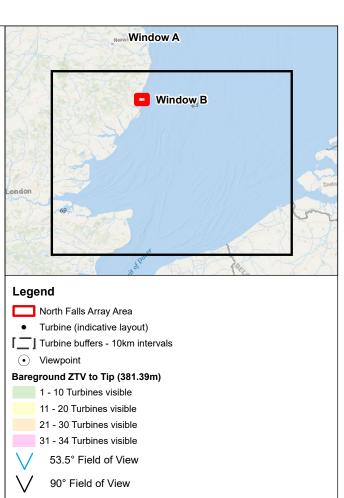
North Falls Figure: 29.2.3d Viewpoint 3: Dunwich Coastguard Cottages



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## Notes:

The ZTV is calculated to turbine tip height (381.39m) from a viewing height of 2m above ground level.

The terrain model assumes bare ground and is derived from OS Terrain 50 height data (obtained from Ordnance Survey in 2022). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.1.0 software

Data Source: OS, LUC, RHDHV Basemap Sources: OS, Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors rawing Title

## Viewpoint 4 - Sizewell Beach

Rev	Date	Ren	Remarks Drwn Chkd						
01	13/03/2024	First issue			RW	JN			
Dra	wing Number	r		Figure Numb	er				
	PB9244	I-LUC-ZZ-OF-D	DR-GS-0025	29.	2.4				
Sca	le	Plot Size Double Width A3	Datum OSGB36	Projection BN	IG				
			Offsh	ore Wind Farm					



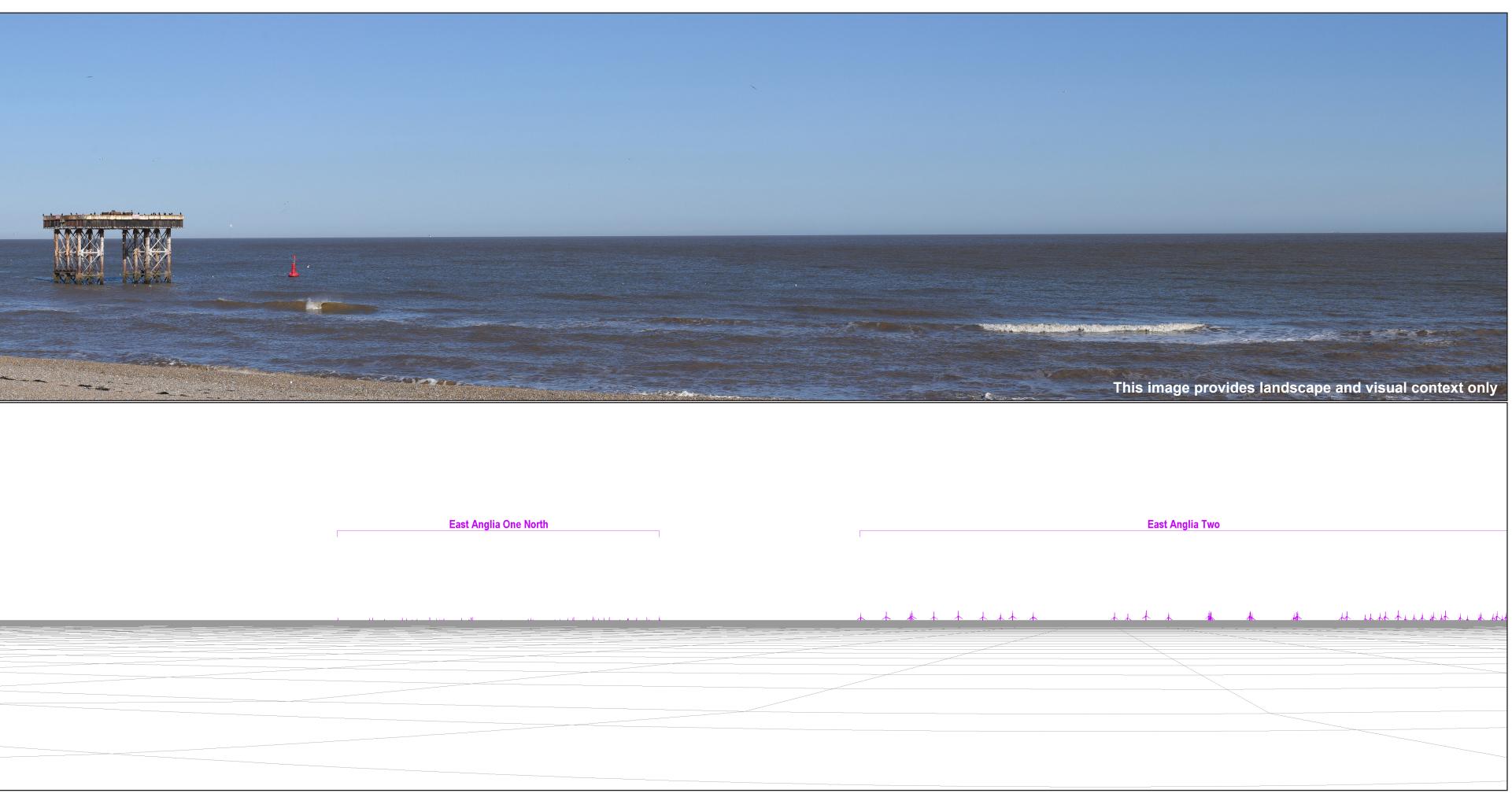
LUC

 
 OS reference:
 647602E 262883N

 AOD:
 4 m
 Direction of view: 60° Nearest turbine: 50.77 km

Horizontal field of view:90° (cylindrical projection)Principal distance:522 mm Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm

NIKON D750 Camera: 50mm Fixed Focal Length Lens:



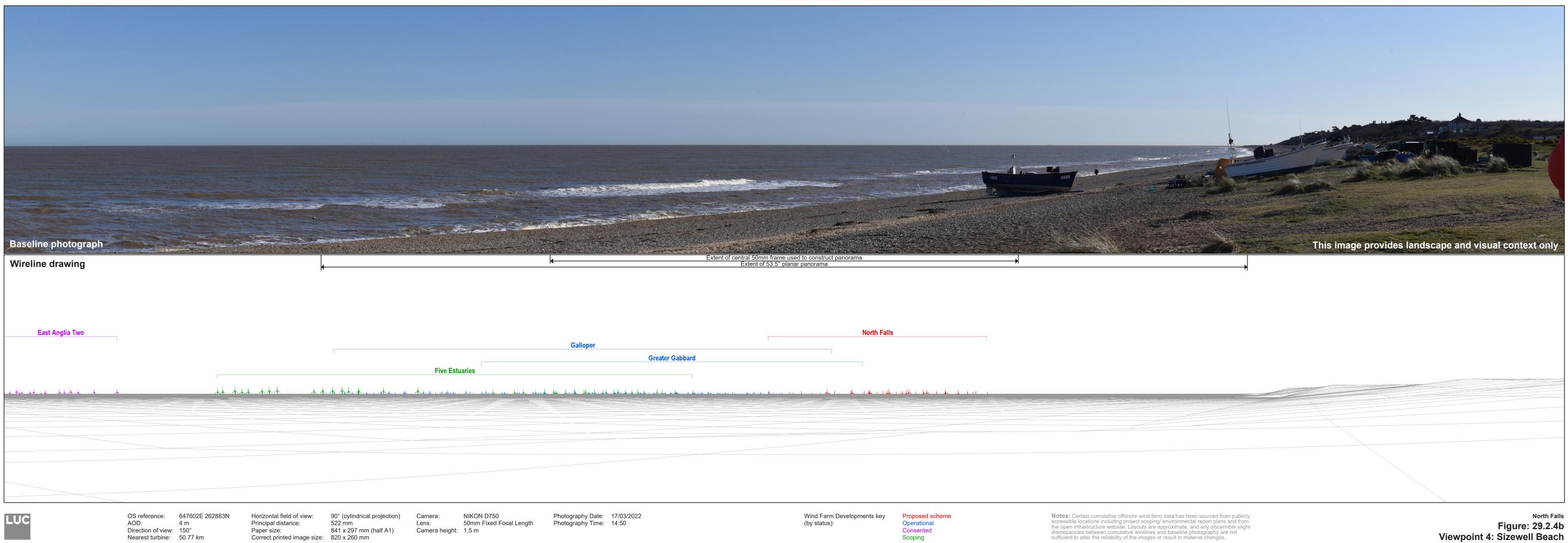
Photography Date: 17/03/2022 Photography Time: 14:50

Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

**Notes:** Certain cumulative offshore wind farm data has been sourced from publicly accessible locations including project scoping/ environmental report plans and from the open infrastructure website. Layouts are approximate, and any discernible slight discrepancies between cumulative wirelines and baseline photography are not sufficient to alter the reliability of the images or result in material changes.

North Falls Figure: 29.2.4a Viewpoint 4: Sizewell Beach



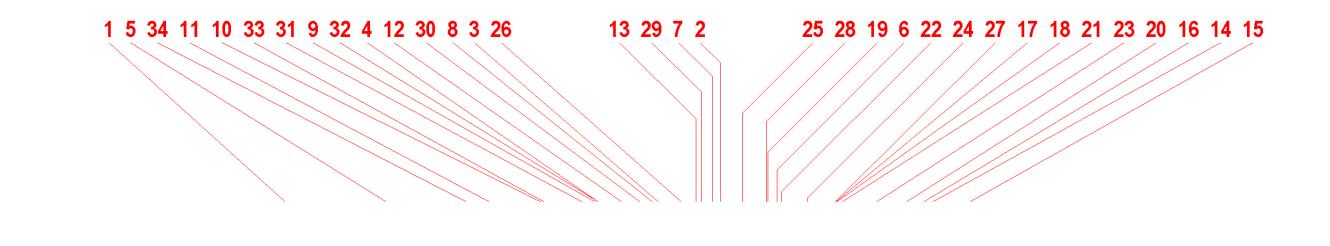
Viewpoint 4: Sizewell Beach



OS reference: 647602E 262883N AOD: 4 m Direction of view: 150° Nearest turbine: 50.77 km

Horizontal field of view:53.5° (planar projection)Principal distance:812.5 mm 841 x 297 mm (half A1) Correct printed image size: 820 x 260 mm

Paper size:



# 

Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

View flat at a comfortable arm's length

North Falls Figure: 29.2.4c Viewpoint 4: Sizewell Beach

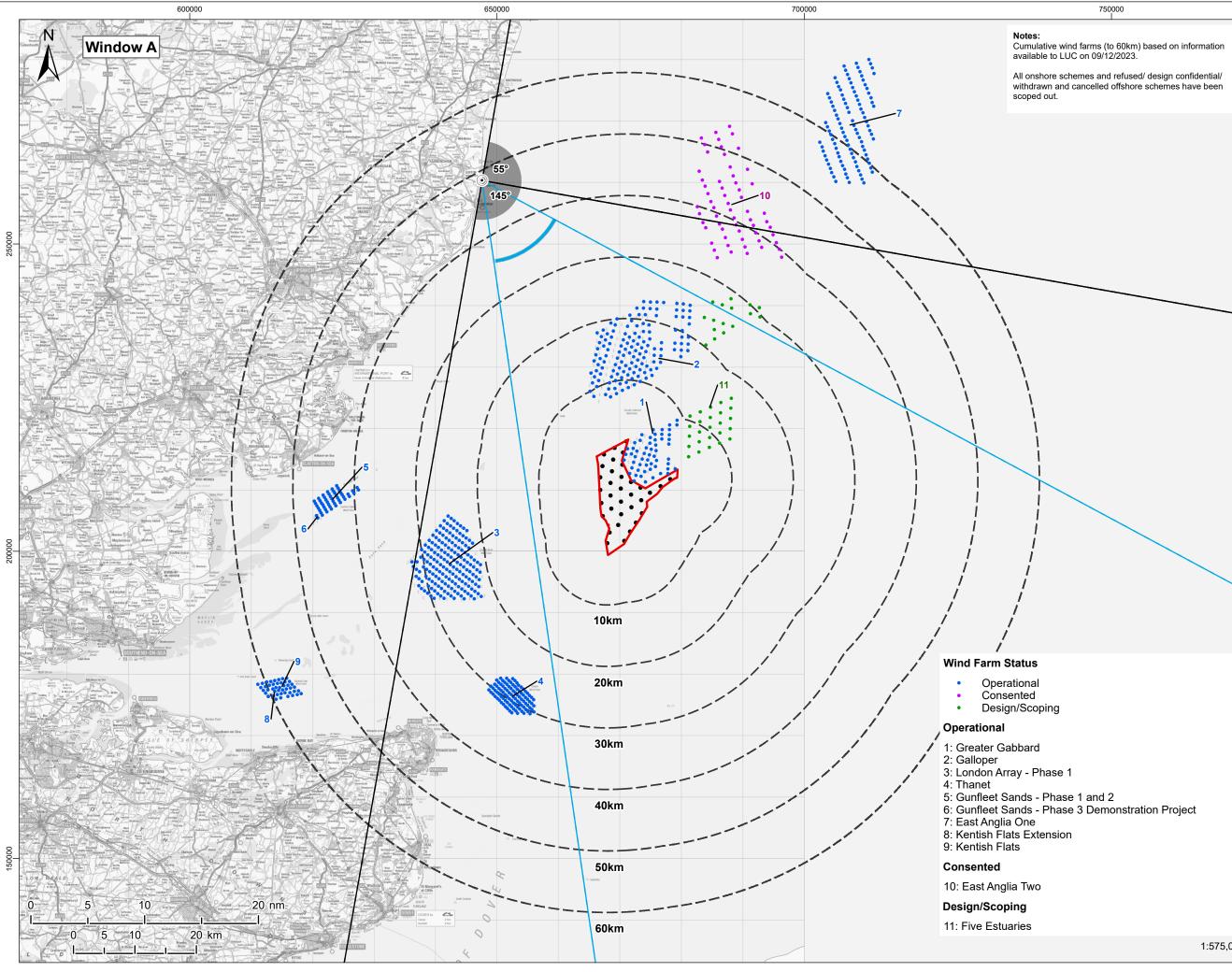


OS reference: 647602E 262883N AOD: 4 m Direction of view: 150° Nearest turbine: 50.77 km

Horizontal field of view:53.5° (planar projection)Camera:NIKON D750Principal distance:812.5 mmLens:50mm Fixed Focal LengthPaper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm1.5 m

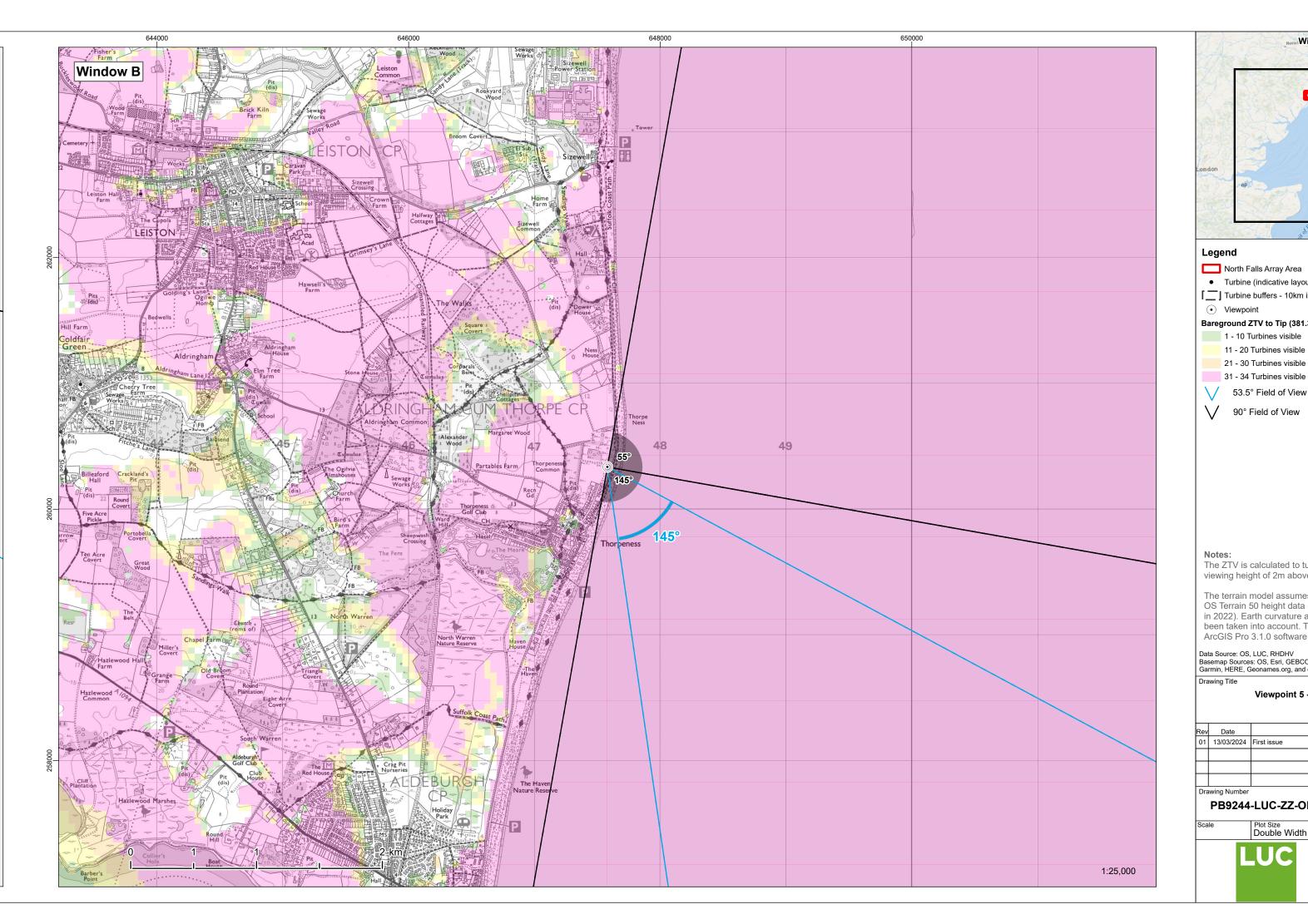
Photography Date: 17/03/2022 Photography Time: 14:50

North Falls Figure: 29.2.4d Viewpoint 4: Sizewell Beach

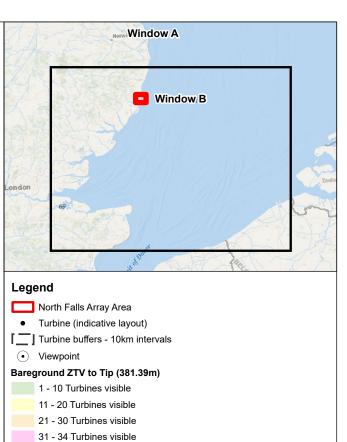


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Cumulative wind farms (to 60km) based on information available to LUC on 09/12/2023.



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Notes

The ZTV is calculated to turbine tip height (381.39m) from a viewing height of 2m above ground level.

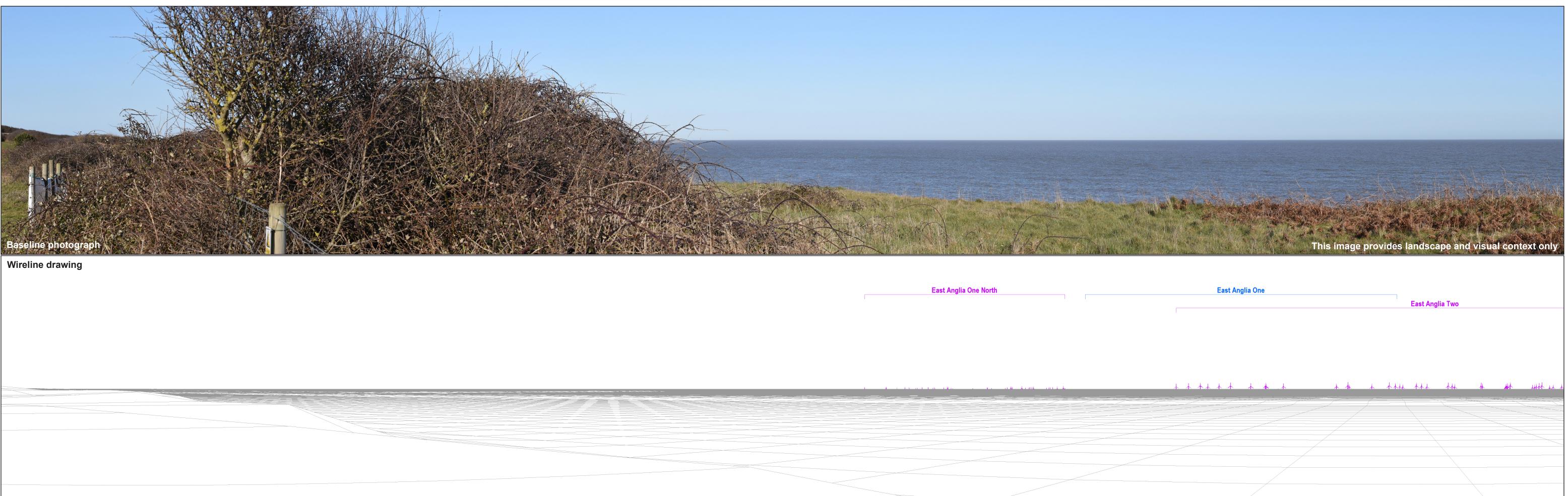
The terrain model assumes bare ground and is derived from OS Terrain 50 height data (obtained from Ordnance Survey in 2022). Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcGIS Pro 3.1.0 software

53.5° Field of View

Data Source: OS, LUC, RHDHV Basemap Sources: OS, Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors Drawing Titl

## Viewpoint 5 - Cliffs above Thorpeness

Rev	v Date Remarks				Drwn	Chkd
01	13/03/2024 First issue				RW	JN
Drawing Number Figure Numl					er	
PB9244-LUC-ZZ-OF-DR-GS-0026 29					2.5	
Scale		Plot Size Double Width A3	Datum OSGB36	Projection BNG		
L		JUC	$\bigcirc$			
			NORTH FALLS Offshore Wind Farm			



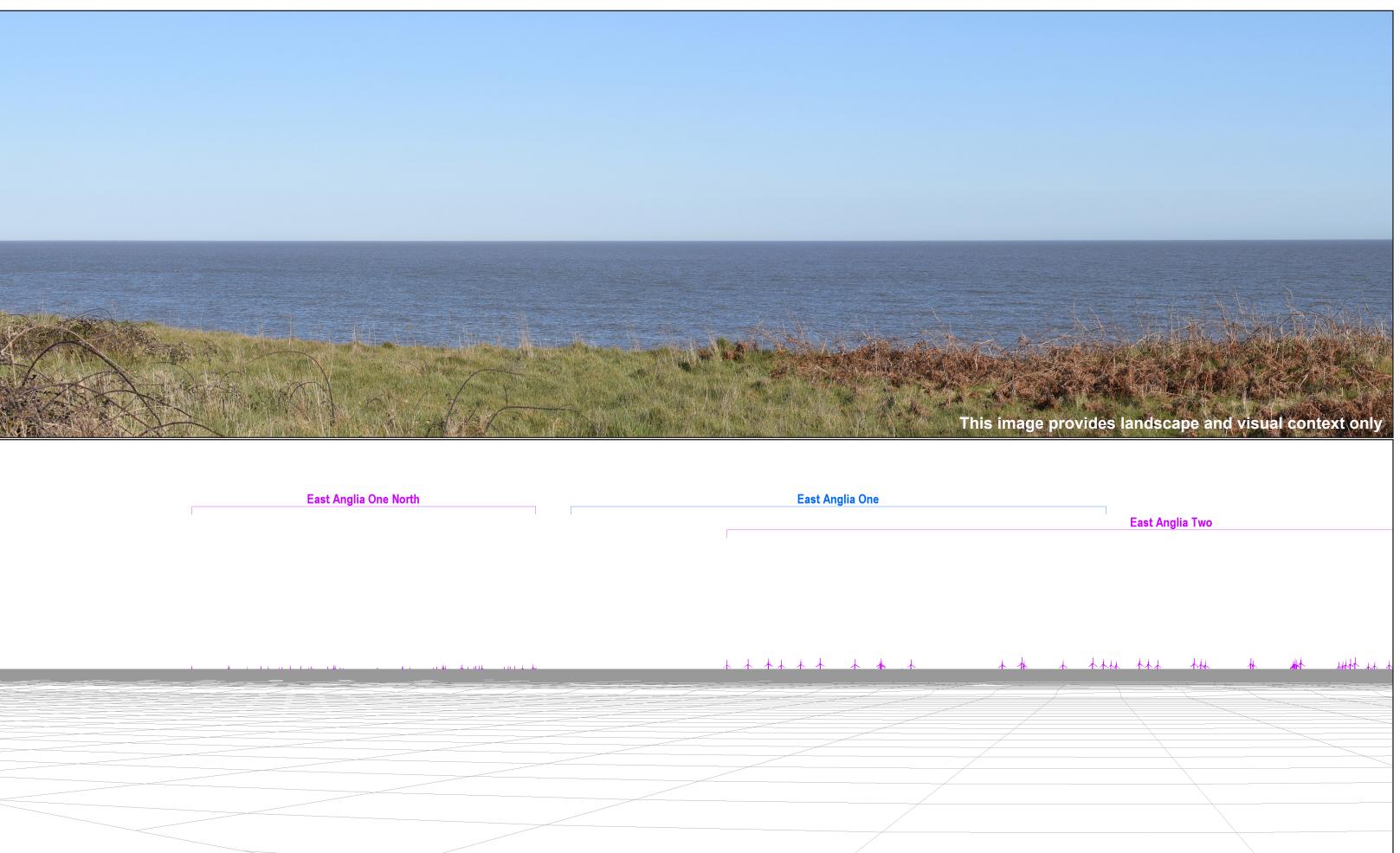
 
 OS reference:
 647580E 260335N

 AOD:
 10 m
 Direction of view: 55° Nearest turbine: 48.54 km

Horizontal field of view:90° (cylindrical projection)Principal distance:522 mm Paper size:841 x 297 mm (half A1)Camera height:1.5 mCorrect printed image size:820 x 260 mm

NIKON D750 50mm Fixed Focal Length Camera: Lens:

Photography Date: 17/03/2022 Photography Time: 15:25



Wind Farm Developments key (by status):

Proposed scheme Operational Consented Scoping

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North Falls Figure: 29.2.5a Viewpoint 5: Cliffs above Thorpeness





## HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

To contact please email <u>contact@northfallsoffshore.com</u>

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