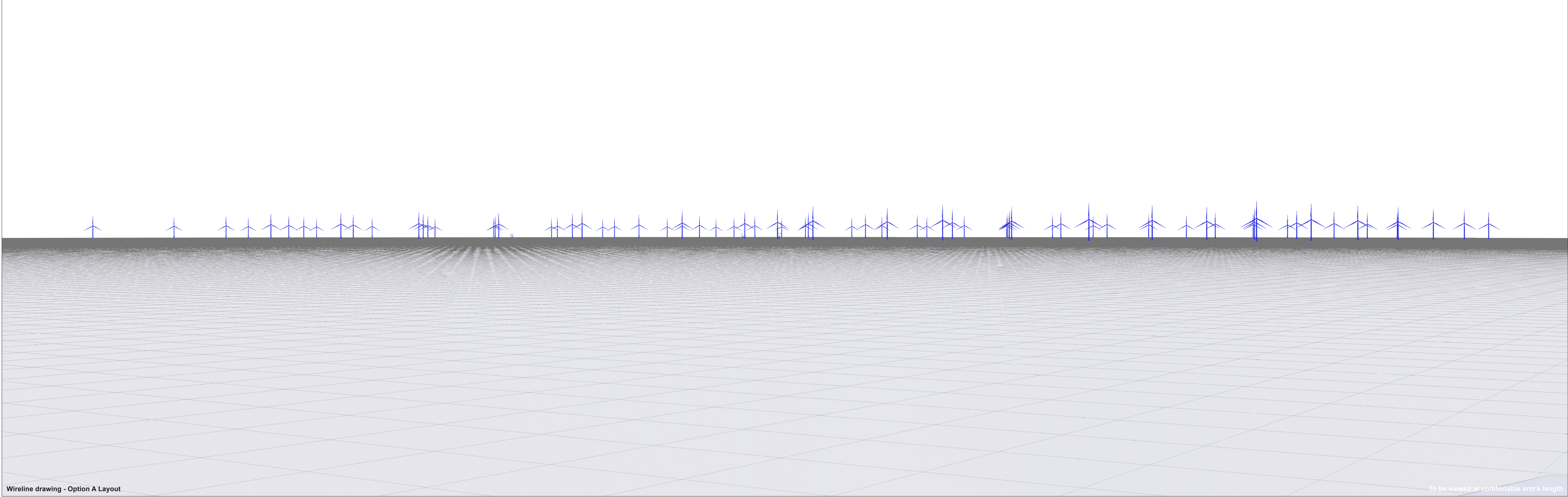




Wireline drawing - Option A Layout

To be viewed at comfortable arm's length

LDĀDESIGN	Camera Location (ETRS89 utm 30N): Ground Level (mAOD): Direction of View: bearing from North (0°): Nearest Turbine: 298384 E 5872661 N 69.0m 56° 11.6km	Horizontal Field of View: Paper Size: Enlargement Factor: Visualisation Type: 53.5° (Planar projection) 841mm x 297mm (Half A1) 150% Type 2	Photo Date / Time: Camera Model and Sensor Format: Lens Make, Model and Focal Length: Height of Camera Lens above Ground (mAOD): 17/09/2022 11.00 Canon EOS R5, FFS Canon EF50mm f/1.8 1.5m	Hub / Blade tip height: 163m / 288m	This wireframe is based upon Nextmap25 data with spot heights at 50m intervals and does not precisely model small scale changes in landform or sharp breaks in slope. The wireframe model does not allow for the screening effects of vegetation or buildings. The model of turbine shown is similar to that proposed for the development.		COPYRIGHT Ordnance Survey material by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown Copyright. All rights reserved. 2023 Reference number 0100031673.		PROJECT TITLE CODLING WIND PARK CWP DOC. NUMBER: CWP-LDA-CON-09-PIC-1505	DRAWING TITLE Viewpoint 16: Wicklow Lighthouse: Illustration of SAR Markings FIGURE 15.18.16B DATE 31/05/2024 Sheet 2 of 5
----------------------	---	---	---	---	---	---	---	---	--	--



Photomontage - Option A layout - no SAR markings

To be viewed at comfortable arm's length

LDĀDESIGN		Camera Location (ETRS89 utm 30N): Ground Level (mAOD): Direction of View: bearing from North (0°): Nearest Turbine:	298384 E 5872661 N 69.0m 56° 11.6km	Horizontal Field of View: Paper Size: Enlargement Factor: Visualisation Type:	53.5° (Planar projection) 841mm x 297mm (Half A1) 150% Type 3	Photo Date / Time: Camera Model and Sensor Format: Lens Make, Model and Focal Length: Height of Camera Lens above Ground (mAOD):	17/09/2022 11.00 Canon EOS R5, FFS Canon EF50mm f/1.8 1.5m	Hub / Blade tip height:	163m / 288m	This photomontage is based upon Nextmap25 data with spot heights at 25m intervals and does not precisely model small scale changes in landform or sharp breaks in slope. The model of turbine shown is similar to that proposed for the development.		COPYRIGHT Ordnance Survey material by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown Copyright. All rights reserved. 2023 Reference number 0100031673.		PROJECT TITLE CODLING WIND PARK CWP DOC. NUMBER: CWP-LDA-CON-09-PIC-1506	DRAWING TITLE Viewpoint 16: Wicklow Lighthouse: Illustration of SAR Markings FIGURE 15.18.16C DATE 31/05/2024 Sheet 3 of 5
----------------------	--	--	--	--	--	---	---	-------------------------	-------------	--	--	---	-------------	--	---



Photomontage - Option A Layout with SAR markings

To be viewed at comfortable arm's length

LDĀDESIGN		Camera Location (ETRS89 utm 30N): Ground Level (mAOD): Direction of View: bearing from North (0°): Nearest Turbine:	298384 E 5872661 N 69.0m 56° 11.6km	Horizontal Field of View: Paper Size: Enlargement Factor: Visualisation Type:	53.5° (Planar projection) 841mm x 297mm (Half A1) 150% Type 3	Photo Date / Time: Camera Model and Sensor Format: Lens Make, Model and Focal Length: Height of Camera Lens above Ground (mAOD):	17/09/2022 11.00 Canon EOS R5, FFS Canon EF50mm f/1.8 1.5m	Hub / Blade tip height:	163m / 288m	This photomontage is based upon Nextmap25 data with spot heights at 25m intervals and does not precisely model small scale changes in landform or sharp breaks in slope. The model of turbine shown is similar to that proposed for the development.				COPYRIGHT Ordnance Survey material by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown Copyright. All rights reserved. 2023 Reference number 0100031673.				PROJECT TITLE CODLING WIND PARK CWP DOC. NUMBER: CWP-LDA-CON-09-PIC-1507	DRAWING TITLE Viewpoint 16: Wicklow Lighthouse: Illustration of SAR Markings FIGURE 15.18.16D DATE 31/05/2024	Sheet 4 of 5
----------------------	--	--	--	--	--	---	---	-------------------------	-------------	--	--	--	--	---	--	--	--	--	--	--------------



Illustration of SAR markings - Option A Layout - 1.2m diameter dot and approximately 4% blade tip coverage

Extract of guidance from 'OREI SAR Requirements v3' referenced to prepare figures 9273_PM_16_SAR.2 & 9273_PM_16_SAR.3

5.5 Wind turbine blade hover reference marking

5.5.1 WTG blades need to be marked to provide a SAR helicopter pilot with a hover reference point when hovering over a nacelle during a rescue. This is necessary because SAR helicopters are large aircraft and the pilot (sitting on the right of the aircraft) may not be able to use objects or markings on the nacelle for reference because these are too far behind the pilot's location to be easily seen. The WTG blades are in the pilot's normal vision-arc and so are the best place for such markings.

5.5.2 Three marks are required on each blade - one each at the 10, 20 and 30 meter interval (starting from the hub end of the blade) and placed near the trailing edge of the blades so that, when they are feathered, and the blades are parked in the 'bunny ears' ('Y' position) or offset 'Y' (one or two blades angled forward into the wind), the marks lie upwards in view of the helicopter pilot.

5.5.3 The marks should be painted in a contrasting shade to the blades overall colour - red (RAL 3020) is considered to be most suitable. The diameter of the marks (dots are preferred) should be at least 600 Millimetres but may need to be larger according to the overall size and shape of the turbine and blades.

5.5.4 The blade tip should also be marked in a contrasting shade to the turbines overall colour - red (RAL 3020) is considered to be most suitable (the amount of tip paint is dependent on the size of blade, but approximately 2% of the blade length should be sufficient). See image below. Where blade tips cannot be painted because of e.g. lightning protection material on the tip and/or leading edge, the developer is to offer alternative solutions for consideration by the MCA. A red band as near to the tip as possible, measuring 2% of the blade length, is considered an acceptable alternative by the MCA

