

VISUALISATIONS - PART II



INSTALLATION OF A SINGLE 20KW WIND TURBINE

ARDYNE FARM, TOWARD, DUNOON, PA23 7UJ

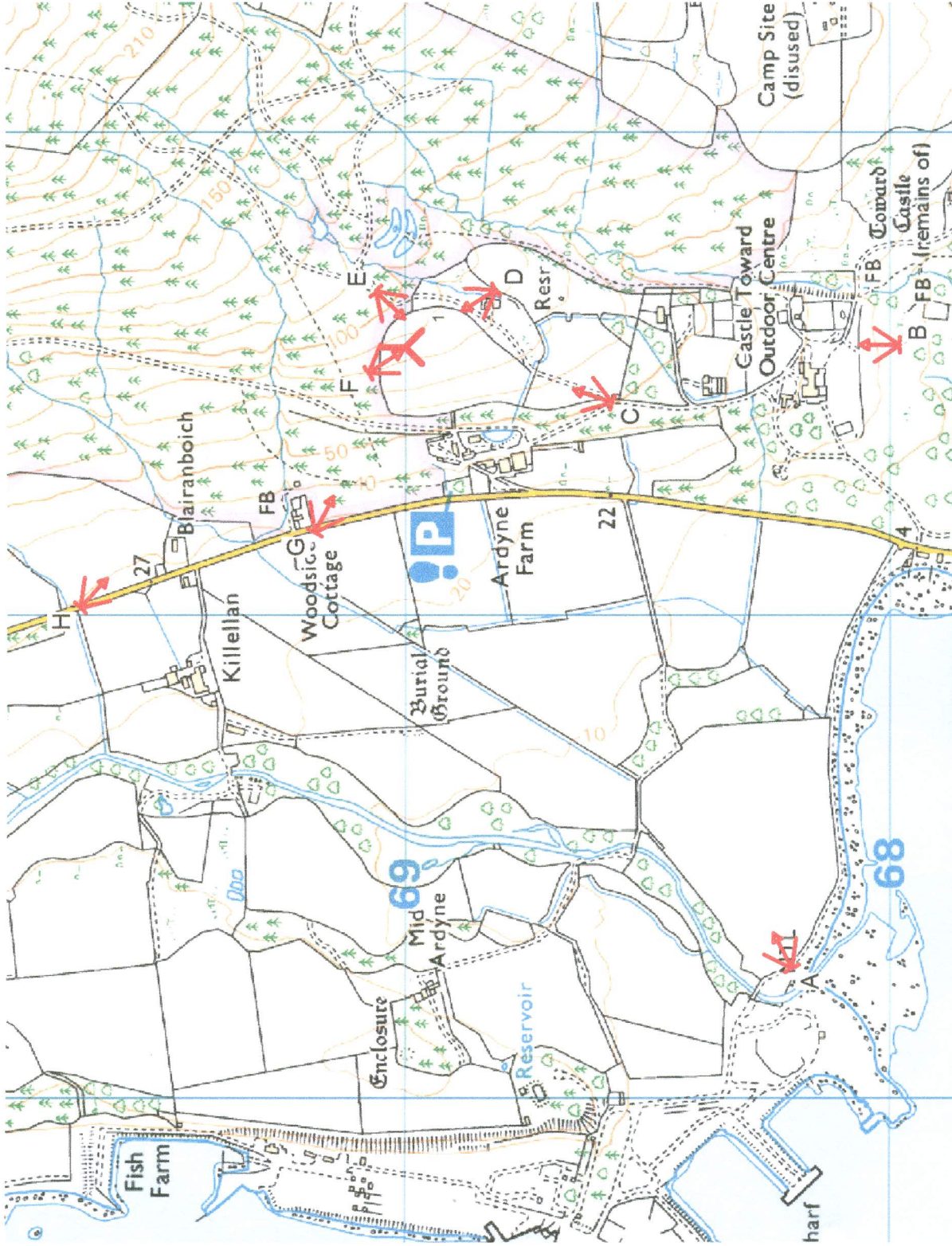
Ardyne Farm Wind Turbine Project

Proposal	Erection of a 20kw wind turbine on a 20m mast
Address	Land at Ardyne Farm, Toward, Dunoon, PA23 7UJ

<p>Statement of Objective</p> <p>This assessment has been compiled in order to provide visualisations in support of the proposed wind turbine installation on land at Ardyne Farm.</p> <p>Viewpoints have been selected in consultation with Argyll and Bute planning officer and aim to demonstrate the impact of the wind turbine when viewed from key locations in the local area, including walking paths, Castle Toward and nearby roads.</p> <p>Both photomontage images and wireframe drawings have been provided for each viewpoint in order to best represent the potential visual impact of the Ardyne Farm 20kw wind turbine.</p> <p>In addition to the viewpoints on the mainland, it was suggested that we consider viewpoints at Port Bannatyne and Ardbeg on the Isle of Bute. As a result, wireframe images were prepared for locations in the towns. Examination of these wireframe images revealed that, from a distance in excess of 4km, it is unlikely that the 27m high turbine will be visible from Bute. As a result, no photomontage images have been produced for viewpoints on Bute.</p>
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Equipment Specifications	Nikon D300
Lens Height from Ground	Approximately 1.5m
Software	WindPRO 2.7
Weather Conditions	Fair to cloudy

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**VISUAL -
Map**

Calculation:
Visualisations II

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06/12/2012 15:05 / 1

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Calculator:
Kirstin Gardner / k.gardner@mint-energy.co.uk
13/08/2012 10:33/2.8.552

Map: Ardyne 25000 , Print scale 1:12,500, Map center BN (AIRY) (Normal) East: 210,973 North: 668,827
Camera

New WTG



Project:
Young - Ardyne

Valid 1 New No

Manufact. C&F

Type-generator CF20-20

Power, rated [kW] 20

Rotor diameter [m] 13.1

Hub height [m] 20.5

Distance [m] 1,514

Recommended observation distance: 19 cm

Photo exposed: 16/07/2012 12:43:22

Lens: 25 mm Film: 36x24 mm Pixels: 4288x2848

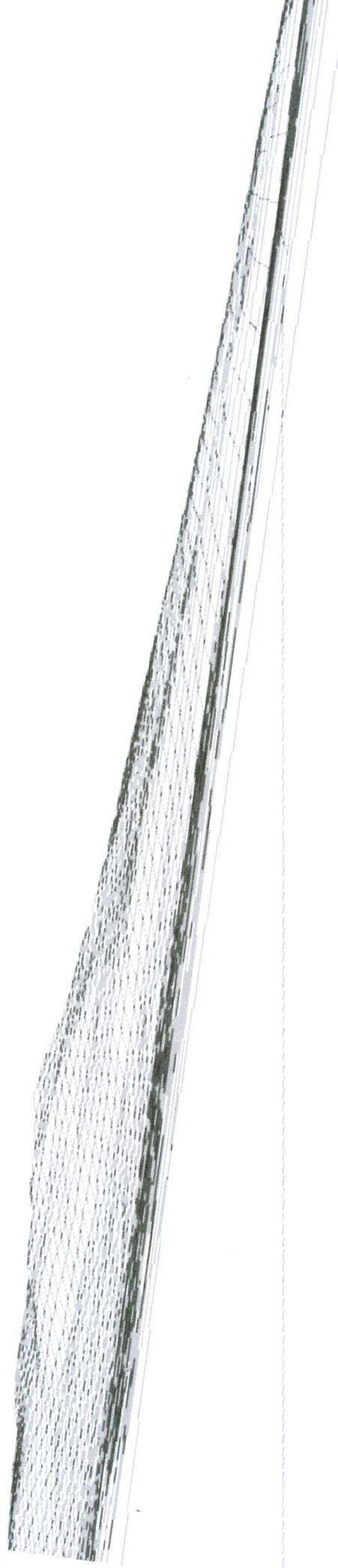
Eye point: BN (AIRY) (Normal) East: 210.270 North: 668.202

Wind direction: 0° Direction of photo: 60°

Software: WindPRO version 2.8.552 Jul 2012

Photo desc.: A Viewpoint A

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Project:
Young - Ardyne

1	New	No	C&F	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
						CF20-20	20	13.1	20.5	1,514

Recommended observation distance: 19 cm
 Photo exposed: 16/07/2012 12:43:22
 Lens: 25 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 210.270 North: 668.202
 Wind direction: 0° Direction of photo: 60°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: A Viewpoint A

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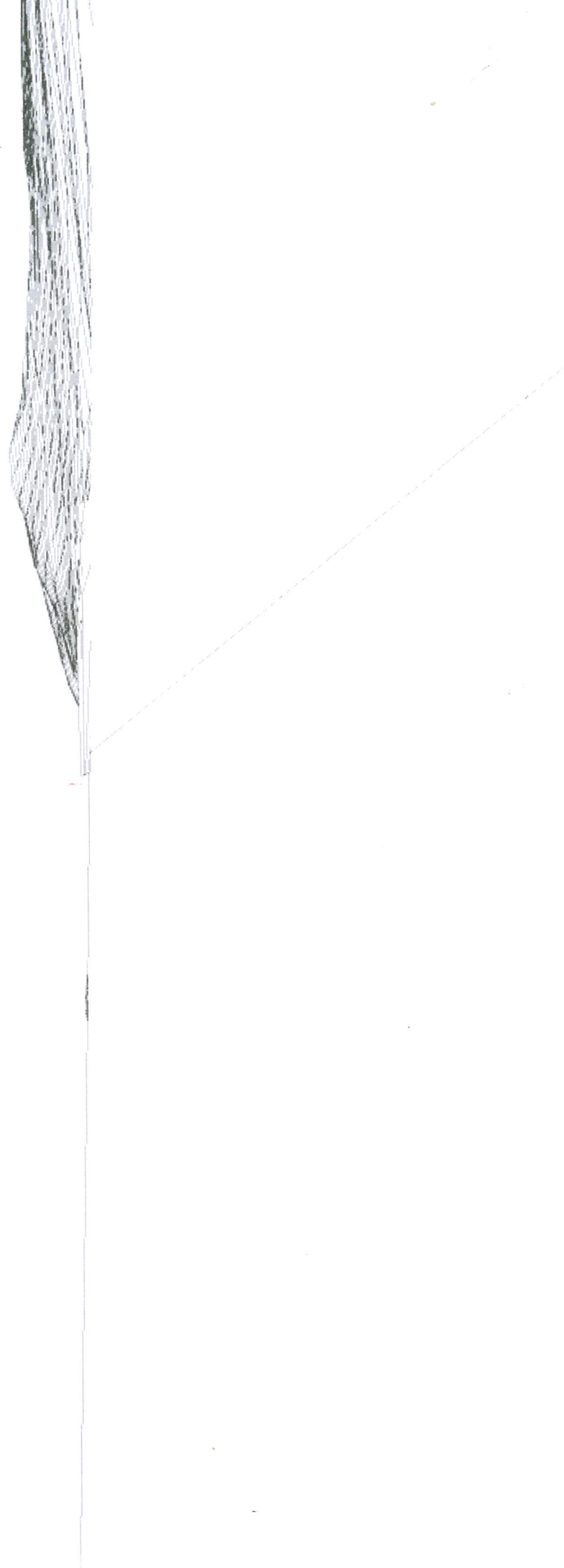


Project:
Young - Ardyne

Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New No C&F	CF20-20	20	13.1	20.5	1,021

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 12:53:11
 Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211.561 North: 667.980
 Wind direction: 0° Direction of photo: 357°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: B Viewpoint B

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Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	1,021

Recommended observation distance: 20 cm

Photo exposed: 16/07/2012 12:53:11
 Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 211,561 North: 667,980
 Wind direction: 0° Direction of photo: 357°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: B Viewpoint B

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Project:

Young - Ardyne

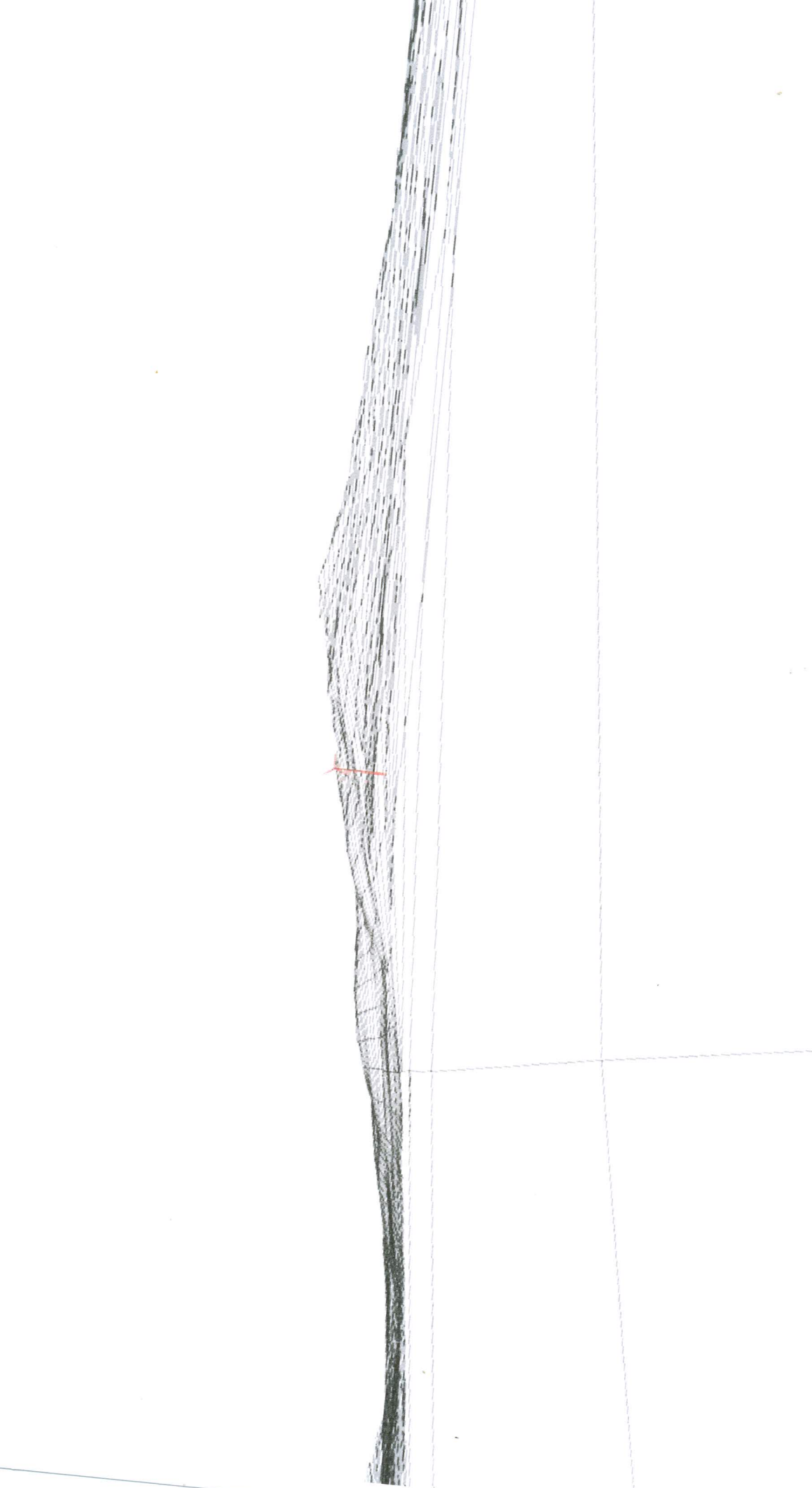
Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	442

Recommended observation distance: 20 cm

Photo exposed: 16/07/2012 12:57:38
 Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211,442 North: 668,574
 Wind direction: 0° Direction of photo: 16°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: C Viewpoint C

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Project:

Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	442

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 12:57:38
 Lens: 27 mm Film: 39x19 mm Pixels: 1000x500

Eye point: BN (AIRY) (Normal) East: 211,442 North: 668,574
 Wind direction: 0° Direction of photo: 16°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: C Viewpoint C

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Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	222

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 13:02:03
 Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211,676 North: 668,814
 Wind direction: 0° Direction of photo: 325°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: D Viewpoint D

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Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	222

Recommended observation distance: 20 cm
Photo exposed: 16/07/2012 13:02:03
Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
Eye point: BN (AIRY) (Normal) East: 211,676 North: 668,814
Wind direction: 0° Direction of photo: 325°
Software: WindPRO version 2.8.552 Jul 2012
Photo desc.: D Viewpoint D

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Project:

Young - Ardyne

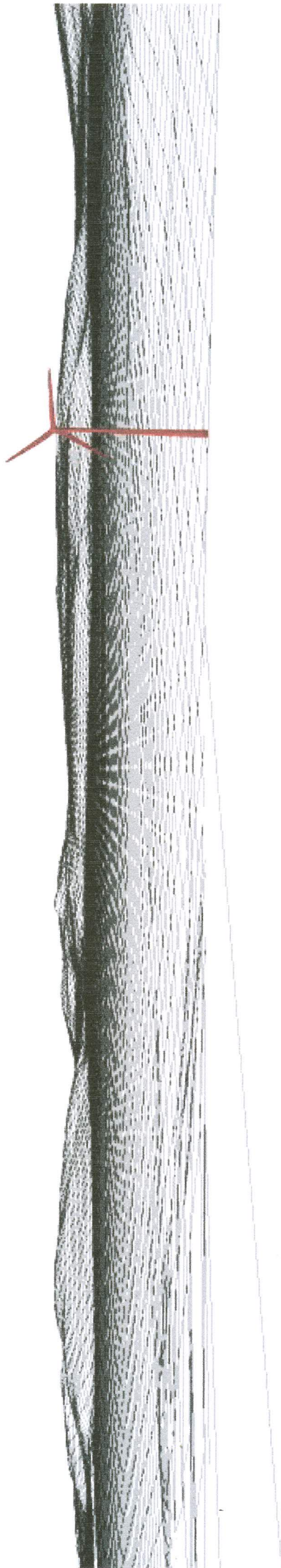
Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	131

Recommended observation distance: 20 cm

Photo exposed: 16/07/2012 13:13:45
 Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211.673 North: 669.062
 Wind direction: 0° Direction of photo: 222°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: E Viewpoint E

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Project:
Young - Ardyne

Valid	New	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
	1		C&F	CF20-20	20	13.1	20.5	131

Recommended observation distance: 20 cm

Photo exposed: 16/07/2012 13:13:45
 Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 211.673 North: 669.062
 Wind direction: 0° Direction of photo: 222°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: E Viewpoint E

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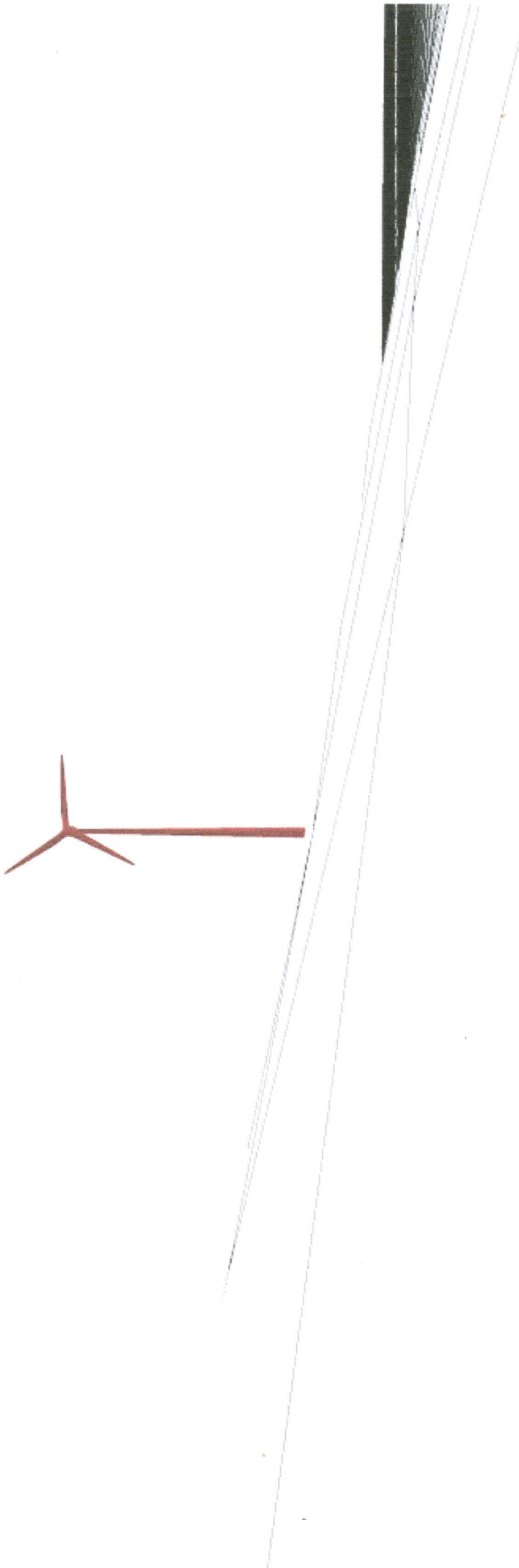


Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	93

Recommended observation distance: 20 cm
Photo exposed: 16/07/2012 13:19:05
Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
Eye point: BN (AIRY) (Normal) East: 211.503 North: 669.077
Wind direction: 0° Direction of photo: 144°
Software: WindPRO version 2.8.552 Jul 2012
Photo desc.: F Viewpoint F

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Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1		C&F	CF20-20	20	13.1	20.5	93

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 13:19:05
 Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 211,503 North: 669,077
 Wind direction: 0° Direction of photo: 144°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: F Viewpoint F

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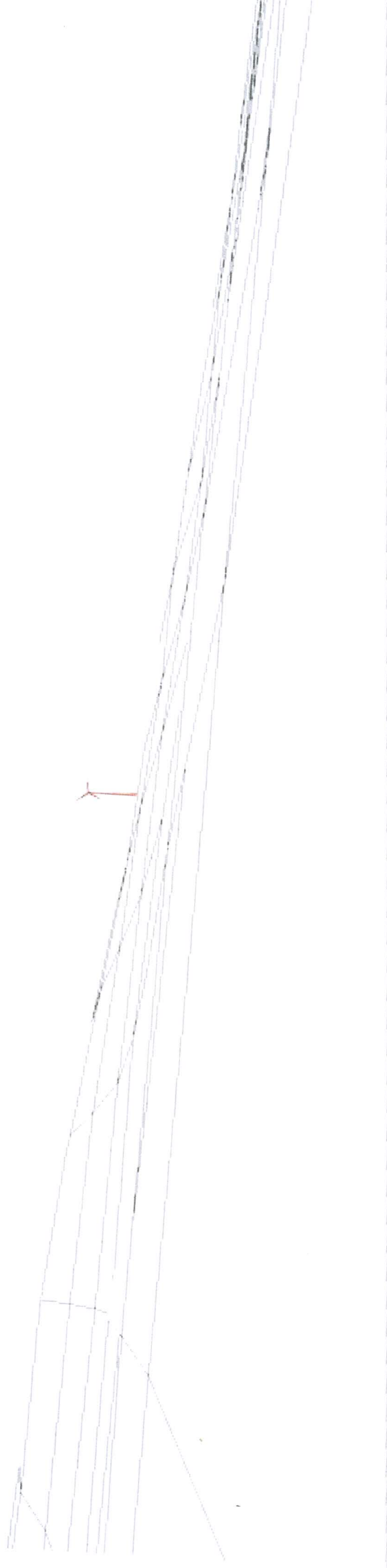
Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	427

Recommended observation distance: 18 cm

Photo exposed: 16/07/2012 13:24:23
 Lens: 25 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211,173 North: 669,188
 Wind direction: 0° Direction of photo: 115°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: G Viewpoint G

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Project:
Young - Ardyne

Valid	New	No	C&F	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1					CF20-20	20	13.1	20.5	427

Recommended observation distance: 19 cm

Photo exposed: 16/07/2012 13:24:23
 Lens: 25 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 211,173 North: 669,188
 Wind direction: 0° Direction of photo: 115°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: G Viewpoint G

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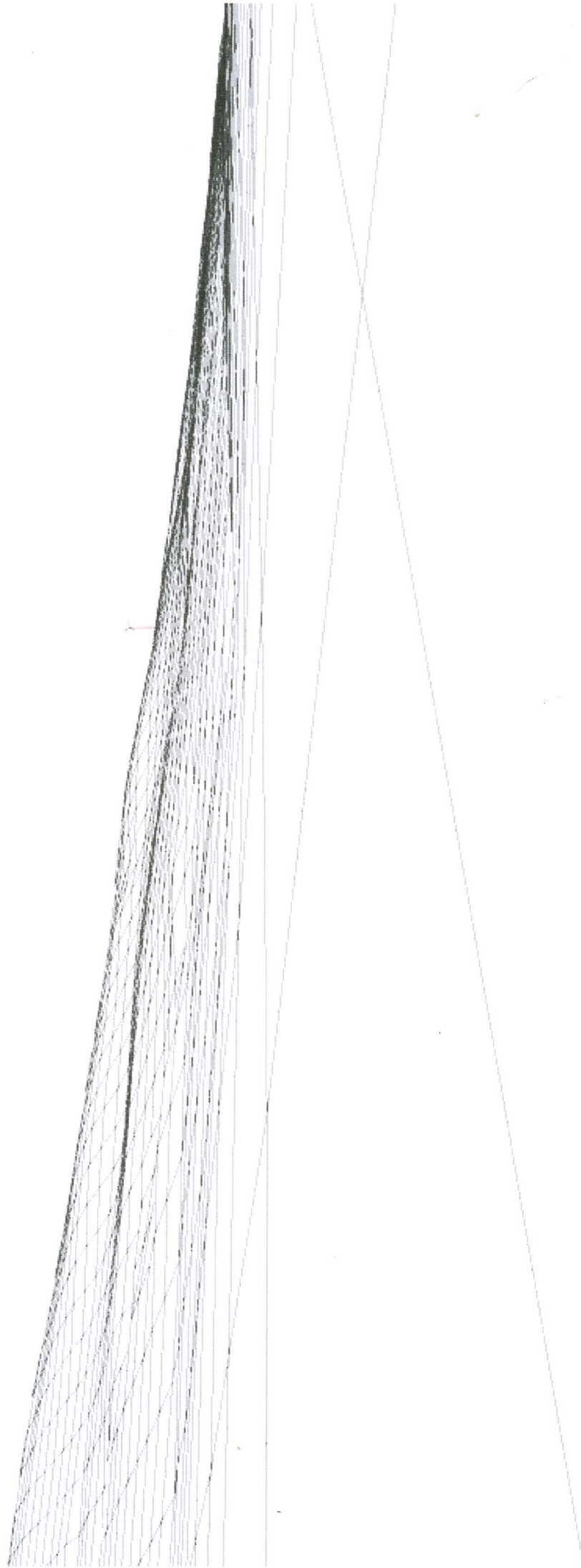


Project:
Young - Ardyne

Valid	No	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New	C&F	CF20-20	20	13.1	20.5	863

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 13:30:39
 Lens: 27 mm Film: 36x24 mm Pixels: 4288x2848
 Eye point: BN (AIRY) (Normal) East: 211,017 North: 669,674
 Wind direction: 0° Direction of photo: 131°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: H Viewpoint H

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Project:
Young - Ardyne

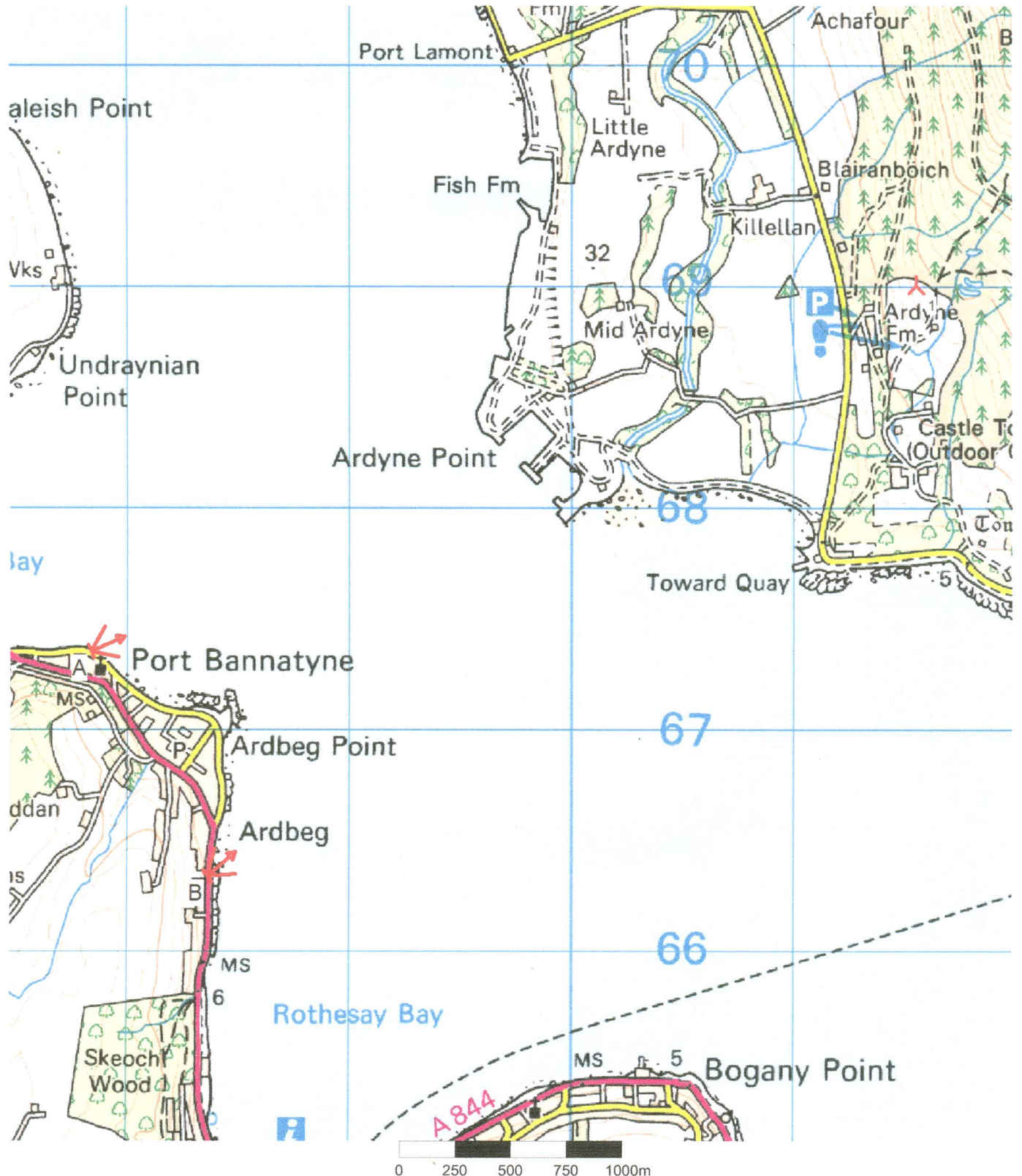
Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New C&F	CF20-20	20	13.1	20.5	863

Recommended observation distance: 20 cm
 Photo exposed: 16/07/2012 13:30:39
 Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
 Eye point: BN (AIRY) (Normal) East: 211,017 North: 669,674
 Wind direction: 0° Direction of photo: 131°
 Software: WindPRO version 2.8.552 Jul 2012
 Photo desc.: H Viewpoint H

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VISUAL - Map

Calculation: Bute Wireframes



Map: Ardyne , Print scale 1:25,000, Map center BN (AIRY) (Normal) East: 209,695 North: 667,669

▲ New WTG

▲ Camera

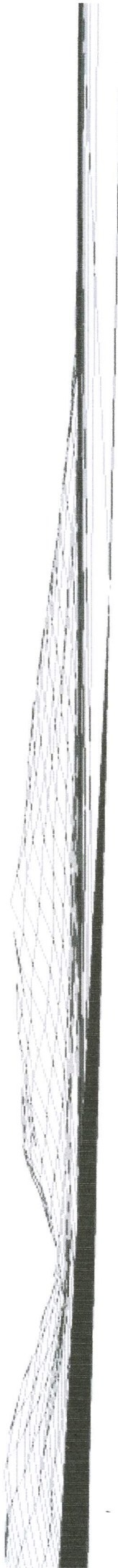


Project:
Young - Ardyne

Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Distance [m]
1	New No C&F	CF20-20	20	13.1	20.5	4.073

Recommended observation distance: 20 cm
Photo exposed: 27/07/2012 10:49:00
Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
Eye point: BN (AIRY) (Normal) East: 207,834 North: 667,348
Wind direction: 0° Direction of photo: 63°
Software: WindPRO version 2.8.552 Jul 2012
Photo desc.: A Port Bannatyne

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Project:
Young - Ardyne

1	New	No	C&F	Type-generator	CF20-20	Power, rated	20	[kW]	Rotor diameter	13.1	[m]	Hub height	20.5	[m]	Distance	4,159	[m]
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Recommended observation distance: 20 cm
Photo exposed: 27/07/2012 10:51:17
Lens: 27 mm Film: 39x19 mm Pixels: 1000x500
Eye point: BN (AIRY) (Normal) East: 208,362 North: 666,337
Wind direction: 0° Direction of photo: 48°
Software: WindPRO version 2.8.552 Jul 2012
Photo desc.: B Ardbeg

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