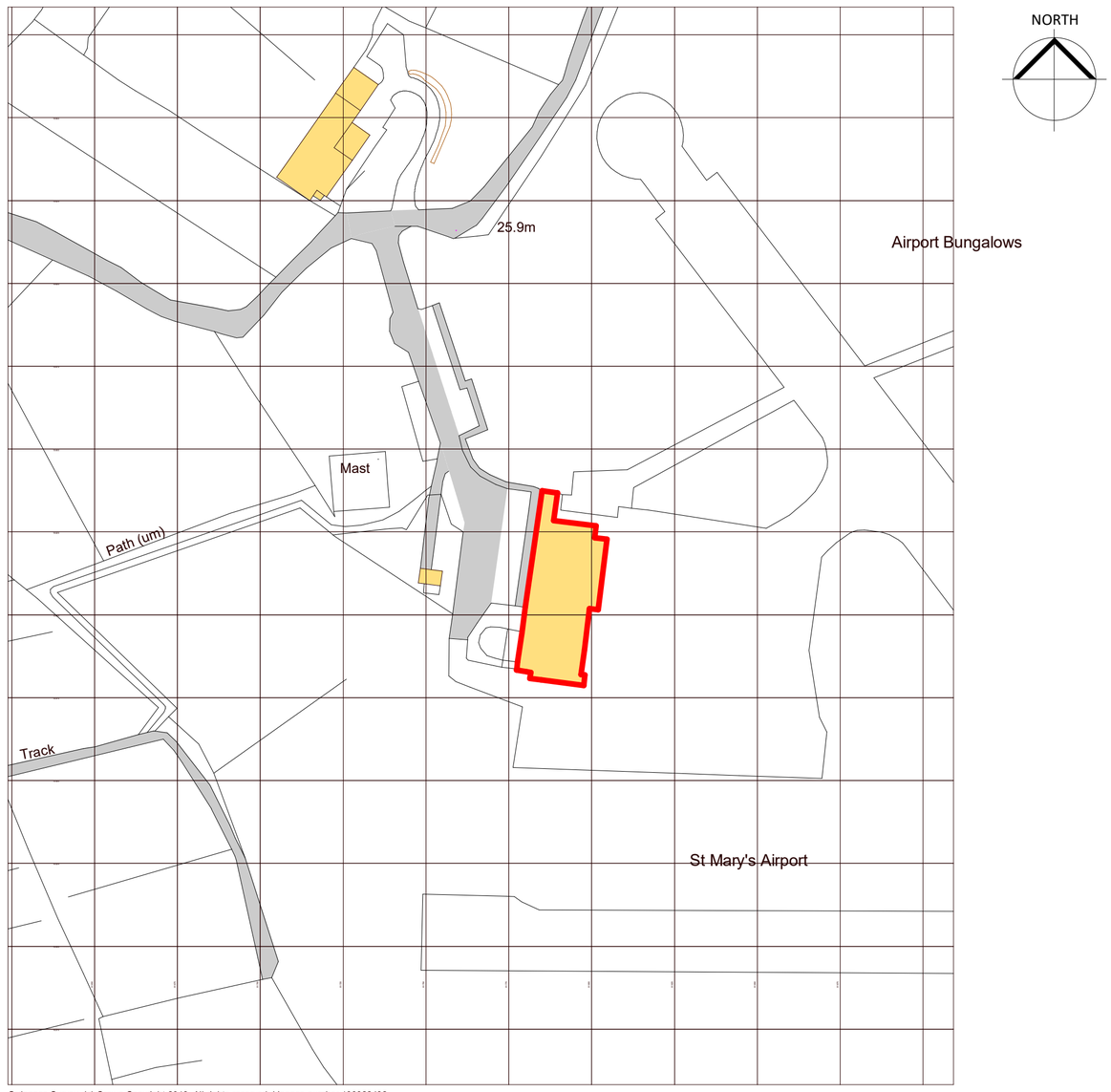
Responsibility is not accepted for errors made by others in scaling from this drawing.
All construction information should be taken from figured dimensions only.

0mm 50mm 100mm



1 Site location plan
1 : 1250

PL P1 31/05/2018 Issued for Planning

STATUS	REV	DATE	DESCRIPTION

CLIENT

REVISED BY
Ieuan Evans

CHECKED BY
Edward Flood

ORIGINATOR NO
151838

CONSULTANT
STRIDE TREGLOWN
www.stridetreglown.com

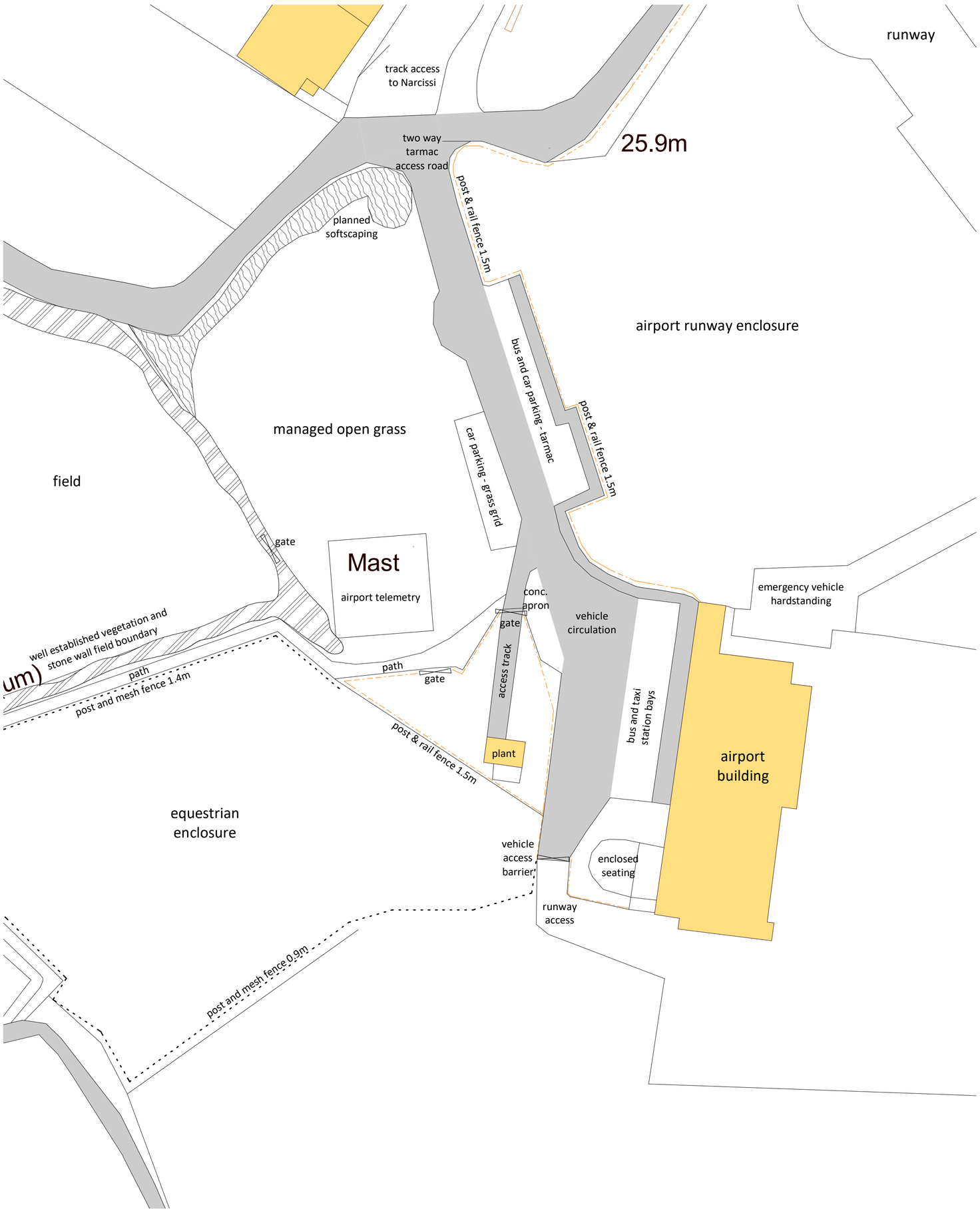
PROJECT
IoS Smart Island
St Mary's Airport,
3 Hannover Ct,
Isles of Scilly,
TR21 0NG

DRAWING TITLE
Site Location Plan (Airport Building)

SUITABILITY STATUS	SCALE
PL : PLANNING	1 : 1250 @ A1

PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASSIFICATION | NUMBER	REVISION
151838-STL-XX-ZZ-DR-A-XXXX-10003	P1

0mm 50mm 100mm



1 Site Block Plan (Aiport Building)
1 : 500

STATUS	REV	DATE	DESCRIPTION
PL	P1	31/05/2018	Issued for Planning

CLIENT

REVISED BY
Ieuan Evans

CHECKED BY
Edward Flood

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PROJECT
IoS Smart Island
St Mary's Airport,
3 Hannover Ct,
Isles of Scilly,
TR21 0NG

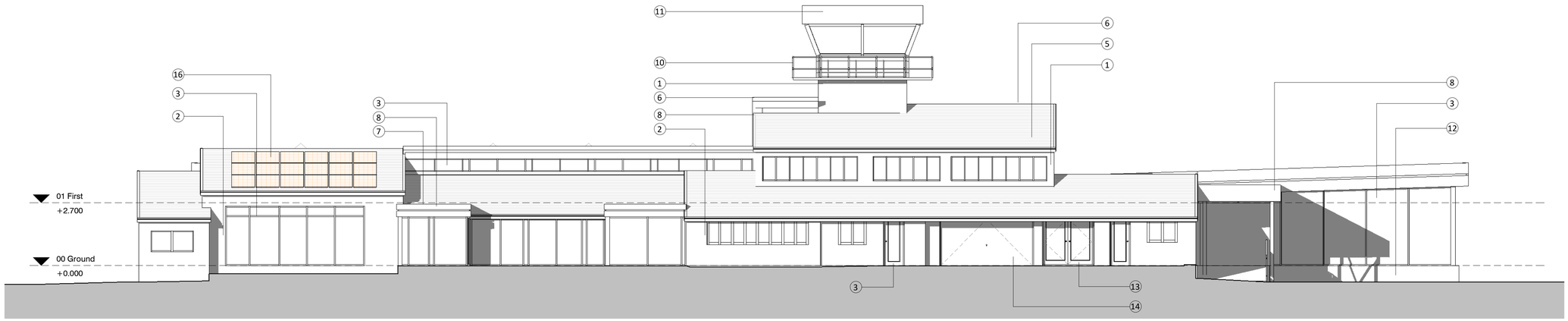
DRAWING TITLE
Site Block Plan (Airport Building)

SUITABILITY STATUS
PL : PLANNING

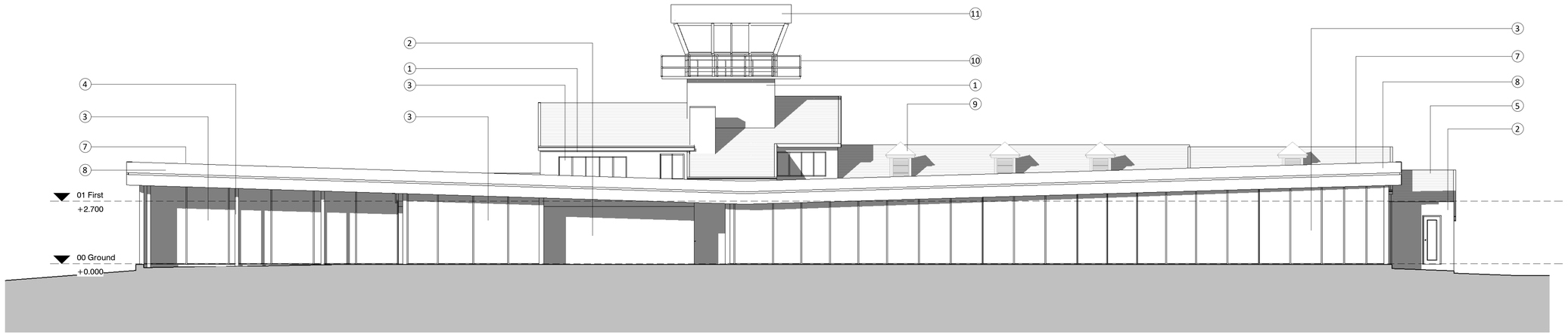
SCALE
1 : 500 @ A1

PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASSIFICATION | NUMBER
151838-STL-XX-ZZ-DR-A-XXXX-10004

REVISION
P1



2 East Elevation
1 : 100



1 West Elevation
1 : 100

Planning Materials Notes

Note Number	Note Text
1	White grit dry dash render
2	Cream painted smooth render finish and surrounds to windows
3	Grey powder coated metal glazed walling windows and doors
4	Grey painted steel columns and bracing
5	Brown plain concrete tile roof covering
6	Brown concrete angled ridge tiles
7	Grey single ply membrane roof covering
8	Grey powder coated metal roof fascia, guttering and trims
9	Grey powder coated metal louvred ventilation turrets
10	Brown painted metal observation gangway and railing
11	Brown painted metal panel cladding and glazed walling tower
12	Blue painted smooth render finish
13	Red painted doorset
14	Metal up and over garage door
15	Glass and stainless steel railing
16	Proposed PV Panels

STATUS	REV	DATE	DESCRIPTION
PL	P1	31/05/2018	Issued for Planning

CLIENT

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PROJECT
IoS Smart Island
St Mary's Airport,
3 Hannover Ct,
Isles of Scilly,
TR21 0NG

DRAWING TITLE
Plans and Elevations 1

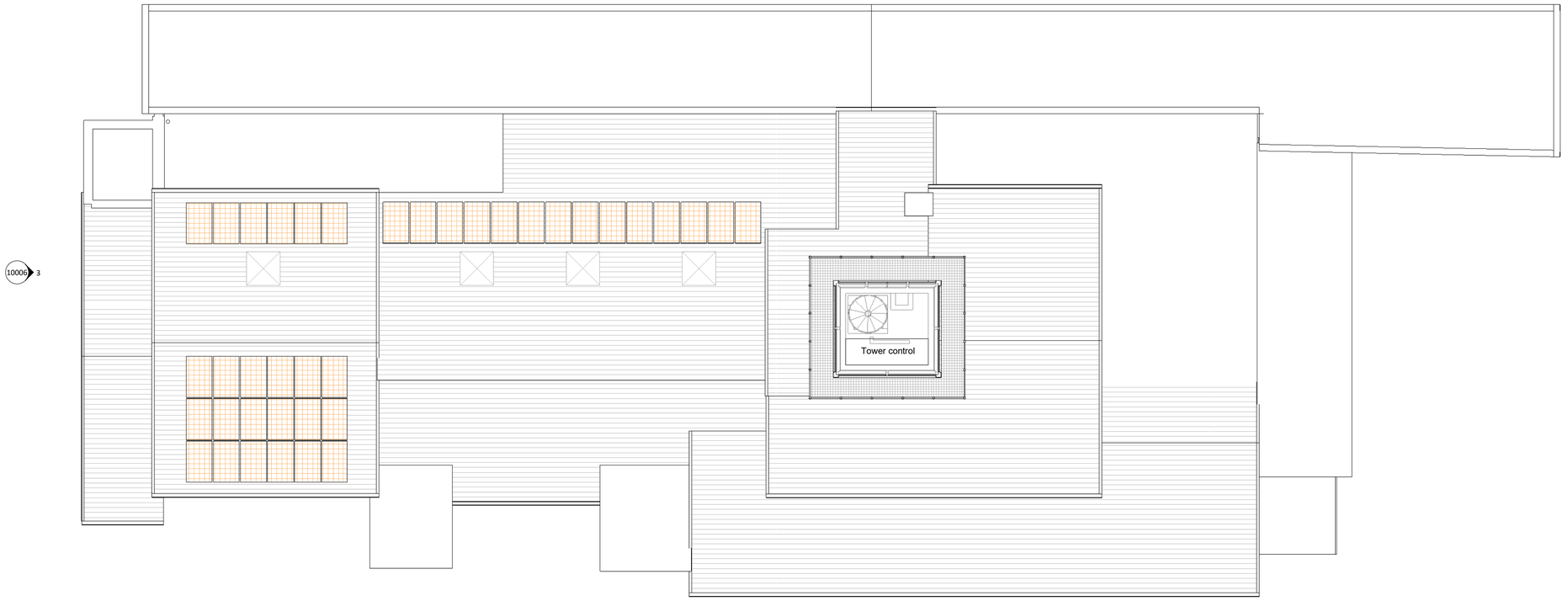
SUITABILITY STATUS
PL : PLANNING

SCALE
1 : 100 @ A1

PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASSIFICATION | NUMBER
151838-STL-XX-ZZ-DR-A-XXXX-10005

REVISION
P1

10005
1



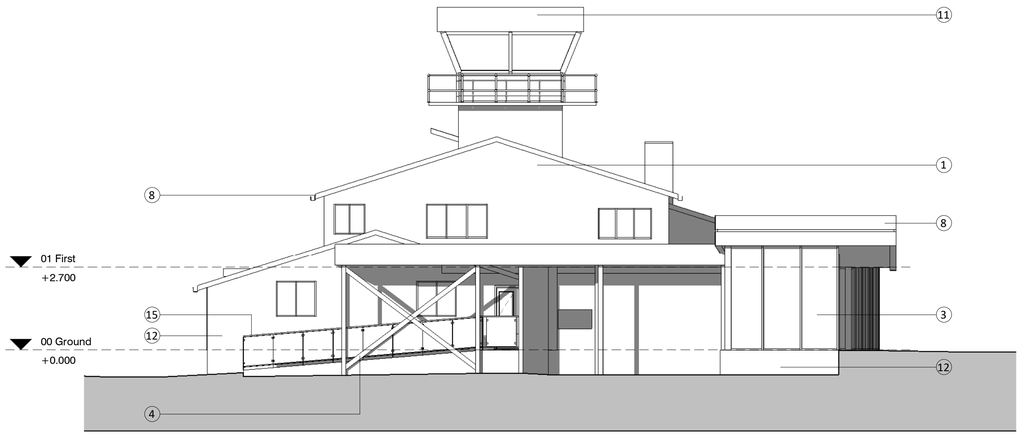
10006 3

2 10006

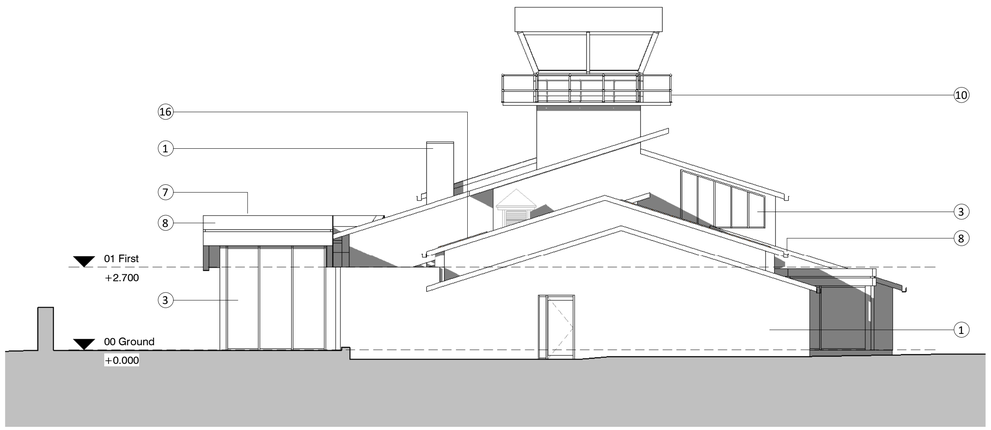
2

10005

1 02 Tower & Roof plan
1 : 100



2 North Elevation
1 : 100



3 South Elevation
1 : 100

Planning Materials Notes

Note Number	Note Text
1	White grit dry dash render
2	Cream painted smooth render finish and surrounds to windows
3	Grey powder coated metal glazed walling windows and doors
4	Grey painted steel columns and bracing
5	Brown plain concrete tile roof covering
6	Brown concrete angled ridge tiles
7	Grey single ply membrane roof covering
8	Grey powder coated metal roof fascia, guttering and trims
9	Grey powder coated metal louvred ventilation turrets
10	Brown painted metal observation gangway and railing
11	Brown painted metal panel cladding and glazed walling tower
12	Blue painted smooth render finish
13	Red painted doorset
14	Metal up and over garage door
15	Glass and stainless steel railing
16	Proposed PV Panels

STATUS	REV	DATE	DESCRIPTION
PL	P1	31/05/2018	Issued for Planning

CLIENT

REVISED BY: Ieuan Evans

CHECKED BY: Edward Flood

ORIGINATOR NO: 151838

CONSULTANT

STRIDE TREGLOWN

PROJECT

IoS Smart Island
St Mary's Airport,
3 Hannover Ct,
Isles of Scilly,
TR21 0NG

DRAWING TITLE

Plans and Elevations 2

SUITABILITY STATUS	SCALE
PL : PLANNING	1 : 100 @ A1

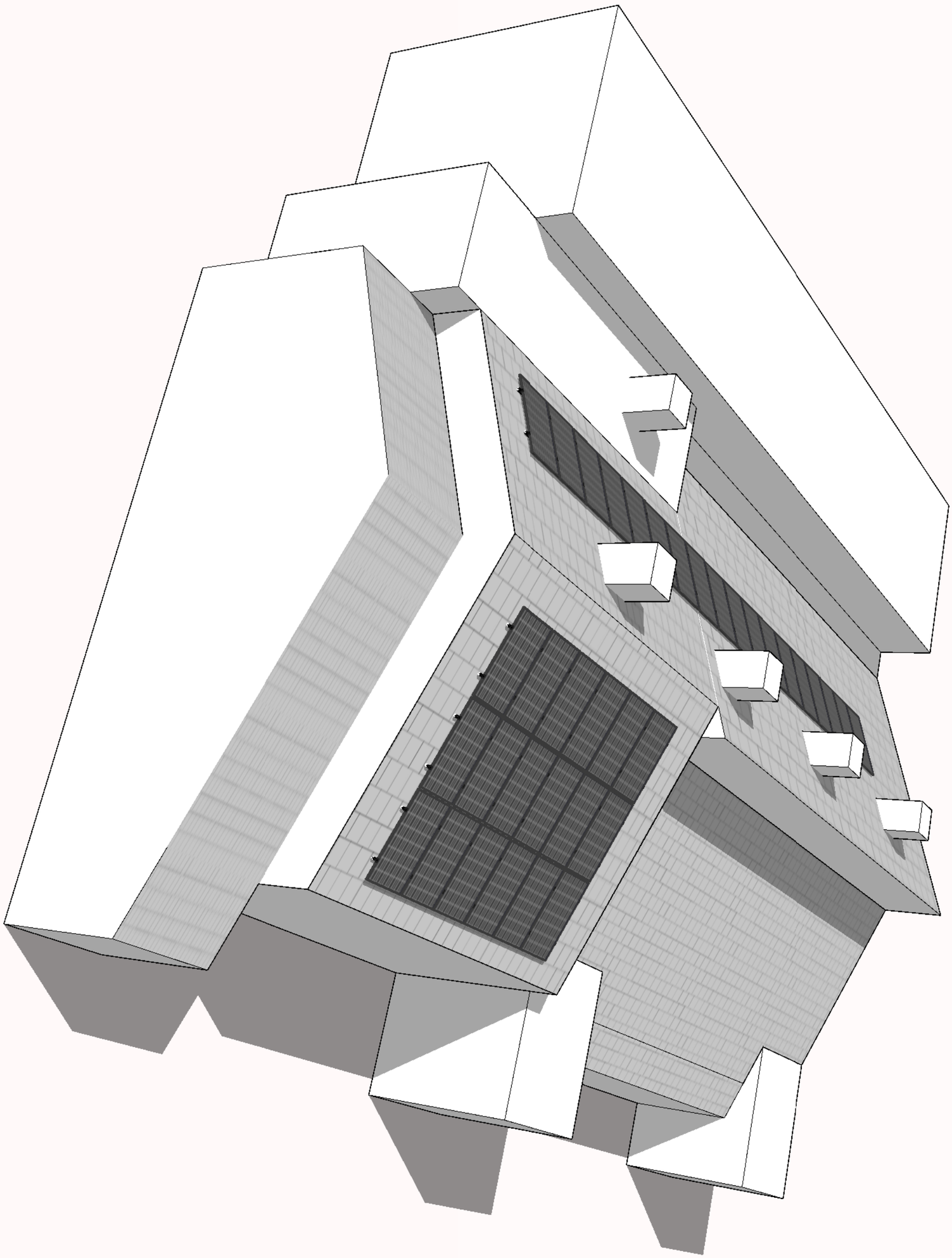
PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASSIFICATION | NUMBER	REVISION
151838-STL-XX-ZZ-DR-A-XXXX-10006	P1

St Marys Airport

11kW East West 9,800kWh Annual generation

IoS Smart Energy Islands Project

Array layout

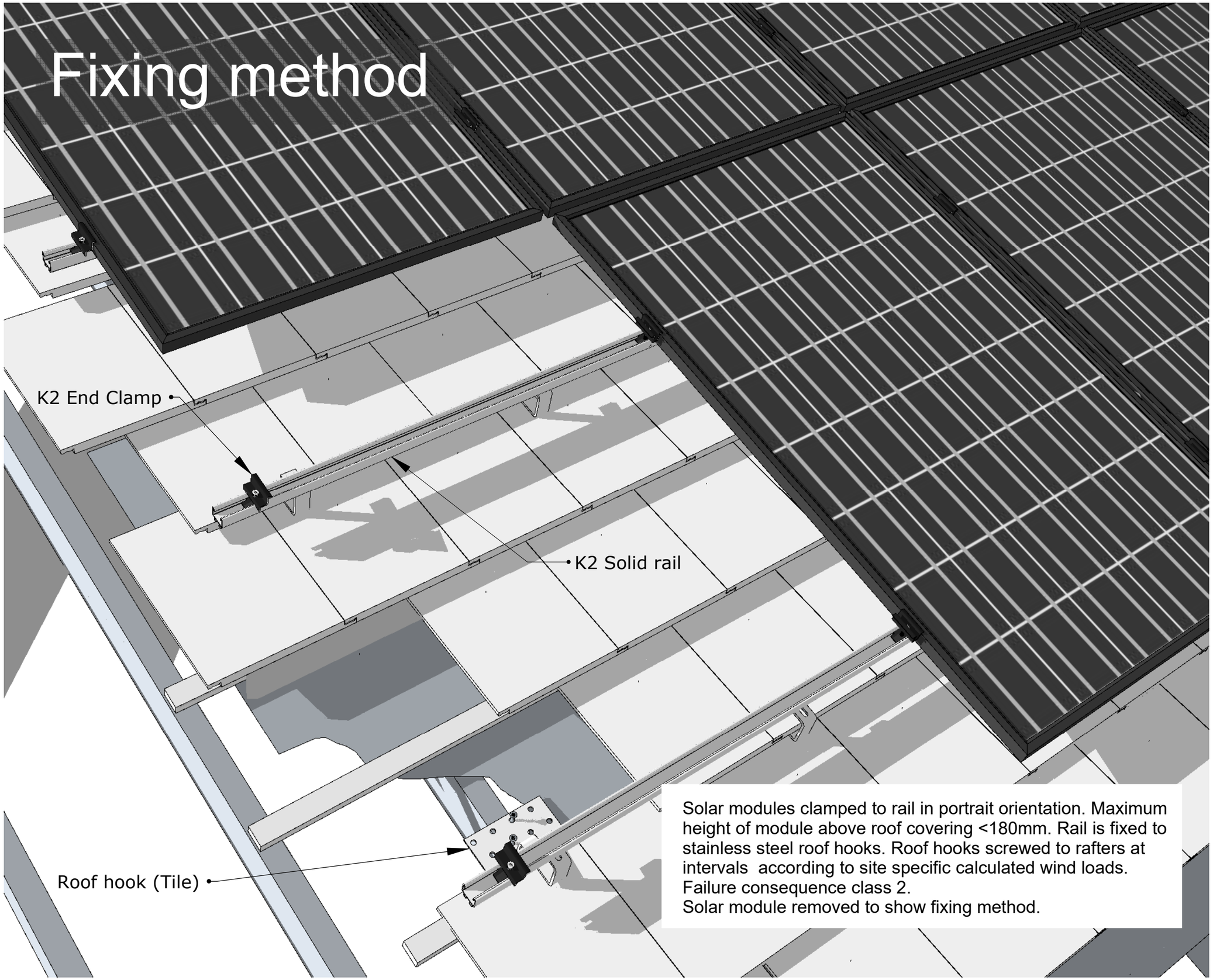


St Marys Airport

11kW East West 9,800kWh Annual generation

IoS Smart Energy Islands Project

Fixing method



Solar modules clamped to rail in portrait orientation. Maximum height of module above roof covering <180mm. Rail is fixed to stainless steel roof hooks. Roof hooks screwed to rafters at intervals according to site specific calculated wind loads.
Failure consequence class 2.
Solar module removed to show fixing method.

IoS Smart Energy Islands Project

St Marys Airport

11kW East West 9,800kWh Annual generation

Module Datasheet

IoS Smart Energy Islands Project

St Marys Airport

11kW East West 9,800kWh Annual generation

Q.PEAK DUO BLK-G5 300-320

Q.ANTUM SOLAR MODULE

The new Q.PEAK DUO BLK-G5 solar module from Q CELLS impresses with its outstanding visual appearance and particularly high performance on a small surface thanks to the innovative Q.ANTUM DUO Technology. Q.ANTUM's world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions — both with low-intensity solar radiation as well as on hot, clear summer days.

Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.3 %.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID Technology, Anti PID Technology[1], Hot-Spot Protect and Traceable Quality Tra.Q™.

EXTREME WEATHER RATING
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa) regarding IEC.

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee[2].

STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2018

Q CELLS QUALITY SECURITY: ANTI PID TECHNOLOGY (APT) · HOT-SPOT PROTECT (HSP) · TRACEABLE QUALITY (TRA.Q™) · ANTI LID TECHNOLOGY (ALT)

VDE Quality Tested: high reliability · low degradation · frequent product surveillance — ID. 40032587

PV magazine award 2017 for innovation

[1] APT test conditions according to IEC/TS 62804-1:2015, method B (–1500V, 168 h)
[2] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

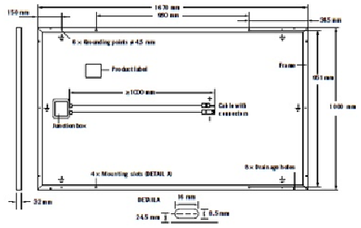
Rooftop arrays on residential buildings

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 32 mm (including frame)
Weight	18.8 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 10 monocrystalline Q.ANTUM solar cells
Junction box	66-77 mm × 115-90 mm × 15-19 mm Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) 1000 mm, (-) 1000 mm
Connector	Multi-Contact MC4 or MC4 intermateable, IP68

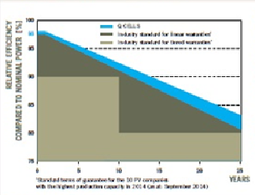


ELECTRICAL CHARACTERISTICS

POWER CLASS			285	290	295
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / -0 W)					
Minimum	Power at MPP[2]	P_{MPP}	285	290	295
	Short Circuit Current*	I_{SC}	9.56	9.63	9.70
	Open Circuit Voltage*	V_{OC}	38.91	39.19	39.48
	Current at MPP*	I_{MPP}	8.98	9.07	9.17
	Voltage at MPP*	V_{MPP}	31.73	31.96	32.19
	Efficiency[2]	η	≥17.1	≥17.4	≥17.7
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOCT[3]					
Minimum	Power at MPP[2]	P_{MPP}	210.9	214.6	218.3
	Short Circuit Current*	I_{SC}	7.71	7.77	7.82
	Open Circuit Voltage*	V_{OC}	36.38	36.65	36.92
	Current at MPP*	I_{MPP}	7.04	7.12	7.20
	Voltage at MPP*	V_{MPP}	29.95	30.14	30.33

[1] 1000 W/m², 25 °C, spectrum AM 1.5 G [2] Measurement tolerances STC ±3%; NOC ±5% [3] 800 W/m², NOCT, spectrum AM 1.5 G * typical values, actual values may differ

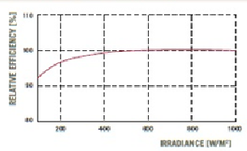
Q CELLS PERFORMANCE WARRANTY



At least 98 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92.6 % of nominal power up to 10 years.
At least 83.6 % of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	−0.28
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.39	Normal Operating Cell Temperature	NOCT	[°C]	45

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS}	[V]	1000	Safety Class	II
Maximum Reverse Current	I_R	[A]	20	Fire Rating	C
Wind/Snow Load (Test-load in accordance with IEC 61215)		[Pa]	4000 / 5400	Permitted Module Temperature On Continuous Duty	-40 °C up to +85 °C

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A
This data sheet complies with DIN EN 50380.

PARTNER

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS GmbH
Sonnenallee 17-21, 06766 Bitterfeld-Wolfen, Germany | TEL +49 (0)3494 66 99-23444 | FAX +49 (0)3494 66 99-23000 | EMAIL sales@q-cells.com | WEB www.q-cells.com

Engineered in **Germany**

Q CELLS