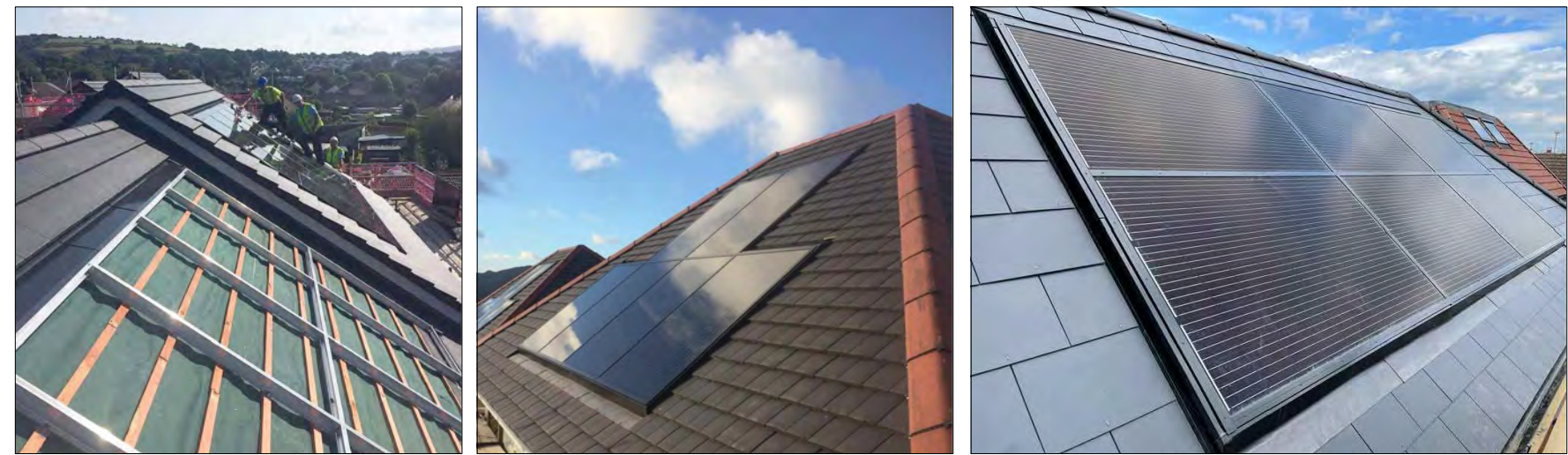
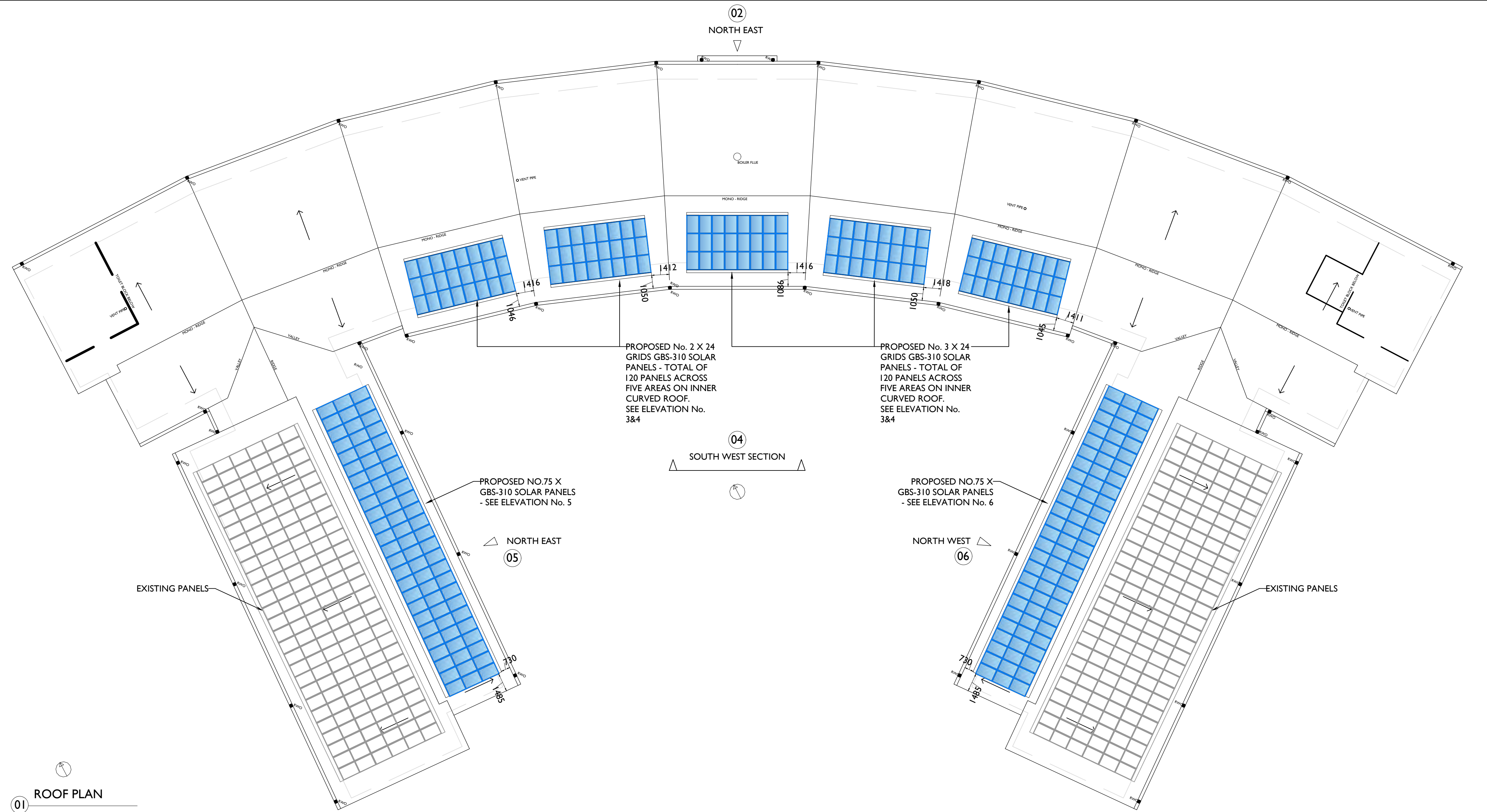




PROPOSED INSTALLATION

CURVED INNER ROOF

THIS AREA CONSISTS OF FIVE RECTANGULAR SEGMENTS THAT EACH MEET AT A SLIGHT ANGLE, SO THERE IS A JOINT BETWEEN EACH SEGMENT WHERE SLATES WITH ANGLED CUTS BUTT UP TO EACH OTHER. WE RECOMMEND AN INTEGRATED SOLAR ARRAY WITHIN EACH OF THE FIVE SEGMENTS, WHICH WOULD BE 3 ROWS OF 8 No. 310V PANELS. THE ROOF FACES SOUTH EAST. THE INSTALLED CAPACITY WOULD BE 7.44KWp PER SEGMENT, 37.2KWp IN TOTAL, AND THE FORECAST FIRST YEAR OUTPUT IS 26,100KWH.

CONFIGURATION 120x GBS-310 PANELS ACROSS THE FIVE AREAS
INSTALLED SOLAR CAPACITY 7.44KWp ON EACH SEGMENT = 37.2KWp IN TOTAL
INVERTERS 2x SOLIS 20KW 3-PHASE - EACH DOWNRATED TO 16kW
FORECAST ANNUAL OUTPUT 26,100 kWh pa

RECTANGULAR INNER ROOFS

EACH ROOF CAN TAKE AN INTEGRATED SOLAR ARRAY OF 3 ROWS OF 25 No. 310V PANELS. IN THE AREA OUTLINED BLUE ON THE IMAGE, ONE SLOPE FACES ALMOST DUE EAST AND THE OTHER FACES NORTH-WEST. THE INSTALLED CAPACITY WOULD BE 23.25KWp PER SLOPE, AND THE FORECAST FIRST YEAR OUTPUTS ARE 15,400KWH AND 12,100KWH RESPECTIVELY, 27,500KWH IN TOTAL.

CONFIGURATION 75 x GBS-310 PANELS ON EACH ROOF (x2)
INSTALLED SOLAR CAPACITY 23.25KWp ON EACH ROOF = 46.5KWp IN TOTAL
INVERTERS 2x SOLIS 20KW 3-PHASE
FORECAST ANNUAL OUTPUT 27,500 kWh pa

GBS310 PANEL

1000
1663

NEW PV SOLAR PANEL - EXACT LOCATION AND DETAILS TO BE CONFIRMED BY PV SPECIALIST. PROPOSED TO HAVE No. 270 PANELS LOCATED AS PER ROOF PLAN.

PROPOSED SOLAR PV NOTES FROM SUPPLIER/INSTALLER:

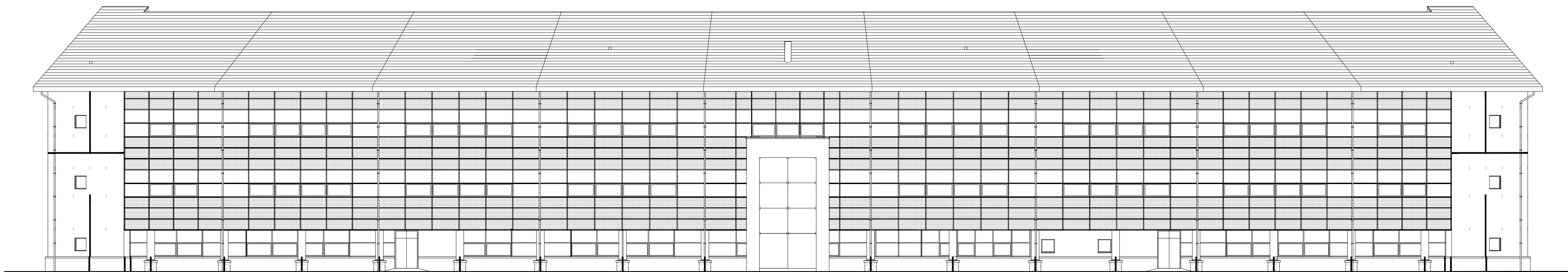
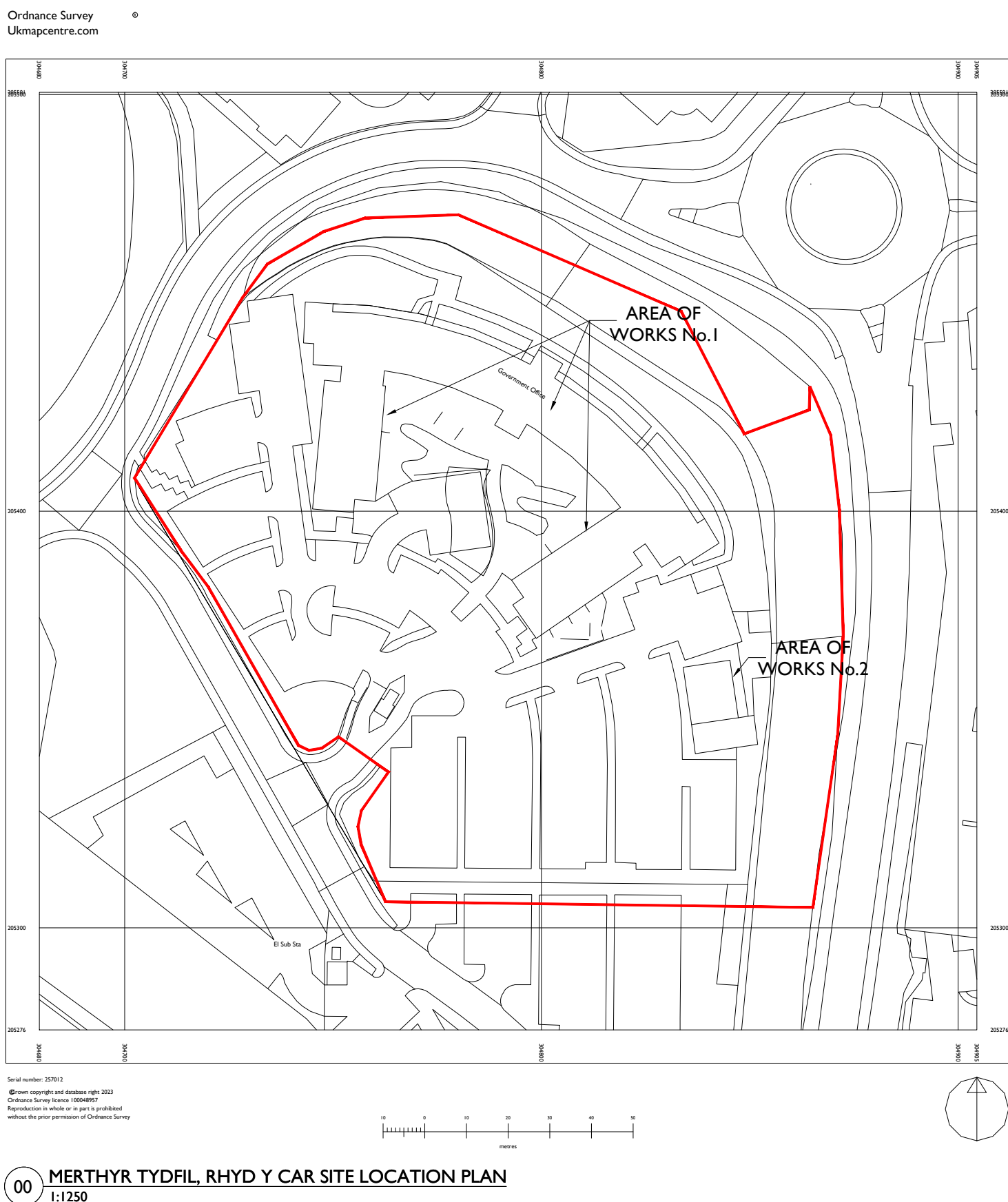
- A SOLAR PV SYSTEM TO BE LOCATED ON THE SOUTH & WEST ROOF OF BUILDING.

- THE SYSTEM CONSISTS OF AN ALUMINIUM FRAME FITTED ONTO THE ROOF BATTENS, AND THEN WELSH MADE SOLAR PANELS ARE SET INTO THIS AND RIVETED INTO PLACE WITH ANODISED ALUMINIUM CAP STRIPS. THE ROOF WOULD BE FINISHED WITH A SURROUND OF AROUND 0.5M OF THE EXISTING NATURAL SLATES, WHICH WOULD FINISH THE ROOF EDGES.

PROPOSED INSTALLATION:

- SOLAR PANELS TO BE MOUNTED ON RAILS, WITH THE RAILS FIXED INTO THE RAFTERS VIA HOOKS. THAT GO UNDER THE ROOF SLATES OR TILES. TILES ARE LAID LOOSE ON BATTENS AND SO ARE EASILY LIFTED TO ENABLE HOOKS TO BE FITTED. SLATES ARE USUALLY NAILED INTO THE BATTENS AND OVERLAP EACH OTHER THREE SLATES DEEP, SO FITTING A HOOK, REQUIRES REMOVAL OF A NUMBER OF SLATES EACH TIME. USUALLY RESULTS IN A NUMBER OF BROKEN SLATES; AND THE SLATES CANNOT BE NAILED BACK IN SO HAVE TO BE HELD WITH ALTERNATIVE MOUNTINGS. FURTHERMORE, AS THE SOLAR HOOKS HAVE TO BE FITTED EVERY 1.0M TO 1.5M, NEARLY HALF OF THE SLATES ON THE ROOF WILL HAVE BEEN REMOVED BY THE TIME ALL OF THE HOOKS ARE FITTED.

- EXACT POSITION TO BE AGREED ON SITE.



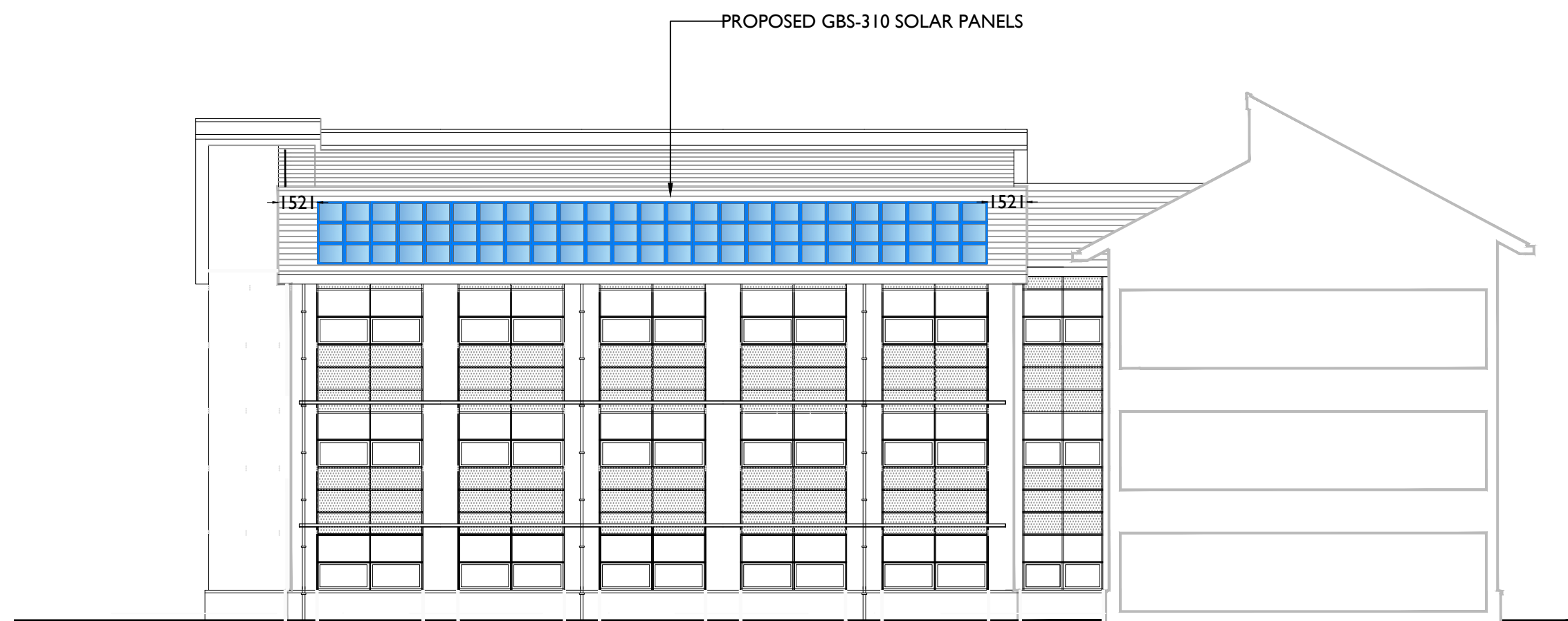
02 PROPOSED NORTH EAST ELEVATION 1:200 *PANELS NOT VISIBLE FROM THIS VIEW



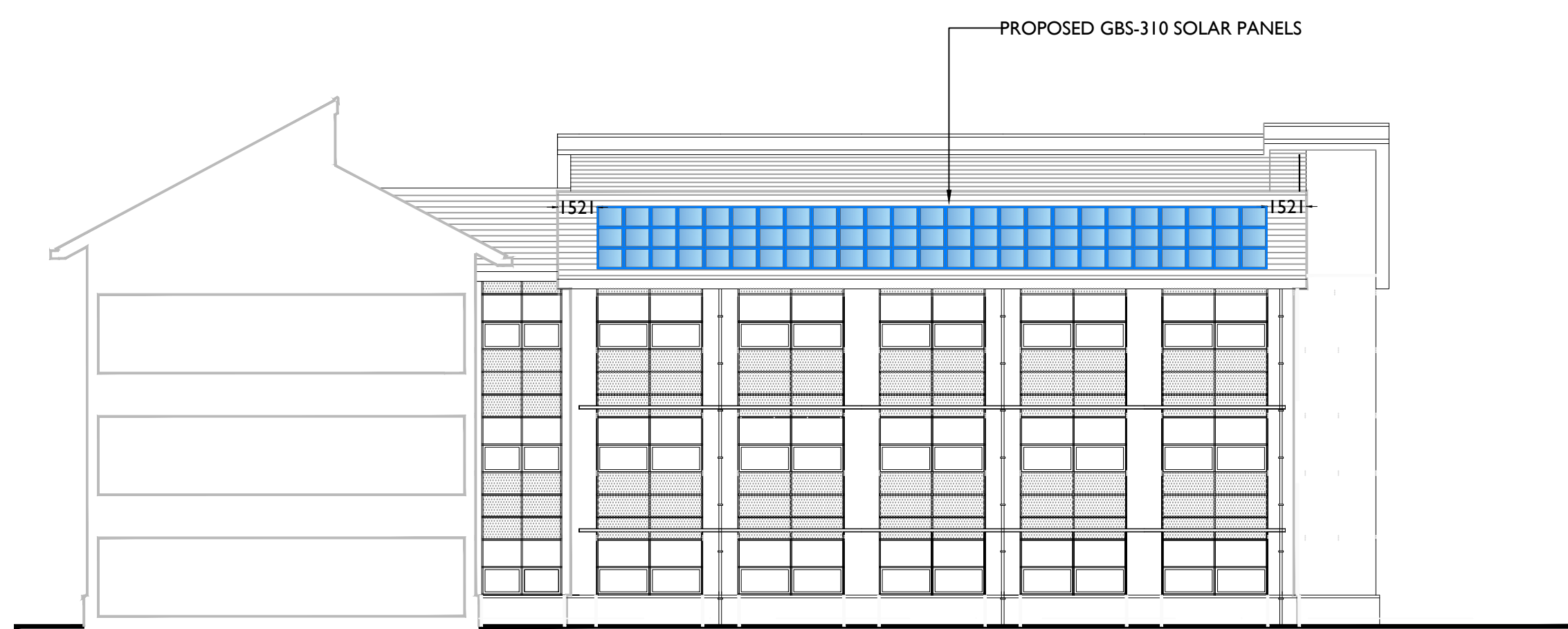
03 PROPOSED SOUTH WEST ELEVATION 1:200



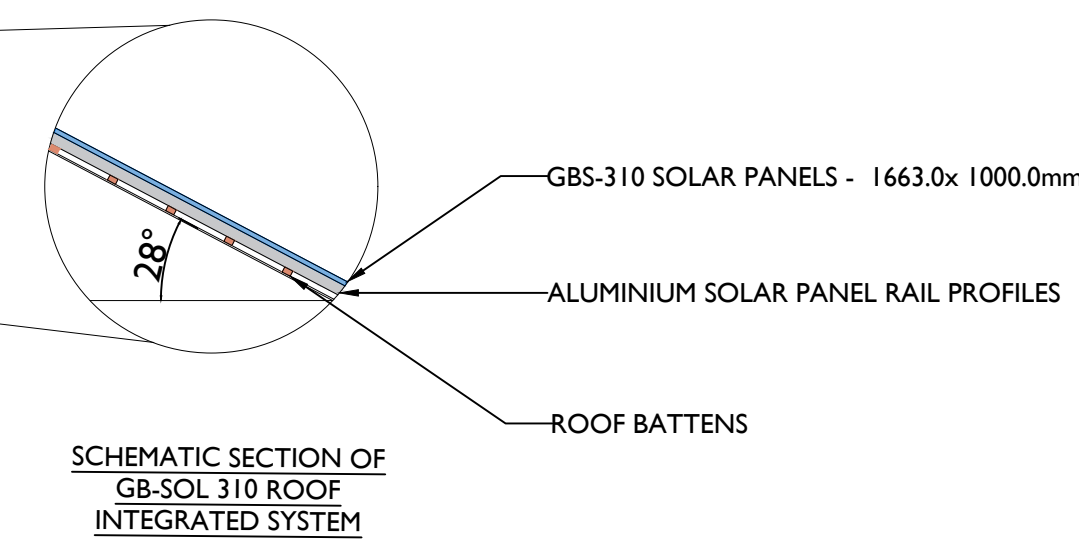
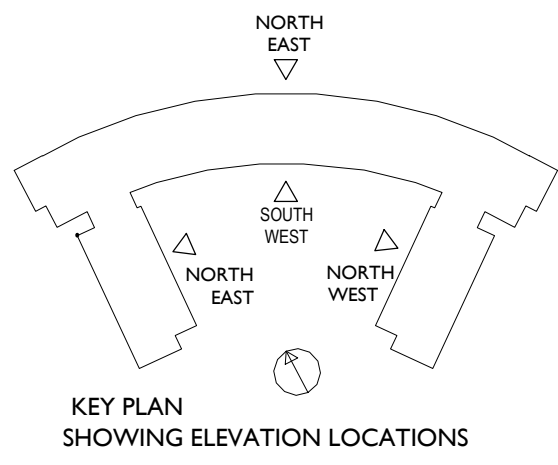
04 PROPOSED SOUTH WEST SECTION 1:200



05 PROPOSED NORTH EAST ELEVATION 1:200



06 PROPOSED NORTH WEST ELEVATION 1:200



GBS-310 SOLAR PANELS - 1663.0x 1000.0mm

ALUMINIUM SOLAR PANEL RAIL PROFILES

ROOF BATTENS

PLANNING



Caron House, 3 Oak Tree Court, Mulberry Drive, Cardiff Gate Business Park, Cardiff, CF23 8RS.
Tel: (029) 2073 6900 | Fax: (029) 2073 9255 | www.mitie.com

CLIENT NAME
WELSH GOVERNMENT

PROJECT NAME
SOLAR - PV INSTALLATION AT
RHYD Y CAR, MERTHYR TYDFIL, CF481UZ

DRAWING TITLE
AREA OF WORKS I
PROPOSED MAIN BUILDING LAYOUT, ELEVATIONS

DRAWN BY CM	CHECKED BY GQ/JH	APPROVED BY KB	DATE APR 2026	SCALE @ A0 AS SHOWN
PROJECT No. WG1322		DRAWING No. AL03		REV

M:\PROJECTS\