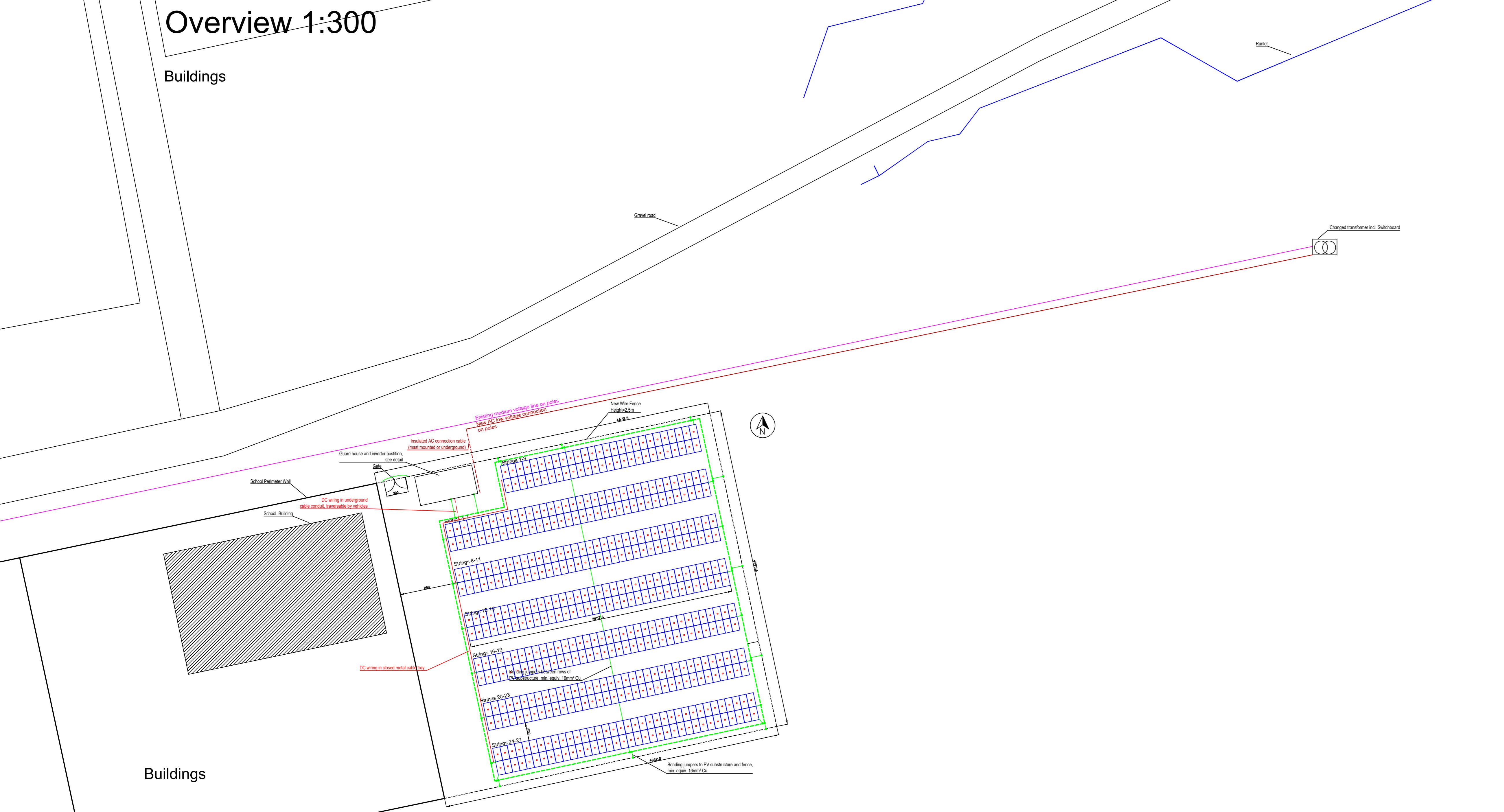


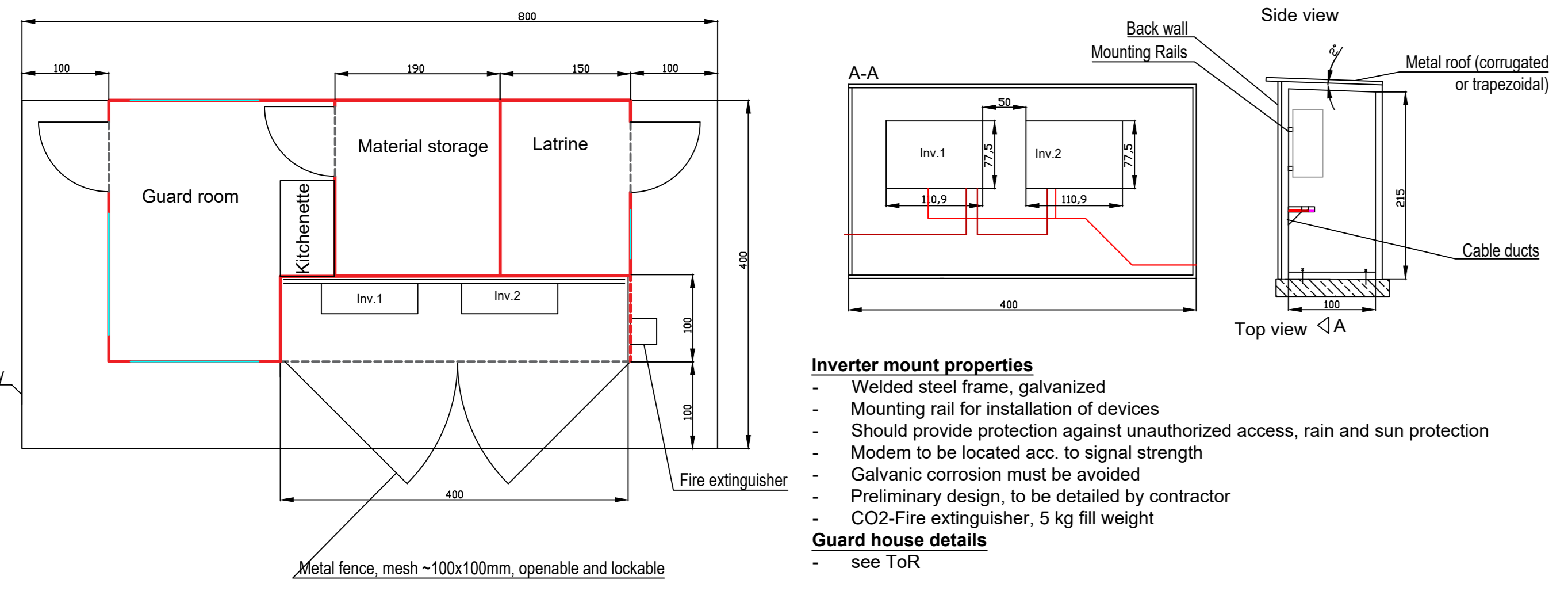
Overview 1:300

Buildings

Buildings

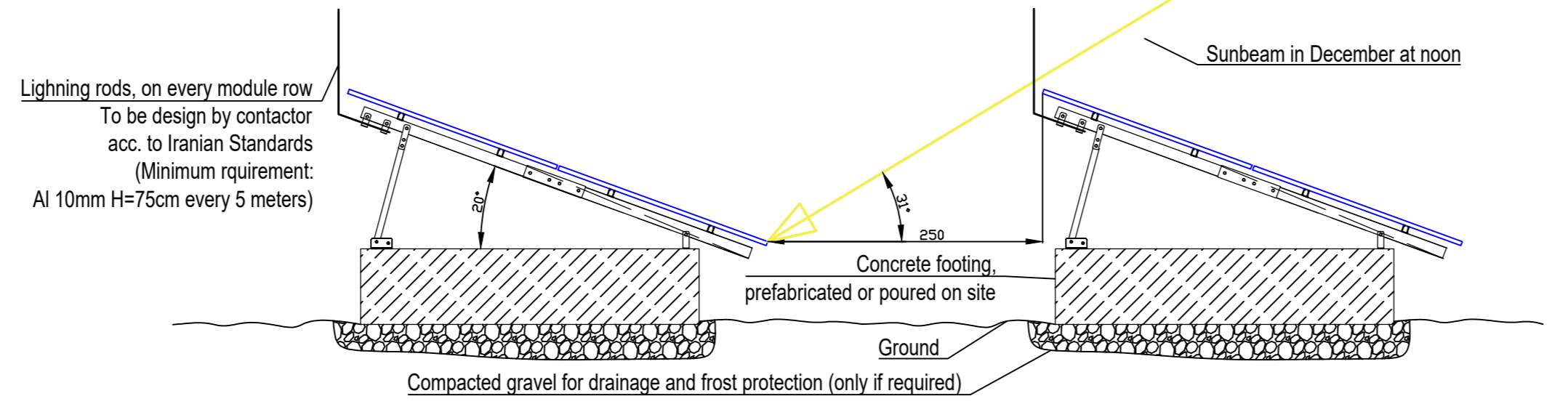


Guard house and Inverter Rack, Detail 1:50

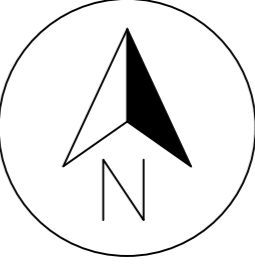
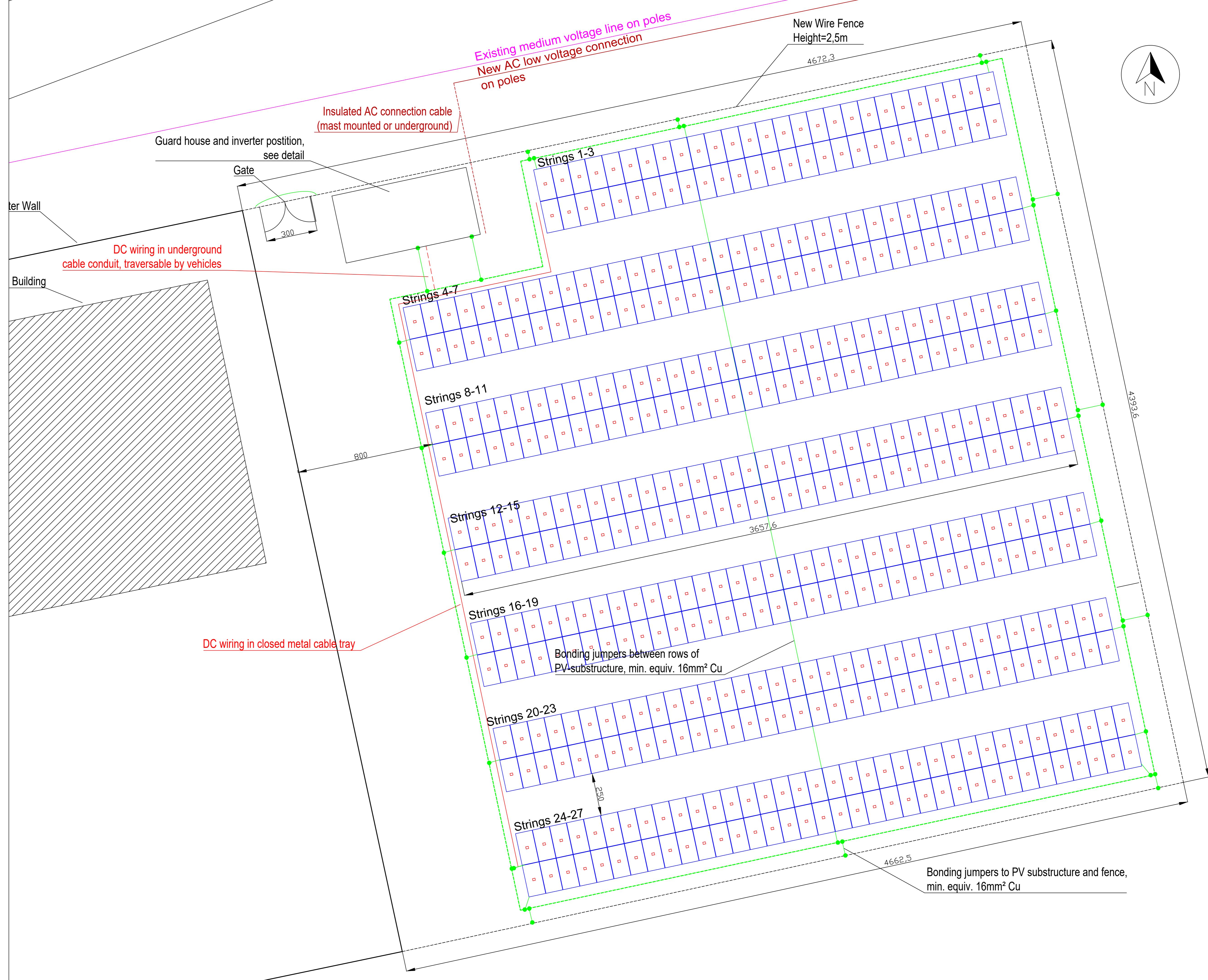


- Inverter mount properties**
- Welded steel frame, galvanized
 - Mounting rail for installation of devices
 - Should provide protection against unauthorized access, rain and sun protection
 - Modern to be located acc. to signal strength
 - Galvanic corrosion must be avoided
 - Preliminary design, to be detailed by contractor
 - CO2-Fire extinguisher, 5 kg fill weight
- Guard house details**
- see ToR

PV Mounting system, detail 1:50



- Mounting system properties**
- Mounting system design to be proposed by the contractor, equivalent design is acceptable
 - Design has to be approved by UNIDO
 - Aluminum or hot-dip galvanized steel construction
 - Screws: stainless steel for aluminum, stainless steel or hot dip galvanized for steel (or equivalent)
 - Designed for local loads acc. to all applicable Iranian laws and standards
 - Foundation and concrete footing designed acc. to local structural standards, rebars to be used to prevent cracking
 - Mounting systems using ballast on rails can also be used
 - A conductive connection must be ensured between all components, incl. the frame of the PV-modules and the grounding system
 - Galvanic corrosion must be avoided



- General remarks:**
- All national laws and standards, IEC standards etc. have to be respected and followed
 - Cable dimensions and lengths are calculated acc. to preliminary design and have to be recalculated and verified in detail engineering by the contractor
 - Aluminum wire connections have to be done acc. to cable and equipment manufacturer recommendations and with special care. Regular inspections have to be performed.
 - Connection to the grid to be done acc. to regulations of the grid operator and electrical authorities.
 - All metallic components have to be connected to the grounding! (housings, constructions, cable trays, fencing, doors etc.)
 - Cables and wires have to be protected against mechanical damage, rodents, heat and sunlight.

This is a concept plan, all dimensions have to be checked and verified by the contractor.

Version	Date	Drawn	Description	Released
2	19.Aug.2022	SCB	Changed PV outer dimensions, Added Guard House	SCB
1	18.Jul.2022	SCB	Changed PV location acc. UNIDO request	SCB
0	08.Jun.2022	SCB	Initial	SCB

6218		UNIDO
Saveh Settlement		United Nations Industrial Development Organization
Content of this plan: Single Line Wiring Diagram		
Photovoltaic Power Plant Semnan Settlement		
UNIDO Contract No.: 3000089797	Project Phase: Design/Tender	Sheet: 01
Altplan No.: 6218-AS-ET-PV-Saveh-LAY	Date: 08.Jun.2022	Version: 00.01
Arch. Base: N/A	Scale: N/A	