

REGIONE PUGLIA
Città Metropolitana di Bari
COMUNE DI GRAVINA IN PUGLIA

PROGETTO

PROGETTAZIONE PARCO EOLICO S. DOMENICO



PROGETTO DEFINITIVO

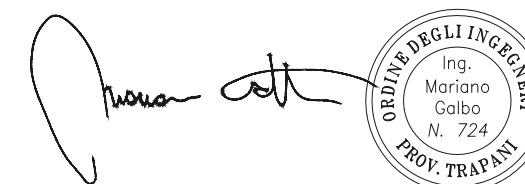
COMMITTENTE



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PROGETTISTA

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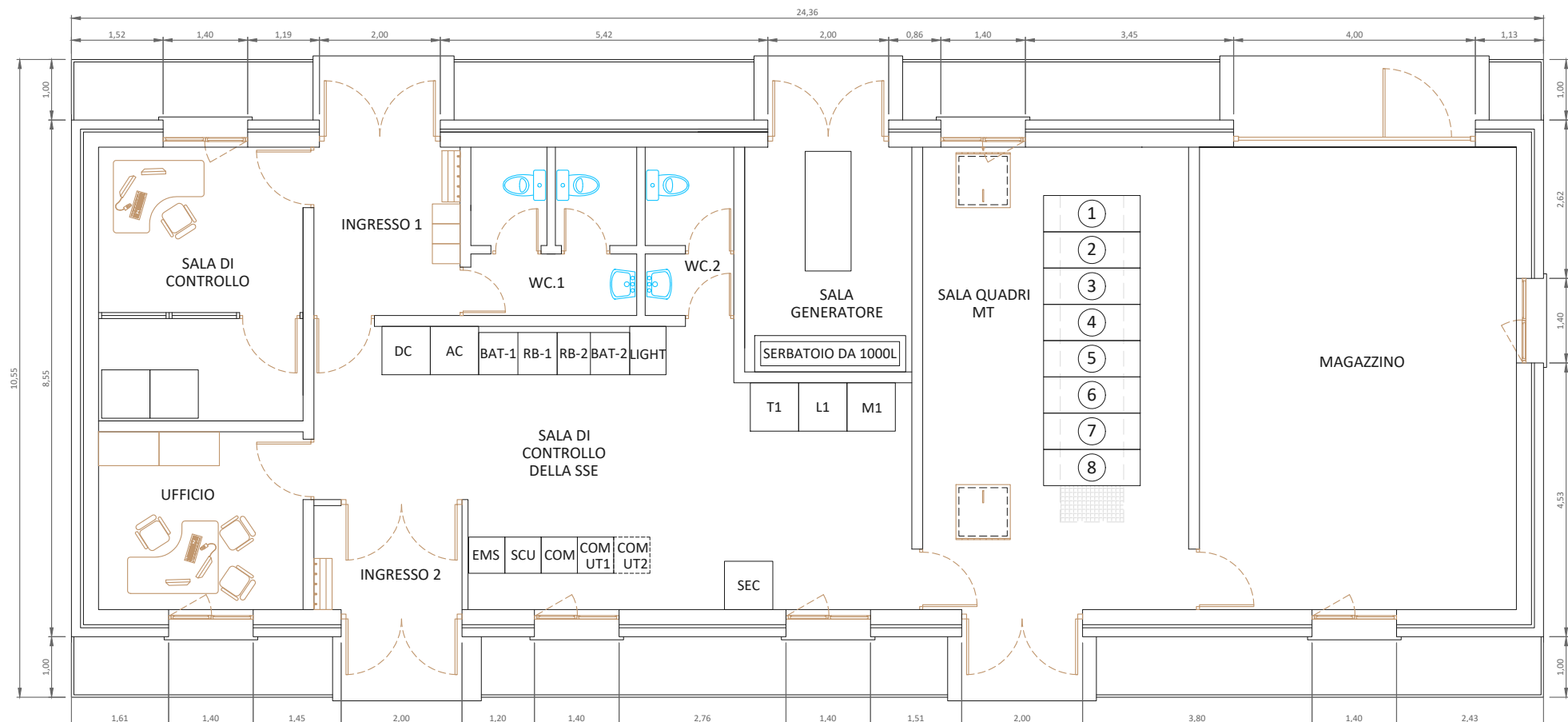


OGGETTO DELL'ELABORATO

EDIFICIO CONSEGNA EDPR

REV.	DATA	ATTIVITA'	REDATTO	VERIFICATO	APROVATO
0	Sett 2021	PRIMA EMISSIONE	AB	VF	MG

CODICE ELABORATO	DATA	SCALA	FORMATO	FOGLIO	CODICE COMMITTENTE
	Settembre 2021	1:100	A3	1 di 1	SDM-PD-T38.1



NOTES:

1. ABOVE DESIGN CORRESPOND TO A SUBSTATION WITH SOLAR PV PLANT <50 MW AND ONE LINE- TRAFIO BAY T-L.
2. DIMENSION OF THE POWER PLANT CONTROL ROOMS AND WAREHOUSES WILL BE MODIFIED ACCORDING TO THE TABLE ATTACHED. FINAL DIMENSIONS OF THE POWER PLANT CONTROL ROOM AND EQUIPMENT WILL BE DEFINED FOR EACH PROJECT ACCORDING TO MANUFACTURER REQUIREMENTS.
3. MV SWITCHGEAR ROOM MUST BE ADAPTED TO THE NUMBER OF MV CUBICLES REQUIRED IN SUBSTATION UNDER DESIGN AND MV CUBICLE MANUFACTURER. DEPENDING ON THE MV CUBICLE FINAL MODEL OR IN CASE OF LIMITED SPACE, ALTERNATIVE ARRANGEMENTS, SUCH AS WALL-STANDING, CAN BE CONSIDERED WITH THE APPROVAL OF EDPR. DISTRIBUTION OF CUBICLES SHALL BE ACCORDING THE PROJECT SLDs. THERE SHALL BE A SPACE FOR ONE FUTURE CUBICLE IN EACH MV BUSBAR.
4. LAYOUT OF ROOMS CAN BE CHANGED TO ADAPT THE ACCESS AND GENERAL LAYOUT BUT PHILOSOPHY MUST BE KEPT UP:
 - WAREHOUSE MUST BE ACCESSIBLE FROM THE MV SWITCHGEAR OR SUBSTATION CONTROL ROOM. THE MAIN DOOR MUST BE PREPARED FOR VEHICLE ACCESS, INCLUDING FORKLIFTS AND PALLET TRUCKS. VEHICLES MUST ONLY REMAIN IN THE WAREHOUSE TO LOAD AND UNLOAD MATERIALS. PARKING IS NOT ALLOWED.
 - IN NORMAL OPERATION, THE DOOR BETWEEN WAREHOUSE AND MV SWITCHGEAR ROOM MUST BE CLOSED AND THE KEY MUST BE UNDER THE CONTROL OF O&M EDPR.
 - THE ACCESS HATCH TO THE CABLE BASEMENT IN THE MV SWITCHGEAR ROOM WILL HAVE AN ANTI-CLOSING SYSTEM AND THE RISK OF FALLING AT A DIFFERENT LEVEL WILL BE SIGNPOSTED IN THE INSIDE OF THE HATCH'S DOOR.
 - PV PLANT CONTROL ROOM, WAREHOUSE, AND GENERATOR SET ROOM SHALL NOT BE ACCESSIBLE FROM SUBSTATION SWITCHYARD, IN ORDER TO AVOID PRESENCE OF NON-AUTHORIZED PERSONNEL IN HIGH VOLTAGE AREAS.
 - HALL 2 IS REQUIRED FOR GEOGRAPHIES WITH HIGH PRESENCE OF SNOW. IT CAN BE ELIMINATED WITH THE APPROVAL OF EDPR.
8. THE GEN SET ROOM AREA MUST BE ADAPTED TO THE FINAL EQUIPMENT RESPECTING AT LEAST 1 M OF AISLE ON BOTH SIDES OF THE GENERATOR SET.
9. CONTROL BUILDING STRUCTURE MUST BE CALCULATED ACCORDING TO LEGISLATION AND ENVIRONMENTAL CONDITIONS OF THE AREA. THE LAYOUT OF WINDOWS CAN BE MODIFIED.
10. ALL THE SPACES SHALL COMPLY WITH THE LOCAL H&S REGULATIONS.
11. SEE SPECIFICATION TCSP-EU_E&C-SBST-00054 "DESIGN AND CONSTRUCTION OF SUBSTATION CONTROL BUILDING" FOR MORE DETAILS.

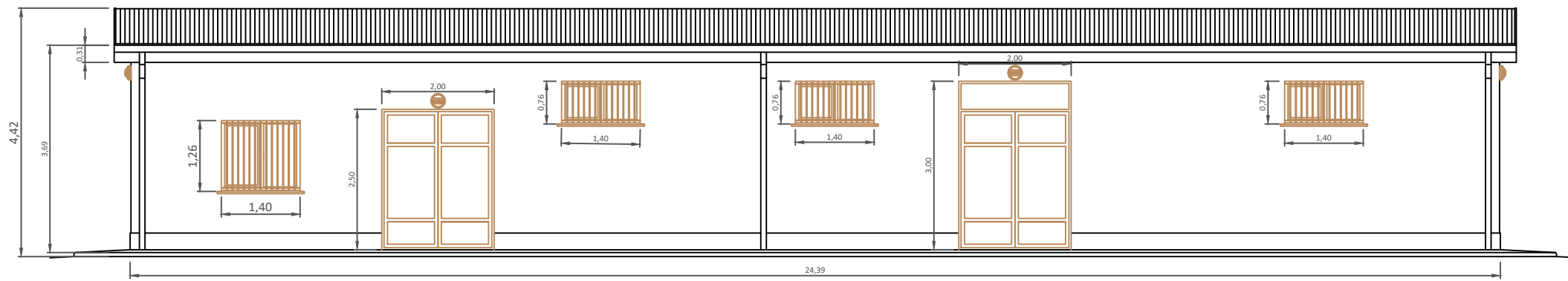
EQUIPMENT IN SUBSTATION CONTROL ROOM	
PROTECTION PANELS	
T1 L1	TRANSFORMER 1 LINE 1
INTEGRATED CONTROL SYSTEM PANELS	
COM UT1 COM UT2 EMS SCU COM M1	COMMUNICATION PANEL FOR UTILITY COMMUNICATION PANEL FOR UTILITY (RESERVE) ENERGY MANAGEMENT SYSTEM (RTU) SUBSTATION SCADA SYSTEM COMMUNICATION PANEL FOR EDPR MEASUREMENT 1
AUXILIARY SERVICES PANELS AND EQUIPMENTS	
RB-1 BAT-1 RB-2 BAT-2 A.C. D.C. SEC LIGHT	RECTIFIER 1 BATTERY CHARGER 1 RECTIFIER 2 BATTERY CHARGER 2 AUXILIARY SERVICES A.C. AUXILIARY SERVICES D.C. SUBSTATION SECURITY SYSTEM LIGHTING

MV SWITCHGEAR ROOM CUBICLES	
1	CIRCUIT 1
2	CIRCUIT 2
3	CIRCUIT 3
4	CAPACITOR BANK PROTECTION
5	AUXILIARY SERVICES TRANSFORMER
6	MEASUREMENT
7	POWER TRANSFORMER
8	EQUIPPED RESERVE CUBICLE

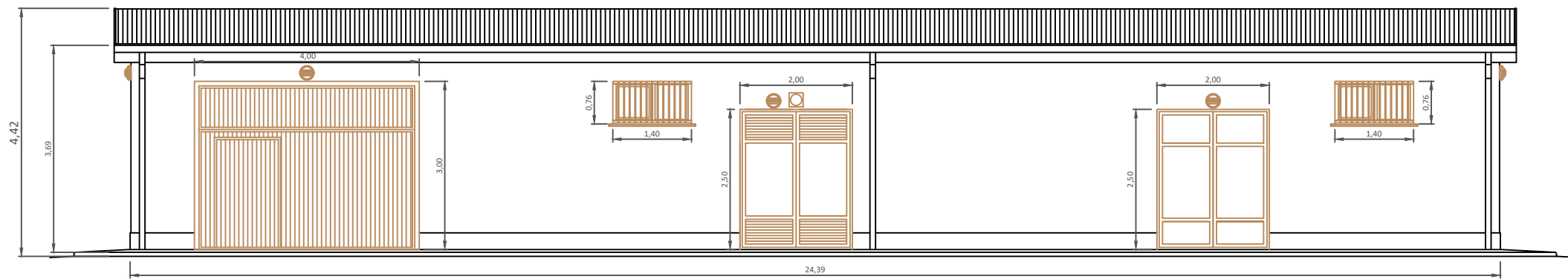
CONTROL BUILDING AREAS	
CONTROL ROOM	12 m2
PV POWER	WAREHOUSE (AREA= 0.95 x MWp + 5)
5 MWp	10 m2
10 MWp	15 m2
25 MWp	29 m2

GO-BY DRAWING
NOT FOR CONSTRUCTION

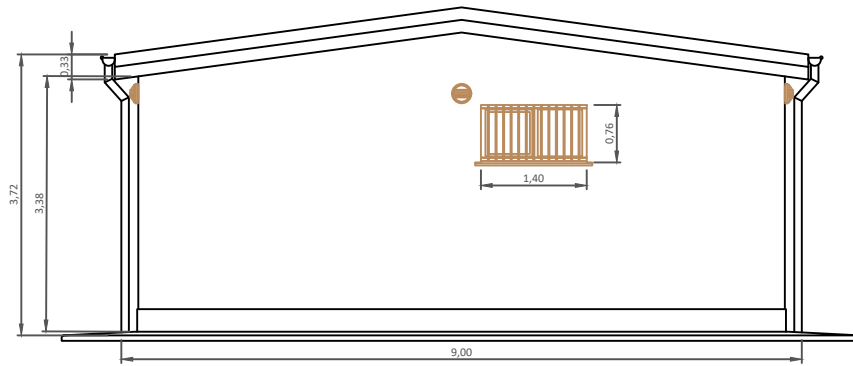
SCALA 1:100



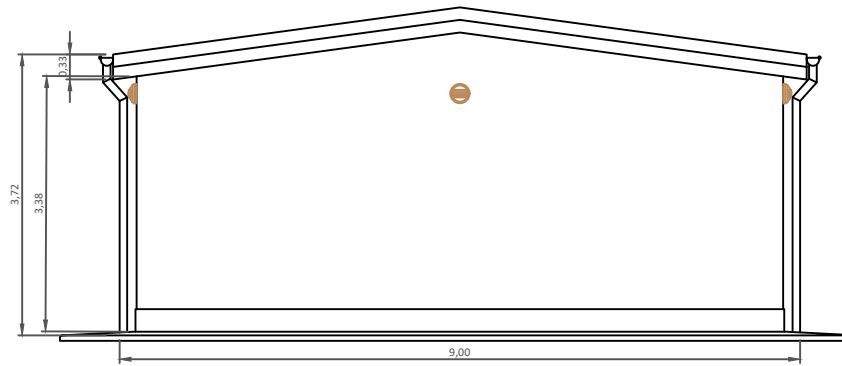
MAIN FACADE



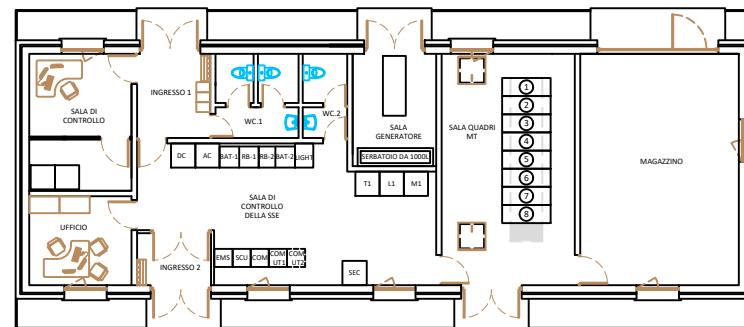
BACK FACADE



RIGHT SIDE FACADE



LEFT SIDE FACADE

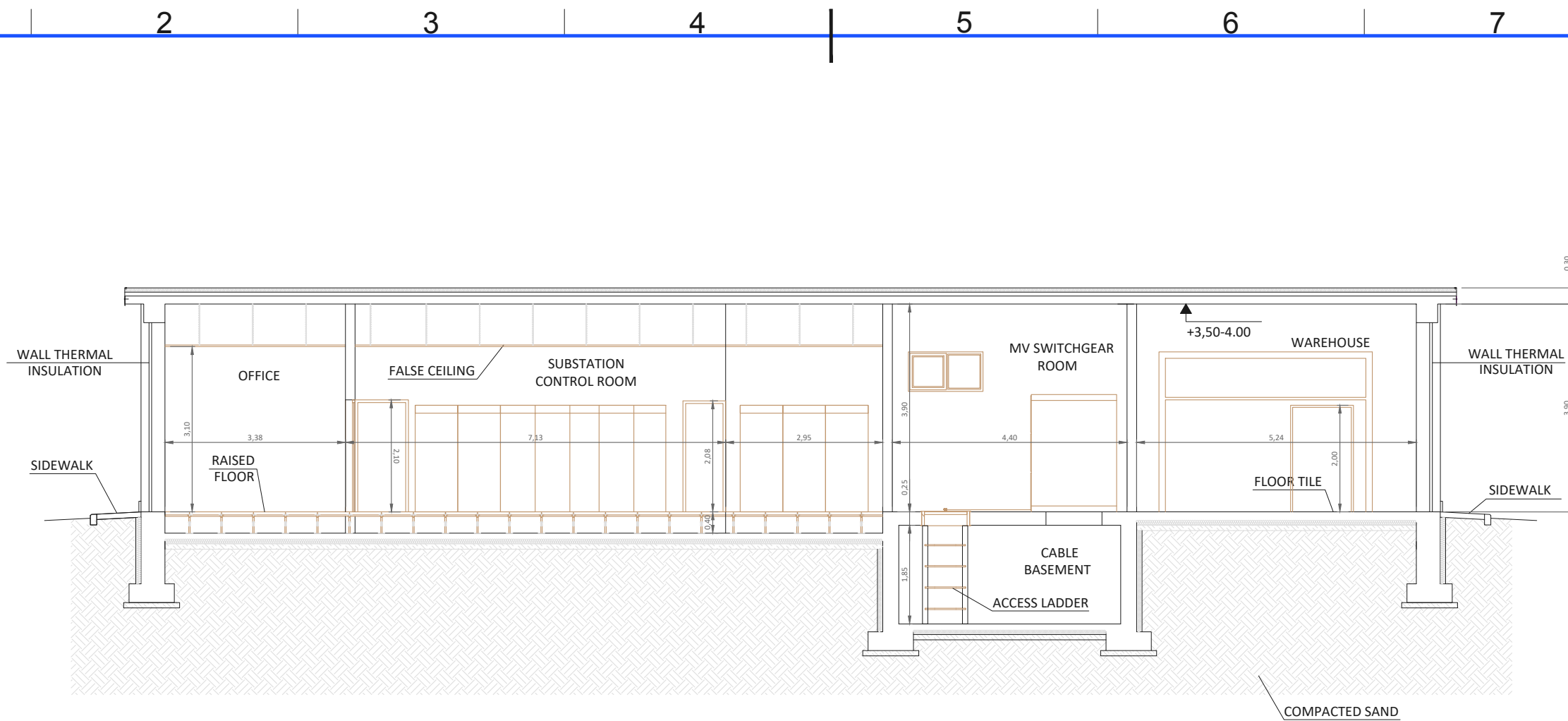


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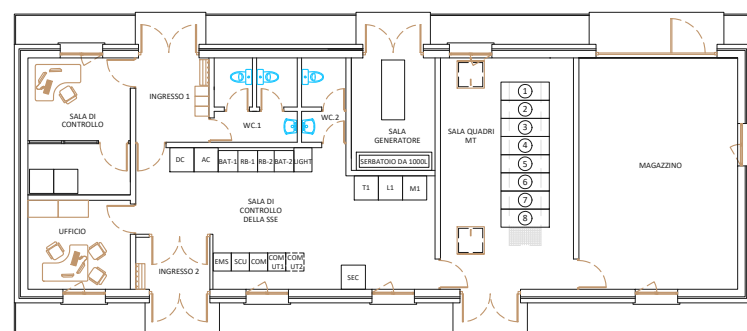
NOTES:

1. EXTERIOR DOORS WILL BE PAINTED CLARET VIOLET COLOUR (RAL 4004) OR OTHER COLOR APPROVED BY EDPR.
2. THE DOOR OF THE WAREHOUSE WILL BE A MOTOR OPERATED FOLDING BLADE BY A REMOTE CONTROL, AND PEDESTRIAN ACCESS DOOR.
3. EXTERIOR DOORS (CONTROL ROOMS AND CUBICLE AND GENERATOR SET ROOMS) SHALL BE TWO METRES WIDE, DOUBLE-LEAF TYPE. THE DOOR TO THE GENERATOR SET ROOM WITH VENTILATION.
4. ALUMINUM CASEMENT WINDOWS WITH THERMAL BREAK AND DOUBLE GLASS WITH AIR CHAMBER. EXTERNAL PROTECTIVE GRILLES PAINTED IN CLARET VIOLET COLOUR (RAL 4004) OR OTHER COLOR APPROVED BY EDPR.
5. IN THE GENERATOR SET ROOM AND THOSE ROOMS WHERE COULD BE REQUIRED, PRIOR JUSTIFICATION, ALUMINIUM VENTS WITH A SURROUND AND FIXED WEATHERPROOF SLATS WILL BE INSTALLED.
6. THE EDPR OFFICE WINDOW SHALL BE POSITIONED AT EYE-LEVEL TO ALLOW VIEW OF THE HV SWITCHYARD.
7. SEE SPECIFICATION TCSP-EU_E&C-SBST-00054 "DESIGN AND CONSTRUCTION OF SUBSTATION CONTROL BUILDING" FOR MORE DETAILS.

SCALA 1:100



CROSS SECTION A-A



NOTES:

- 1.- THIS IS AN INDICATIVE DRAWING. BUILDING MUST BE CALCULATED ACCORDING TO LOCAL AND INTERNATIONAL LEGISLATION.
- 2.- CABLE BASEMENT: MINIMUM HEIGHT MUST BE 1,7 M.
- 3.- THE SLOPE OF THE ROOF WILL DEPEND ON THE LOCATION OF THE BUILDING (CLIMATIC CONDITIONS). IF NEEDED, ROOF-MOUNTED SNOW FENCES MUST BE CONSIDERED.
- 4.- FALSE CEILING SHALL BE INSTALLED IN THE FOLLOWING ROOMS: POWER PLANT CONTROL ROOM, SUBSTATION CONTROL ROOM, KITCHEN AND WCS.
- 5.- RAISED ACCESS FLOOR WILL BE INSTALLED IN THE CONTROL ROOMS, POWER PLANT AND SUBSTATION.
- 6.- CONCRETE FLOOR WITH EPOXY RESIN WILL BE INSTALLED IN MV SWITCHGEAR ROOM
- 7.- ALL ACCESSES TO THE BUILDING FOR CABLES THROUGH THE STRUCTURE MUST BE PERFECTLY SEALED BY WATERTIGHT WALL BUSHINGS.
- 8.- SEE SPECIFICATION TCSP-EU_E&C-SBST-00054 "DESIGN AND CONSTRUCTION OF SUBSTATION CONTROL BUILDING" FOR MORE DETAILS.

GO-BY DRAWING
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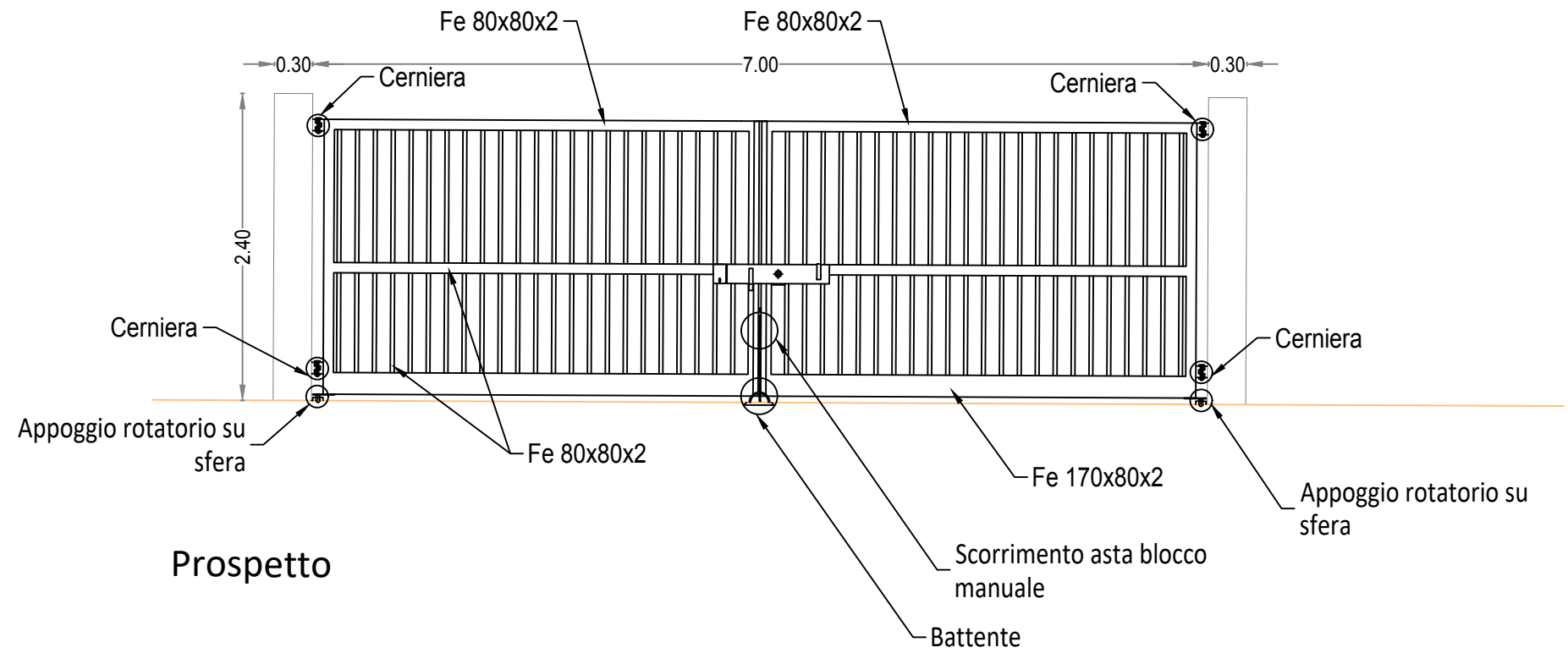
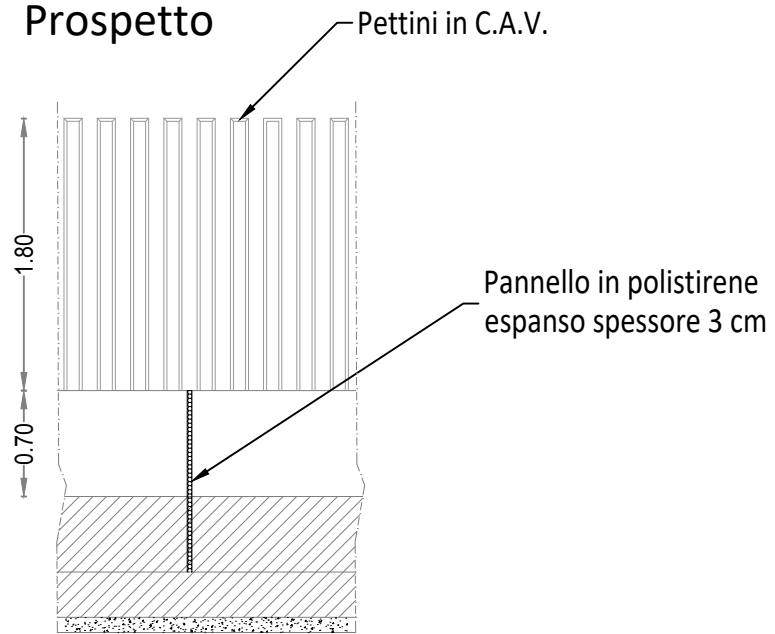
SCALA 1:100

CANCELLO CARRABILE DI INGRESSO

scala 1:50

MURO DI RECINZIONE

Prospetto



Sezione architettoniche

