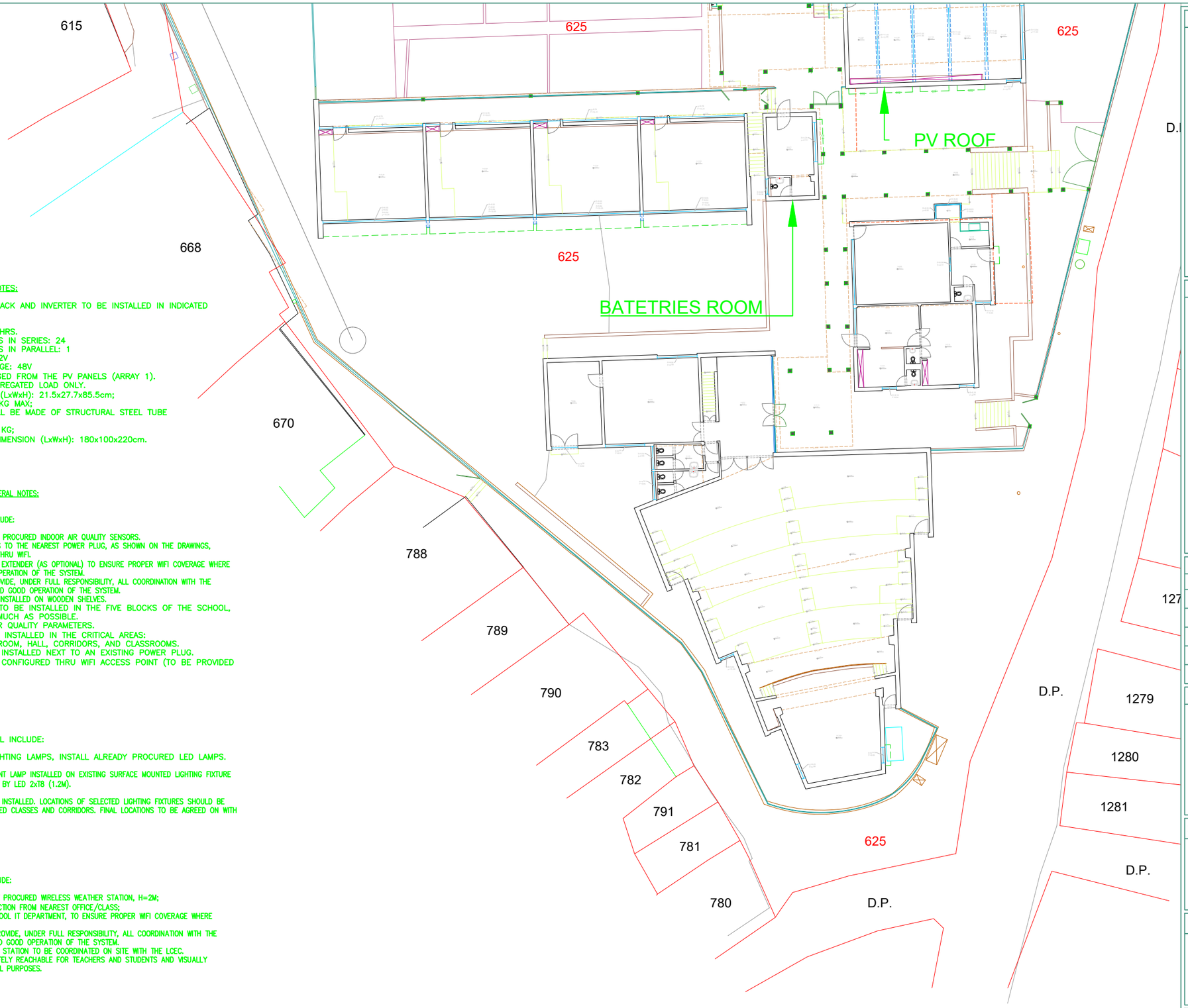

BACKUP SOLAR SYSTEM NOTES:

HYBRID SYSTEM BATTERY RACK AND INVERTER TO BE INSTALLED IN INDICATED BATTERY ROOM:

1. NOMINAL 30A OVER 6HRS.
2. NUMBER OF BATTERIES IN SERIES: 24
3. NUMBER OF BATTERIES IN PARALLEL: 1
4. BATTERY VOLTAGE ~ 2V
5. TOTAL BATTERY VOLTAGE: 48V
6. SYSTEM TO BE CHARGED FROM THE PV PANELS (ARRAY 1).
7. SYSTEM TO FEED SEGREGATED LOAD ONLY.
8. BATTERY DIMENSIONS (LxWxH): 21.5x27.7x85.5cm;
9. BATTERY WEIGHT: 111KG MAX;
10. BATTERIES RACK SHALL BE MADE OF STRUCTURAL STEEL TUBE 40mmX40mmX3mm;
11. RACK WEIGHT ~ 170 KG;
12. RACK APPROXIMATE DIMENSION (LxWxH): 180x100x220cm.

INDOOR AIR QUALITY SYSTEM GENERAL NOTES:

THE SCOPE OF WORK SHALL INCLUDE:

1. INSTALLATION OF PREVIOUSLY PROCURED INDOOR AIR QUALITY SENSORS.
2. CONNECTION OF THE DEVICES TO THE NEAREST POWER PLUG, AS SHOWN ON THE DRAWINGS, CONFIGURATION AND SETUP THRU WIFI.
3. ADDING ACCESS POINT/ WIFI EXTENDER (AS OPTIONAL) TO ENSURE PROPER WIFI COVERAGE WHERE NEEDED FOR THE PROPER OPERATION OF THE SYSTEM.
4. THE CONTRACTOR SHALL PROVIDE, UNDER FULL RESPONSIBILITY, ALL COORDINATION WITH THE SUPPLIER FOR A PROPER AND GOOD OPERATION OF THE SYSTEM.
5. THE IAQ DEVICES SHALL BE INSTALLED ON WOODEN SHELVES.
6. TOTAL OF 9 SENSORS TO BE INSTALLED IN THE FIVE BLOCKS OF THE SCHOOL, IN AN EQUAL WAY AS MUCH AS POSSIBLE.
7. MONITORING OF THE AIR QUALITY PARAMETERS.
8. THE IAQ "IS" SHALL BE INSTALLED IN THE CRITICAL AREAS:
LAB, ADMIN, CONFERENCE ROOM, HALL, CORRIDORS, AND CLASSROOMS.
9. IS SENSORS SHALL BE INSTALLED NEXT TO AN EXISTING POWER PLUG.
10. IS SENSORS SHALL BE CONFIGURED THRU WIFI ACCESS POINT (TO BE PROVIDED AS OPTIONAL).

REPLACEMENT OF LIGHTS NOTES:

THE SCOPE OF WORK SHALL INCLUDE:

1. DISMANTLE EXISTING LIGHTING LAMPS, INSTALL ALREADY PROCURED LED LAMPS.
2. REPLACEMENT OF FLUORESCENT LAMP INSTALLED ON EXISTING SURFACE MOUNTED LIGHTING FIXTURE WITH WRAP DIFFUSER COVER, BY LED 2xT8 (1.2M).
3. TOTAL OF 130 LAMPS TO BE INSTALLED. LOCATIONS OF SELECTED LIGHTING FIXTURES SHOULD BE ACCORDING TO THE MOST USED CLASSES AND CORRIDORS. FINAL LOCATIONS TO BE AGREED ON WITH LCEC ON SITE.

WEATHER STATION SYSTEM NOTES:

THE SCOPE OF WORK SHALL INCLUDE:

1. INSTALLATION OF PREVIOUSLY PROCURED WIRELESS WEATHER STATION, H=2M;
1. PROVISION OF POWER CONNECTION FROM NEAREST OFFICE/CLASS;
2. COORDINATION WITH THE SCHOOL IT DEPARTMENT, TO ENSURE PROPER WIFI COVERAGE WHERE NEEDED FOR THE SYSTEM;
3. THE CONTRACTOR SHOULD PROVIDE, UNDER FULL RESPONSIBILITY, ALL COORDINATION WITH THE SUPPLIER FOR A PROPER AND GOOD OPERATION OF THE SYSTEM.
4. FINAL LOCATION OF WEATHER STATION TO BE COORDINATED ON SITE WITH THE LCEC.
5. WEATHER STATION TO BE SAFELY REACHABLE FOR TEACHERS AND STUDENTS AND VISUALLY ACCESSIBLE FOR EDUCATIONAL PURPOSES.

NOTES:

LEGEND:

REVISIONS:

REVISION NO.	DESCRIPTION	DATE
0	ISSUED FOR EXECUTION	03-04-23

CONSULTANT:

LCEC Engineering Office, 2nd floor Floor, Level 5 Bldg, President Elias Hraoui Avenue, Beirut, Lebanon
Email: energy@lcec.org.lb
Website: www.lcec.org.lb

CLIENT:

GIZ

PROJECT DESCRIPTION:

ROOF PV SYSTEM
ZGHARTA

DRAWING TITLE:

IAQ SENSORS & LIGHTING & WS

PROJECT PHASE:	DRAWING SCALE:	DRAWING DISCIPLINE:
EXECUTION	NTS	ELECTRICAL