Elab green building hunt

1. look up the Living Building Challenge (LBC)-what are the “petals”, and what were they in 2008 in version 1.2?
2. where do you see passive lighting in the elab? from what direction? include a photo
3. why are there windows in the north side of the building? include a photo
4. why are the vents in the conference room horizontal? include a photo
5. there is 40cm of foam insulation in the roof: why?
6. our hot water comes from a passive solar thermal system-where else can you see these? include a photo
7. the foundation is 5x thicker than it needed to be: why? include a photo
8. look in the conference room at the concrete wall: how does the shape protect the wall against earthquakes? include a photo
9. what other feature in the building does this? include a photo
10. our electrical energy comes from 26 kW of PV panels on the roof. If we collect 5 hours of sun (average) how many kWh does this harvest?
11. we have lithium batteries in the basement that can hold 100 kWh of energy. If the lab uses these batteries for 19 hours (average) each day, how many kW can we use constantly? (if the electrical room is open include a photo)
12. our water is collected from three segments of the roof: the north side, middle roof and south roof. Where is this water stored? include a photo
13. if our water tank is 10,000 gallons (40,000 liters), and our daily use is 50 liters per day how many days can we go without rain?
14. go into the bathrooms and look at the liters per flush for the toilets. How many flushes per day can we maintain while using less than 50l per day? include a photo
15. our water is purified using filters and UV light-why both? the filter system is behind the hydroponics, include a photo.

16. HVAC is the term used for heating ventilation and air conditioning. which rooms in the elab have HVAC systems? include a photo of the vents.
17. inside the air ducts for the monlab and the middle classroom we have a UV light. look up Legionnaires disease and explain why we have these.
18. all windows in the elab are double glazed, but we are passively ventilated in many areas-why? include a photo
19. look up a trombe wall and explain why we have naked solar thermal panel elements on the roof. include a photo
20. why is the tank connected to these panels insulated with foam? include a photo
21. why is the building curved on the north side like an airplane wing? include a photo
22. look up clerestory windows and find two of these in the elab. include a photo
23. why are the windows there motor operated? include a photo
24. how do these keep the building cool?
25. there are also orange motors operating louvers in many of the rooms, connected to carbon dioxide sensors-why? include a photo
26. the floorplan for the elab is broken up so that no place can a person sit and be more than 10m from any window-why?
27. there are two mockup photos of the elab in the conference room we used to get the county permit for the building in June 2008. What was the price of oil then?
28. in one of the photos there is a brown area where the elab is built-look up brownfields and guess how we got credit in the LBC.
29. what is the difference between the LBC and LEED?
30. which one is pass/fail?
31. what is the difference between LEED and LEED for education?