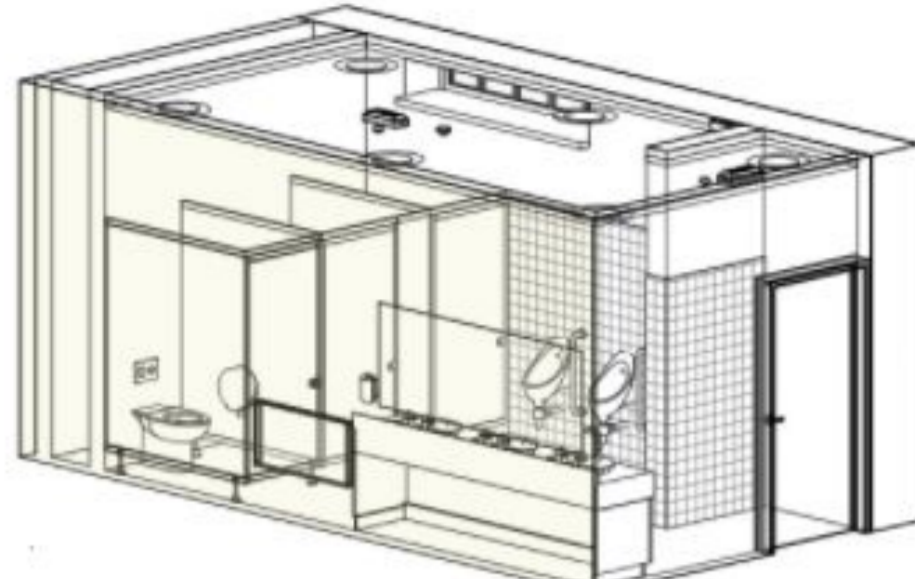


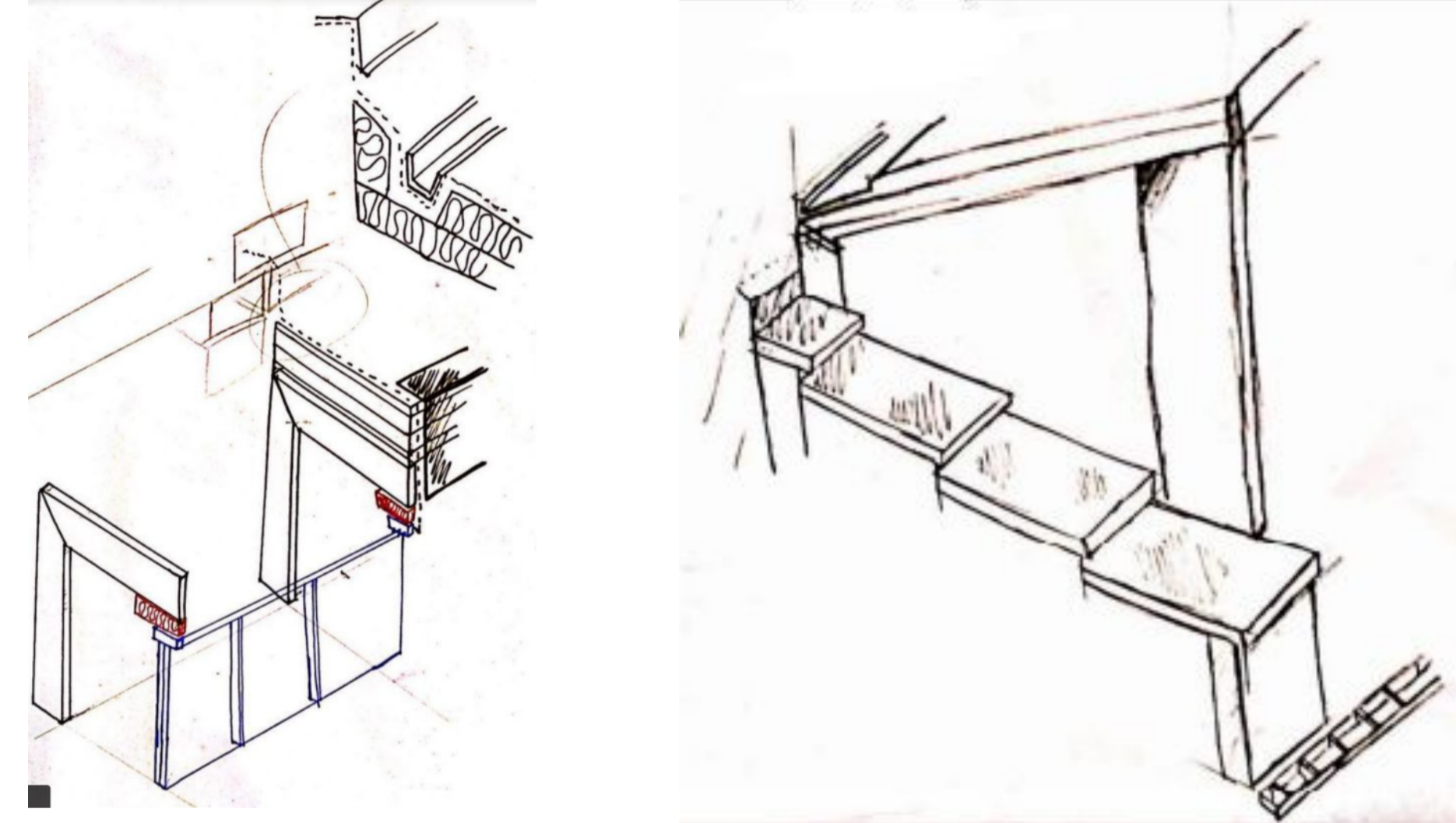
Survey Drawings Existing Disabled toilets in Linenhall



Survey Drawings Existing Male toilets in Linenhall

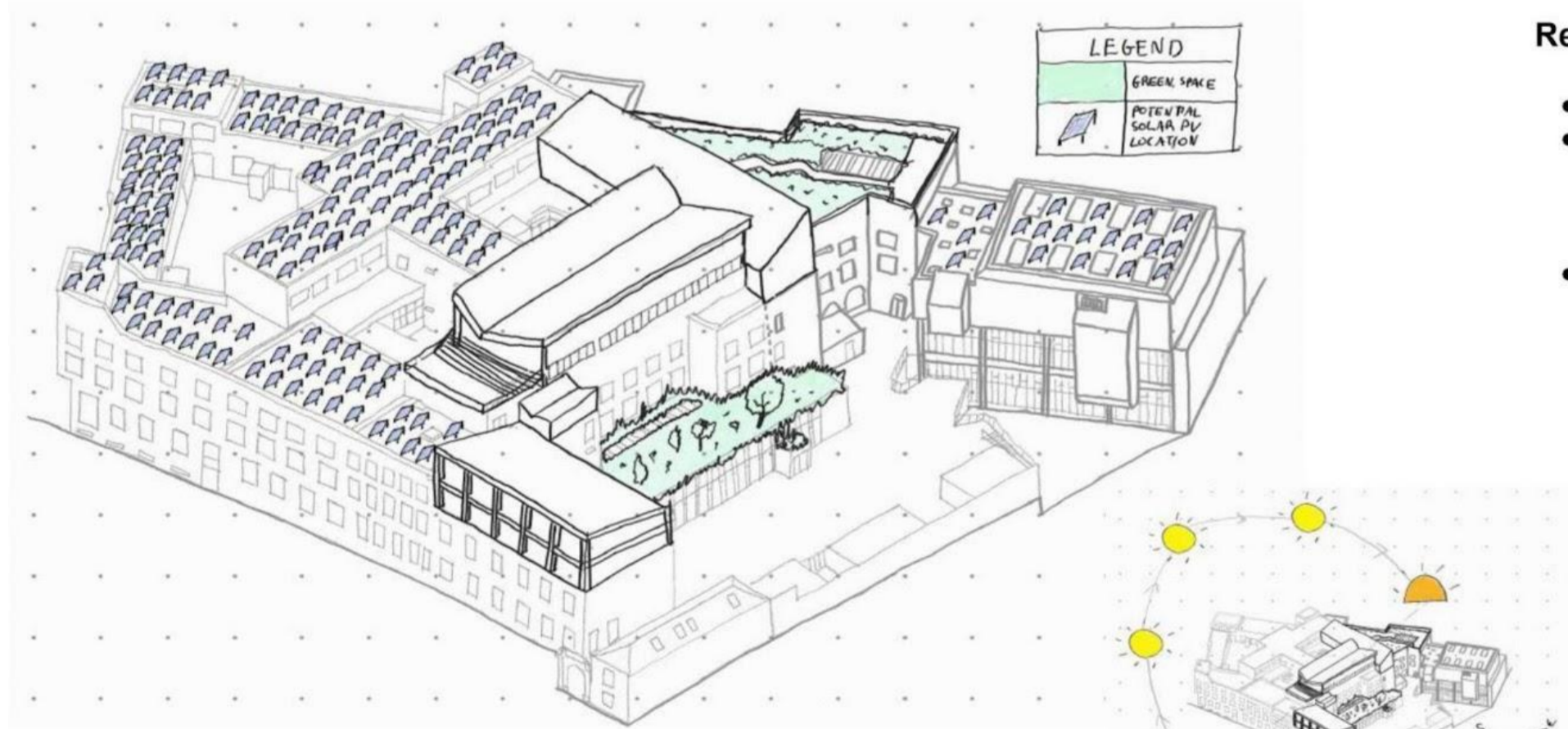


Formit timber frame



Timber frame sketching

Environmental Design Strategies



3D Site Drawing

Green Space:

- Currently the linenhall campus has no green space. This is detrimental for the environment because there is no host for trees and plants that produce oxygen as well as no natural habitat for wildlife.
- Currently there is a lack of outdoor "hangout" space for students to eat lunch and breathe fresh air during lunch hour.
- All the buildings on the site have flat roofs which have great potential to convert to green roofs.



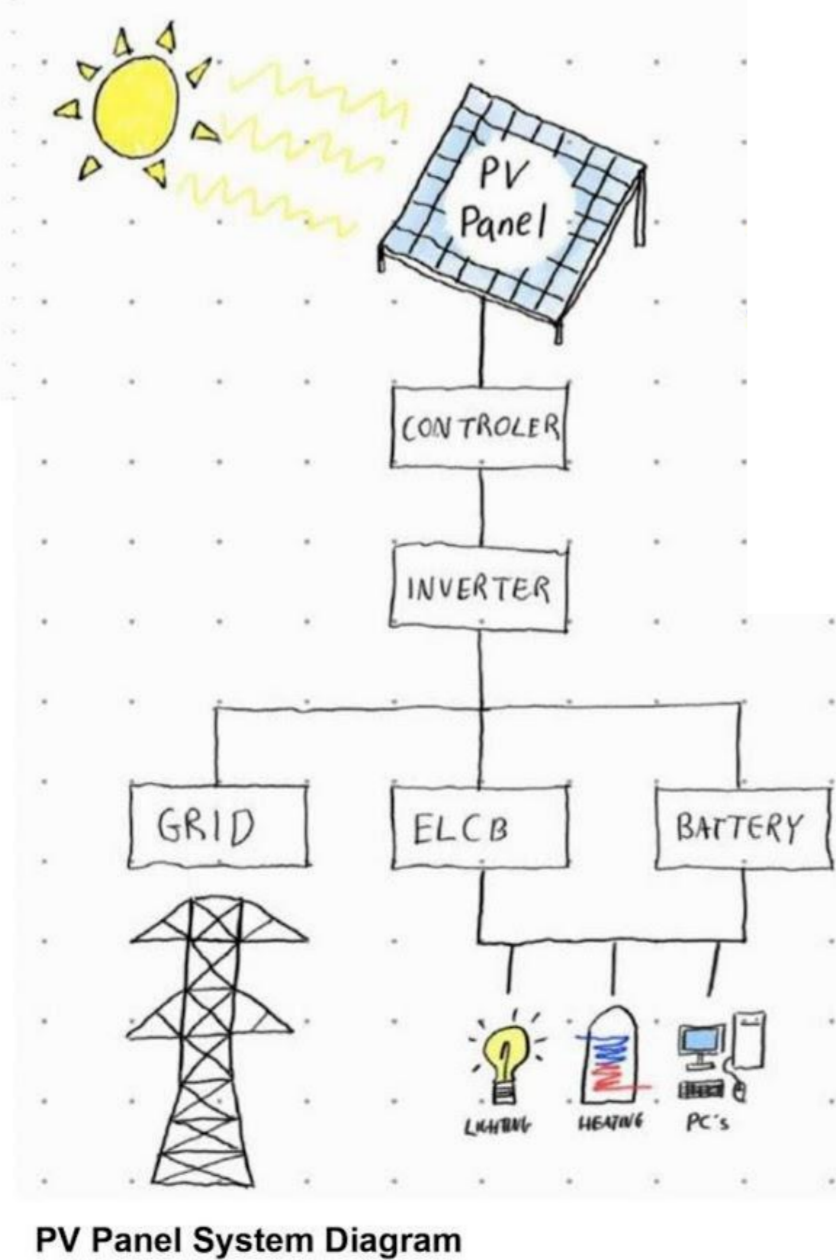
Green Roof Wildlife Habitat

Solar Analysis

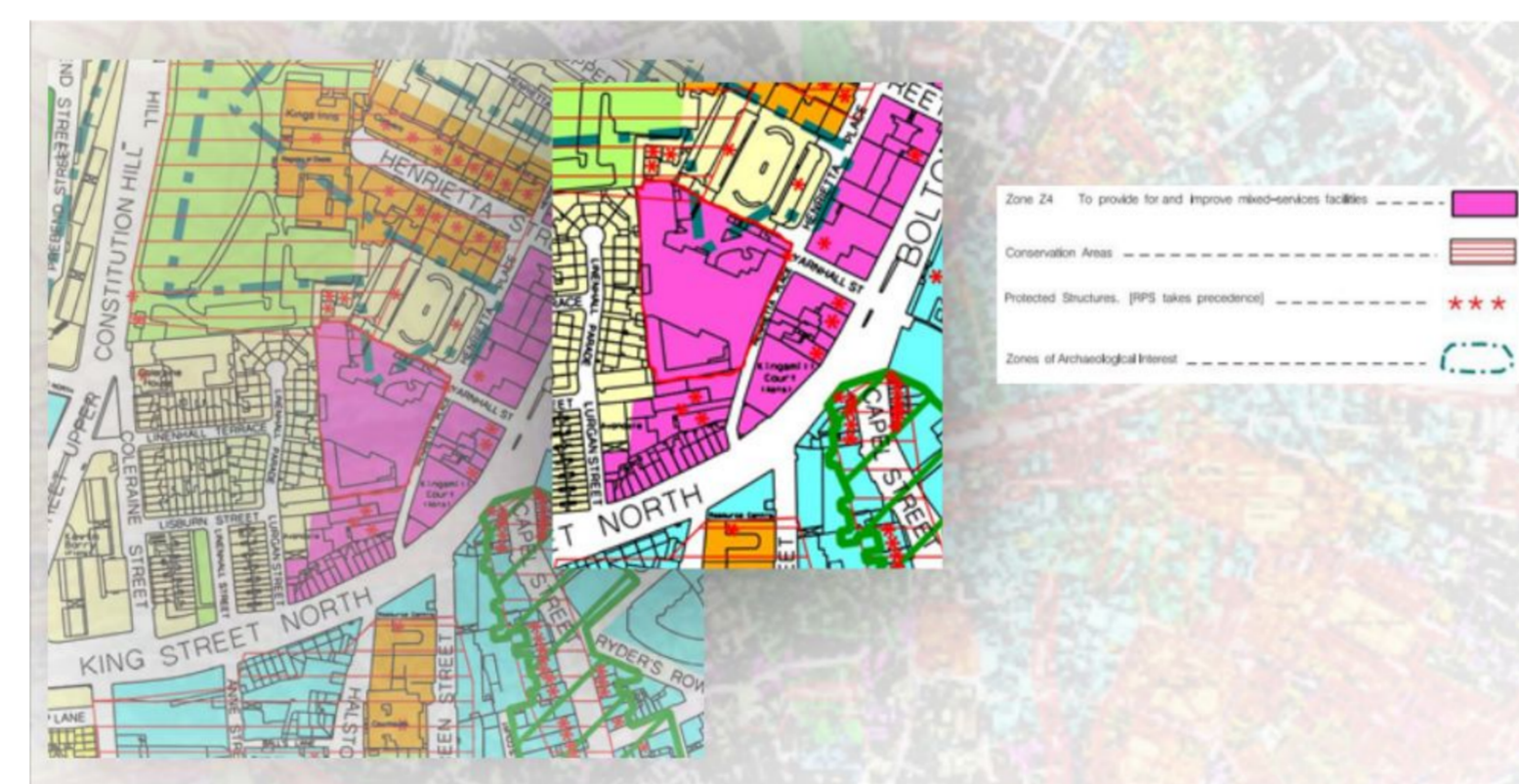


Renewable Energy:

- Currently linenhall has no source of renewable energy.
- Currently the building requires a large amount of energy to heat the uninsulated building. This heating demand can be lowered by insulating the building and lowering the temperature of the existing radiators.
- PV panels are ideal for an education building because they can provide energy for heating and lighting the building during each semester. Energy gained during the holidays can be stored in batteries to use when the buildings energy requirements are too high for the PVs to keep up with the energy demand during semesters.



PV Panel System Diagram



Zoning Map of Linenhall

Number	Item	Unit	Quantity	Color	Location	Notes	Material Category	Material
1	Scissors	1	0	Green	Located on walls of corridors.	Some batteries are checked.	Electronic	Good
2	Light Switches	10	20	Yellow	Located on walls of corridors.	Some batteries are checked.	Electronic	Average
3	ceiling Light	10	10	Yellow	Tubular and circular type. 3 not working in some workshops.		Electronic	Requires Central Insulation
4	CD Card NFC Pad	1	4	Green	Located outside doors of rooms to gain access.		Electronic	Bad
5	Security Hardware	1	3	Green	Located outside doors of rooms to gain access.		Electronic	Bad
6	Emergency Lighting	1	20	Green	Signage, signage and exit signs.		Electronic	Electronic
7	Fire System Board	1	4	Orange	Located above every water tank.		Electronic	Stone
8	Fire Bell	1	7	Orange	Located on fire alarm control panel.		Electronic	Systems
9	Smoke Fire Detector	1	6	Orange	Located on ceilings.		Electronic	Chemical
10	Fire Alarm Device	1	4	Orange	Beacons every water tank.		Glass	Organic
11	Fire Emergency	1	3	Orange	Placed outside the workshops and doors in the corridors.		Hand	Paper & Cardboard
12	Water hose	1	4	Orange	Located at the back area of each main corridor.		Systems	Ceramic

Waste Harvesting of Linenhall



History of Linenhall



Image source: <https://www.glenman.ie/project/linen-hall-gallery-dublin-institute-of-technology/>

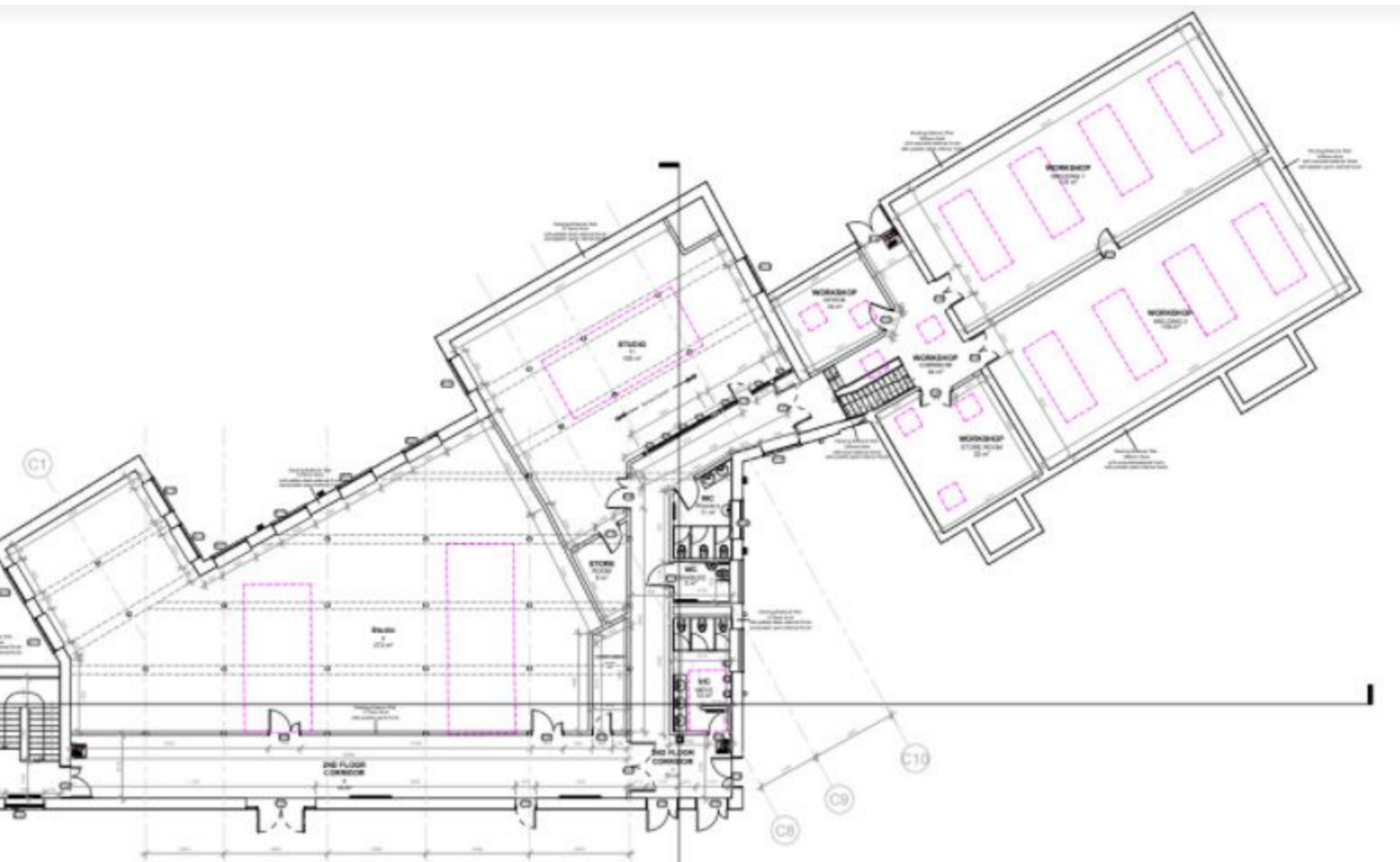
Proposed Second Floor Plan SK



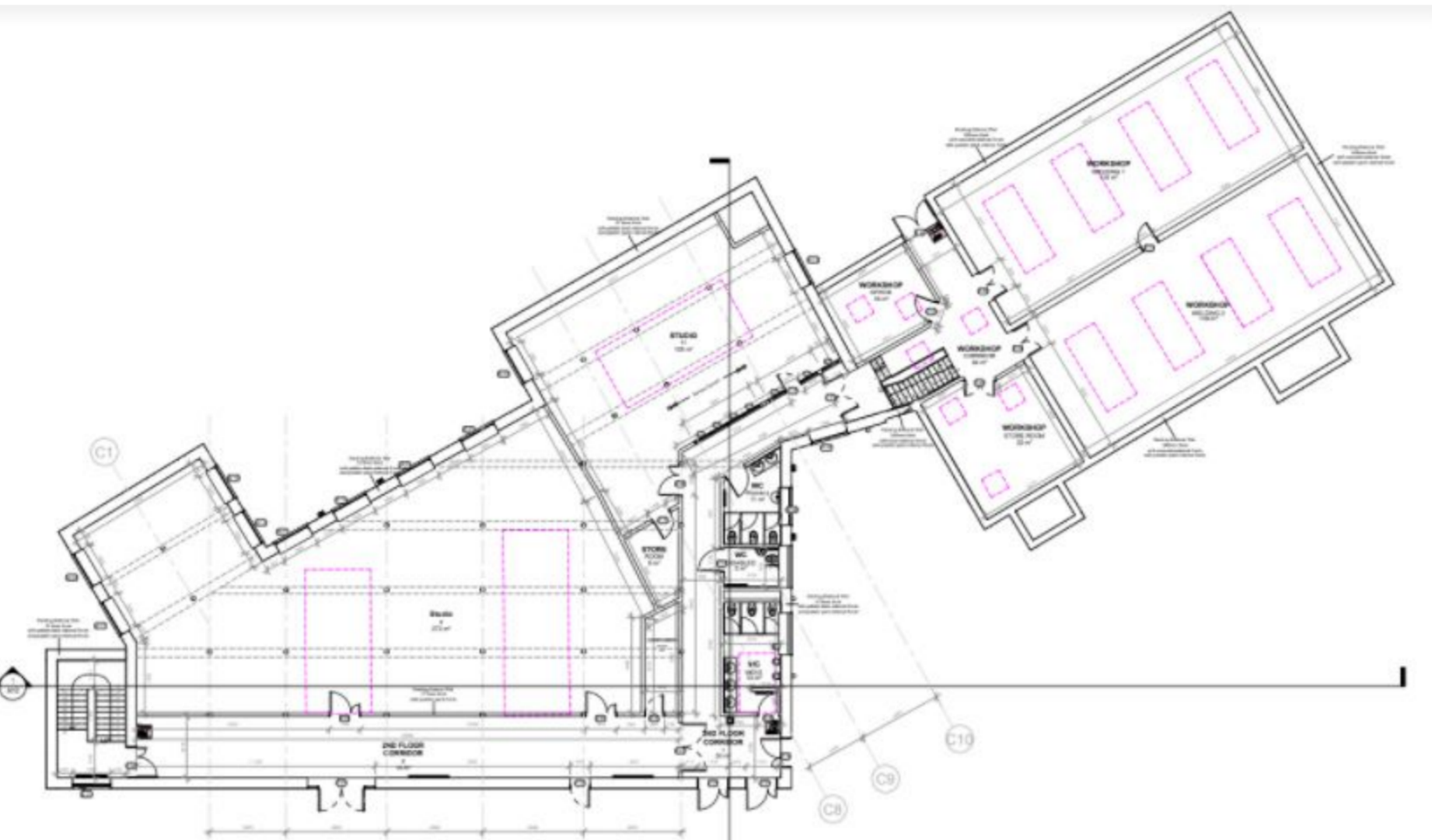
- Green Roof Building**
- 50mm Vegetation layer ON
 - 50mm Intensive substrate ON
 - Boulder Filter Fabric ON
 - Boulder D550 Drainage layer ON
 - Boulder FSM 1100 Protection Mat ON
 - Boulder Polyurethane foil ON
 - Boulder Waterproofing layer ON
 - 100mm rigid PIR insulation ON
 - 25mm Prestressed Hollowcore slab ON
 - 200mm Rockwool insulation ON
 - 25mm OSB ON
 - Concrete false ceiling ties
- Green Roof Paving Building**
- 50mm Paving slabs ON
 - 50mm granite Chipping base ON
 - Boulder D550 Drainage layer ON
 - Boulder FSM 1100 Protection Mat ON
 - Boulder Polyurethane foil ON
 - Boulder Waterproofing layer ON
 - 100mm rigid PIR insulation ON
 - 25mm Prestressed Hollowcore slab ON
 - 200mm Rockwool insulation ON
 - 25mm OSB ON
 - Concrete false ceiling ties

New proposed roof plan

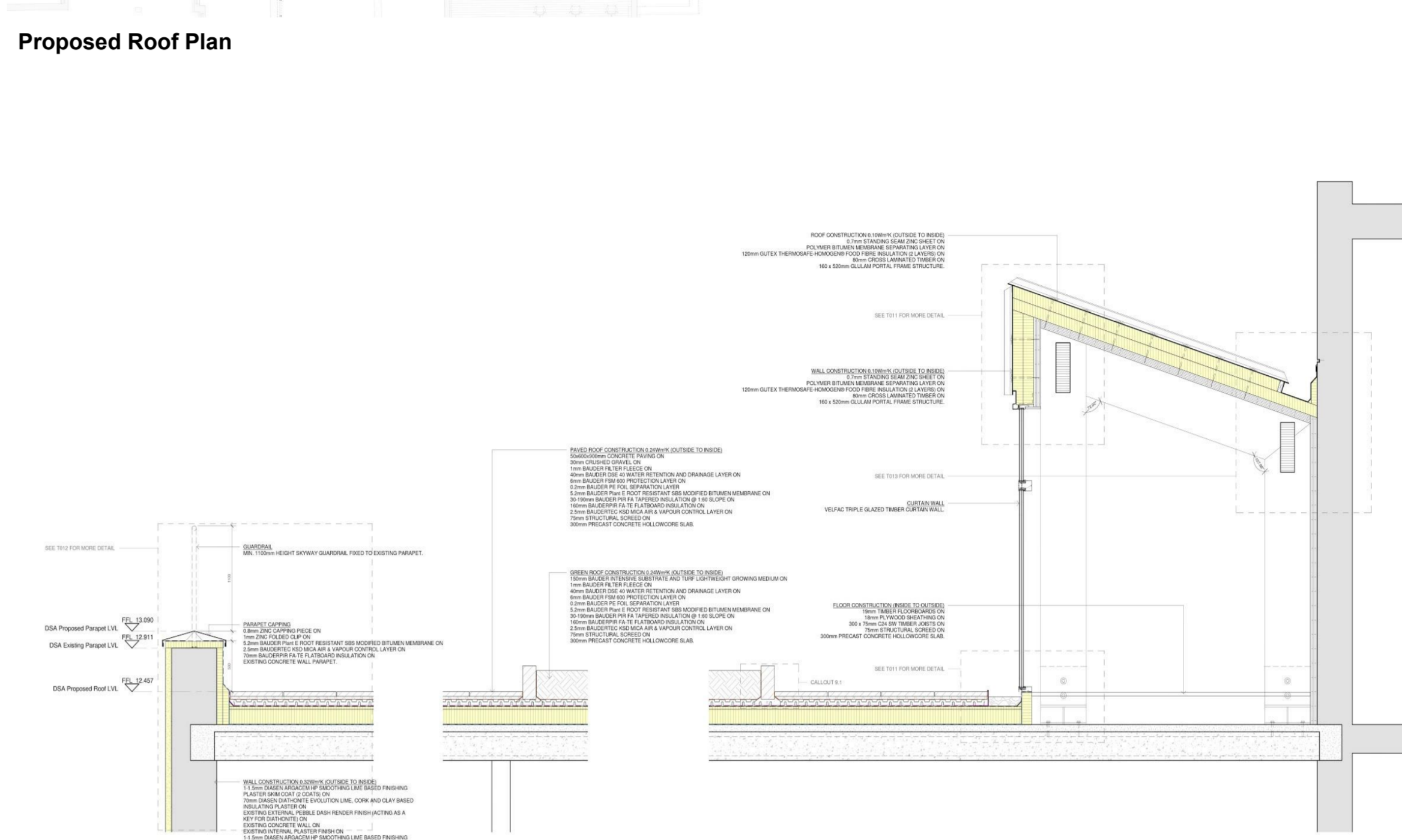
Proposed Roof Plan SK



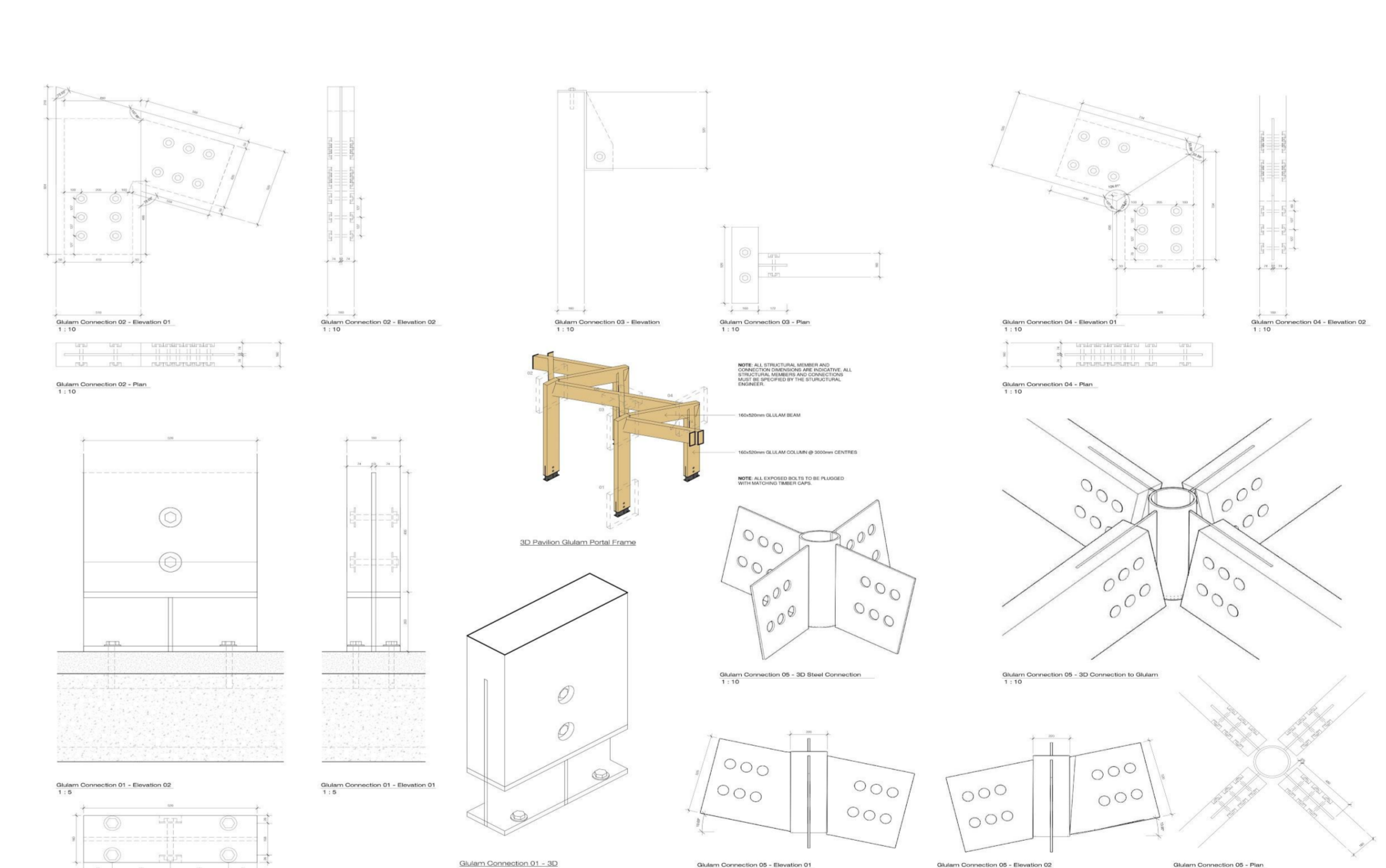
Existing Second Floor Plan SK



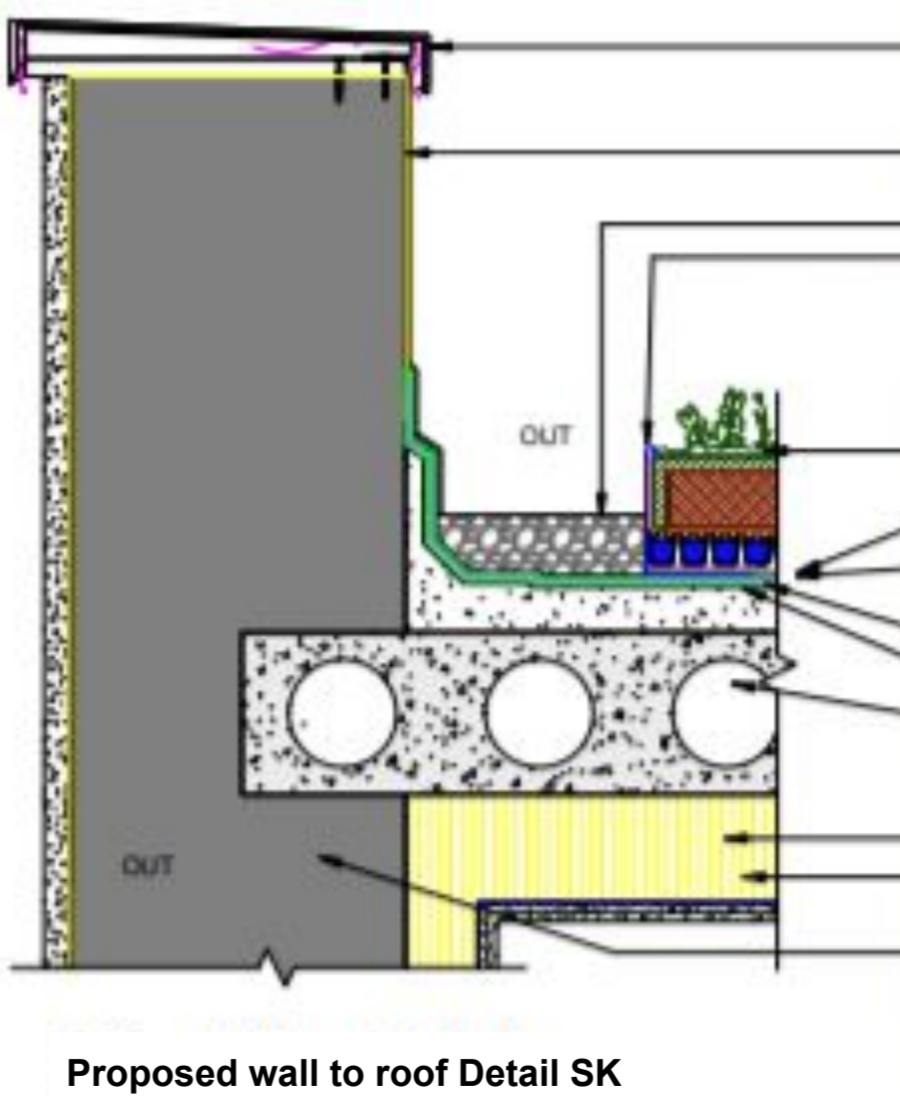
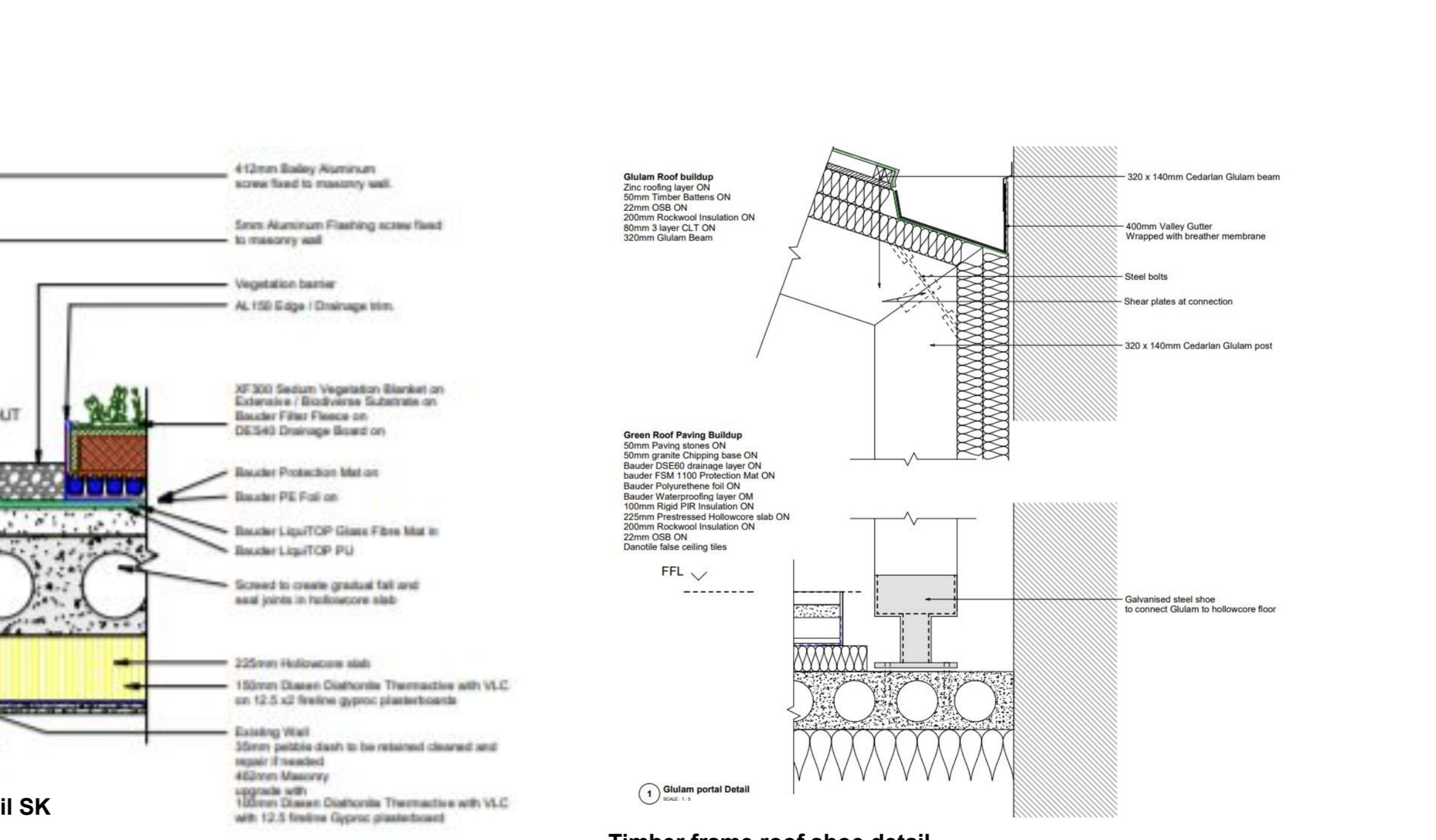
Proposed Roof Plan



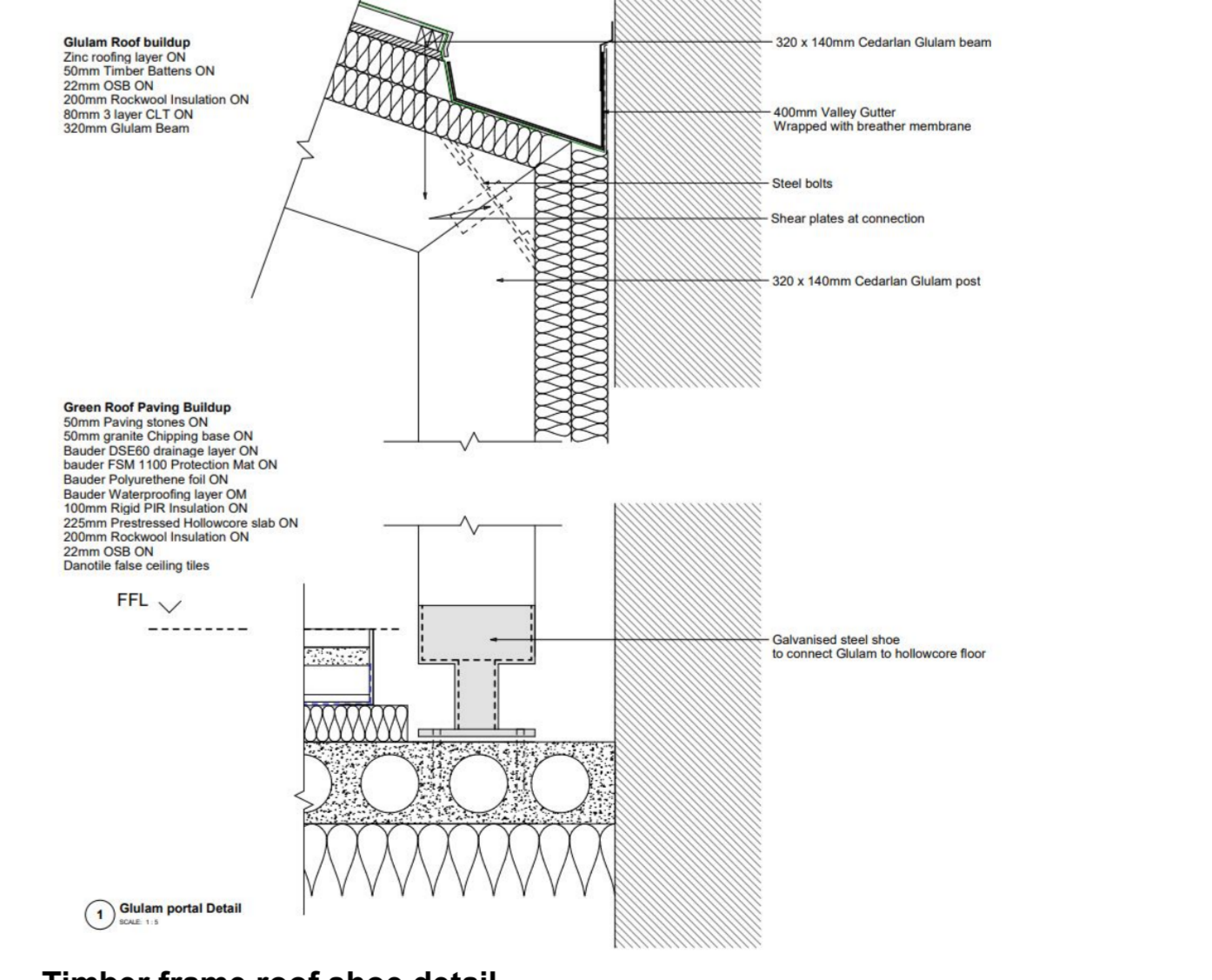
Proposed Roof Section



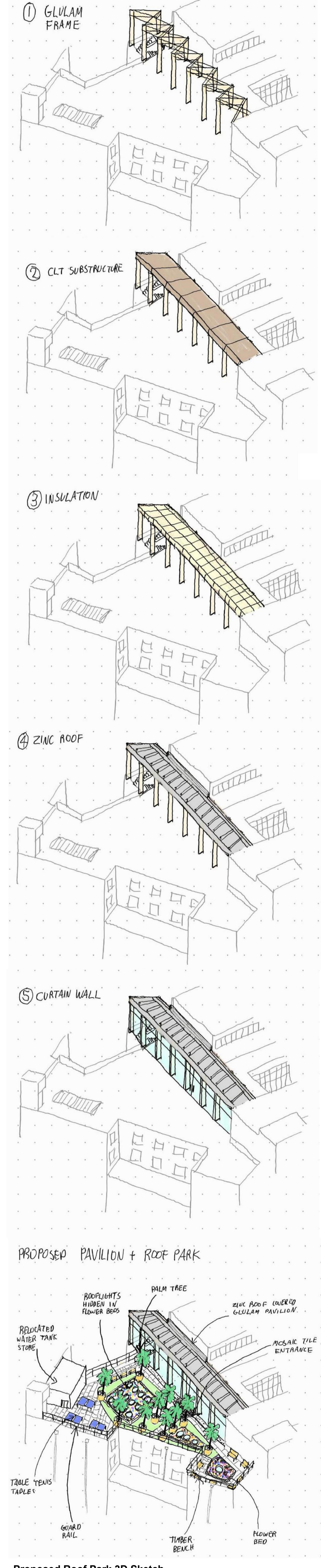
Proposed Glulam Pavilion Steel Connections



Proposed wall to roof Detail SK



Timber frame roof shoe detail



Proposed Roof Park 3D Sketch

