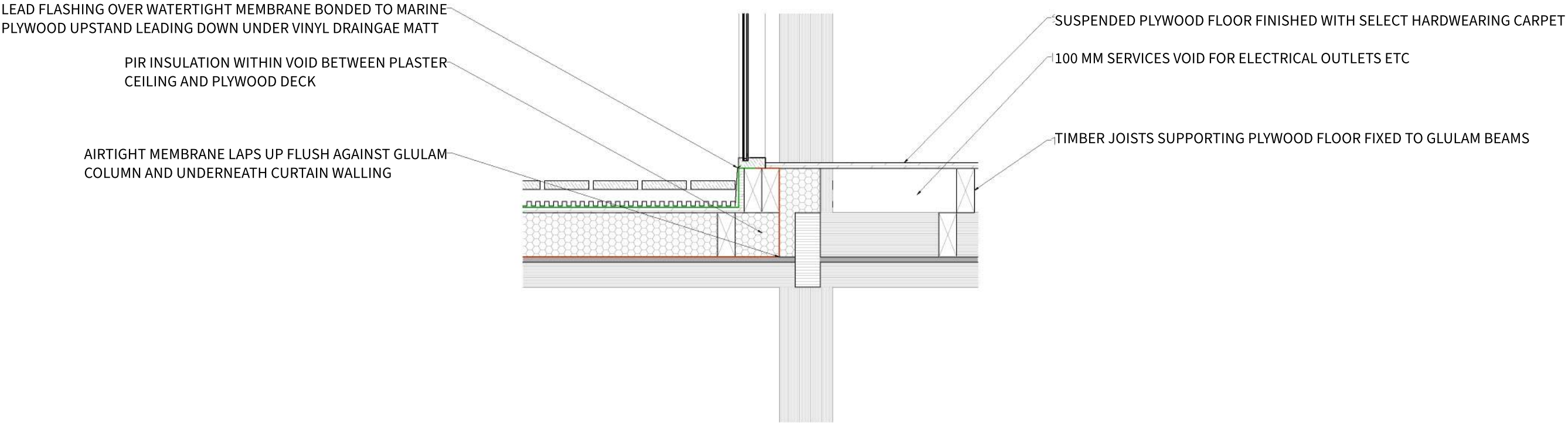


EXTERNAL WALL/ BALCONY DETAIL 1:10



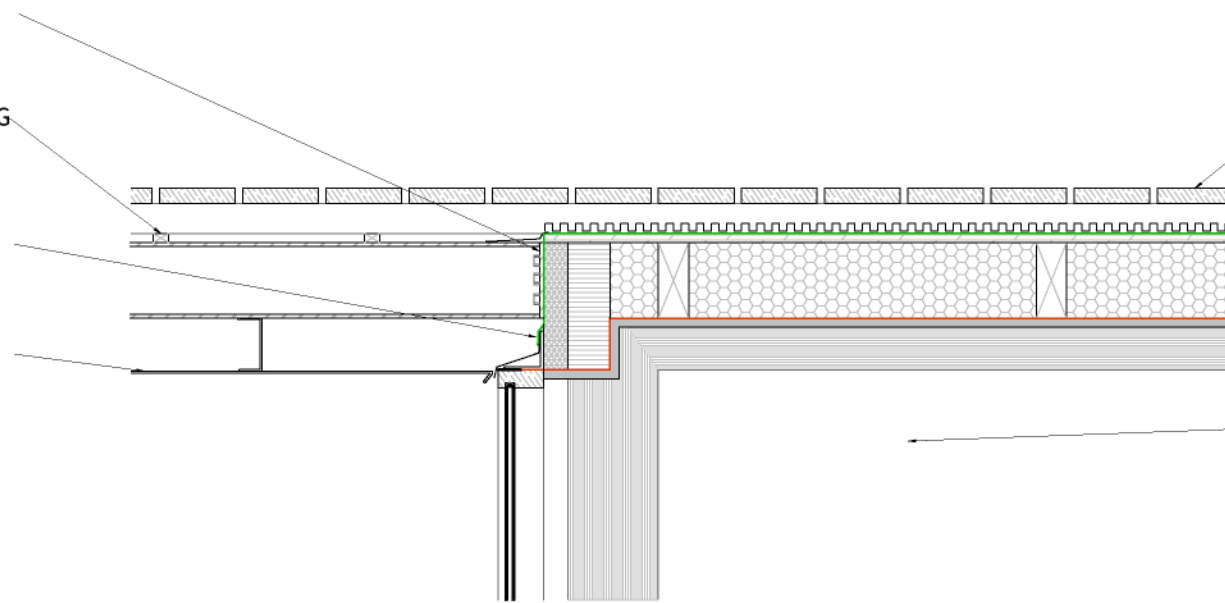
## FLAT ROOF BALCONY DETAIL 1:10

STEEL BEAM FIXED TO THERMAL BREAK FIXED TO GLULAM BEAM TO SUPPORT BALCONY

TIMBER BATONS SUPPORTED BY COUNTER BATONS ALONG STEEL FRAMEWORK. WATER DESIGNED TO DRIP DOWN TO PERFORATED SOFFIT

WATERPROOF MEMBRANE LAPS BEHIND THERMAL BREAK AND OVER LEAD FLASHING WHICH LAPS OVER CURTAIL WALLING STEEL BRACKET

PERFORATED METAL SOFFIT FIXED TO STEEL BEAM WITH LIGHT STEEL C-BRACKET



TREATED TIMBER BOARDS FIXED TO TIMBER BATONS RUNNING PERPENDICULARLY FIXED TO 12MM MARINE PLY

VINYL DRAINAGE MATT BETWEEN BATONS BONDED TO WATERPROOF MEMBRANE WHICH IS BONDED TO MARINE PLY

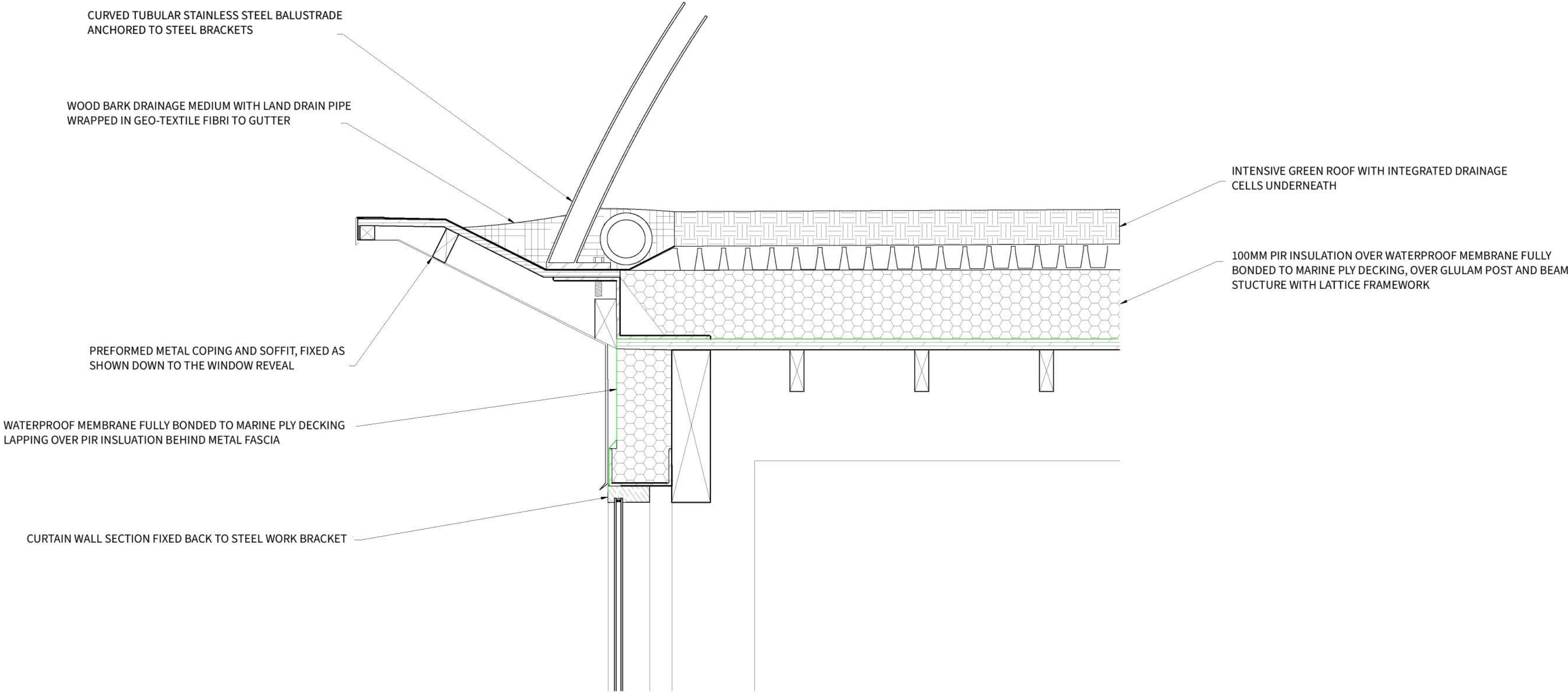
100MM PIR INSULATION BETWEEN TIMBER JOISTS FIXED TO GLULAM BEAMS

AIRTIGHTNESS MEMBRANE BONDED TO THE UNDERSUDE OF PIR INSULATION WITH PLASTERBOARD FIXED TO TIMBER JOISTS

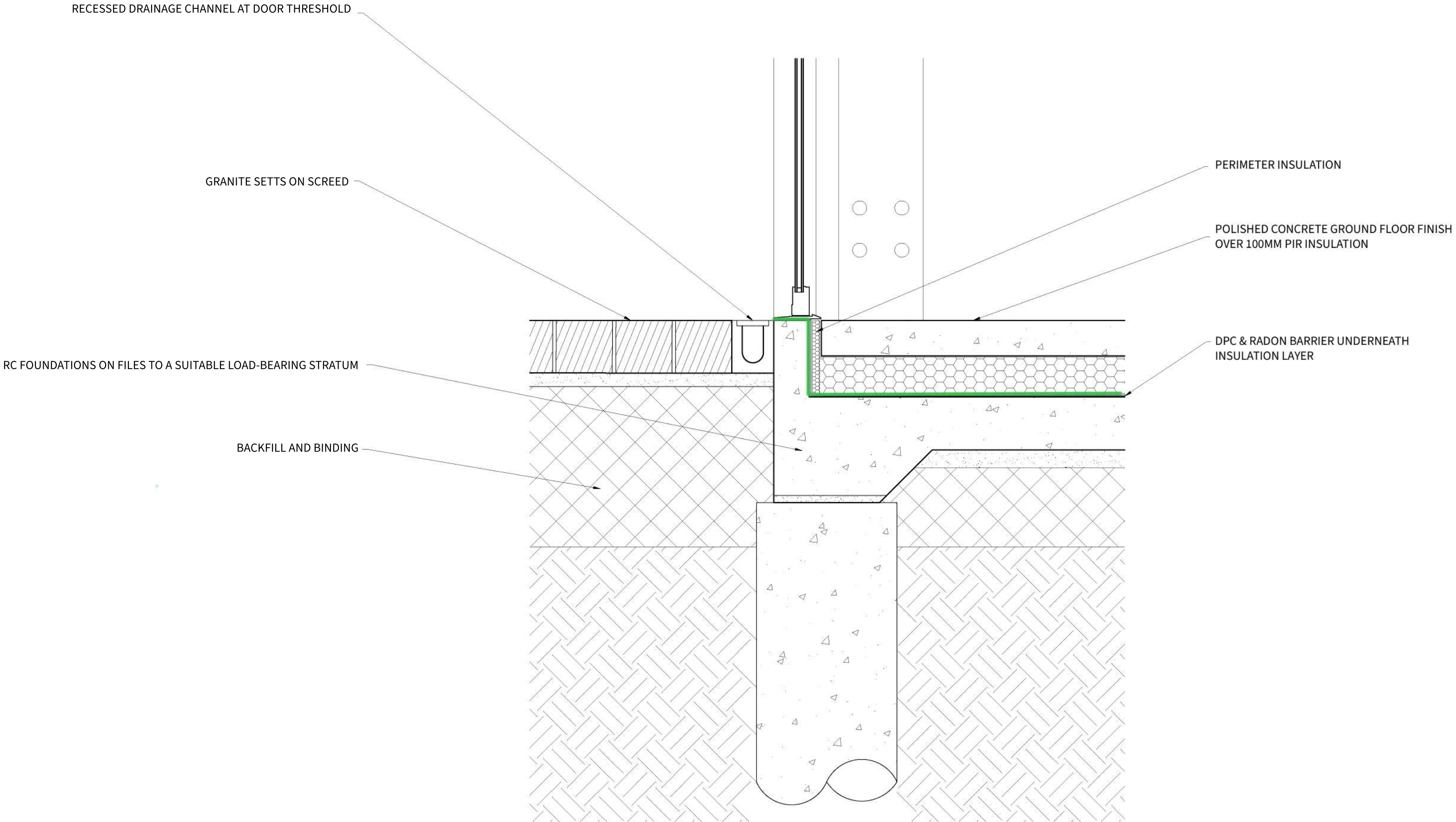
GROUND FLOOR TO HAVE HANGING PENDANT LIGHTING WITH EXPOSED ELECTRICALS RUNNING ON CHANNELS SUPPORTED BY TIMBER JOISTS

EXPOSED RIGID VENTILATION DUCTING FINISHED WITH PAINT TO BE SUPPORTED BY GLULAM BEAMS

GREEN ROOF PARAPET DETAIL 1:5



GROUND FLOOR/ DOOR THRESHOLD DETAIL 1:5

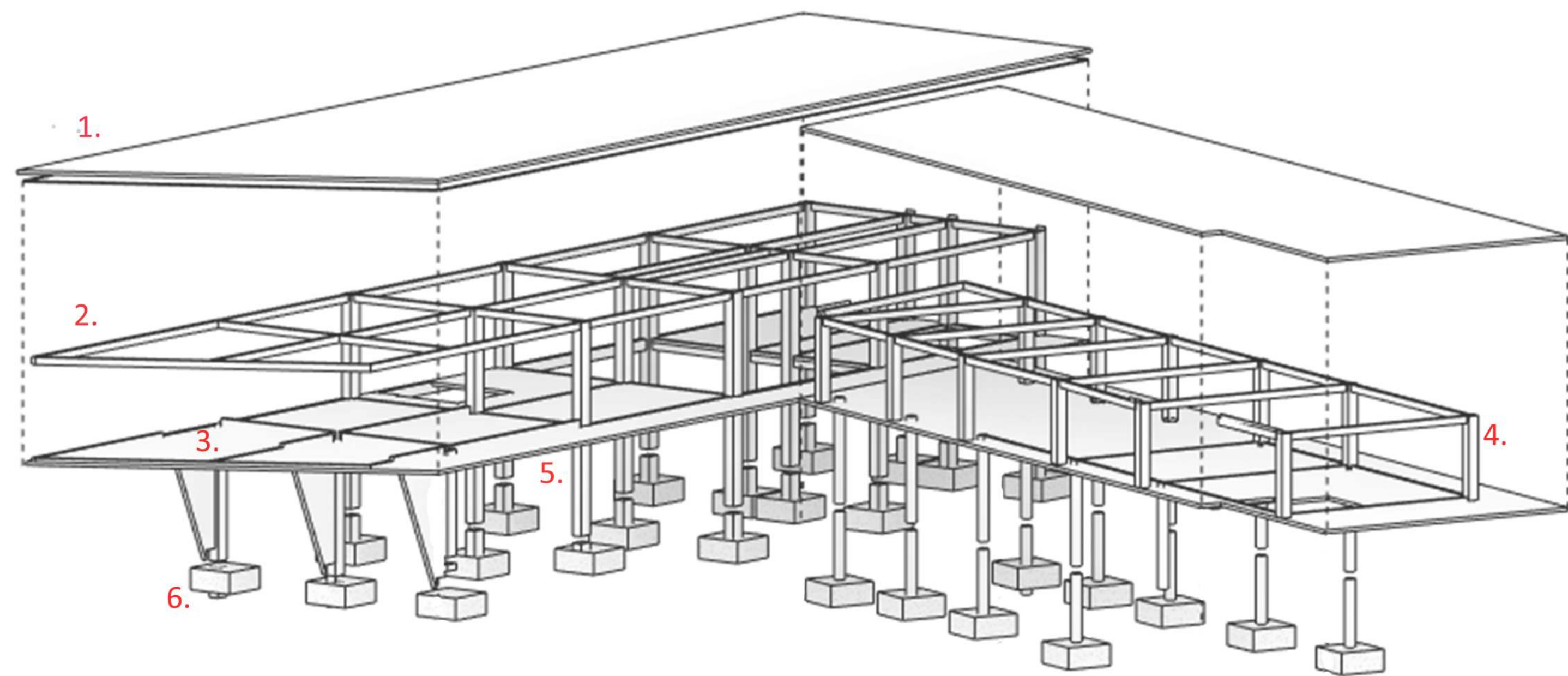




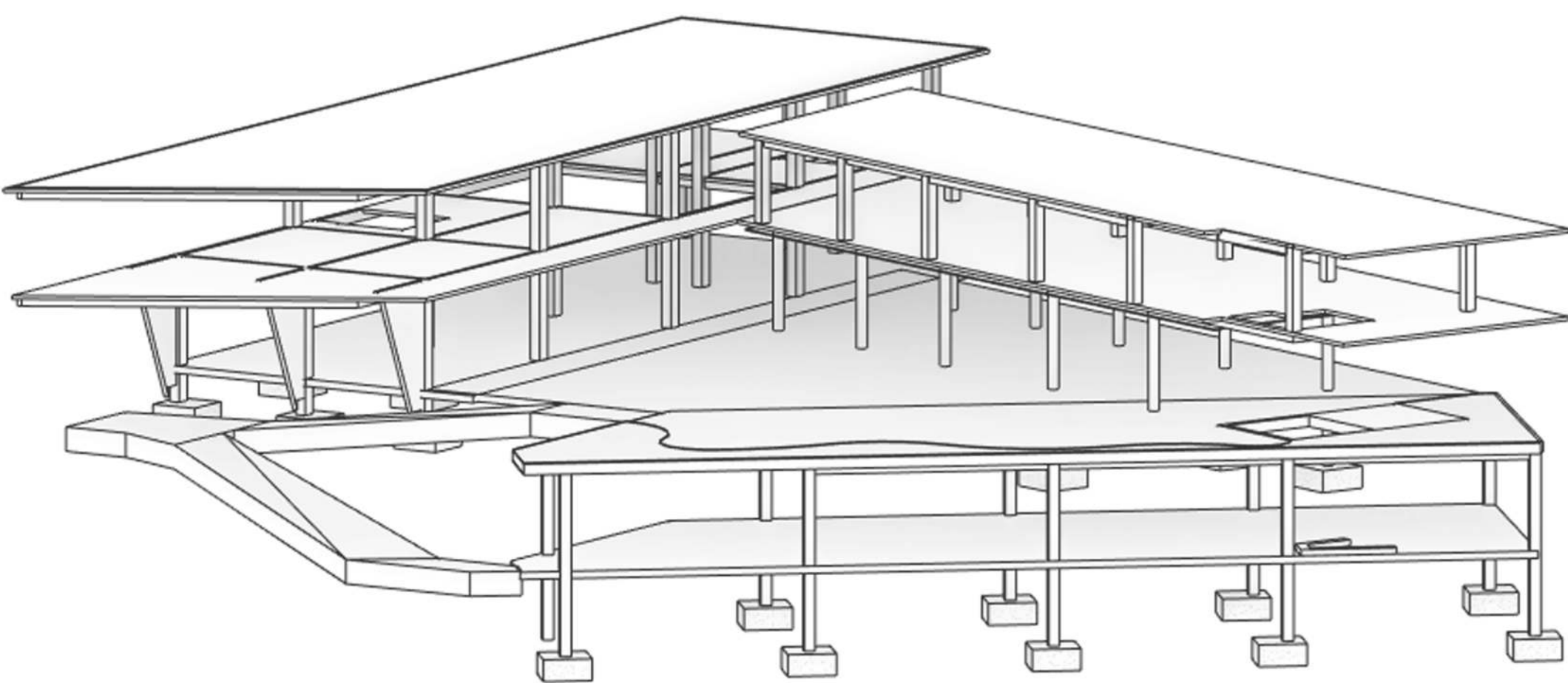
TECHNICAL DETAILING

STRUCTURE

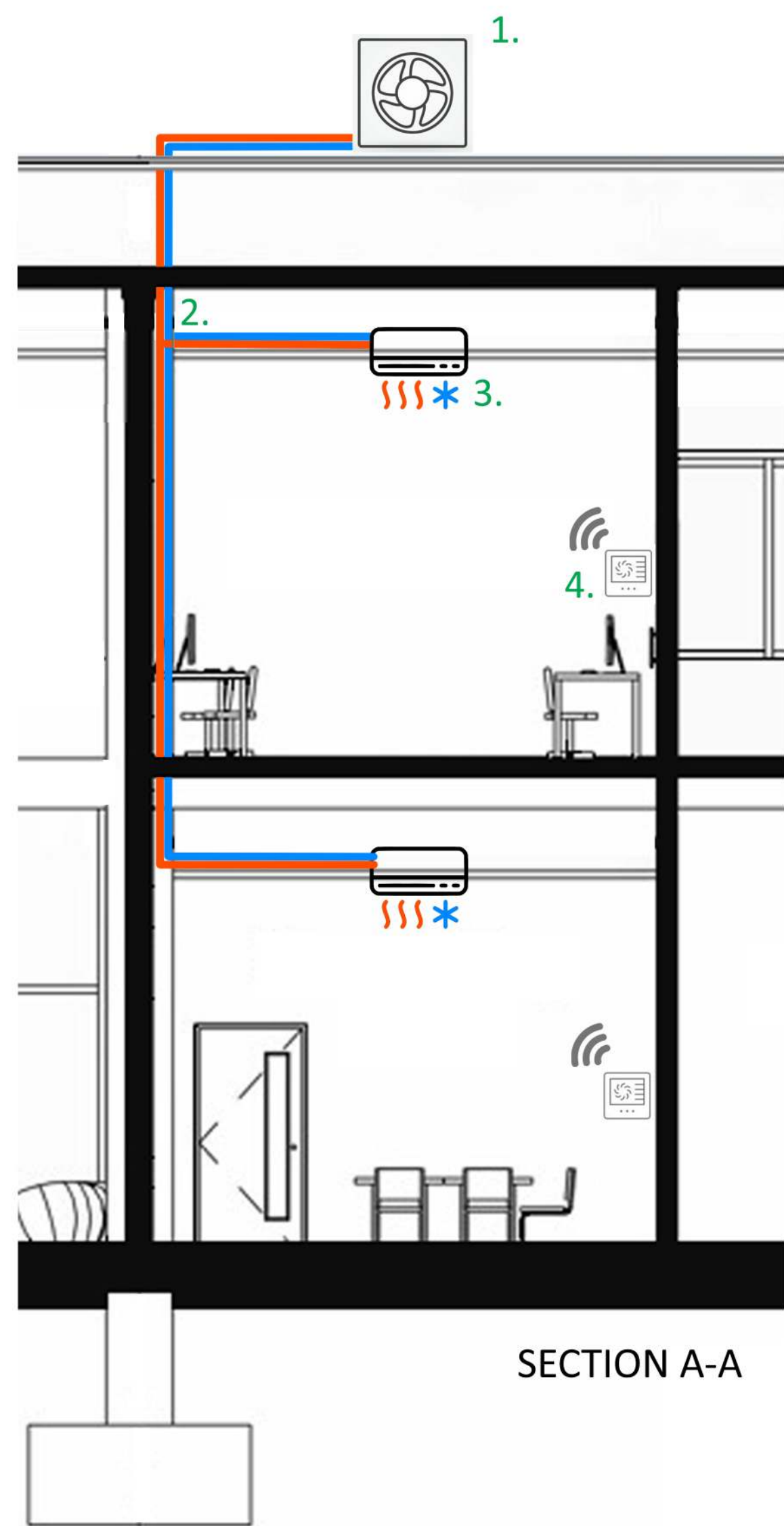
- 1. Profiled metal roof over steel beams
- 2. Steel beams fixed to RC columns
- 3. Pre-cast hollowcore slabs fixed to strip beam
- 4. RC Columns cast in-situ on pilecaps
- 5. RC strip beam cast in-situ to pile cap
- 6. RC Pile foundations down to load-bearing strata



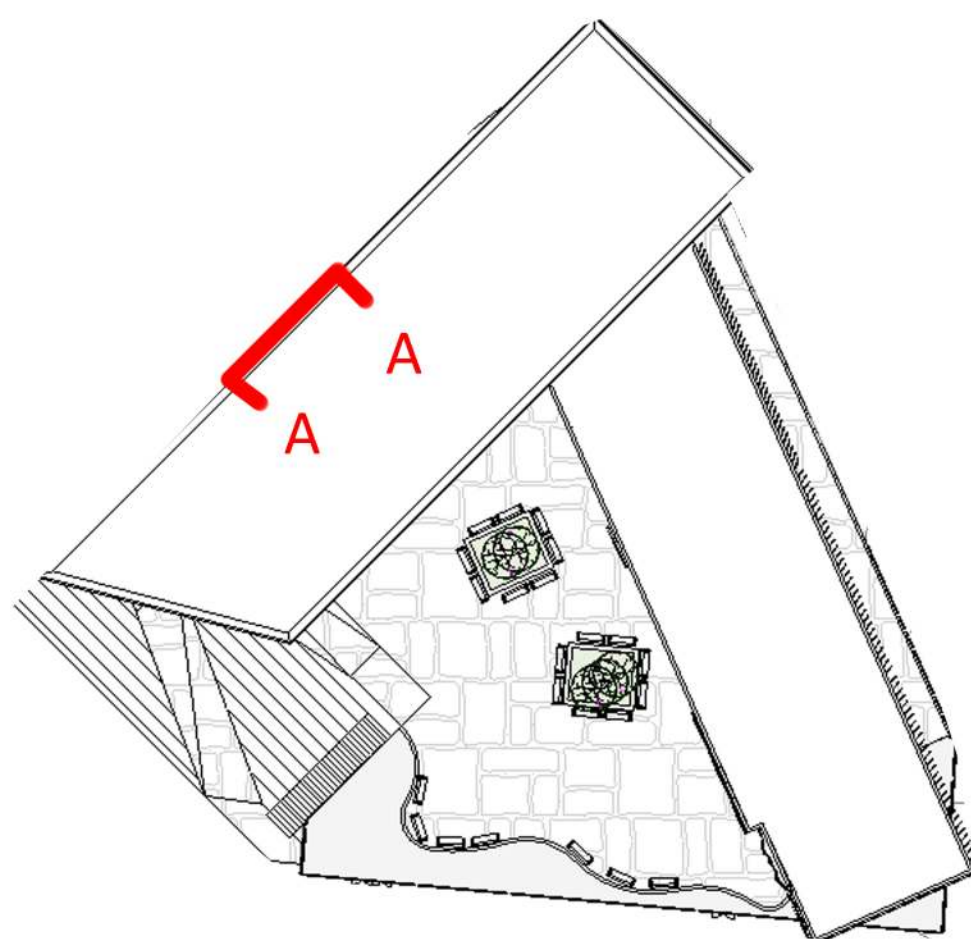
EXPLODED STRUCTURE



STRUCTURE



SECTION A-A



ROOF PLAN (NOT TO SCALE)

SPACE HEATING STRATEGY

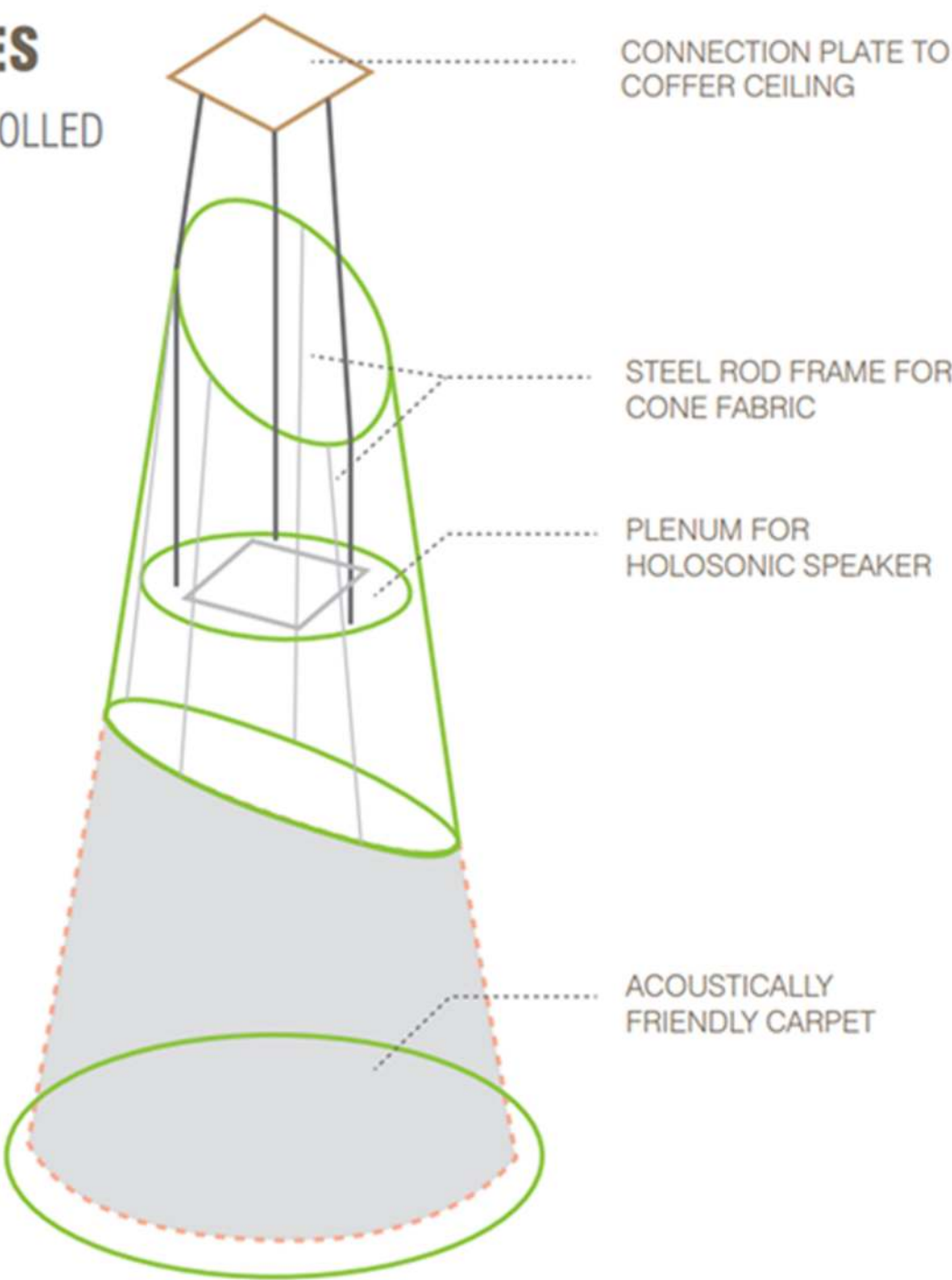
- 1. Daikin / Samsung / Mitsubishi or equivalent Air-source split-system heat pump mounted on roof structure with condensate drip to gutters
- 2. Pipework and electricals run in service voids and above suspended ceilings
- 3. Indoor ceiling cassettes allow heating and cooling by introducing air to the space at a user-defined temperature
- 4. Local time and temperature control using wireless controller mounted on wall within room

ACOUSTICS STRATEGY

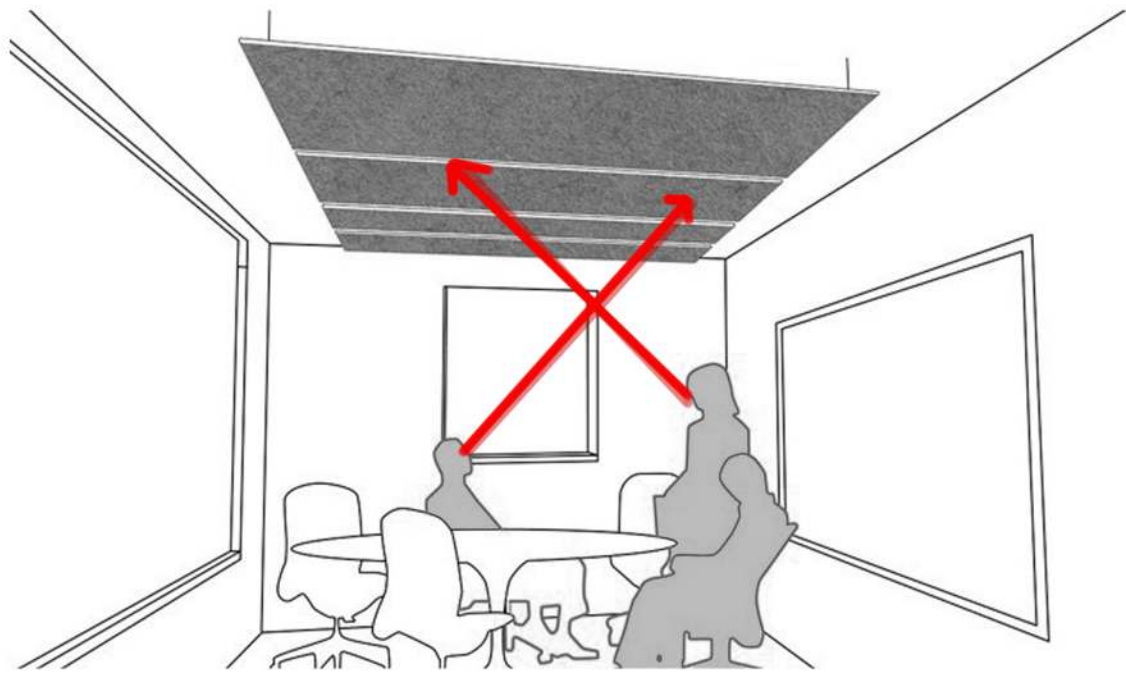
- 1. Acoustic lounges are used throughout to control sound levels within the library space.
- 2. 100mm internal walls are sufficient without added insulation and are used throughout the design.
- 3. Wood is orthotropic which means they have different stiffness in different directions. This makes the ambient sound insulation significantly different from other homogenous materials. Wood has been included in both the interior and exterior of the Library.

SOUND LOUNGES

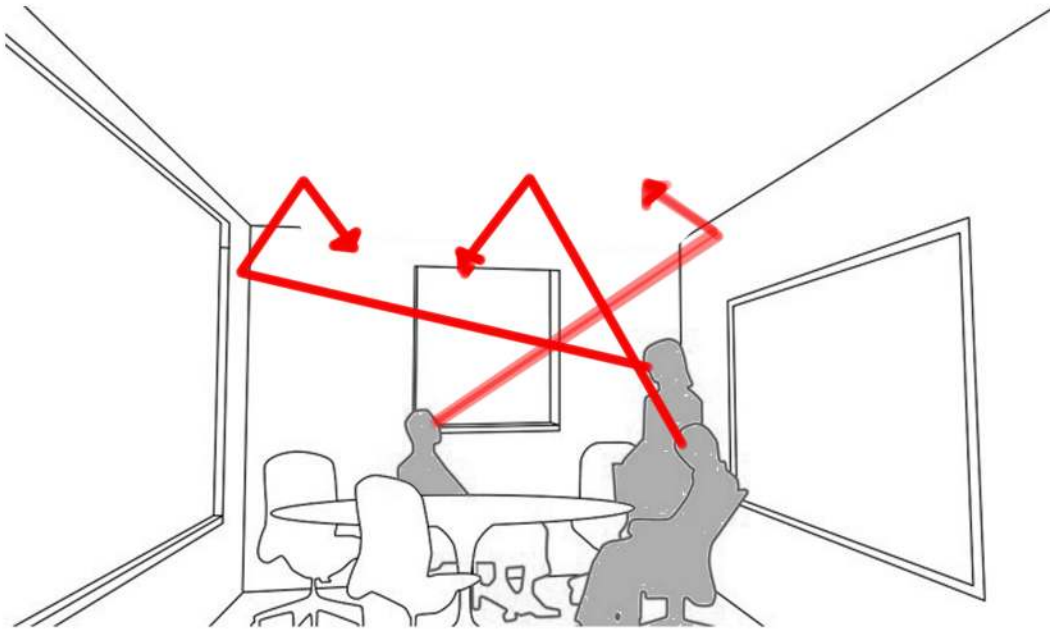
ACOUSTICALLY CONTROLLED VISUALLY OPEN



SOUND DISPERSION WITH AND WITHOUT AN ACOUSTIC PANEL IN ONE OF THE LIBRARY'S SEMINAR ROOMS



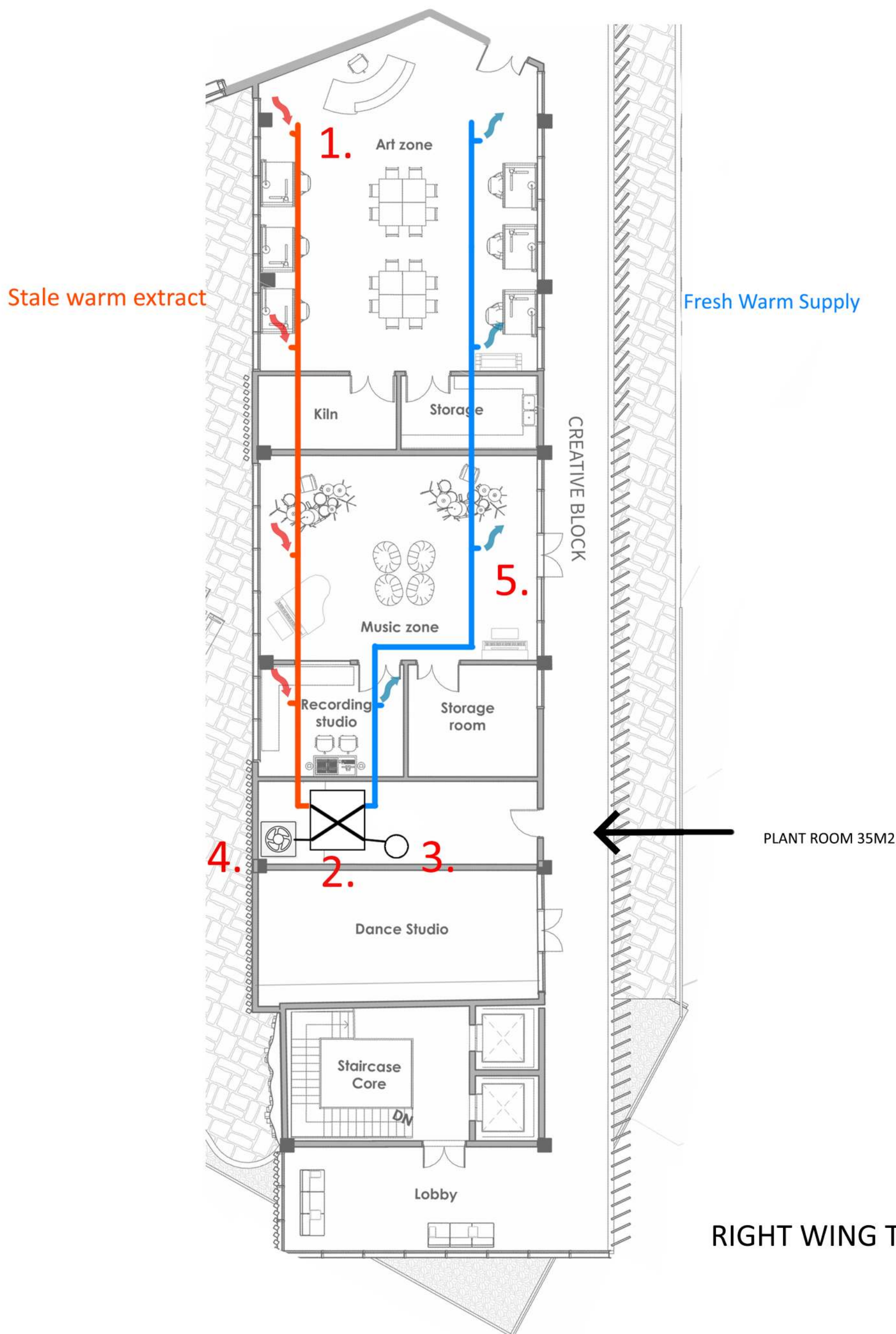
WITH HANGING SOUND PANEL



WITHOUT HANGING SOUND PANEL

VENTILATION STRATEGY

- 1. Warm stale air extracted from zones through ceiling grille
- 2. It passes through a heat exchanger which extracts the heat energy to warm up incoming fresh air
- 3. Stale air is then vented to the atmosphere
- 4. A fan forces fresh cool air through the heat exchanger
- 5. Warm fresh air is then ducted to zones, where the flow is regulated by ambient CO2 sensors



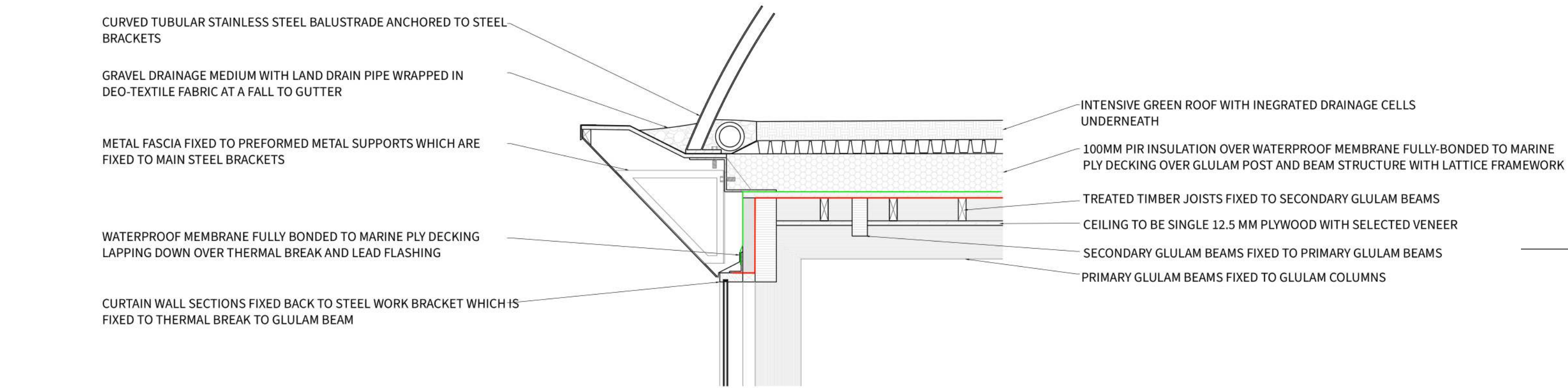
RIGHT WING THIRD FLOOR



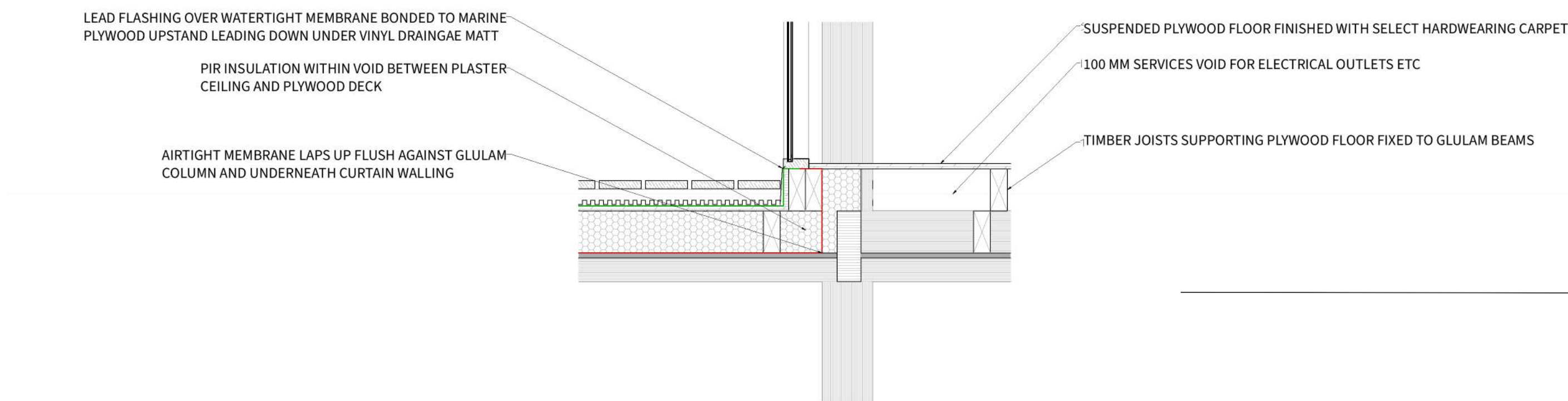
3RD FLOOR 1:200



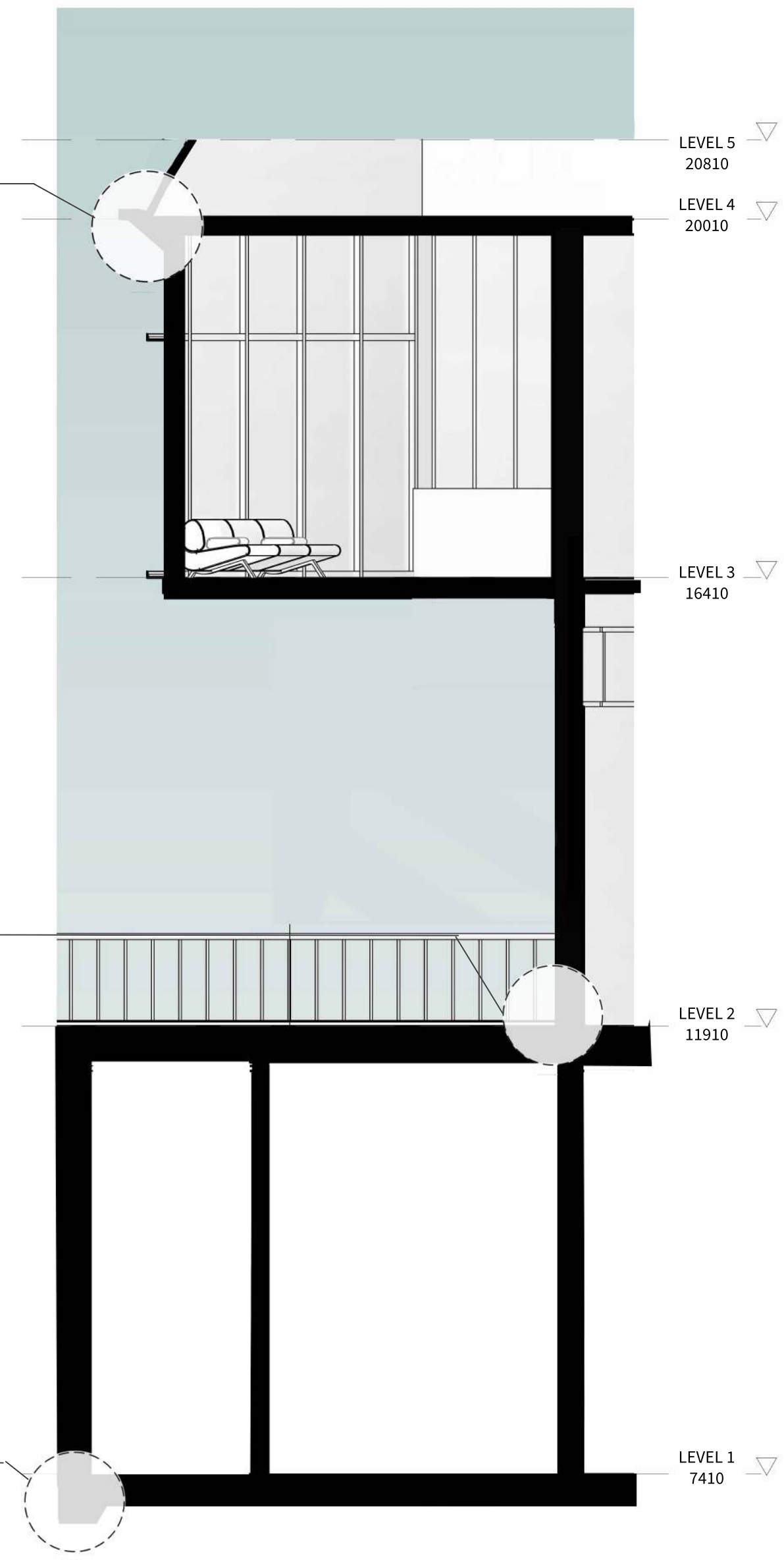
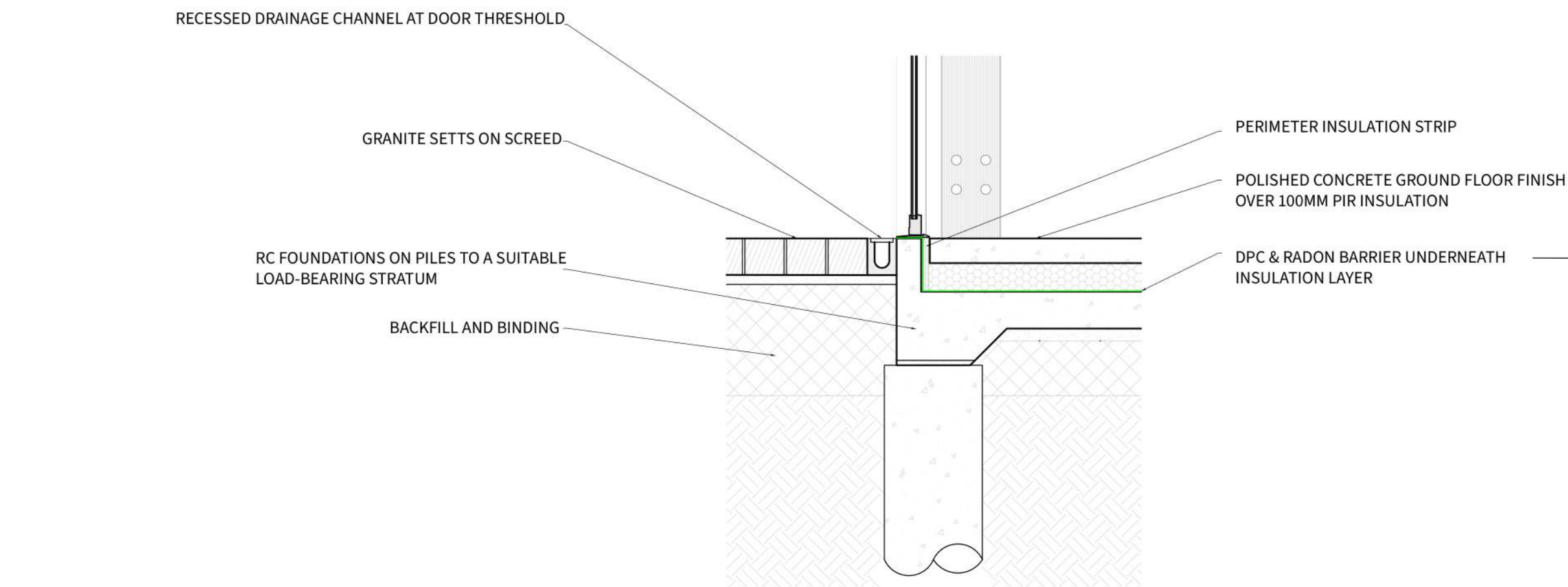
GREEN ROOF PARAPET DETAIL 1:10



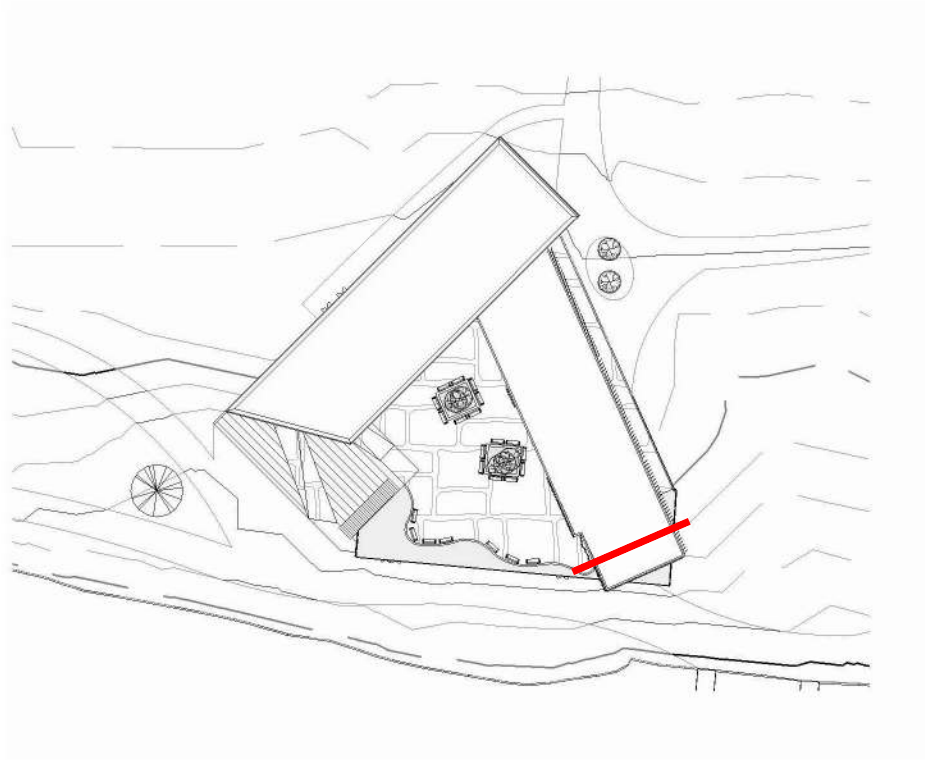
EXTERNAL WALL/ BALCONY DETAIL



GROUND FLOOR DETAIL 1:10



Section A-A 1:50



Site Plan, Section A-A 1:1000



DETAILING



BLACK BRICK FACADE TO  
CONTRAST WITH COLOURFUL ART  
MURALS

CURTAIN WALL WITH GREEN SPANDREL  
PANELS FOR SHADING ON MAIN  
READING/STUDY ZONE

PUBLIC PLAZA ENCOURAGING  
SOCIAL INTERACTION/ COMMUNITY  
DEVELOPMENT

SHELTERED WALKWAY/  
GRAFFITI SPACE

WOODEN LOUVRES FOR  
SHADING

ROCK CLIMBING WALL LEADING TO A  
GREEN ROOF- ENCOURAGES TEEN TO  
INTERACT WITH THE ARCHITECTURE

STUDY TERRACE WITH MURAL OF  
MICHAEL JORDAN, FAMOUS  
SPORTSMAN

RAMPED WALKWAY/AMPTHEATRE  
LEADING TO LANDSCAPED PUBLIC PLAZA.  
TOP HALF SHELTERED VIA OVERHANG  
FROM THE TOP FLOOR

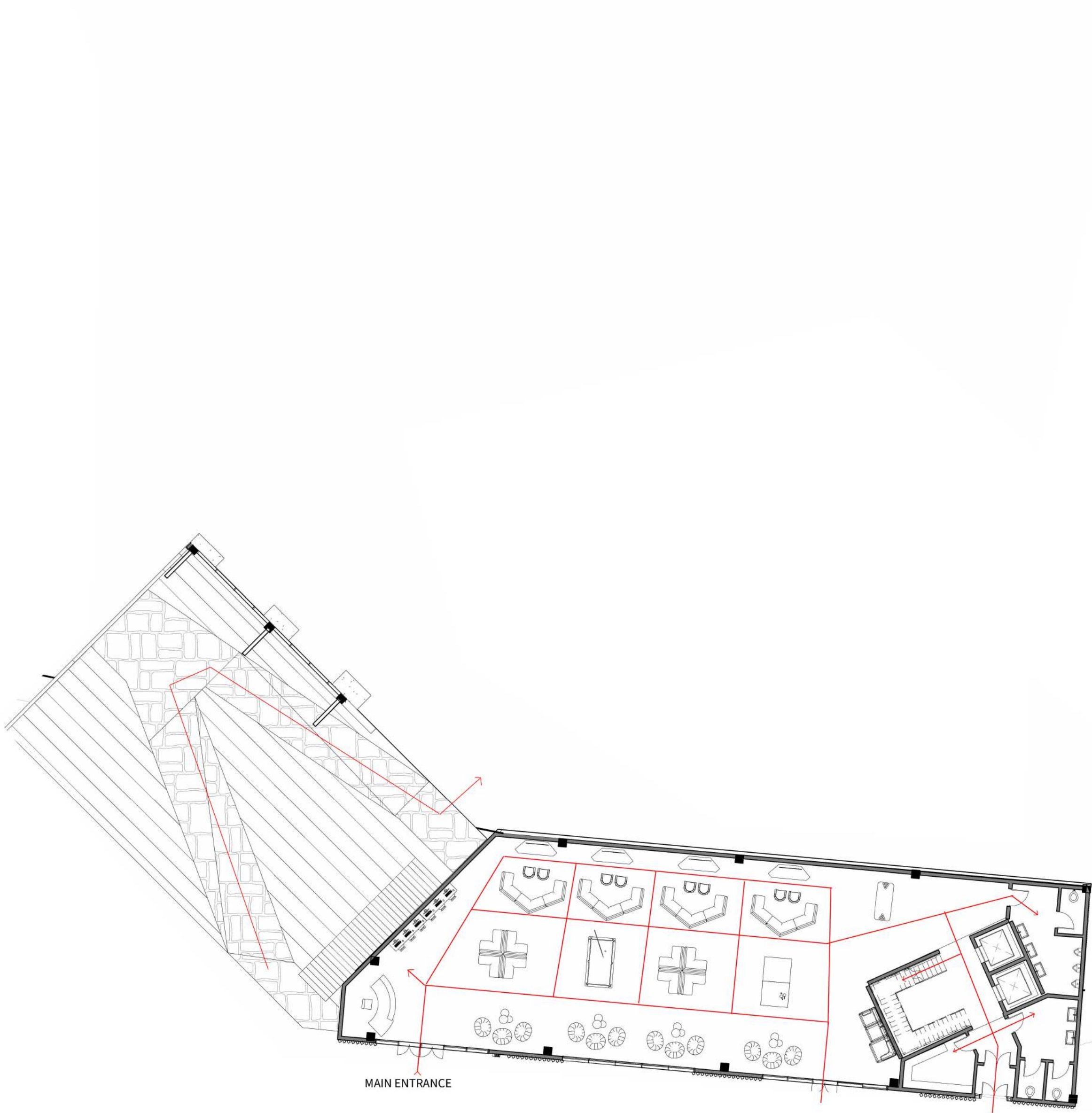
LANDSCAPED GRASS ROOF WITH LOW  
RISE PLANTINGS- TO ENHANCE THE  
ARCHITECTURE, NOT HIDE IT

GRANITE SLAB PAVING AS OUTLINED IN  
THE PUBLIC REALM ACTION PLAN 2018

COLOURFUL  
GRAFFITI MURAL



CIRCULATION STUDY



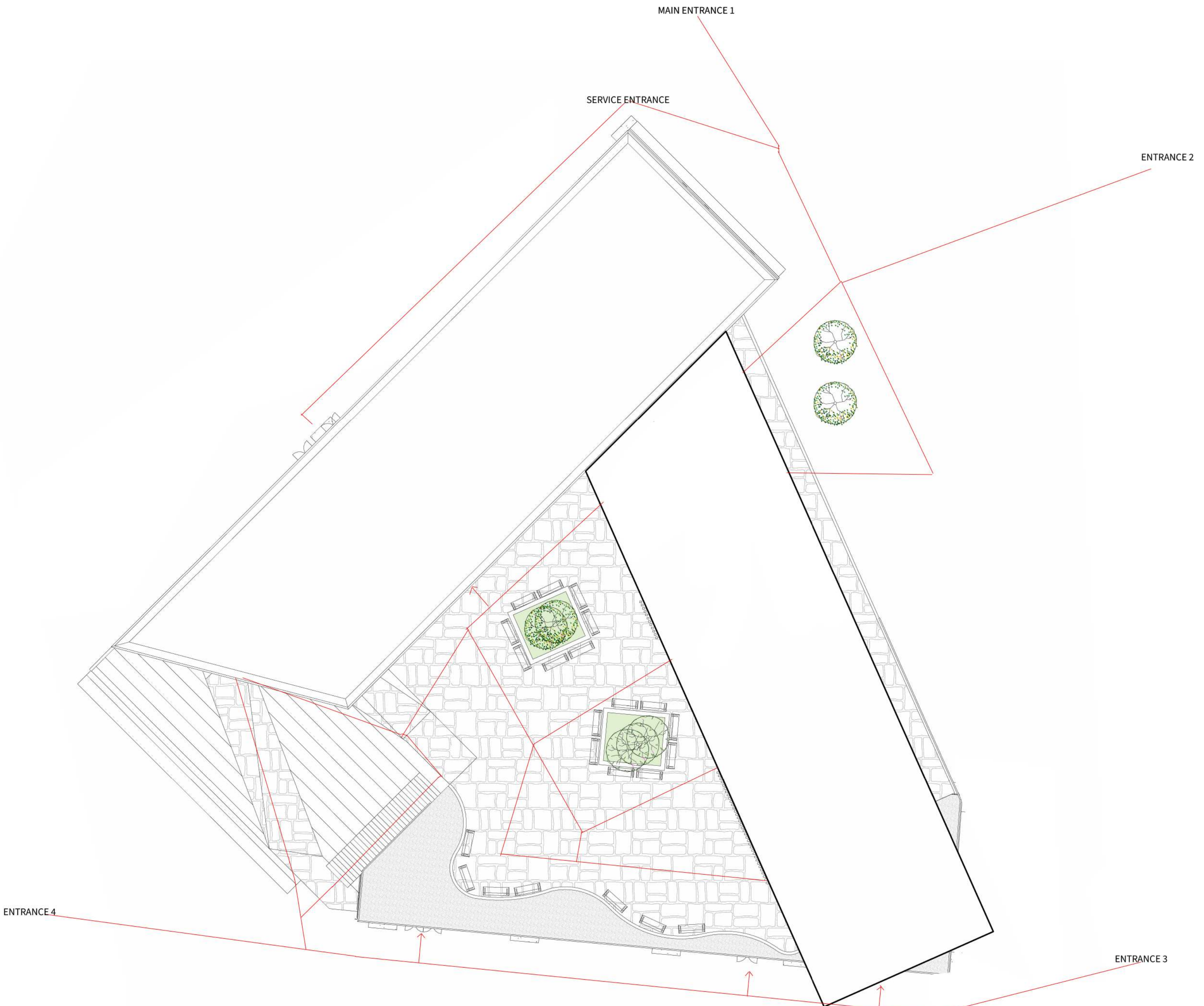
FIRST FLOOR  
1:200



SECOND FLOOR  
1:200



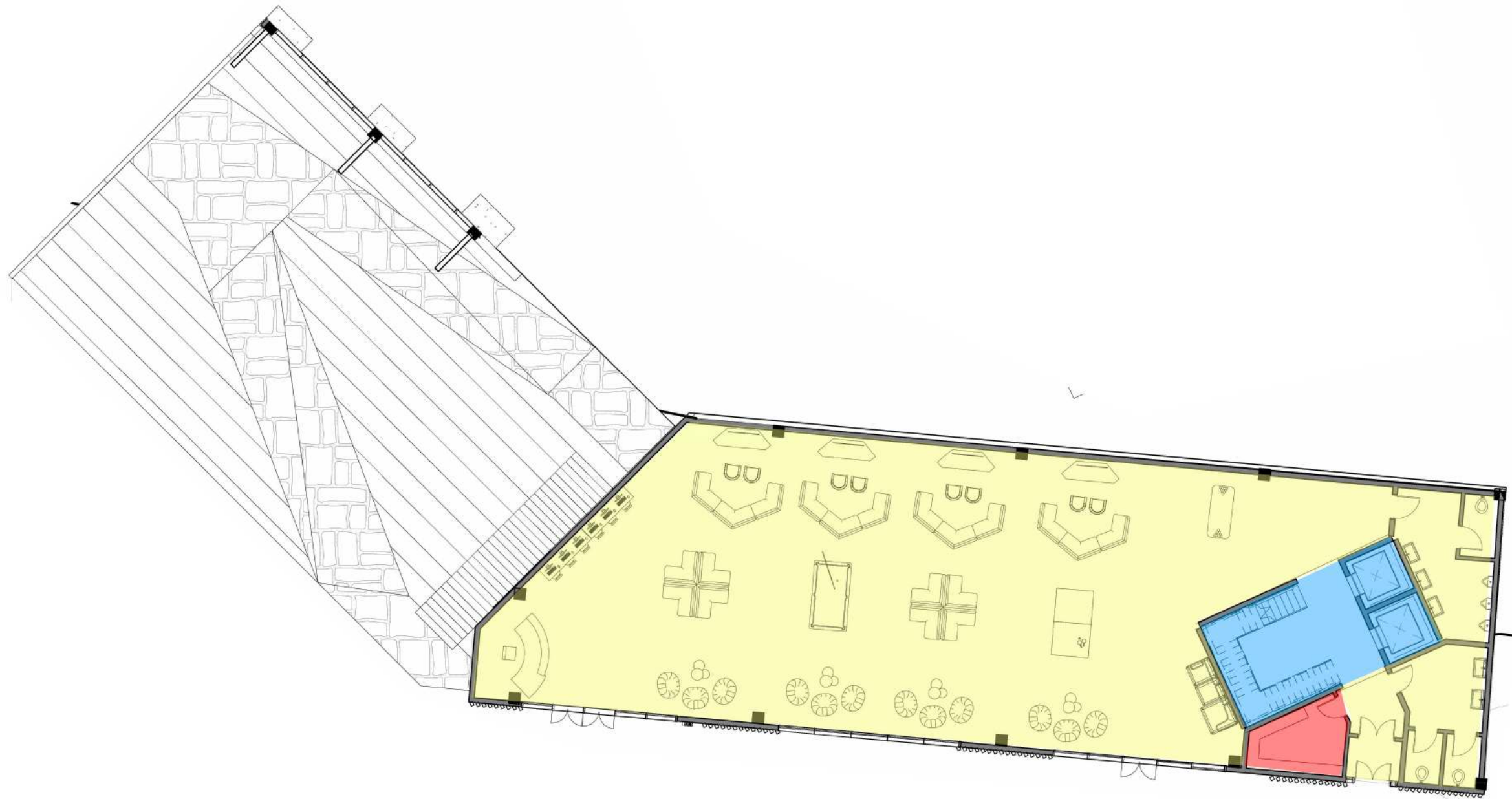
THIRD FLOOR  
1:200



SITE ENTRANCES  
1:200

ZONING STUDY

- KEY
- PUBLIC
  - SEMI-PUBLIC
  - PRIVATE
  - CIRCULATION CORE
  - FIRE ESCAPE



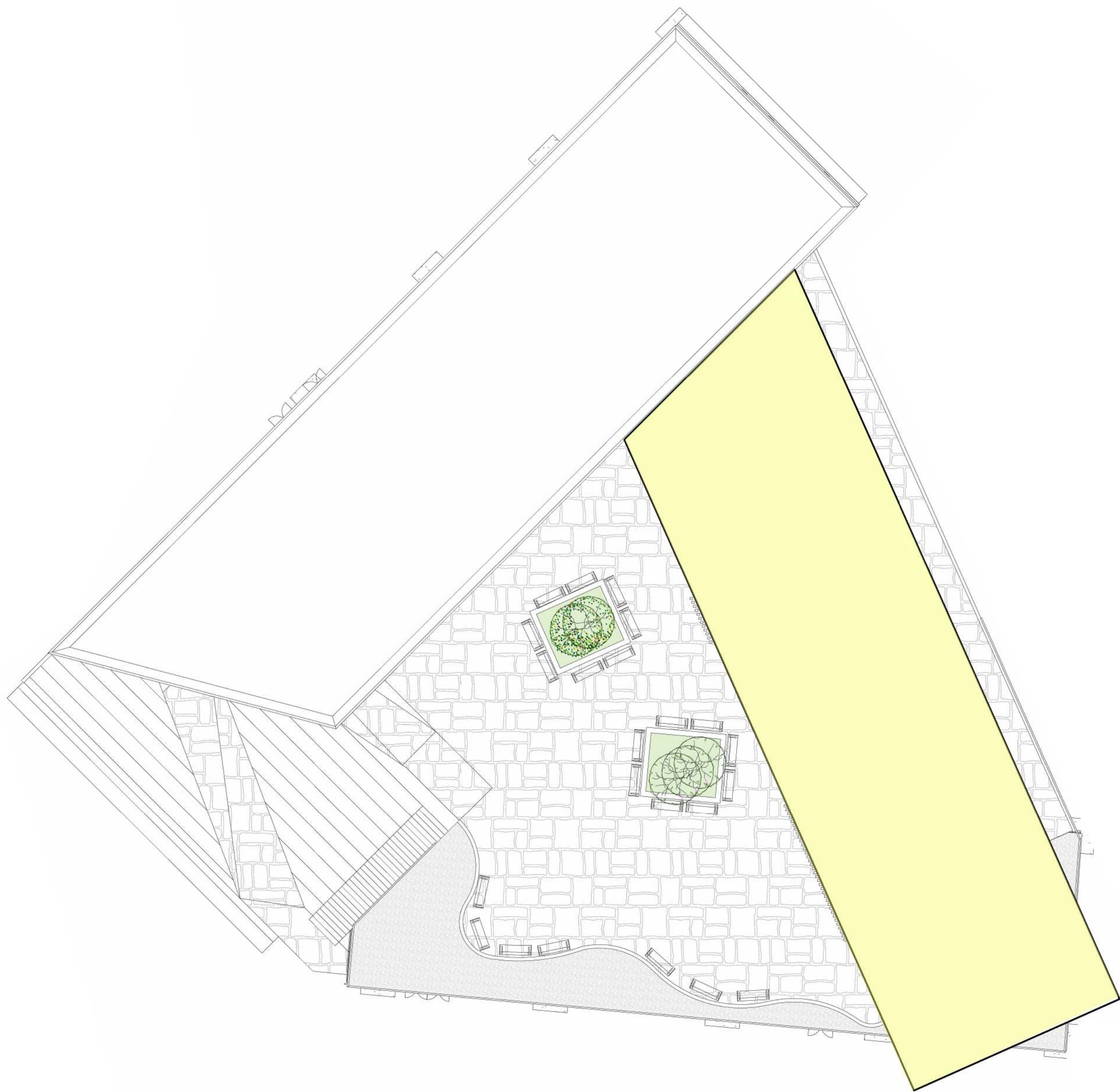
FIRST FLOOR  
1:200



SECOND FLOOR  
1:200

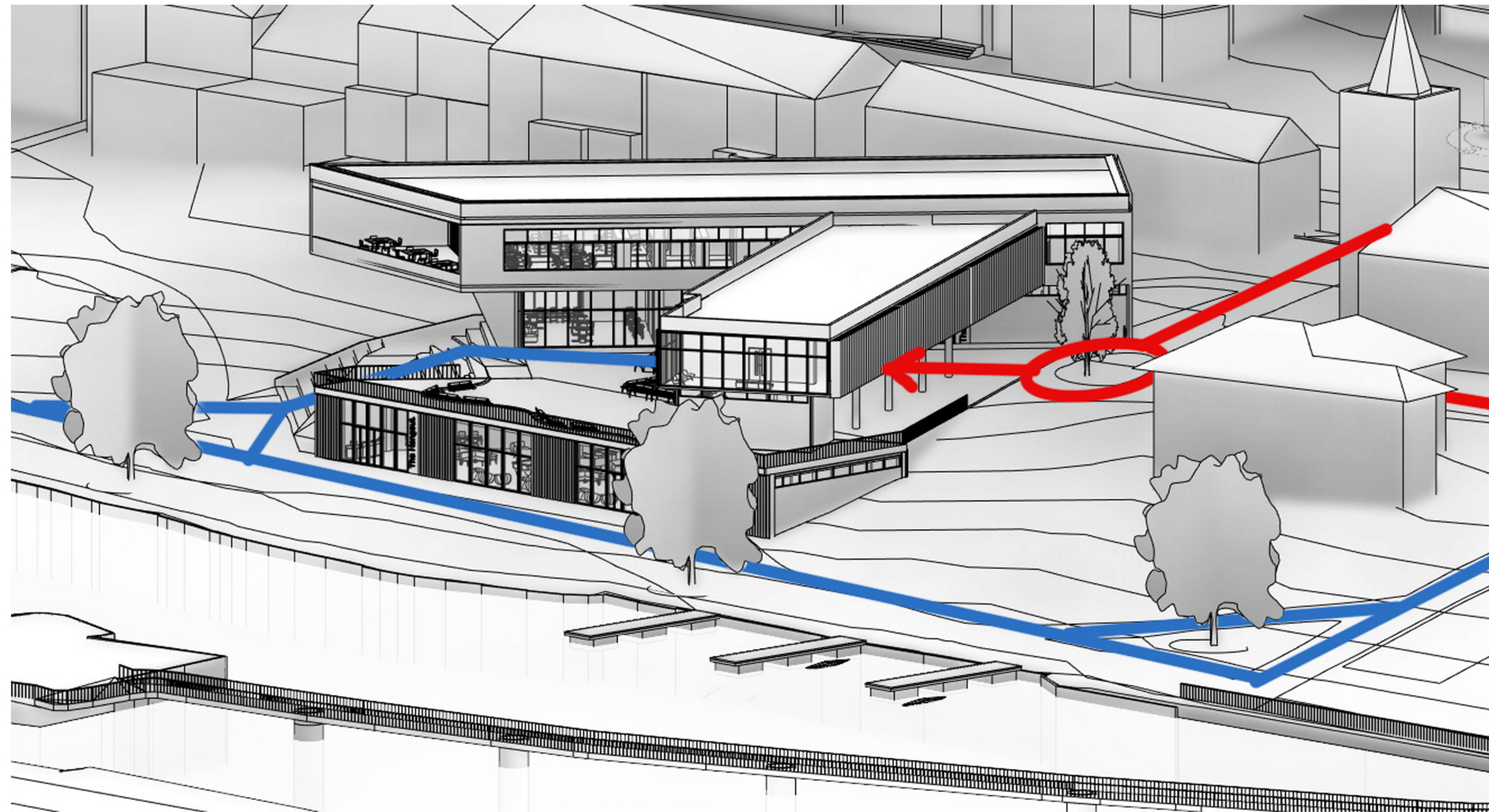


THIRD FLOOR  
1:200



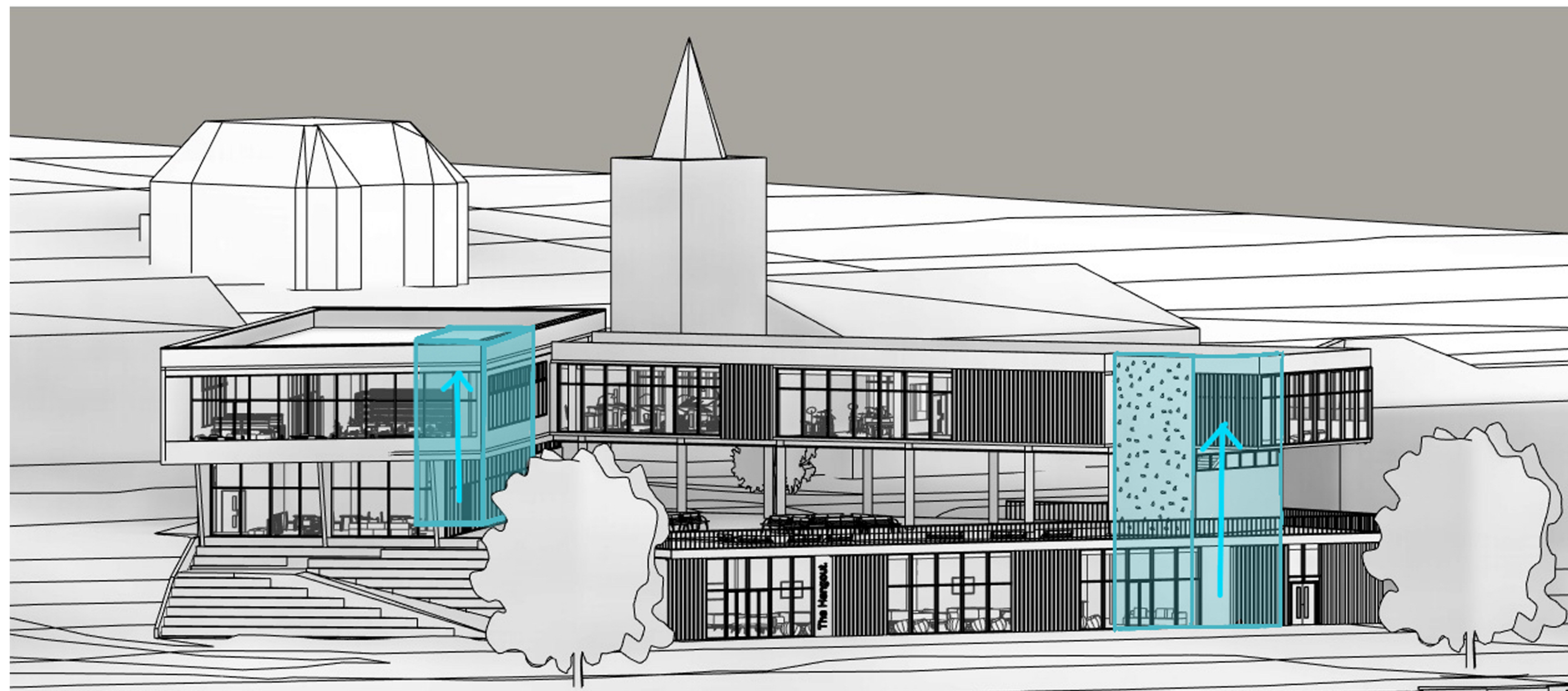
ROOF  
1:200





**MAIN ENTRANCE** VIA THE SOUTH OF THE MALL ROAD, NEARBY SLIGO  
GRAMMAR SCHOOL AND THE CARBURY NATIONAL SCHOOL

**SECONDARY ENTRANCES**



**VERTICAL CIRCULATION VIA TO CIRCULATION BLOCKS**