

Introduction

The Kirkayak Kùltür foundation is a non-profit organisation founded in 2008. The main goal of the foundation is to promote social cohesion and living together with a special focus on disadvantaged and vulnerable group by offering workshops in the fields of culture, art, migration and refugees, gender equality and media. One of the workshops "the Mutfak Work-shop" promotes gender equality and coexistence between migrants and local women, and focuses on creating a sustainable economic system.

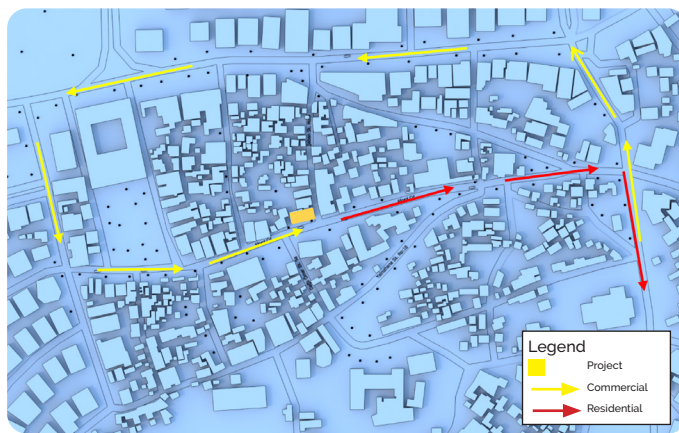
Connecting People Through Learning and Creativity

The client wants to host workshops that bring people together. They need the following spaces in the building: Mobile kitchen at the front, Storage with cooling, Workshop rooms, Dining area, Childcare area.

Analysis

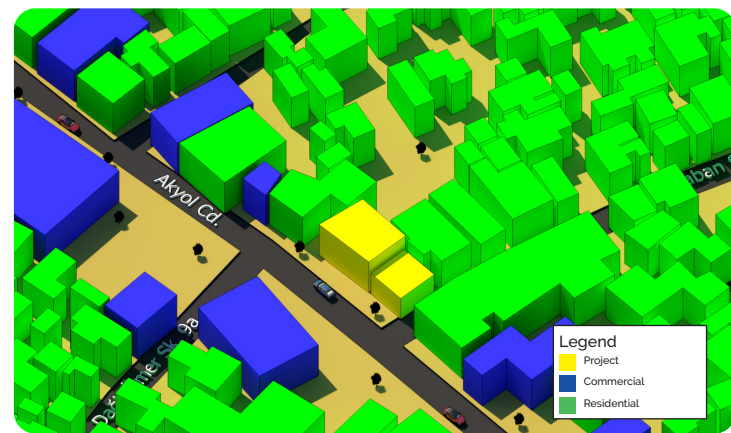
Transportation analysis

The transportation of construction materials in Gaziantep is most often done using medium-sized trucks. This is because the roads in Gaziantep are not optimal for large trucks and the sharp turns that must be made. Although they are somewhat smaller trucks, large quantities of the construction materials can be transported.



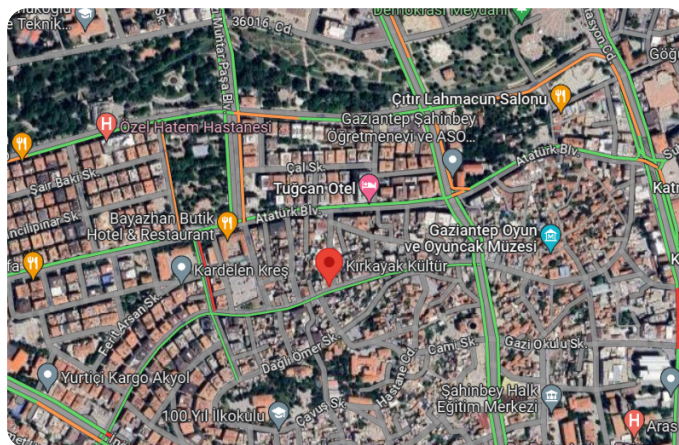
Location analysis

From the location analysis, we can conclude that Gaziantep is a large city where more women than men live. This has a positive effect on the organization because a lot is organized there for the women of the city. Furthermore, the average age of the resident is 32 years, which may mean that many young families live there. We can respond to this with a function for children. In the neighborhood of the location there are mainly homes but also functions for shopping such as supermarkets.



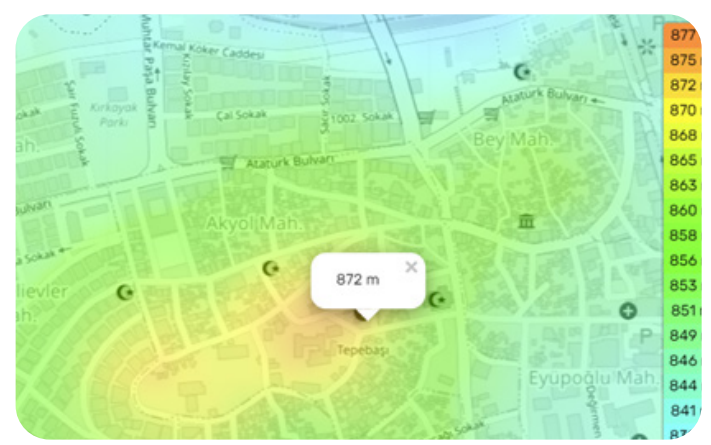
Accessibility analysis

The location is not accessible by public transportation. Therefore, people who do not live nearby are likely to come to the location by car. Otherwise, people will come to the location on foot.



Relief analysis

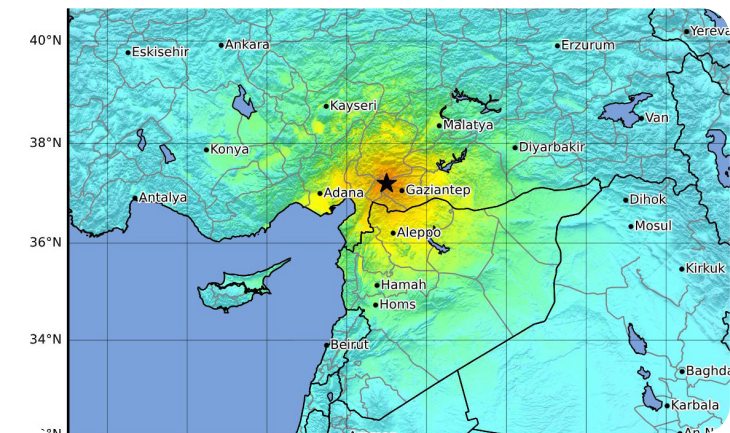
Gaziantep is a relief area. The site is located at an height of 870 meters. Since there is relief in the area, this must also be considered in the layout of the building. This is because the entrance is at a different level than the front of the building. This must also be taken into account with the transport of structural materials.



Studies

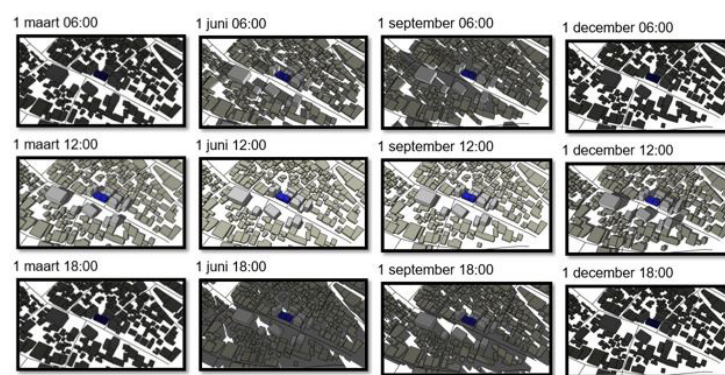
Earthquake resistant study

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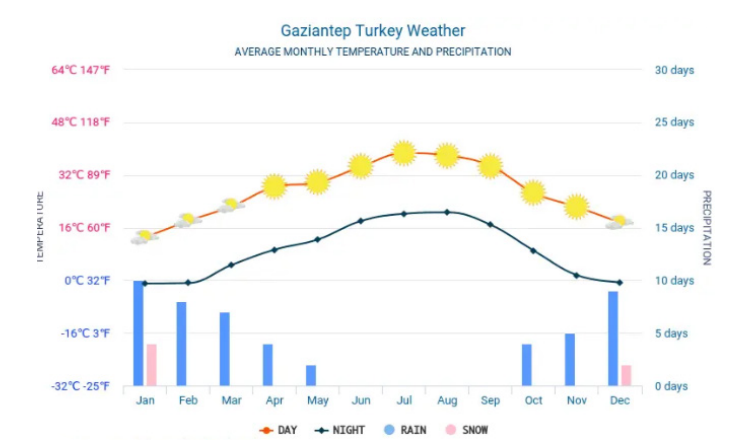
Solar study

This comprehensive solar study explored sunlight patterns during March, June, September, and December. In March, the building experienced sunlight throughout the afternoon but darkened by 18:00. June had early sunlight, hindered by surrounding taller buildings. September mirrored June's conditions. December received minimal sunlight due to a lower sun position and nearby tall buildings. Understanding these patterns aids in sustainable architecture and urban planning.



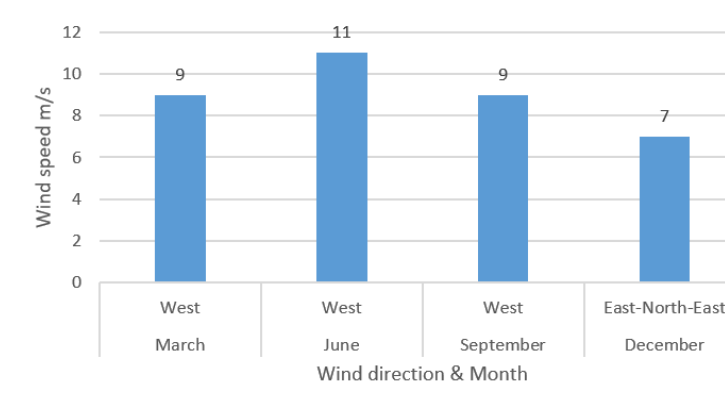
Climate research

Gaziantep climate research: Semi-arid climate with hot summers, mild winters, and limited rainfall. Average annual temperature around 18°C (64°F). Summers can reach up to 38°C (100°F) while winters rarely drop below 0°C (32°F). Water scarcity and heat stress are key challenges for the city's inhabitants and agriculture.



Windrose

Month	Wind direction	Wind speed
March	W	9 m/s
June	W	11 m/s
September	W	9 m/s
December	ONO	7 m/s



Program of requirements

Function	Quantity	Location	Building	Total m2
Mobile kitchen	1	Front of white building ground floor	White building	50 m2
Toilets	4	Old building at current location	2 in old building, 4 in white building	3.84 m2 (Section 4.2. Restroom, n.d.)
Childcare space	1	Third floor	Old building	112 m2
Workshop rooms	4	First floor	White building	180 m2 (Admin_skab, 2022)
Dining area / canteen	1	Ground floor	White building	75 m2
Storage with cooling	1	Back of ground floor	White building	15 m2
Laundry room	1	Back of ground floor	White building	10 m2
Office	1	First floor	Old building	50 m2
Meeting room	2	First floor	Old building	50 m2
Meter cupboard	2	Near the entrance	Both buildings	0.30 m2
Total				546.14 m2

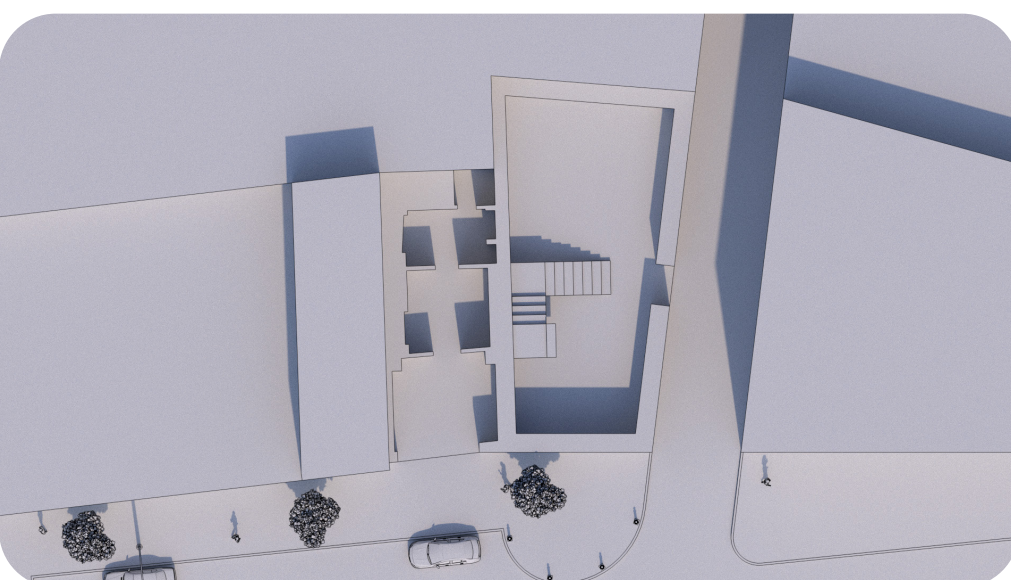
Exterior reference



Interior reference



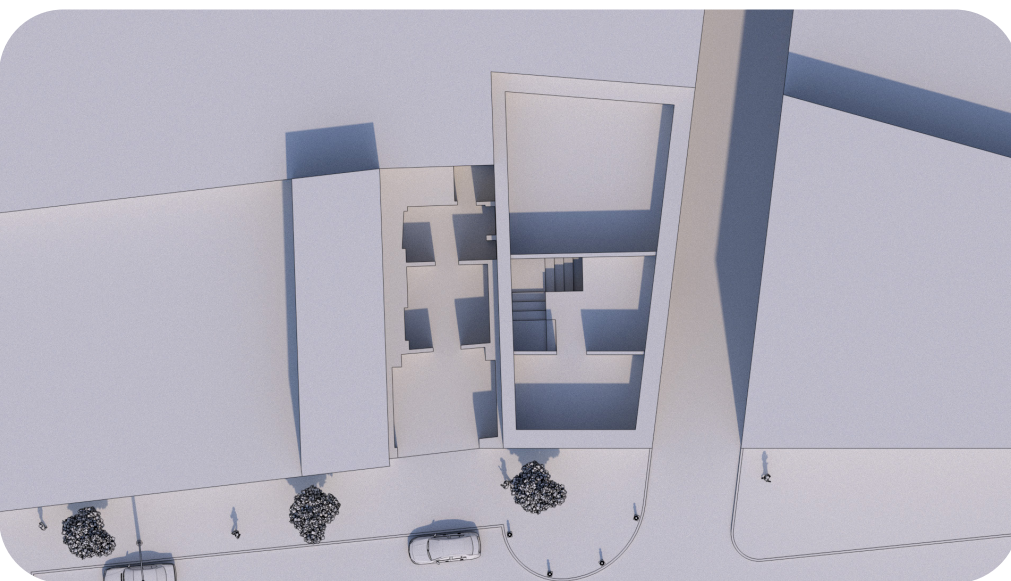
Sketch Design



main floor



concept design 01



second floor



concept design 02

Site plan



7:00 A.M. - 21 June



13:00 P.M. - 21 June



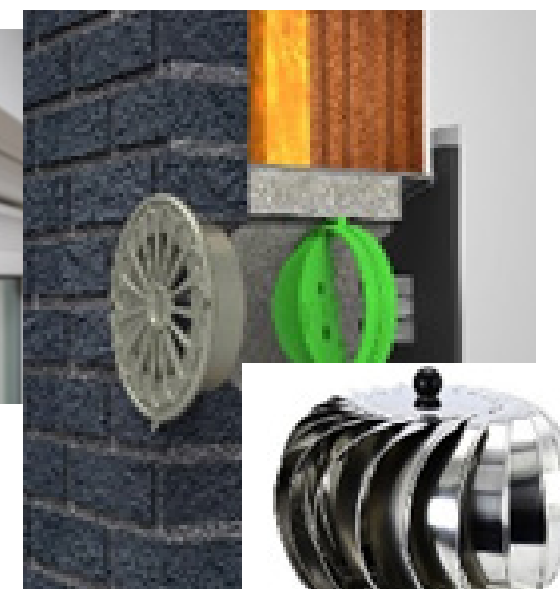
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Materials



Technical improvements

- Ventilation through ventilation grilles: Although limited wind on the west-facing side may reduce airflow through the grilles, they can still be used to remove polluted air from the interior.
 - Stack ventilation: This concept relies on temperature differences within the house. As warm air rises and exits through windows, cool fresh air enters through lower openings. Stack ventilation provides a stable airflow, even on windless hot days, and continues during nighttime as temperatures drop.
 - Roof ventilators: By installing ventilators on sloping and flat roofs, wind passing through them can effectively ventilate the spaces by entering channels and promoting airflow.
 - Electric fans: Electric fans can be utilized to enhance air circulation by creating movement and directing fresh air from the outside into the interior.
- Each concept offers unique advantages and considerations, such as wind patterns, temperature differentials, and the use of mechanical devices. Implementing these concepts can improve ventilation, ensuring a fresh and comfortable indoor environment.



Preliminary Design

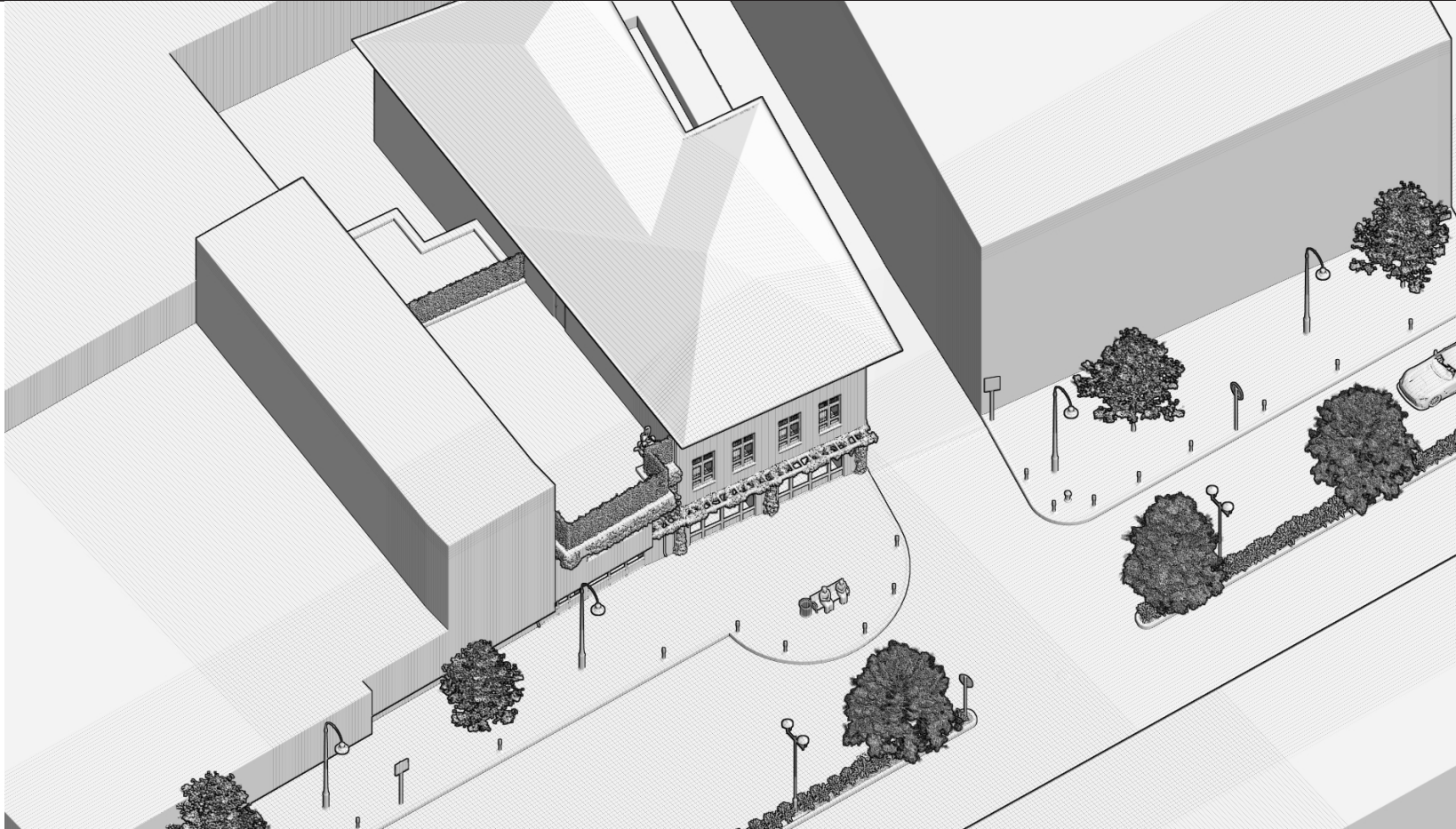


Structural Implementations

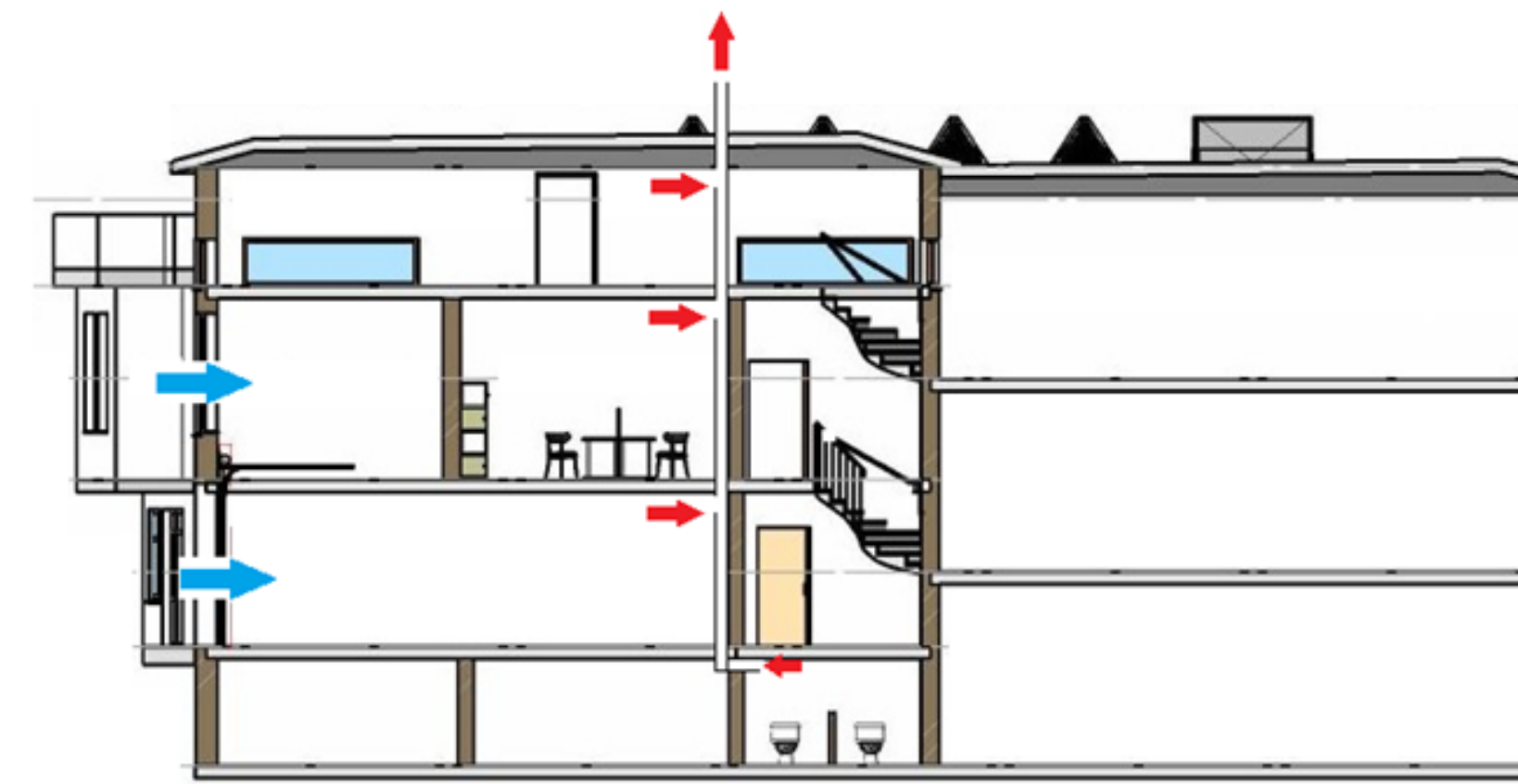
Based on the modifications and additions being made to the building, and taking into account the advice we have given to the designers, we have identified several Turkish suppliers from whom we can obtain the required materials. Below is a list of the required materials: steel beams, lintels, plaster walls, concrete columns, steel railings, window frames, paint, coating, stucco (smooth), wooden beams for the ivy plants, ivy plants.

Future Possibilities

The use of solar panels along with electric heating (air conditioning) and solar collectors in Turkey offers a sustainable, cost-effective and environmentally friendly solution to energy needs. It is a step towards a greener future where we can take advantage of the abundant sunshine the country has to offer. Therefore, this may be of interest to the building in the future.



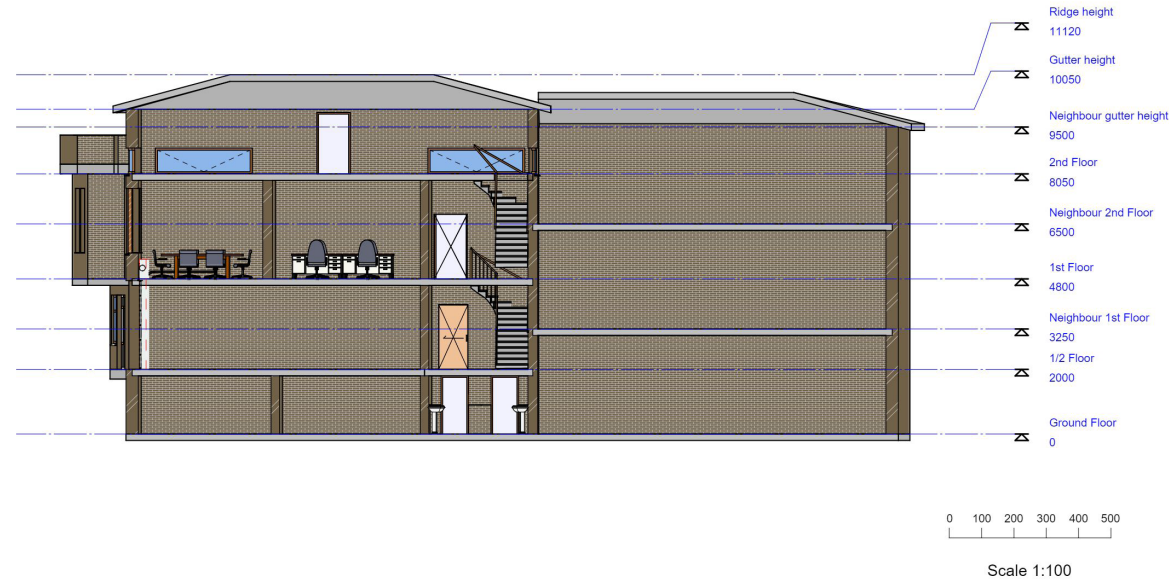
Ventilation



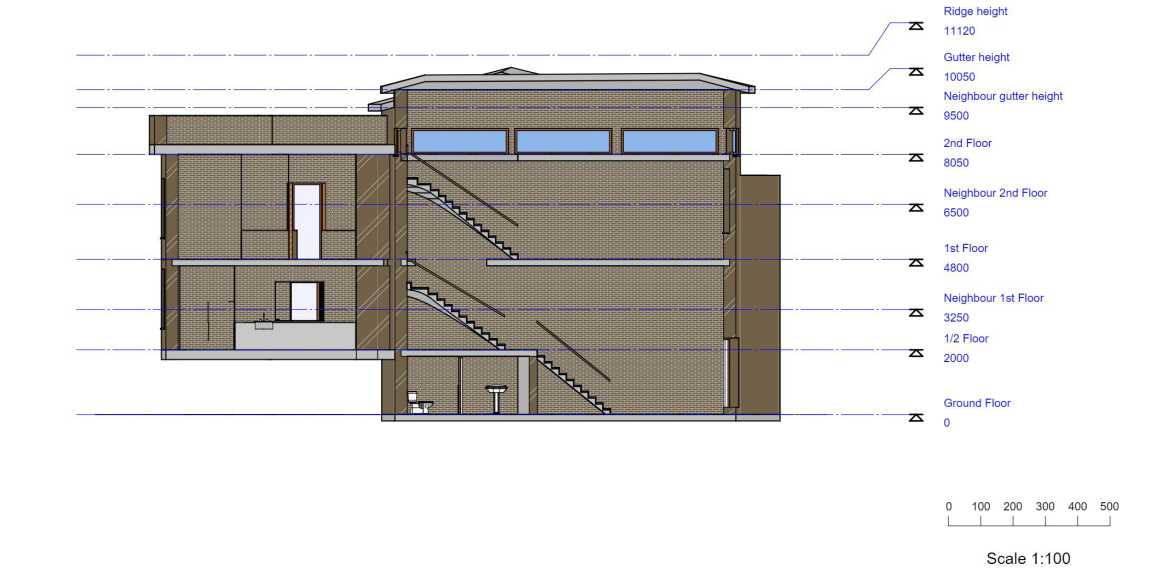
Sequence of activities

1. Remove the stairs at the entrance to the stone house
2. Lower the wall of the bathrooms at the entrance of the stone house to a height of 1800mm.
3. Install two concrete columns and a wall of concrete blocks with a height of 1800mm for the toilets, see map for location
4. Placing wooden floor on the lowered and made walls.
5. Make an opening in the walls where the connection will be made for the two buildings (including the steel beam for reinforcement), see map for location
6. New stairwells.
7. Make an opening for the window in the front kitchen and make an opening on the second floor in the stone house for the passage to the roof terrace
8. Place frames in the recesses that have been made
9. Replacing window frames on the first floor of the white building.
10. Placing window frames for the shops (including arched window frames).
11. Construction of interior walls, both for the bathrooms and on the first floor, including finishing and painting.
12. Cleaning and painting the interior walls of the white building.
13. Cleaning and coating of the natural stones, whereby the window frames of the stone building are also included during the cleaning.
14. Clean and paint the plinth and first floor of the white building where necessary.
15. Making the wooden element at the plinth for ivy plants.
16. Attaching the railing to the roof terrace (railing is 1800mm).
17. Add ivy plants on the wooden element and the railing.

The suppliers will arrive at the designated times through the delivery route and can park at the front. They will then unload the materials and place them in front of the shops, allowing for a smooth process of bringing them inside one by one. Once their delivery is complete, they can return through the exit route. Depending on the tasks at hand, various suppliers will come and contribute to the project. This well-coordinated logistical flow ensures efficiency and minimizes disruptions, allowing for a seamless progression of the work. With each supplier fulfilling their role, the project moves forward smoothly, ensuring that the necessary materials are readily available at the right time and in the right place.

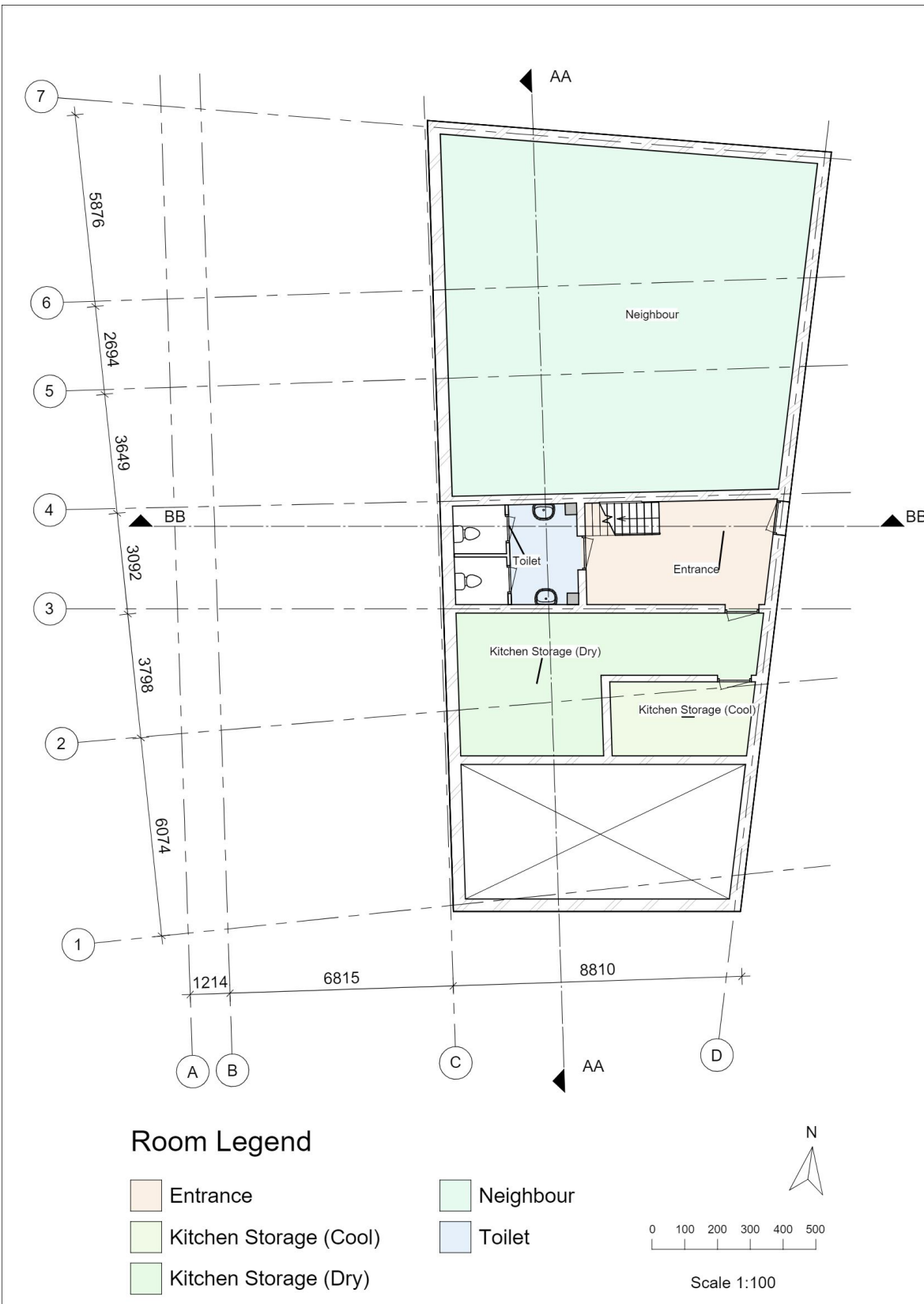


section AA

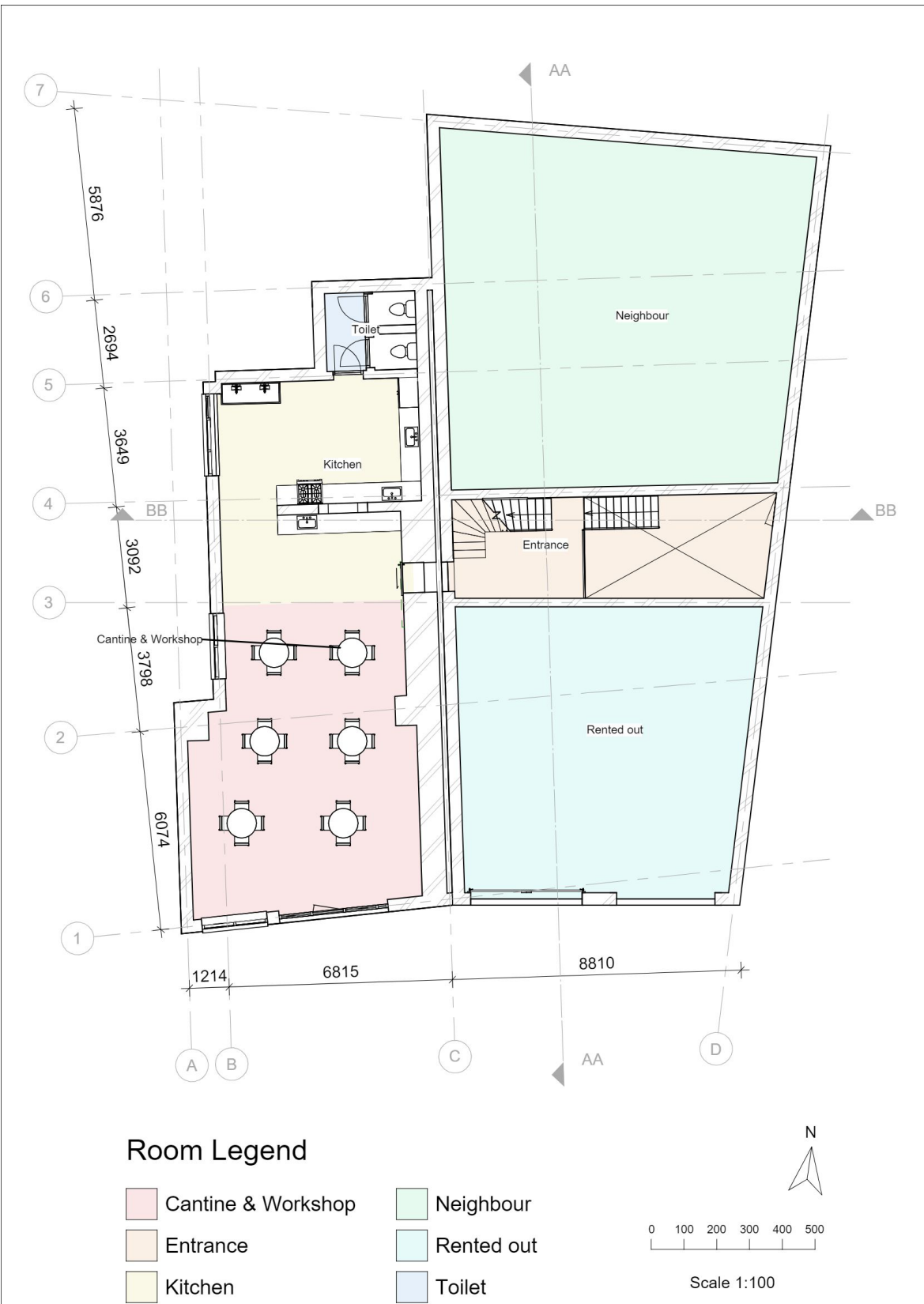


section BB

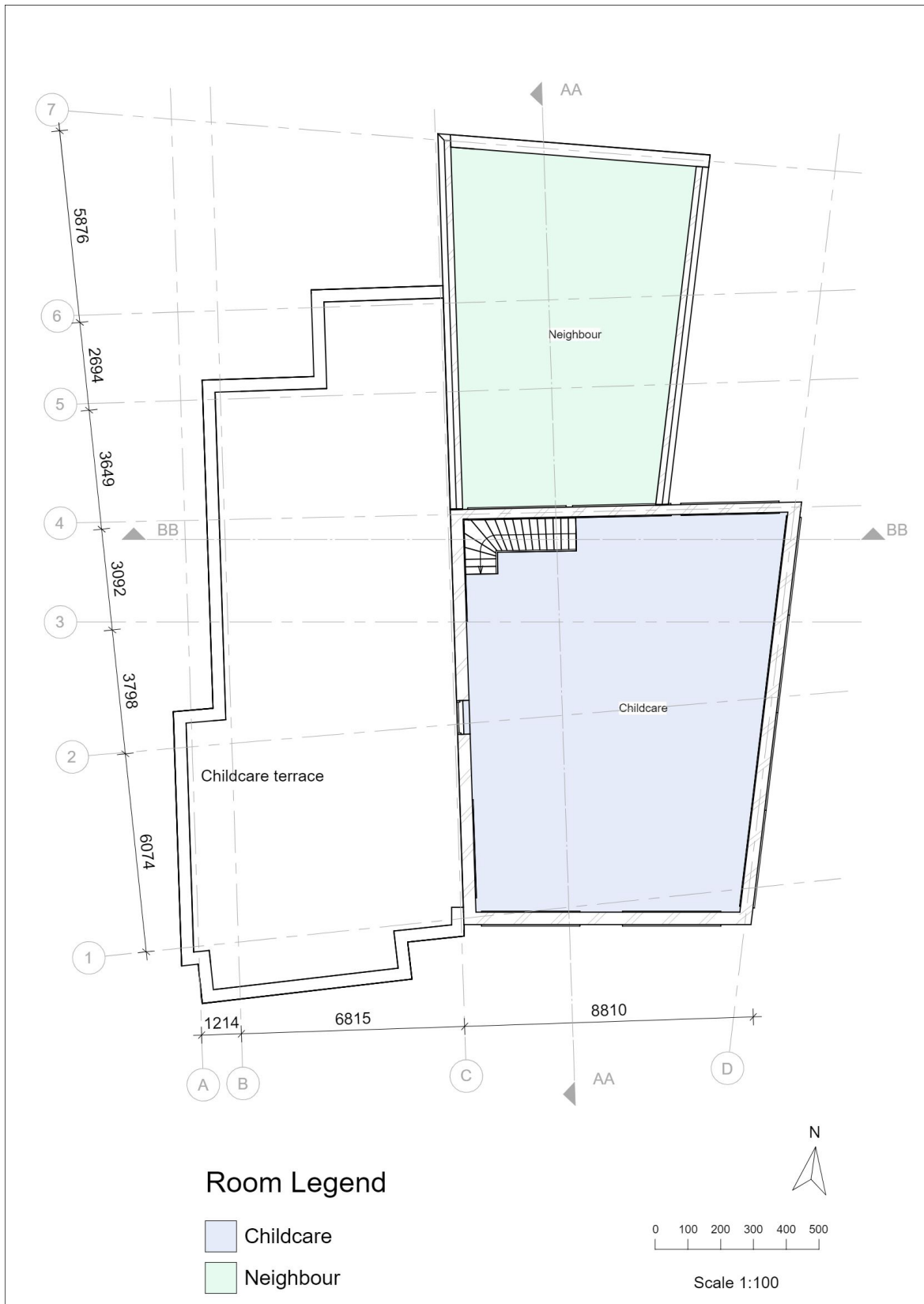
Floor plans



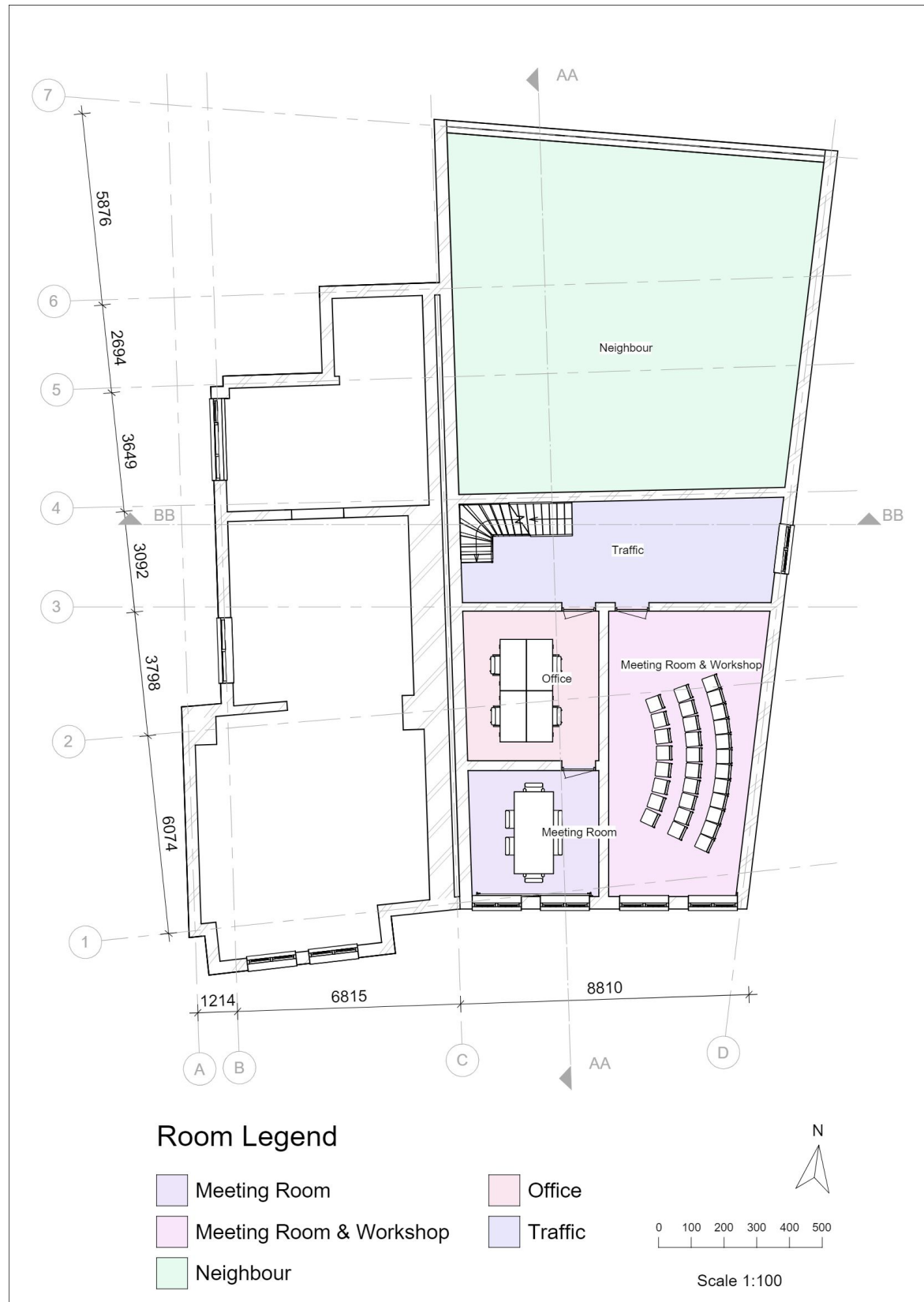
half floor



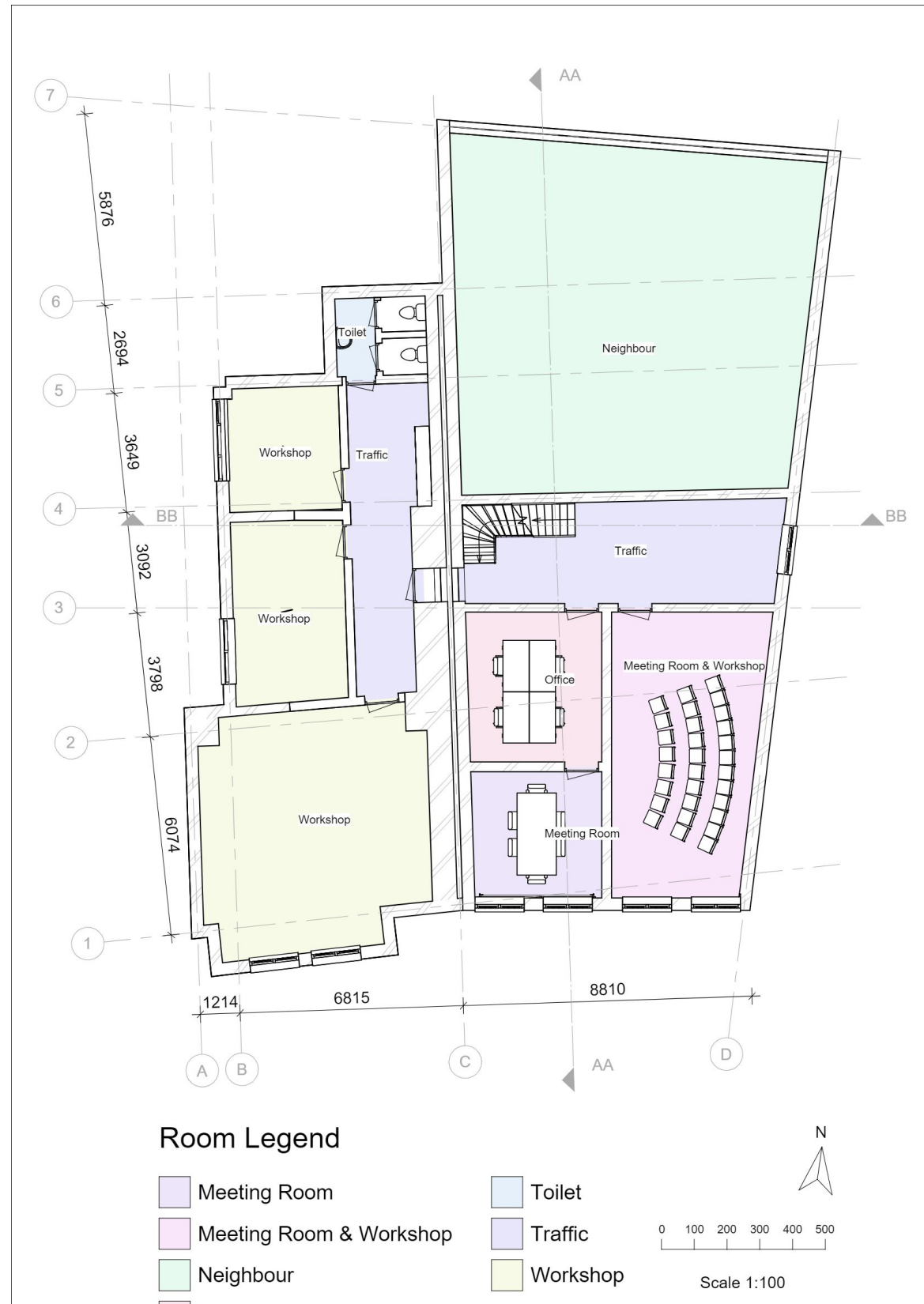
ground floor



2nd floor



1st floor(basic)



1st floor (premium)

