

THE CLUSTERED DICE

ZA MOSTY, HRDLÓREZY, PRAGUE 9, CZECH REPUBLIC



RESIDENTIAL COMPLEX ZA MOSTY, PRAHA 3 HRDLÓREZY

TOMÁŠ SEPEŠÍ, ATS1

ATELIÉR LÁBUS/ŠRÁMEK
FA ČVUT PRAHA ZS 2021/2022

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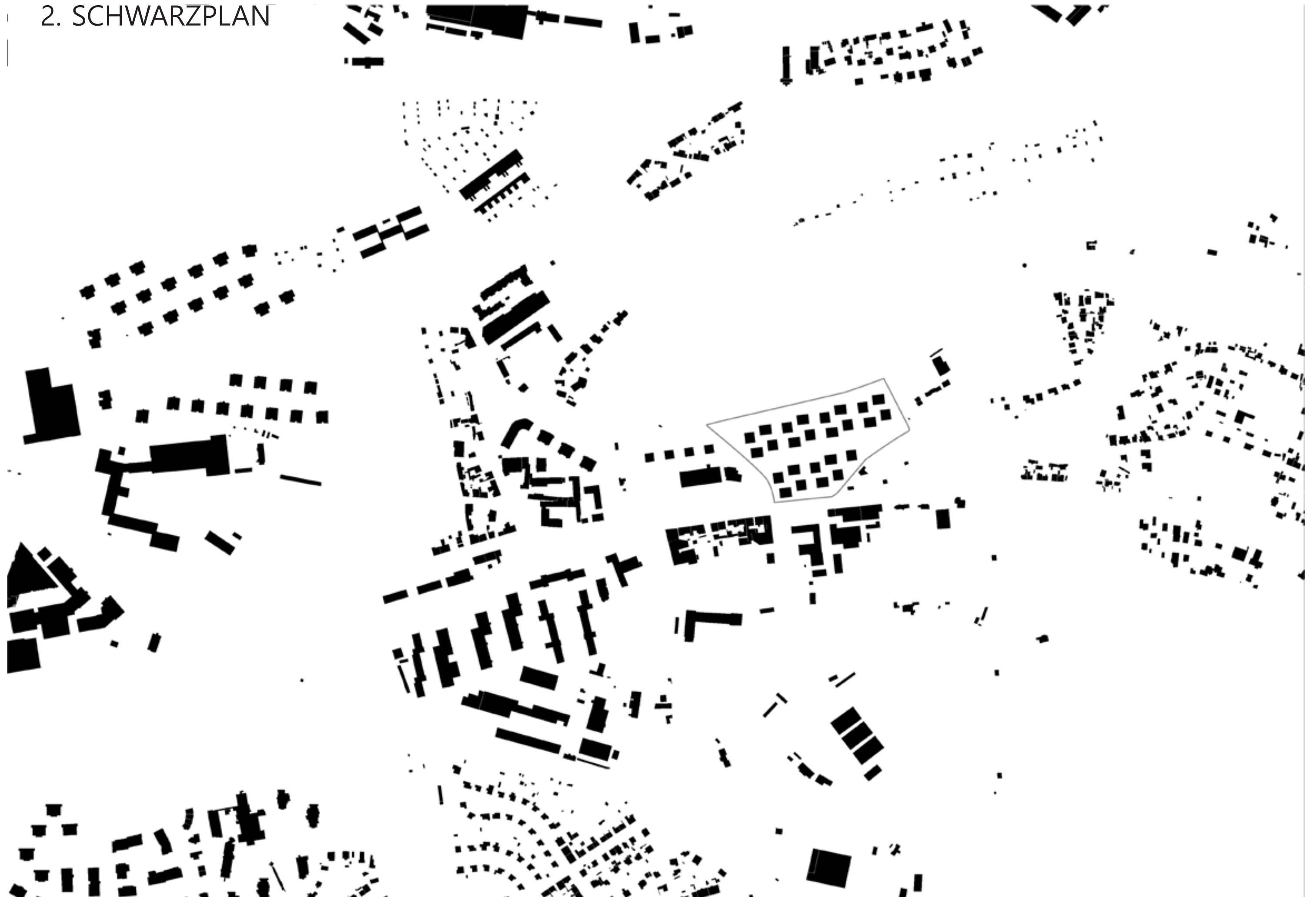
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1. BACKGROUND

THE SITE IS LOCATED IN THE QUIET OUTSKIRTS OF THE EVER-EXPANDING CITY OF PRAGUE, CZECH REPUBLIC. THE SURROUNDINGS OF THE SITE ARE FILLED WITH GREEN SPACES AND THE PARCEL LAYS RIGHT SOUTH OF SMETANKA, A DENSELY FORESTED HILL THAT IS SEPARATED FROM THE PLOT BY A NATURAL STREAM. THEREFORE, EMBEDDING THE ARCHITECTURE INTO ITS NATURAL SURROUNDINGS WAS A PRIMARY CONCERN. THE BRIEF CONSISTED OF DESIGNING MULTIPLE RESIDENTIAL OBJECTS WITH AN EMPHASIS ON SOCIAL LIVING. THE AIM WAS TO DESIGN APARTMENT BUILDINGS THAT WORK IN HARMONY WITH THE NATURAL SURROUNDINGS AND PROMOTE SOCIAL COHESION AMONG THE INHABITANTS. THE DESIGN PROPOSAL WAS TO PRESENT A MORE RURAL AND SUSTAINABLE FORM OF SUBURB, COMBINING DENSITY CHARACTERISTICS OF LARGE CITIES, WITH SUSTAINABLE CONCEPTS SUCH AS SOCIAL HOUSING AND URBAN PERMACULTURE, THUS CREATING A NOVEL MODEL FOR SUBURBAN LIVING.

2. SCHWARZPLAN



3. THE SITE



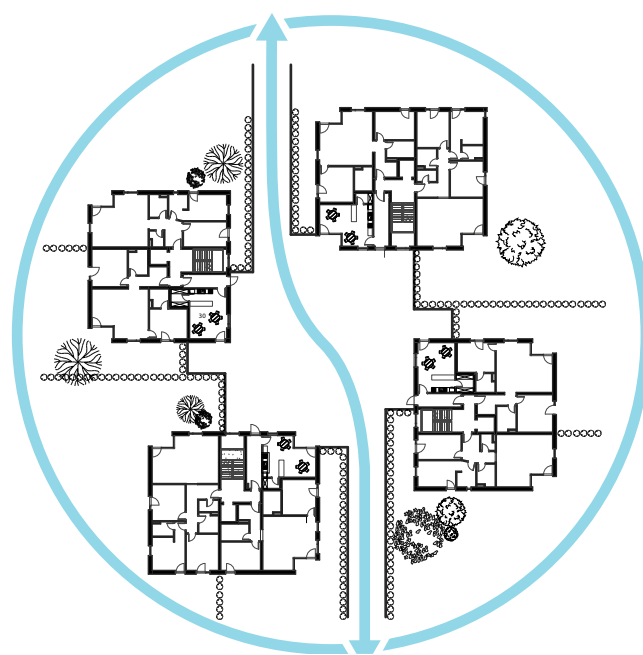
4. CONCEPT

THE INITIAL DESIGN CONCEPT WAS BASED ON CREATING APARTMENT HOUSES THAT WOULD MAXIMIZE THE DESIRABLE VIEWS TO THE NORTH, TOWARDS THE STREAM, WITHOUT SACRIFICING THE SOLAR GAINS AND DAYLIGHTING FROM THE SOUTH. ADDITIONALLY, THE DESIGN OF THE HOUSES WAS TO COMPLEMENT THE CHARACTER OF SURROUNDING ARCHITECTURE, PRIORITIZING SMALLER VOLUMES IN CLUSTERS, AS OPPOSED TO LARGER BUILDINGS.

THE DESIGN CONSISTS OF 6 CLUSTERS. EACH CLUSTER WORKS AS A SEPARATE UNIT, INDEPENDENTLY OF OTHERS. THE CLUSTERS CONSIST OF 4 INDIVIDUAL BUILDINGS, FACING EACH OTHER IN A RADIAL ARRAY, BUT IN A WAY NOT TO DIRECTLY FACE EACH OTHER. BY ORGANIZING THE BUILDINGS IN THIS MANNER, WE PREVENT THE WINDOWS OF BUILDING OPPOSITE TO ONE ANOTHER FROM FACING EACH OTHER, INCREASING PRIVACY. WHEN ORGANIZED THIS WAY, ALL BUILDINGS HAVE SOME DESIRABLE VIEWS TO THE NORTH, WHILE RECEIVING SUNLIGHT FROM THE SOUTH.

IN THE MIDDLE OF THE CLUSTER, A SQUARE IS FORMED, SERVING FOR RECREATION AND SOCIAL INTERACTION AMONG THE INHABITANTS, INCREASING THE SOCIAL SUSTAINABILITY OF THE COMPLEX AND ENCOURAGING SOCIAL BONDING.

PRIVATE GARDENS ARE PLACED ON THE OUTSIDE OF EACH CLUSTER, CONNECTING THE INDIVIDUAL CLUSTERS INTO A WHOLE. THE GARDENS SUPPORT THE IDEA OF URBAN PERMACULTURE BUT ALSO SERVE FOR RECREATION.



DESIRABLE VIEWS

INDIVIDUAL BUILDINGS ARE OFFSET IN RESPECT TO EACH OTHER TO MAXIMIZE DESIRABLE VIEWS TOWARDS THE NORTH WHILE EXPOSING SOUTHERN FACADES TO DAYLIGHT.



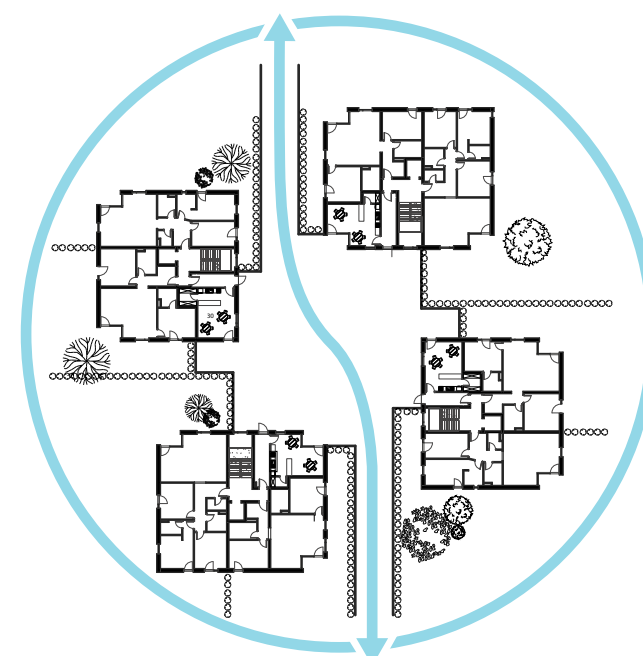
PRIVACY AND RELAX

EACH GROUND FLOOR APARTMENT HAS A PRIVATE GARDEN THAT CAN BE USED ACCORDING TO THE OWNERS WISHES. FURTHERMORE, THERE ARE SEVERAL SPACES SUITABLE FOR FORMING COMMUNAL GRADENS ON THE SITE.



SOCIAL INTEGRATION

EACH CLUSTER HAS A CENTRAL SQUARE, ALLOWING THE INHABITANTS TO SOCIALLY INTERACT. GROUND FLOORS ARE EQUIPPED WITH COMMON ROOMS FACING THE CENTRAL SQUARE, INCREASING SOCIAL COHESION WITHIN BOTH THE BUILDING AND THE CLUSTER.



ACCESSIBILITY AND FLOW

THE WHOLE COMPLEX IS DESIGNED WITH EASE OF ACCESS IN MIND. THE CLUSTERS ARE PASSABLE, ALLOWING THE INHABITANTS AND VISITORS TO CROSS THE SITE WITH EASE. EVERY SIDEWALK LEADS EITHER TO OR FROM THE STEAMSIDE.

5. FACADES AND FINISHES

THE DESIGN PURPOSE WAS TO DIFFERENTIATE THE BUILDINGS WHILE KEEPING THEIR JOINED DESIGN. BUILDING A HAS AN ACRYLIC WHITE FIBRE CEMENT FINISH, WITH WOODEN CLADDING AS THE FINISH IN BOTH BALCONY AND WINDOW RECESSES. BUILDING B HAS HORIZONTAL WOODEN SIDING AS A FACADE FINISH WITH WHITE HIGHLIGHTS IN THE RECESSES. THE OPENINGS HAVE A VERTICAL CHARACTER BY USING FLOOR-TO-CEILING FRENCH WINDOWS BUT WITH VARIATIONS FLOOR-TO-FLOOR TO BREAK APART THE FACADE AND CREATE AN INTERESTING VISUAL EXPERIENCE. THE OVERALL LOOK OF THE BUILDINGS IS COMPLEMENTED BY GREEN ROOFS THAT CONTRAST WELL WITH THE FACADE FINISHES AND accentuate THE SUSTAINABLE LOOK OF THE DESIGN.



SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION

6. CONSTRUCTION

THE LOADBEARING STRUCTURE OF THE HOUSES CONSISTS OF REINFORCED CONCRETE WALLS OF 250MM. ALL OF THE LOADBEARING ELEMENTS ARE ALIGNED TO MINIMIZE THE USE OF STRUCTURAL BEAMS. THE FLOOR HEIGHT IS 3000MM, THEREFORE THE OVERALL HEIGHT OF THE BUILDINGS IS 12 METERS PLUS A PARAPET OF 900MM.



SECTION A-A' 1:200

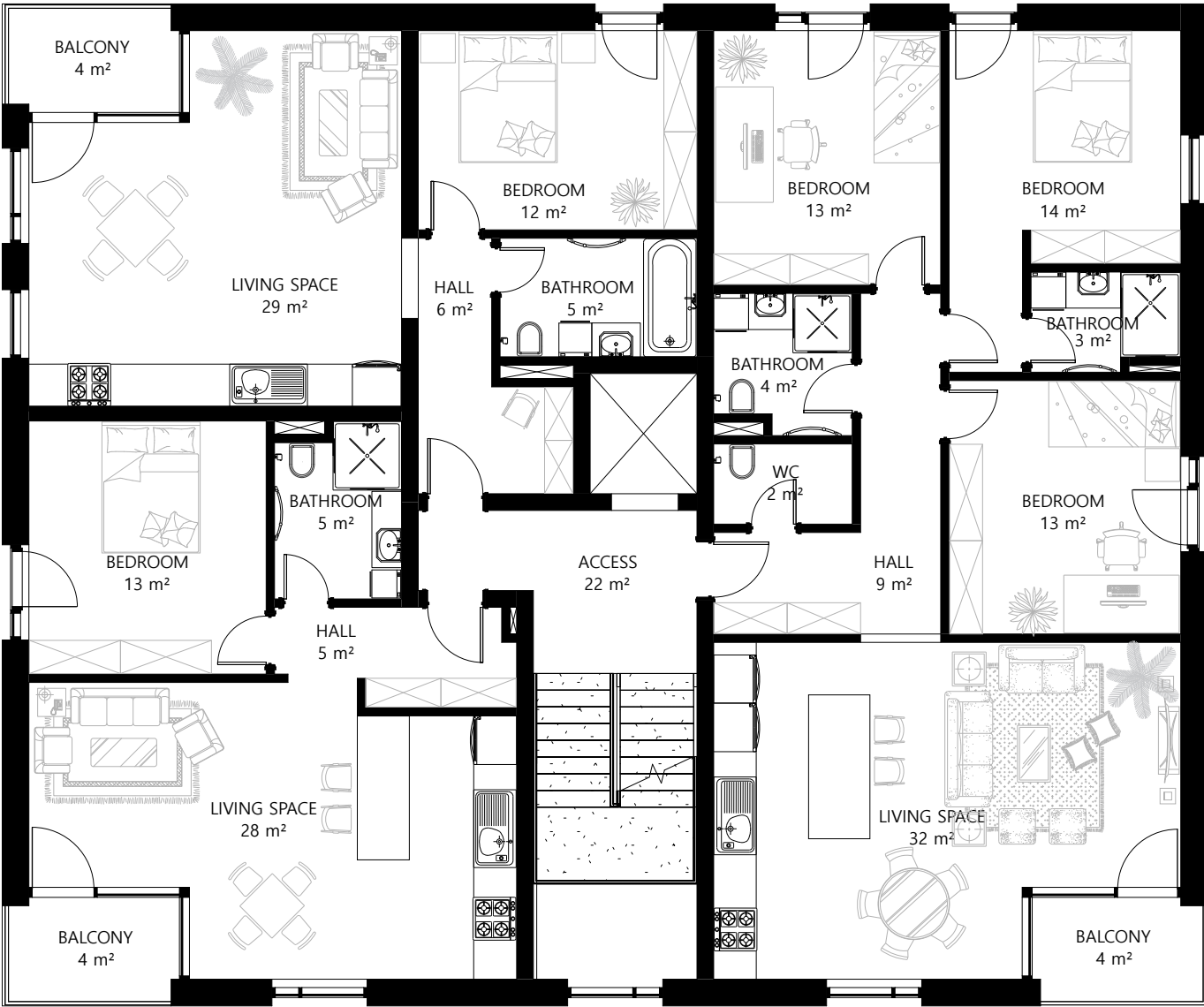
7. THE LAYOUTS

BOTH OF THE BUILDINGS CONSIST OF 3 APARTMENTS PER STANDARDIZED FLOOR LAYOUT. BUILDING A CONTAINS 2 ONE-BEDROOM AND 1 TWO-BEDROOM APARTMENT. BUILDING B CONTAINS 2 ONE-BEDROOM AND 1 THREE-BEDROOM APARTMENT. ALL DWELLINGS HAVE AN ENTRANCE HALL THAT SERVES AS A PORTAL INTO ALL THE ESSENTIAL SPACES OF THE UNIT. THE DWELLING LAYOUTS ARE SEPARATED INTO PUBLIC AND PRIVATE SPACES AND SEPARATED BY CORRIDORS. LIVING ROOMS, KITCHENS, AND DINING ROOMS ARE JOINED INTO OPEN LIVING SPACES. TALL FRENCH WINDOWS AND RECESSED BALCONIES OPEN UP TO THE SURROUNDING ENVIRONMENTS, CONNECTING THE INSIDE TO THE OUTSIDE AND HELPING BRING DAYLIGHT AND A SENSE OF SPACE INTO THE ROOMS.

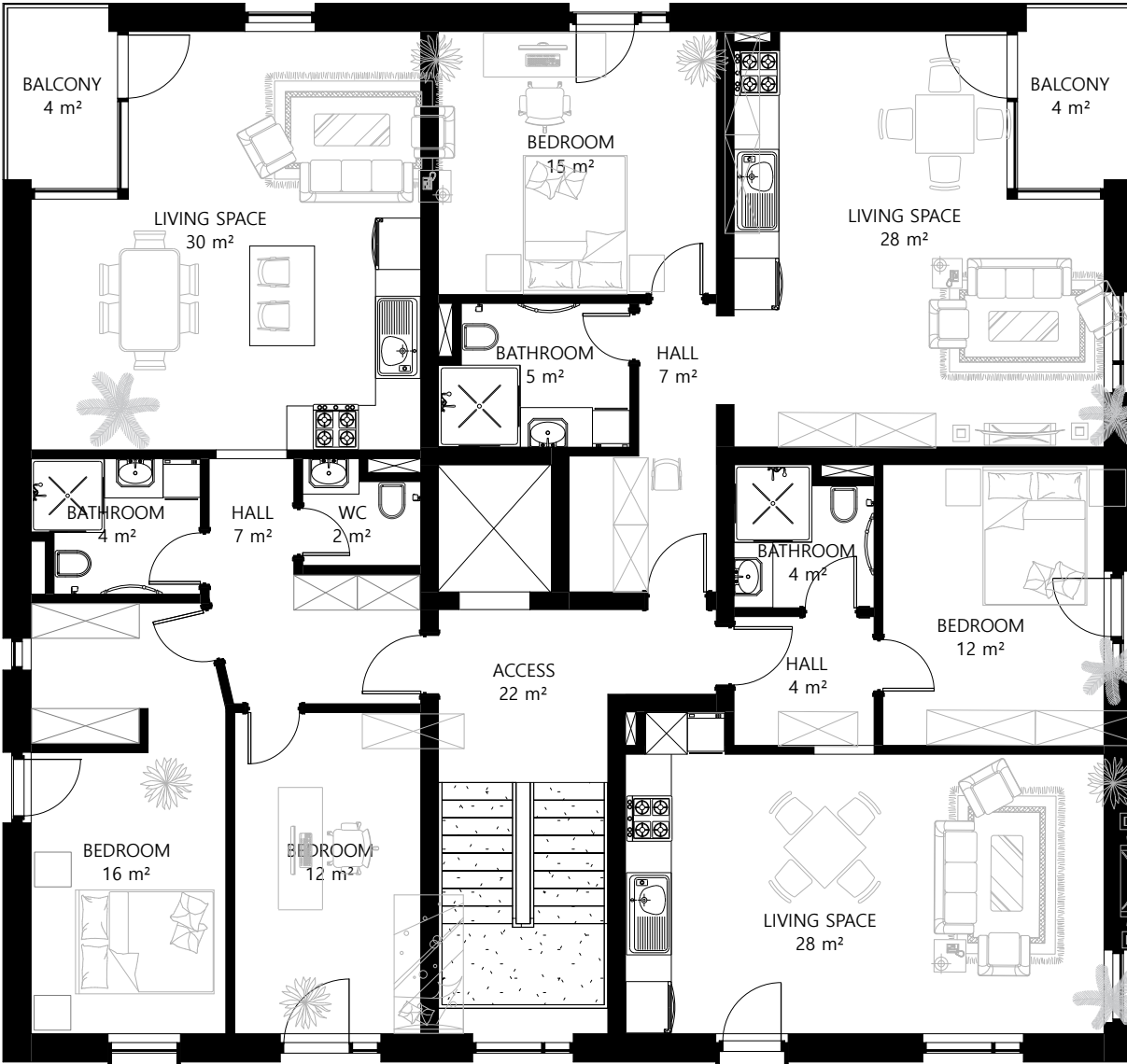
GROUND FLOOR LAYOUT CONSISTS OF 2 APARTMENTS PER BUILDING: IN THE BUILDING A 2 TWO-BEDROOM APARTMENTS AND THE BUILDING B 1 TWO AND 1 THREE-BEDROOM APARTMENTS. THE DWELLING OF THE GROUND FLOOR HAS THE ADDED VALUE OF HAVING PRIVATE BACKYARDS OF 150-300 M2. EACH BUILDING CONTAINS A COMMON ROOM, THAT OPENS UP TO THE CENTRAL COURTYARD. THE COMMON ROOM IS EQUIPPED WITH A KITCHEN AND TABLES AND SERVES AS A MEETING AND SOCIAL BONDING PLACE FOR THE INHABITANTS. CATERING OR OTHER EVENTS CAN TAKE PLACE IN THE COMMON ROOM, ALLOWING THE COMMUNITY TO INTERACT AND FORM RELATIONSHIPS.

THE BASEMENT SERVES MAINLY FOR PARKING. IT CONTAINS 25 PARKING SPACES AS WELL AS PARKING FOR THE DISABLED. IT ALSO HOLDS 1 STORAGE UNIT PER APARTMENT, A COMMON LAUNDRY ROOM, AND UTILITY ROOMS SUCH AS A TECHNICAL ROOM AND ROOM FOR A CLEANING LADY.

BUILDING B 1:100

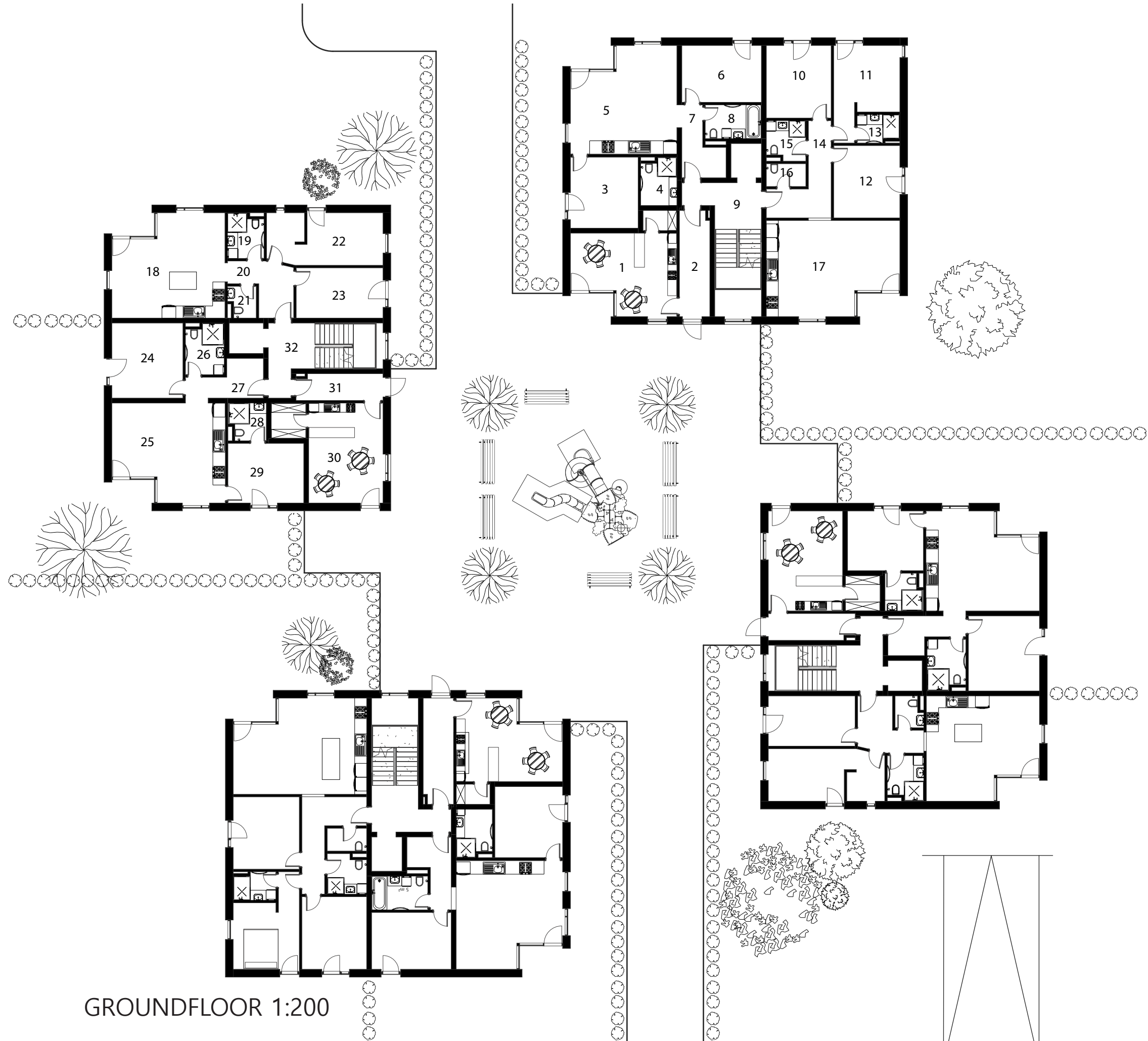


BUILDING A 1:100



GROUND FLOOR

1. COMMON ROOM	23m ²
2. ENTRANCE HALL	9m ²
9. ACCESS	22m ²
APARTMENT 1	
3. BEDROOM	13m ²
4. BATHROOM	5m ²
5. LIVING SPACE	29m ²
6. BEDROOM	12m ²
7. HALL	6m ²
8. BATHROOM	5m ²
APARTMENT 2	
10. BEDROOM	13m ²
11. BEDROOM	14m ²
12. BEDROOM	13m ²
13. BATHROOM	3m ²
14. HALL	9m ²
15. BATHROOM	4m ²
16. WC	2m ²
APARTMENT 3	
18. LIVING SPACE	30m ²
19. BATHROOM	4m ²
20. HALL	7m ²
21. WC	2m ²
22. BEDROOM	16m ²
23. BEDROOM	12m ²
APARTMENT 4	
24. BEDROOM	15m ²
25. LIVING SPACE	28m ²
26. BATHROOM	5m ²
27. HALL	7m ²
28. BATHROOM	4m ²
29. BEDROOM	12m ²
30. COMMON ROOM	23m ²
31. ENTRANCE HALL	6m ²
32. ACCESS	19m ²



GROUND FLOOR 1:200

BASEMENT

1. STORAGE

2. HALL

3. CLEANING LADY

4. TECHNICAL

5. LAUNDRY ROOM

6. LAUNDRY ROOM

7,8,9. HALL

10. CLEANING LADY

11. TECHNICAL

12. BIKE STORAGE

13. LAUNDRY

14,15. HALL

16. CLEANING LADY

17. TECHNICAL

18. TECHNICAL

19. HALL

20. CLEANING LADY

21. LAUNDRY
- 3-5m²

28m²

7m²

8m²

7m²

7m²

31m²

14m²

10m²

10m²

6m²

40m²

7m²

8m²

12m²

6m²

5m²

6m²



BASEMENT 1:200