THE CITY - PLACE FOR ALL
Exploring the possibilities to attract families back in the city through the case of the Expat families

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**TARGET GROUP**

<table>
<thead>
<tr>
<th>Household type: married/unmarried couple without children</th>
<th>Household type: married/unmarried couple with 1 or more children (family)</th>
<th>Household type: single parent with 1 or more children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling type: one level - compact</td>
<td>Dwelling type: one or two - levels (loft)</td>
<td>Dwelling type: one level - compact</td>
</tr>
<tr>
<td>Dwelling size: 50 - 80 m²</td>
<td>Dwelling size: 85 - 160 m²</td>
<td>Dwelling size: 50-80 m²</td>
</tr>
<tr>
<td>Bedrooms: 1 - 2</td>
<td>Bedrooms: 2 or more</td>
<td>Bedrooms: 2 or more</td>
</tr>
<tr>
<td>Shared spaces: kitchen, event space, shared</td>
<td>Shared spaces: playgrounds, play rooms,</td>
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</tr>
<tr>
<td>working space, exercise room</td>
<td>multifunctional zones, exercise room</td>
<td>multifunctional zones, exercise room</td>
</tr>
</tbody>
</table>

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TARGET GROUP - QUESTIONNAIRE

Results from rating (1 - 10) the importance of having a shared outdoor space

Results from rating (1 - 10) the importance of having playgrounds as shared facility

Results from rating (1 - 10) the importance of having a private outdoor space

Responses to the question “How many square meters do you need?”

Responses to the question “How many bedrooms do you need?”
DESIGN STRATEGY BASED ON RESEARCH

MULTIFUNCTIONAL ZONE
The multifunctional zones allow interactions between parents and in between children. The literature research shows that parents would like to have something to do while watching their children play on the playground. Therefore, the multifunctional zone can give them the freedom to work, interact with other parents, do sports or relax.

PATHS
The paths are interesting way to stimulate the interaction between the residents. The design for M4H allows for both horizontal and vertical paths. In the research by Marcus, residents say that the corridors allow for informal social interactions which makes them closer to their neighbours. On the other hand, the children’s ideal neighbourhood also includes a lot of paths, which they see as opportunity of exploration.

PLAYGROUNDS
The playgrounds are zones purely designed for children. However, they should be part of multifunctional zones where parents can do something else as well. The playgrounds can hold children in different age groups but in general only children up to 12 years old are interested in the play grounds.

WILD ZONES
The wild zones will also be designed for children and specifically their curiosity and desire to explore. The idea of the wild zone is to provide a green space where children can connect to nature. There are a lot of positive aspects which green brings to development of the children - better concentration, friendliness, healthy environment.

STUDY/OFFICE SPACE
The study and office space will be designed for parents and older children which can study together and invite friends. From the interviews it can be concluded that most of the mothers work from home, not only during the pandemics. Therefore, a working space which is visually connected with the play room can allow better working environment for the parents who work from home.

MULTI-FUNCTIONAL ZONE
The inside multifunctional zone has the same principles as the outside multifunctional zone. It should allow parents and children to gather together. The space can be designed as flexible, therefore it can also be used as an event room for the community. For example it can be used as a National day celebration of the different cultures, International food event etc.

EXERCISE ROOM/GYM
The exercise room will be a flexible space dedicated to sport and sport classes. It is mainly for the parents but can be designed as such to have a visual connection to the play zone. This way parents can have an activity while their children are playing.

KITCHEN/EVENT PLACE
The kitchen will be the place for families to gather together. The kitchen can serve the cluster and can be also used as an event space. In most cohousing projects the cluster kitchen is used for informal gatherings and communication, while when there is an event for the whole community, then the multi-functional zone will be used.
DESIGN STRATEGY

Maximize the sunlight

Create space for generation of solar energy

Circulation both internal and external

Maximize the green spaces
Number of dwellings: 69
Range: 63.8 - 177.8 m²
Types: 12
LOAD BEARING STRUCTURE

Primary structure
Secondary structure acting as support to reduce the floor thickness

[Diagram showing dimensions and structures]
CONCEPT PRINCIPLE

All roof tops are green to contribute for the biodiversity of the region. Some of them are accessible to the residents, while others are used for solar generation.

The heights are adjusted with the surrounding buildings and meet the requirements of the urban planning.

The courtyard is designed as an inner park and child-friendly zone.

The courtyard has optimal daylight conditions as the heights on the south-west direction are lowered to allow maximum sunlight.
Collection of the rainwater from the balconies and the rooftops would allow reusing the water for watering the plants.
VENTILATION ON DWELLING LEVEL

Schuco frames for ventilation and preheating the air. The supplied fresh air is already preheated by the used exhaust air.

Suspended ceiling

Air outlets for exhaust air from kitchen, bathroom and toilet.

Schuco frames for ventilation and preheating the air. The supplied fresh air is already preheated by the used exhaust air.
CIRCULATION, PARKING, PUBLIC

Level 0

Level 0+

Level 1 and 2 - same principle

Level 3

Car sharing facility/parking

Bicycle parking

Circulation

Collective space

Commercial function
CIRCULATION, COLLECTIVE

Level 4

Level 5

Level 6

Level 7
SUN ANALYSIS

March 21st, 9:00

March 21st, 12:00

March 21st, 15:00

March 21st, 17:00
MASTERPLAN
URBAN SECTION
DWELLING TYPES

Number of dwellings: 69
Range: 63,8 - 177,8 m²
Types: 12
DWELLING 1

Dwelling size: 107.5 m²
Outside space: 10.5 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 4 on Level 1
DWELLING 2

Dwelling size: 109.5 m²
Outside space: 10.6 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 11 on Levels 1, 2, 3, 4, 5, 6
DWELLING 3

Dwelling size: 63.8 m²
Outside space: 10.6 m²
Number of bedrooms: 2
Suitable household: Family/Couple
Number of dwellings: 17 on Levels 1, 2, 3, 4, 5, 6
DWELLING 4

Dwelling size: 101.8 m²
Outside space: 10.5 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 5 on Levels 1,2,3
DWELLING 5

Dwelling size: 92 m²
Outside space: 7,6 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 4 on Levels 1 and 2
DWELLING 6

Dwelling size: 94 m²
Outside space: 10,6 m²
Number of bedrooms: 2
Suitable household: Family
Number of dwellings: 20 on Levels 1,2,3 and 4
DWELLING 7

Dwelling size: 161,3 m²
Outside space: 10,5 m²
Number of bedrooms: 4 + 1
Suitable household: Family
Number of dwellings: 1 on Level 3-4
DWELLING 8

Dwelling size: 89.6 m²
Outside space: 10.5 m²
Number of bedrooms: 2 + 1
Suitable household: Family/Couple
Number of dwellings: 1 on Level 3-4
DWELLING 9

Dwelling size: 177,8 m²
Outside space: 10,6 m²
Number of bedrooms: 5
Suitable household: Family
Number of dwellings: 1 on Levels 7 and 7+
**DWELLING 10**

Dwelling size: 114 m²
Outside space: 10.5 m²
Number of bedrooms: 3 +1
Suitable household: Family
Number of dwellings: 1 on Levels 7, 7+
DWELLING 11

Dwelling size: 120 m²
Outside space: 10.5 m²
Number of bedrooms: 3
Suitable household: Family
Number of dwellings: 3 on Levels 7, 7+
DWELLING 12

Dwelling size: 70.8 m²
Outside space: 10.5 m²
Number of bedrooms: 2
Suitable household: Family
Number of dwellings: 1 on Level 7
EAST ELEVATION

Scale 1:200
NORTH ELEVATION
FACADE TYPES

Scale 1:50
1. Roof edge with pot for higher vegetation
2. Blue roof with vegetation
3. Blue roof with vegetation and PV Panels
4. Blue roof with green wall

From exterior to interior:
- Vegetation
- Substrate
- Bauder Filter Fleece
- Bauder reservoir
- Protection mat
- PE foil
- Waterproofing board
- Rigid insulation
- CLT roof

Scale 1:20
DETAIL 1 ROOF-FACADE CONNECTION

- Waterproofing foil
- 10 mm Board
- 150 mm insulation with timber stud
- 70 mm Insulation
- Breathable foil (waterproof)
- Buttocks
- Timber cladding board

From left to right:

- Vegetation
- Substrate
- Scauder filter fleece
- Scauder reservoir
- Protection mat
- PE foil
- Waterproofing board
- Rigid insulation
- CLT roof
DETAIL 2 FACADE AND WALL

From top to bottom:
- 15 mm Wooden floor
- 40 mm Screed with heating
- 30 mm Insulation
- 60 mm Concrete screed
- 160 mm CLT floor

From top to bottom:
- 10 mm Wooden decking
- 90 mm Beams
- Waterproof membrane foil
- 35 mm Insulation
- 160 mm CLT floor
DETAIL 3 BALCONY AND RAILING CONNECTION

From left to right:
- 15 mm Wooden board
- Glass panel railing

From left to right:
- Beam supporting the balcony
DETAIL 4 FACADE TO FLOOR (CONCRETE)

From top to bottom:
- 15 mm Wooden floor
- 40 mm Screed
- 30 mm Insulation
- 60 mm Insulation
- 180 mm Concrete slab
- Suspended ceiling

From left to right:
- 20 mm Gypsum board
- 150 mm Space for integration of the pipes
- 300 mm Concrete beam
- 100 mm Insulation
- 50 mm External panel

Scale 1:5
From left to right:
- 15 mm Gypsum board for fire safety
- 78 mm CLT wall
- 45 mm Insulation
- 20 mm Air gap
- 45 mm Insulation
- 78 mm CLT wall
- 15 mm Gypsum board for fire safety

L-bracket for holding the wall

Schiüco Ventilation System - VentoTherm Twist

Schiüco AWS70 window system

Scale 1:5
DETAIL 4 SEQUENCE OF ASSEMBLY

1. Start point (load-bearing structure and facade on lower floor is on place)

2. Connecting the structure of the balcony with the structure of the floor

3. Mounting the facade element (prefabricated)

4. Adding the top layers of the floor and balcony on site

Scale 1:5
EXPLODED VIEW OF THE BUILDING

- Internal galleries with stairs
- Internal facade
- Outside facade
- Structural and partition walls
- Balconies
- Concrete structure