

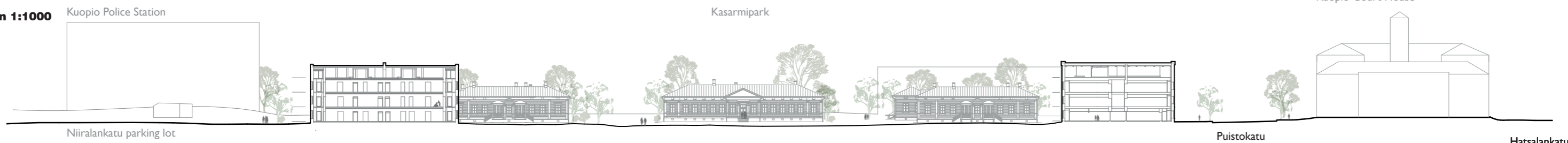


areal plan 1:10 000

integration to urban structure



Area section 1:1000 west-east



Resilience of togetherness

Kuopio community living

The proposal 'Resilience of togetherness' is centered around providing a platform for flourishing and sustainable communities and environment to Kuopio barracks area. Our proposal aims to support the formation of resilient social groups by transforming the Kuopio barracks area to communal living. This approach is driven by the belief that residing in communities offers the potential to combat loneliness through the establishment of meaningful relationships among residents, coupled with the recognition that sharing domestic spaces fundamentally improves resource and energy efficiency. We also believe that the more diverse family structures require new types of living solutions and those can ideally be experimented in the former military barracks of Kuopio, in an appealing central location of the lively city center.

As a growing city Kuopio's predicting to grow by 1000 inhabitants annually (Kuopion väestö, työpaikat ja asuminen). Our proposal increases the number of apartments in historical Kuopio barracks area by 14 large group tenancy homes which can host up to 86 dwellers.

Similarly to the rest of the western world, Kuopio experiences large changes in the city demography. The growth is fueled by urbanization, migration from other municipalities and transnational immigration (Kuopion väestö, työpaikat ja asuminen). The population is ageing, and the birth rate stays low. Like in rest of contemporary Finland, the abandonment of the traditional nuclear family ideal and shrinking family size can be viewed as a significant megatrend that shapes Kuopio's future. In Finland the share of married couples with children has decreased since 1990, and the number of childless families has increased considerably (OSF, 2020a). Additionally, the number of blended families has increased while the families where 3 or more generations live together has decreased (OSF, 2020a).

This shift reflects changing societal norms, values, and lifestyles, where the traditional model of a two-parent household with children is no longer the dominant or preferred living arrangement for many individuals. Instead, there is a growing acceptance and embrace of diverse family structures, including single-parent households, cohabiting couples without children, same-sex couples, chosen families and people choosing to live alone.

While this trend is driven by various factors such as changing gender norms, increased individualism, economic pressures, and cultural shifts towards inclusivity and diversity, a trend of loneliness is also growing.

Loneliness is a complex, widespread and shared European issue that affects people of all ages and backgrounds. While loneliness is a subjective feeling defined as an unmet need in terms of quantity or quality of social interactions, loneliness is also viewed as a major health risk since a strong correlation between loneliness and poor mental and physical health is found. Depression, anxiety, poor diet, increased morbidity, mortality and low public participation are all issues associated with higher rates of loneliness. On average, 13% of all Europeans feel lonely most or all the time, while one in three reported being lonely at least some of the time. Prevalence of loneliness decreases with increased age, income, and education while people living alone, experiencing major life events such as separation, job loss or finishing their studies are more often lonely. (EU Loneliness survey).

Like in the rest of the European countries, loneliness is increasing in Finland. In 2022 Almost 30% of those over the age of 16 felt that they were lonely most of the time or all the time. In 2018 this percentage was only 21. People over the age of 85 experienced the most loneliness, followed by those aged 16-24. (OSF, 2022).

In Finland living alone has increased a 50% since 1990. In 2021 there was 1.28 million people living alone (OSF, 2022). Finland has one of the smallest household sizes in Europe, on average 1.9 person (Eurostat, 2024). In Kuopio 49% of the households are single-dwellers (Kuopion väestö, työpaikat ja asuminen).

Living alone was most common among young adults and the oldest age groups (OSF, 2022). Living alone is the preferred form of living but in 2022 half of those who lived alone experienced loneliness and the loneliness among people living alone was highest (OSF, 2022). Since a strong correlation between living alone and experiencing loneliness is found, it is not a coincidence that the same age groups with highest loneliness are also most likely to live alone. According to Väestöliitto survey, every sixth person living alone in Finland experienced longing a more communal form of living and one in three wished they could live together with a partner. Single dwellers felt that they missed social activities, events and physical proximity and longed for emotional connection in their everyday life (Kontula, 2018). The survey highlights the need for help when struggling to form social networks and experiencing loneliness (Kontula, 2018).

When analyzing the trend of living alone from the sustainability point of view the phenomena becomes problematic. People living alone are likely to consume more land, energy and goods per person than those living in a family unit, with a partner or in accommodation with communal facilities (Savolainen et al. 2019).

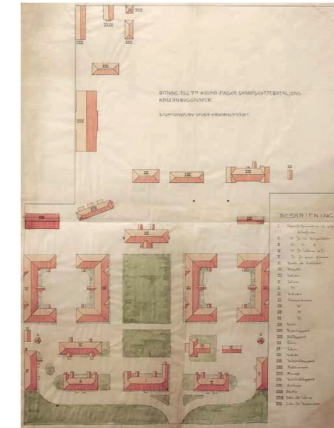
The people that live alone use the most square meters per person compared to other living-forms (OSF, 2020b). As the used living area increases, individual consumption too increases. Those living in accommodation with shared facilities tend to consume less space per person compared to accommodations where facilities are separate and thus, less energy consumption in facility heating. Individual resource consumption can be decreased through sharing common facilities between individuals. Most dramatic reduction in consumption can be found in collective housing where the dwellers hold close relationship with each other and share both their space and utilities. (Williams, 2002).



Site plan 1:1000

- building
- entrance
- paving
- grass
- meadow
- fence of native plants
- garden plot
- terrace
- bench
- a tree to be planted
- shared electric car

- building:
- A, B, C, F, G, H
- E
- F
- J
- use:
- shared housing
- day care center
- hybrid use
- storage



area plan
Kuopio barracks area completed in 1881,
The national archives of Finland



orthoimage, 1947
Kuopio city



Prison camp in the barracks, Victor Barsokovitsch (1918)
Kuopion kulttuurihistoriallinen museo KUHMU

Biodiversity and Heritage Conservation

The competition area is part of the Nationally significant built environments. The Kuopio barracks area is one of the eight sniper battalion barracks established in the 1880s for the use of Russian army in the county capitals of the time. Total of 30 buildings were planned for the area: crew barracks, canteen, commander's and officers' quarters as well as headquarters, hospital, main guard, officers' club and utility buildings. All the sniper battalion barracks have been built according to the standard drawings of the army but August Boman and L.I. Lindqvist. were responsible for their local design. (Finish Heritage Agency, 2009).

The sniper battalions disbanded in 1901. After that, Russian soldiers were stationed in the barrack area, for which brick barracks and outbuildings such as stables, warehouses and workshops were built in 1914-1916. After the independence of Finland, the buildings were transferred to the Finnish army. During 1918, the barracks area was used as a prison camp. (Finish Heritage Agency, 2009).

Finnish Heritage Agency (n.d.), on Nationally significant built environments:

The aim is to protect the structure and village or town image of the nationally significant built cultural environments and to preserve the existing buildings and environments in these areas. Furthermore, the aim is to adjust any new constructions and other alterations to the special characteristics and features of their cultural environment.

We argue for the preservation of the barrack area buildings and their immediate surroundings. Due to the demolition of the barrack buildings in Suokatu 42 and 44, the early 1900s barrack area is fragmented, and the original atmosphere is hard to detect outside the competition area. The barracks area's preservation is important due to the cultural historical value it holds but also since utilizing existing buildings and materials for restoration and reuse aligns with circularity principles, promoting sustainability by reducing waste and minimizing environmental impact.

If the city aims to densify the area or seeks higher income from the land they possess, the new construction should be placed

on the surrounding areas (see axonometry p.3) and not within the competition area. The competition area is surrounded by large parking slots, which perform poorly when analyzed from the perspective of economic and environmental sustainability. There new construction can be added in a manner that doesn't jeopardize the barrack areas characteristics and it has the potential to connect the barrack area better to its surroundings, possibly restoring some of the lost city structure of the area. The boundary between new construction and its improved surroundings can create a contemporary 'rännikatu' street. These pleasant and rather narrow pedestrian and biking routes streets are specific to Kuopio cityscape.

The buildings A, B, C, F, G and H are adapted to hold communal housing. More about communal living on the page 3 and 4. The storage building J will be used as a storage room for the residents. The day care center is suggested to be transferred from building H to building E and a high-quality playground is to be built next to the park for the children of the area and the day care center to enjoy. The adaptation of buildings requires high craftsmanship and artistic quality to preserve the historical integrity of the buildings while adapting them for contemporary use.

Building I, currently in office use, can continue to do so. The well-preserved former officers club is hard to transfer into living, instead it could work as a hybrid space, which during the weekdays is in the use as an office and during the evenings and weekends works as a communal space for the residents of the shared housing.



We suggest some alteration to the current stage of the outdoor spaces of the area. Firstly, the fencing that currently dominates much of the landscape should be removed and replaced with greenery. The amount of parking should be reduced. Group Tenancy homes are an ideal platform for experimenting with other sharing services and we replaced private parking in the area with a car-share service that allows for significant reduction of car dominated space in the competition area. Added greenery and accessibility preserve and enhance the public park atmosphere in the competition area, adds visual appeal and promotes health and well-being, contributing to a high quality of life for residents and visitors.






Building I
viewpoint from the terrace
towards the playground

Aksonometry of the site

Connections of the site

-  Car connections
-  Pedestrian and bike connections

Apartments and the site





-  Shared spaces
-  Apartment boundaries
-  Suggested location for suggested new housing

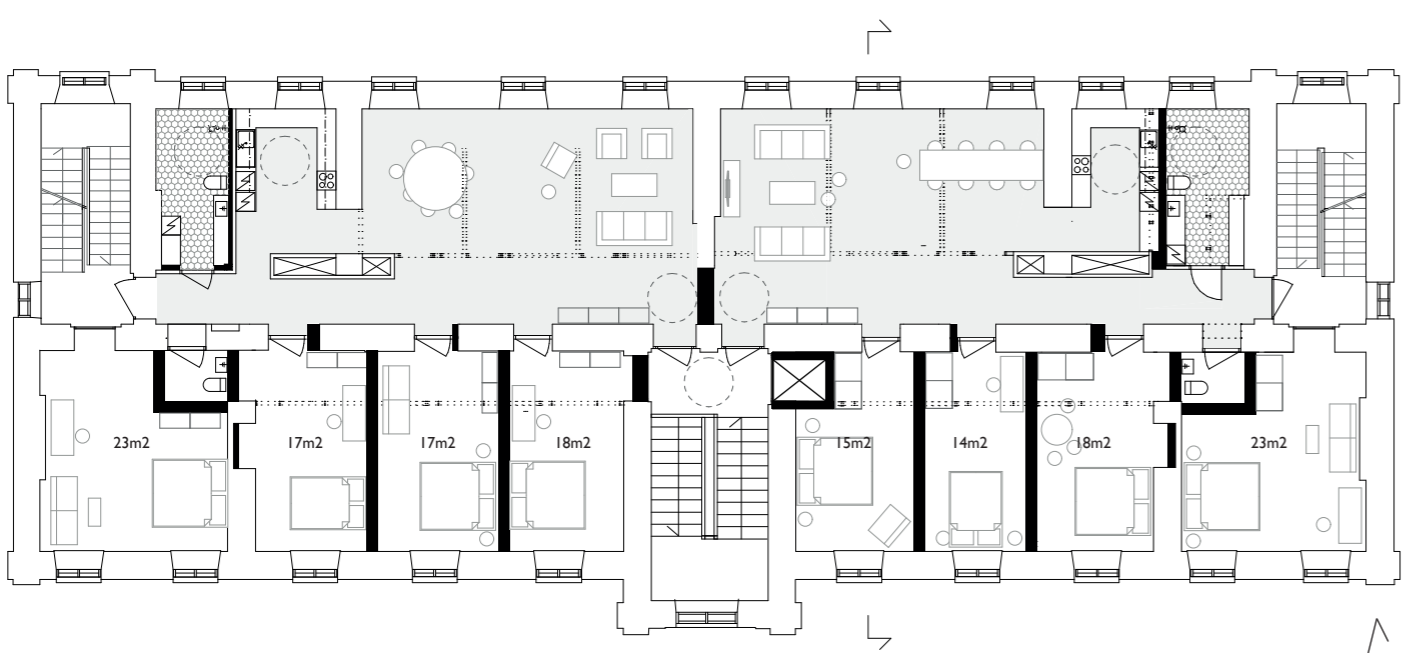
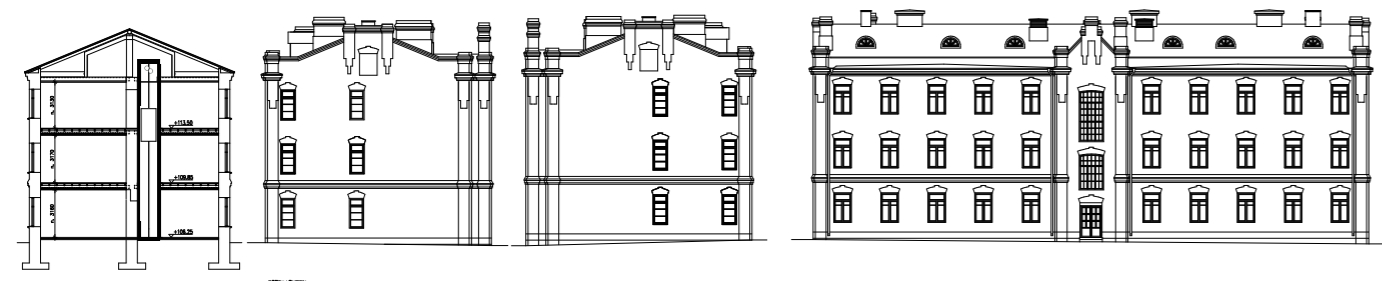
Apartment volumes

- A 2 apartments per floor, 120m² each
- B 2 apartments, 114m² and 144m²
- C/G 2 apartments, 154m² each
- F 2 apartments per floor, 164m² and 168m²
- H 2 apartments, 116m² and 162m²

Building F

Alterations and extensions 1:200
Facades and sections 1:500

-  existing wall
-  demolished wall
-  new wall or wall coating
-  shared spaces



Adaptive Reuse building F and the site

Social connections are fundamental for individual well-being. Our suggestion is that the city fights loneliness with community support by assigning the Military area closer to its original function: Community living. We propose new type of community housing for the former military area that is inspired by A-Kruunus Group Tenancy Homes (more about this in A-Kruunus webpage <https://www.a-kruunu.fi/en/for-applicant/group-tenancy-apartments>). The operator for this type of rental housing could be the Niiralan kulma oy, a rental housing owned by city of Kuopio or a-Kruunu, a government owned rental housing company, which already operates Group Tenancy homes in the capital region.

In Group Tenancy homes, several residents live in the same apartment, each with their own rental agreement. Group Tenancy housing differs from traditional cell housing because residents can impact and choose who they live with. Dwellers are not expected to know each other prior moving to Group Tenancy homes but they are given a change getting to know each other prior moving in together. As the community members can impact and choose who they live with, they are given a better chance to form flourishing communities. Ideally, the apartments start to function organically like a self-organized community, where community members build relationships and share resources among each other. Building close relationships between the dwellers allows for reduction of private space and commodities thus improving the changes of decreasing consumption related individual emissions (Williams, 2002). The possibility to reduce the need of private space and commodities is highest when the relationship within the household are good and trusting (Williams, 2002). Williams highlights the importance of homogenous cohousing groups in terms of socio-economic characteristics as one of the key factors when building strong communities that allow resources to be shared.

Therefore, we suggest certain target groups for the apartments. Building A is targeted for young people and building F for elderly people. These are groups that experience most loneliness and are most likely to live alone. The bricked barrack buildings A and F, built 1915 according to the army standard drawings, were originally used as 12-apartment buildings by the Russian junior officers. These buildings are suggested to be renovated to foster group tenancy where single-dwellers share the apartment. In our proposal each floor has two 160m² apartments of 4 inhabitants and the both 3-story buildings host 24 dwellers.

The alterations to the existing buildings follow the minimal intervention principle while transforming the buildings to support communal living. Alterations are also made to provide accessible apartments. When additional changes to room allocation is proposed, it should be done in a restoring manner, returning some of the original room division and saving as much of the existing structures as possible.

Private and shared spaces are combined in such a way that residents can be offered more and more versatile spaces at a rent corresponding to the rent level of a studio apartment or preferably lower. In practice, each resident has their own room, while the bathrooms, kitchen and living spaces are shared. The private rooms are designed to offer privacy for the dwellers. The entry to each room is private and rooms are large enough (15-23m²) in size to accommodate a workstation, plenty of storage, and/or a sofa in addition to a double bed. Large bedrooms allow for adaptability of the residents' private space and residents are able to comfortably host overnight guests, have a working space, or just spent time in privacy. When renovating the apartments emphasis should be placed on enhancing the acoustic conditions of the rooms. This involves improving soundproofing measures between bedrooms, including bolstering interior walls and installing sound proving doors to minimize noise disruption in the private spaces.

Like discussed earlier, shared housing enables lower emissions compared to building one-bedroom apartments. While each dweller has relatively large amount of private space and on average the building F accommodates one dweller per 40m², it should be considered, that the apartment with shared kitchen and bathrooms require less material and energy consumption to be constructed and used, allowing lower construction costs than opting to build studios with kitchen and bathroom for the same number of dwellers.



viewpoint from the shared courtyard

Finish Heritage Agency, Jari Heiskanen (2007) original image has been edited

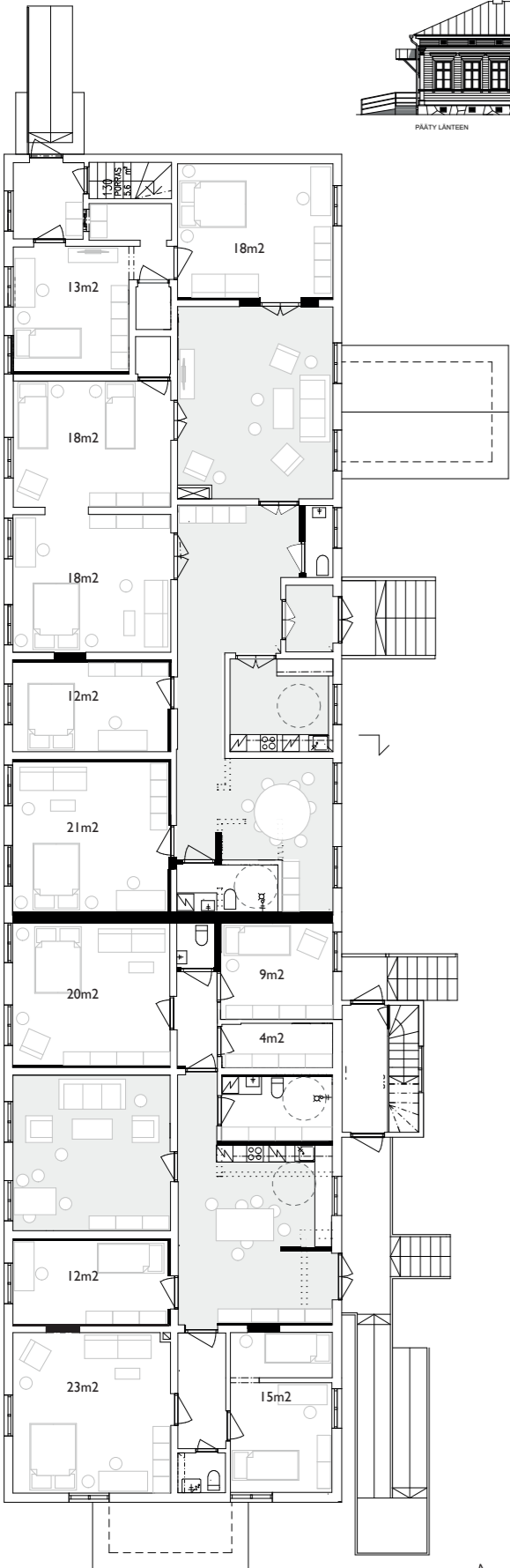
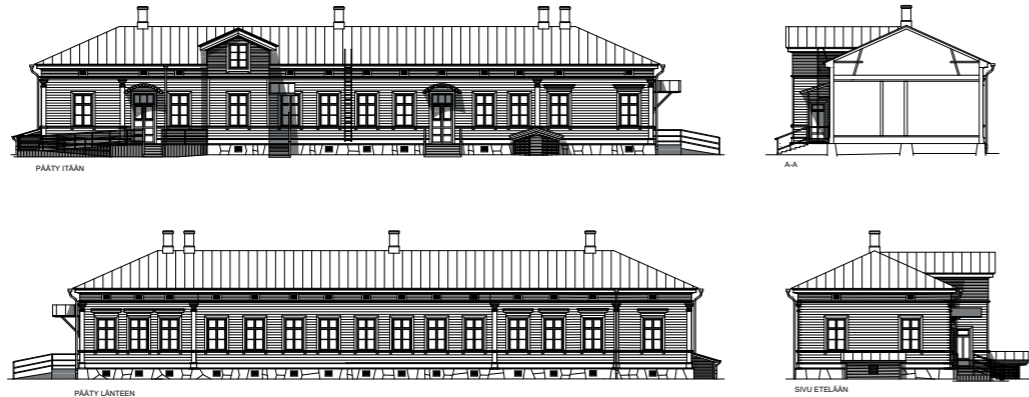


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Building H

Alterations and extensions 1:200
facades and sections 1:500

- Existing wall
- demolished wall
- new wall or wall coating
- shared spaces



Apartment on the north - Intergenerational housing

Single parent living with one child and their parent living together with
A couple with two children living together with other ones adult sibling

We have considered intergenerationally as an option in the community living apartments. Intergenerational architecture is community housing where multiple generations share some or most of living spaces. Intergenerational housing has been proven to be an effective form for opposing loneliness (Koitto, 2021) This form of housing combines the two societally fragile demographics: children and elderly. In Finland, around one-fifth of children and adolescents experience loneliness at some stage (Junttila, 2016). The presence of more secure and familiar adults in the day-life of children can be very beneficial.

The elderly too benefit from tight community, low-effort encounters and safe living. The experience of being beneficial part of community is humane feeling that supports wellbeing. Intergenerational housing combines the elderly's need to belong, the children's need to feel safe and the adults' need for support.



Apartment on the south - Single parent housing

Single parent with one child living together with
a single parent with two children and one child living part time in the apartment.

The Barracks area is very suitable for children. The park and kindergarten with its playground are in close proximity. There are also three schools nearby in less than 1km range of the site.

Since the apartments have both units of two bedrooms with a shared entrance and single bedrooms with private entrance, they can adopt to many types of families and with time, also facilitate changing family structures.

Reuse of the wooden barracks buildings B & H

The Group tenancy can be offered for groups other than single residents. Community housing is suitable for various housing needs; single parents, different families or intergenerational housing all benefit from communal living. The wooden barrack buildings B, C, G and H, built in late 1800s are proposed to hold these types of communities. Similarly to the brick buildings, we have studied how to minimally alter these buildings, while achieving high quality, efficient and accessible housing

The two wooden buildings studied further are building B and H. Both buildings consist of two apartments which hold two-bedroom units and/or single rooms and shared kitchen and living spaces. The floor plans enable different types of communities according to the residents' needs. On the left you can find scenarios demonstrating different family units living in these apartments.

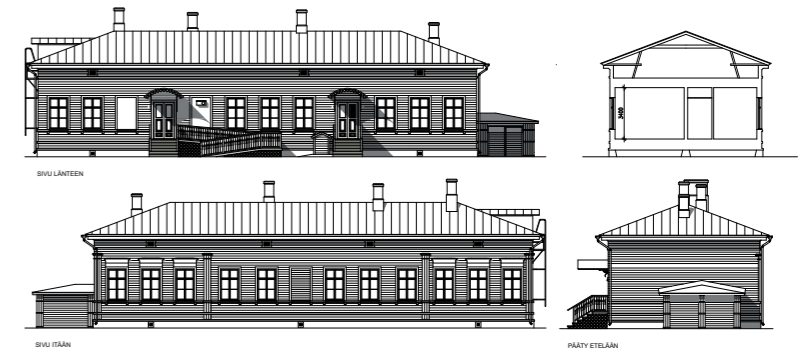
We believe that group living, traditionally associated with students or young people in major cities, has the potential to become a prevalent housing model in all of Europe. Communal living offers resident a sense of community and belonging, promoting sustainability compared to solitary apartment living. By restoring built cultural heritage areas, alongside appointing social housing for vulnerable groups in accessible homes and replacing car-oriented spaces with greenery and biodiversity, this design proposal presents an innovative approach that preserves the build heritage while addressing current societal challenges. By repurposing existing buildings, the design embraces circularity and sustainable resource use, minimizing waste and environmental impact.

By providing affordable communal housing for vulnerable groups, the proposal fosters inclusivity among different cultures, demographics, and genders while building strong resilient communities in the uncertain contemporary society.

Building B

Alterations and extensions 1:200
facades and sections 1:500

- Existing wall
- demolished wall
- new wall or wall coating
- shared spaces



Building B

viewpoint from the shared living spaces

