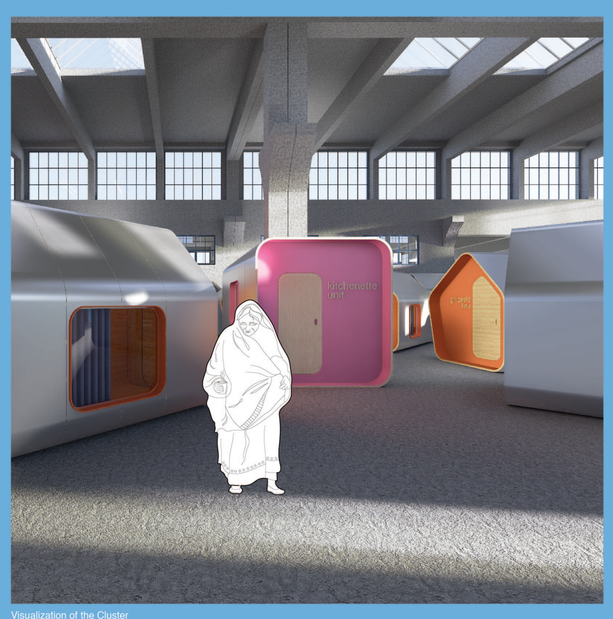
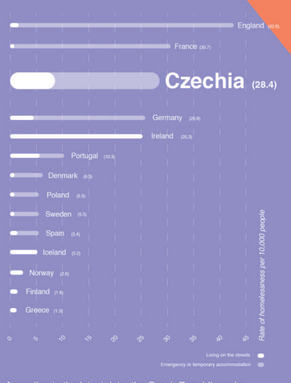
Interior Visualization of the Central Area

Visualization of the Units

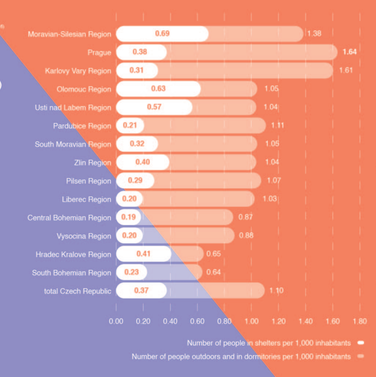


Visualization of the Cluster

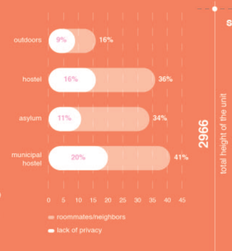
Analysis



According to the latest data, the Czech Republic ranks among the top three countries in Europe in terms of the number of homeless people living on the streets.



Among all regions in the Czech Republic, Prague clearly has the highest number of homeless individuals, ranking first in terms of homelessness.



What bothers homeless the most about the place they sleep?

Concept

The concept of the project was to develop a strategy aimed at reducing homelessness by designing a set of units that meet all the essential needs of homeless individuals. These units are conceived to be easily transportable and quick to assemble, responding to the urgency of the issue—people are already living on the streets, and immediate action is required.

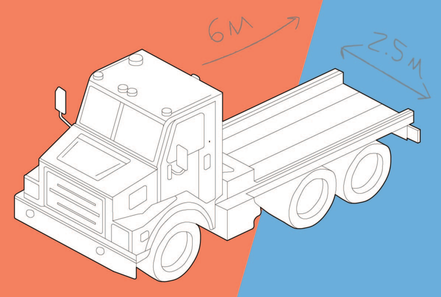
The units are specifically tailored to the needs of homeless individuals, with the goal of making their temporary stay more dignified and comfortable. They are intended to serve as a transitional step toward permanent housing solutions, such as those offered by "Housing First" programs.

The strategy is designed to be site-adaptable, following clear criteria for location selection, and is particularly suited for use on brownfield sites—underutilized urban spaces with potential that is currently overlooked.

(Trans)Portability

The units are designed to be easily transportable from one location to another, with lorry trucks identified as the most practical means of transportation.

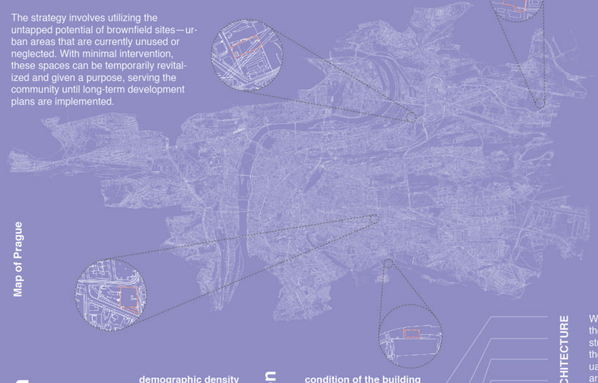
The smallest standard lorry trailer measures 6 by 2.5 meters, which served as the approximate dimensional limit during the design process of each unit.



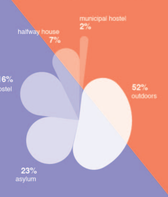
Brownfields Potential

The strategy involves utilizing the untapped potential of brownfield sites—urban areas that are currently unused or neglected. With minimal intervention, these spaces can be temporarily revitalized and given a purpose, serving the community until long-term development plans are implemented.

chosen prototype site
Hall 18, Pragovka



Research conducted in the Czech Republic on homelessness has shown that the majority of homeless individuals—over 50 percent—live directly on the streets.



Site Selection

HOMELESS

demographic density
site should be able to accommodate people in a way that they are divided into clusters of not more than 10 people per cluster and to provide them with all the facilities needed

well-developed area
allows them to feel worthy living in a nice neighbourhood and not feeling of being left alone cut off from the others

close proximity to the city center
allows them accessibility to wide variety of functions and easier transportation and accessibility

social context
possibility to get inspired by other people to make some positive changes in their life

multifunctional context
multifunctional context needed so they can get used to all aspects of normal everyday life

Requirements for Site Selection

condition of the building
building should be structurally stable and have an access to electricity, sewerage and water

availability and acessibility
building should be well connected to the public transportation and city center, and should be accessible for disabled with no barriers

spatial configuration
for the strategy to be implemented, place shoud be with less to none partition walls, e.g. open space

flexibility and adaptability
should be such that it is flexible to reorganize the existing spaces according to the needs of clients, with the possibility of expansion if there is lack of space

reconstruction status
there shouldn't be undergoing reconstruction of the place, nor planned reconstruction in the near future

ARCHITECTURE
When selecting locations for the implementation of this strategy, it is important to meet the needs of homeless individuals while also considering architectural conditions and the physical state of the existing site or structures.

Rising Trend of 'Hostile Architecture'

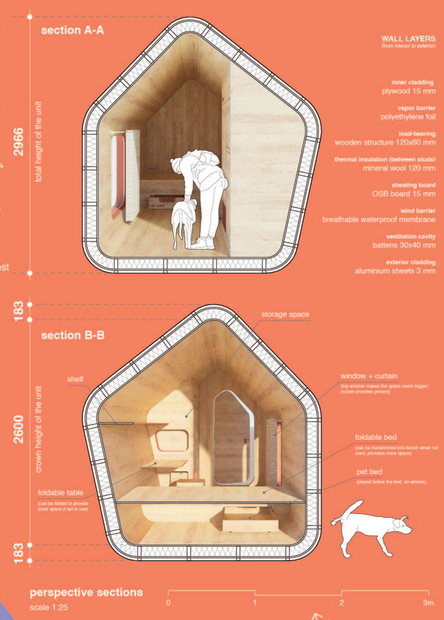
Instead of actively addressing homelessness, new trends such as hostile architecture are emerging—design strategies that often worsen the situation by creating unwelcoming and exclusionary public spaces.

it is estimated that

6000

people sleep roofless in the streets of Prague

Sleeping Unit



perspective sections
scale 1:25

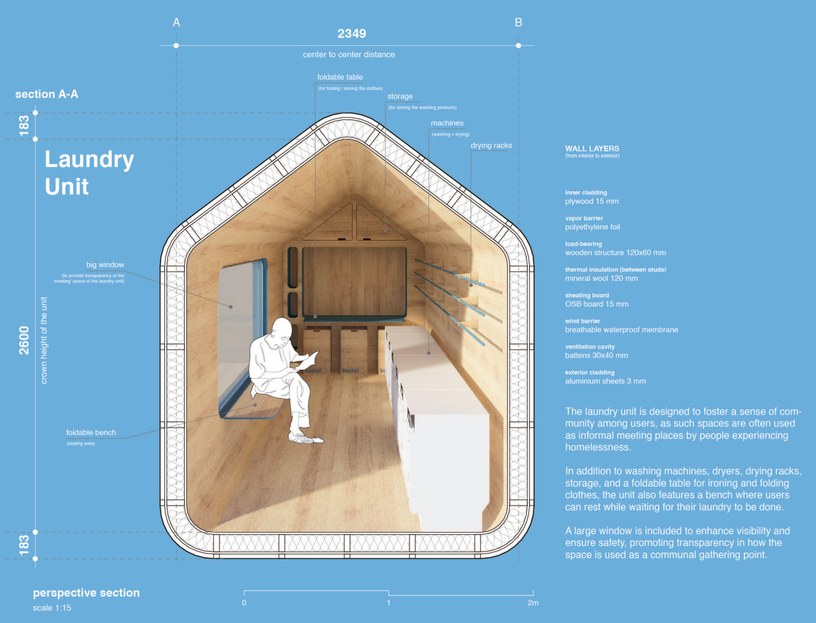
The sleeping unit is designed primarily to provide a safe and dedicated sleeping space for a homeless individual, while also accommodating other potential needs. It offers the highest level of privacy, as it is intended for single-person use.

To ensure comfort and avoid a claustrophobic feeling, the unit has a minimum size of 8 square meters. The furniture inside is designed to be adaptable and multifunctional, with elements that can be folded away when not in use to maximize available space.

A particularly thoughtful feature is the inclusion of a pet bed, recognizing that many homeless individuals have pets. This consideration addresses a common barrier to shelter use, as pets are often not allowed in traditional shelters.

Other key elements include a foldable bed that can convert into a bench or be fully stowed away, a collapsible table, and ample storage space. To enhance the feeling of openness, the unit features a large window with a curtain, providing both natural light and privacy.

Laundry Unit



perspective section
scale 1:15

The laundry unit is designed to foster a sense of community among users, as such spaces are often used as informal meeting places by people experiencing homelessness.

In addition to washing machines, dryers, drying racks, storage, and a foldable table for ironing and folding clothes, the unit also features a bench where users can rest while waiting for their laundry to be done.

A large window is included to enhance visibility and ensure safety, promoting transparency in how the space is used as a communal gathering point.

Toilet Unit

perspective sections
scale 1:20

Each toilet unit includes two shower cabins, two toilet bowls, and a single sink. Unlike the other units, due to water flow and moisture, the interior surfaces are coated with epoxy layers starting from a minimum of 40 cm above the floor and extending up to 110–220 cm on the walls—specifically where direct water contact occurs—to ensure waterproofing.

To maintain user privacy without compromising natural light, the unit is equipped with two windows placed on a sloped roof. These provide both daylight and natural ventilation for a more comfortable and functional space.

Needs of Homeless

Sleeping Space
The most basic need of a homeless person is a roof over their head and a safe place to sleep.

Hygiene
Provide them with facilities to maintain basic hygiene.

Healthcare
Since many do not have health insurance, it is essential to provide them with access to a doctor.

Warm Meal
They need a place where they can reheat the food they have.

Community
It is essential to reintegrate them into society and create a safe community.

Space for Best Friends
For many, their pets are their closest companions—we must not forget them.

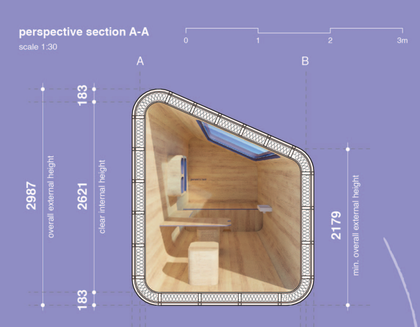
Work(shops)
Provide them with work(shops) that help restore discipline and offer opportunities to earn an income.

Social Support
Provide them with social support through social workers, as many are unable to navigate the system on their own.

Animal Care
And if space is provided for pets, there must also be space allocated for veterinary care.

Cleanliness
Provide spaces for washing and drying clothes.

Vet / Doc Unit



The doctor and veterinarian units are intended for occasional use when medical professionals visit the site. Since people experiencing homelessness often lack access to healthcare due to not having insurance, it is essential to bring medical support directly to them. Similarly, many of them have pets, so providing access to veterinary care is equally important.

Both the doctor and veterinarian units share the same layout and are equipped with only the most essential elements for basic medical examinations. This includes a foldable examination bed, a sink, a desk with chairs, and shelving. The only difference is that in the veterinary unit, the bed is designed for animals instead of people.

To ensure privacy while maintaining natural light, a single window is placed on the sloped roof, allowing sunlight to enter without compromising discretion.

Office Unit

The office unit is designed to accommodate social workers who visit the location as needed, providing them with the essential conditions for comfortable and effective work with clients.

The unit includes a desk, chairs, and shelving—everything a social worker might need for a functional and welcoming workspace.

Windows are positioned on the sloped roof to ensure ample natural light while maintaining a sense of privacy and intimacy during consultations.

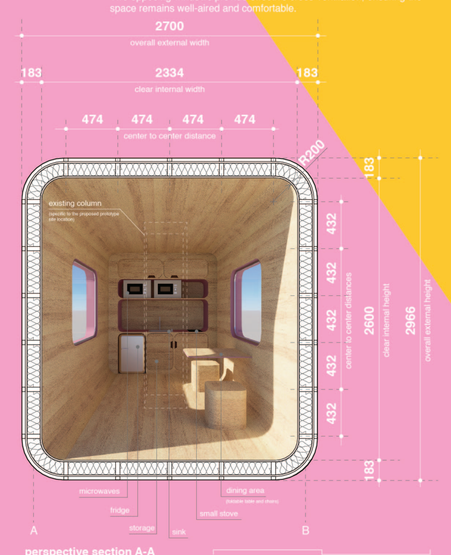
WALL LAYERS
(from interior to exterior)
exterior cladding
aluminium sheets 3 mm
ventilation cavity
battens 30x40 mm
wind barrier
breathable waterproof membrane
sheating board
OSB board 15 mm
thermal insulation (between studs)
mineral wool 120 mm
load-bearing
wooden structure 120x60 mm
vapor barrier
polyethylene foil
inner cladding
plywood 15 mm

Kitchenette Unit

Since most people experiencing homelessness obtain food through donations, purchases, or food banks, a full kitchen is often unnecessary. For their needs, a small kitchenette is more than sufficient.

The kitchenette is equipped with a microwave, a hot plate, a sink, a small refrigerator, and storage space. In addition, there is a dining area with a foldable table and two chairs.

Two opposing windows provide effective cross-ventilation, ensuring the space remains well-aired and comfortable.



perspective section A-A
scale 1:20

WALL LAYERS
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mineral wool 120 mm
load-bearing
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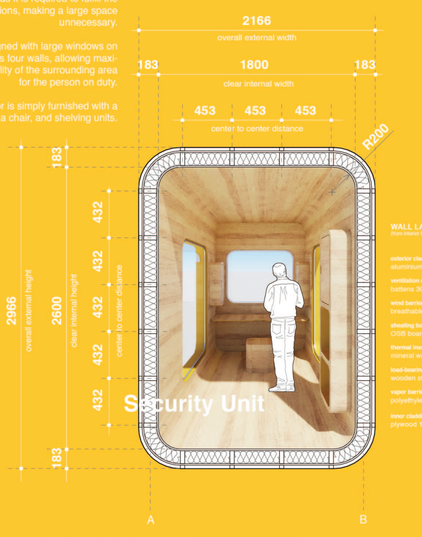
polyethylene foil
inner cladding
plywood 15 mm

Security Unit

The security unit is the smallest of all the units, as it is required to fulfill the fewest functions, making a large space unnecessary.

It is designed with large windows on three of its four walls, allowing maximum visibility of the surrounding area for the person on duty.

The interior is simply furnished with a desk, a chair, and shelving units.



perspective section A-A
scale 1:20

WALL LAYERS
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mineral wool 120 mm
load-bearing
wooden structure 120x60 mm
vapor barrier
polyethylene foil
inner cladding
plywood 15 mm

Type of Stay

The stay of homeless individuals is intended to be temporary, emergency, and transitional—lasting only a few days. It is conceived as a part of the Housing First program, providing a safe place to stay while assigned social workers search for a permanent housing solution. During this period, residents also have the opportunity to engage in meaningful activities or earn an income.

Program

Toilet + Shower Unit
unit providing toilets and showers

Community Spaces
open space areas

Social Worker Unit
providing everything a social worker needs to be able to work with homeless

Vet Unit
providing vet examination room

Laundry Unit
providing washing machines and dryers

Sleeping Unit
provides private space for a person + optionally for a pet

Kitchenette Unit
shared kitchenette with all necessary appliances

Workshops
areas in an open space turned into workshops, as a way of income

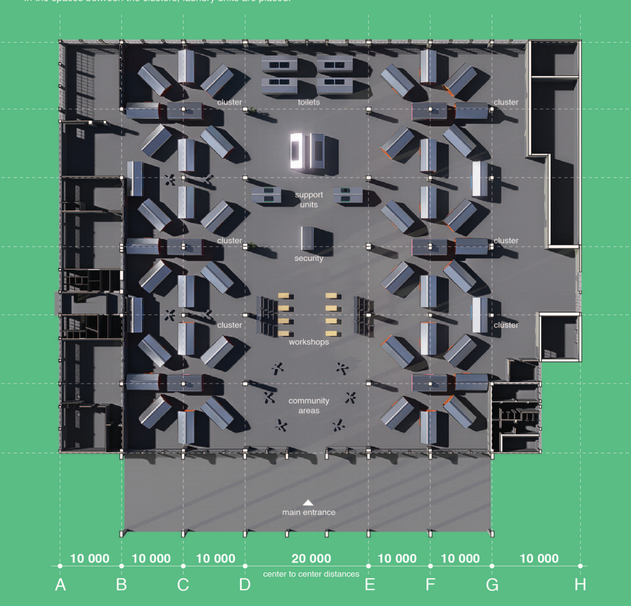
Doctor's Unit
provides small examination room

Strategy Prototype

The prototype strategy was applied to the building of Hala 18 in Pragovka, a former car factory. The location is well-connected to the city center by public transport and is highly accessible. The building is currently unused, and no specific plans for its redevelopment are known at this time. It is situated in a multifunctional urban environment.

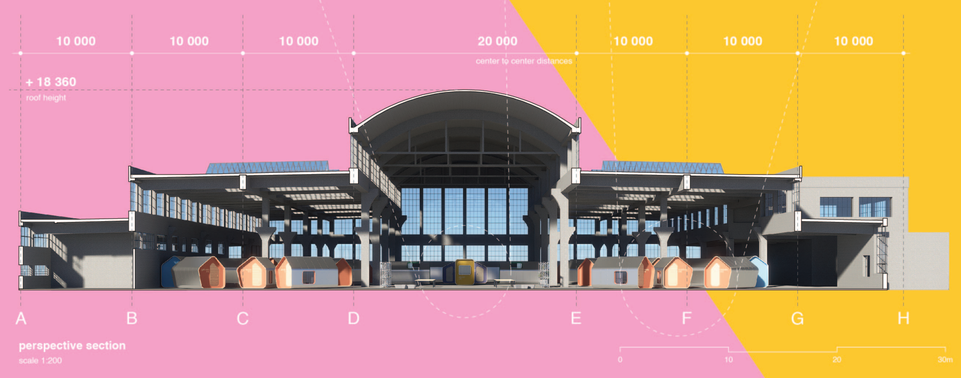
The open-space layout of the building makes it suitable for implementing the proposed strategy. The program is organized according to the following spatial principles:

- The central area near the main entrance is designated as a community space and workshop zone, where homeless individuals can engage in work and earn income.
- Along the periphery of the open space, there are clusters, each consisting of seven sleeping units arranged around a kitchenette unit.
- Opposite the main entrance, a toilet block is positioned.
- At the center of the building, essential support facilities are located, including an office unit, a veterinary unit, a medical unit, and a security unit, the latter placed to allow for maximum visual control of the space.
- In the spaces between the clusters, laundry units are placed.

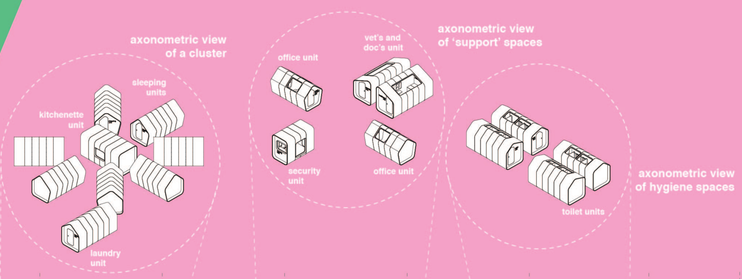


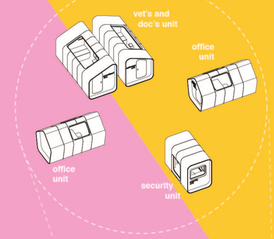
perspective floorplan
scale 1:350

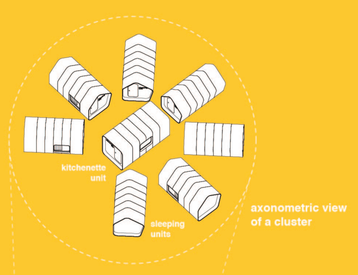
perspective section
scale 1:200



perspective section
scale 1:200







architectural solutions and strategy for combating homelessness in prague

homel~~ESS~~ MORE

master's diploma project
Nađa Mladenović
studio Achten-Pavlíček-Sýsová
FA ČVUT
2024 / 2025
Prague

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