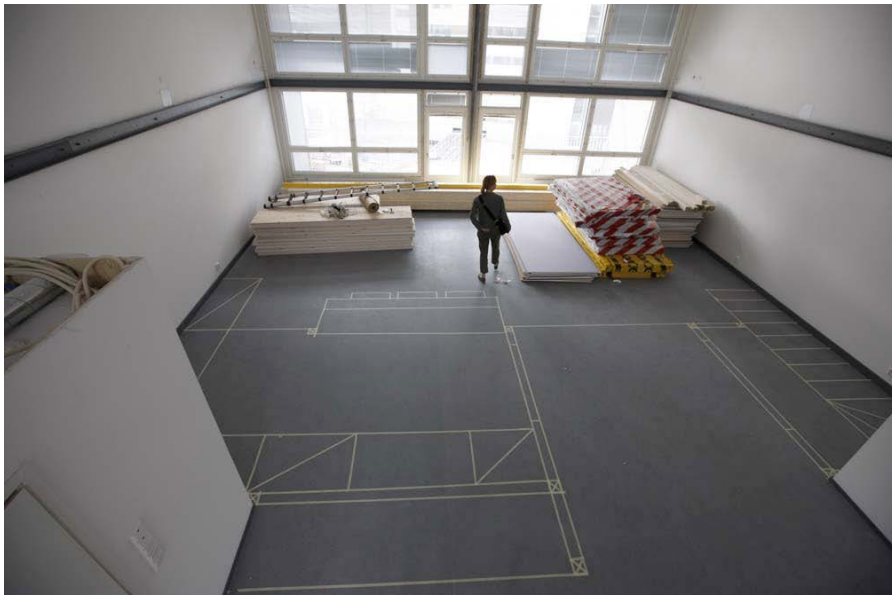
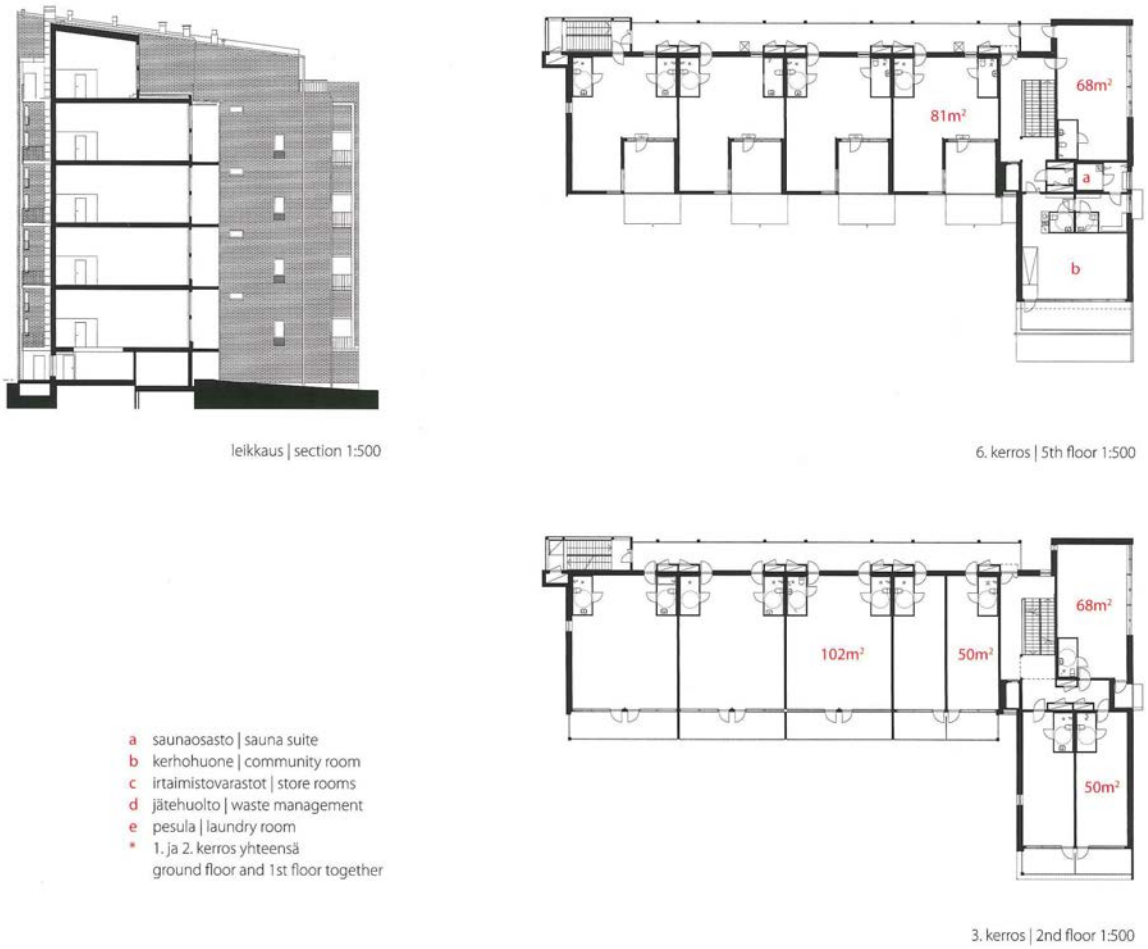
REPORT ON THE TILA OPEN BUILDING PROJECT IN HELSINKI

Architect: Pia Ilonen | TALLI Architects, Helsinki | www.talli.fi

The project in its setting in Arabianranta, Helsinki

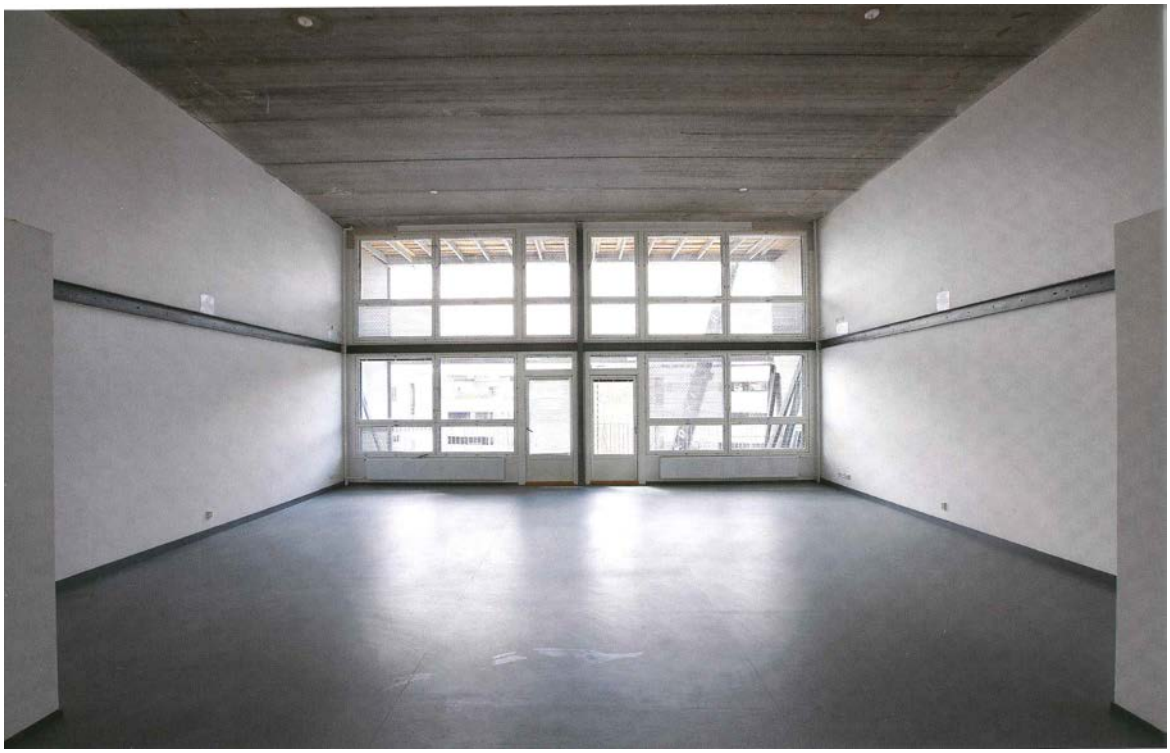


A typical “empty” unit with the dwelling unit floor plan drawn on the floor. The two bathrooms installed as part of the base building are visible in the foreground, one on each side of the space.



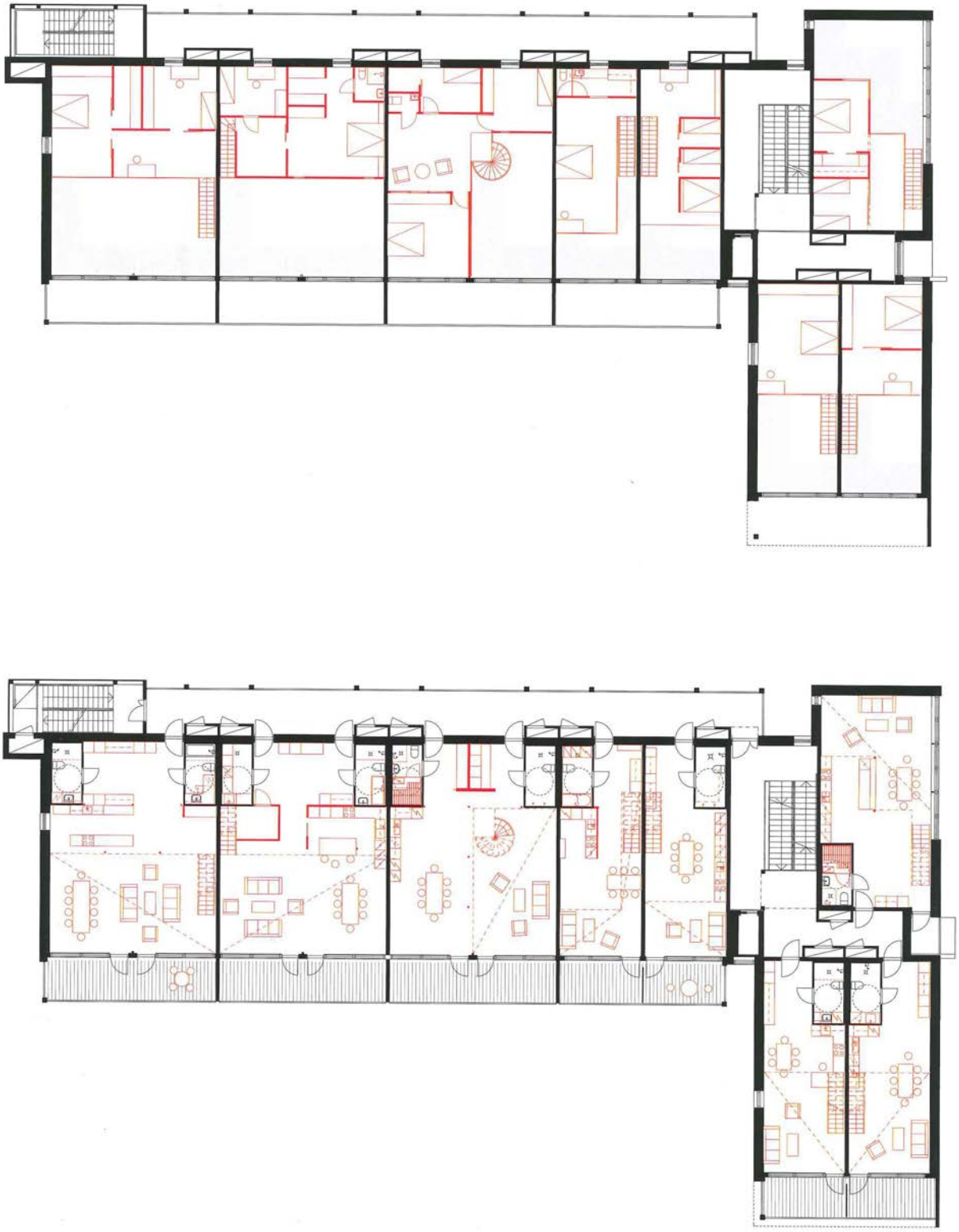
The building cross section and typical floor plans of the “empty” base building - ready for occupancy

“The Tila housing block, comprising 39 loft apartments, is a pilot project for neo-loft apartments in Helsinki, Arabianranta. The apartments face southwards through a fully glazed facade and with a balcony running the whole width of the space. The dimensions and structure of the apartments allow for the occupants to build an upper-floor gallery. The neo-loft concept is based on an open construction system: within the available building frame the resident determines and builds the required subdivisions. The flats are occupiable at the moment of purchase (they have bathrooms), but become completely habitable with the installation of kitchen equipment. The basic premise in the loft lifestyle is that the occupants mix different functions within a single space. The residents can, however, build individual rooms or expand their flat with gallery-type spaces, because the height of the main space is five meters. The basic loft unit of the Tila housing block is 102m2, including two bathrooms. The outlets for the kitchen fittings are located on the main room side of the bathroom module – which allows for different kitchen layouts – and are left for the occupants to build themselves.” (from ARK 4/2011)



The empty shell space looking toward the balcony

The empty shell space looking toward the front door and the two bathrooms installed as part of the base building. The piping hook-ups for kitchens are visible on the walls of the bathrooms – one or two kitchens can be installed, placed as selected by the inhabitants. Bathrooms on the upper level are also possible.



A drawing of two levels of the building showing how the units have been filled in by the occupants.

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(Below from correspondence with Pia Ilonen, the architect)

The city building official inspected the whole building as usual before the "moment of purchase": before the Sato developer with their constructors finished their job. That was also the end of my role in the project. Every apartment was then "habitable" - a big one-room apartment. The question of "what is habitable" was very important to discuss with officials and lawyers in the early stage of the concept-design. For them the fact that the so-called "wet space" (bathroom) was provided with waterproofing isolation on the floor and walls was sufficient. As for a kitchen, it was enough to show only the plumbing outlets for water supply and drainage, located on the main room side of the bathroom module (which allows for different kitchen layouts - and are of course left for the occupants to build themselves).

In principle, you could just take your mattress and espresso machine and start loft-living.

But of course the inhabitants have built individual rooms and gallery-type spaces as expected. During the concept stage I was afraid that if everybody started "heavy" building at the same time it would be a mess. To avoid that, we offered the possibility to have the general contractor build the gallery floor structures in the dwelling units - with stairs and railings - during the base-building construction period, before the "moment of purchase". There were different layouts to choose from. In Tila, there were 26 apartments that selected to do this, and 13 lofts chose not to build in the second level at that time. I think that it was a wise thing to do. There was not any unbearable mess during the fit-out (infill) phase, because we could create quite a good communal spirit among the habitants, helping each other and so on. In the future loft-house these ready-made gallery-floors might be a good idea too. Also in the future projects we may not use the word "loft", because the "real thing" about these projects lies in DIY (do-it-yourself), not in "loft" which in Finland means something very luxurious. So "maximum space at minimum cost" is more important. The concept can be realized of course as an apartment with the normal floor-to-floor height.

As for the building inspectors: After the developer leaves the building (as usual), the housing company (Asunto Oy - i.e. the shareholders and inhabitants) owns the building. It is up to the inhabitants what they do and when they do it, and which designers and contractors/building companies are used, if you (the occupant) are not building the fit-out (infill) yourself. The situation is very much the same when you are buying an old apartment and start renovating it. In all housing companies, the company has to take care that if the "shareholders" make changes they have to contact the board of the housing company (which is like an association of the dwellers with 3-4 representatives) to get permission from them, and take care of the building permissions from the City building department if needed. So, in the case of Tila, the situation is in principle the same. What differs here is that a number of households are doing it at the same time!

When you are constructing **bearing structures** inside any apartment (like the gallery floor in Tila) or **wet spaces** (in Tila some wanted to have a bathroom upstairs), you have to follow the building regulations; to take care of hiring the architect/engineer-planning and supervisors, and have all the required building permits from the City building department for that. In these cases the City inspects the work. In the case of Tila, the 13 apartments with a do-it-yourself -

gallery floor structure had to go through the building-permission-process, but I have not heard that there were problems - at least not more than usual.

I "left" the project (as architect) at the moment of purchase. But I had prepared it carefully: the bearing concrete structure of the floors (normal dimensions) allow for the occupants to build an upper-floor gallery. And the dimensions of the unit are such that it makes possible a lot of possible layout variations. The plumbing outlets for the kitchen, which are located on the main room side of the bathrooms, allow for different kitchen layouts, especially in the bigger 102m2 unit where you have 2 bathrooms. There are enough possibilities for variations. I did not want to go to very technical solutions like full flexibility (installations on the floor); they are too expensive. And, because it was obvious that people are not so good in knowing all the regulations, I made a booklet of instructions (negotiating with the City officials in the Building Department), showing how to manage the process. There is also a bigger elevator in the building.

The time line was as follows: Building (by the developer) required normal time - 1.5 years (from 2007-2008). Building the fit-out (infill) from 2008 on: from 1 month to 1 year for each apartment depending on what you did. In case you bought a 50 sq. meter unit with a ready-made gallery floor you could just install the kitchen cabinets and equipment and start living. In case of bigger units, and bigger families with rooms, it took longer. It would be fantastic to have a research project made out of this, but we do not have it. Next time we will. No totally new infill will come in the future, I guess. Some apartments have already been sold without further "renovations" (as of now, but who knows the future?).

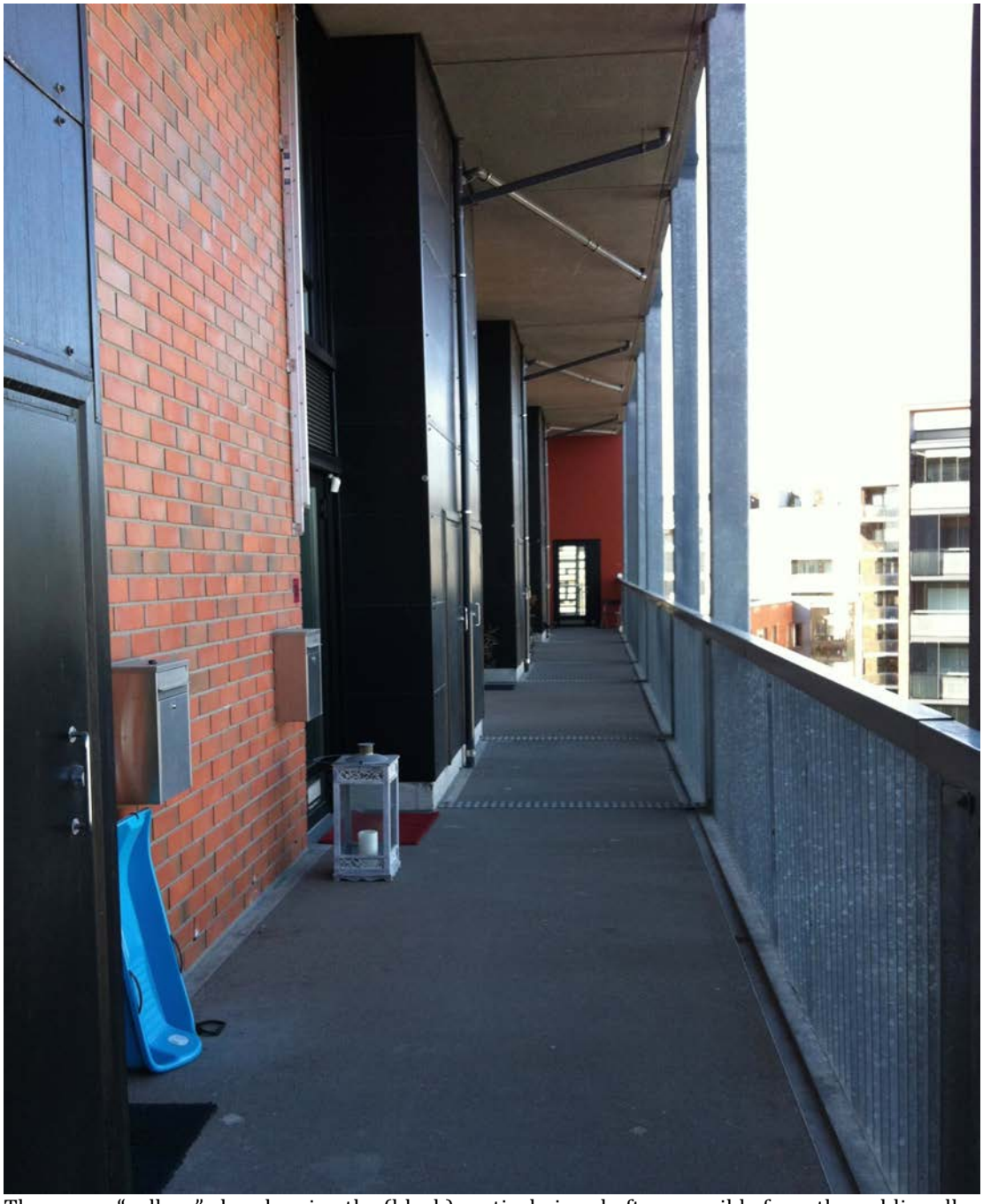
The bathroom elements were prefabricated off-site. There were nine bathroom-types to choose from. In the future it is not so important that the bathrooms are prefabricated - they could just as well be built in situ. We have to study that next time.

In Finland, unlike in many other countries in Europe, it is in the law that we have to have a ventilation system. It is also in the law that the equipment must take warm air from the "dirty" air that goes out of the building, and use it to warm the air that goes in. Unfortunately, that means you have to use machinery, not any kind of natural systems.

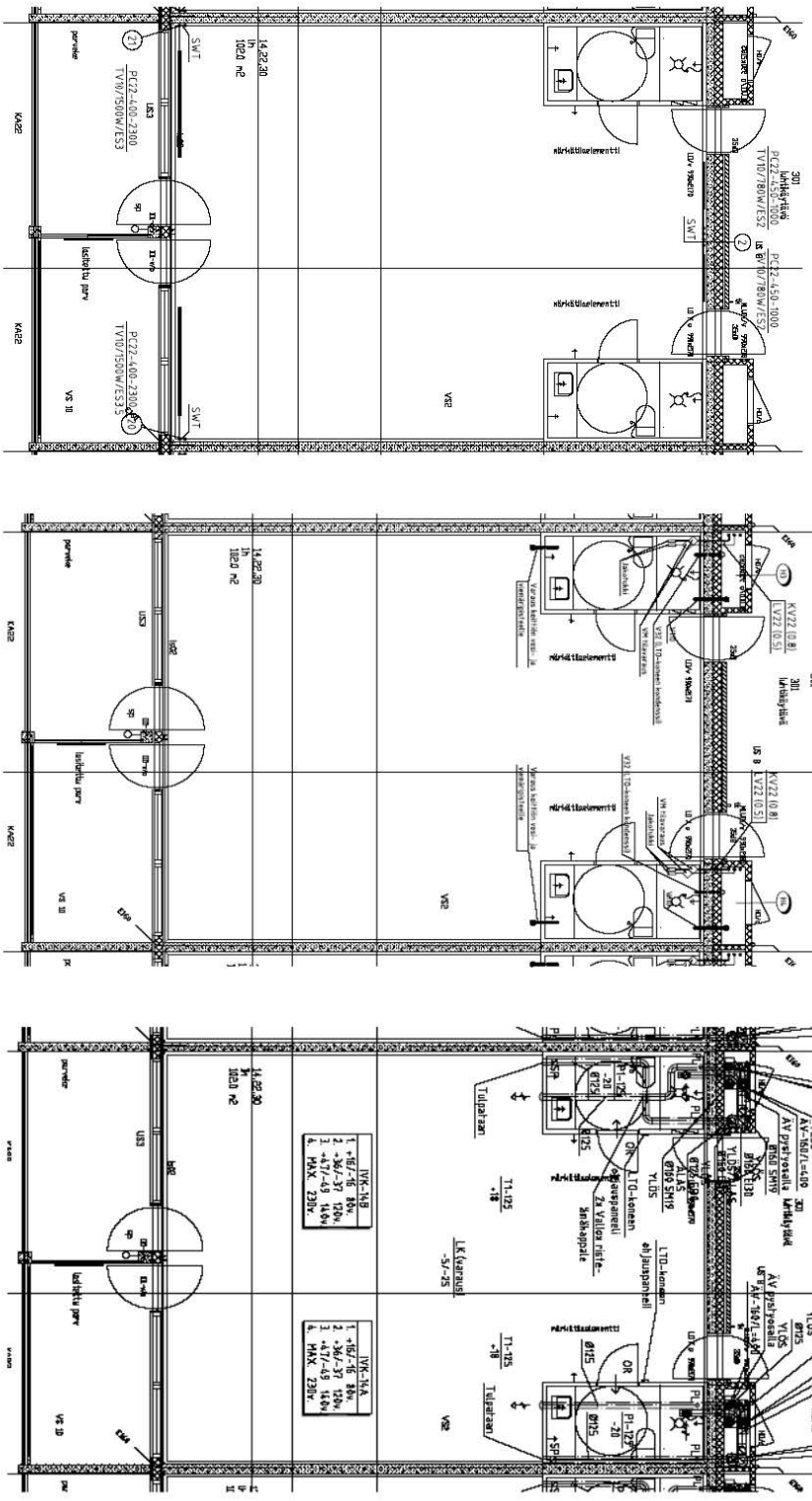
In practice we now have two systems in Finland used in block of flats. In the most common, there is one big machinery room, from which all the air in/out goes to all the apartments. The second alternative is that every apartment has its own ventilation equipment. In Tila this second (individualized) system is used in a very rational way, and it is very easy to maintain. But there is nothing new technically. Each apartment has its own machine in the "space for pipes" (pipe shaft) outside the apartment front door.

The fresh air comes from the outdoor corridors - there is a hole in the wall outside every apartment. The air goes to 2/4 points (the rectangular elements in the walls you see in the photos) depending of the size of the apartment - in 100m2 units to 4 points (two up in the wall towards north, and two in the outdoor-wall of the bathrooms) The air ducts are hidden in the ceiling of the bathrooms – see the technical layouts. If you build rooms with doors you just add ducts so that the system is functioning for the new layout. The fresh air for the bathrooms, as usual, is taken under the bathroom-doors naturally.

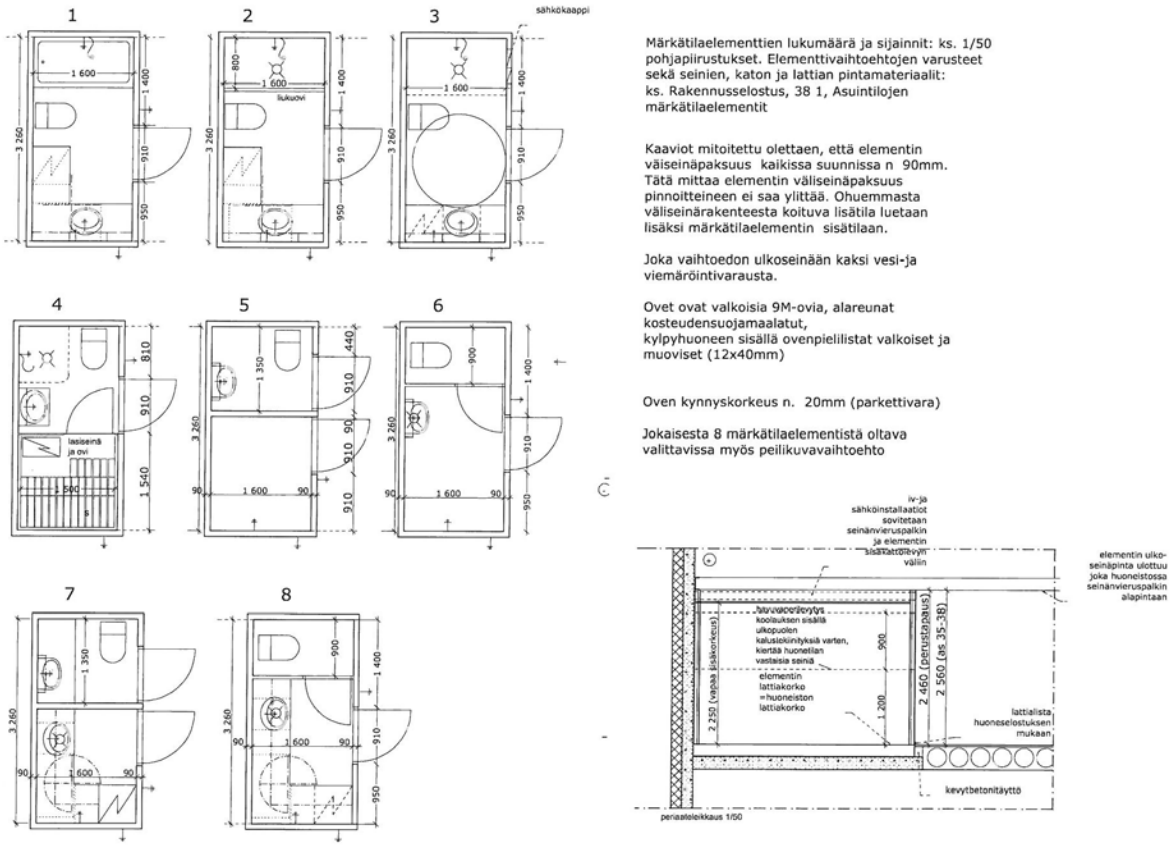
The "dirty air" is taken from the 2/4 points (in the pictures the round elements in the walls) + the bathrooms. The ducts go to that outdoor pipe-space and to the roof, from each apartment separately - so the pipe-space is filled in the 6th floor, whereas on the 1st floor you have only one ventilation duct going up. As for the exhaust air from the kitchen (in this case a "possible kitchen") there is, as usual, one duct for the dirty kitchen air for every apartment, with a ventilation machine for that on the roof. The end of that duct is at the end of each bathroom-unit, so you have many possibilities to place your kitchen.



The access “gallery” also showing the (black) vertical pipe shafts accessible from the public gallery



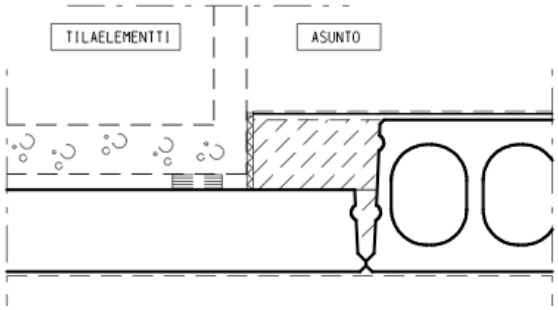
The technical drawings of the bathroom units in the larger apartment unit



Nine bathroom variants from which the occupants can select – also a cross section showing the thin floor slab under the prefabricated bathroom unit.

The “sunken” floor slab and piping for the bathroom unit as well as wiring conduits

The bathroom unit in place



A detail of the thinner floor slab under the bathroom unit

The architect's dwelling

The great variety of infill in the building

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At the time of writing this report, a second TILA project is in the planning stage.

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