

Analysis of the ROT investment of Västerhaninge

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Introduction

Västerhaninge

Västerhaninge is located 20 km south of Stockholm in Haninge Municipality. Haninge is a archipelago municipality with 77 000 citizens.

Akelius owns 3 000 flats in Haninge, of which 600 located in Västerhaninge, of these, it is now 480 flats under renovation. The area is good with nearness to nature, forests and archipelago. Low-rise buildings on two and three floors where the apartments on the ground level have private patios.

Background

The houses were built in the years 1968-1970 of Haninge bostäder. Real Estate Company Mandamus purchased the area 2001 of which then was purchased by Akelius 2004.

Haninge Municipality suffers at the beginning of the 1990s major economic difficulties after several controversial real estate businesses. Haninge Municipality was commissioned to sell off part of its 10 000 large stocks of apartments. This sale took several years to implement, areas split and sold to several different real estate companies.

During this time was a minimal amount of money on maintenance and they pushes all problems forward.

We have learned some of the million program period and its construction methods during our stay in Florida so you understand enough of the condition and needs of these houses are in already because of it.

When we finally started to discuss measures for the area has nearly ten years of deferred maintenance gone.

Here there is potential for both rise in standards and energy optimization. The area is well placed to be rolled up with a large ROT project. Optical and technical renovations would make the area more attractive and climb high on the list of Stockholm's suburbs.

The project consists of both to refurbish bathrooms, change the strains and upgrade the envelope to energy consumption which corresponds to the "passive house". Passive House means that the heating takes place through the energy already in the House such as body heat and the heat from the lights and electrical appliances. Energy consumption is to be called a passive house should be below 45 kilowatt-hours per square meters per year.

A project like this is quite right in time with the today's concentration on the global energy debate and by carrying out this major energy projects can also Akelius show that it has taken a major step in the climate issue.

The area included in the project consists of 43 Low-rise buildings where 18 houses are three storey's high with a basement and the remaining two storey's without basements. 90 staircases, 480 apartments with a living space before the renovation of 39 982m² and after renovation 42 922m². Exhaust ventilation on the roof with spring valves over the windows. Six district heating stations that provide the area with heat and hot water.

Measures

Window

Energy-saving measure.

Today is the original double glazing from when houses were built, renovated once again in the 90s when they only fitted sheet metal lining on the outside of the sashes and frames.

Now we do a replacement of all windows and balcony doors to energy window of PVC with a u-value of 0.9 kWh/ m² K.



Old window in the old façade



New Windows in the new facade

Roof

Energy saving measure.

Montage of the new SBS roofing felt with mechanical fixing and welding.

Installation of new gutters, downpipes, hook, foot ceiling plate, sheet metal wind discs and sweep. New plate frame and roof hatches. Gables is extended with new crest bar and crest plate.

Snow fall protection and service bridges to the new ventilation equipment are mounted.

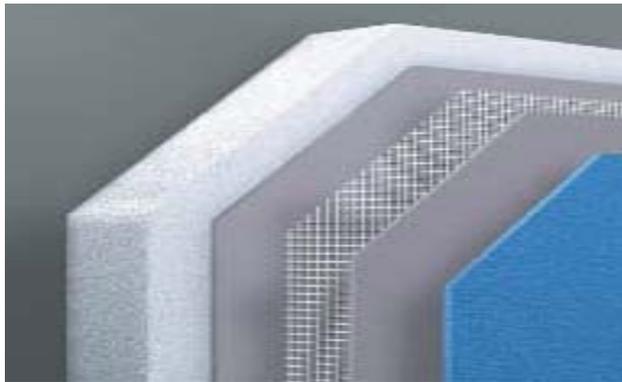
Existing loose wool on winds are saved and complemented as necessary.



Walls

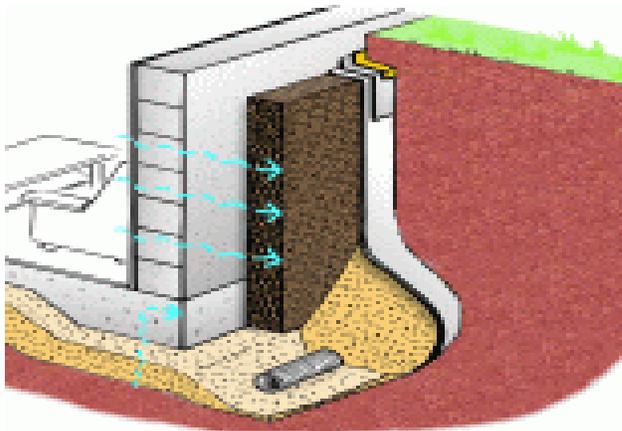
Energy saving measure.

Here is done the greatest job in order to get the houses as energy efficient as possible. Additional insulation and new trimmed fascia forming a new shell around the entire house climate including the foundations which to build in all the thermal bridges, and non-tight joints. Problems with non-tight joints have contributed to the cold apartments and high heat cost.



Additional insulation and plaster

In connection with the insulation of the foundations will excavate works for new drainage pipes to be around all the houses.



Drainage and isolation of the foundation



Old façade

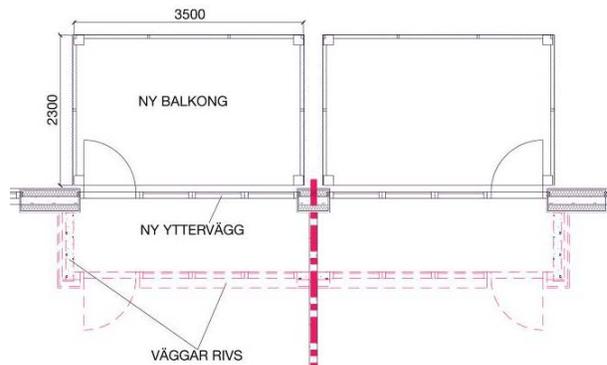


New facade

Balconies

Energy saving measure and rise in standards action.

Balconies will be taken away and then mount the new stand-alone balconies exterior the facade, the old location of balcony wall is demolished and a new balcony wall will be built out in line of the new facade.



Thus, we have moved the balcony outside the climate skin and at the same time had removed thermal bridge in concrete floor which runs unbroken from outside in and through the entire living room. All apartments gets new balconies even those who didn't have balconies before.



Old inset balcony



During conversion



New balconies to the outside

Apartment Doors

Rise in standard action.

Today is thin cardboard doors with worn locks coffins.

New security doors mounted without a mailbox, in the context of this we install post boxes in the stairway. The tenant gets a better soundproof steel door and the postman to get a better working environment.

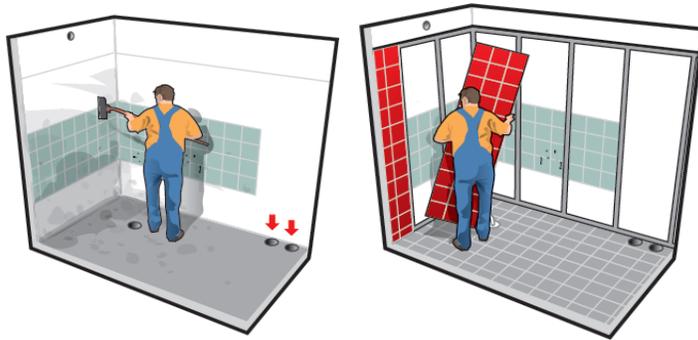
We do this to increase safety and get our tenants to feel secure in their homes.

Bathroom

Rise in standard action.

Rise in standard to today's standard, and to simultaneously prevent all future costly water damage, the bathrooms are today in very different condition.

The method used is of the type "room in room" to minimize the time for work and inconvenience to the tenants. Work is expected to take 10 days. No drying times are needed when the existing glazed wall tiles do not have to be demolished and air column between new and old wall started to slowly out the moisture that may be present.



We are drilling holes in the ceiling and floor where the new pipes are hidden behind in cartridges that also depends on the toilet and drain from sinks fitted into.

Floor drain is drilled in the appropriate place and dragged into the roof of the apartment below, new sound-insulating roof being built and tile-like wet room discs Fibo Trespo are mounted as new walls.



New porcelain, bathroom cabinets, shower curtain rods, electric heated towel drying and prepared for washing machine.

Power switch board

Rise in standard action

We remove the old hedge cabinet with screws fuses, new electricity dragged into the bathroom and the kitchen, new fuse cabinets with circuit-breakers and click fuses fitted.

White Goods

Rise in standard action.

All white goods, fridge, freezer and stove replaced with new product model of Cylinda.

Heating

Energy saving measure.

Today we have district heating as we in this project intend to disconnect. The houses will be as frequent as in the text above describes that in principle all heating is done by body heat and the heat energy of our household appliances.

New geothermal and air heat substations are installed that draws its energy from energy wells and exhaust air from the houses. We are drilling holes in the area of 51 mountain warmth. This heat pump will cover our need for heated tap hot water and even cover up heat that tip during our cold winters.

Ventilation

Energy saving measure.

New low-power fans with press and outdoor air compensation unit with fluid-coupled recovery system is mounted to be coupled to the heat supply system.

Communal spaces

Rise in standard action.

New entre parties.

New entre roof.

Restoration of eleven existing laundry rooms whereby the existing machines are replaced as necessary.

Further, one new laundry room is built in the area.

Electronic locking system on all entrances doors and basements with electronic booking system to laundry rooms.



New entre parties

Own choice, rise in standard

Rise in standard action.

Parquet floors 3-wand oak parquet for 5 SEK/sqm/mth
(€0,55/sqm/mth)

New kitchens from Noblessa 450 SEK/mth (€49,5/mth)

New kitchen cabinets Modexa 135 SEK/mth (€15/mth)

Glazing of balconies 200 SEK/mth (€22/mth)



Example, one of five kitchen choices

Investment Application

Costs

Total cost of 275 000 000 SEK which is €30 555 555 in today's exchange rate.

€1 = 9kr

Revenue

Rise in standard measures provides an estimate of the rental increase of 10 940 000 SEK (265 SEK/m²)

Apartment rent increases from 31 982 000 SEK (809 SEK/m²) to 42 922 000 SEK (1050 SEK/m²) first year.

Apartment surface increases by 1 350 m² from 39 528 m² to 40 878 m² by balcony wall moves out in 300 of the apartments, every apartment being 4,5 m² larger.

Savings

Energy consumption is projected to decline from 220 kWh/m² today based on a outcome from 31/12/2008 with tariff-based costs at 10 106 000 SEK (253 SEK/m²) to after ROT-projects 41 kWh/m² and the estimated cost of tariff-based cost at 4 669 000 SEK (113SEK/m²).

With the estimated cost of the investment application gives it a saving of 5 437 000 SEK (132 SEK/m²) first year.

Return

We take the costs on 275 000 000 SEK and divide it with the savings and increased revenue 17 459 000 SEK (423 SEK/m²) then we would have a yield of 6.3%

Conclusion

Half way through

It has not been quite as simple as we predicted, so I have listed some good and some bad experiences we can benefit from this project.

Halfway through is forecast at a final cost of 350 000 000 SEK, which is €38 888 888

With today's forecast, the yield will be 4.99%

Bad

Unfortunately ended our project manager his job who acted up everything and getting the whole project as renovations began.

This big project requires at least one internal project managers who work full time on site with the construction and two building attendants also on site full time, which takes care of all the tenants, information, signatures, election and anything that shows up on the renovation of their apartment. We have one building attendant from its inception and as of 1 January 2011, we now finally have a project manager who can put nearly all his time on the project.

This project is procured as a shared outsourcing. The aim is to save costs and gain in judgment of companies which we can buy up the cheapest. Problems that have arisen with the circumscription, all blame each other and that is not we suppose to do, or it is not we who have done that.

It may also be so simple that a firm does not know what the others do. For example, to access the thermal strains through a gap in the facade, the pipe guys put temporarily in a pies of an insulation under renovation to not freeze up, so will a different company come and removed the insulation with the result that the pipes freeze up, hotline has been a loyal customer in the whole winter, tenants without heat.

My conclusion is that a large project like this should be a general contractor in which we have only one part to turn to

holding throughout construction. Especially when we did not have its own project manager.

Another thing that happened is that bathroom company went bankrupt after being careless in a several bathroom and forced to redoing them. Here we are now with a new bathroom firm who takes there's place and go on with the bathroom again. When half the project to be completed, it is still none of the 170 started bathrooms finish.

To save additional money we have acted up certain fabrics commonly themselves. We have bought home a container from China with 500 security doors, they are much cheaper than the door we normally use in Sweden Daloc S43. The requirement was that they would produce the exact copy of the Daloc door. Now that we're going to mount the door proves it so that it is not quite as intended. We cannot mount lock case and lock cylinder the holes are about 0,5 cm from where they should be, which means that a lock company may sharpen up every holes to get it to fit. Seal around the door is too thick, so it cannot be closed if no strikes again door with full force, lock company must remove the stripes and customize new thinner stripes. The final result, worse modified Kina door to higher price than the Swedish-made good quality Doloc door which we normally mount. The comedy in this is that severely tenants already have the Daloc door and pay for it and now we change it to Kina door.

Insulation of facades have also encountered problems. It has been shown that the foam used are highly flammable. When the plaster is on and cover the entire cell, the plastic is not a problem, but it means that the insulation may not be openly exposed as it is under renovation. Fire authorities stopped the work. We must now develop a different type of insulation.

Supplementary insulation should be performed with rock wool instead of foam. To get a good connection to light concrete wall, the less chance of eliminating gaps between boards and between existing walls and panels. Moisture technically better with rock wool when moisture is easier to pass out through the wall than the foam.

Supplementary insulation ends where the facade ends is not towed all the way up over top of light concrete wall and against a roof floor team at eaves. Today it is a gap where in between a cold brew is created.

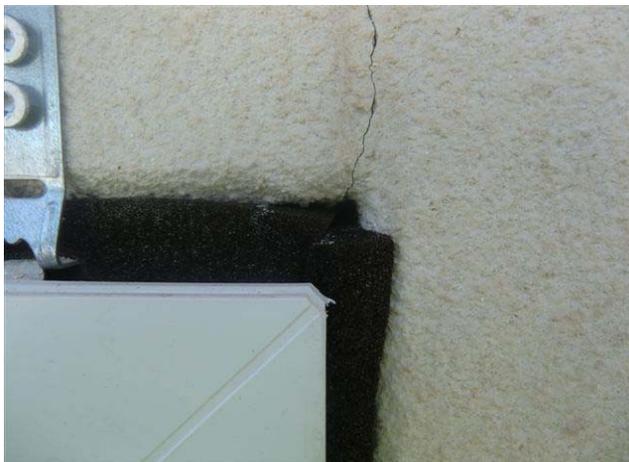


Top of the non insulated facade

Windows are misplaced, sits too far out into the new façade.
Sealing and caulking must be reviewed so as to thermal bridge prevented between frame and façade.



Place of new window



Gap between the window and facade

Connection on foundation, base insulation should be dragged past the joints between the wall and bottom plate to reduce the risk of a single crack.

Surveys of the area in face of such large procurement here is extremely important. Very extra jobs have appeared along the way. A simple thing is to interview staff who works in the area, ranging from operational guys, janitor, ground staff, managers and companies that can sit on many years of experience in the area.

An example of this is the draining job we must do to all the houses with cellars that staff had been able to respond to before that it was a big problem.

Another example is how cold water pipes goes into culverts and the condition of the pipes.

There are many examples in this project we had been able to include in the contract before instead of it appearing in the middle of the ongoing renovation and then become much more expensive when it becomes acute.

Good

New and fresh house in an attractive area.

Energy efficient with low operating costs for heating and water.

Low costs for maintenance, with new bathrooms, windows, facades, fridge, freezer and stove, residential doors and ports, laundry rooms.

Many of our tenants is choosing new whole kitchen or kitchen cabinets and wooden floor in there own choose.

Despite all the problems it has been very patient tenants and they are happy that their neighborhood and apartments will be really fine when it is ready.

I think we can take lots of lessons from this project and I think the area will be very good when it is clear.