Desktop research
Revitalization of the gallery flat

Mark Evertzen
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1 Literature

1.1 Nieuwe kansen voor de galerijflat

This is a great book with some reference projects and a lot of really useful information considering these projects, I’ve used this book to get a better insight in the (subtle) difference between transformations of gallery apartment buildings.

1.2 Beyond Cities: Materialen, producten & circulair bouwen

This article is about materials and circularity in the build environment. The article points out the importance of the layers of change from Steward Brand (Picture 1). They combined the layers of change with different biological and technical re-use cycles in a matrix, this is shown in graph 1. But this matrix might be too hard to fill and too complex for the graduation.

The roadmap to circular building shown in graph 2 might be more useful for the project. The roadmap is divided in six steps:

Step 1: Estimate the added value of the project, is it necessary?

Step 2: Explore existing vacant or future vacant buildings

Step 3: Integrate the possibility of change of use in the design, by doing so distinguish between long lifespan parts of the building like the structure and short life span parts that are collapsible.

Step 4: Dimension intelligently, some parts might need some over dimensioning for flexibility, possible future functions. Some parts can be dimensioned lean

Step 5: Explore the availability and usability of secondary materials, of course it has to be taken into account how sensible it is when these materials have to come from far. (This step could be used in the design process in that case it has to be moved between step 2 and step 3)

Step 6: Integrate quality future use, anticipate on future changes to the building by using change as a design principle. Design for disassembly and flexibility, use materials and products that keep their value.
1.3 Stralings verwarming

There are three different types of heat, conduction convection and radiation. Convection is commonly used within the build environment. In case of radiation heat, you heat the people and objects in the room and not the air in the room. In case of convection you heat the air resulting in a lot higher temperature in the top of the room than at the bottom, in case of radiation heating this problem is smaller. Only long wave radiation is suitable to heat people, short wave radiation has health risks.

Approximately 45% of the heat exchange of human is by radiation, 30% by convection, and 25% by evaporation. So the body is more sensible to radiation than for convection, you could have a room of 10°C and still feel to hot due to a radiating heat source. So a room is not per definition comfortable when it is between 21 and 23 °C, also the opposite is true. Only when these types of heating are in balance a person can be comfortable, this is shown in the right picture above, the black area is when people are comfortable.

Radiation heat can be introduced in a building by a Masonry heater, a heat wall or by electric panels. This panel type works fast and is highly reactive, you get heated immediately when a unit is turned on.
The building industry is responsible for almost 50% of the domestic CO2 emission and energy use. The European Union now requires that all buildings built after 2020 should be net energy zero and the sector must reduce carbon emissions by 90% in 2050.

The energy needed to build a building is the same as the building uses in 30 years. It is important to design buildings not only for their operational energy but also for their embodied energy.

Prof. Dr. Dirk is a pioneer in the field of low embodied energy architecture as he designs “temporary throw away architecture”. He also shows Frei Otto architecture in the context of energy life cycle assessments, providing new perspectives on lightweight architecture.

The book introduces PAT – the performance assessment tool, this tool is used to show the amount of energy used by the building, both operational as well the embodied energy.

Comfort and operational energy
Studies have shown that users display a greater acceptance of the room temperature if it can be individually controlled, for instance by opening windows or a thermostat, this is shown in the picture below.

Visual requirements
There are intended to make a person in a room feel comfortable. If natural lighting is available it is advisable to make use of it, the human metabolism needs sunlight. But protecting against overheating and glare is needed, also the big contrast between dark and light has to be taken into account. 500 lux which is generally seen as an internationally standard is frequently perceived as to high, it is better to only light places with this amount that need it such as a desk.

NOTE: Natural Ventilation zone depends on mean monthly outdoor temperature. Zone, as shown, only represents potentially acceptable temperature ranges for comparison to the traditional standards of mechanically ventilated zones. Darker green in this zone shows temperatures with wider range of outdoor temperatures (yellowish white line = infeasible near 10°C or 35°C outdoor air). Read §5.3 before applying!

Comparison of different international comfort zones: Transsolar
Horizontal sun redirecting elements allow the gain of natural light
Vertical sun redirecting elements
Operational energy
Operational energy of a building depends strongly on the climate, this is shown in the picture below.

Ecological analyses of material and construction
There are three different categories of energy relating relating to the efficiency of a building: 1. Transportation energy: In urban design the transportation energy is an influential parameter. 2. Operational energy: Tends to be the highest share epically in office buildings. 3. Embodied energy: is getting really influential when the building has lower operational energy.

This table shows the amount of MJ embodied energy per kg material. It shows that overall woods and minerals score significantly better than metals plastics and insulation materials. This is nice to keep in mind but not that useful as for construction materials the amount of embodied energy per strength are way more interesting than per kilogram and for insulation material the embodied energy per insulation is way more interesting than per kilogram. And on top of that is only keeps in mind embodied energy and not the other factors that harm the environment, like carbon emission.
The book also shows more complicated models to show the impact of materials, this is one example of these schemes, it shows the primary energy in grey divided in renewable and not renewable and the green diamond shows the global warming potential of a material. In this scheme consisting of insulation materials it shows that there are materials that even have a negative global warming potential, so they prevent global warming. But again this scheme shows the values per kilogram and not per insulation value so it is not that useful.

1 Wood fibre board DHF
2 Wood fibre board (self supporting) DFF
3 Foam glass insulation W+F
4 Rock wool insulation
5 Glass fibre insulation
6 Hemp insulation
7 Polyurethane hard foam
8 Polyurethane foam
9 Foaming glass W+F
10 Perinsul SL
11 Heráclith BM
12 Resin bound mineral wool
13 Mineral wool (ground insulation)
14 Mineral wool (façade cladding)
15 Mineral wool (flat roof insulation)
16 Mineral wool (interior insulation)
17 Mineral wool (Roof insulation)
18 XPS Extruded polystyrene foam
19 XPS polystyrene extruded
20 Polyurethane hard foam
21 Perlite
22 Expanded cork
23 Rockwool
24 Wood fibre board
25 Wood fibre insulation
26 Cellulose board
27 Cellulose fibre
29 Hemp fibre fleece
30 Cotton fibre
31 Plastic foam
32 Rubber foam
33 EPS
34 EPS
35 Calcium silicon insulation board
36 Aerated concrete insulation panel
37 Thermal insulation composite system synthetic render
38 Foam glass Perinsul
39 Foam glass W + S
40 Wood wool board
41 Flax insulation
42 Cork insulation
43 Polystyrene insulation
44 Polyurethane insulation
45 Wood wool board insulation
46 Wool (recycled) insulation
47 Sheep wool

Literature study: Imagine 01, Energy
1.4.1 The performance assessment tool – PAT
This tool amortises the embodied energy over a life span in case of the examples, 30 years. The embodied energy is shown above the x-axis and the usage energy below.

This graph shows an average building over the life time of 30 years.

This graph shows a building over 50 years with a refurbishment after 30 years.

This is a graph of a building that doesn’t need operational energy, but generates energy.
1.4.2 Several projects from Imagine 01, Energy

Moving Comfort Zone

08-03-2011

IMAGINED BY Marcel Blow
KEYWORDS adaptive, comfort zone, smart materials, heating, mechanical service

Normally we heat or cool the whole room in which we are, often even the rooms we might use. What if we are able to create surfaces that are able to heat or cool down very quickly and will also recognize your presence? If that’s achievable, we are able to create a surface maybe on the roof of our buildings that will follow us and provide a pleasant comfort wherever we are. The energy should be transferred via radiation and should be as fast as light to be able to follow our path through the room. This way, the overall energy consumption will be much lower than it is normally.

Heating a building or the people in it by long wave radiation could become simpler to use by introducing complex technologies as is done in this case.

All Wood Wall

09-06-2010

IMAGINED BY Marcel Blow, Ulrich Knaack
KEYWORDS mono-material, wall, wood, timber construction, stored energy

The idea is not new, but using wood will definitely reduce the carbon footprint. If we try to build our currently layered wall constructions, the goal should be to use only wood or timber materials. Even the insulation should be made out of wood chips or similar products that might be created out of waste materials from the wood industry. To overcome a mixture of materials the vapor-light barriers should be also eliminated. Thus, the plastic films we are using now would have to be avoided and solutions like high pressure wood products, which fulfill the same purpose, would have to be found. Using this kind of construction we would have to accept that the wood on the outside will become grey and old. A finishing touch with paint or other chemicals could not be the solution.

It’s a great idea but I would go for bamboo instead of wood, as grows much quicker and therefore takes a shorter claim on our farmland when growing and bamboo has some nice structural properties.

Growing Buildings

02-05-2007

IMAGINED BY Hans Knaack
KEYWORDS self-growing, structure, plants, seeds, architecture

“That’s too complicated... with all the building constructions...” Hans Knaack complained. “If we have to use as much wood as possible to reduce our carbon footprint as you explained, why not train the plants and trees themselves to do the job for us? Imagine a method where we can draw a structure on a piece of paper (or something similar) and then put it into a hole in the ground and let nature do its thing... you only have to wait and maybe protect the young plants while growing and then we have the building! No nails or bolts needed. Don’t ask me how we teach the seeds to assume that shape, that’s up to you...”

Amazing idea, and if you tune it down a bit and only let the façade grow there doesn’t have to be need to train the seeds, you just have to pick the right plant and give good guidance.

Ultra Light Structure

17-02-2010

IMAGINED BY Ulrich Knaack
KEYWORDS temporary use, architecture, light weight, structure

If we try to reduce the amount of embodied energy within our structures, there is also the question of time. For how long do we need the building? If we build for just a temporary purpose, like an exhibition or a fair, we should build as light as possible to reduce the embodied energy in the building materials. We might use a little bit more energy to operate the building and to create a comfortable space, but in relation to its purpose it is right.

This approach nicely shows the relation between the time a building is used and the ratio of embodied energy and usage energy that should be looked for.

Literature study: Imagine 01, Energy
1.5 Imagine 06 Reimagining the envelope


This diagram shows the residential and non-residential floor areas per country, it is clear that The Netherlands has about 5 times more residential than non-residential floor area. This is the highest ratio of residential floor area of all countries.

These diagrams shows on what the total operational energy of buildings is used, on the left for residential buildings on the right for non-residential buildings. This diagrams can be used to check where to obtain the most profit. It is clear that this is in space heating and to a lesser extend in water heating.
This table shows lots of problems that might occur in older façades, this scheme is highly useful in the technical analyses of the gallery apartment buildings I am planning to do.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor thermal performance of the envelope (roof, walls and windows)</td>
<td>Energy losses, high energy demand</td>
</tr>
<tr>
<td>Poor airtightness of the openings</td>
<td>Energy losses, high energy demand, user discomfort</td>
</tr>
<tr>
<td>Thermal bridges</td>
<td>Energy losses, high energy demand, internal condensation</td>
</tr>
<tr>
<td>Out-dated installations</td>
<td>High energy demand, risk of technical problems, user discomfort</td>
</tr>
<tr>
<td>Corrosion of ties and fixings</td>
<td>Façade parts destruction, accident risk</td>
</tr>
<tr>
<td>Inadequate movement between cladding and structure</td>
<td>Façade parts destruction, accident risk, Degraded appearance</td>
</tr>
<tr>
<td>Misalignment of panels</td>
<td>Accident risk, degraded appearance</td>
</tr>
<tr>
<td>Loose or falling render</td>
<td>Degraded appearance</td>
</tr>
<tr>
<td>Poor acoustic insulation</td>
<td>User discomfort</td>
</tr>
<tr>
<td>Poor damp-proofing</td>
<td>Accident risk, water penetration, user discomfort</td>
</tr>
<tr>
<td>Inadequate details of the junction with floor slabs and internal walls</td>
<td>Degraded appearance</td>
</tr>
<tr>
<td>Mould growth</td>
<td>Health risk, degraded appearance</td>
</tr>
<tr>
<td>Deterioration of parts of the façade</td>
<td>Accident risk, degraded appearance</td>
</tr>
<tr>
<td>No use of the external spaces</td>
<td>Degraded appearance, risk of social problems, insufficient function</td>
</tr>
<tr>
<td>The need for extra spaces</td>
<td>Insufficient function</td>
</tr>
<tr>
<td>No handicap access to the apartment (no lift, ramps etc)</td>
<td>Accident risk, insufficient function</td>
</tr>
</tbody>
</table>

If we take an closer look at refurbish strategies from the industry, certain categories can be identified. They can be executed on different levels but similar characteristics often apply. Buildings could also be refurbished with a combination of strategies. These are the strategies:
In my graduation project one of the main goals is adding value for the user, a big usable windowsill to read a book in is nice added value but this approach takes it even a step further.

This is a nice approach of building a tombe wall. The big blind façades of a gallery apartment building might be usable for this approach.

Being able to design a building that adapts to the season might reduce the need for active systems a lot.

In my graduation project one of the main goals is adding value for the user, a big usable windowsill to read a book in is nice added value but this approach takes it even a step further.
2 Lectures
2.1 Lecture Anne Lacaton, Re-use never demolish

20th century architecture means modernity: open buildings, open structures, liberating the space, offering the freedom of use, the free-plan, generosity of space, light and use.

860 - 880 Lake shore drive Chicago, “hard to make a plan any better” (she didn’t give a reason why)

Book tip: mr. Mies Lafayette Park Detroit

Never build but a good reference: Fun Palace Cedric Price, open building everything is possible. An extreme building: Palast der republik, Berlin extremely big creating urban floors

“a dwelling is a unit limited by walls” “A villa is something else, in a villa you have the possibility to move, you have an outside space that creates mobility with various space sizes in various seasons.”

“Modernity is also: long housing blocks near the city built in the 60’s and 70’s they carried the vision of the future, a modern way of living, democratic and affordable to everyone.”

In France 200.000 dwellings have been teared down of which half is rebuild.

Research: Frédéric Druot, Anne Lancaton & Jaen-philippe Vassal, PLUS

When renovating it is important to improve the quality of space, living and architecture

Buildings of the 70’s that still serve well have something in common:
Good architectural quality in terms of - Common spaces
- Inside of dwellings
- Always a balcony
- Good view

Go inside these buildings and check the quality!
The approach of Lancaton: “Open walls and add outdoor space”

Renovating costs ± €40.000,- - €60.000,- / dwelling
Demolish + Rebuild costs ± €150.000,- - €180.000,- / dwelling

Break the standard!

If we build an house with 70m² program we add another 70m² for any use. In this combination of program space and extra space that doesn’t have program something very interesting happens, in terms of interpretation in terms of appreciation.

Also think of future transformations

You can’t have two façades with the same air proof conditions, it is important that the air can reach the in-between space.

A true modernist
- Thinks about: people first
- Thinks about the inside first
- Research based design
- Does more with less
2.2 Lecture Housing Policy, Management and Sustainability

I went to eight hours of lecture from the course: AR1R035 Housing Policy, Management and Sustainability. As I thought Housing Policy and management is also an important part of the transformation of existing residential buildings.

The summery of the lectures is highly selective as I only wrote down what I thought I might be able to use in the project. All information comes from the lectures of Anke van Hal and Peter Boelhouwer.

2.2.1 Lectures Peter Boelhouwer

This picture shows the amount of buy and rent houses per income, the income is on the horizontal axis the higher the number the higher the income. It shows that especially higher incomes own houses and lower incomes don’t. The government would like more building ownership but the ‘huurtoeslag’ is not really helping, it is something that mostly the higher incomes helps and it keeps the house prices in the Netherlands artificially high so it is even harder for lower incomes to buy a house.

In social housing the better renters will buy, it is not that they treat their house better after buying the people that are willing to buy are the people that already are treating their house well and are the more active people in the neighbourhood. By providing programs that social renters can buy their house you keep this more active people in the neighbourhood, which improves the quality of the whole neighbourhood.

“Delft wants to get ‘kenniswerkers’ towards the city”

“Delft is willing to sell social housing or even take it down”

“Rotterdam wants to avert social housing from the city”

Expectation of house price:
- Housing market as a supply market
- Speculative developments
- Institutional policy
- Demographic developments
- Economic developments

Germany has big price differences per region and a static market, they see the housing market more as a
supply market. The picture above shows housing prices compared to the production costs. The price of a house is a lot higher than the construction costs (mostly due to high ground prices) This gives some opportunity for the project, it is possible to transform the building and pay it from some houses that will be sold.

Social housing is not priced to make a profit and allocated on the basis of need, not demand.

1852: Foundation of the first housing association

Due to the former British ownership Hong Kong has a huge social housing sector.

2.2.2 Lectures Anke van Hal

Book: McKinsey & Company, 2016 Accelerating the energy transition: cost or opportunity?

The goal is to make life better for people sustainability is just a tool to achieve that.

Sustainability ≠ Energy

There is a lot more part of sustainability than just energy,
- Energy
- Water
- Materials
- Waste
- Flora + fauna
- Health
Read ‘1990 Nationaal milieubeleidsplan plus’
Neyenrode The eco-neighborhood study

Ecodus, Delft
Morra park, Drachten (focused on water quality, most people never moved out)
Drielanden Groningen, (high quality, expensive)
GWL-terrain Amsterdam
Eva-lanxmeer Culemborg (famous neighbourhood, build in water extraction area)

Neighbourhoods of the 90’s with a strong focus on sustainability are still doing extremely well nowadays, however the techniques are really outdated and some systems don’t even work anymore at all.

Personal note: all these project had something else in common, the neighborhoods are really green and nature focused, maybe the people don’t care that much about sustainability but like living there because of the green surroundings.

Book: Happy city, Charles Montgommery
Book: Works your city? Richard Florida

Dissatisfiers, things that people really want and would be dissatisfied if they didn’t have it, like enough space or a garden.
Satisfiers and delights, things people don’t necessary need but will be really happy with, like a vide, or good architecture, something extra.

Taking away dissatisfiers is hard in social housing
Creating satisfiers/delights is possible

It also easy to this in the build environment not inside the house, like by adding trees or a park, with one adjustment the whole apartment building would be happy.

Not everything is used as the designer meant it, some nice houses where build with a greenhouse attached to it as a buffer zone to reduce the energy bill. What people did is tear down the insulating wall and use the greenhouse as living room extension, resulting in heating up a room with a big area of single glass

Check: www.homemates.nl
Interview with Arne Steeneken
(development manager at social housing association Woonbron)

Wat is jullie visie op woningverbetering?
Wij pakken alleen de hele slechte woningen aan, wanneer we er sowieso bij moeten voor onderhoud.
Wanneer de kozijnen vervangen moeten worden vervangen we deze voor beter isolerende kozijnen.
Hierbij verbeteren we niet naar een A+ label maar slechts tot een B-label.

Hebben jullie ook galerijflats getransformeerd waarbij het gebouw eerst is gestript tot op de constructie?
Ja, maar die projecten zijn zo verschrikkelijk duur dat doen we nooit meer.

Er staat al een constructie je zou verwachten dat het goedkoper is ..
Dat klopt in het geval van Purper en Amber is er veel in de constructie gezaagd en veel veranderd, dat moet allemaal worden uitgerekind en kost handen vol geld. In het geval van de flat aan het Admiralaars plein in Dordt (Dordrecht) was de constructie zo erg op zijn maximaal belast dat we niet eens meer in de muren mochten vrezen voor de leidingen. Dat hele gebouw zit dus vol met opstand leidingen, van een nieuwbouwwoning verwacht je wel iets betere afwerking zeker in deze prijscategorie.

Waren de woningen zo duur dan?
Ze staan Wielwijk, een niet hele goede wijk en in Dordt zijn de woningprijzen over het algemeen al een stuk lager dan hier, maar we hebben ze toch vrij hoog in de markt gezet, 170.000 tot 300.000 euro, de woningen in het midden met de meer unieke plattegronden waren zo verkocht alleen de woningen op de kop die een meer standaard plattegrond hadden waren moeilijker vanaf te komen.

Ook kijg je bij dat soort projecten met uitverhuiskosten te maken, wanneer mensen meer dan 24 uur niet gewoon hun woningkunnen gebruiken moet je al betalen en die uitverhuiskosten zijn als ik het goed heb momenteel €5892,- per bewoner, zesduizend euro maal 150 woningen is al een beste kostenpost. Maar soms is dit wel een goede oplossing, wanneer er veel mensen met bepaalde slechte eigenschappen bij elkaar wonen wordt de hele flat onleefbaar, dan is het uitverhuizen en deze woningen opknappen voor nieuwe bewoners een serieuze overweging. Er wonen mensen, dat hou je je niet voor mogelijk, bijvoorbeeld mensen die gewoon vinden en gewend zijn als ze pasta overhebben dit gewoon uit het raam te gooien, toen we hun flats aan het opknappen waren en er stijgers voor stonden deden ze dat alsnog, de bouwwakkers vonden dan gewoon ’s ochtends het avondeten van de dag ervoor op de stijger. Te veel van die mensen bij elkaar maken het echt geen prettige buurten, we zijn nu bezig met een project aan de rand van Dort waar we alle mensen uitverhuizen en de gebouwen opknappen voor nieuwe bewoners.

Is slopen en nieuw bouwen een optie voor jullie?
In principe slopen we nooit een galerijflat, de woningen zijn erg populair, in de jaren dat ik hier werk is er niet één galerijflat gesloopt.

Weet u of de bewoners graag in een galerijflat wonen?
Ja het zijn hele populaire woningen die we makkelijk vol krijgen, ze zijn ruim opgezet, de flat hierteregenover heeft een beuk van bijna 8 meter, daar kunnen niet veel woningen tegen op. Maar als je de mensen een keus geeft woont vrijwel iedereen liever in een grondgebonden woning.

Ontstaan er problemen met het geluid binnen nadat de gevel beter is geïsoleerd?
Ja mensen krijgen iets meer geluidsoverlast van de buren, maar dat wordt eigenlijk pas problematisch als mensen met totaal verschillende levensstijlen naast elkaar wonen. Als bijvoorbeeld een bejaard stel naast jongeren woont. De oudere mensen hebben last van het geschreeuw van de kinderen of de driewieler op de gang, maar ook andersom, oudere mensen hebben vaak de tv wel erg hard staan of stofzuigen heel

Interview: Arne Steeneken
vroeg in de ochtend.

**Zijn er andere problemen met de galerijflats?**
Anonimiteit is een groot probleem, er komen zoveel mensen door een ingang dat er totaal geen sociale controle is.

Zelfs na een uitleg avond en brieven blijven mensen problemen houden met vloerverwarming, wat ze doen is de verwarming uitzetten als ze boodschappen gaan doen, en als ze thuiskomen en het huis is niet binnen 15 minuten warm bellen ze op dat hun verwarming stuk is, je kan ze niet uitleggen dat het een sloom verwarmingssysteem is, dat ze de verwarming aan moeten laten staan wanneer ze het huis uit gaan.

Projecten waarbij we gebruik hebben gemaakt van een warmtepomp waren ook bepaald geen succes, omdat de woongebouwen vooral warmte vraag hebben en vrijwel geen koude vraag onttrekt de pomp alleen warmte van uit de bodem, in steen grond of beter geleidende grond is dat prima maar in de grond van Nederland ontstaat het probleem dat de buizen aanvriezen en dat het op ‘t gegeven moment meer kost aan energie om de vloeistof rond te pompen dan je er aan warmte uit kunt halen.

En een groot probleem bij veel projecten is de fauna, er moet altijd een verkennend fauna onderzoek gedaan worden en er wordt altijd wel iets gevonden, er zitten bijvoorbeeld vaak vleermuizen tussen de kopgevel van een flatgebouw, dan moet je gaan monitoren of het alleen winterverblijf of alleen zomer of beide, zo lopen veel projecten vertraging op.
4 Questionnaire for residents

I’ve made a questionnaire for residents of gallery apartment buildings, I made it to find out how happy residents are with their gallery apartment building, what they think are points for improvement etc. If I do an improvement I also want to know for whom I am designing, so I want to know some relationships for instance: if there is a relationship between how happy people are with their home and whether they have children (It is hard to have an eye on playing children in a gallery apartment building), so I could design a child proof gallery apartment, or if there is a relationship between whether people lived in a gallery apartment in their youth and how much they like gallery apartments. And I wanted to know how much people don’t want a change, and why that is.

To get the questionnaire filled in I wrote all housing companies with gallery apartment buildings in their stock that are operating in region Haaglanden, so far I got just one answer back of a housing company willing to spread the questionnaire, but only through Facebook, and two housing companies not willing to spread it. I don’t have answers out of the questionnaire, yet.

The questionnaire is digital with smart question skipping based on the given answers. The questions and relations can be found in appendix 1.

5 Letter towards the Ministry of the Interior and Kingdom Relations

I’ve send a letter towards the Ministry of the Interior and Kingdom Relations with a request regarding the amount of gallery apartment buildings in The Netherlands, where they are located and some other questions. My request was approved and met all requirements, but sadly they where not in the possession of any of the information I’ve asked for and to their knowledge no other Ministry or part of the government is. The letters can be found in appendix 2.
6 Reference projects

Purper and Amber, Delft  22
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‘t Sluisje, Apeldoorn  31

Graduation
Mark Evertzen
10 January 2017
Two gallery apartment buildings in a bad neighbourhood are completely transformed to revitalize the neighbourhood. The buildings where completely stripped to the structure and they even saw through it. Completely new buildings where place on this basis the buildings are connected through a raised floor underneath which can be parked. In the area row houses (not tipal row house looking) are build as part of the complex.

**Modification**
Two gallery apartment buildings in a bad neighbourhood are completely transformed to revitalize the neighbourhood. The buildings where completely stripped to the structure and they even saw through it. Completely new buildings where place on this basis the buildings are connected through a raised floor underneath which can be parked. In the area row houses (not tipal row house looking) are build as part of the complex.

**Opinion**
The transformation worked tremendous, it’s like a good oasis in a not that good neighbourhood but the oasis has a lot of good influence. So considering the goal the project worked perfectly, but the gallery apartment buildings are treated as if they don’t have any value at all except housing people, they became completely unrecognisable, also Woonbron says they will never do a project like this again due to the costs. Yet a lot of people have a great place to live and the neighbour had a positive boost.
An 60's gallery apartment building is stripped to the structure and a complete new area is build around it. Parking is possible underneath the square, there is a roof garden on top of the lower parts of the building, all in all a modern project you hardly recognize a gallery apartment building in. In the process they asked so much of the strength of the construction it was not possible anymore to dread the wire through the wall, all wires are op top, resulting in a weird finish.

**Modification**
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**Opinion**
The project was extremely expensive to do, yet quite successful all apartments where sold for a good price and the middle apartments (that have a non-standard ground-plan) where sold quite fast. There is not much left of the gallery apartment building yet people have a great place to live, that was where the buildings where designed for in the first place.
This is an unique project, because it would have been to expensive to complete renovate the whole apartment building the owner sold it for €1,- to DeFlat they renovated the façade and completely replaced the climate services and updated the entrance. The dweller buys the flat completely empty and has to build his own interior inside it.

**Modification**

This is an unique project, because it would have been to expensive to complete renovate the whole apartment building the owner sold it for €1,- to DeFlat they renovated the façade and completely replaced the climate services and updated the entrance. The dweller buys the flat completely empty and has to build his own interior inside it.

**Opinion**

I think it is a great plan not only makes the plan it cheap to buy a house in Amsterdam, by thinking differently and having some courage they saved a structure that otherwise would have been demolished and gave lots of people a beautiful home. The project was extremely popular and the houses where sold quickly, maybe this is a model for other real estate-people to show some courage.
The facade is stripped of the building and a 3,8 meter deep structure is placed in front. This structure is used as a winter garden. On the outside it is completely filled with sliding doors of polycarbonate panels on the building side it are big sliding doors of glass. You are able to open and close the building when it suites you and a lot of added value is created.

**Modification**

The facade is stripped of the building and a 3,8 meter deep structure is placed in front. This structure is used as a winter garden. On the outside it is completely filled with sliding doors of polycarbonate panels on the building side it are big sliding doors of glass. You are able to open and close the building when it suites you and a lot of added value is created.

**Opinion**

I love the simplify of the change and it really improves the quality of life a lot, to me this building is the best example of improving the quality of life. To me the building looks realy good and by using cheap materials like polycarbonate and use a curtain to protect against heath, the building is still not that expensive. I dislike that they build a new construction in front, it would be even greater if they did it solely with cantilevers.

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**Lacaton & Vassal**

Location: Bordeaux  
Orientation flats: South-east  
Construction year: ?  
Modification year: 2016  
Floor area per flat: 80 -> 160 m²  
Costs per flat: €51,000,-  
Building system: ?  
Client: Aquitanis O.P.H.
Modification
The most important thing they was to fill up the whole roof with solar panels. As well they improved the entrances and staircases added solar panels and insulated the end fades en roof and did some interior improvements. And they did a small extra; they’ve put a small pavilion on the roof as watchtower to show the added solar panels.

Opinion
I like that this project is model project for generating energy on existing buildings, when they designed it that was quite new, and they where proud to show it as did something extra by adding a watchtower. Furthermore the change is quite boring it’s more like a small renovation.
The most important thing they did was to put a glasshouse on the entire façade, to extend the flats and improve the climatological performance. As well they improved the entrances and staircases added solar panels and insulated the end fades en roof and did some interior improvement. And they did a small extra; they’ve put a small pavilion on the roof as watchtower and to show the added solar panels.

Modification
The most important thing they did was to put a glasshouse on the entire façade, to extend the flats and improve the climatological performance. As well they improved the entrances and staircases added solar panels and insulated the end fades en roof and did some interior improvement. And they did a small extra; they’ve put a small pavilion on the roof as watchtower and to show the added solar panels.

Opinion
I really like this project because the improved the quality of living by adding a complete glasshouse to the building. On top of the execution is also really interesting as they designed a whole new profile for the glasshouse façade but the profile looks really simple and intelligent. I dislike that they didn’t change much on the gallery side.
This project was focused on the improvement of living comfort for senior citizens. The main things they did is insulating the end façades, changing the main entrance, and place colored front door panels, improved the glass and changed some interior.

**Modification**
This project was focused on the improvement of living comfort for senior citizens. The main things they did is insulating the end façades, changing the main entrance, and place colored front door panels, improved the glass and changed some interior.

**Opinion**
I think the project is quite boring, with just slightly less money as the Noordwachter they did a whole lot less impact. Although improving the quality of life focused on just one target group might do a lot for them in therms of usability of the building.
Modification
This project is on an extremely good location which makes it unique and gives lots of opportunities to make big changes and still make a lot of profit. In this plan, they make bay windows in the end façades, build new elevators, build 14 new buildings in between, build 76 buildings on top, make the balconies bigger, make big recognizable entrenches. A part of the middle flats will be transformed into 1.5 times bigger apartments, form 65 m² to 100 m².

Opinion
Due to the extremely good and expensive location this gallery apartment building has huge opportunities, what I really like about this plan is that they used them quite well, the changes would really improve the building and the area. What I really dislike is that in the end the owner decided not to do the transformation.
Similar to the Noordwachter (by the same architect) a greenhouse facade is placed on one side of the building. But in this case they also improved the look of the other side. As well they isolated the end facades end the roof, made better looking more noticeable entrances.

**Opinion**
I like this project for the same reasons as the Noordwachter, on top of that this project also shows to the area that wanted the gallery apartment building torn down that these type of buildings can be nice. What I really dislike about the project is that it was two time more expensive than the transformation of the Noordwachter
Modification
They made the flats more open by cutting through the staircases. Made new entrances, the dwellings on the first floor have a personal entrance, they replaced the facade for a better performing one, the balconie railings are Changed. And they changed the square in front of the building.

Opinion
They solved the biggest problems and the entrance and elevator look really nice, but they did nothing special with the climate just some insulation but not even the façades on the long side of the building and the building still got a bit of a sad look, although it is improved. And still this one of the most expensive projects. This is probably because they had to saw a lot of concrete and the area is also changed.
Appendix 2, Letter to the ministry

M. Evertzen  
Michiel de Ruiterweg 380  
2628 JZ Delft  
E-mail: m.evertzen@gmail.com  
Telefoon nr.: 06 - 211 515 12  

Ministerie van BZK  
Turfmarkt 147  
2511 DP DEN HAAG

Hengelo, 25 november 2016  
Betreft: Informatie over galerijflats gebouwd voor 1975

Geacht Ministerie van Binnenlandse Zaken en Koninkrijksrelaties,

Het onderstaande is een verzoek zoals bedoeld in artikel 6 eerste lid van de Wet openbaarheid van bestuur (Wob).

Eigenaren van galerijflats die voor 1975 gebouwd zijn, worden verplicht door minister Blok om bouwkundig onderzoek te laten doen naar galerijvloeren en balkons.  
Link: [https://www.rijksoverheid.nl/actueel/nieuws/2015/12/22/onderzoeksplicht-voor-galerijflats](https://www.rijksoverheid.nl/actueel/nieuws/2015/12/22/onderzoeksplicht-voor-galerijflats)  
Dit suggereert dat het ministerie een duidelijk beeld heeft van waar deze galerij flats gebouwd voor 1975 staan.

- Hoeveel galerijflats gebouwd voor 1975 staan er in Nederland?

- Hoeveel galerijflats gebouwd voor 1975 staan er per provincie?

- Hoeveel galerijflats gebouwd voor 1975 staan er per gemeente?

- Mits jullie de informatie beschikbaar hebben wil ik ook graag een digitale kaart van Nederland met alle galerijflats gebouwd voor 1975.

- Wat zijn de adressen van galerij flats gebouwd voor 1975 waarvan bekend is dat ze gesloopt zullen worden?

- Wat zijn de adressen van galerij flats gebouwd voor 1975 die momenteel leeg staan?

Mocht u de specifieke informatie die ik vraag niet kunnen leveren maar wel aanverwante informatie hoor ik het ook graag. Indien u kosten in rekening brengt voor het maken van kopieën e.d. verzoek ik u mij hiervan vooraf op de hoogte te brengen.

Met vriendelijke groet,

[Signature]

Mark Evertzen
Datum: 30 november 2016
Betreft: Ontvangstbevestiging Wob-verzoek

Geachte heer Evertzen,

Hierbij bevestig ik de ontvangst op 28 november 2016 bij het ministerie van Binnenlandse Zaken en Koninkrijksrelaties van uw brief van 25 november 2016.

Om uw bericht makkelijk terug te vinden als u contact zoekt, heb ik dit geregistreerd onder het nummer 2016-0000752447.

Uw brief is in behandeling genomen in de categorie Wet openbaarheid van bestuur (Wob). Ik streef ernaar uw verzoek binnen de gestelde termijn\(^1\) te beantwoorden. Mocht de beantwoording meer tijd vereisen, dan wordt u hierover geïnformeerd.

Hoogachtend,

namens de Minister van Binnenlandse Zaken en Koninkrijksrelaties,

Wendy Sutherland
Directeur Concernondersteuning

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\(^1\) Wet openbaarheid van bestuur – 4 weken na ontvangst brief
Datum: 16 december 2016
Betrek: Beslissing op uw Wob-verzoek

Geachte heer Evertzen,

In uw brief van 25 november 2016, ontvangen op 28 november 2016, hebt u met een beroep op de Wet openbaarheid van bestuur (hierna: Wob) om informatie verzocht over “galerijflats gebouwd voor 1975”.

U vraagt documenten met: de aantallen galerijflats gebouwd voor 1975 in Nederland, per provincie en per gemeente; een digitale kaart van Nederland met alle galerijflats gebouwd voor 1975; de adressen van galerijflats gebouwd voor 1975 waarvan bekend is dat ze gesloopt zullen worden; de adressen van galerijflats gebouwd voor 1975 die momenteel leeg staan.

De ontvangst van uw verzoek is schriftelijk bevestigd bij brief van 30 november 2016, kenmerk 2016-0000754593.

Wettelijk kader
Uw verzoek valt onder de reikwijdte van de Wob. Voor het in het kader van dit besluit relevante artikel 1 van de Wob verwijs ik u naar bijlage 1 bij dit besluit.

Inventarisatie documenten
Er zijn geen documenten bij het ministerie met de door u gevraagde informatie. Ook is mij niet bekend of de informatie bij een ander bestuursorgaan aanwezig is.

Besluit
Ik heb besloten uw verzoek af te wijzen aangezien er geen document bij het ministerie is met de door u gevraagde informatie.

Plaatsing op internet
Ter informatie

Los van bovenstaand besluit wijs ik u ter informatie op twee reeds openbare documenten die betrekking hebben op de onderzoeksplicht voor galerijflats die u noemt in uw verzoek:


Hoogachtend,

De minister voor Wonen en Rijksdienst,

namens deze,

Richard van Zwol
Secretaris-generaal

Belanghebbenden kunnen binnen zes weken na bekendmaking van dit besluit daartegen per brief bezwaar maken bij de minister van Binnenlandse Zaken en Koninkrijksrelaties, Directoraat-Generaal Bestuur en Wonen, directie Bouwen en Energie, Postbus 20011, 2500 EA Den Haag. Het bezwaarschrift moet zijn ondertekend, voorzien zijn van een datum alsmede de naam en het adres van de indiener en dient vergezeld te gaan van de gronden waarop het bezwaar berust en, zo mogelijk, een afschrift van het besluit waartegen het bezwaar is gericht.
Bijlage 1 – Relevant artikel uit de Wob

Artikel 1
In deze wet en de daarop berustende bepalingen wordt verstaan onder:

a. document: een bij een bestuursorgaan berustend schriftelijk stuk of ander materiaal dat gegevens bevat;

b. bestuurlijke aangelegenheid: een aangelegenheid die betrekking heeft op beleid van een bestuursorgaan, daaronder begrepen de voorbereiding en de uitvoering ervan;

c. intern beraad: het beraad over een bestuurlijke aangelegenheid binnen een bestuursorgaan, dan wel binnen een kring van bestuursorganen in het kader van de gezamenlijke verantwoordelijkheid voor een bestuurlijke aangelegenheid;

d. niet-ambtelijke adviescommissie: een van overheidswege ingestelde instantie, met als taak het adviseren van een of meer bestuursorganen en waarvan geen ambtenaren lid zijn, die het bestuursorgaan waaronder zij ressorteren adviseren over de onderwerpen die aan de instantie zijn voorgelegd. Ambtenaren, die secretaris of adviseerend lid zijn van een adviesinstantie, worden voor de toepassing van deze bepaling niet als leden daarvan beschouwd;

e. ambtelijke of gemengd samengestelde adviescommissie: een instantie, met als taak het adviseren van één of meer bestuursorganen, die geheel of gedeeltelijk is samengesteld uit ambtenaren, tot wier functie behoort het adviseren van het bestuursorgaan waaronder zij ressorteren over de onderwerpen die aan de instantie zijn voorgelegd;

f. persoonlijke beleidsopvatting: een opvatting, voorstel, aanbeveling of conclusie van een of meer personen over een bestuurlijke aangelegenheid en de daartoe door hen aangevoerde argumenten;

g. milieu-informatie: hetgeen daaronder wordt verstaan in artikel 19.1a van de Wet milieubeheer;

h. hergebruik: het gebruik van informatie die openbaar is op grond van deze of een andere wet en die is neergelegd in documenten berustend bij een overheidsorgaan, voor andere doeleinden dan het oorspronkelijke doel binnen de publieke taak waarvoor de informatie is geproduceerd;

i. overheidsorgaan:
1°. een orgaan van een rechtspersoon die krachtens publiekrecht is ingesteld, of
2°. een ander persoon of college, met enig openbaar gezag bekleed.