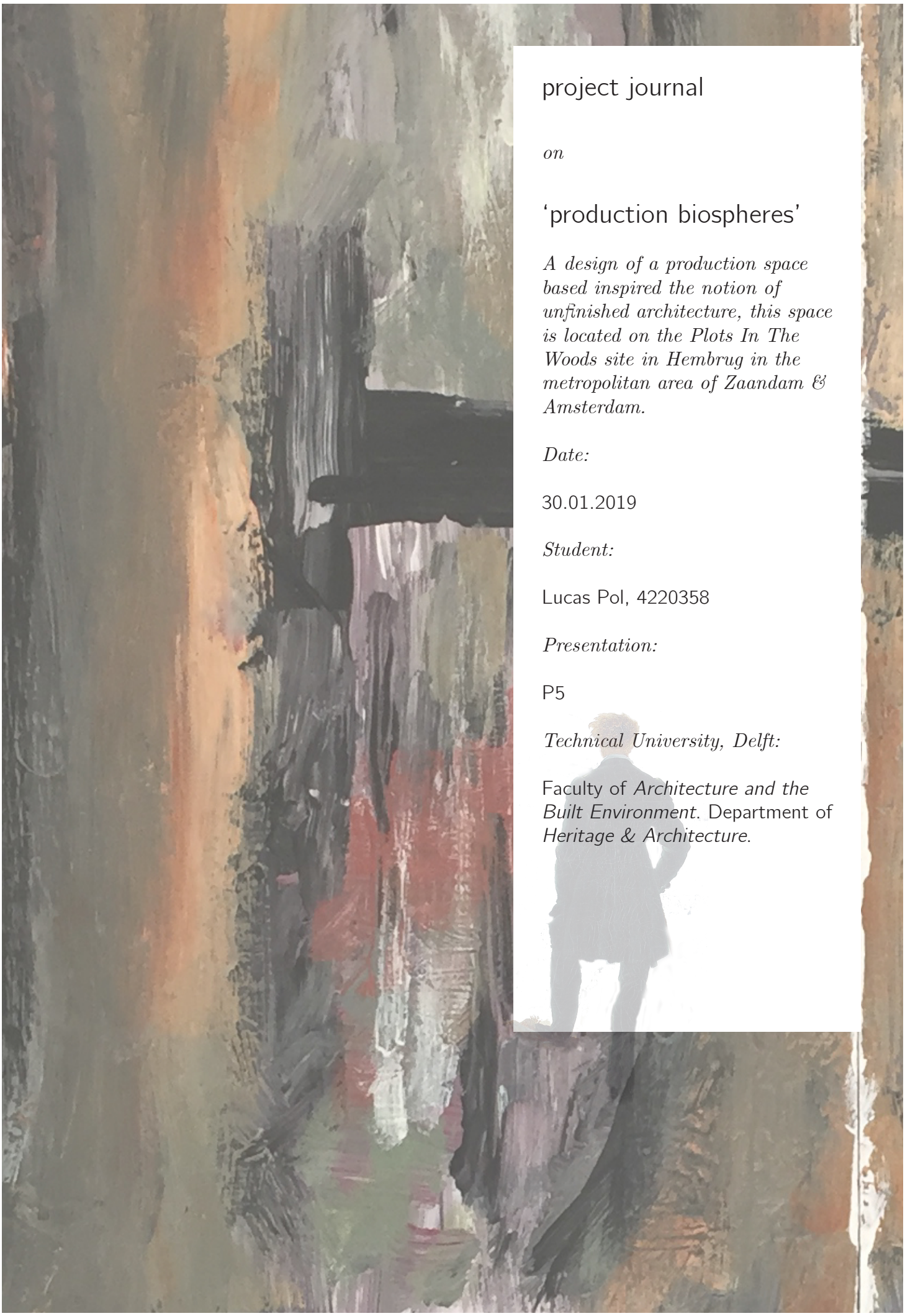

project journal

on

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.

Date:

30.01.2019

Student:

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Presentation:

P5

Technical University, Delft:

Faculty of *Architecture and the Built Environment*. Department of *Heritage & Architecture*.



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Introduction

What is in this project journal?

This project journal contains material in the form of research and design through sketches, drawings, images, models and writing that mark important steps of the process. This project journal was updated during the process of research and design for my project ***Production Biospheres***. A project and (process) design for the Hembrug terrain near Zaandam within the chair of ***Heritage & Architecture***.

This bundle is divided in parts that work towards the five main presentations for this graduation project. These presentations go by the following letters and numbers: ***P1***, ***P2***, ***P3***, ***P4*** & ***P5***.

This is the starting point of the reflection that accompanies the *P4* and the updated version of this for the *P5* presentation. As this reflects on the process of this graduation project and the methods used.

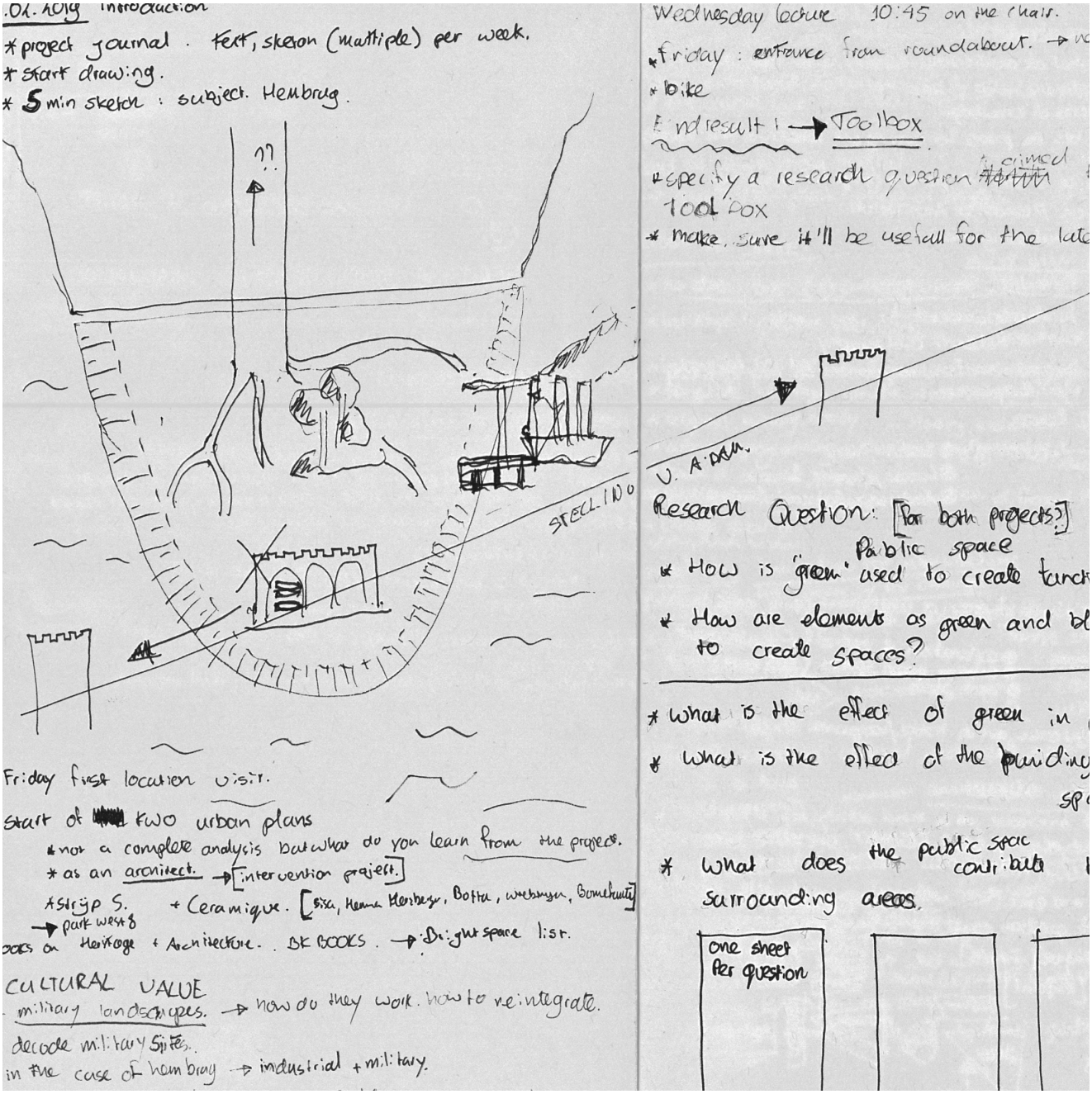


Image 1: First sketch.

11.02.2019: a sketch of Hembrug in the studio on the first day project

I meant to do a lot of research before hand. In the end I only did a bit of reading so I knew that it was a part of the Stelling van Amsterdam for example. I only had the studio text and the images provided there to go on.

We also got the first analysis exercise which was to look at too reference projects that have a similar character. Strijp S. in Eindhoven and Ceramique in Maastricht. For these analyses I will look at the public space. In my process I usually look heavily at the context(s) first. For me the entire direction was new as well. I had not done a Heritage in Architecture project before. So the introductory lectures were quite welcome.

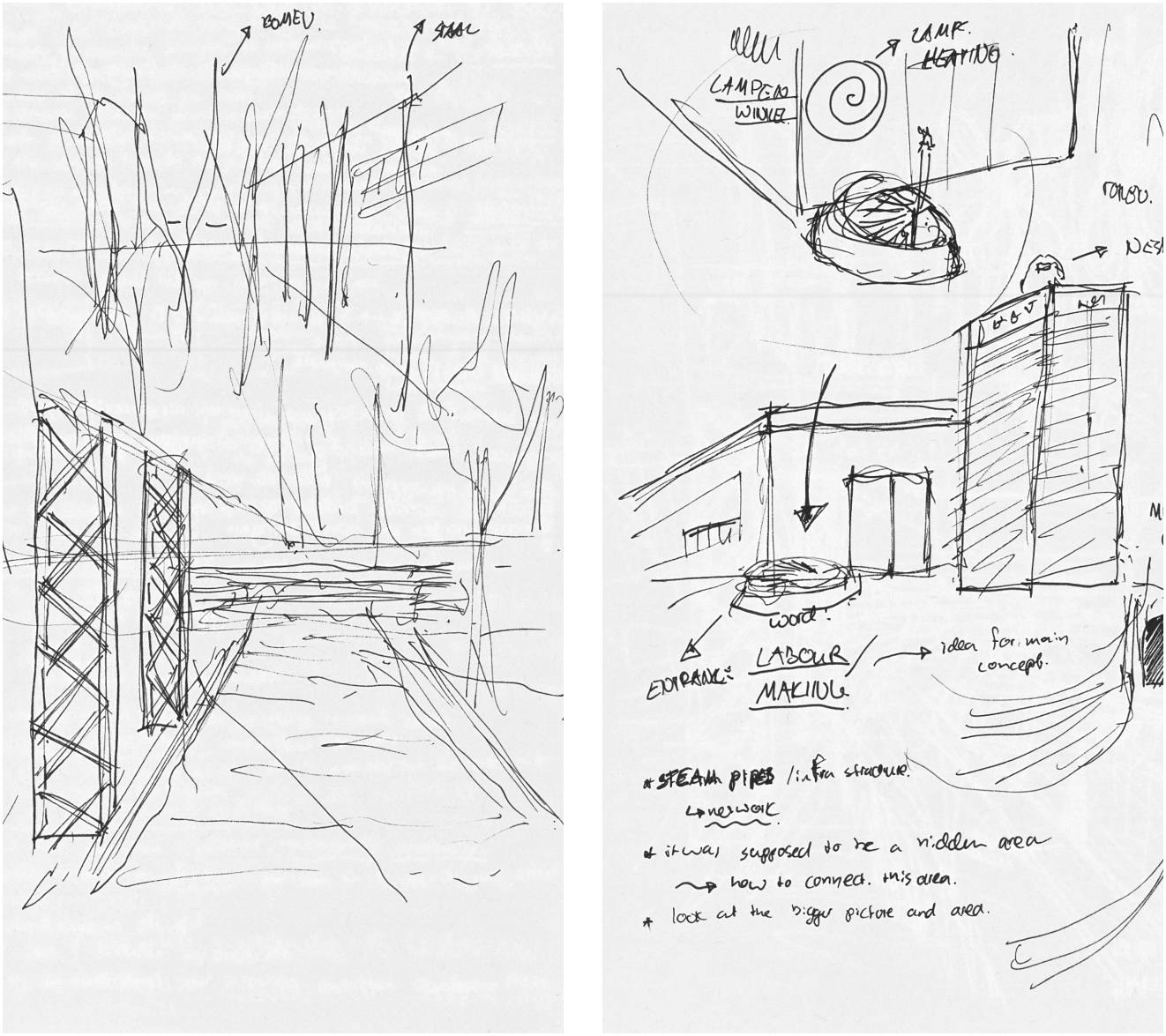


Image 2: Sketches made during the first site visit.

15.02.2019: impressions from the first site visit

On the of the first week Friday we went to the site or location for the first time. It was quite a hidden spot actually. We got on the bike and one of the buildings was open. The interior made me think of the example image of Vassal & Lacaton attached to the studio.

The ammunition factory sprang to my eye as one of the first buildings. This because of it's exceptional light color compared to the rest and its place along the water. I could see all these different details from different times in the rest of the site.
Later we gathered in the Projectgebouw to discuss the site. On of the things we did was discuss the sketches we had made and we had to think of one word that sprang to mind when thinking of Hembrug. The first thing that came to mind for me was: labor. I saw and imagined people working there, inspired by the small little museum in the middle of the terrain.

I went into a building were there was a small office that designed lamps and other elements with reused materials, from industry. Also there is a fabric and pattern company that I noticed.

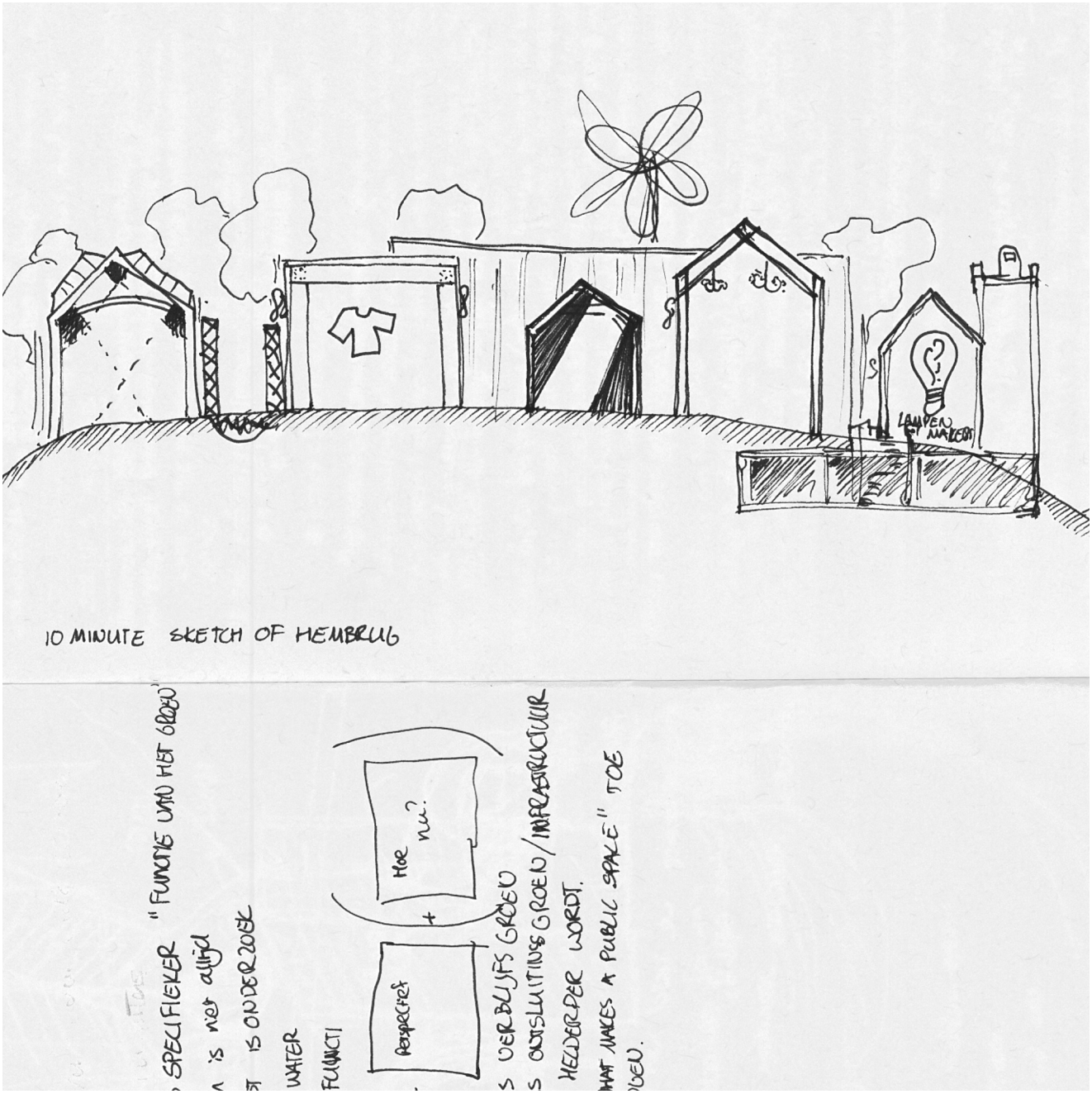


Image 3: Recap.

18.02.2019 comments on the toolbox analysis and a 10 minute sketch of Hembrug

The main focus was on the analysis of Strijp S and Ceramique. Again my main focus was in the public space and specifically the spatial effects and function of the vegetation of the two sites, eventually to be through profiles, plans and perspective.

We actually started of with discussing the words again and what impression the site made on us. The 10 minute sketch is the first thing we did. I have to get used to sketching again.

At the end of the week the excursion book needs to be done so everybody is well prepared for the excursion to Eindhoven and Maastricht next Monday.

Strijp S: Public Space

What is the function of the vegetation, being grass, smaller plants, bushes and trees, and water present in the design within the public space?



Image 4: What makes a good public space? Source: Project for public spaces.

Vegetation in Strijp S

The design from West8 seems to be made so the complete project is developed in three main stages. First, the spaces in and around the existing industrial buildings are reused and designed. The new buildings have some room for changes in form, thus a lot of the public space like the Torenallee and the main square have a very ambiguous character. In the final stage the public space, where necessary, needs to be designed a recreational space, a place for people to stay. The square and the Torenallee are part of a bigger ensemble. Being the green route to the forest and a new city square for Eindhoven for the people it is supposed to handle.

The function of vegetation: Most of the public spaces seem to be designed as part of infrastructural systems (streets, lanes, paths). The surrounding functions and overall idea suggest that there need to be

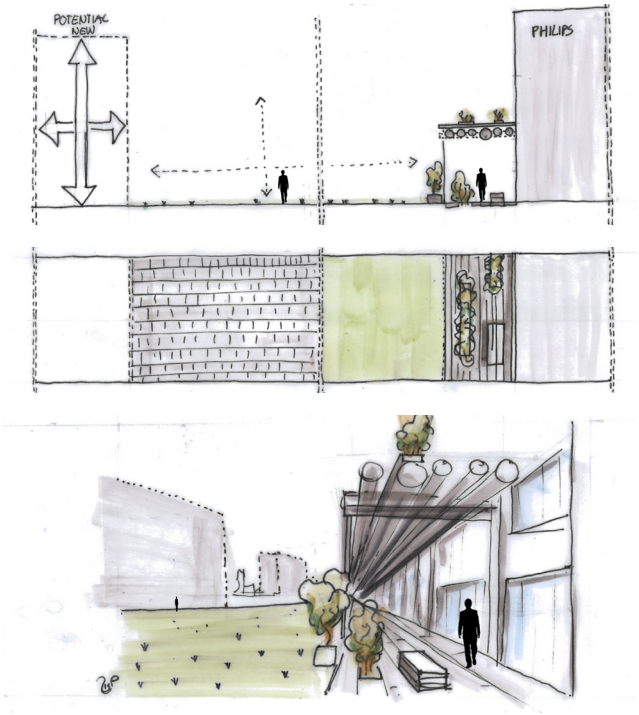


Image 5: Stage one, Profile of the Leidingstraat. The space directly next to the Philips buildings is completely developed and designed as a broad concrete walking (and biking) path along the three Philips buildings. The space next to it is completely empty and undesigned. This despite the important function that it supposed to have as for example a city square.

elements of comfort and recreation, so more social interaction is encouraged in the public space. This is necessary to accommodate for the ambitions that the developers intended. Adding to that it is necessary to keep the current successful developments like the incubators going, so also the public space won't be temporary anymore.

Conclusion

The function of the vegetation is at the moment mostly infrastructural in character. The current public space is in various stages of development but tends to strongly stay behind compared to the buildings. Also looking at the official website, the developments seem to be mainly focused on the completion of the buildings. There aren't any changes to the public space after the completion of buildings that seem to

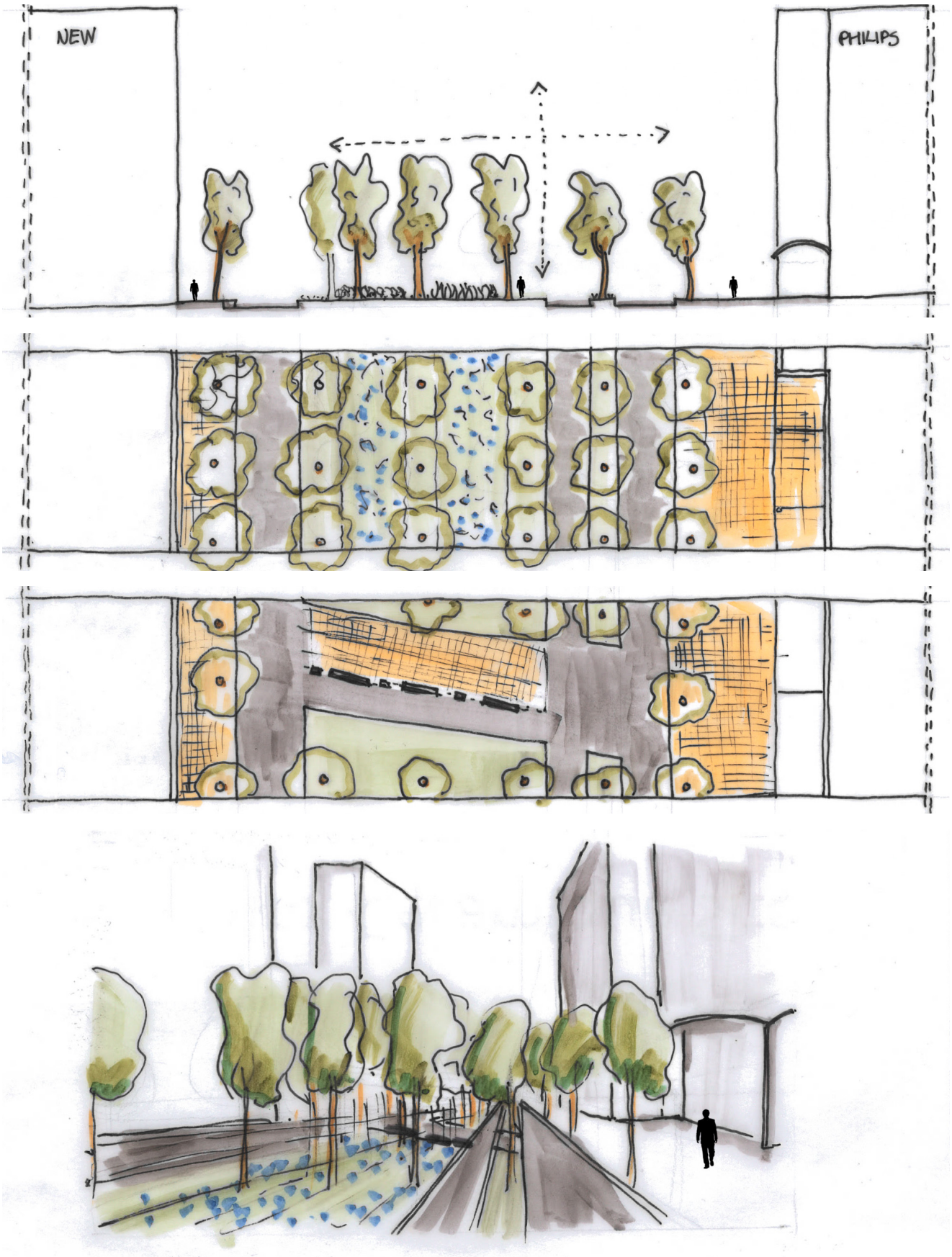
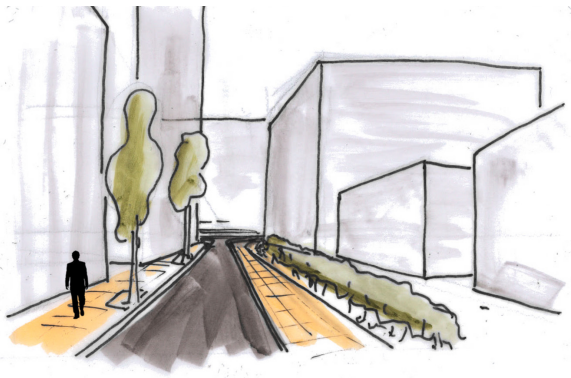


Image 6: Stage 2, profile of the Torenallee, the design is as if taken directly from the urban design. It is designed very much as a infrastructural element. The space is designed as a infrastructural element, it is part of the green connection to the Wielewaal forest area. At the same time it is supposed to act as a recreational space because of the surrounding functions and activities. There is a mismatch here. The area is to broad to be just a infrastructural function (especially in because of the importance of this function) and the surrounding functions that the buildings house.

play into the scale of the building and the space through vegetation or other elements. For a complete and successful development the now generic and mostly empty area's like the Torenallee need to be designed and developed. So the area can flourish like they intended with adding so many previously non existing functions and finally let go of it's closed character.



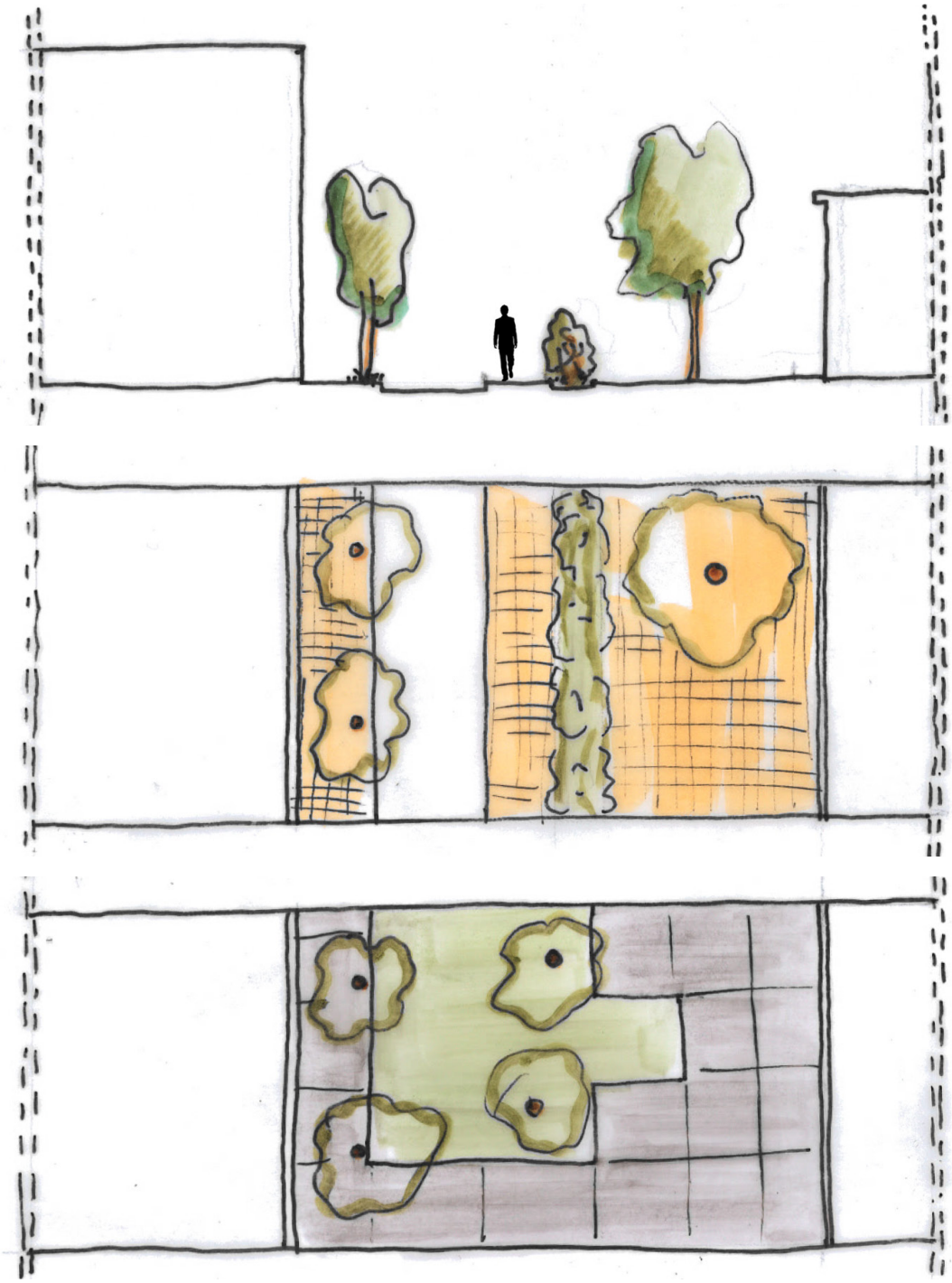


Image 7: Stage 3, profile of resp. the Laboratoriumstraat and the Professor Carasshof. The first is designed as a street, again infrastructural. The latter is designed as a courtyard street. This suggests that this is one of the only spaces in the area designed as a recreational green space, thus with pedestrians and humans in mind.

Additional images of Strijp S



Image 8: Plan of green public space area's through Strijp S.

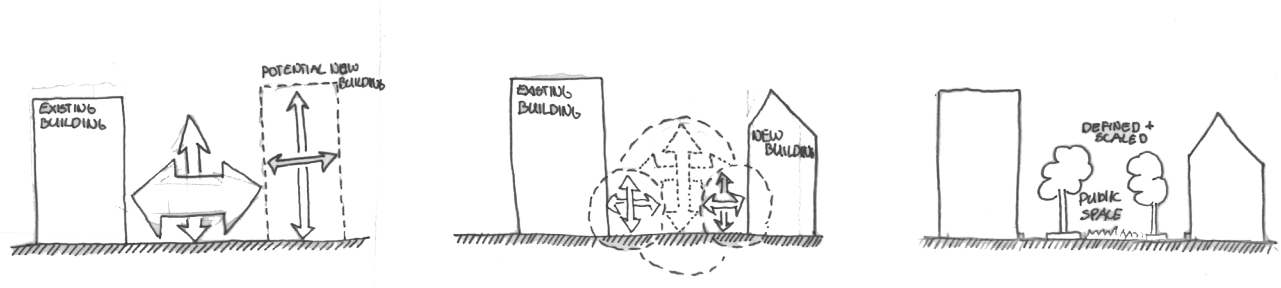


Image 9: Visualization of the three stages.

Ceramique: Public Space

What is the function of the vegetation, being grass, smaller plants, bushes and trees, and water present in the design within the public space?



Image 10: What makes a good public space? Source: Project for public spaces.

Vegetation in Ceramique

The design of vegetation and water in public space: The design of the public space is based on the surroundings and existing characteristics. The spaces (also infrastructural) are clearly defined and separated for car, bike and pedestrian. Important spaces are the courtyards and the recreational park along the Maas mirroring the City Park on the other side. The building blocks are big gestures mimicking the old city in an abstract way. After the placement of the blocks and designing of the park Jo Coenen took all the plans of the buildings by different architects and made sure they were suited for the public space around. And made sure the buildings were used as much as possible, the aim was not to make a second city center. The Avenue Ceramique, the park and the square make a triangle where the plan revolves around.

The courtyards in the building blocks all have a different character based on the function in each building. Some are open some are closed. They are based on the old city blocks and inhabitants of the buildings, but also for people walking through the area. Almost all the courtyards have a parking garage beneath, this was to accommodate for a future with a lot of cars, like the entire plan.

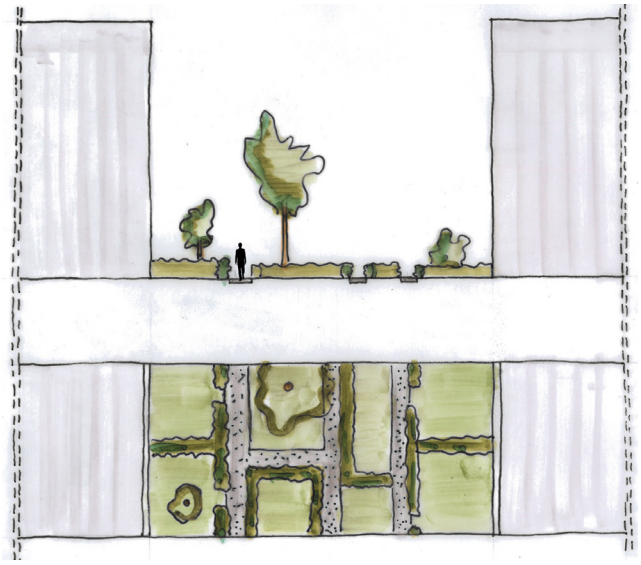


Image 11: Courtyards. Profile drawing of a representative courtyard space. They are essentially abstracted city blocks. They do not mimic the architecture. The spaces vary per building. They all have a different character. These spaces show a more private or collective public space. Not all of the courtyard spaces are closed to the public or they are just open during the day.

The Avenue Ceramique makes sure there is a connection between the old city and the added Ceramique area. The trees planted there a called Trees of Heaven. They are trees originating from China and grow relatively fast. Just like Platans. The Avenue is meant to create a spacious avenue for a clear infrastructural vein through inner Maastricht.

The park along the Maas refers to the city park on the other side. It doesn't try to compete with it, just as an addition to make the waterfront greener. The park starts quite densely planted and opens up towards square

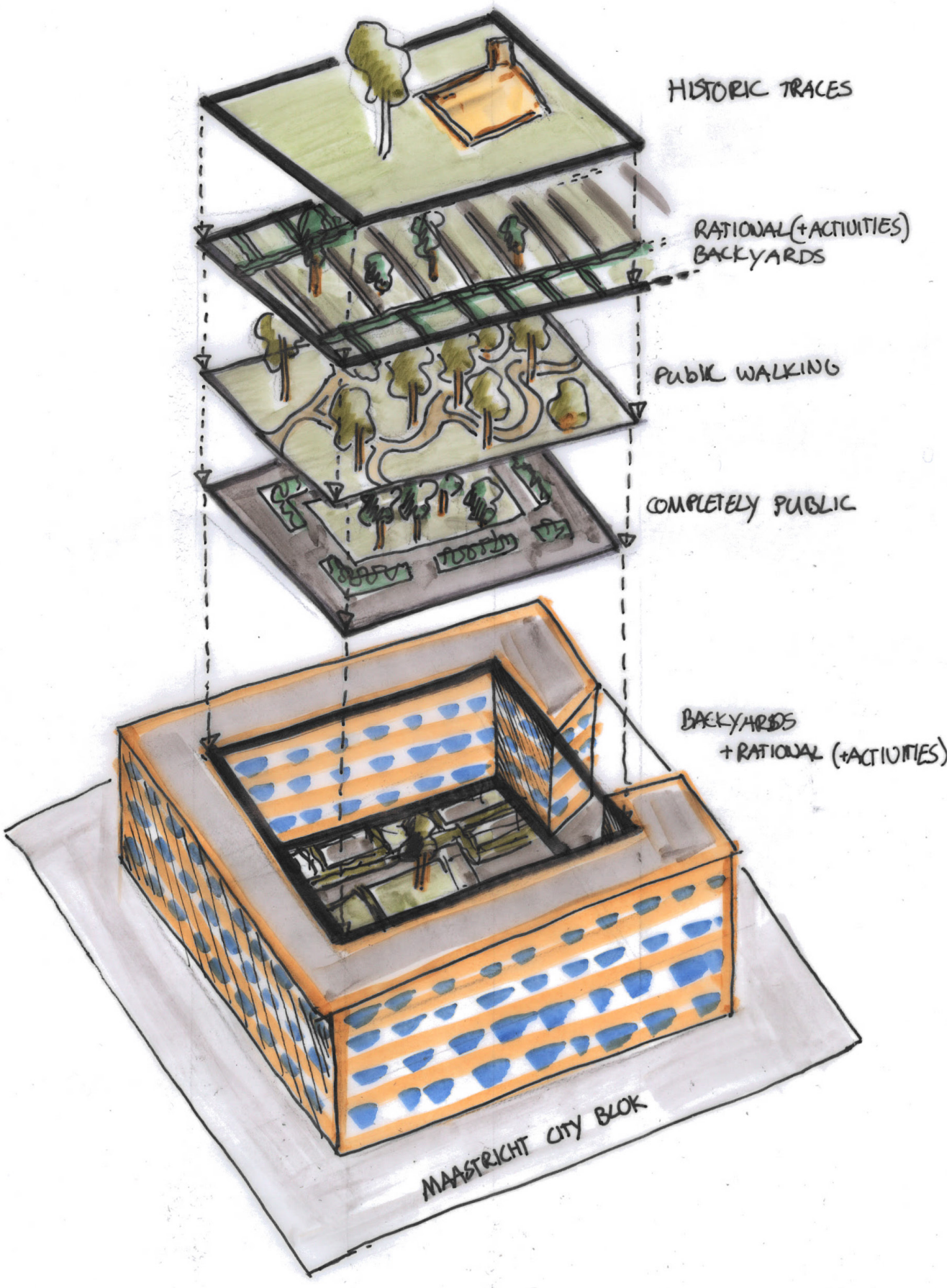


Image 12: Different possible courtyards found within the vision of the area of Ceramique.

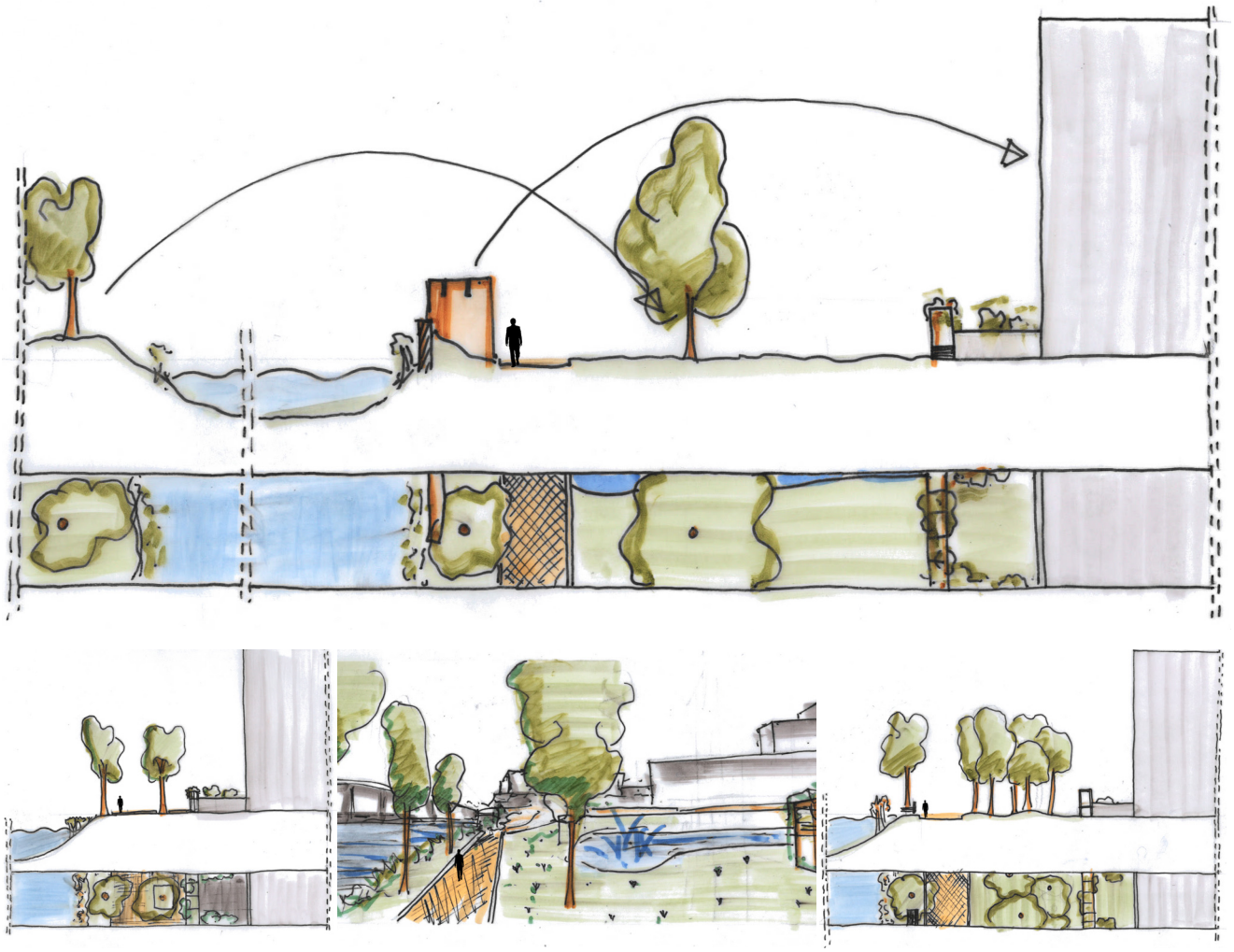


Image 13: The Park. The Charles Eyck Park is divided in three main parts going from space that is paved and more densely planted with trees along the water to a completely open field looking the Maas. The gardens of the residential building behind are place higher so privacy is kept and looking towards the Maas with the park and the old city behind. The park space compliments the city park on the other side and adds a recreational green space this side of the Maas so the people living near do not necessarily have to cross the Maas. A little convenience.

1992. The space is meant as a recreational green space along the Maas to take a walk or a bike ride or to sit. This for the people living close so they don't have to go to the other side of the river.

Conclusion

The character of the main green area's are recreational. The area is carefully designed by leaving space for a park to complement the city park on the other side of the Maas. The park is more dense with vegetation on the side of the houses and opens up towards the public square and the bridge. The courtyards differ per building and are adjusted according to the building and it's function. The plan uses private gardens next to green as well. The plan aged well because of the car that was kept in mind during the design, although some of the planting can be diversified. The water is mainly used with remaining defensive structures. The plan is again quite ambitious and maybe aims too high for a Dutch city, apart from that at least it doesn't directly try to compete with the historical city center.

Additional images for Ceramique

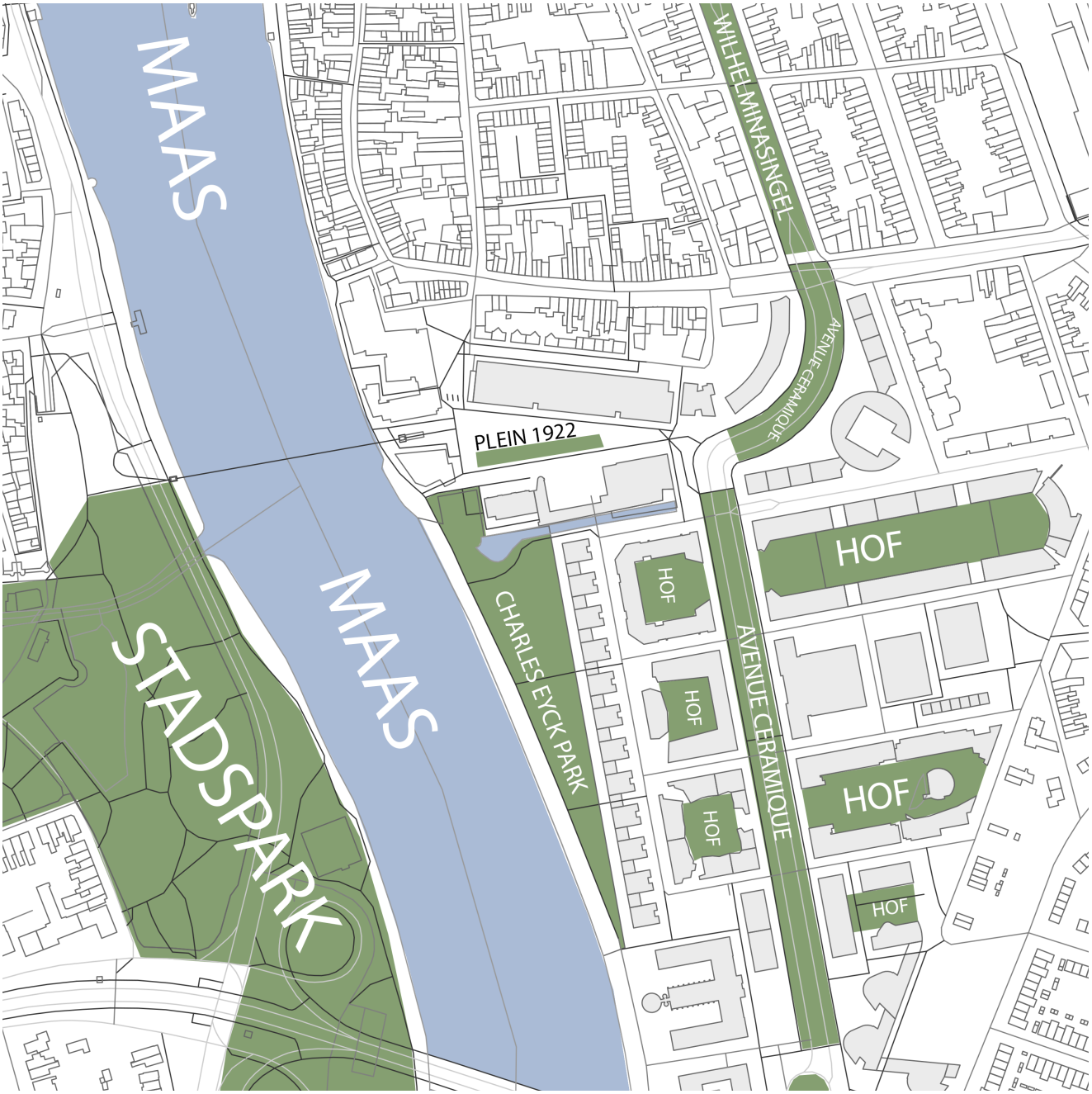


Image 14: Green public spaces around Ceramique near the city center of Maastricht.

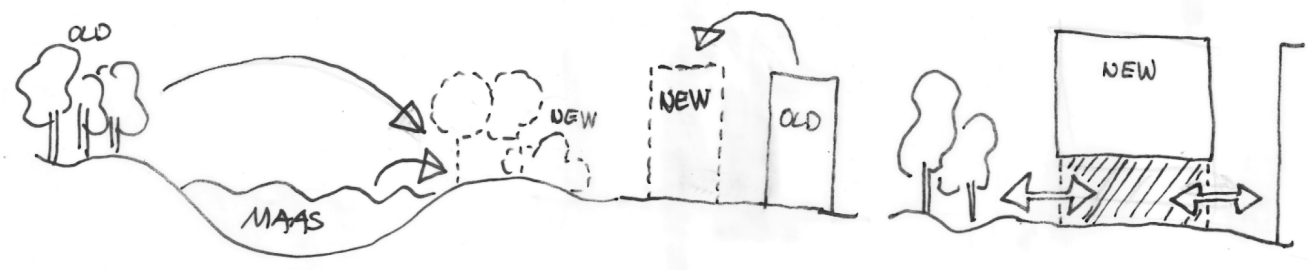


Image 15: Diagrams additional to the profiles showing design principles of Ceramique.

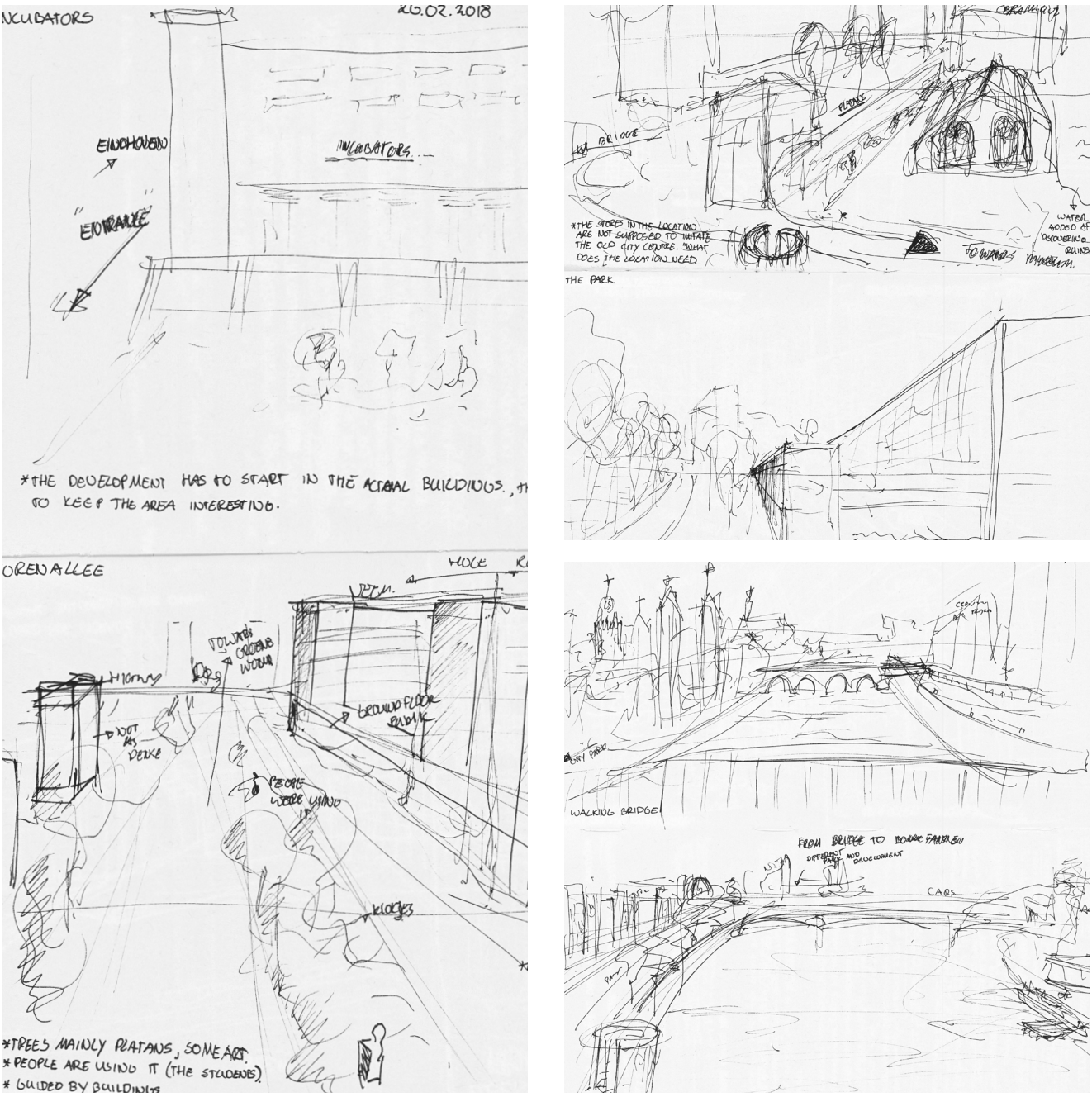


Image 16: Strijp S & Ceramique, sketches from book.

25.02.2018: sketches I made during the excursion to Strijp S and Ceramique

Honestly after doing the research and looking at the plans through Google maps my idea of the two plans was quite negative. I was pleasantly surprised during the visits. One of my comments for mainly Strijp S (also Ceramique) was that the public spaces were too big and undeveloped but the spaces looked better on location. The unfinished state of Strijp S became apparent, this made sense.

Ceramique also had big spaces and large gestures but the clarity of the plan and the public space worked really well I noticed during the visit there were no real unpleasant spaces, some just a bit awkward. This mainly along some of the other neighborhoods. The museum that is seen from the bridge acted as an eye-catcher to draw people to the project. Furthermore as a pilot to stimulate further developments in the area. The renovation project designed by OMA for the large munition factory on the Hembrug terrain is probably planned with a similar purpose.

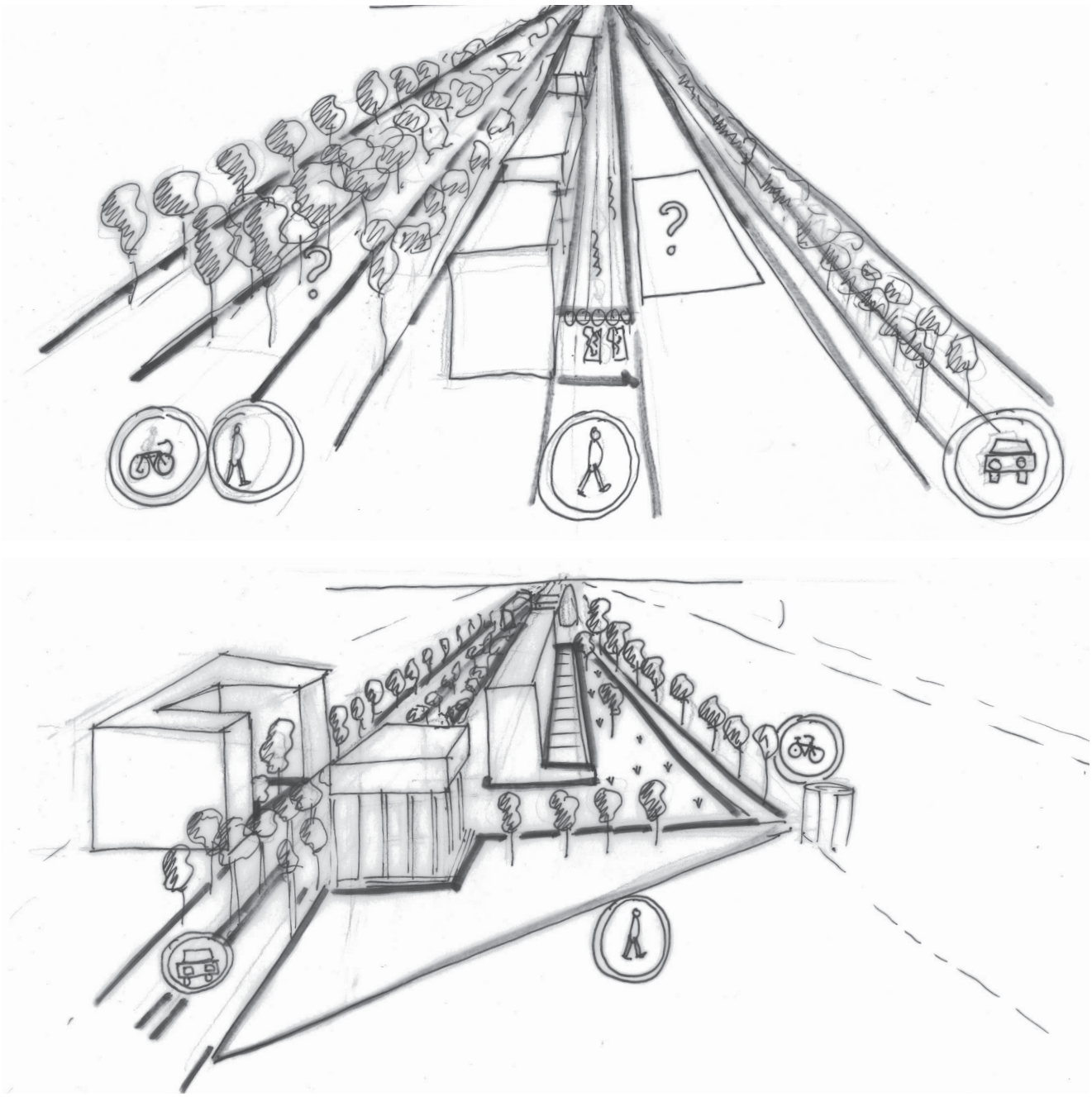


Image 17: Tools. Conclusion drawing for the toolbox of the Strijp S and Ceramique Analysis.

27.02.2019: homework, two sketches or tools related to the analysis of Strijp S and Ceramique

In Strijp S the main public spaces are very clearly defined like the Torenallee, Philitelaan and the Leidingstraat for the different users. They are working quite well (for this purpose). Overall the spaces, like for example the Torenallee, seem to be lacking a recreational character and could use a future design layer where recreational use is considered. This might be because of the fact that the project is still in development.

The public space in Ceramique is very well designed and seemed to be working quite well. This probably because the space accommodates for every user, being car, pedestrian and cyclist. There are also clearly defined and designed spaces for recreation. Overall there was a clear hierarchy between the (green) spaces this makes it easy to move and stay in Ceramique.

This was added to the final excursion booklet due Thursday that week.

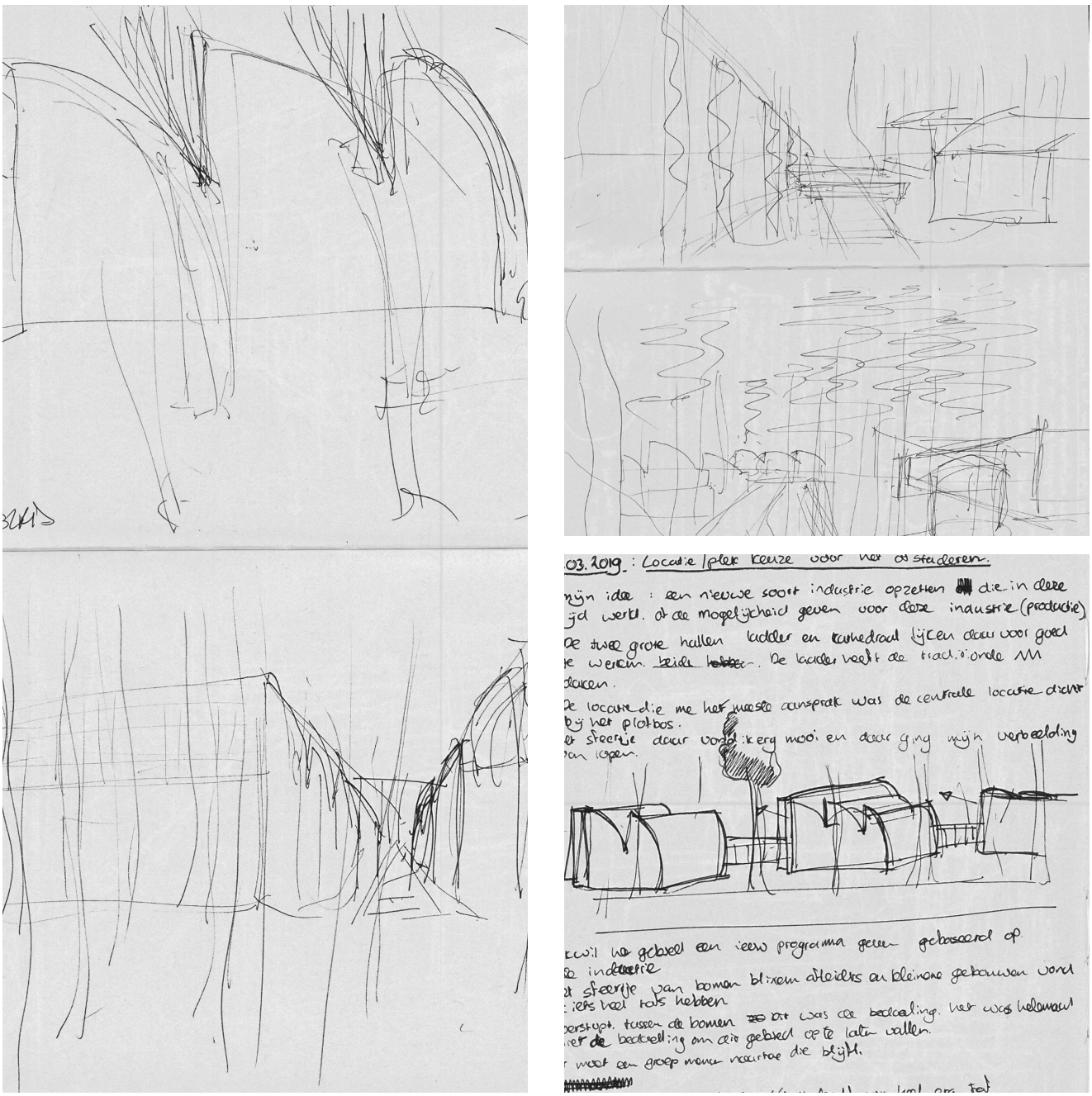


Image 18: Searching. Drawings from sketchbook.

01.03.2019: sketches of site visit to Hembrug to take a look at and in the building ensembles

During sketching I was trying to make a choice of an ensemble. I kept thinking and sketching towards scenes in and around the "Plots In The Wood" area so in the end that became my choice of ensemble. As I had a lot of questions, interests and wonderings about this site.

"The Ladder" and "The Cathedral" I still kept in mind, I was doubting between these and "Plots In The Wood".

The sketches were at the same time a means to get a feel for the area. This was a way to see if I could notice new details the second time around, that would reinforce my choice.



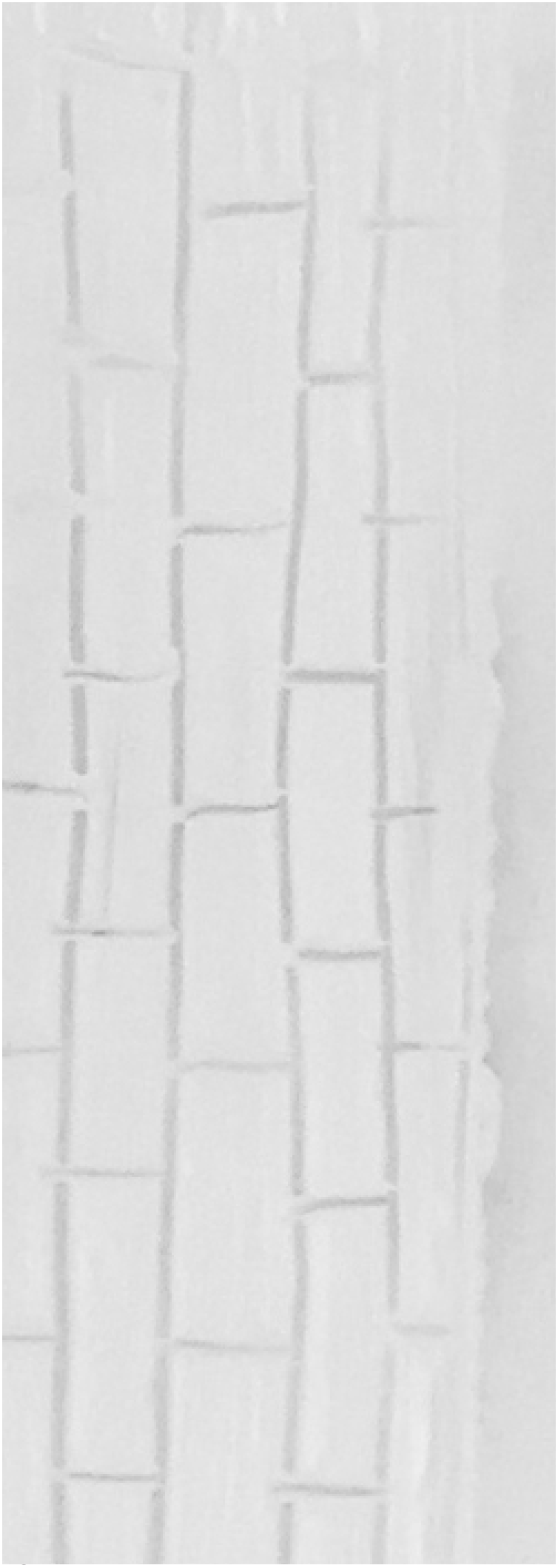
P1

Working towards the first presentation mainly aimed on research and creating a starting point for this graduation design.

for

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.



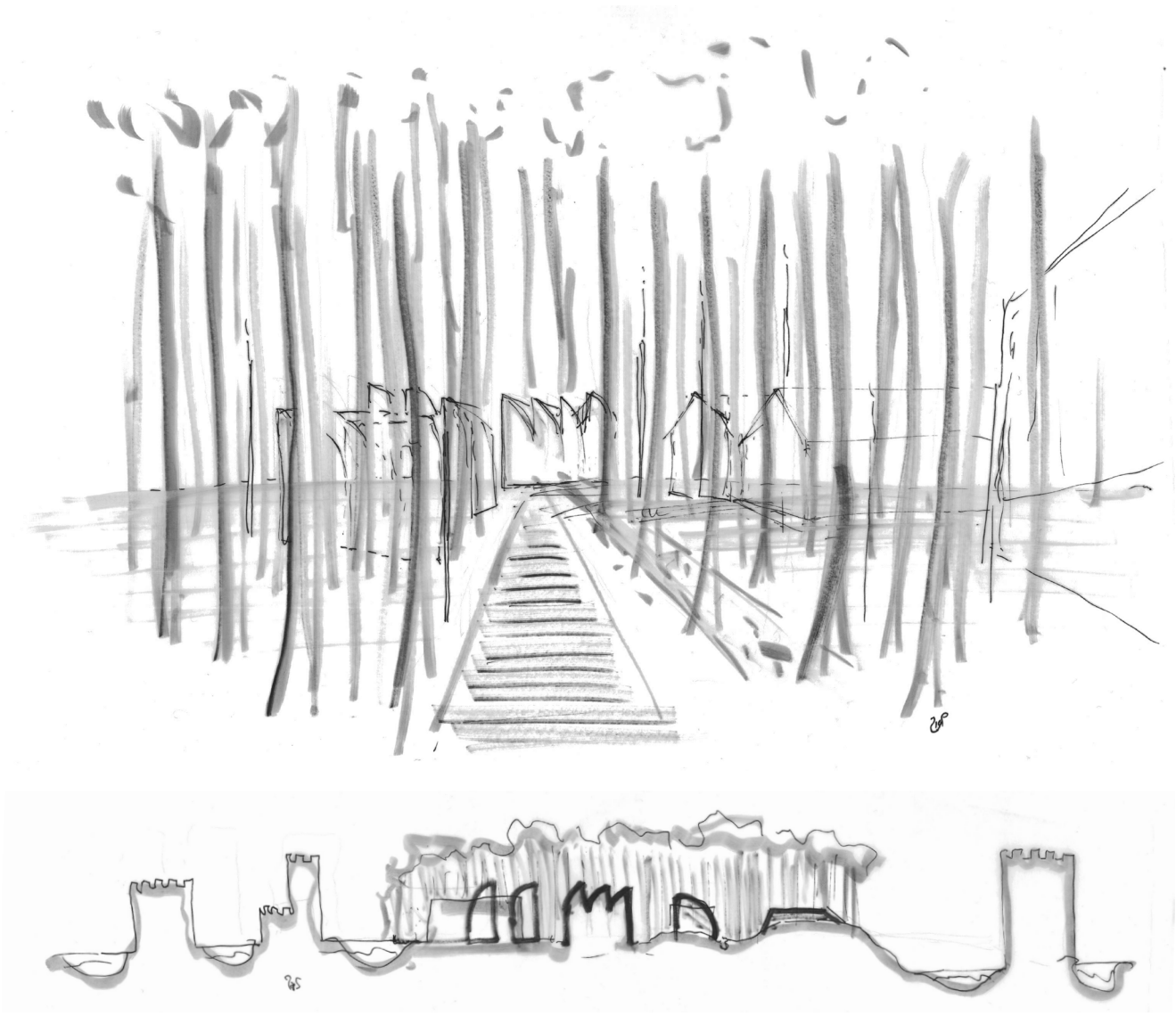


Image 19: Atmosphere.

04.03.2019: 5(or 10)-minute-sketches

"Plots in the forest" is the ensemble I chose for my graduation. I didn't make it a technical choice in the end. I tried to, but that did not help me in this case. This was mainly because I still had a lot of questions on this site and this type of site in this context. It seemed very interesting to look at developing a forested site like this in an industrial area.

We started off by making two sketches of the ensemble. My fist one described by sense of the atmosphere and also why I preferred this site in the end. The second one is a bit more technical taking the hidden atmosphere and relating it to a bigger context, "De Stelling van Amsterdam".

The site and it's specific hidden character made me think of Bangalore. This city in India was initially designed and developed with the same hidden, and military character in mind. Intended with lots of green. I spent a few months there last year. This thing popped into mind when thinking of this former function and atmosphere.

I also want to research this atmosphere and the spatial (or lack there off) qualities within the ensemble.

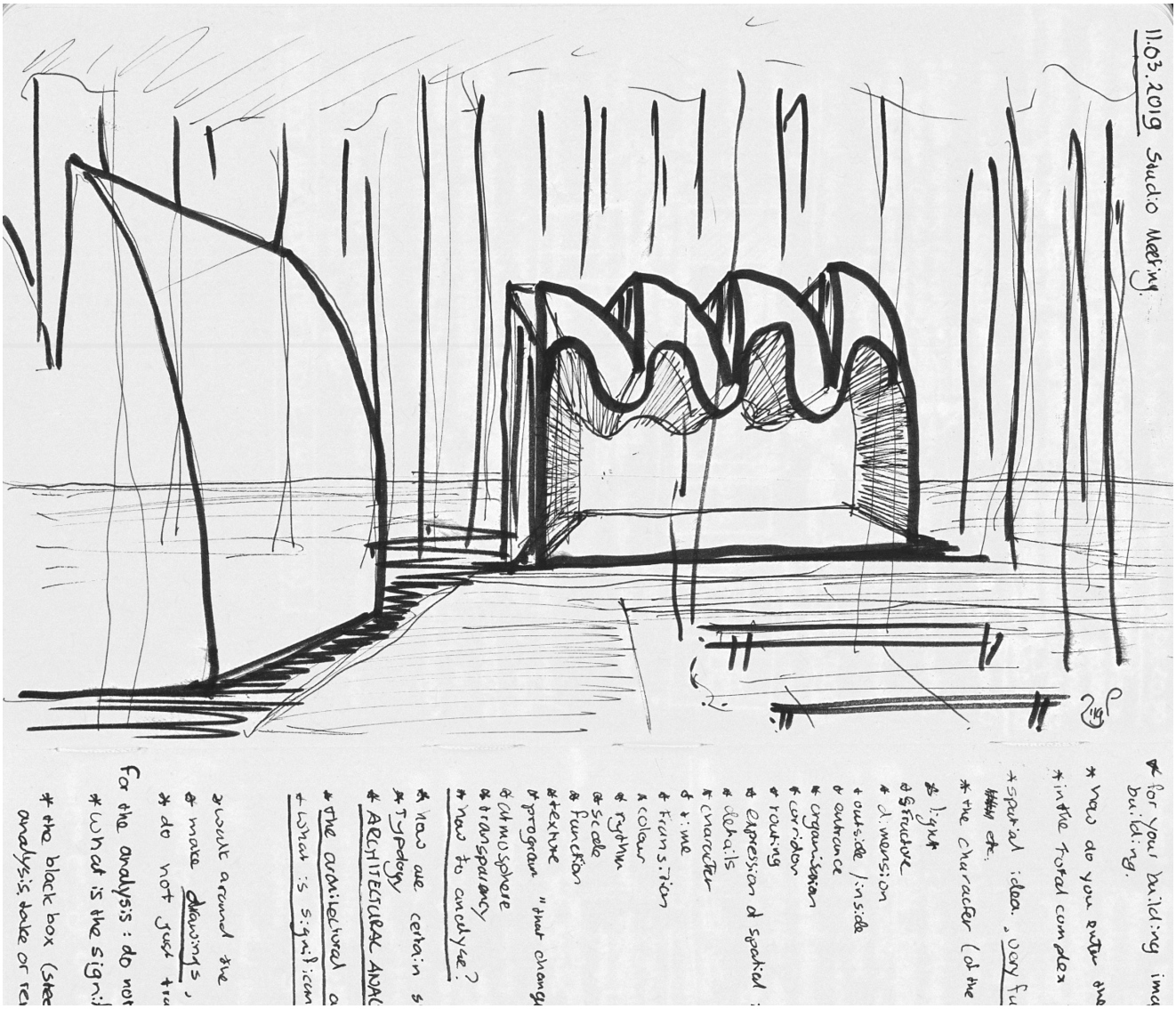


Image 20: Inside & Outside.

11.03.2019

This Monday we again started off with making a sketch and discussing them. My sketch was similar to more drawings I have made the past couple of weeks. The atmosphere is still important to me. The exercise was to start sketch on one of the buildings in our ensemble. I chose one of the ones with the teeth roof. My idea was that the forest almost seems like another interior space. The building then exists in this space. The design could be focused on a sequence of spaces getting more and more intimate.

This building really made me think of Jorn Utzon. This August I visited the church designed by him in Bagsveard, Denmark.

Lidy suggested that my drawing made her think of Alvar Aalto. In the sense that the inside of the building is different from the outside of the building. This made sense to me. Although I would not like that to be the main character of the buildings, because I quite like the honesty of most of the buildings on the site, in terms of material. This looks more beautiful when done right. Still searching for the right idea but I am getting more feel for the location and what I would like with it.

Experiences

04.04.2019: notes from an interview with Peter De Vries in combination with older sketches from during the analysis

Peter De Vries worked and managed on-site logistics division for the Hembrug terrain during production. For this reason he was one of the few people who had access to most of the terrain during its active production years. Here are some things that stood out during talking to him that are relevant.

Hembrug used to function with a village dynamic, as its own entity. For example, making a crib for a colleague that is getting a child.

- In front of the two farm buildings part of 'plots in the wood' immigrant workers used to grow tomatoes and chickens used to be held there as well.

- The workers were not allowed to be alone at work, they always worked in pairs. Sometimes a security officer kept a worker company.

- The large production hall used to be a large multipurpose hall with turning benches.

- The trees used to be kept a lot smaller, around the shell roof buildings, because of the lighting rods. Those always need to be the highest.

- The vegetation used to be thoroughly maintained for safety reasons. They had a dedicated team for this.

- The water on site in the ditches used to get quite dirty and stank. The large water reservoir was used to get new water in and get a working water system.

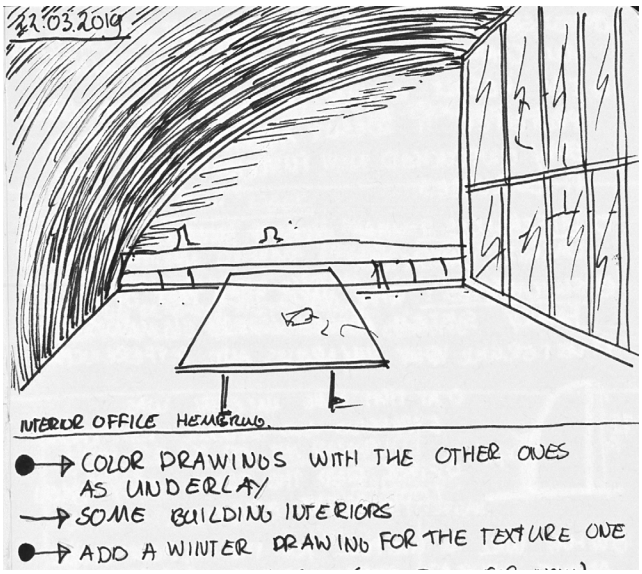


Image 21: Impression of an added office space in one of the shell-roof buildings, demonstrating possibilities of the spaces here. The space below was quite dark and crammed.

- The 'Plots In The Wood' area used to be completely fenced off from the rest of the location. This is just like most of the other areas with their own separate functional programs.

- The steam pipes used to be insulated with asbestos so they used look a lot more impressive. Steam was the safest way of powering and heating buildings because it did not cause any sparks.

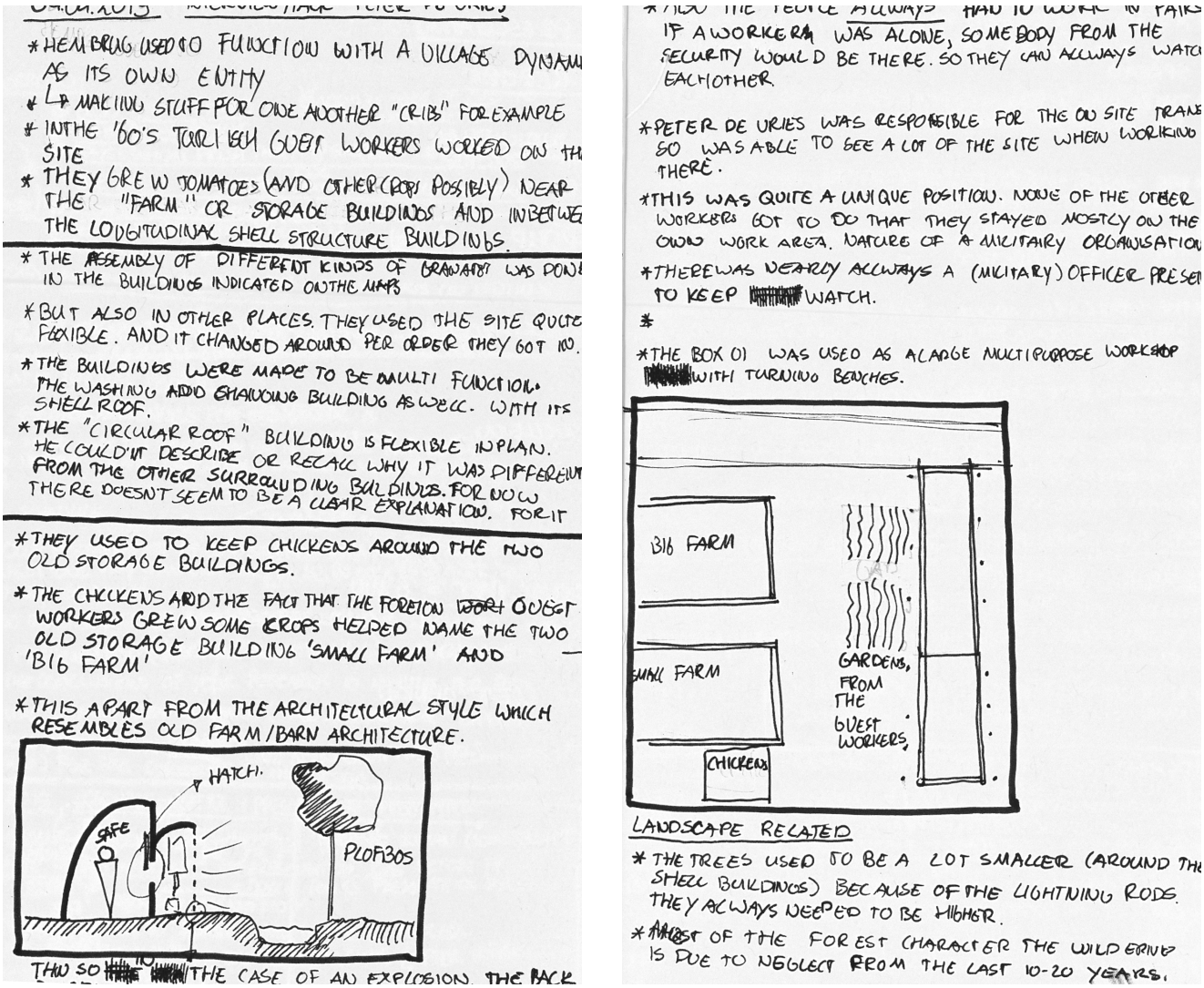


Image 22: Notes and drawings from the interview with Peter De Vries.

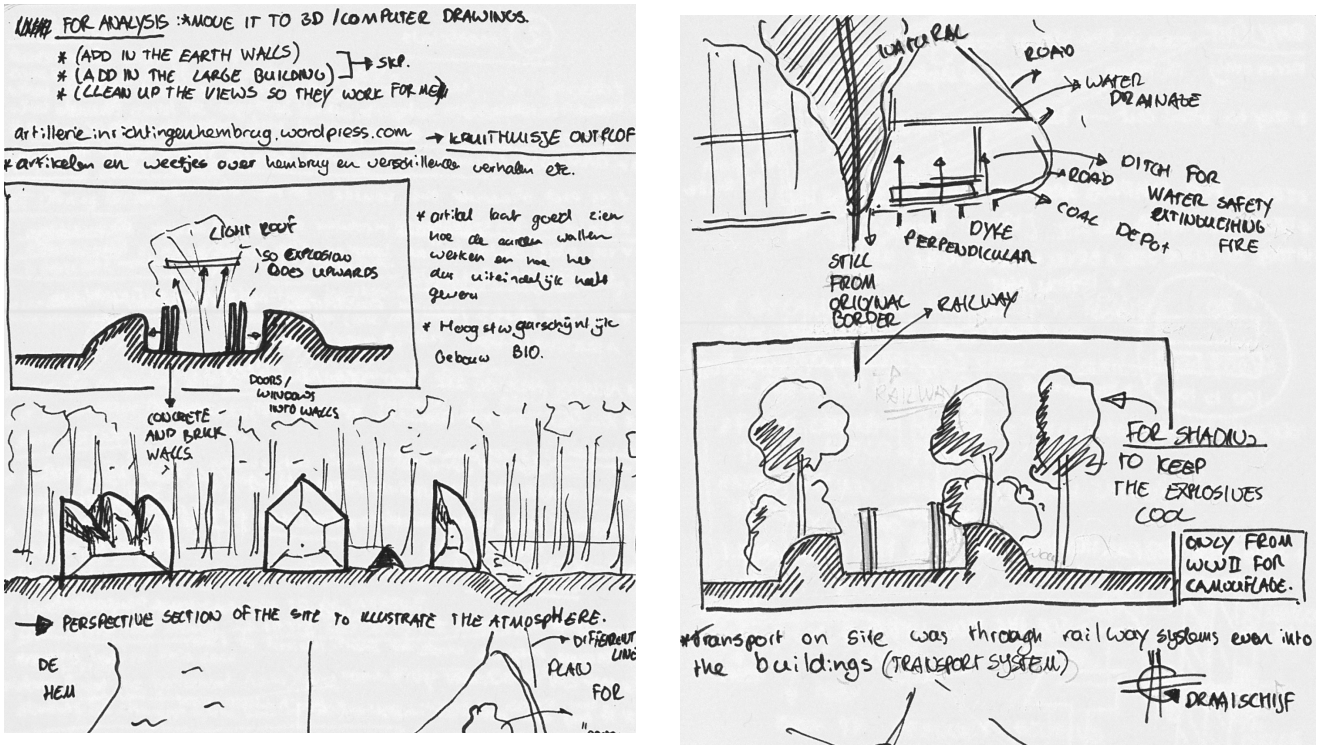


Image 23: Notes and drawings.

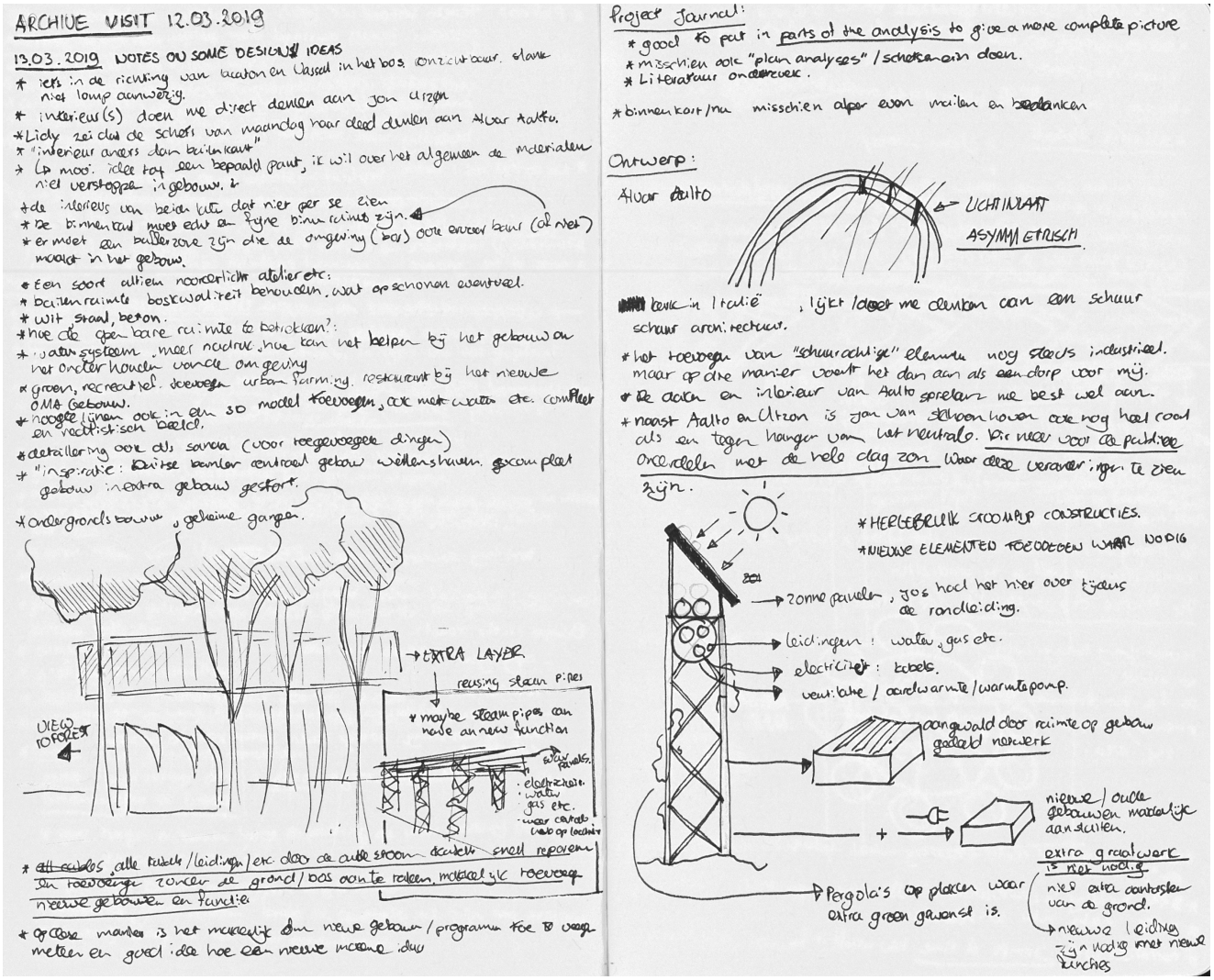


Image 24: Ideas, findings and concepts from during the P1 phase of the project.

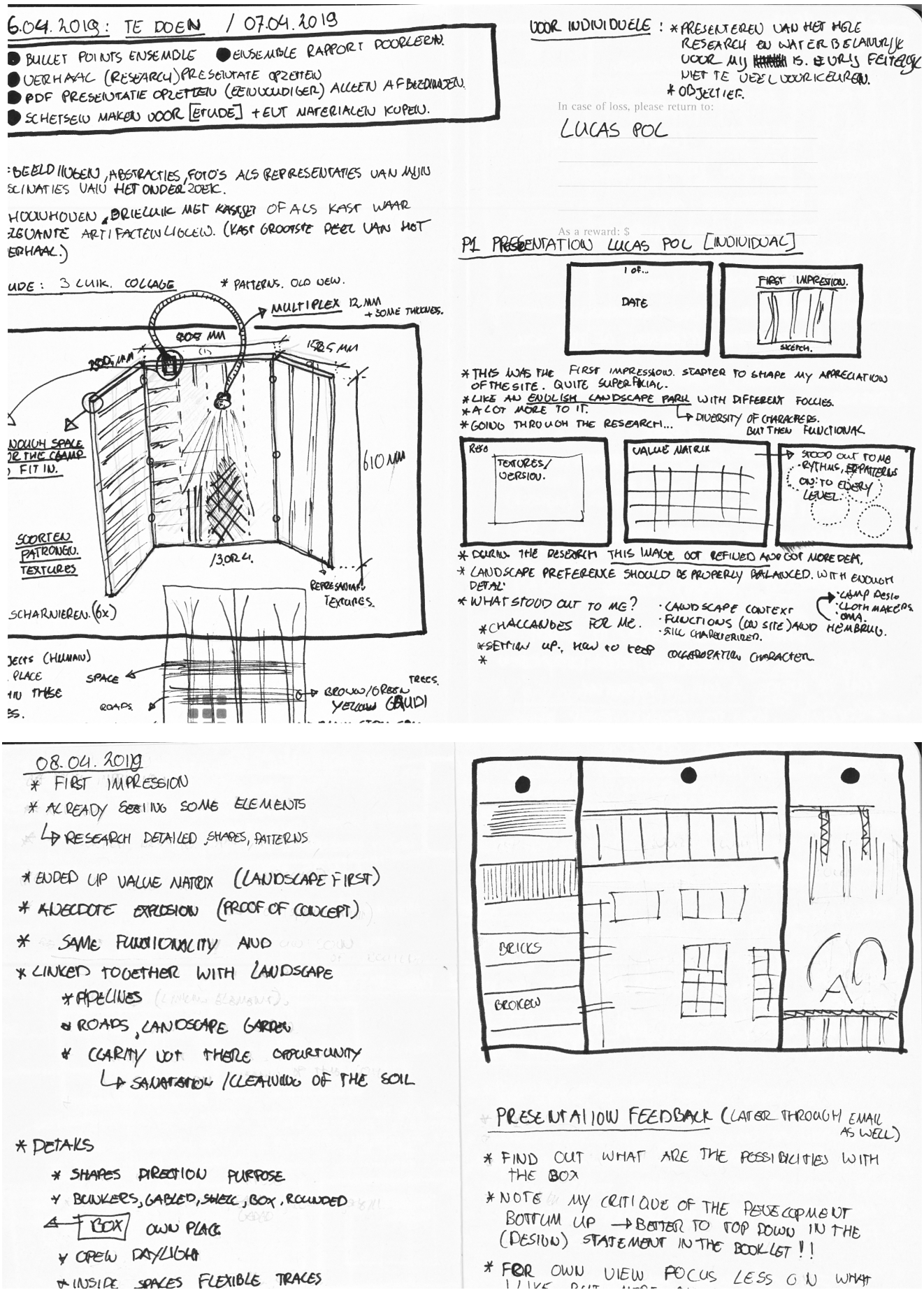


Image 25: Working on and preparing the P1 presentation, treating the findings of the analysis of the context, site and buildings, and finally the cultural values with our personal statement.

Étude



Image 26: The triptych made for the P1 presentation.

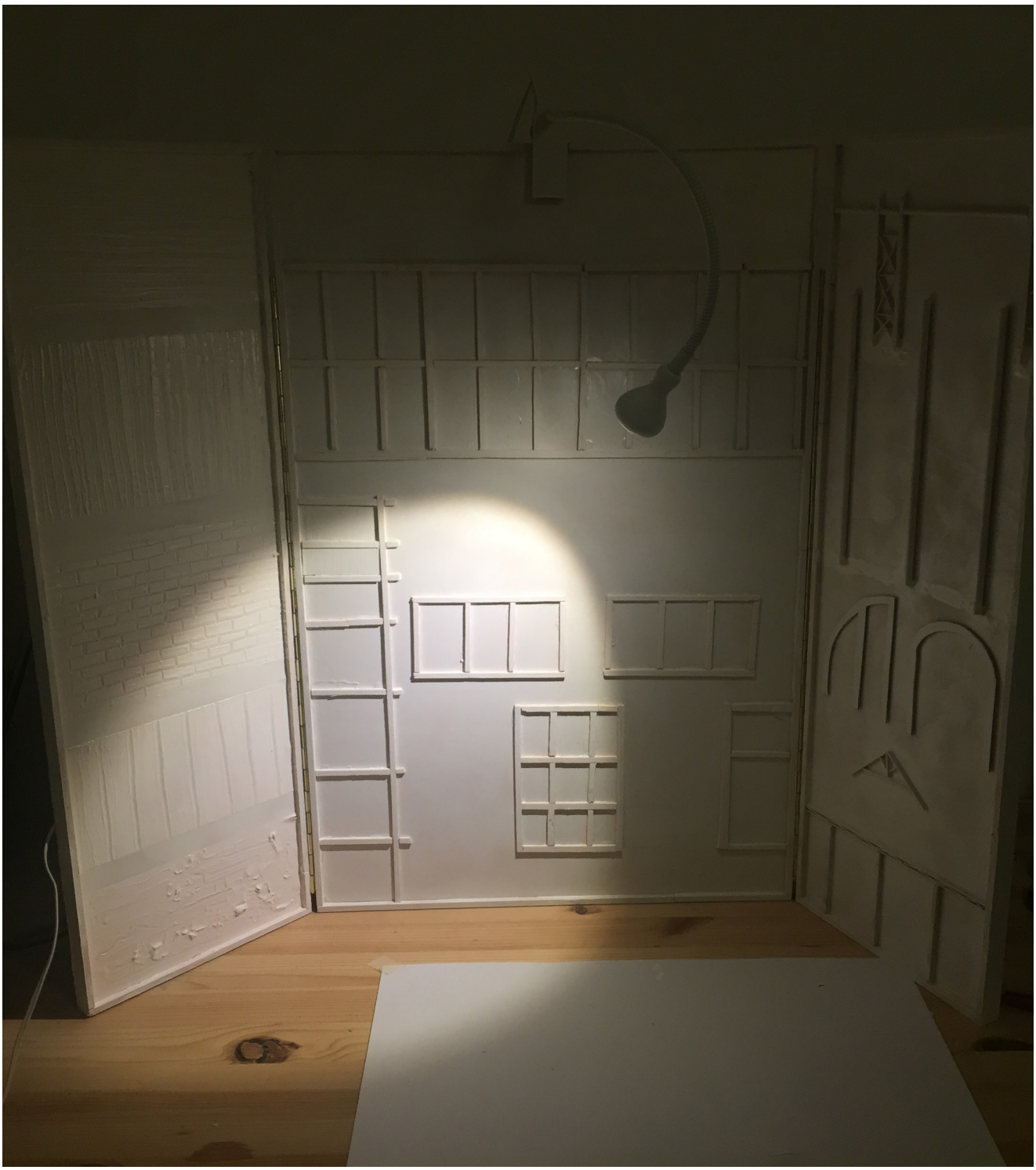


Image 27: The opened triptych showing the cataloged textures, patterns and rhythms of trees, pavements, pipe lines, columns, structural building elements, window frames and masonry bonds.

Patterns, textures & rhythms

After the P1 presentation we presented an étude in my case describing the binding elements on site in the form of mostly vertical patterns, textures and rhythms with specific horizontal textures providing an emphasis in this seeming blend of colors, patterns and textures on the ***plots in the wood*** site. This describes the exterior panels of the triptych.

The opened panels show the patterns, textures and rhythms in a cataloged and ordered composition. This was all done with clear inspiration from ***Jan Van Schoonhoven***.

Personal statement

Personal statement included in the P1 report, handed in on 15.04.2019, of the ensemble, describing my thoughts on the area and the analysis.

After having done the research now, for the larger context and the more specific ensemble 'plots in the wood', my view of the area has changed. Initially I chose for the 'plots in the wood, as most of our group I feel, for the serene and quiet forest with a lot of buildings hidden within the trees. This forest with its unique atmosphere however has, as we discovered quite quickly during the research, a lot of layers that give it meaning. The overgrown and wild character of the site is mostly because of neglect during the years that the site was not used. The landscape, as well as the buildings, used to be purely functional, practical and strictly maintained.

The greatest strength of this ensemble lies in the fact that both the buildings, including their utility structures, and the landscape act as an ensemble. From the very beginning, landscape elements like the trees, earth walls have been placed in unison with the buildings. The buildings were carefully placed with certain distances in between them. These things are all related to the activities of the military industrial functions of the site. The main activities that the buildings were used for production of projectiles, assembly of the munition and finally storing the munition. These activities happened roughly from the south end of the site then moving north, eventually towards the clay-forest named Plofbos were the munition would be tested. This explains the position, direction, and elements around all the buildings.

The buildings themselves, because of their industrial purpose, have mostly single large open spaces that can be used for several purposes. The buildings, back then, were used quite flexibly. Places for producing changed frequently and depended on the specific order the company got. The flexibility also works height wise; It is very easy to add another level within these buildings. This needs to be done with nuance however because all the buildings were designed with the intention of getting daylight from higher up. This was apparent in one of the shell roof buildings, building 417, were another floor was added. This created a great office space but greatly declined the space below. This flexibility is a high quality for the different buildings on site. Most of these buildings have elements like large glass panes that can provide a lot of daylight and provide views towards the Plofbos. These elements like some the windows were designed with the idea that they might for example blow out during an explosion make the buildings quite modular.

It is important to mention the largest building on site, with its low-slope roof, because it does not seem to fit but has great potential to add to the site. It does have a place in the story of the site. It is the newest building on site, because of its large spans and open spaces it can be used for conventions to smaller activities like meeting by just placing tents inside as was done some time ago. It used to function as a multipurpose production hall, currently it is used for events. It has the potential to act as a central function for the site. As well for the rest of the Hembrug area, to some degree because there are developments happening like redesign for the munition factory along the water by OMA and the Yada Yada Market that already focus on wider areas. The building could almost be regarded and treated as part of the landscape for future use, because of its size. Its closed character needs to change for that to happen.

Finally, the buildings on site all have detailing that do not help to create a

pleasant inside climate, because of its former industrial function but also safety reasons from that time. They are quite modular, so it is clear what to replace and what to leave, as the structures are made to last changes within the spaces of the buildings. A lot of things like the walls, especially, in the buildings from after World War II can be relatively easily replaced to improve the qualities of these buildings on several levels.

The Plofbos is not part of the site. It is separated by ditches from the site. This forest that used to have different chambers of sorts for testing. These chambers used to be clearly defined by, the paths with tree lanes, ditches and finally by the earth walls with green on and around to provide protection from the explosives handled in the structures within. This clear layout has mostly disappeared and is hard to distinguish just like a lot of places around the buildings on site. The green of the Plofbos and the 'plots in the wood' seem to have become one thing.

A lot of the structures in the Plofbos are in ruins and in a bad state. Elements present in "plots in the wood" but do not hold their original function, or any at all for that matter. They can now be described as follies in this forest acting as in an English landscape park. The site with traces of its former clarity that made it so unique, where these follies and buildings have been placed within, creates views that peak interest and refers to the story on the site.

To redevelop the site, a top down approach is necessary, especially this area. The buildings and landscape work as an ensemble so should be handled, at least in its first stages, with some restructuring. This is not to discount the bottom up approach that was used for the site up to now as per the master-plan of Palmbout. This has worked well for attracting people and developers to the site again. The 'plots in the wood' area has a lot of, mostly vertical, rhythms, textures and structures from different time periods that manage to create a sense of unity and create an atmosphere for the site and the buildings, but these need to be ordered and restructured for it to be able to sustain in the future. The cleaning of the soil creates a first step for this in a way.

Program workshop

29.04.2019: starting to design the first version of the program suitable for "plots in the wood".

The intention of this workshop is to start choosing a program for the site. The size of the different buildings already give some direction for the function, especially the low-sloped roof in this case.

Looking at reference buildings is very important in this case. It makes choosing a program a lot easier. I still have to do this at this moment. I think it is a good idea to look at building complexes to get a good idea on what is possible in.

The current version of the program aimed to be semi-public and supporting of the surrounding area. Not aimed towards large external groups, but should not exclude this. Aimed to create an industrial environment for local makers and creators, aimed for production.

The program in this form needs to be further developed. It needs more focus on the users and the use of more technical additions like infrastructure.

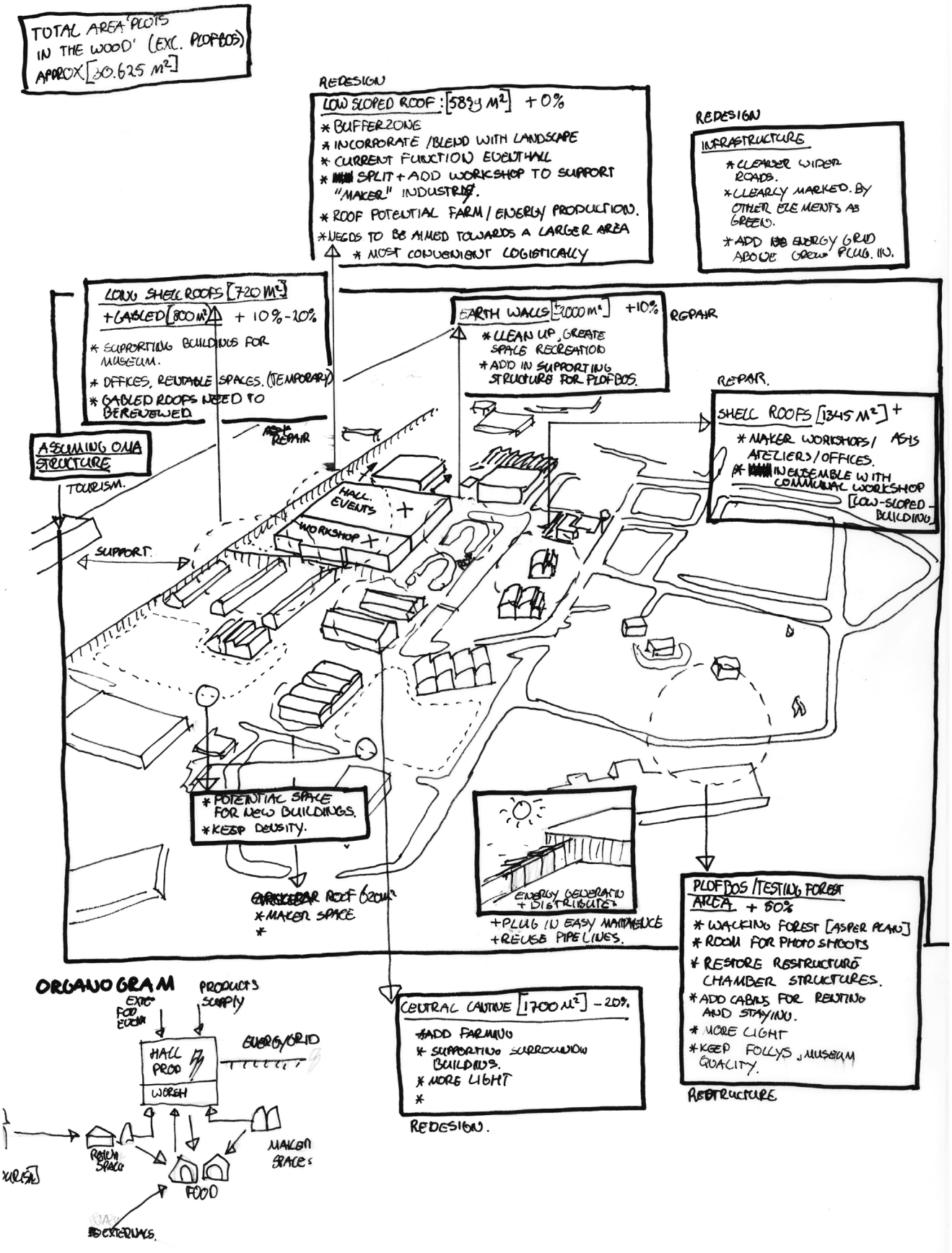


Image 28: Resulting drawing of the program workshop.


Beverwijk
Tata Steel
IJmuiden
Haarlem
Zandvoort
Heemstede
Hoofddorp
Hillegom
Nieuw-Vennep
Lisse
Aalsmeer
Luchthaven Schiphol
N203
N8
N246
A22
N246
A208
N202
N516
S102
A200
N205
A9
N208
N232
N201
N196
INUNDATION ZONE
SCHIPHOL AREA

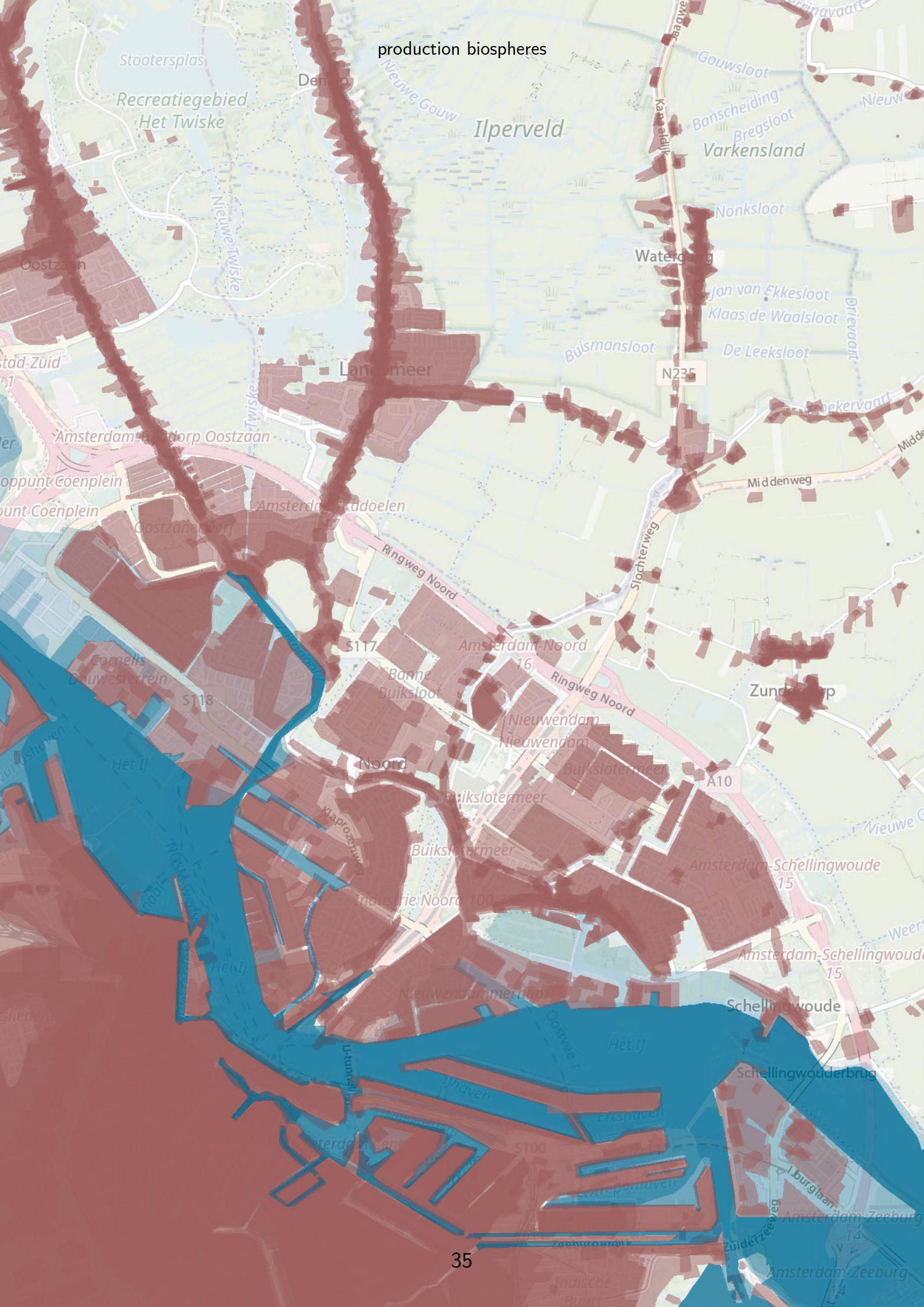

Purmerend
production biospheres
Volendam
N235
A8
Monnickendam
Recreatiegebied
Het Twiske
Ilperveld
Zaandam
N247
S118
Landsmeer
S150
S116
A5
S100
IJmeer
N200
Amsterdam
A10
S106
Diemen
A4
S110
S112
S109
Bijlmer
A9
Weesp
Amstelveen
A2
A9
N231
A2

Amsterdam & Zaandam

Green

Over the past 100 years the green in the area of Zaandam and Amsterdam slowly disappeared due to the two still growing urban areas. Expansion and planning include the Hembrug terrain as well now through several developments and future plans.

Image 30: The expanding city limits of Amsterdam and Zaandam over the past 100 years. Source: Image by Kilian Mol.


Stootersplas
Recreatiegebied
Het Twiske
Nieuwe Gouw
Ilperveld
Gouwsloot
Banscheiding
Bregsloot
Varkensland
Nonksloot
Jan van Ekkesloot
Klaas de Waalsloot
Buismansloot
De Leeksloot
N235
Middenweg
Slochterweg
Ringweg Noord
S117
S118
Amsterdam-Noord
16
Banne
Buiksloot
Nieuwendam
Buikslotermeer
A10
Amsterdam-Schellingwoude
15
Schellingwoude
Schellingwouderbrug
Het IJ
Oostzaan
Nieuwe Twiske
Twiske
Amsterdam-Tuindorp Oostzaan
Oostzanerwerf
Cornelis
Douwesterrein
Industrie Noord
Nieuwendammerham
Oostvee
IJhaven
Ertshaven
S100
Zuiderzeeweg
Amsterdam-Zeeburg
14
Indische
Buurt

Setup of Hembrug

Weapons, cartridges and ammunition

The factories at the Hembrug terrain produced weapons, ammunition and later other products because of privatization. The terrain was split between two state companies: *Eurometaal* and *NV Gereedschapswerktuigenindustrie Hembrug. Production of Eurometaal.* Production finally stopped in 2003. The area was then abandoned until the start of its redevelopment in 2010 and its eventual reopening in 2014.

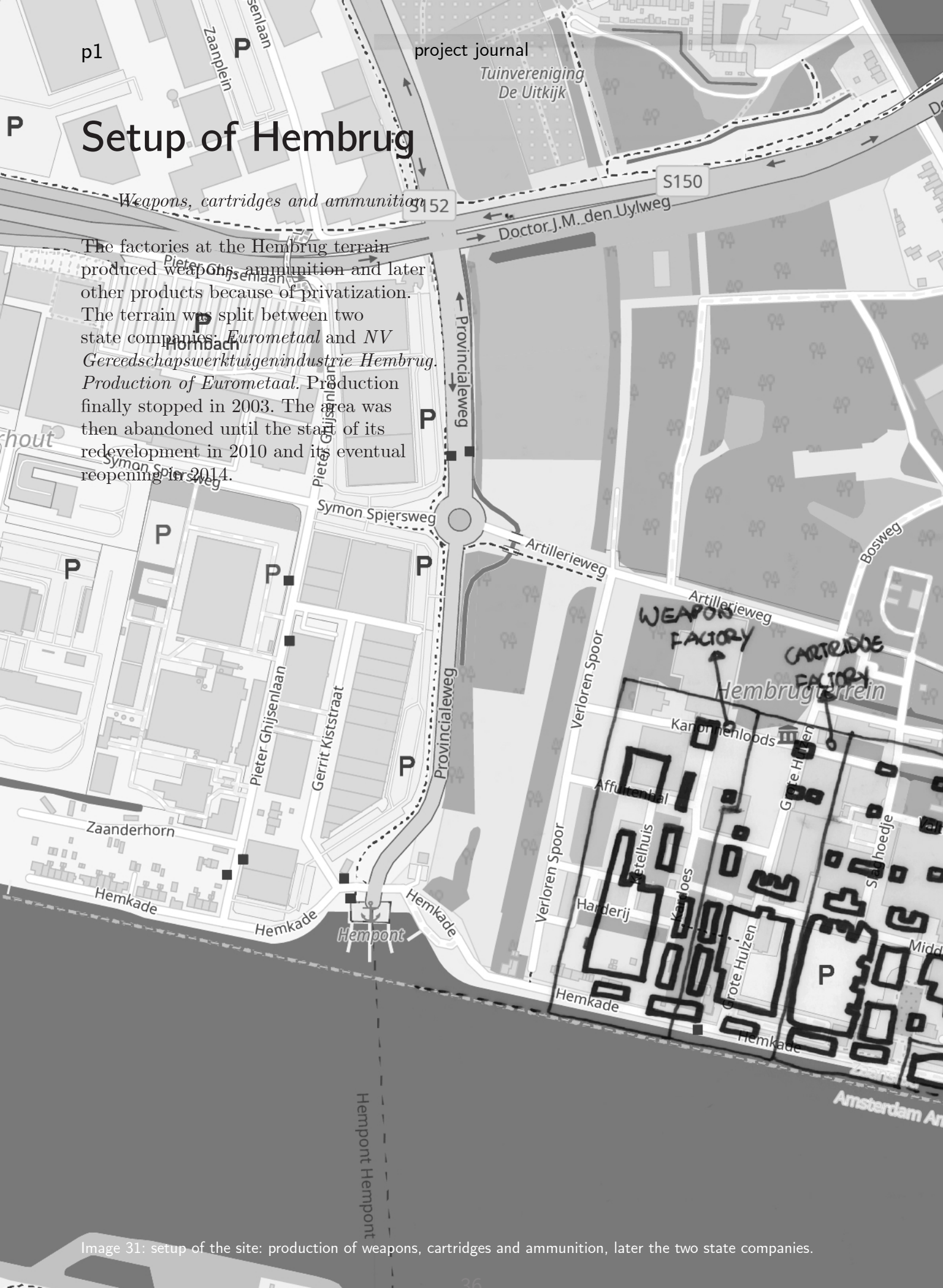


Image 31: setup of the site: production of weapons, cartridges and ammunition, later the two state companies.

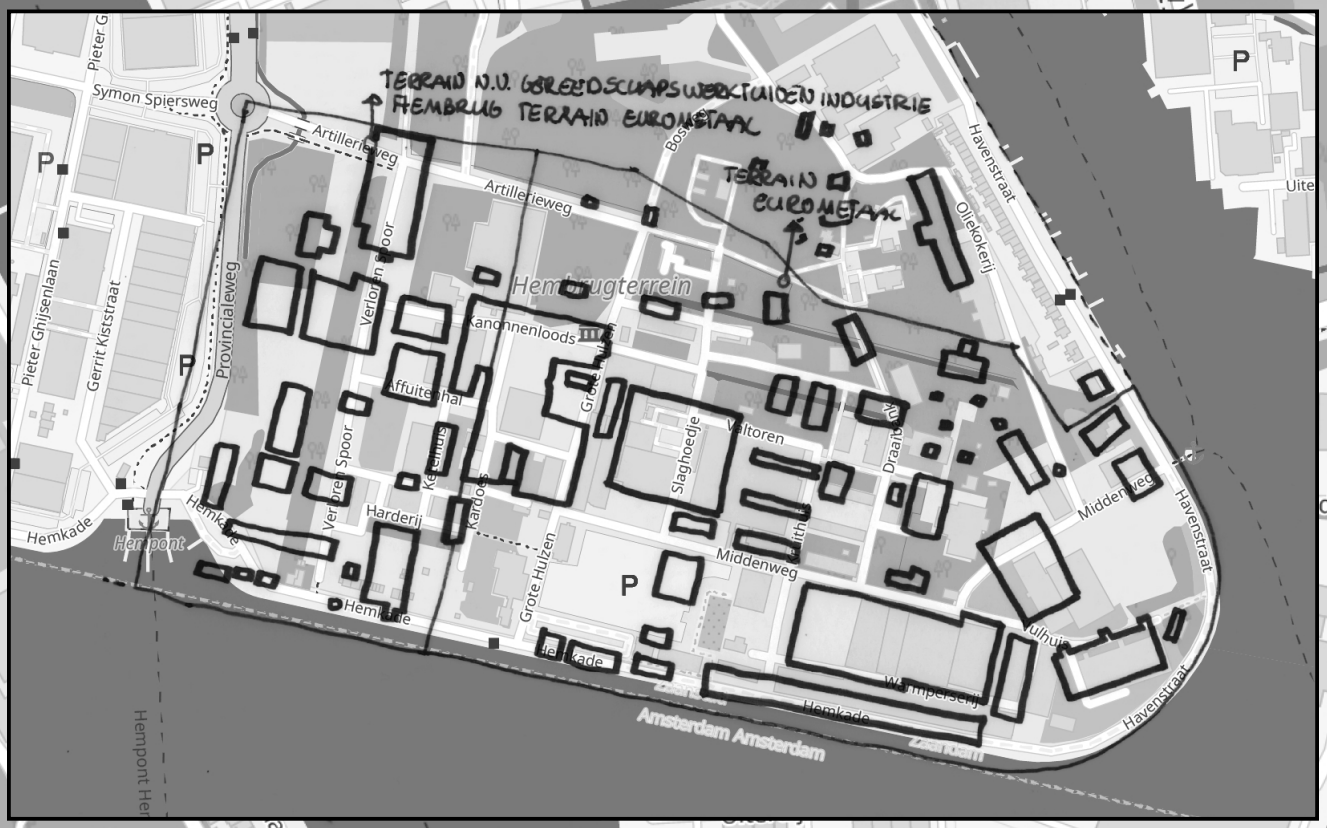
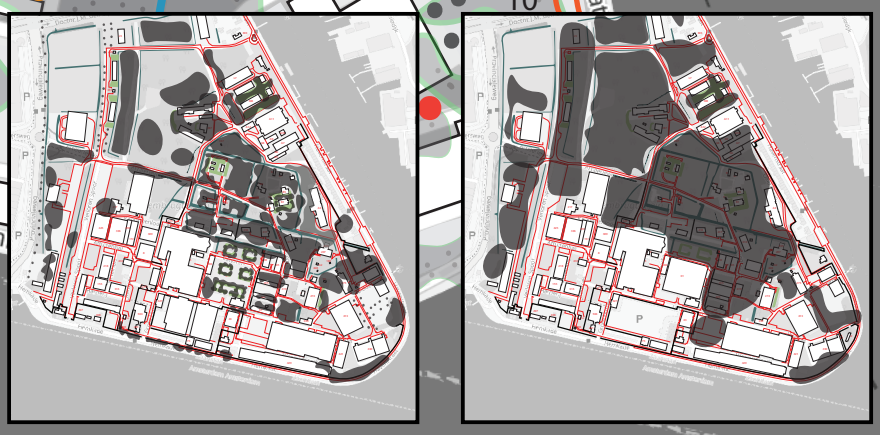


Image 32: setup of the site: production of weapons, cartridges and ammunition, later the two state companies.



Allotment Gardens
S150
S152
Doctor J.M. den Uylweg
Pieter Ghijsenlaan
Hornbach
Provincialeweg
Symon Spiersweg
Artillerieweg
Bosweg
Kanonnenloods
Grote Hulzen
Affuitenhal
Verloren Spoor
Keteinuis
Kardoes
Harderii
Slachoedie
Zaanderhorn
Gerrit Kiststraat
Hemkade
Hempont
Hempont Hempont
Hemweg
Zaanstad
Amsterdam

production biospheres



Images 37,38: green in resp. 1975, 2000

Legend:

- Fields
- Undergrowth
- Earth Walls
- Forest
- Trees (older than 80 yrs)
- Trees (younger than 80 yrs)
- Tree Lane

Forest types:

Moist-Wet forest types
1. Moist to wet mixed species poor deciduous forest with ash, alder and willow
Undergrowth: large nettle and common calcium.
2. Moist to wet species-poor ash forest.
Undergrowth: large nettle, common calcium and common burr on the forest edges
3. Wet ash forest with ivy and stinz plants
Undergrowth: Celandine, stinz plants.
4. Wet varied deciduous forest with ash, high-growing poplars, maple and elderberry.
Lower tree layer: White willow, common cherry, black alder and Rowan.
In some local areas (lane plantation) Common maple, horse chestnut downy burch and Caucasian wingnut dominate.
Undergrowth: Large nettle, common claw, whistlebill, hondsdraf and robertskruid and bramble along the edges.
Moist forest types:
5. high open poplar forest with hawthorn.
Undergrowth: Large nettle, blackberry on the edges and acanthus.
6. High open poplar lane with maple and hawtorn. Local areas an ordinary elder tree.
Undergrowth: Large nettle and Common caliper.
7. high rising poplar and ash lane with various tree species. Also common maple, northern maple, Spanish maple and a summer oak.
Undergrowth: Large nettle, common bramble and reed.
8. Poplar and maple forest with ash.
Undergrowth: common bramble and large nettle dominate here.
9. Tree lanes with various species like Lime, brown maple, beech, brown poplar and horse chestnut. with rough groundwalls.
Undergrowth: Large species, common hogweed, heermoes, Robert worth and wisthles wort.
Dry forest types:
10. Dry park-like area with small groves.
Present species are lime, ash, rowanberry, soft birch and common hawthorn. Also Spanish barge, beech and elm.
Undergrowth: tangle horn, sand rocket, early bird, piglet spice and ivy.

Palmbout



Image 39: A green enclave. Source: Image by Palmbout Urban Landscapes.

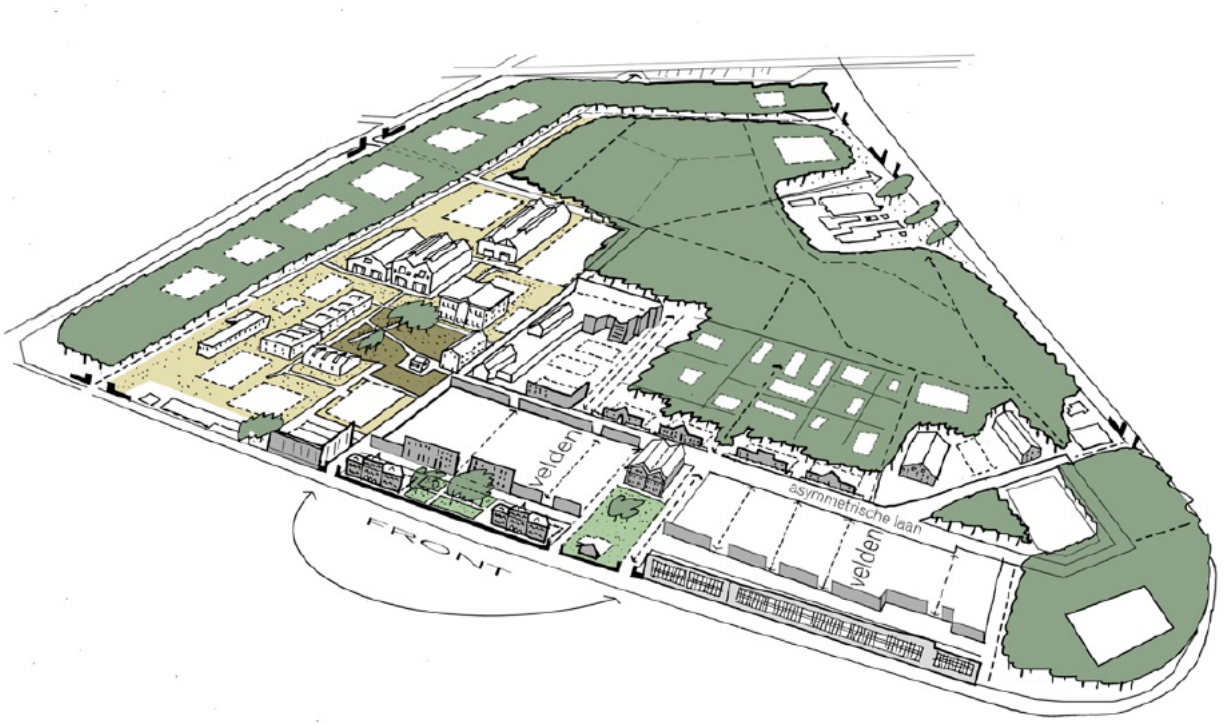


Image 40: Overview of the ensembles and redevelopment plan of Palmbout. Source: Image by Palmbout Urban Landscapes.

"Plots in the wood"

Palmbout described the Hembrug terrain eventually as a green enclave in the metropolitan area of Amsterdam and Zaandam. Their vision consisted of assigning different ensembles and creating visions for these based on their main and overarching characteristics and histories. The ensemble and site for this project: "Pavilions in the Wood", now evolved into Plots in the Wood, is positioned in the centre of the Hembrug terrain south of the testing forest or Plofbos with its chambers or islands.

Plots in the wood









Images 41, 42, 43, 44: The plots in the wood as we found it in February 2019.



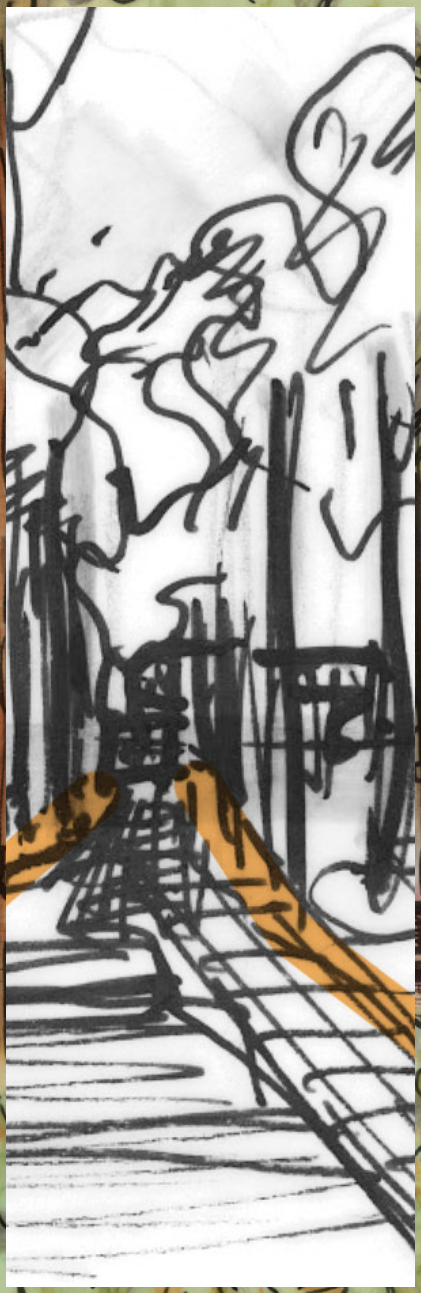
Image 45: Impression of the plots in the wood aimed on showing the different textures and colors from the *Plots in the Wood*.

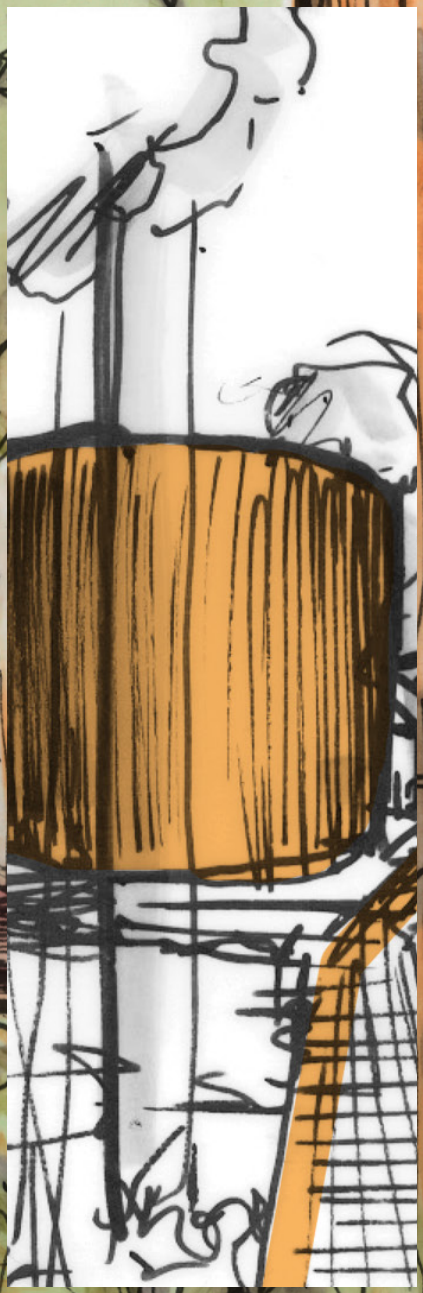
A green center

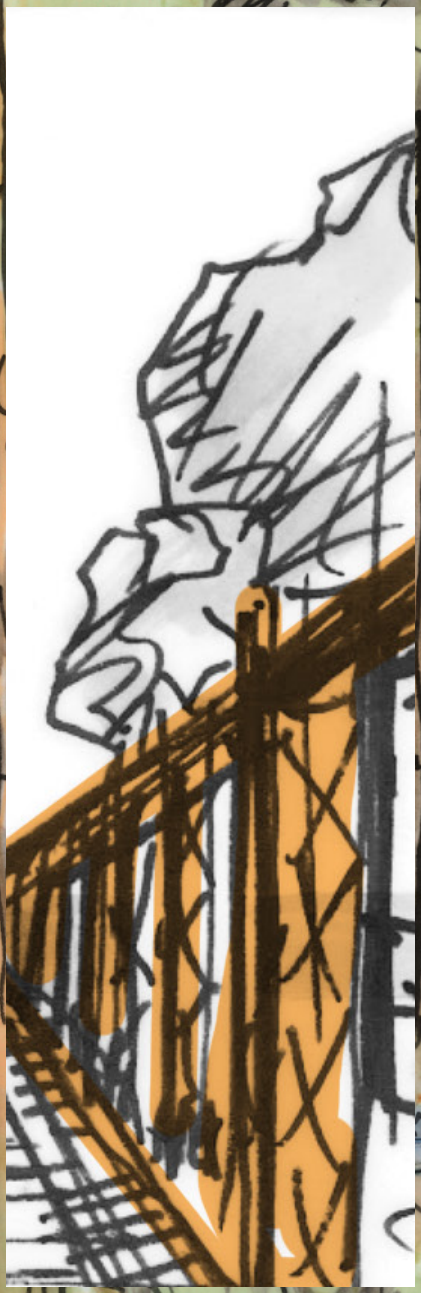
The *Plots in the Wood* area, as we found it, is a unique green area in the center of the Hembrug Terrain. Almost like a forested English landscape park, seemingly very chaotic. With different follies, being buildings and other elements related to its former function, appearing throughout the trees. Like a small village in the forest.

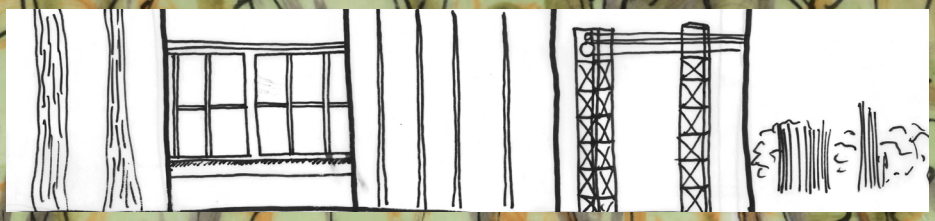
This area is bound together by the almost camouflaged color scheme of the forest and the brick facades of most buildings.











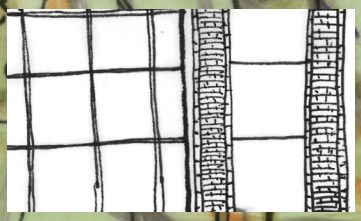
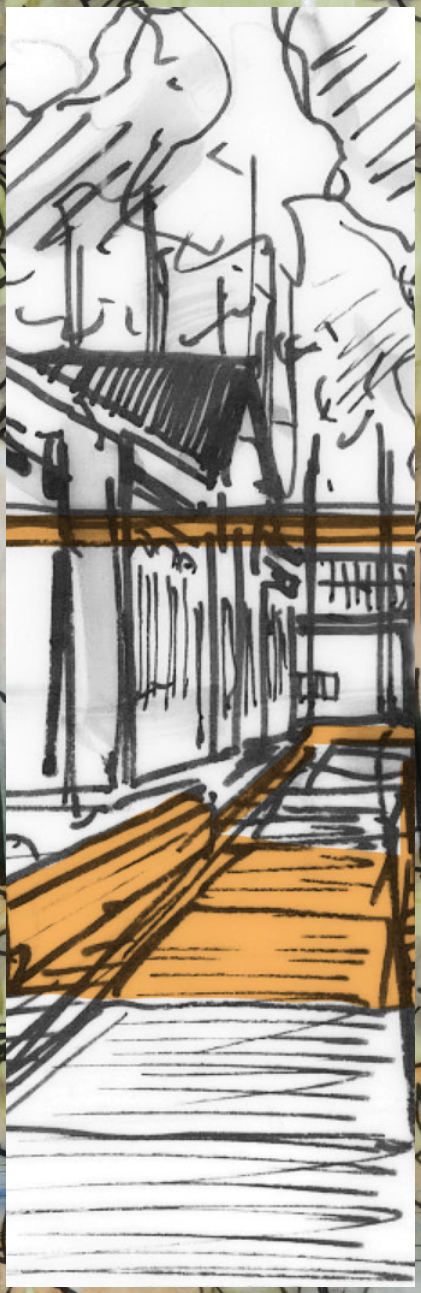


Image 46, 47, 48: Elements and their textures part of the binding factor of the *Plots In The Wood*.

Spatial elements

Emphasized with thin and crisp dark and light elements, like the pipelines, lighting conductors and window frames or an offset from the mostly vertical elements seen in the elements like the paths, ditches, earth walls and the water tank together creating the quiet atmosphere beneath the tree canopies. These elements were all designed in unison with the buildings and the environment to create several layers of safety and usability.





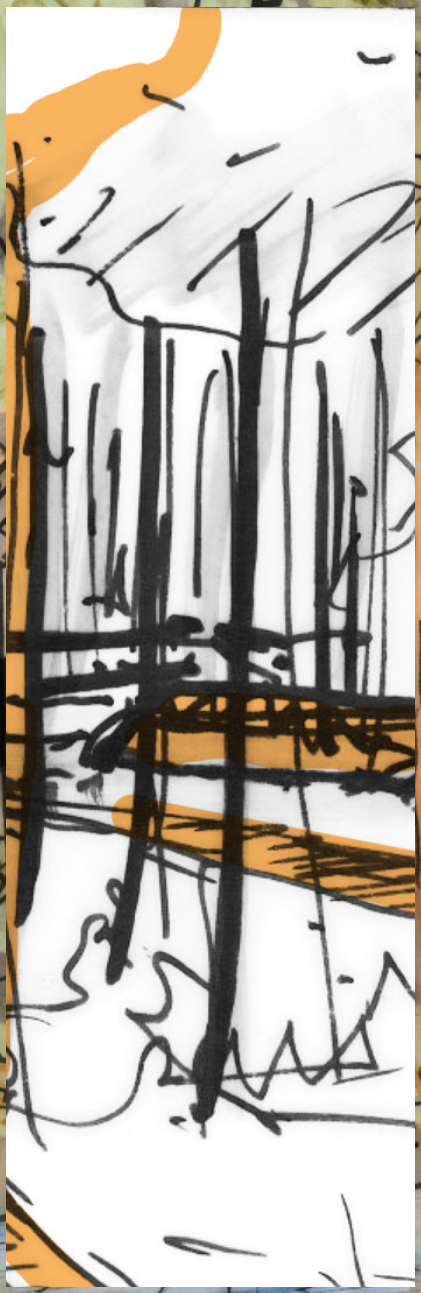






Image 49, 50, 51: Elements and their textures part of the binding factor of the *Plots In The Wood*.

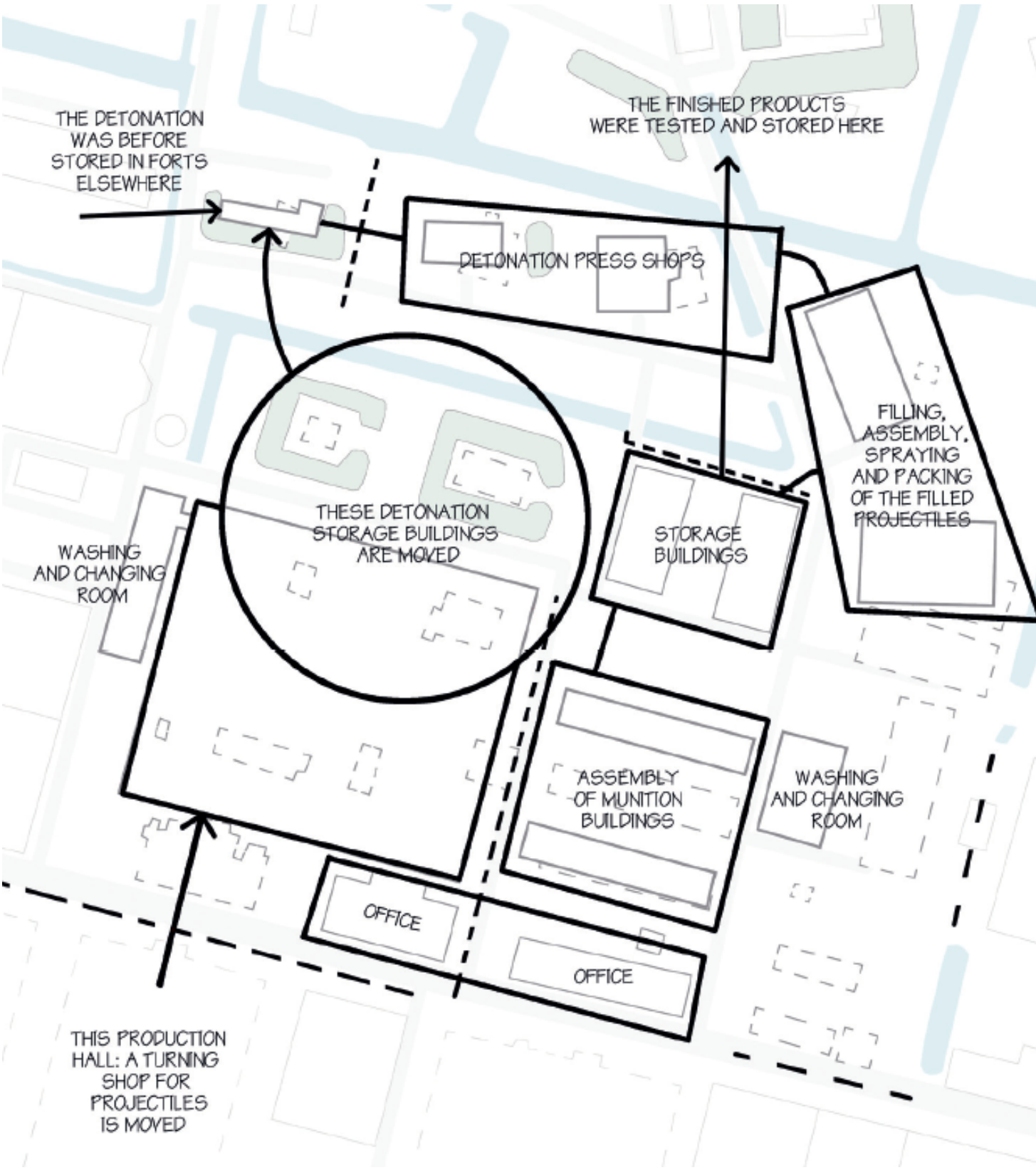


Image 52: Relations between the different buildings in Plots In The Wood. Source: Image by Valerie Artnz.



The building ensemble

The building ensemble was responsible for the production and storage of projectiles and ammunition. Production in this configuration moved roughly from south to north, then the projectiles were either stored or moved to the Plofbos for testing. During productions buildings were also used as necessary for different products. The distance between the buildings and the vegetation (in some cases earth walls) around the buildings were for safety reasons in case of an explosion to protect the people and the environment. Everything was designed in unison to create a safe and efficient production biosphere.

Four building typologies

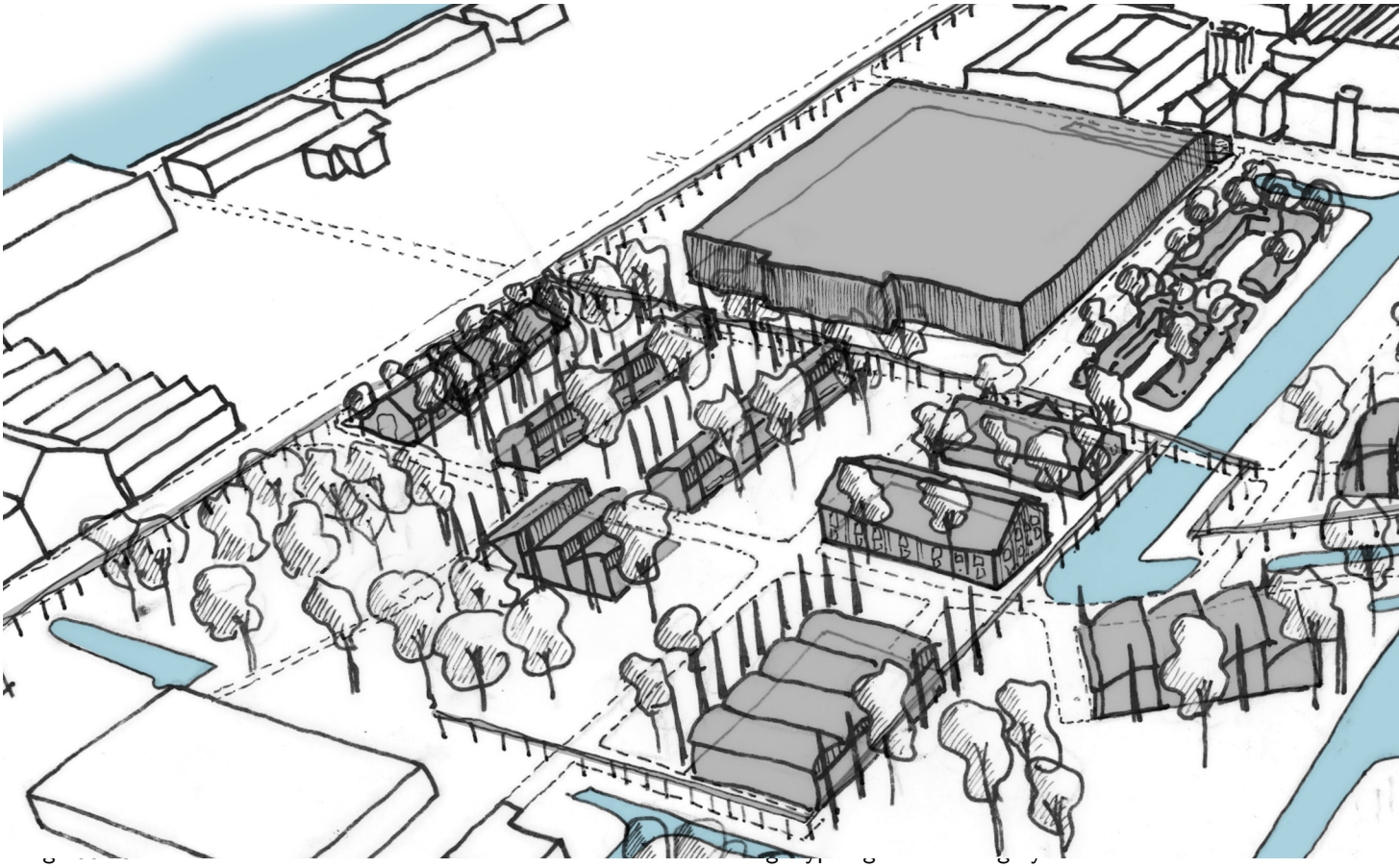


Image 53: The Farm buildings. Source: Photo by Amanda Verschuur.

The buildings on the Plots in the Wood are from different periods and styles. They are mainly distinguished by their roof shapes. For most of them their (weathered) brick facades create a sense of unity and help blend them into the green area as illustrated earlier.

The gabled roof buildings or farms (1895-1905)

Around 1900 most of the gabled roofs were built, the two in the middle of plot were used for storage. They are also called the Farms referring to their architecture and some past activities around the buildings. The other ones, along the main road, had assembly and office programs.



The shell roof buildings (1952)

The shell roofs, built in 1952, were used as press shops and assembly workshops. Distinct roof shapes to redirect the explosion and debris towards the forest. They are built in several configurations and sizes. Lightning rods with wires spanned in between and over were placed around to create a protective cage around the building(s). Just like the next type from the same time period.



Image 54: The shell roof buildings. Source: Photo by Google Maps.

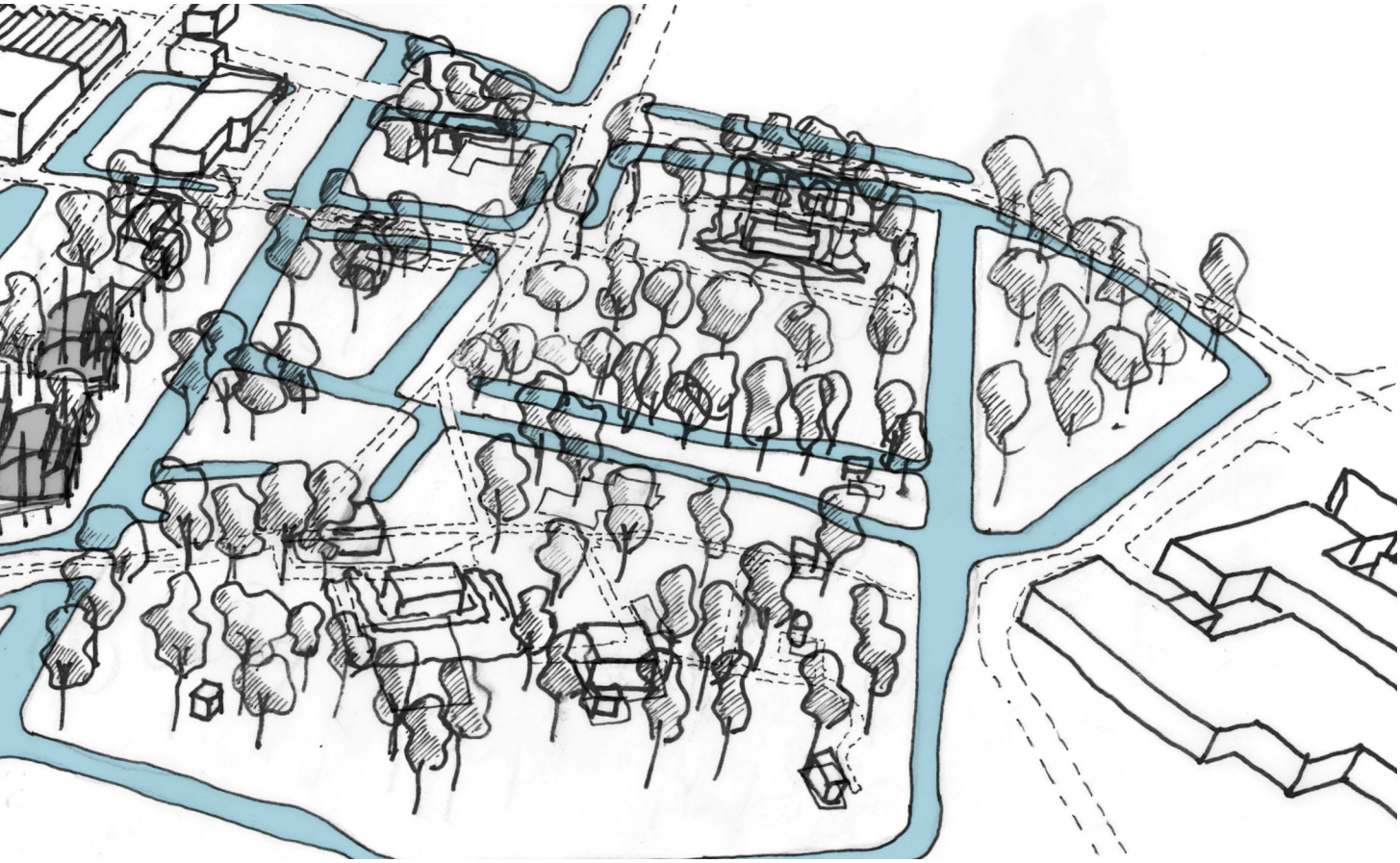
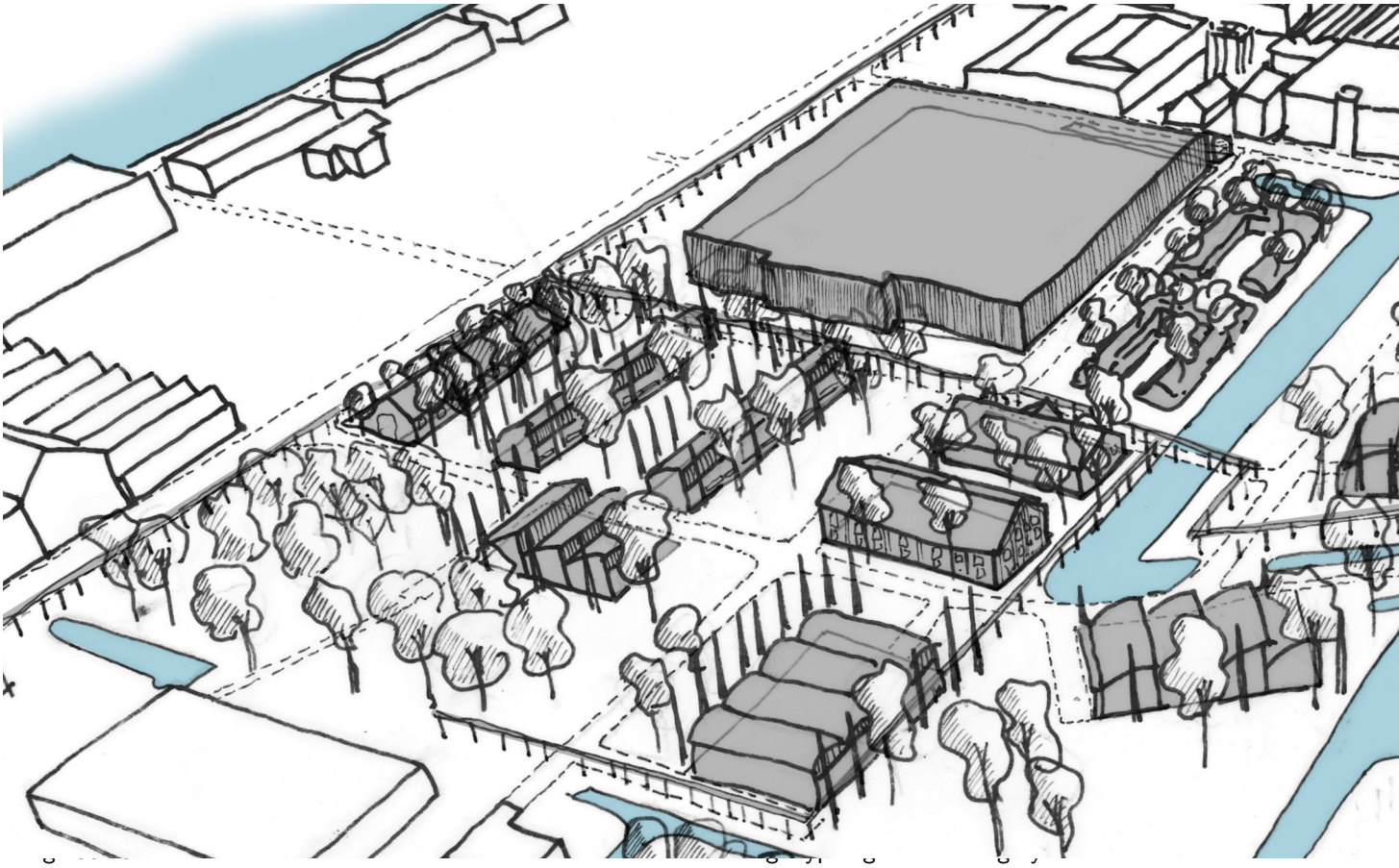




Image 56: The circular roof building. Source: Photo by Google Maps.

The circular roof building (1952)

The circular roof building was originally built for storage and later actually used for assembly.

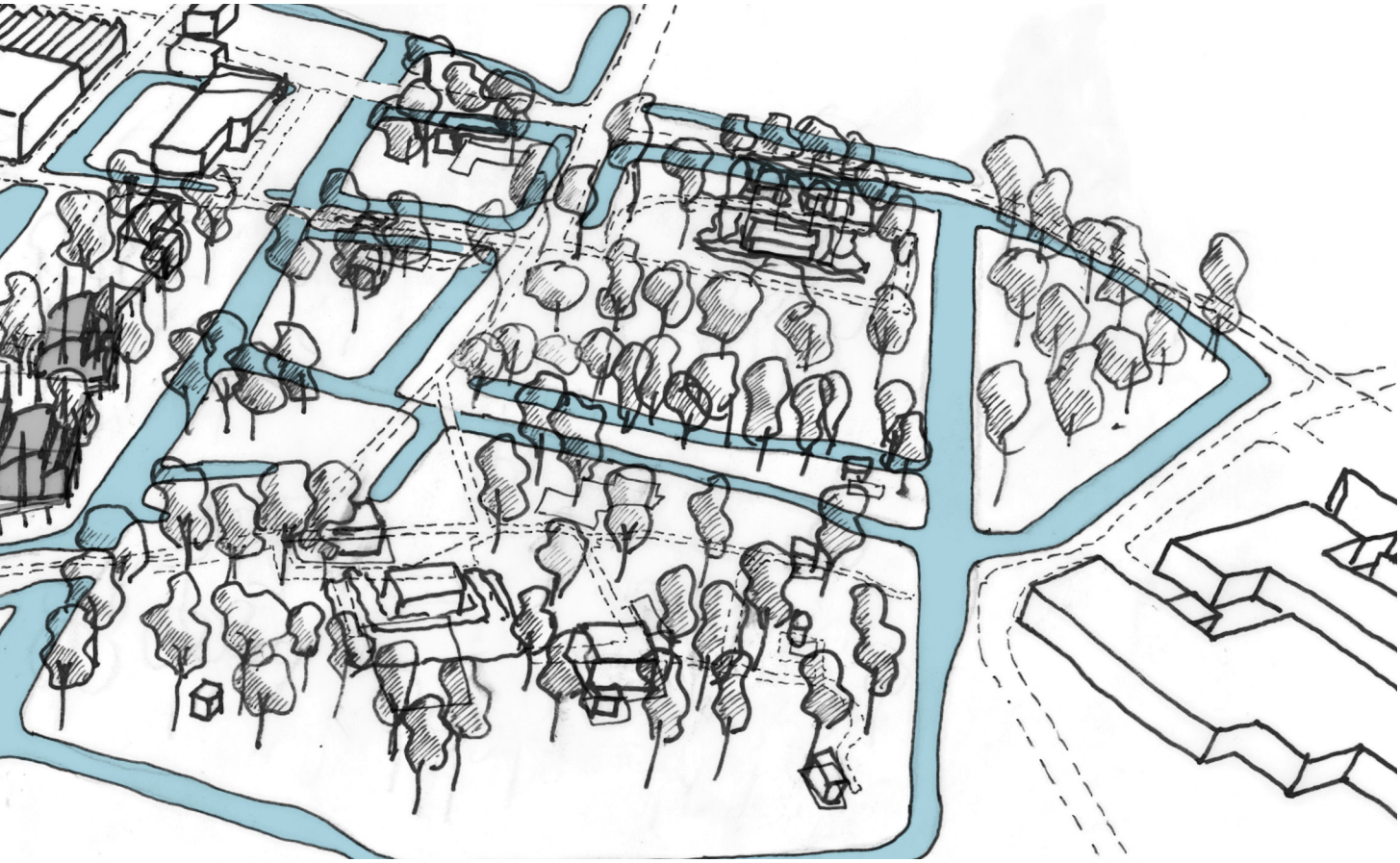


The low-sloped roof building (1991)

The large hall is the most outstanding of the buildings on plots in the wood with its dark green and cement brick facades. It was used for production and would be used flexibly for whoever needed the lathes, this explains its size and surface area. For this particular building and its function certain safety functions weren't necessary and in 1991 they were not bound by the need camouflaging as well.



Image 57: Interior image of the "black box" building.
Source: Photo taken from www.hembrugterrein.com



P2

The aim for this presentation was to get the design and concepts at the point that they were ready for graduation in the next semester.

for

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.

Cultivate, stage & set-up

Design approach

During the p1 presentation the values according to the value matrix were presented and then interpreted by the different group members. My personal design direction was based on the one hand to creating a production site again but also creating a design accounting the different rates of change that the landscape, a slow constant binding factor, and the buildings and other elements on site go through:

How to create a new production space, based on the already present creative businesses and makers and resilient to change, in the Plots in the Wood?

The site and different buildings are to be approached as a temporality, because of the uncertain phase it is currently in. The main goal is to create a space that should function as a production landscape. The context itself is a slower changing entity compared to the different buildings so an adjusted approach was necessary for the interventions and approaches on the scale level of architecture.

The focus of the design, as described by Corner (2004, p. 4) similar to a landscape architect or ecologist is focused on what to cultivate, stage and to set-up, open-ended rather than just designing for a completely finished end-result.

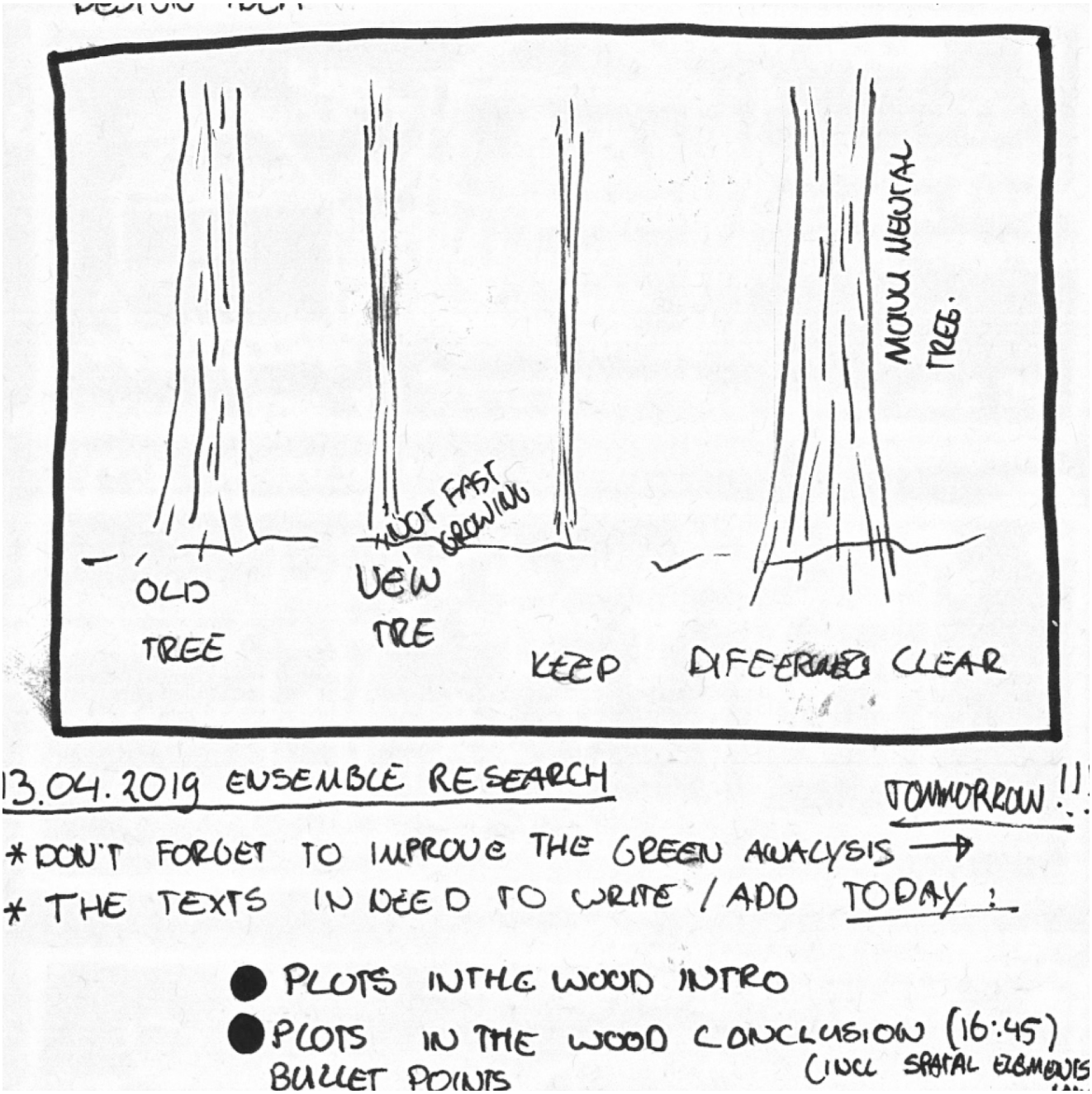


Image 58: Sketch during the finalizing of the different group analyses.

Trees

Design idea regarding adding new vegetation to the already vegetation site. This was aimed to create a sense of difference and a sense of visual chronological order within restored vegetation of the *Plots in the Wood*.

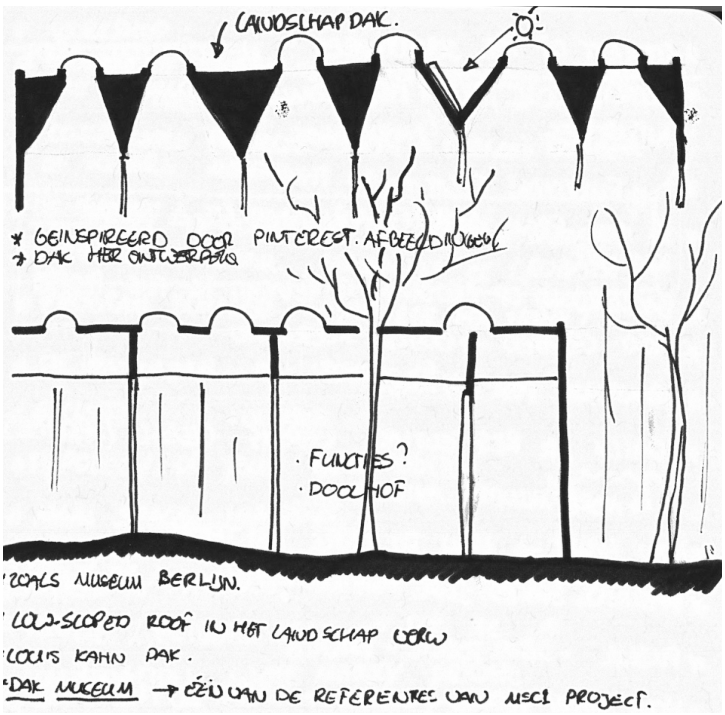


Image 59: Searching for possibilities in for the low sloped roof building, from 28.04.2019.

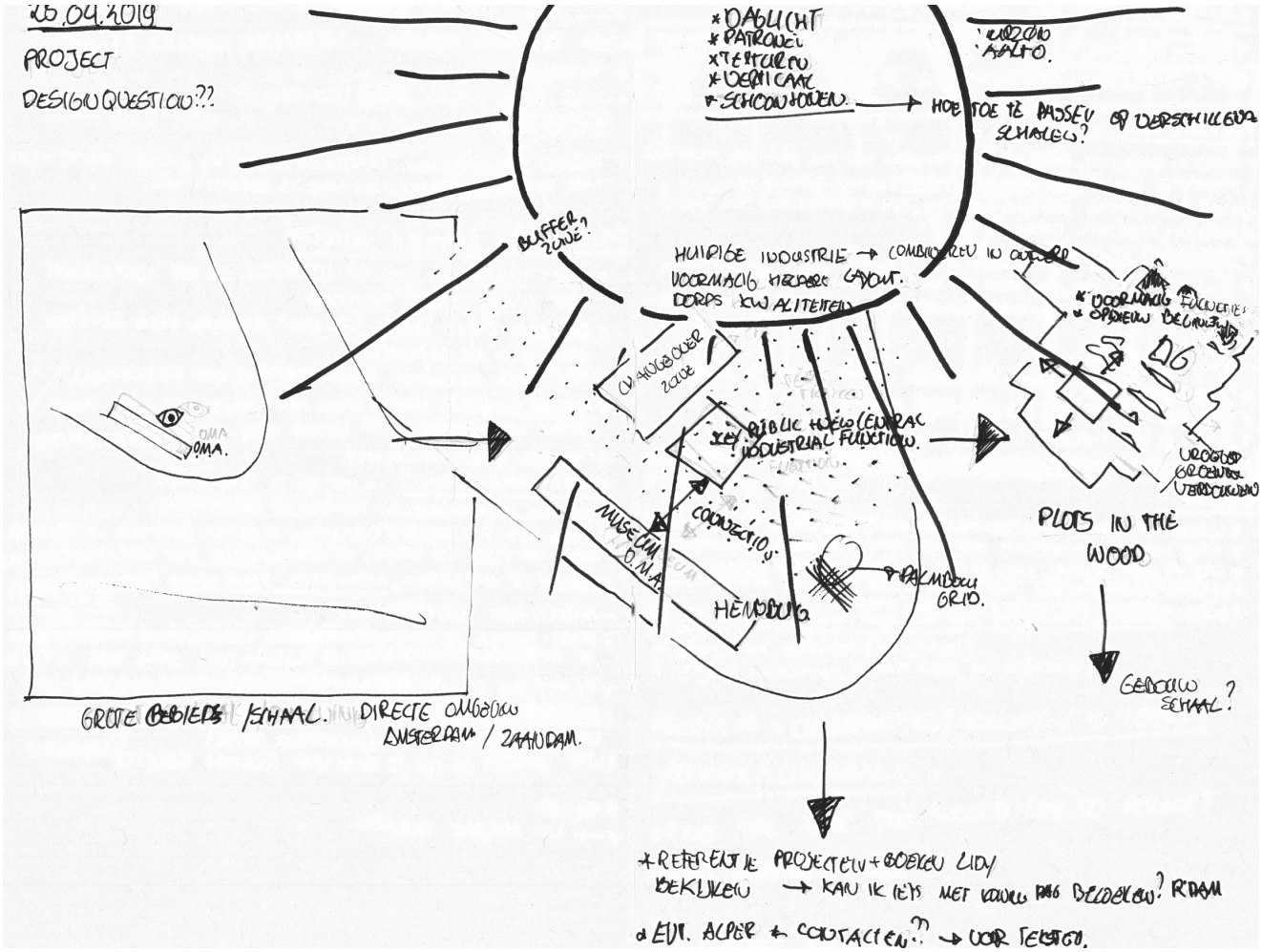


Image 60: Sketch and thoughts regarding the direction and starting point for the vision of the Plots In The Wood from 24.04.2019.

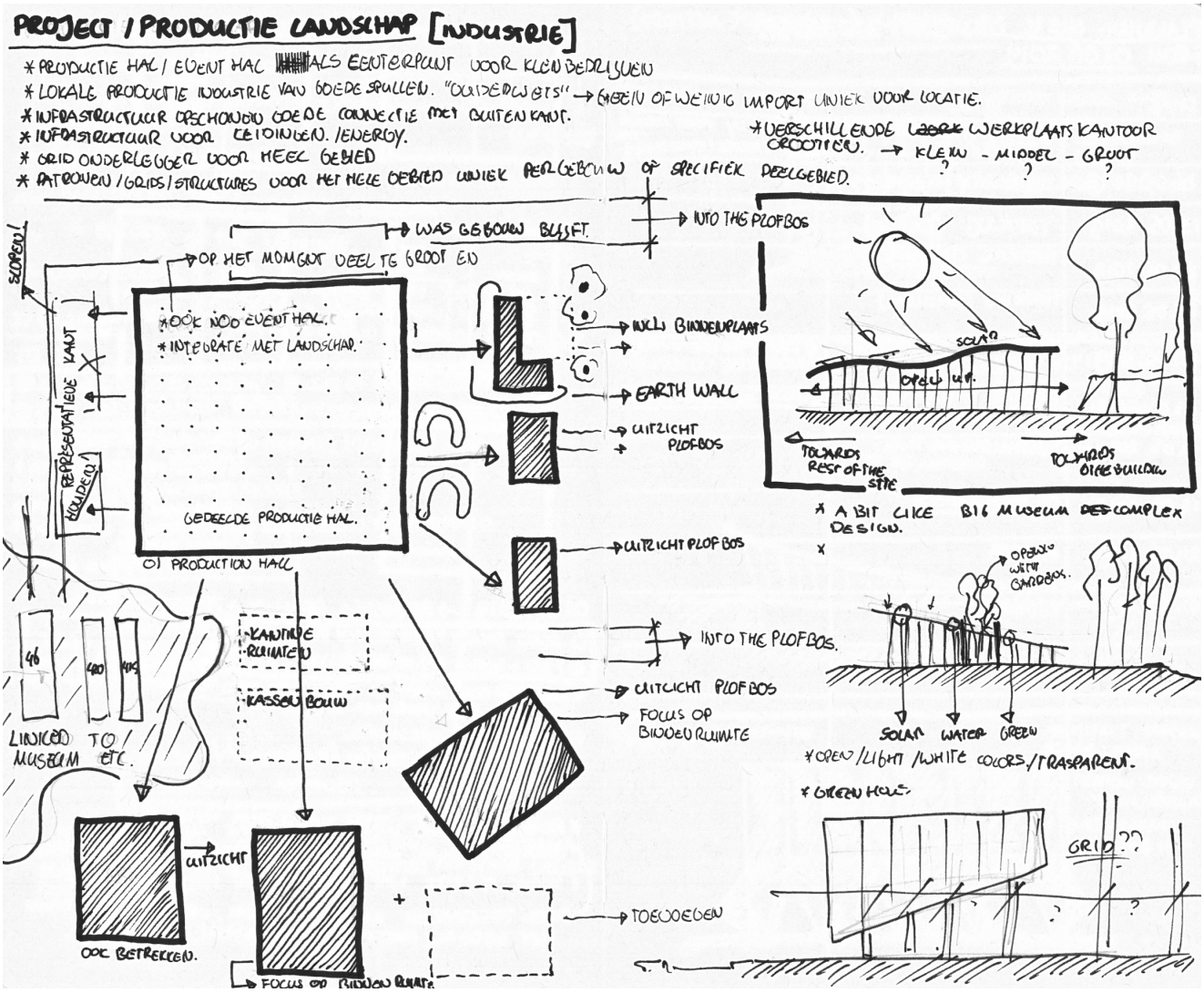


Image 61: Production landscape, building relations, satellite buildings around the central production hal. Sketch from 02.05.2019.

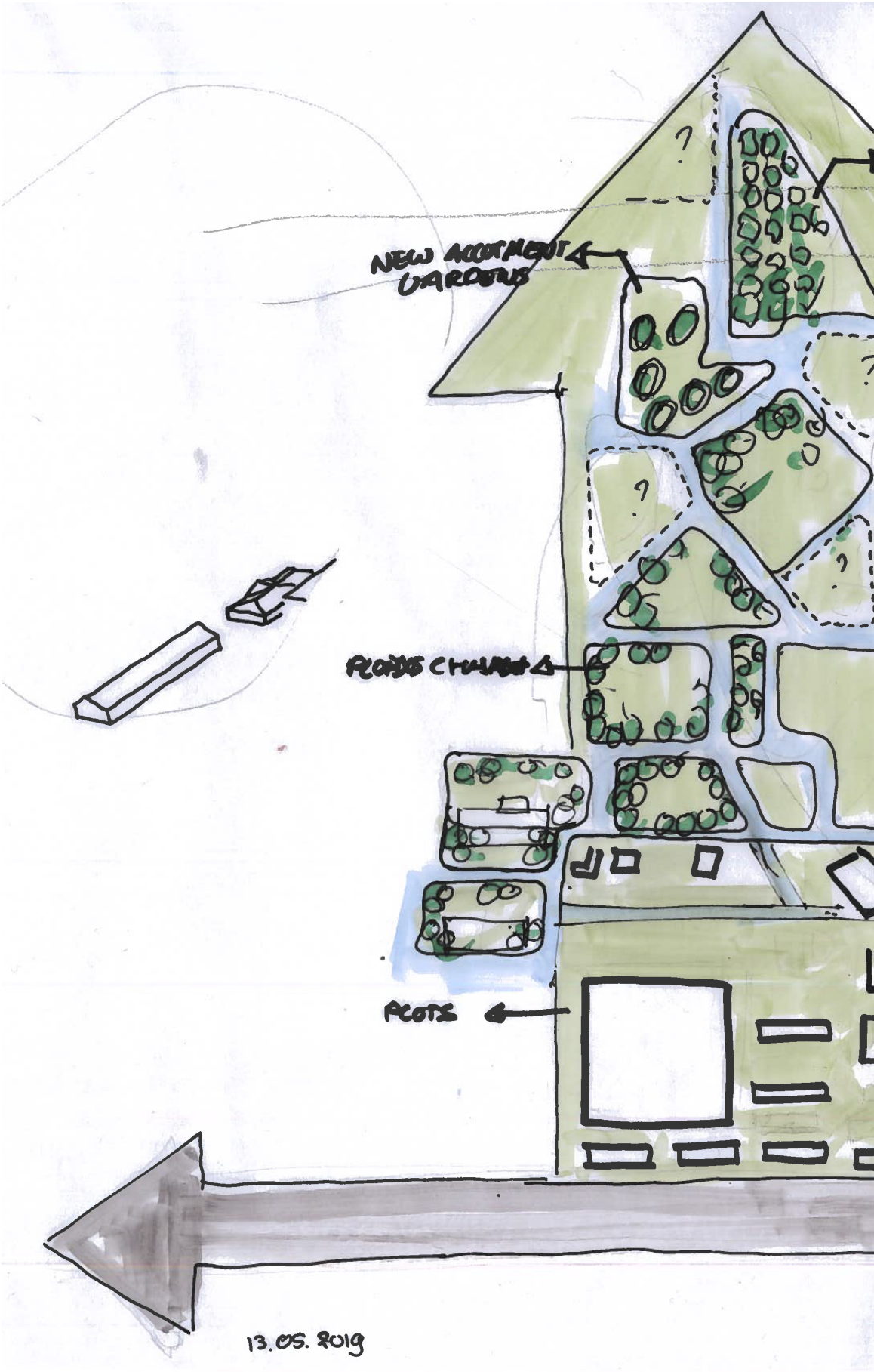
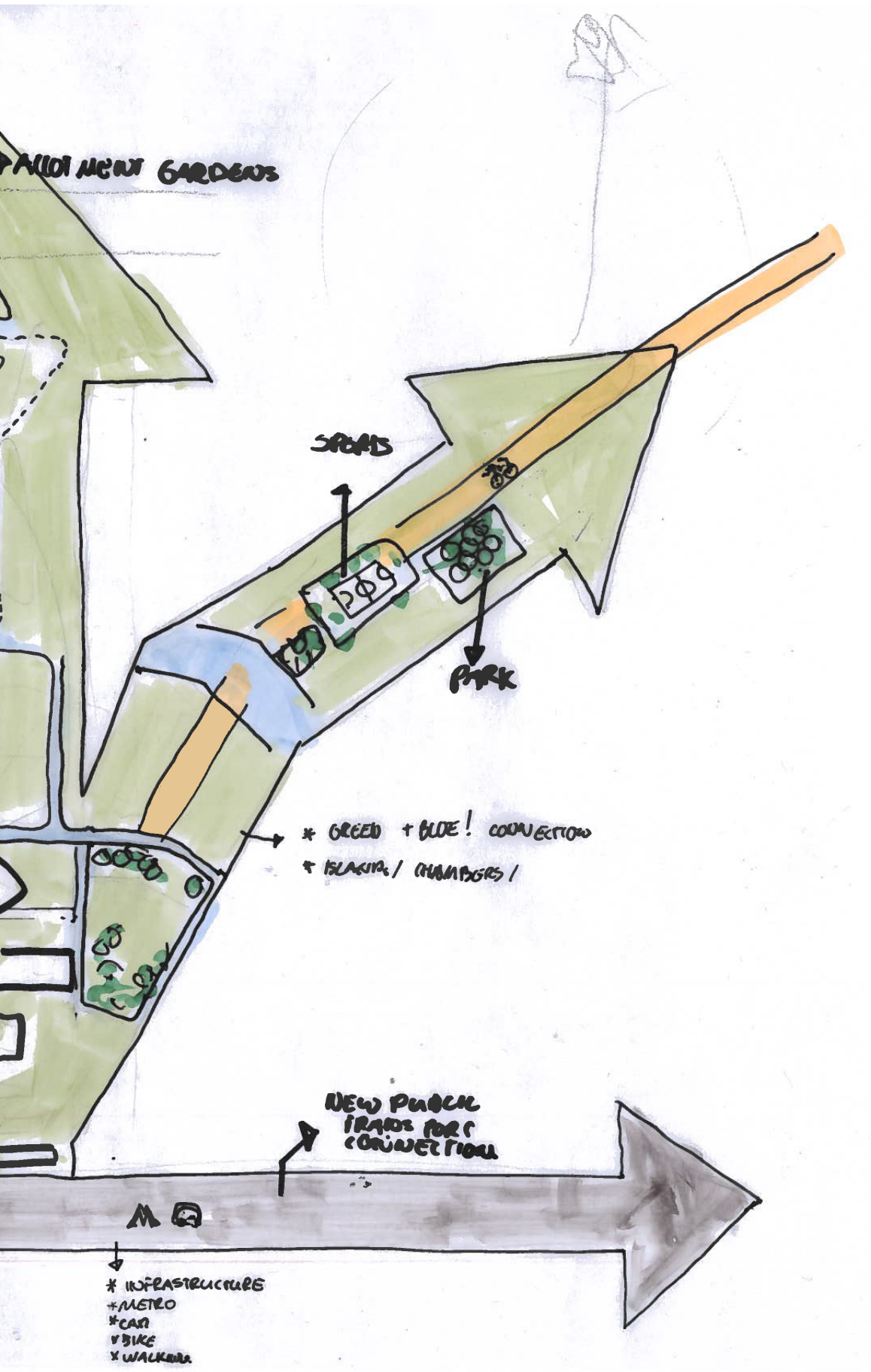


Image 62: The sketch above shows links and borders that could be used for the design and redevelopments of plots in the wood. Sketch from 13.05.2019


ALLOTMENT GARDENS
SPORTS
PARK
* GREEN + BLUE! CONNECTION
* ISLANDS / CHAMPIONS /
NEW PUBLIC TRANS PORT CONNECTION
* INFRASTRUCTURE
+METRO
*CAR
*BIKE
*WALKING

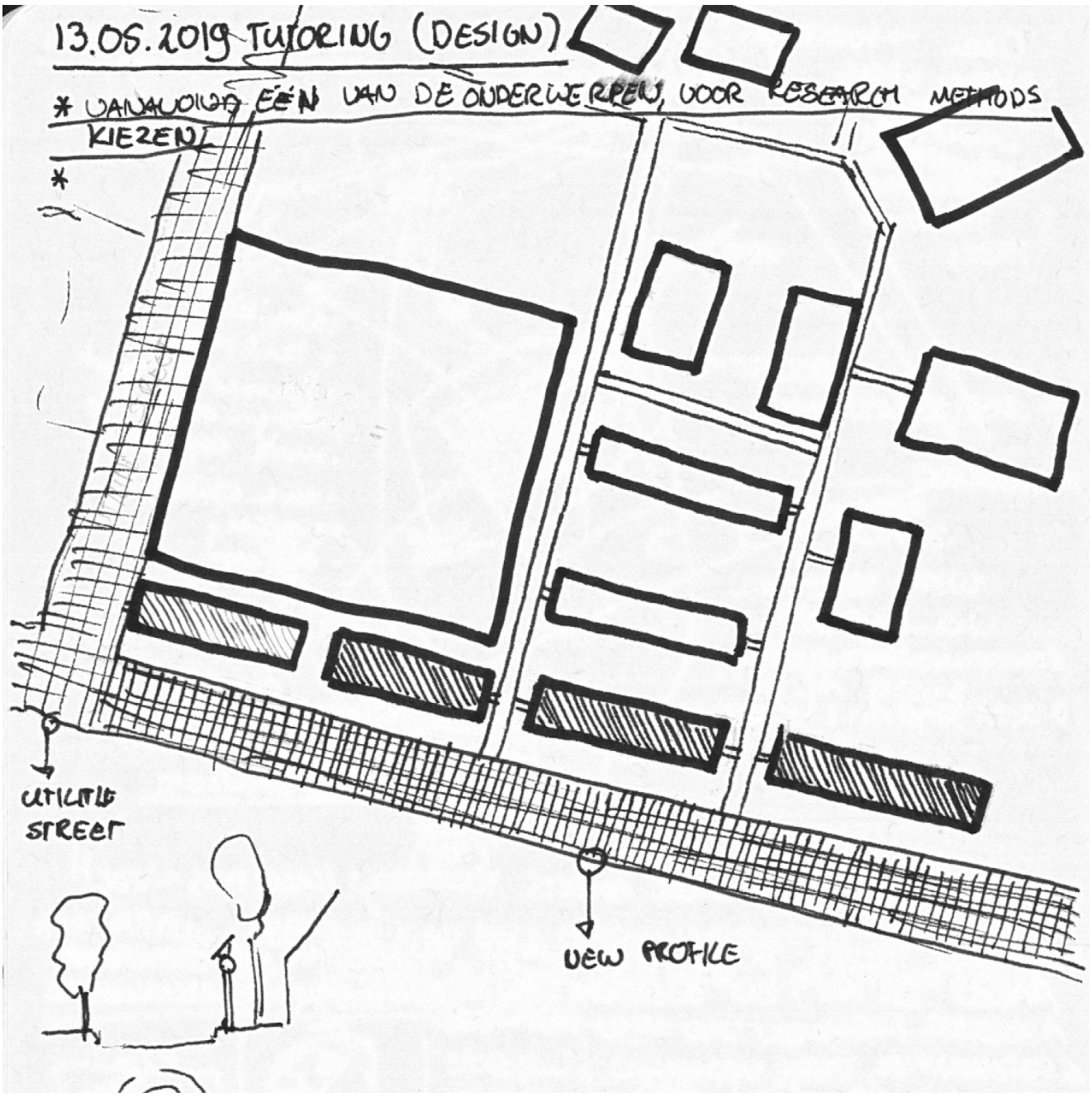


Image 63: Considering the expected business on the main road, the representative buildings along will act as a screen. Sketch from sketchbook 13.05.2019.

Palmbout

It is important for the design and making it work with the context to consider the existing development by design of Palmbout Urban Landscapes. In this case they propose reinstating a line of representative buildings along the main road. This fits within the idea of keeping the existing atmospheric qualities of Plots In The Wood. As these buildings will act as a screen for the area behind. This way it plays into the urban qualities that are there on the south side and the forest spaces on the other side.

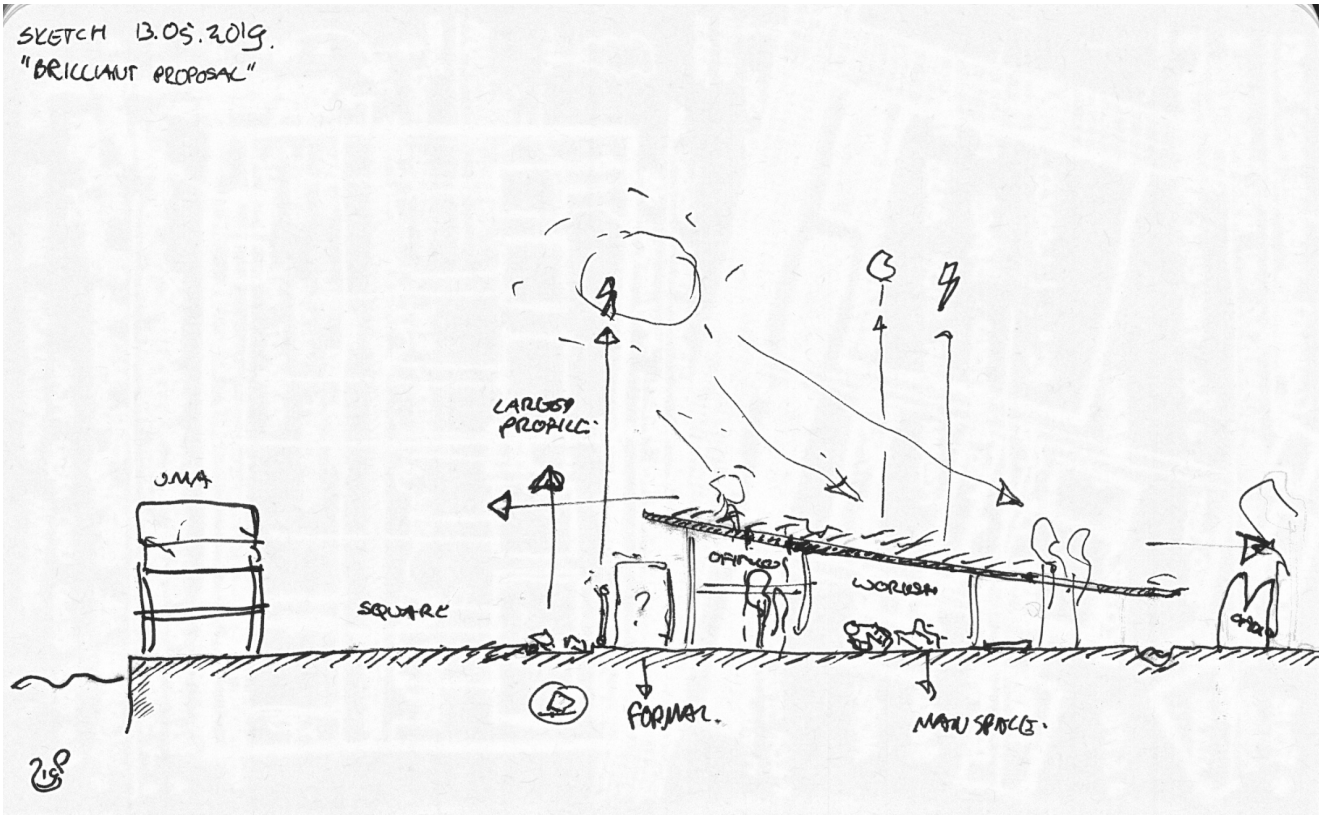
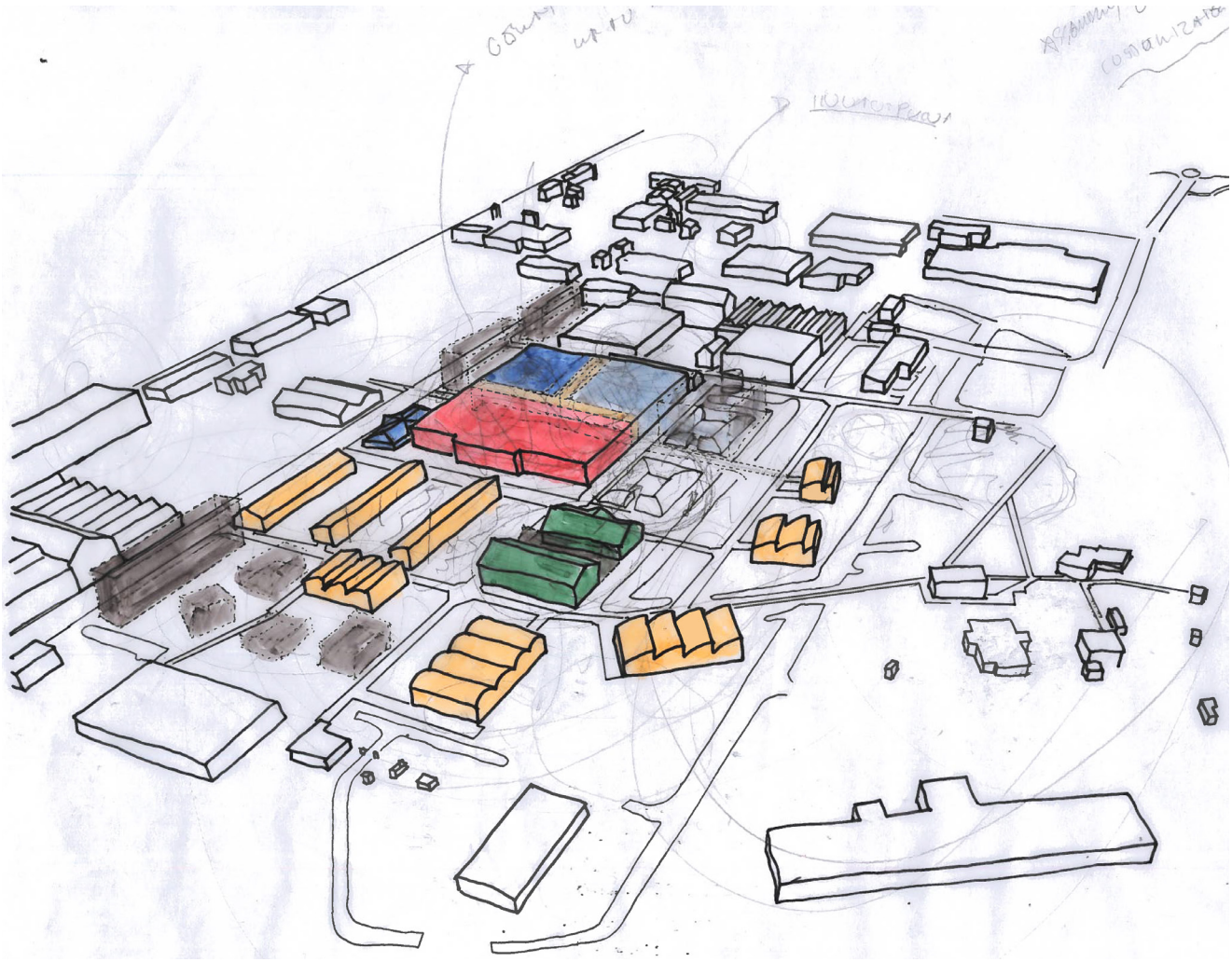


Image 64: 5 minute sketch done during the feedback session on 13.05.2019.



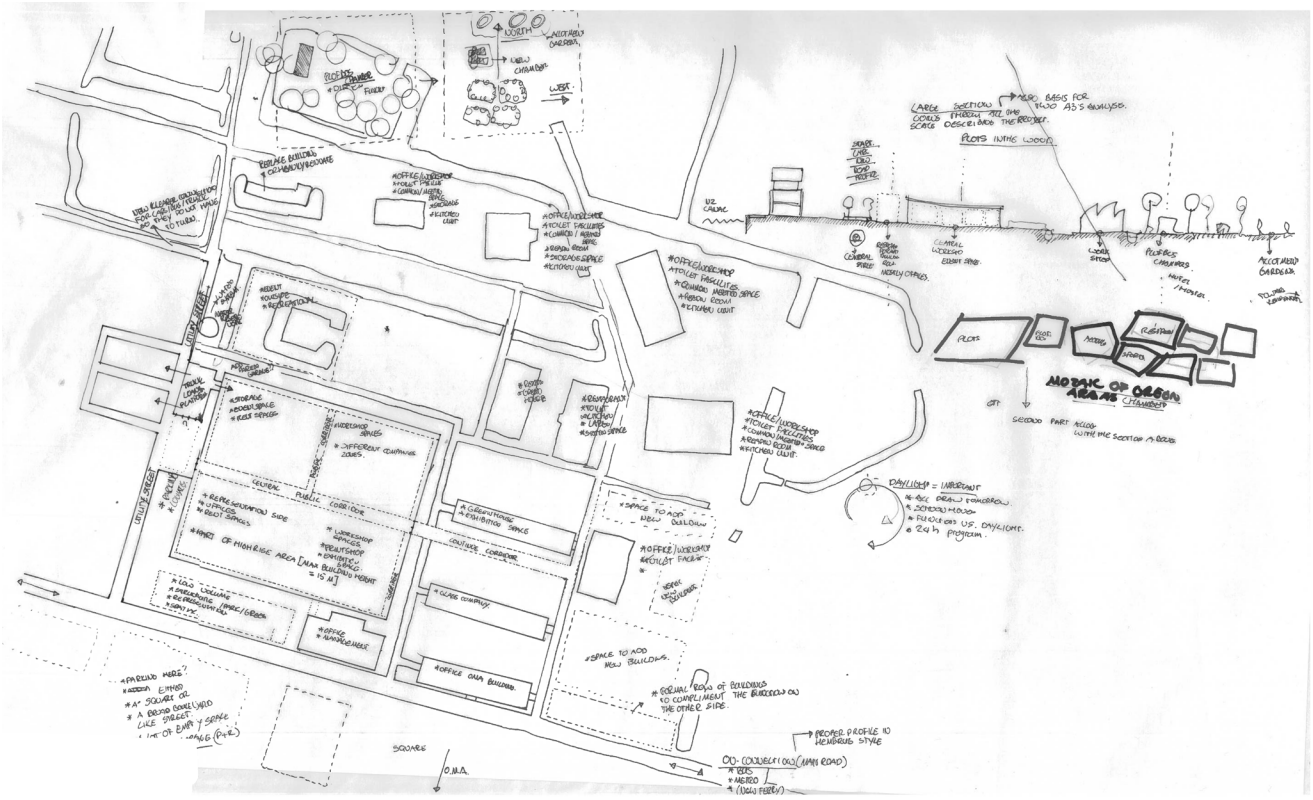


Image 65 & 66: Urban plan, spaces and program developments sketches.

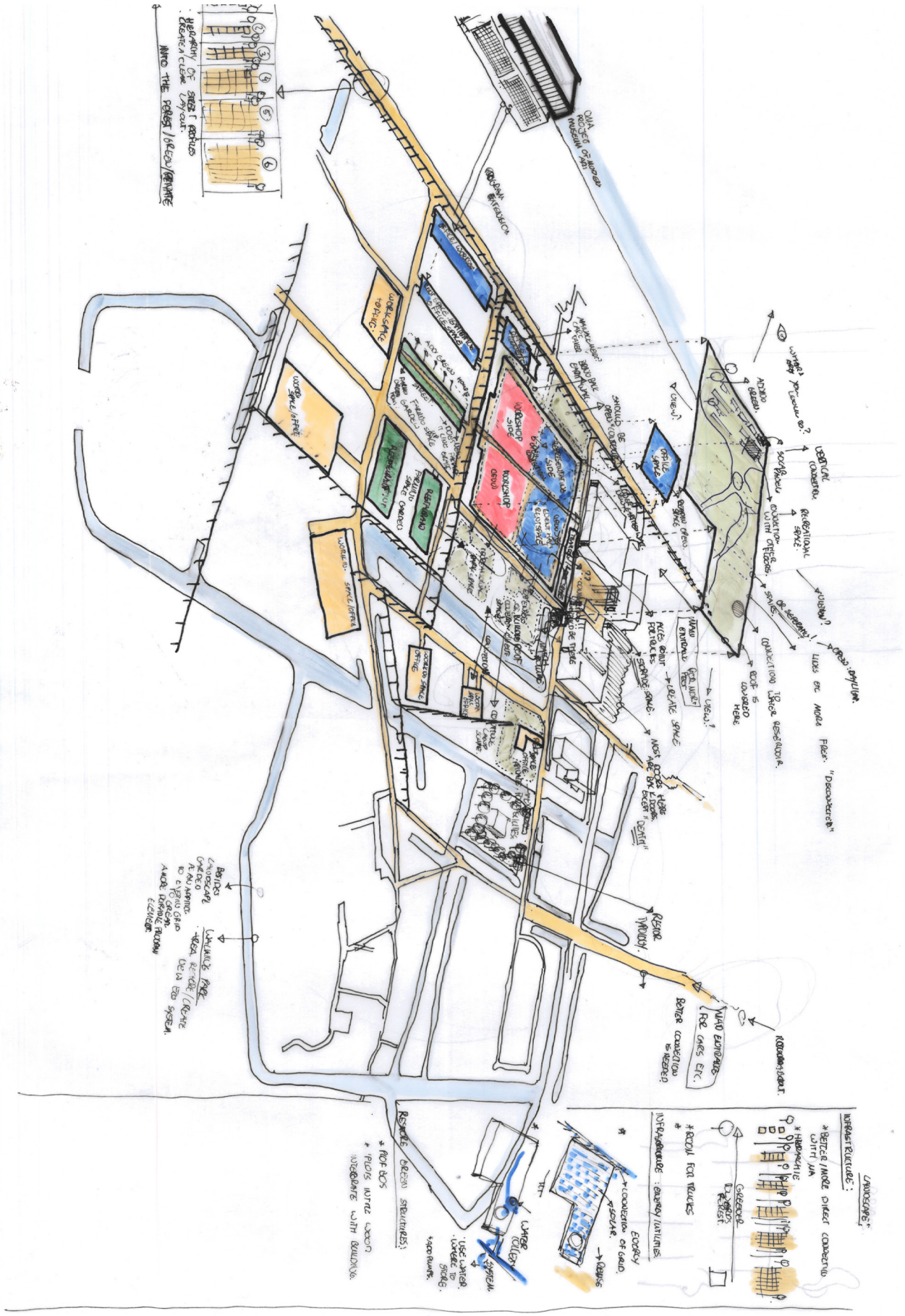


Image 67: Urban plan and spaces developments sketch.

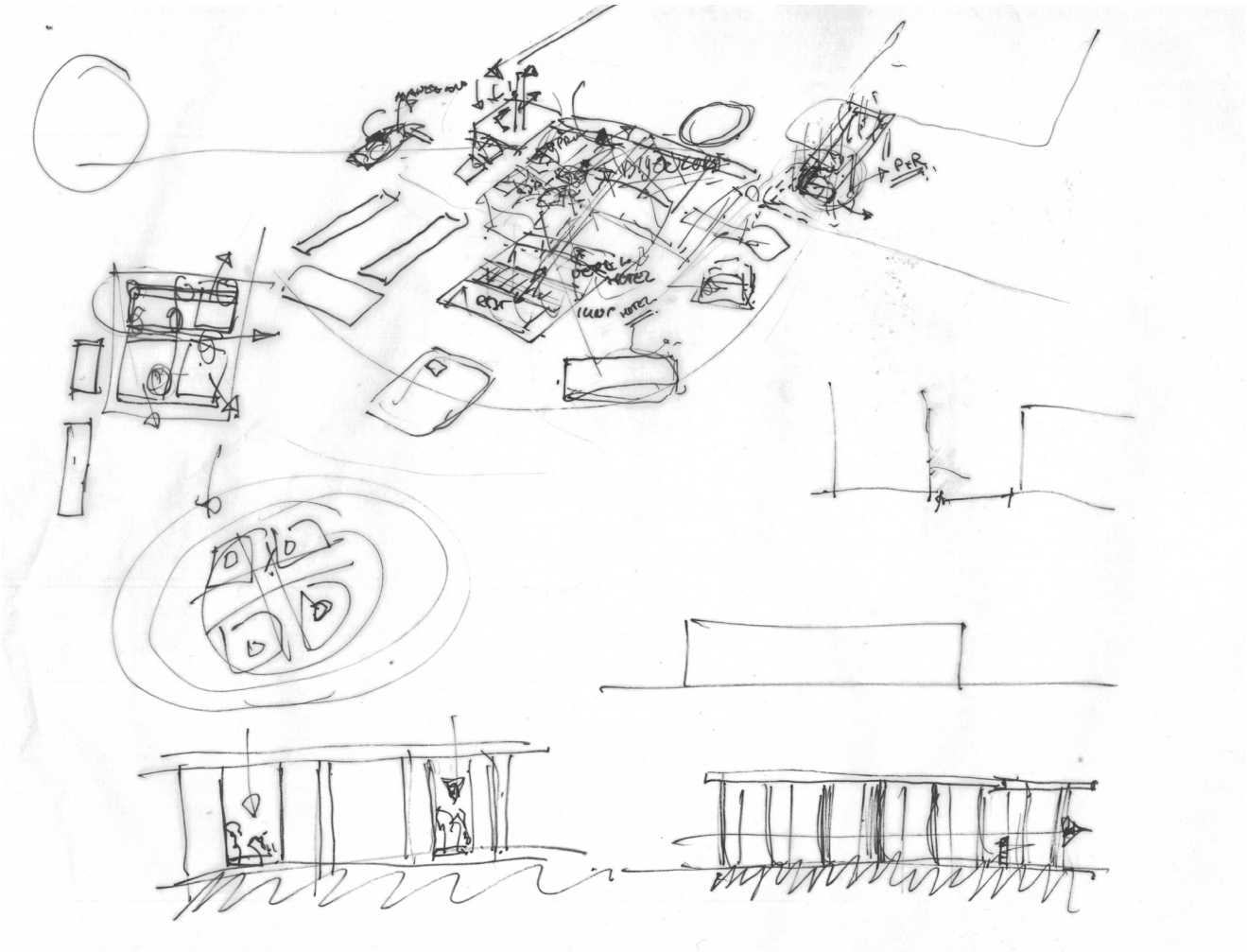


Image 68: Urban plan and spaces developments sketch focusing on the production hall even dividing it.

Production hall

In this stage the main vision for the area were falling into place. How to do this exactly was not clear yet. The idea that the production hall would be central to the Plots In The Wood. This because of its surface area that could be used for many purposes. The focus on this building was important as it is the biggest building in this area and if this is not dealt with than there is no point in treating this area as a whole. The connection between this building and the rest of the site and surroundings was one of the more important aspects during the design process.

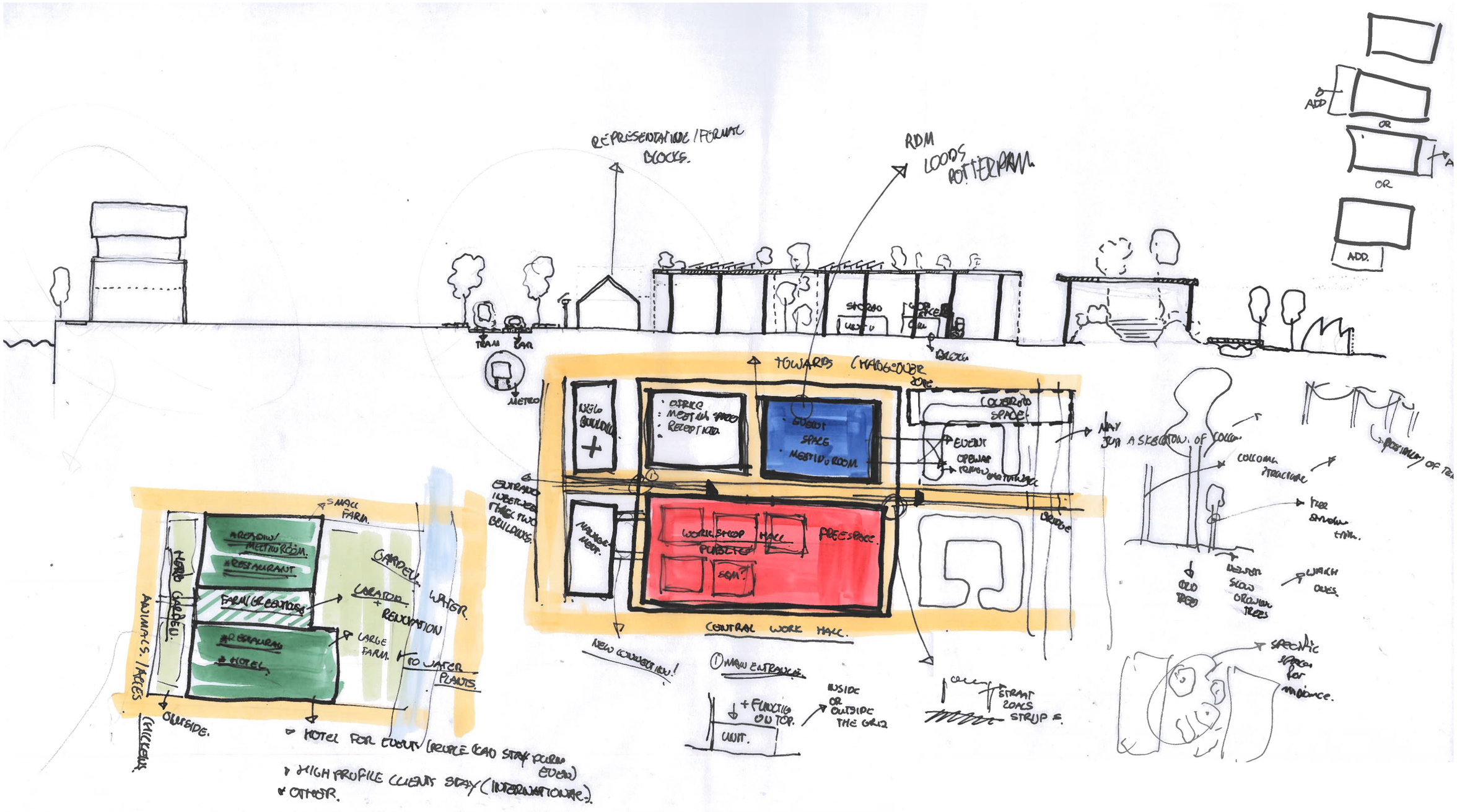


Image 69: Exploring breaking the box into multiple volumes. How will it fit in the area?

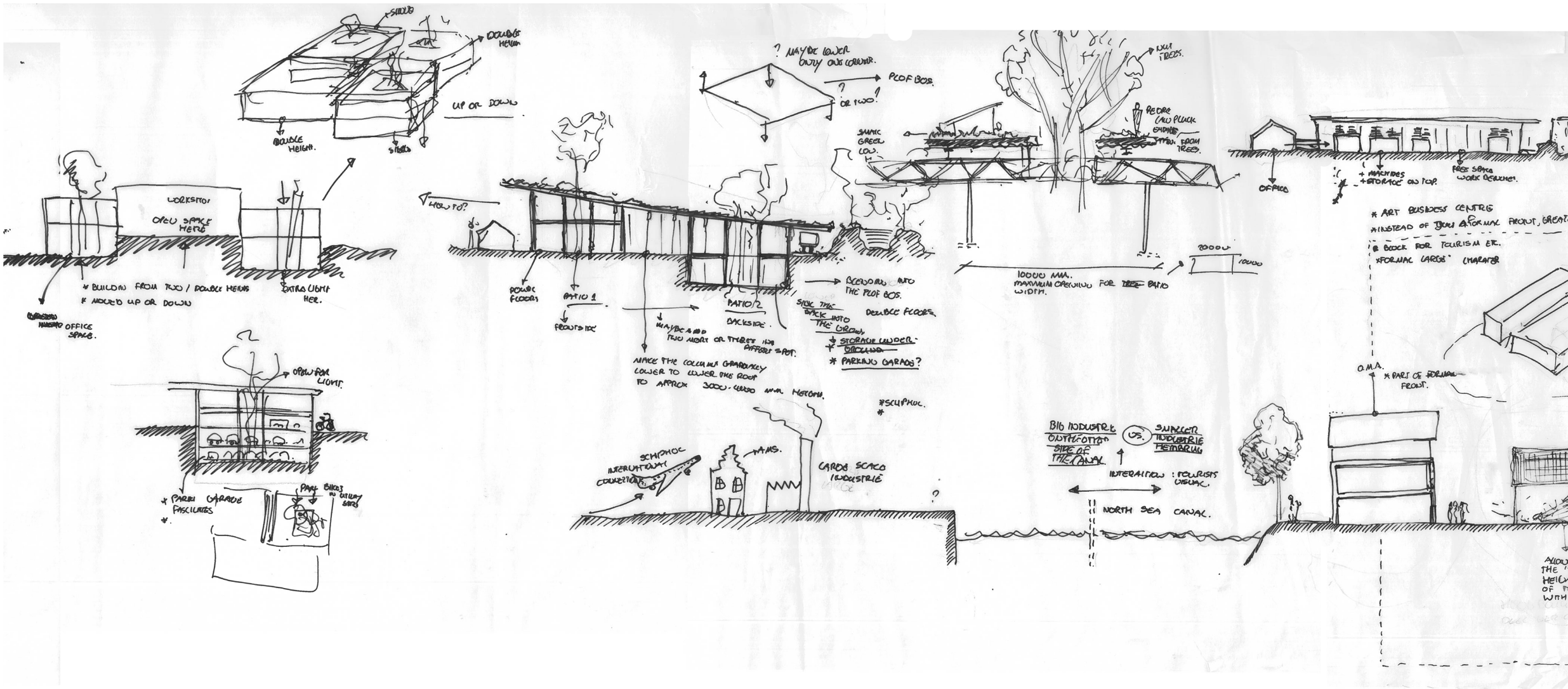


Image 70: The production hall as the center of the Plots In The Woods site. Connecting the box building to its surroundings and making it serving for several programs on the site and Hembrug. Program and functional proposal are based on the existing maker industries and cultural programs in the area.

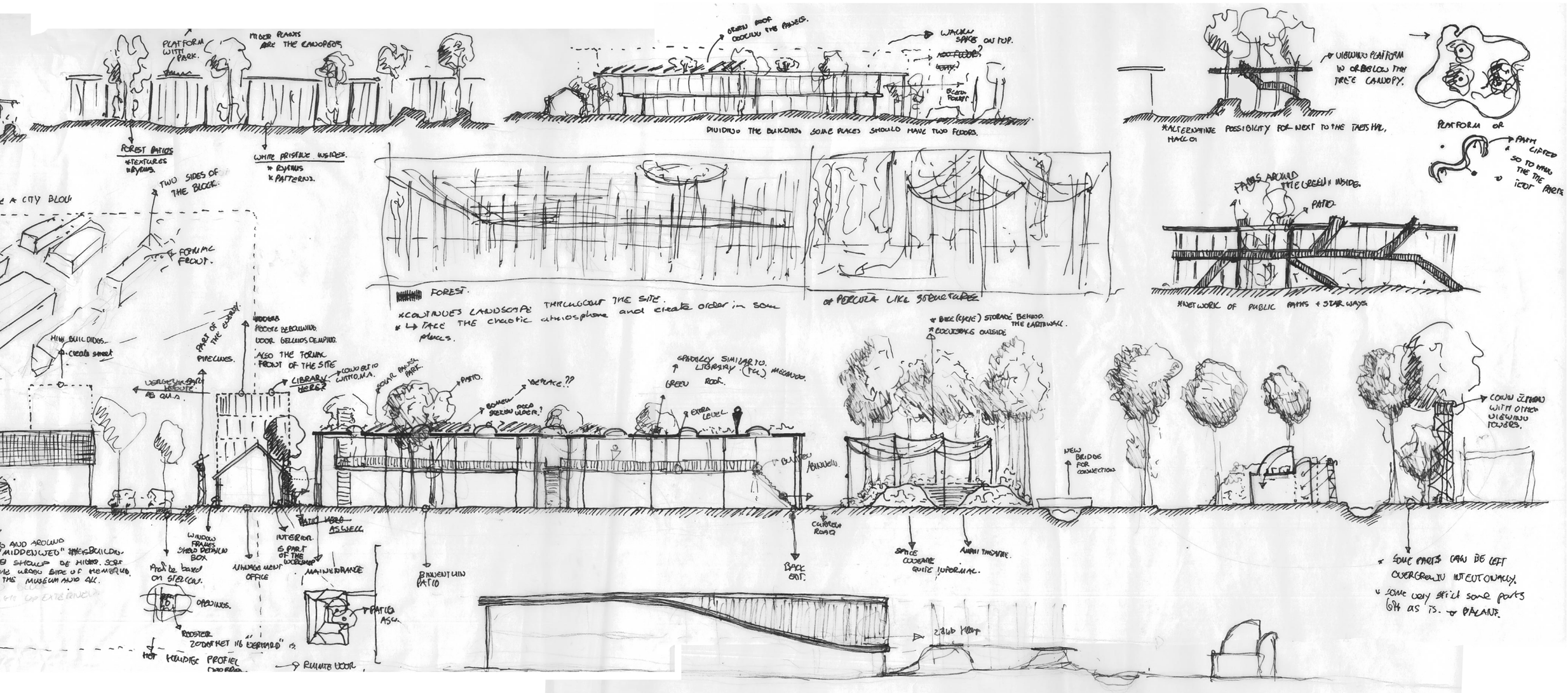

PLATFORM WITH PARK.
OTHER PLANTS ARE THE CANOPIES.
FOREST PATCHES
*TEXTURES
*DYING.
WHITE PRISTINE WISPIES.
* RYHTHS
* PATTERNS.
GREEN ROOF COVERING THE PANELS.
WALKWAY SAFES ON TOP.
ROOF FLOORS?
DIVIDING THE BUILDINGS SOME PLACES SHOULD HAVE TWO FLOORS.
*ALTERNATIVE POSSIBILITY FOR NEXT TO THE TASTS HAL, MACCO
PLATFORM OR
PATH CURVED SO TO MAKE THE TREE ICON PARTS
TWO SIDES OF THE BLOCK.
FORMAL FRONT.
FOREST.
*CONTINUES LANDSCAPE THROUGHOUT THE SITE.
* TAKE THE CHAOTIC ATMOSPHERE AND CREATE ORDER IN SOME PLACES.
OR PERGOLA LIKE STRUCTURES
PATHS AROUND THE GREEN & INSIDE.
PATIO
*NETWORK OF PUBLIC PATHS & STAIRWAYS
HIGH BUILDINGS.
* CREATE STREET
PART OF THE ENSEMBLE
WOODED PEDDLE BELOW WOOD GELLIDS DEMPING.
ALSO THE FORMAL FRONT OF THE SITE
FIRE LINES.
LIBRARY HERE?
COULD BE IN WITH M.A.
PEDDLE BELOW
PATIO.
TERRACE??
GREEN ROOF.
EXTRA LEVEL
SPATIALLY SIMILAR TO LIBRARY (TU) MECANOO.
* BIKE (CYCLE) STORAGE BEHIND THE EARTHWALL.
* EDUCATING OUTSIDE
NEW BRIDGE FOR CONNECTION
COULD LINK WITH OTHER VIEWING TOWERS.
WINDOW FRAMES SHIELD BEHIND BOX
INTERIOR IS PART OF THE BOERDERIJ
MAINTENANCE
BUILDING WITH OFFICE
PATIO
BACK ENT.
CORRIDOR ROAD
SPACE COULD BE QUITE INFORMAL.
AMPHI THEATRE.
* SOME PARTS CAN BE LEFT OVERGROWN INTENTIONALLY.
* SOME VERY STRICT SOME PARTS GET AS IS. & BALANCE.
OPENINGS.
ROOSTER
HOT HOLLIDGE PROFIEL
RUINATE DOOR



Image 71: Plan drawing accompanying the sketches on the previous spread showing the links to the different surrounding programs and functions.

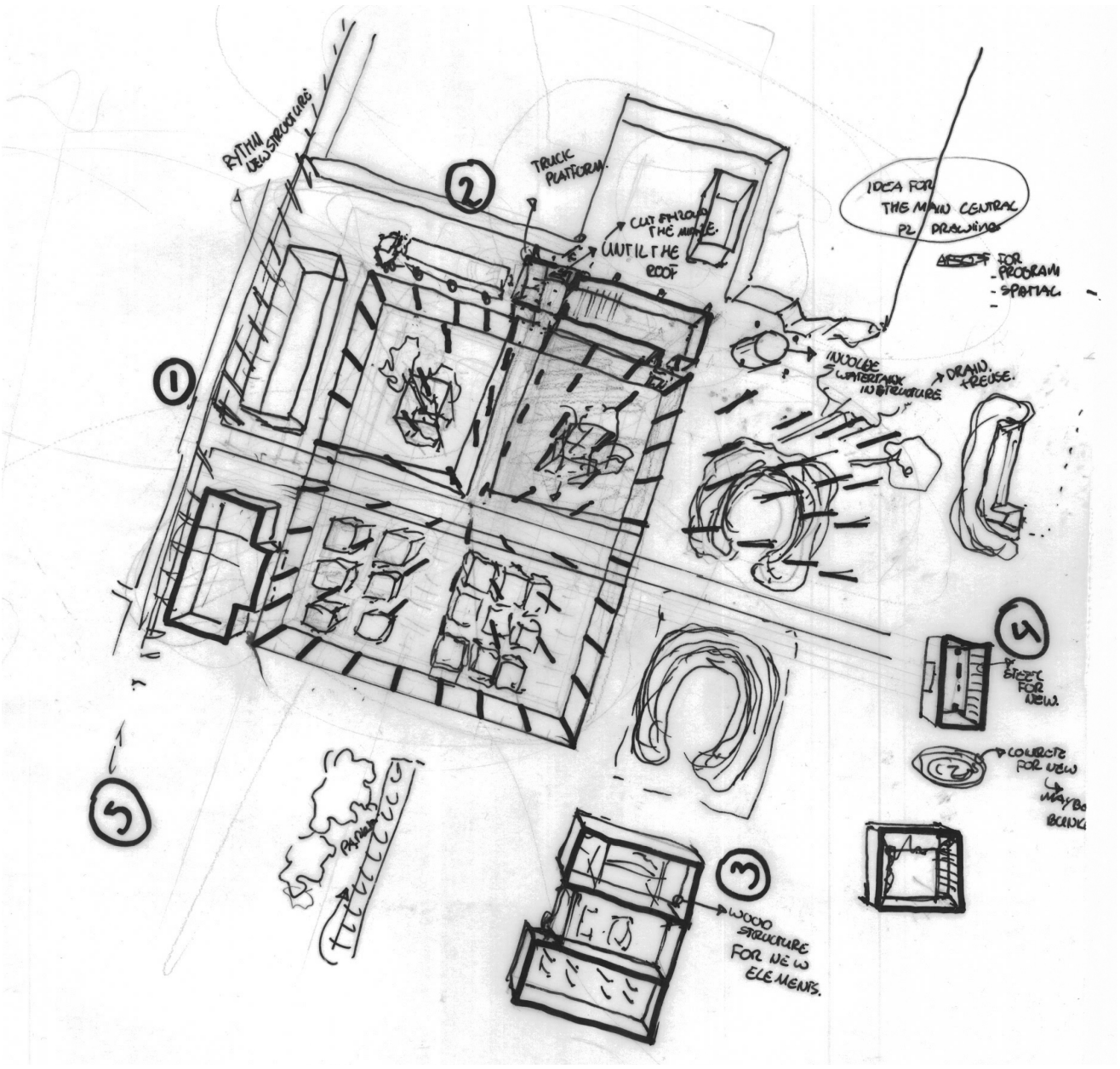


Image 72: The main space of the production hall linked spatially through columns and a blend in the with the trees.

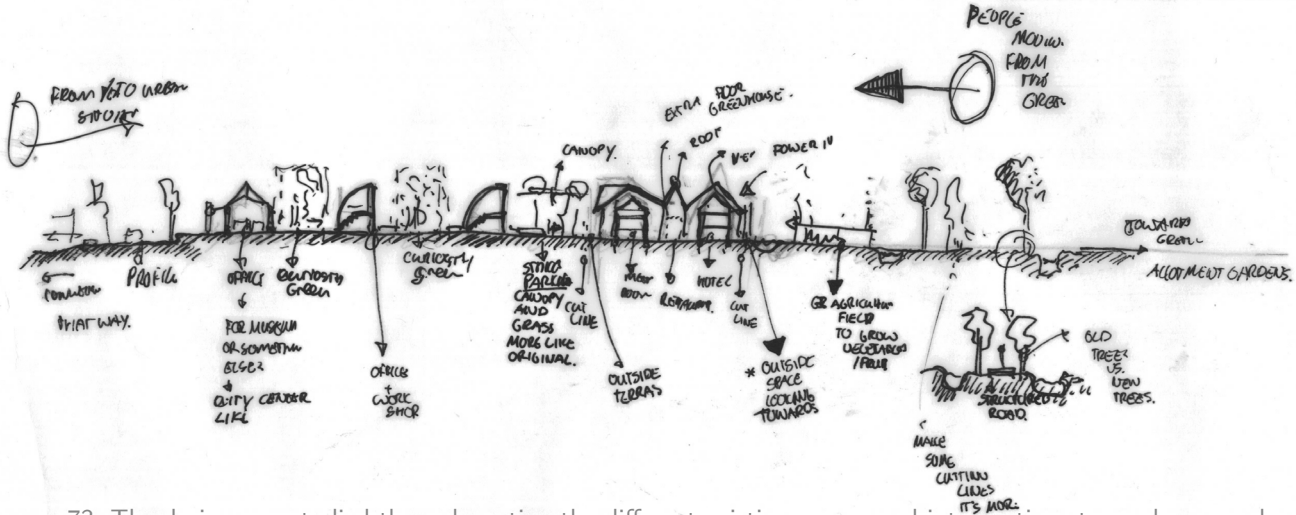


Image 73: The design was studied through section the different existing spaces and interventions to see how people could move through the different spaces and programs. Also predicting possible interactions. Sketch for a P2 presentation drawing.

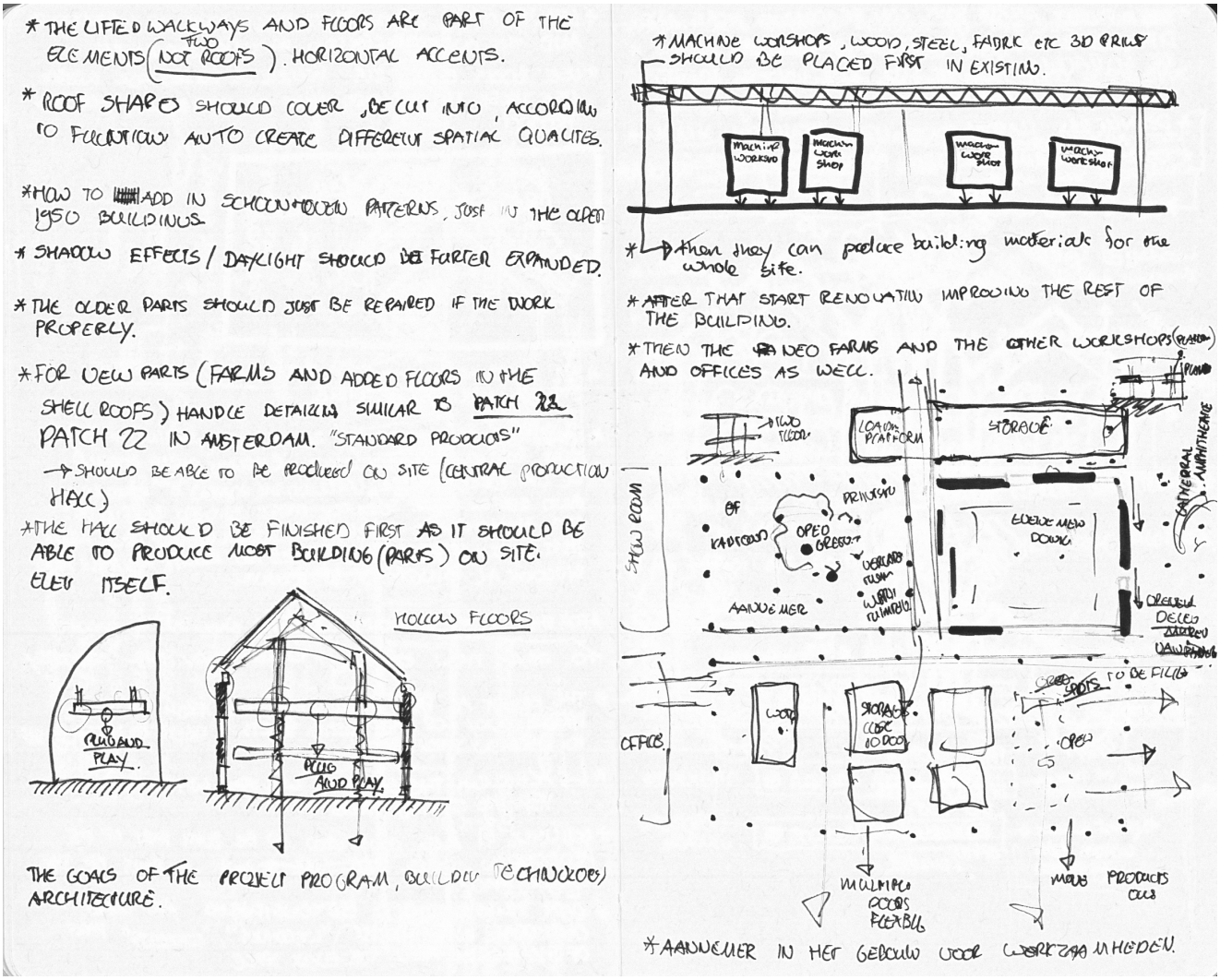


Image 74: Close to the P2 linking of different relations between aspects like, space, use, materials and program need to be defined to help the project forward. Sketch from sketchbook 16.05.2019.

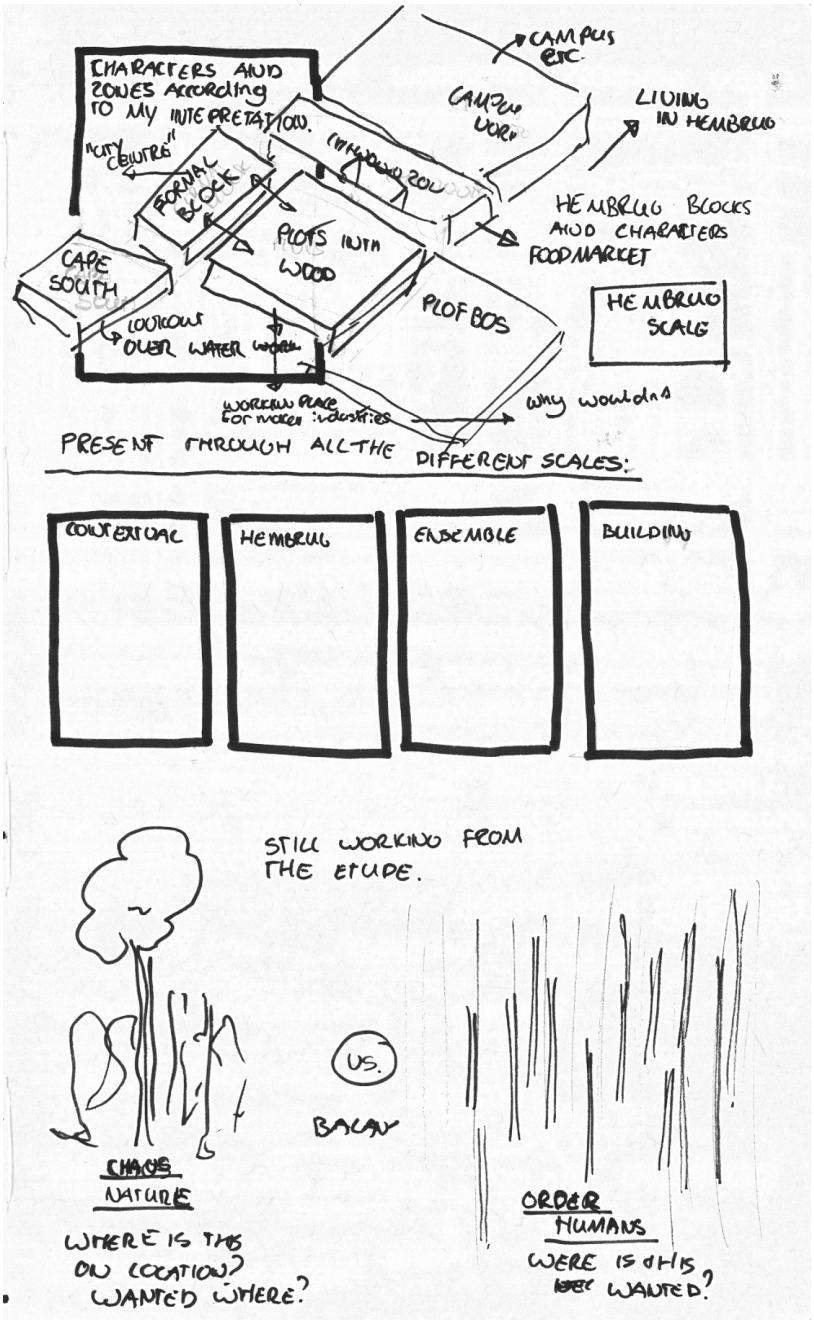


Image 74: Summarizing concepts and considerations for the P2 presentation. Sketchbook notes from 16.05.2019.

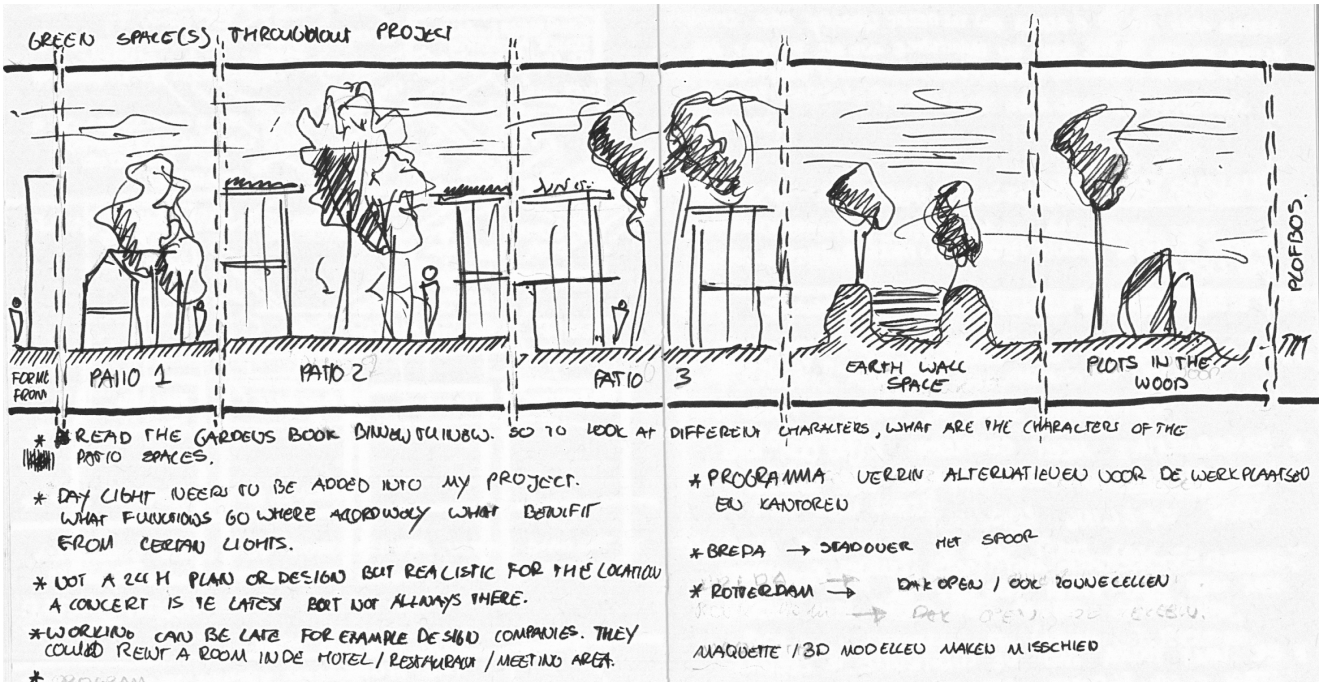


Image 75: Designing on landscape, section sketch of the different spaces in the Plots In The Wood. The production and event hall is considered as part of the landscape design, with the outside spaces. Sketchbook sketch from 17.05.2019

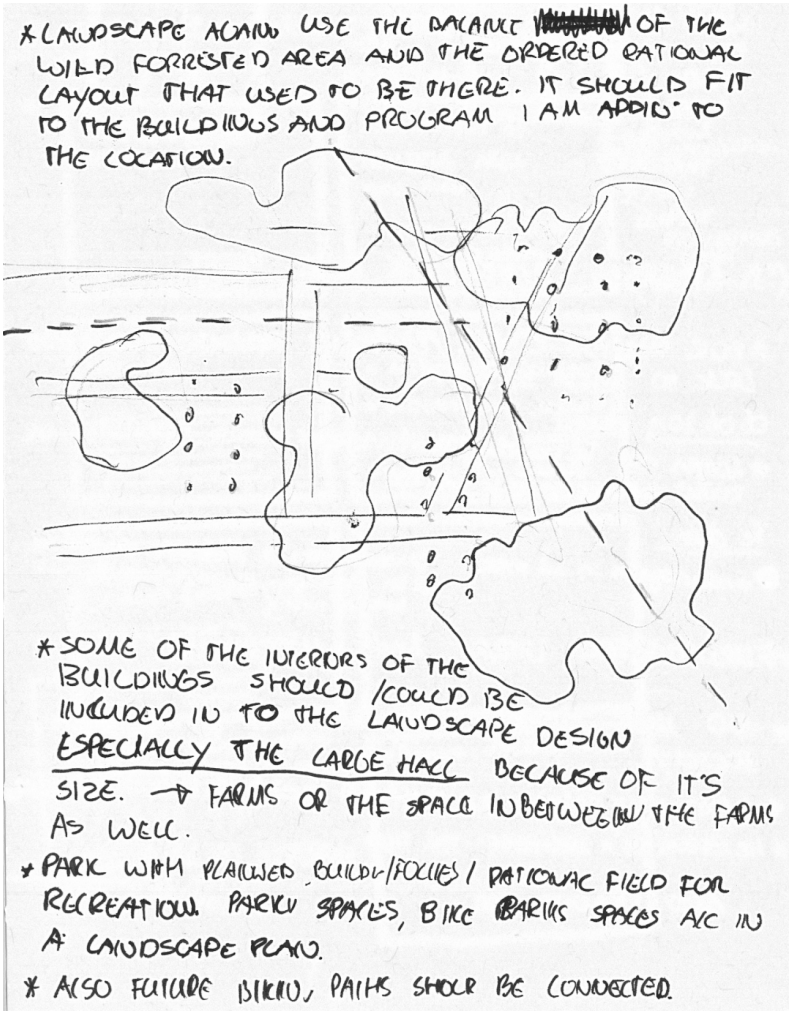


Image 76: Designing on landscape, notes and sketch on creating viewing points and hierarchy of spaces. Sketch from sketchbook on 05.06.2019.

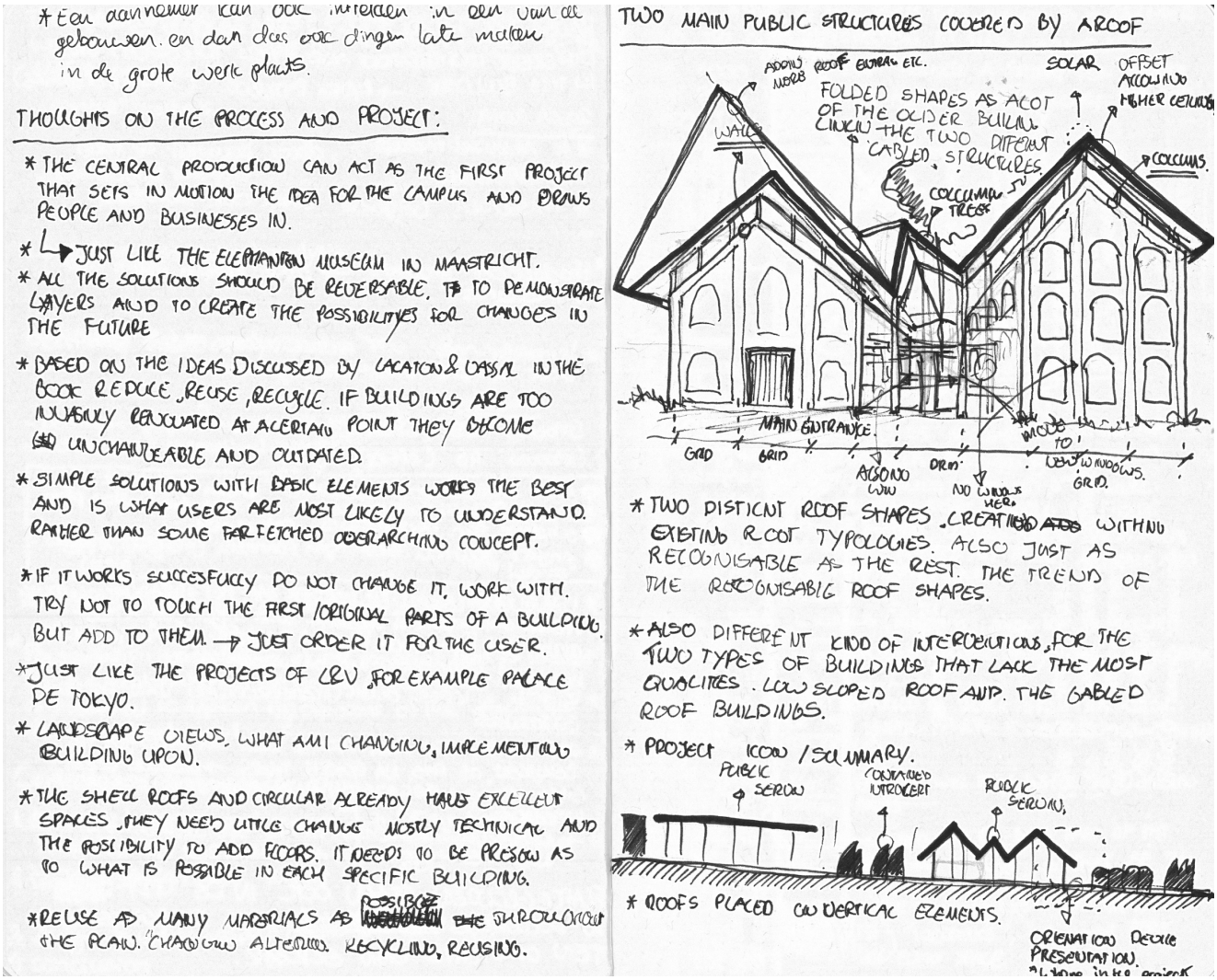


Image 77: Defining and summarizing the project, columns and trees as a binding factor on site with specific roof shapes as markers for the public parts of the site. Sketchbook 29.05.2019.

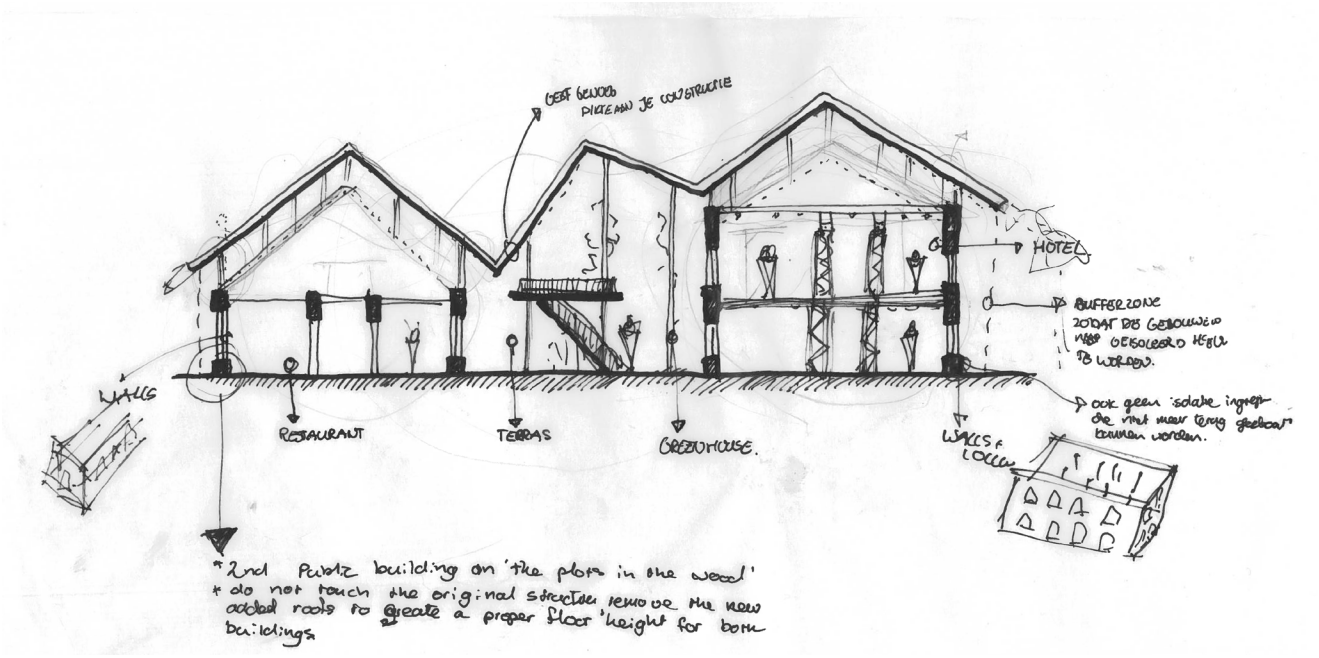


Image 78: Design idea of a new roof covering the farms and linking the spaces of the two buildings.

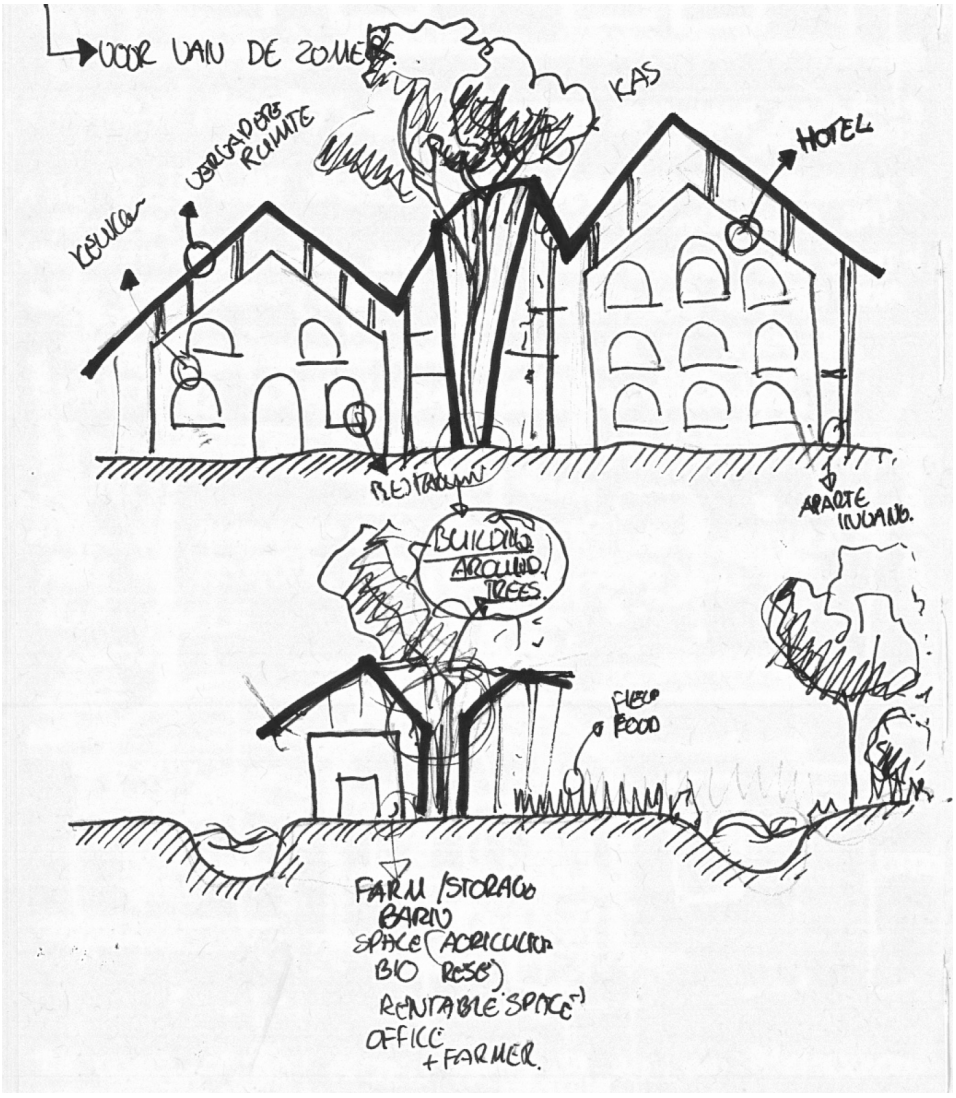


Image 79: Roofshapes and garden houses in the Plofbos. Sketchbook 29.05.2019.

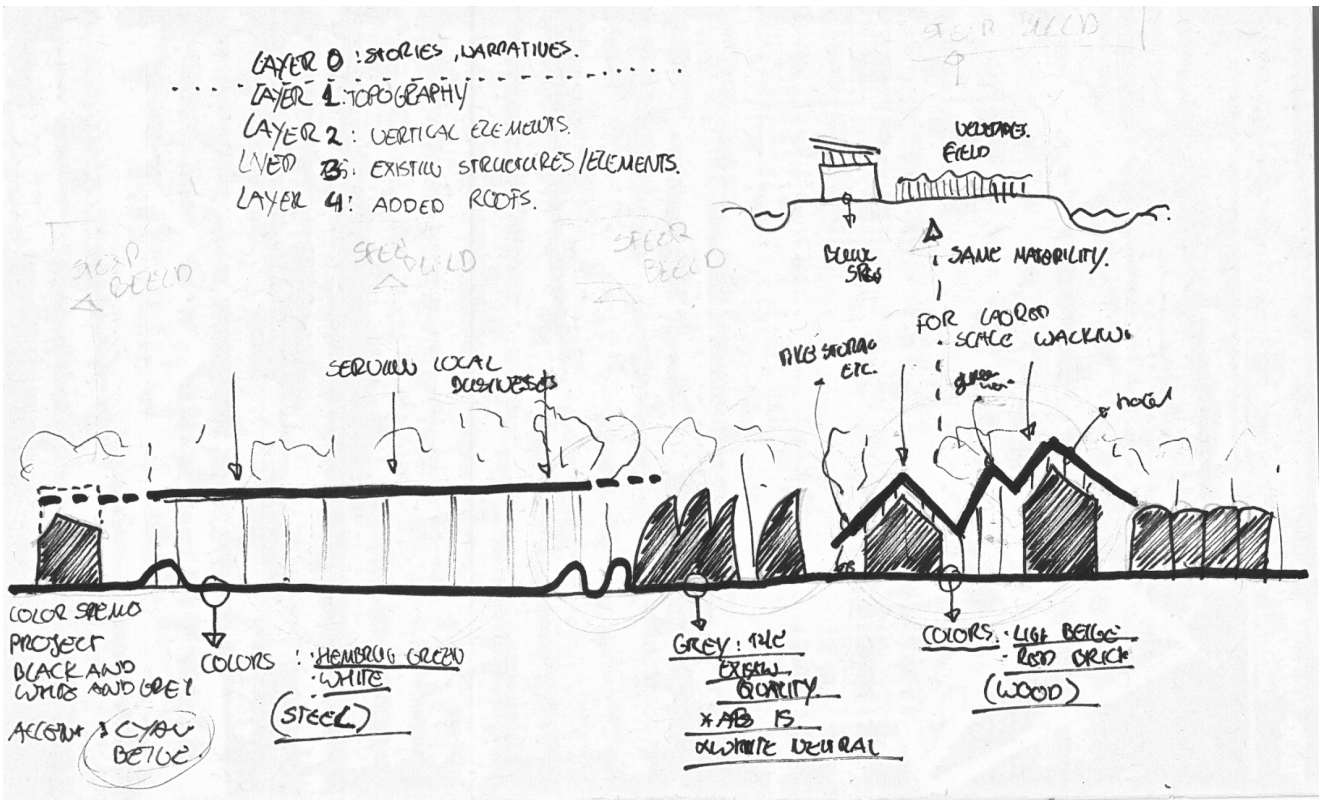


Image 80: Site section from sketchbook 29.05.2019.

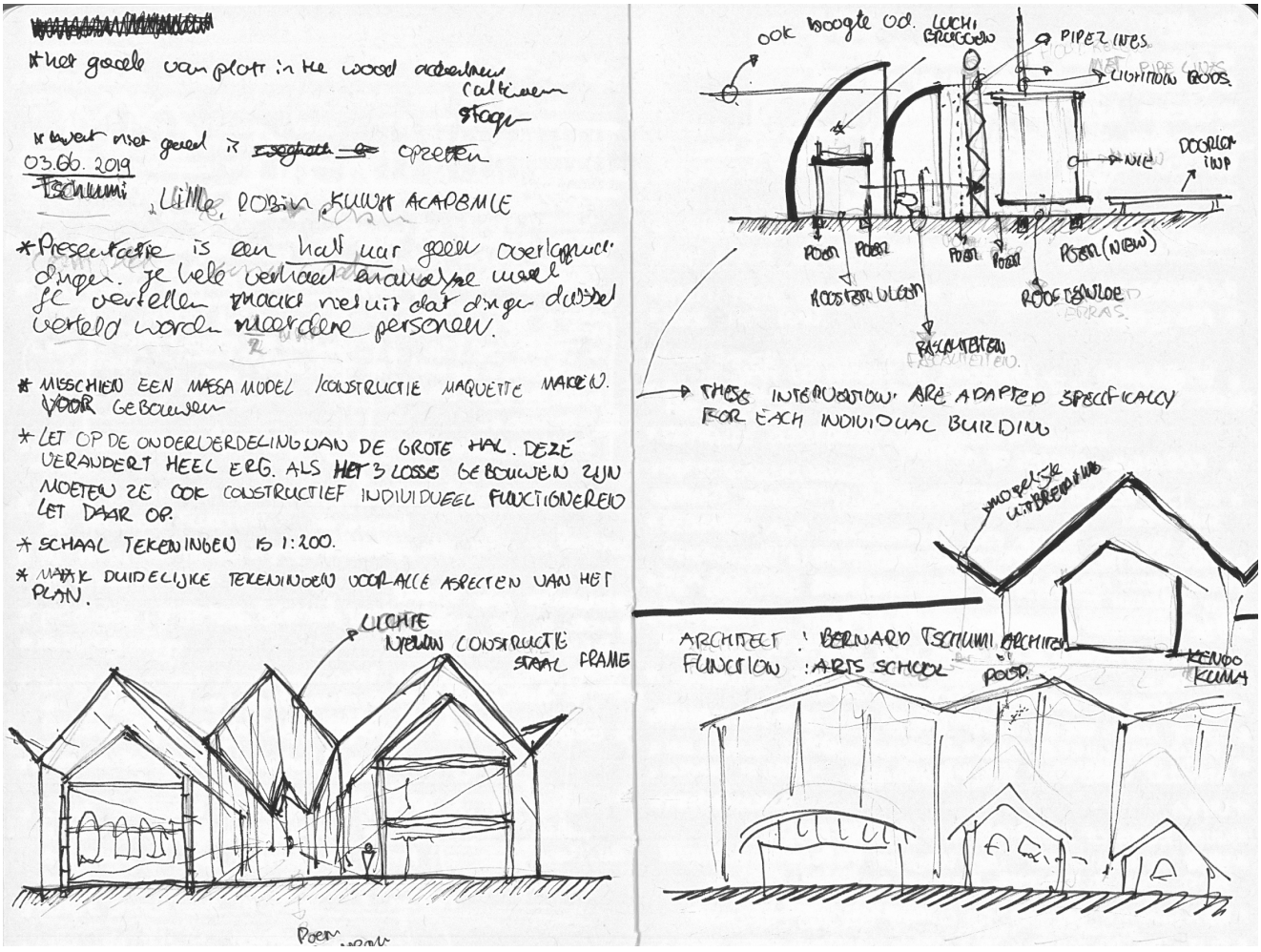


Image 81: More roofshapes, a reference and other building design ideas. From sketchbook 03.06.2019

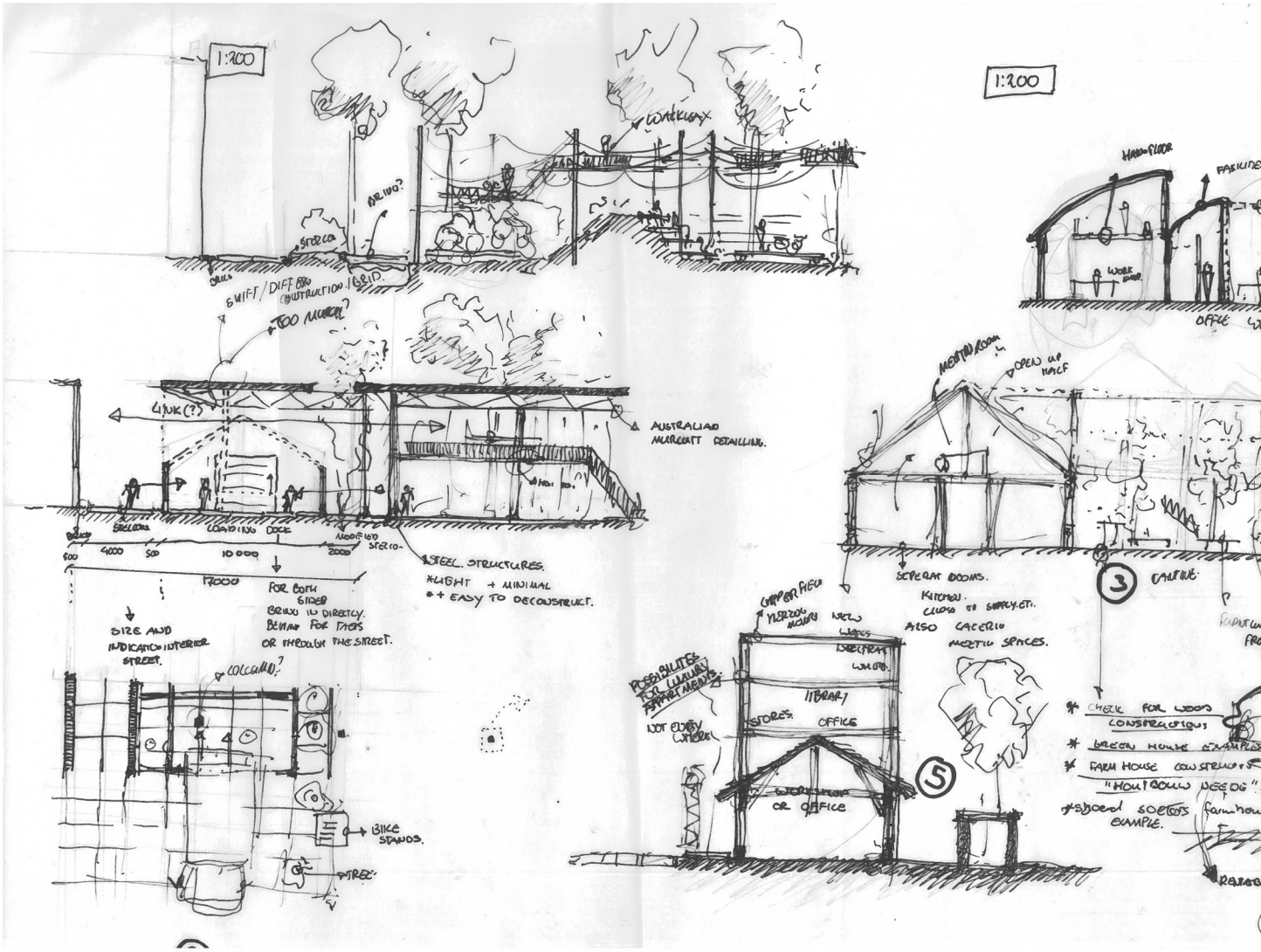


Image 82: Exploring shapes for the farm buildings and ideas on new public spaces in and around the plots in the wood. Concept of addition for the shell roof buildings.


STEEL/CONCRETE
ADDING TO BUILDG.
OFFICE
4
BRICK STAY IN PLACE.
HOTEL
MOSTLY WOOD CONSTRUCTION FOR NEW
IMPROVING WITH INSULATION
"UP TO DATE" WITHIN EXISTING
OLD
HOTEL
STORAGE
* ORGANISATION
* COMPANIES POSSIBILITY
SIZE HOTEL ROOMS + FEELINGS
EXISTING LIFT
CONCRETE STAIRS / CULPTURE
SHOULD BE A ROOF LIGHT
WOW MANY CANTADD??
MAKE HIGER OR OPEN
ADD HOTEL FLOOR
HOTEL
HOTEL HALF.
DIFFERENT ROOF STRUCTURE WOOD + EASILY REMOVABLE.
HIGER.
EXTRA ROOF LIGHT.

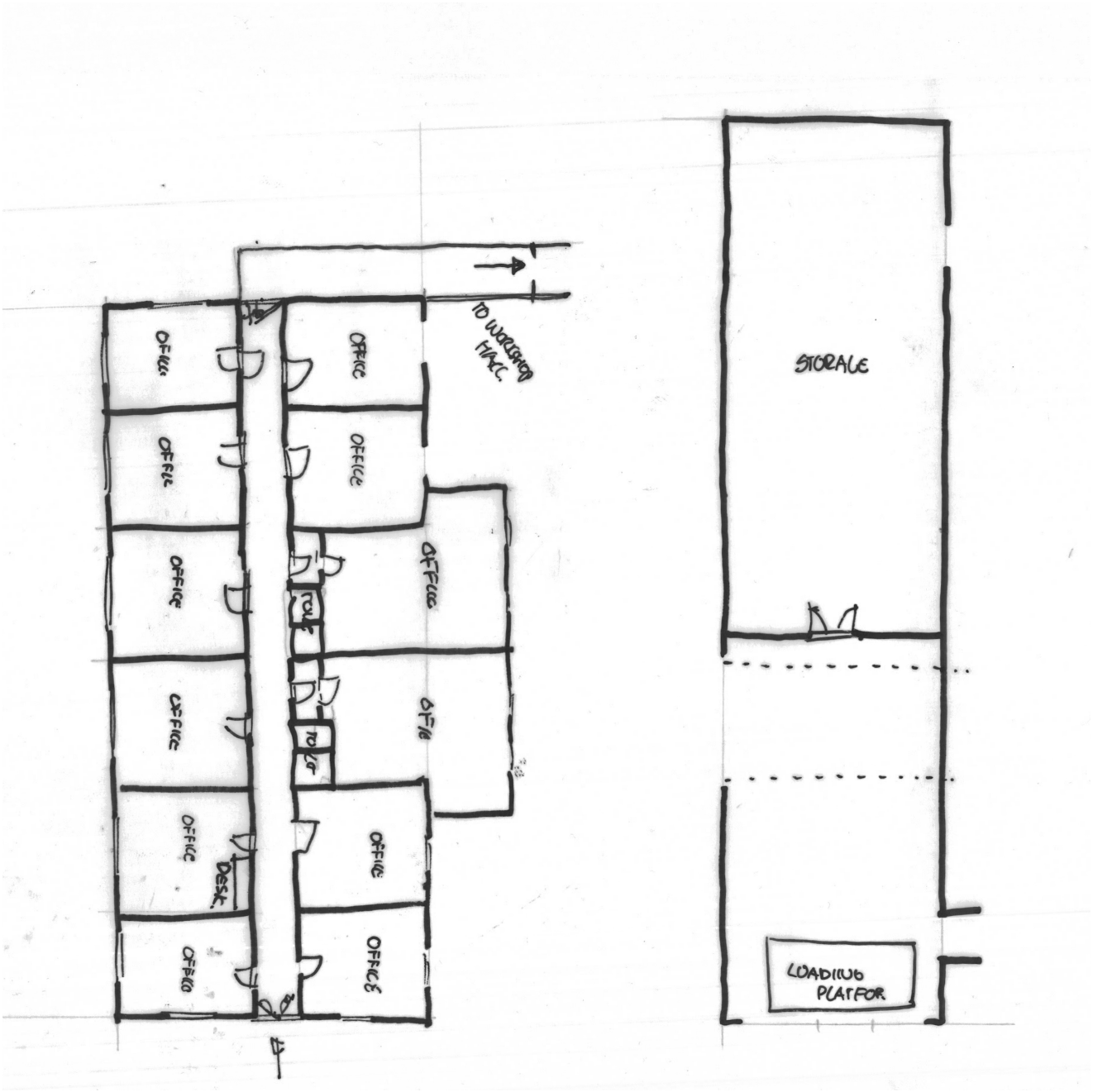


Image 83: Unused drawing ideas to get an idea about the spaces in the two buildings attached to the production hall.

Precedents

Reference Projects

During the p2 phase of designing I looked at different references for the project. These were mainly for the production hall, to help figure out different possibilities to make it less massive and more accessible. Some smaller scale projects I looked at for the other buildings to help figure these out spatially.

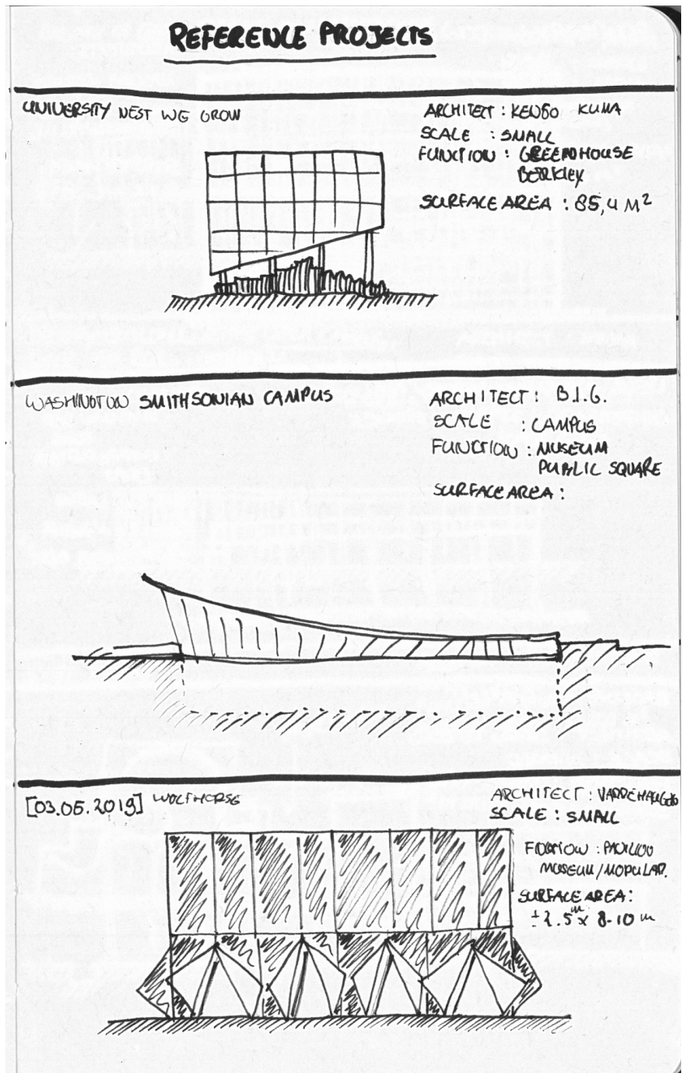


Image 84: Reference buildings sketches keeping the different scales of the buildings on site in mind. From sketchbook 02.05.2019.

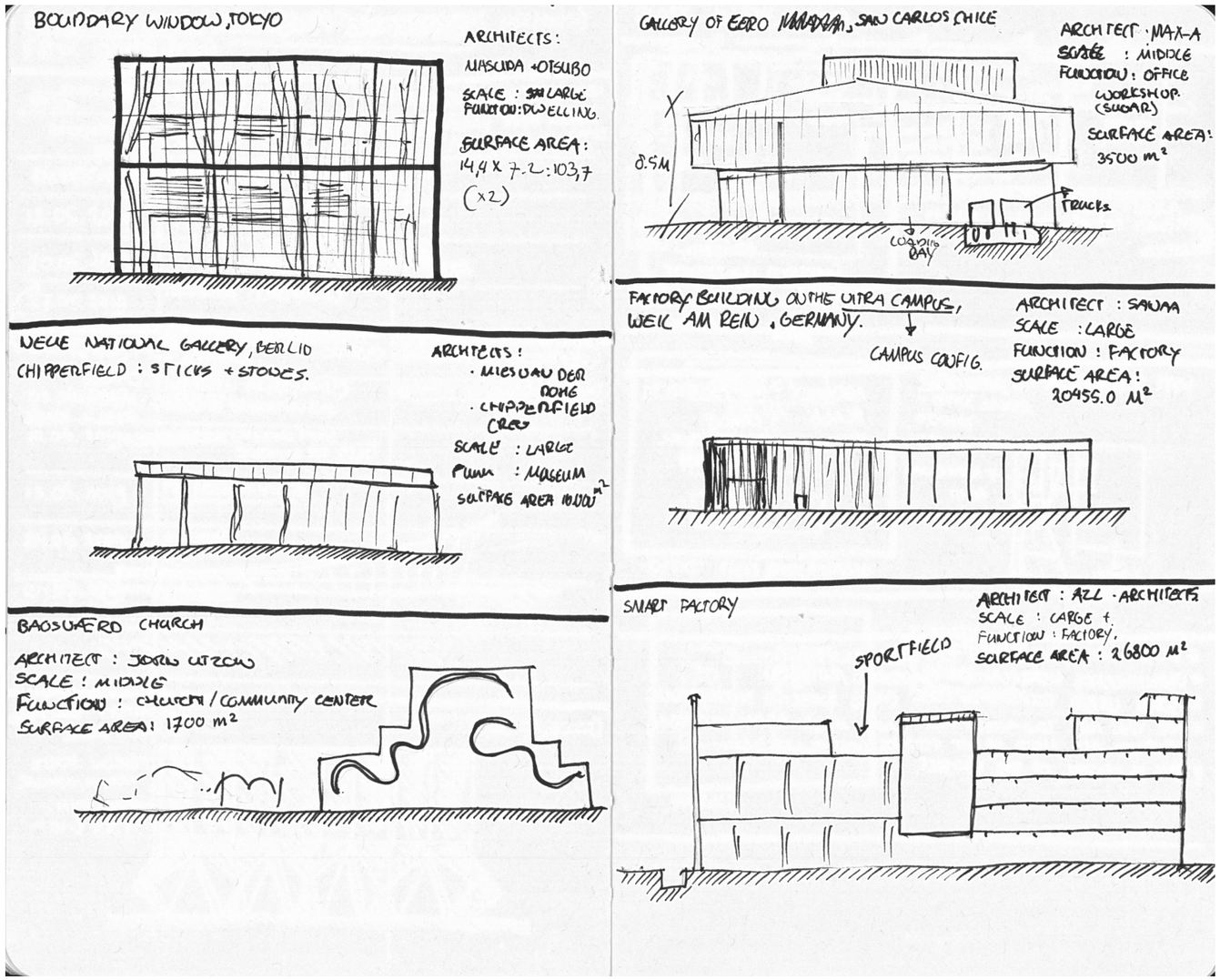
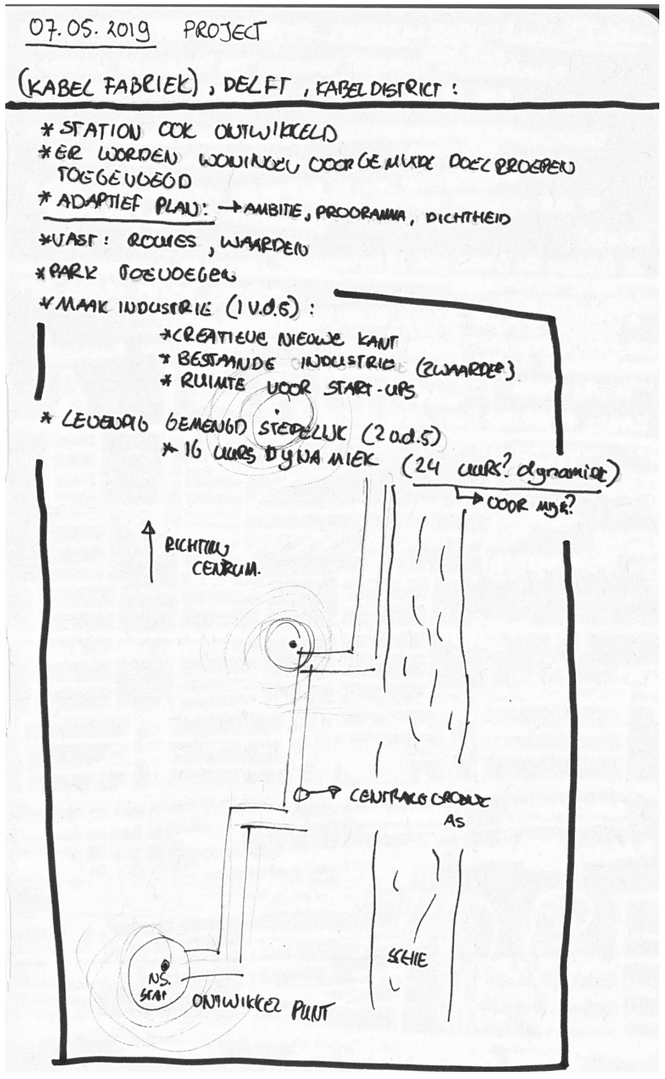


Image 85: Reference buildings sketches keeping the different scales of the buildings on site in mind. From sketchbook. 03.05.2019.



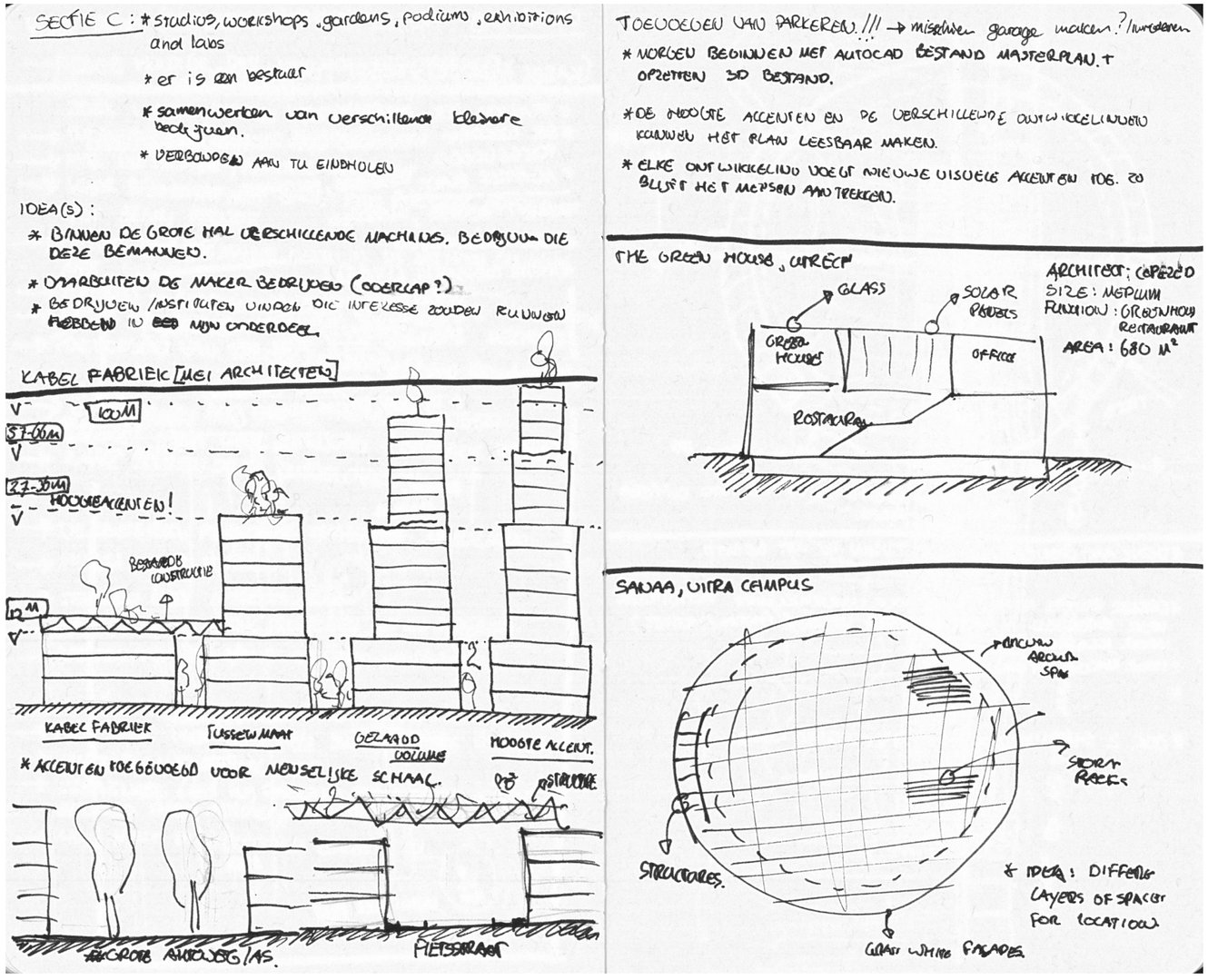


Image 86 & 87: Studying the master plan for the Kabelfabriek in Delft. Also some additional references found. From sketchbook on 07.05.2019

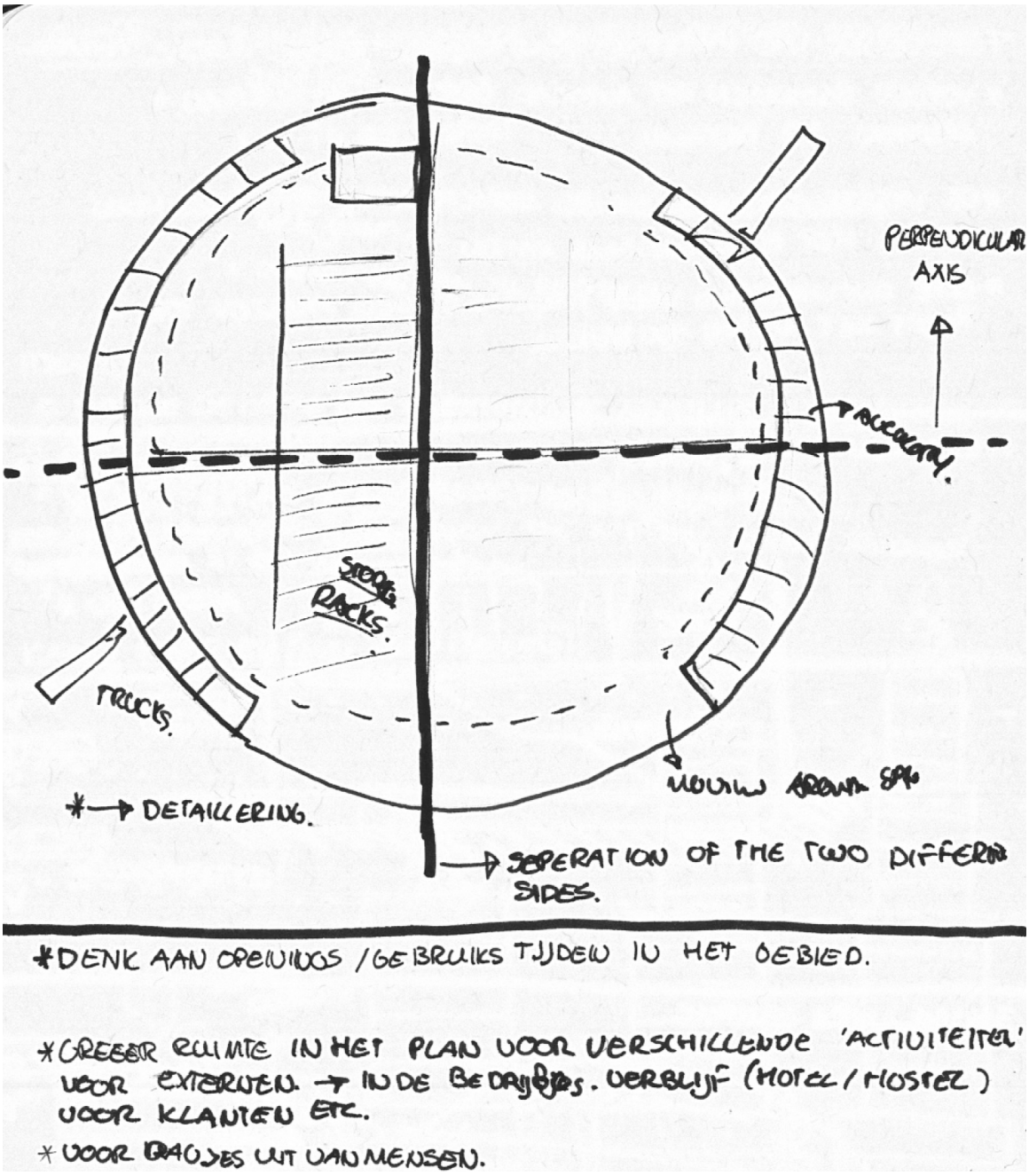


Image 88: Continuation of the sketches on the SANAA Vitra buildings from the previous page.

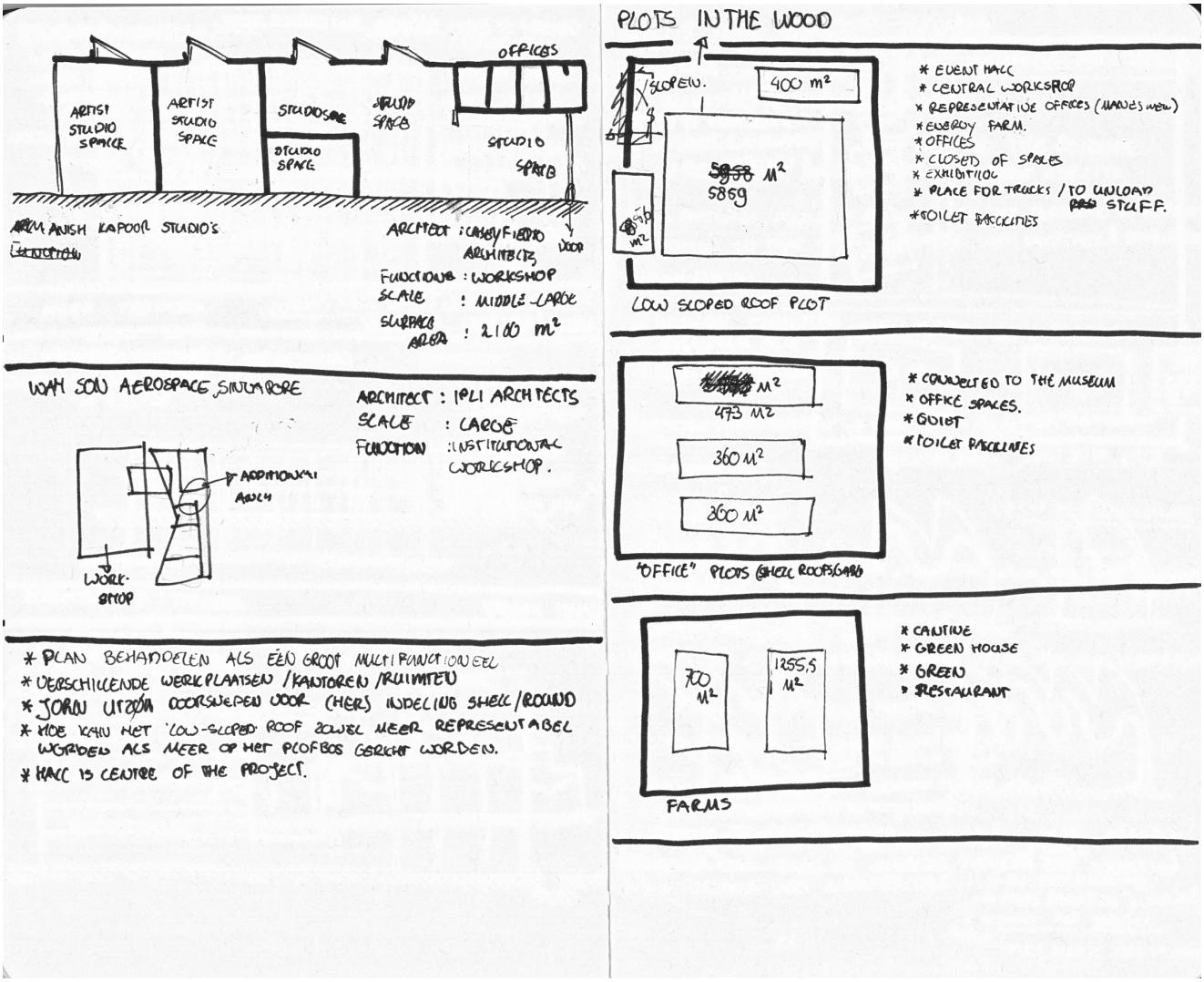


Image 89: Reference buildings sketches keeping the different scales of the buildings on site in mind and starting to figure out more exact programs for the buildings in the Plots In The Woods based partly on these references. From sketchbook 03.05.2019.

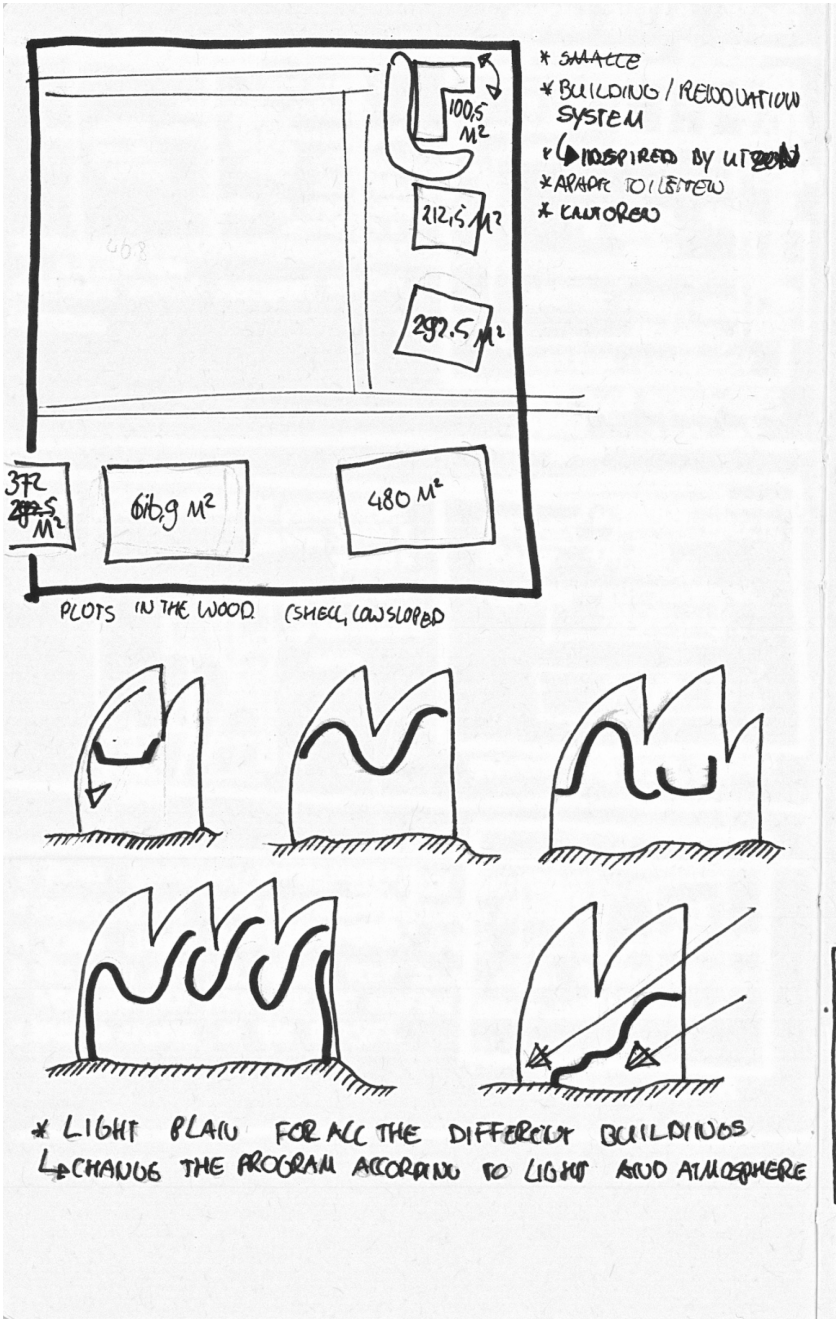


Image 90: Spatial thoughts on the different smaller buildings, and taking daylight as central starting point for these buildings. From sketchbook.

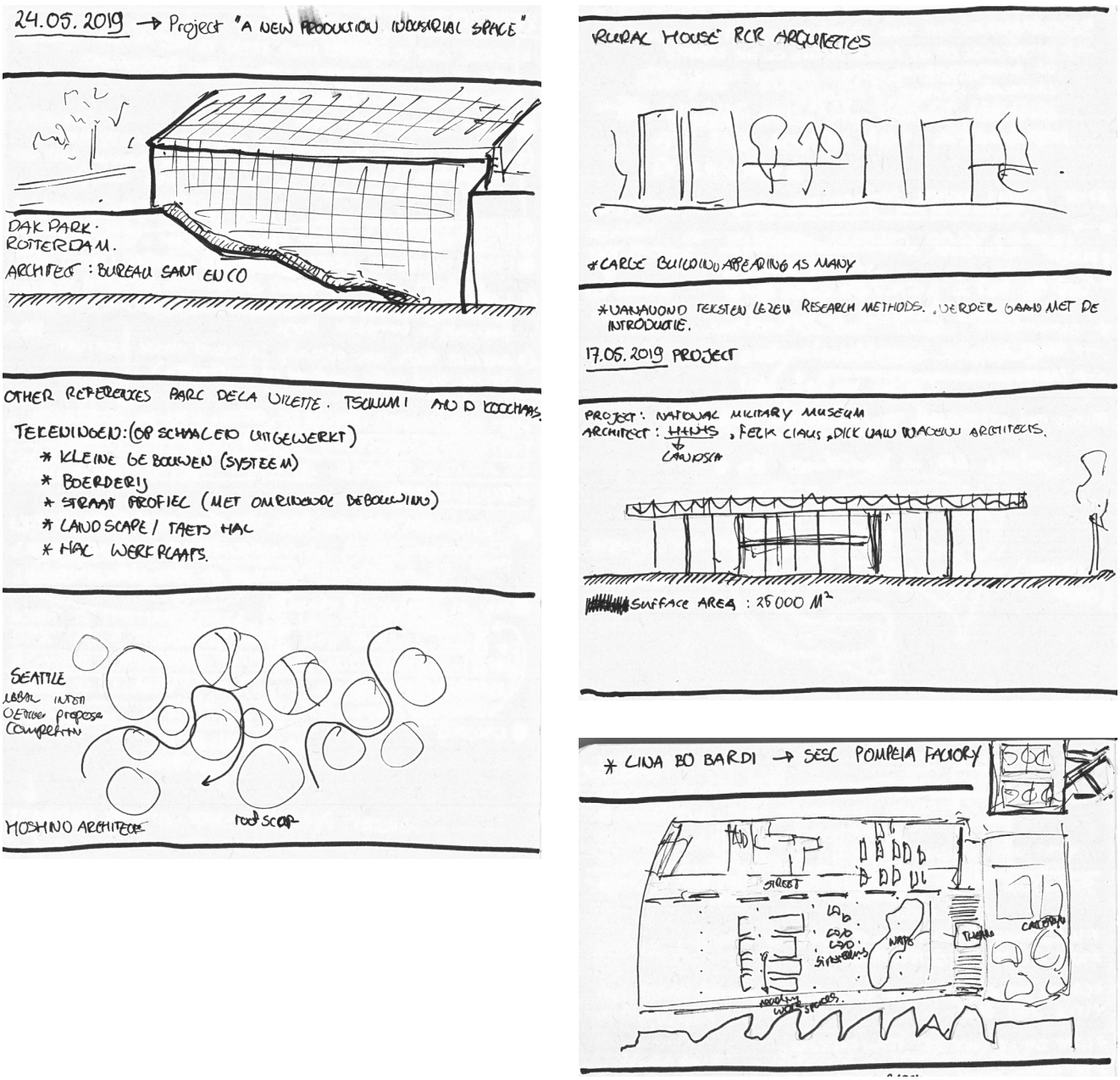


Image 91, 92 & 93: More sketches from later during the project closer to the p2 presentation. From 16.05.2019, 24.05.2019 & 02.06.2019.

P2 Presentation

Description

The P2 presentation marked the end of the first half of the graduation project. The result was a design proposal for a production space rich with different types of buildings that was aimed to make them function as one whole *production biosphere* again. Just like it did previously.

The design was presented with the analysis at the beginning. The urban or site plan for the site was the central theme. The designs for the different buildings were quite minimally designed.

There is still a search for a balance between not touching the buildings and leaving nothing of the previous situation.

The design was mainly developed and presented with the three large sections, also presented in the next few pages along the important other material.



Image 94: Overview perspective drawing showing the different inside production and working spaces connected with walls and columns connected to the forest with just the trees and the spatial elements ans columns and walls.

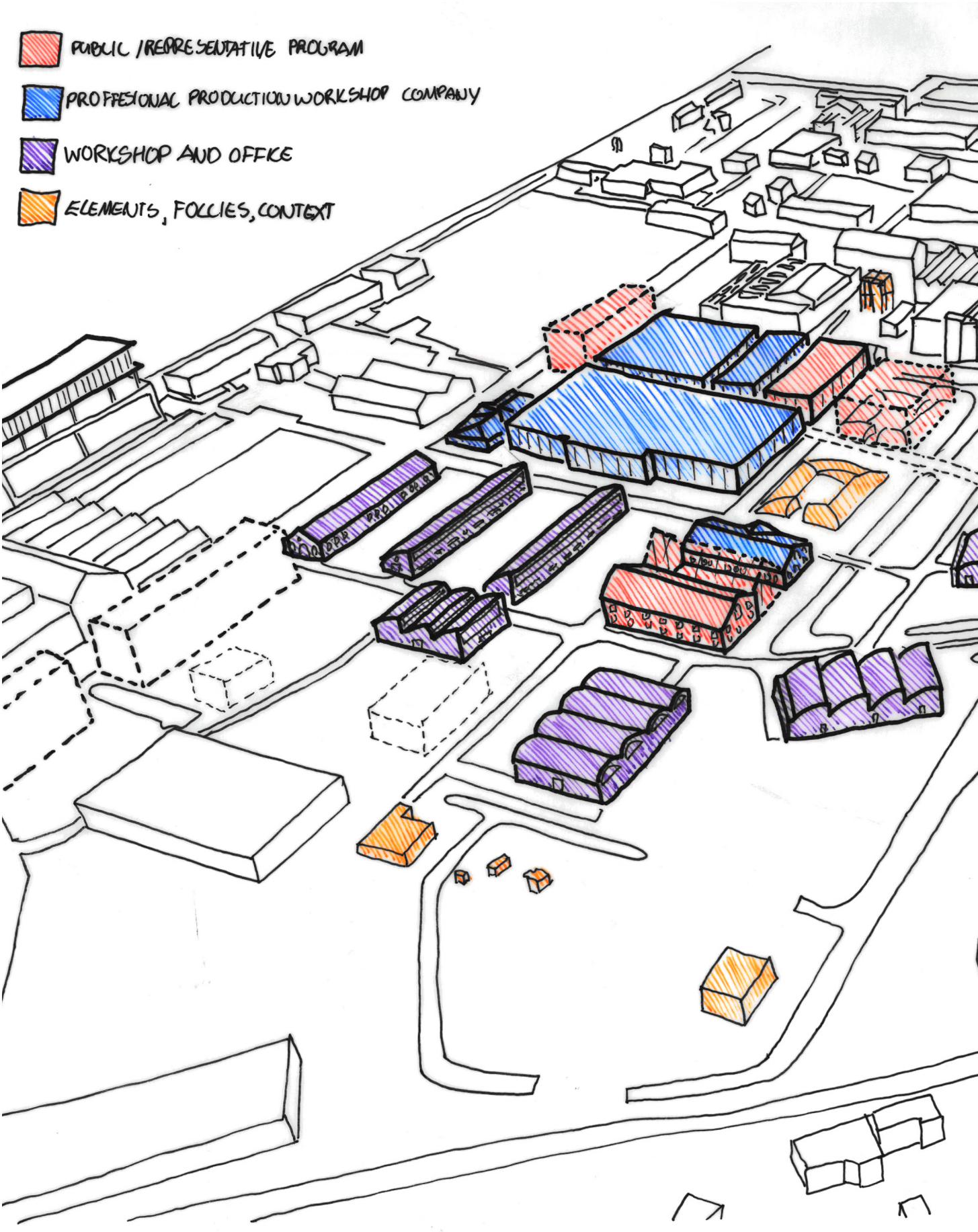


Image 95: The program as it was defined during the P2 presentation. It consists of different public and professional working and using spaces in this forest setting.



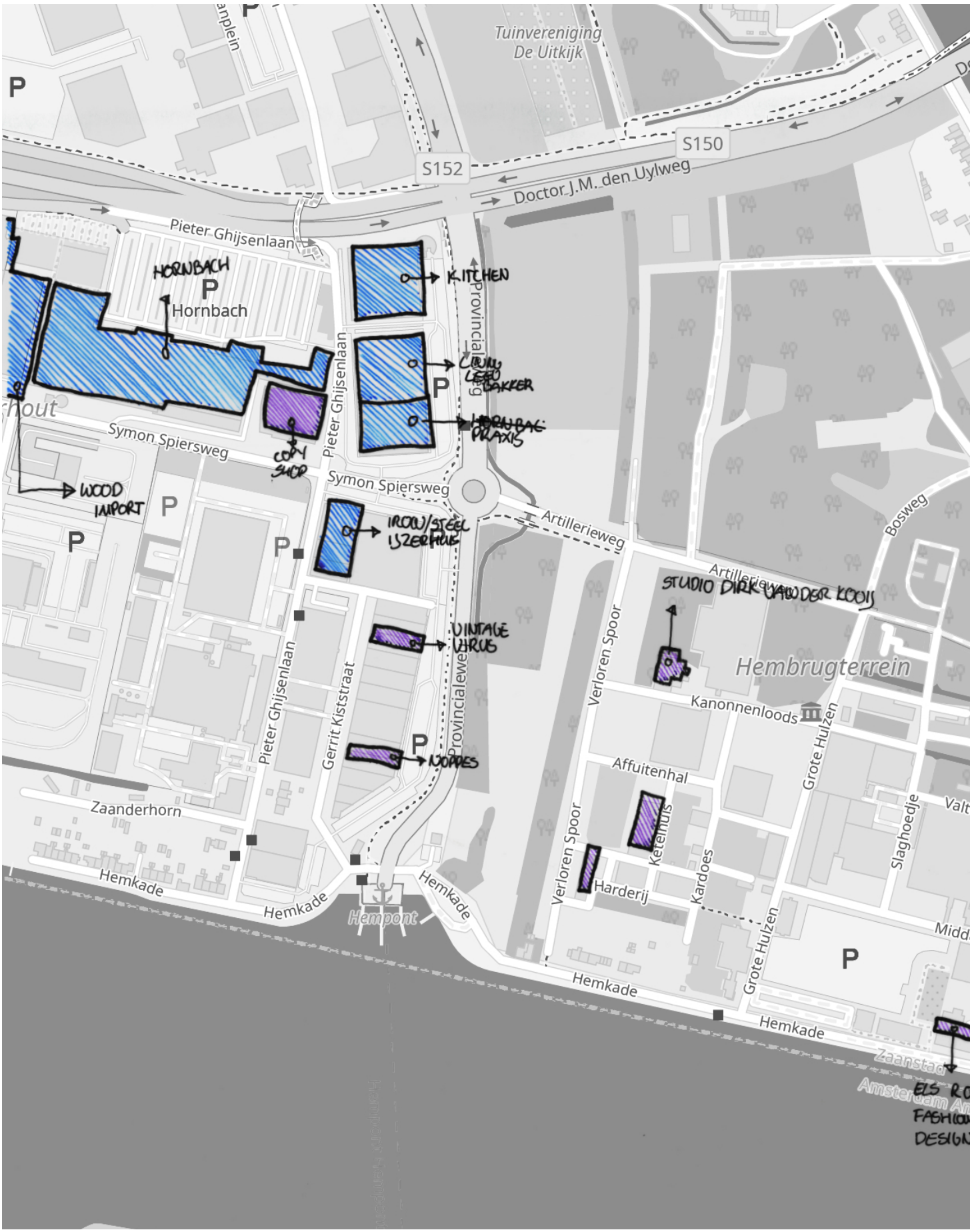


Image 96: The different offices, workshops and creative businesses related to creating in the area in and around Hembrug and The Plots In The Woods.


Zijkanaal G
Havenstraat
Zuiddijk
Gemeentelijke
Begraafplaats
Zaanstad
Wibautstraat
Noorder IJ- en Zeedijk
Vredeweg
Vredeweg
Uiterdijk
Zomerdijk
Zomerdijk
Uiterdijk
Havenstraat
Oliekokerij
ARTIST
PHOTOGRAPHY
FLEXKEUKEN
Draaibank
Middenweg
Havenstraat
CONTRACTOR
TIENG RIETVELD
MEUBELS & INTERIEUR
STICHTING
VRIJ GLAS
Vulhuis
Warmperserij
Hemkade
Havenstraat
Zaandam

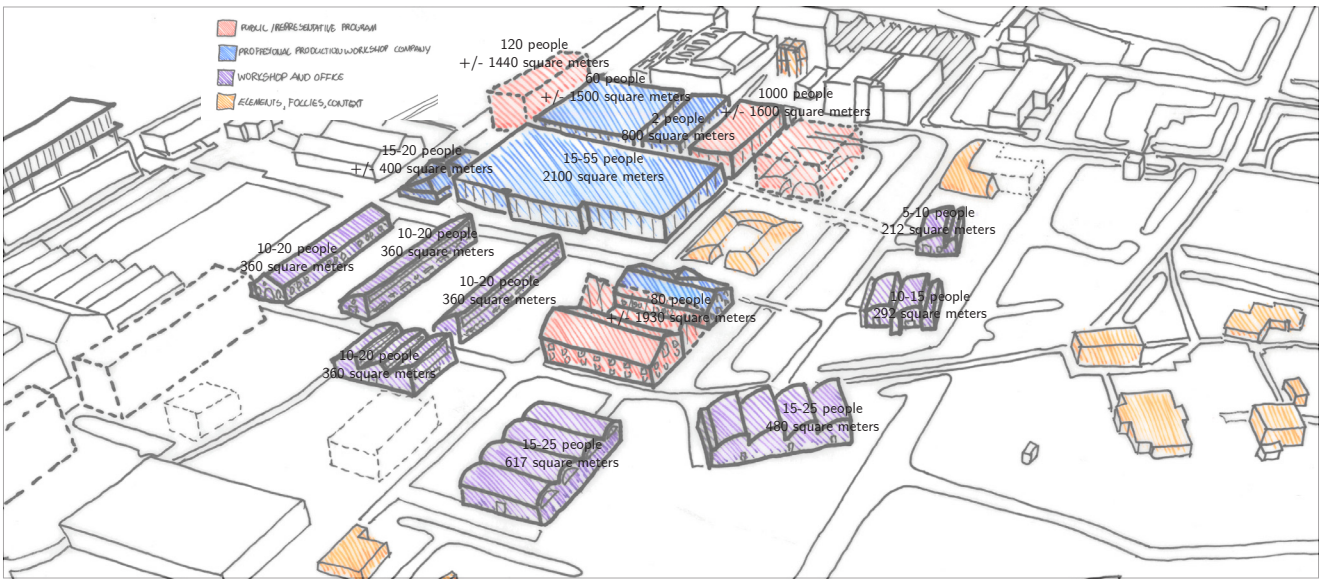


Image 97: Users and surface area.

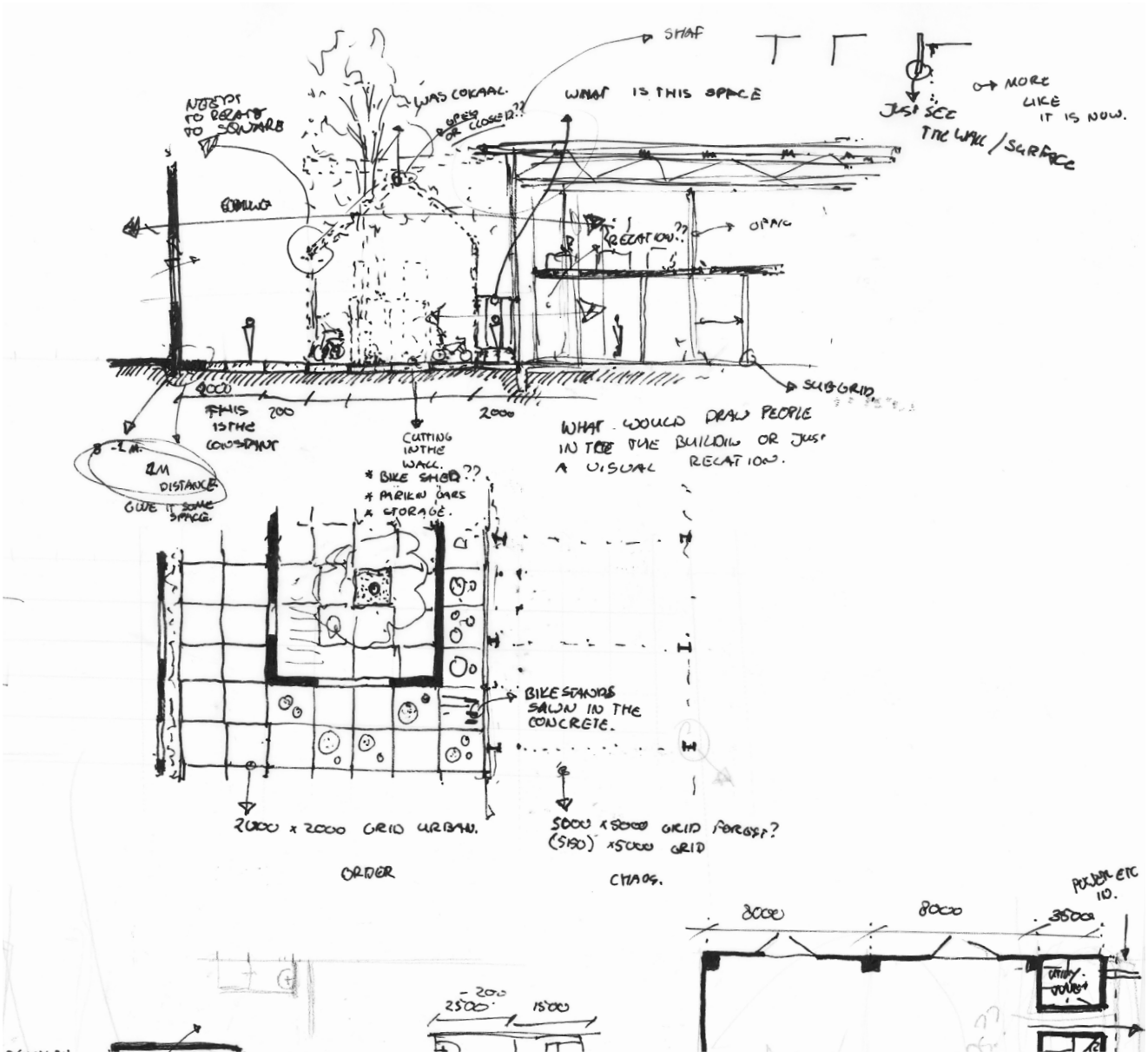


Image 98: Consequently of the program, purely functional spaces like the profile above are necessary.

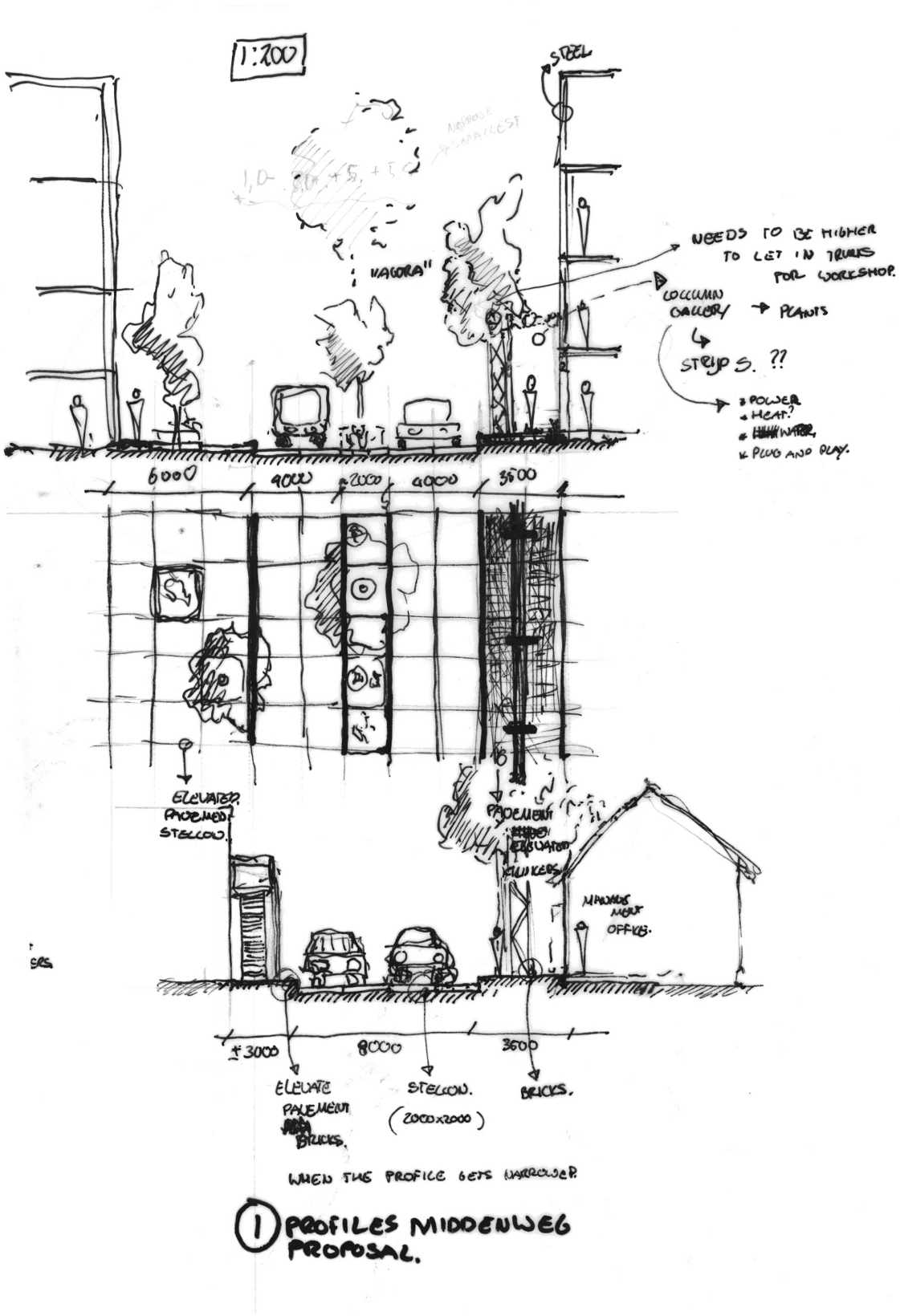


Image 99: Alternative proposal for the central road through Hembrug.

Sections

The three diagrams below are summaries of three large section drawings made to define and explore different relations between buildings, how the buildings and spaces could and should be used and the different spaces that come from these different interactions.

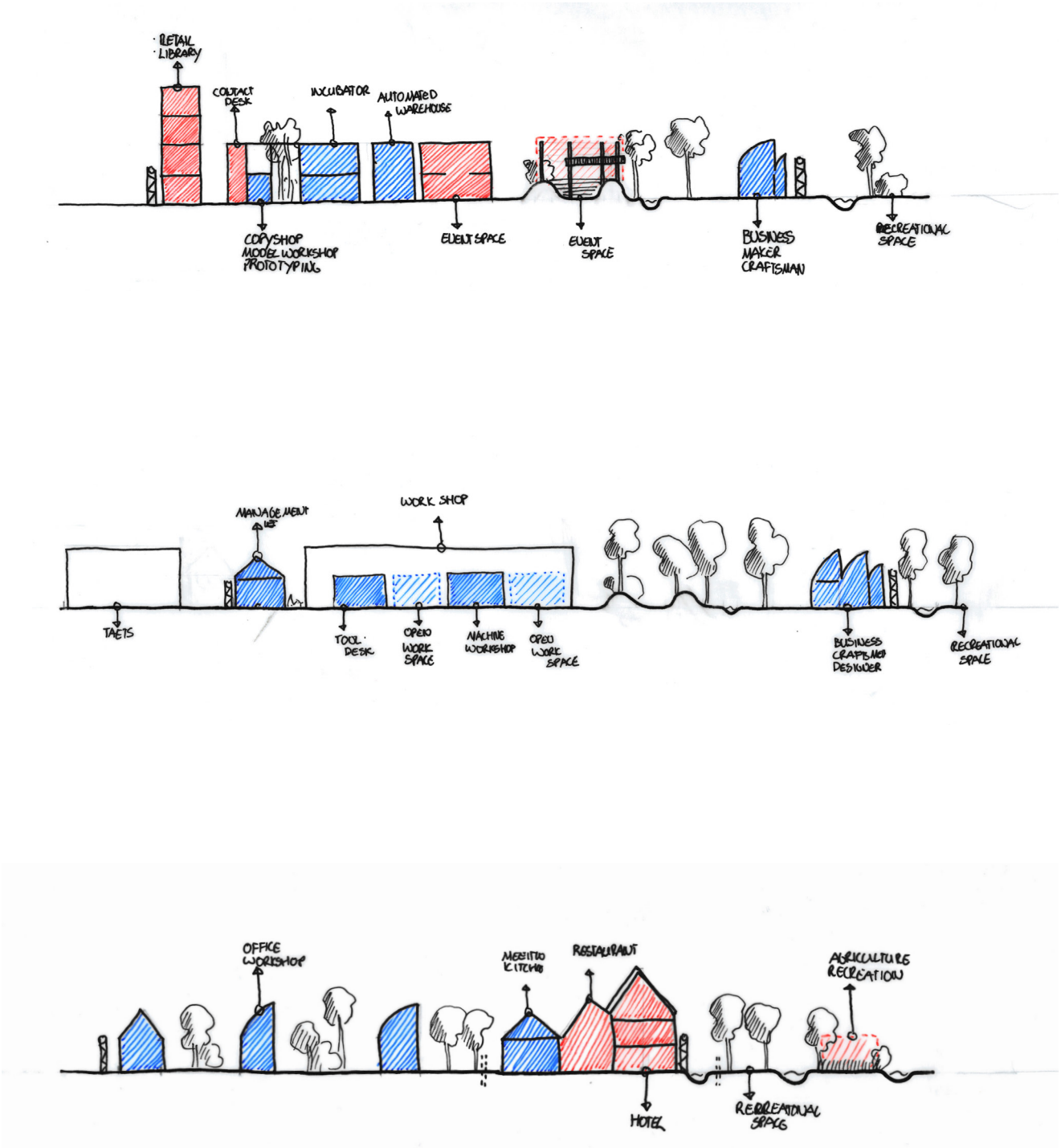


Image 100: Three summaries of sections exploring different spaces and buildings. From top to bottom: 1. Section through the public side of the production hall and the spaces around. 2. Section through the workshop of the production hall. 3. Section through the different smaller buildings on site, including the new public gathering building.

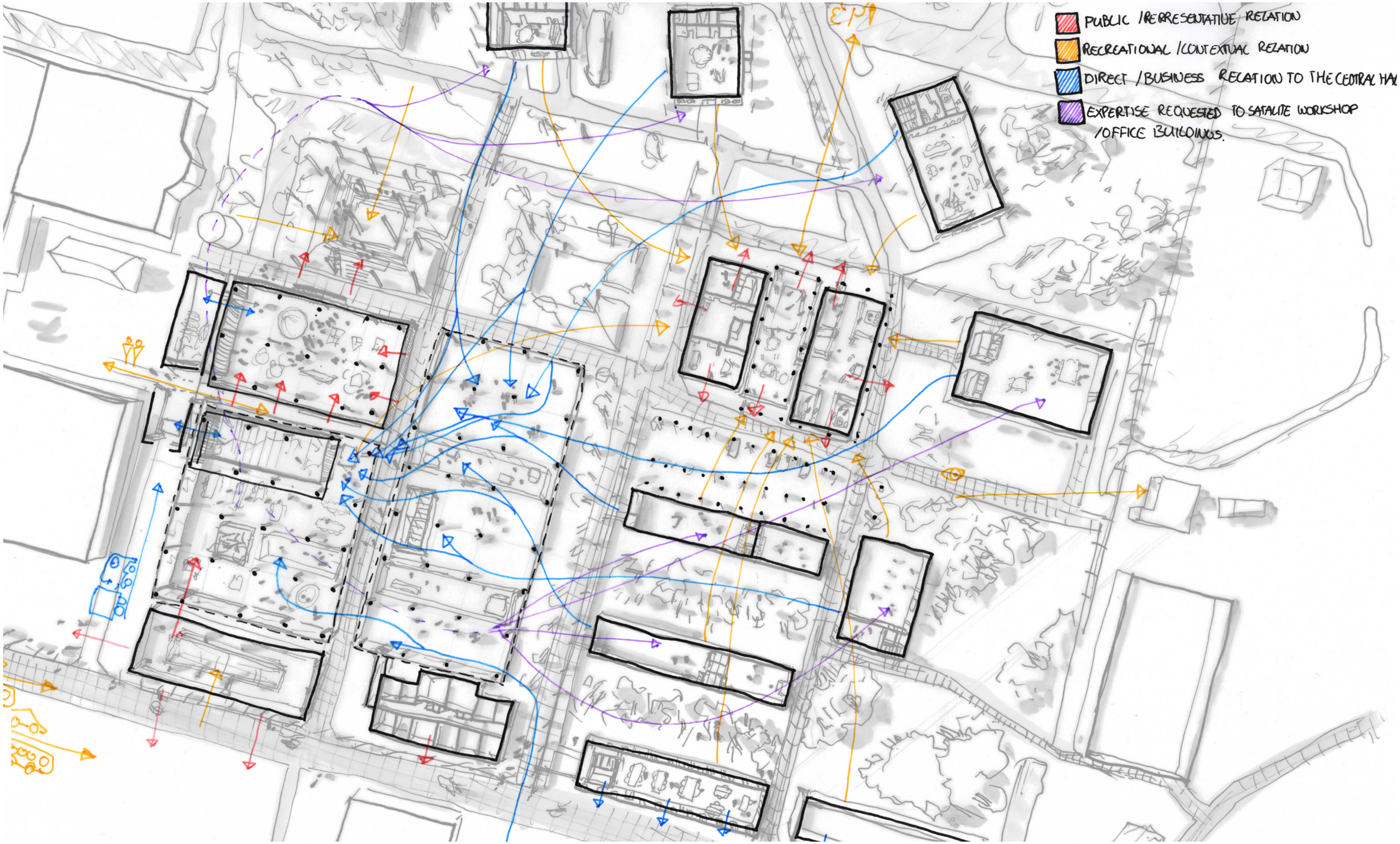


Image 101: Plan drawing in company to the sections proposing and showing different interactions and relations.

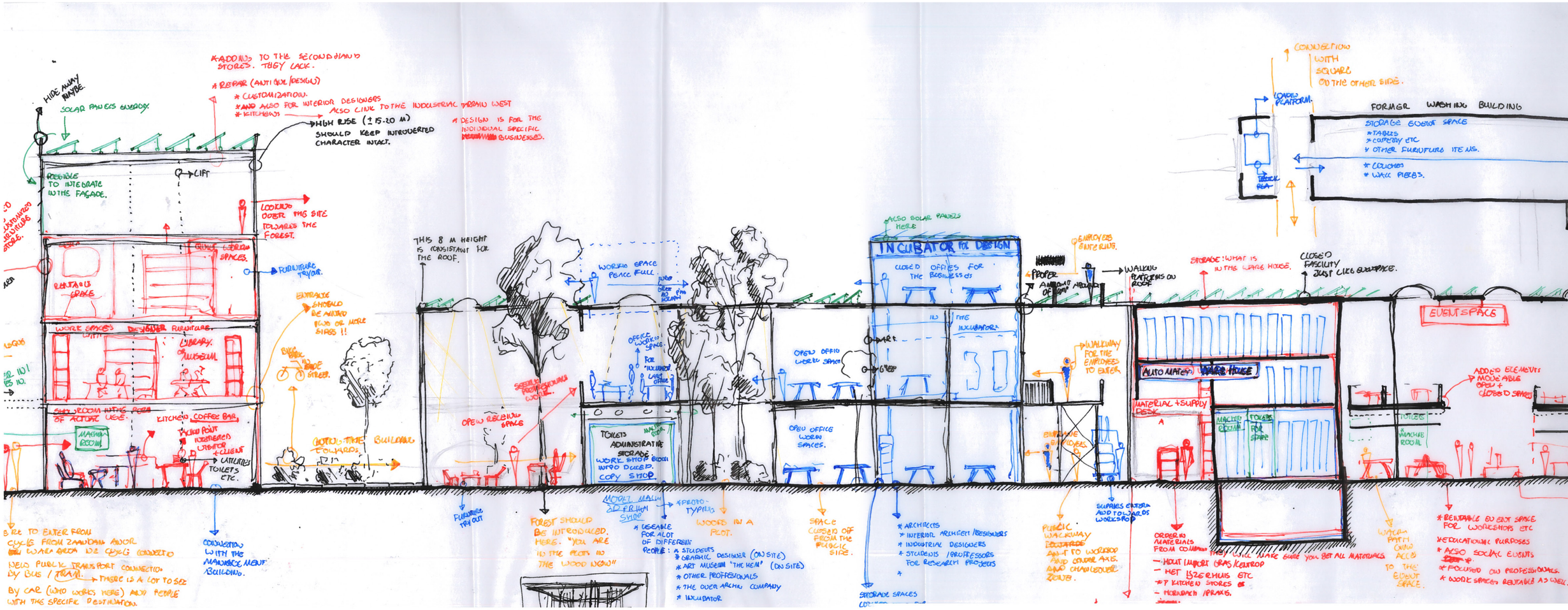
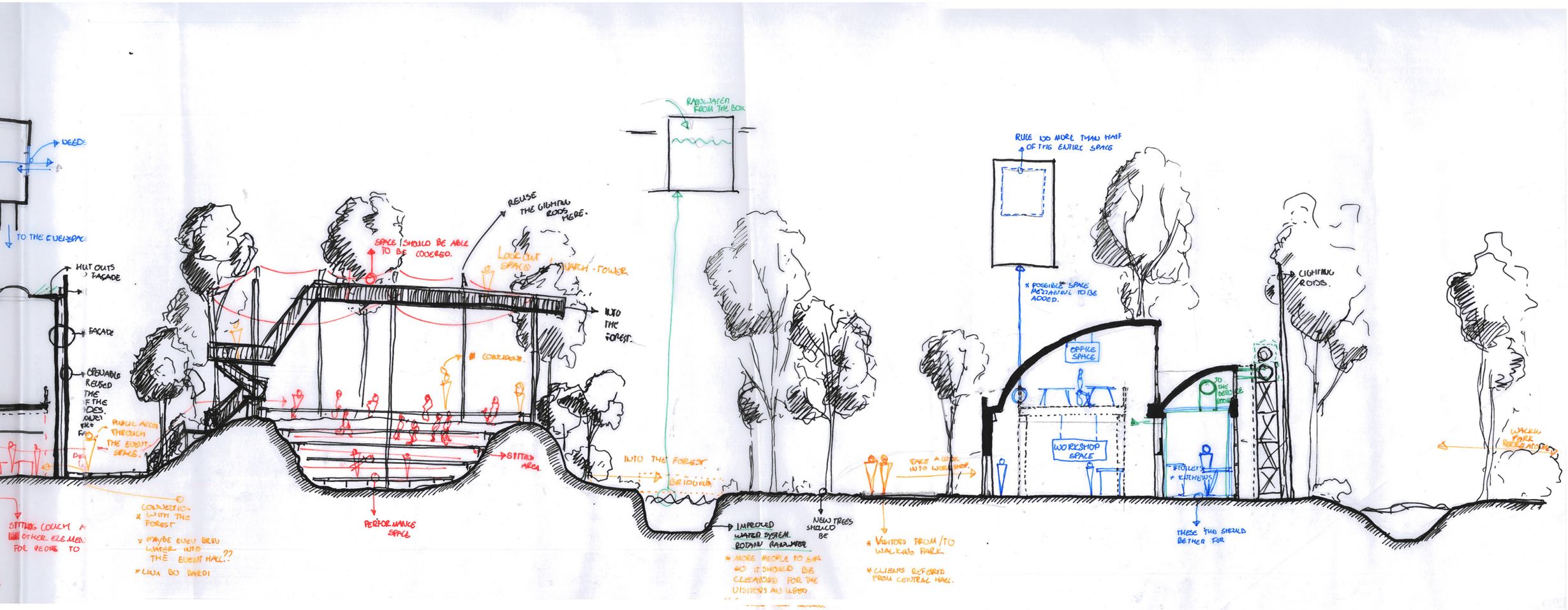


Image 102: Section 1: Offices, event spaces, outside spaces, working spaces.


RAINWATER FROM THE BOX
RULE NO MORE THAN HALF OF THE ENTIRE SPACE
REUSE THE LIGHTING RODS HERE.
SPACE SHOULD BE ABLE TO BE COVERED.
LOOK OUT SPACE
WATCH-TOWER
INTO THE FOREST.
CONCIDENE.
HUT OUTS FACADE
FACADE
OPENABLE REUSED THE
PUBLIC ACCESS THROUGH THE EVENT SPACE.
SITTING AREA.
PERFORMANCE SPACE
CONNECTION WITH THE FOREST
MAYBE EVEN BRING WATER INTO THE EVENT HALL??
LINA BO BARDI
INTO THE FOREST
BRIDGING
IMPROVED WATER SYSTEM. ROTAIN RAINWATER
MORE PEOPLE TO SIT SO IT SHOULD BE CLEANED FOR THE VISITORS AN USED
NEW TREES SHOULD BE
VISITORS FROM/TO WALKING PARK
CLIENTS REFERRED FROM CENTRAL HALL.
TAKE A LOOK INTO WORKSHOP.
POSSIBLE SPACE MEZZANINE TO BE ADDED.
OFFICE SPACE
WORKSHOP SPACE
TO THE SERVICE ROOMS
TOILETS
KITCHENS
THESE THIS SHOULD BETHER FOR
LIGHTING RODS.
WALKING PARK RECREATION

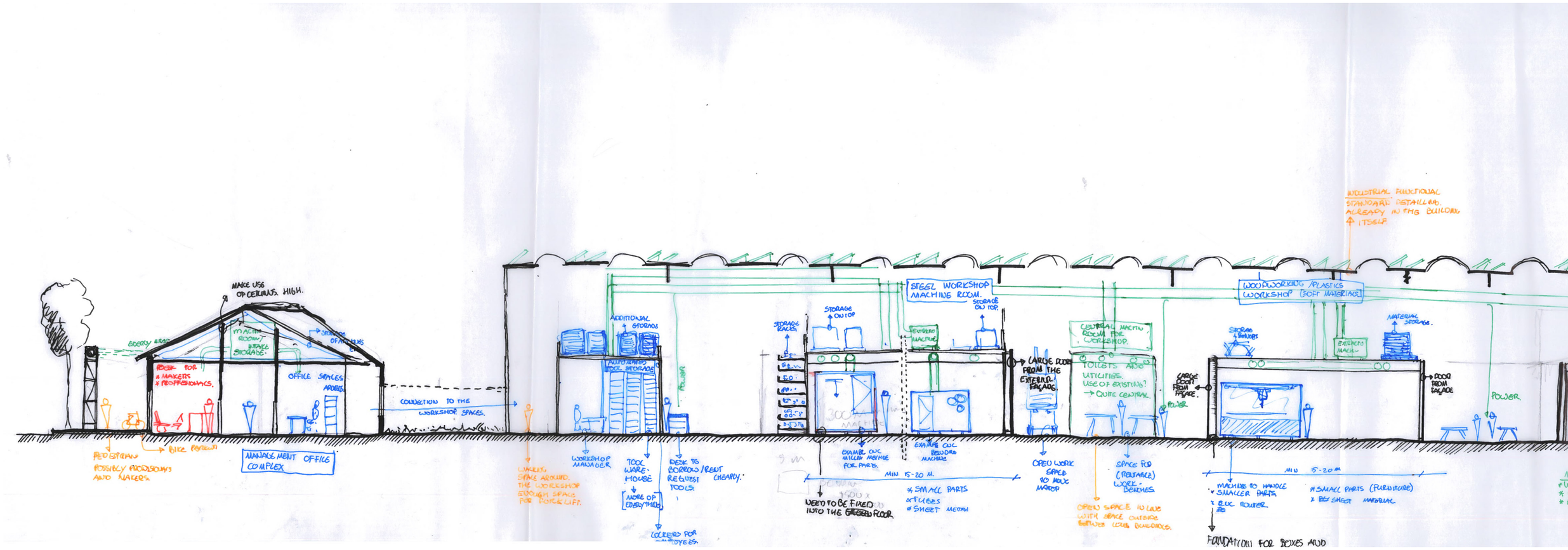
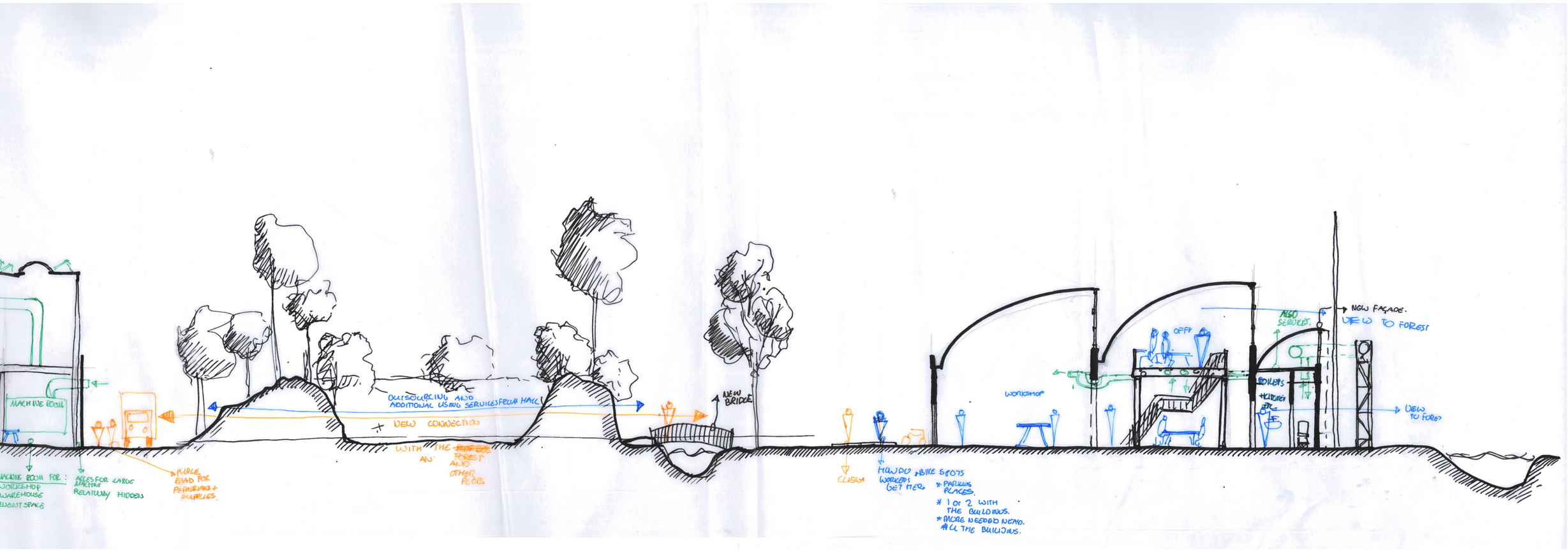


Image 103: Section 1: Workshop, offices, storage spaces, event spaces, outside spaces, working spaces.


MACHINE ROOM
MACHINE ROOM FOR :
WORKSHOP
WAREHOUSE
EVENT SPACE
ACCES FOR LARGE MACHINE RELATIVELY HIDDEN
PUBLIC ROAD FOR PEDESTRIANS + BICYCLES.
OUTSOURCING AND ADDITIONAL USING SERVICES FROM HALL
+ NEW CONNECTION
WITH THE AIR
FOREST AND OTHER FLOOR
NEW BRIDGE
CLIENT
HOW DO WORKERS GET HERE
* BIKE SPOTS
* PARKING PLACES.
* 1 OR 2 WITH THE BUILDINGS.
* MORE NEEDED NEAR ALL THE BUILDINGS.
WORKSHOP
OFFICE
ALSO SERVICES.
NEW FAÇADE.
VIEW TO FOREST
VIEW TO FOREST

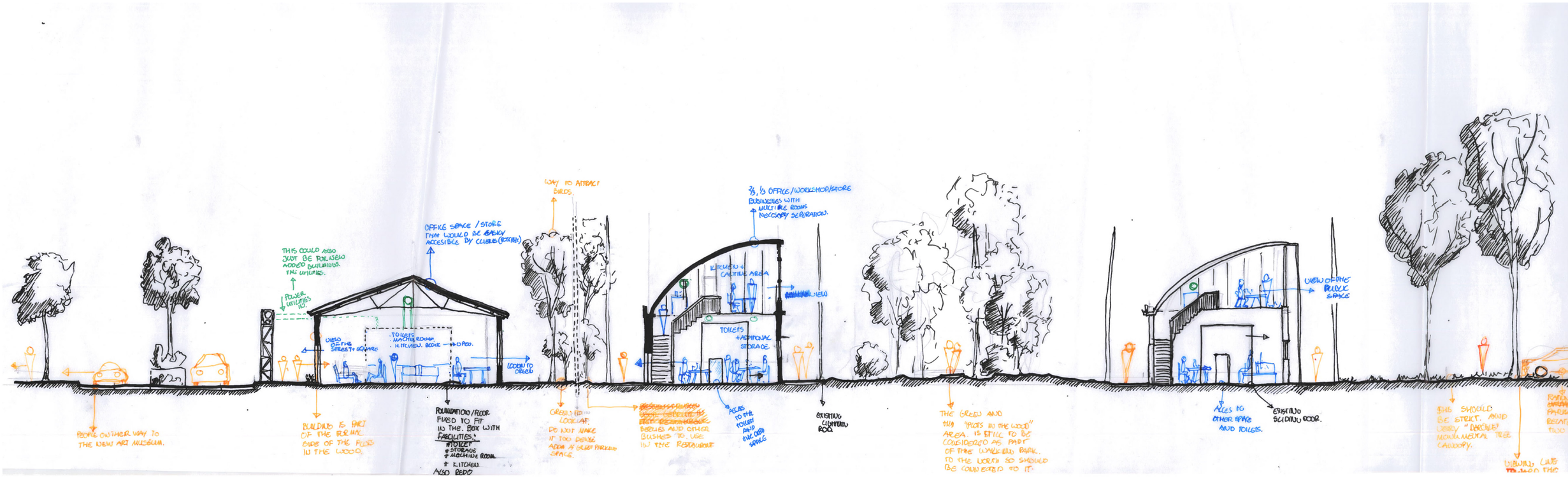


Image 104: Section 3: Workshops, offices, storage spaces, event spaces, outside spaces, restaurant, hotel.

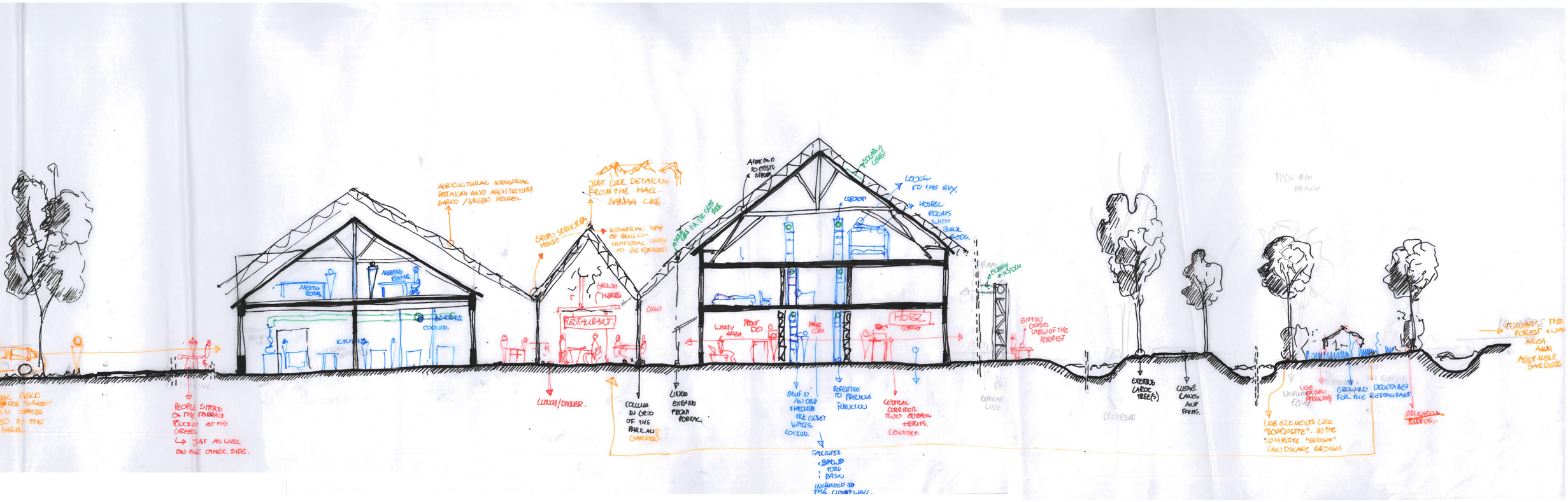

AGRICULTURAL INDUSTRIAL DETAILING AND ARCHITECTURE BARNS / GREEN HOUSES.
JUST LIKE DETAILING FROM THE HALL. SAWAA LIKE.
LOOK TO THE SKY.
HOTEL ROOMS WITH BUNK BEDS.
MEETING ROOMS.
RESTAURANT.
HOTEL
LUNCH/DINNER.
PEOPLE SITTING ON THE TERRACE COOKING AT THE GREEN.
JUST AS WELL ON THE OTHER SIDE.
COLLUMN IN GRID OF THE PARK AND GARDEN.
LINKING EXISTING FRONT PORTAL.
REFERRING TO PREVIOUS FUNCTION
CENTRAL CORRIDOR TWO ENTRANCE + EXITS. CONNECT.
SITTING OUTSIDE VIEW OF THE FORREST
EXISTING LARGE TREE(S)
CLEAR LANES AND PATHS.
USE ELEMENTS LIKE "BOSQUETTE". IN THE COMPLETE "ENNISH" LANDSCAPE DESIGN
GROWING VEGETABLES FOR THE RESTAURANT.
EDUCATIONAL TURROS.
ALLOTMENT GARDENS



Image 105: Section 3: Landscape design concept with viewing lines new vegetation based on the existing landscape.



Image 106: Existing sight-lines are emphasized with the new and the existing vegetation.

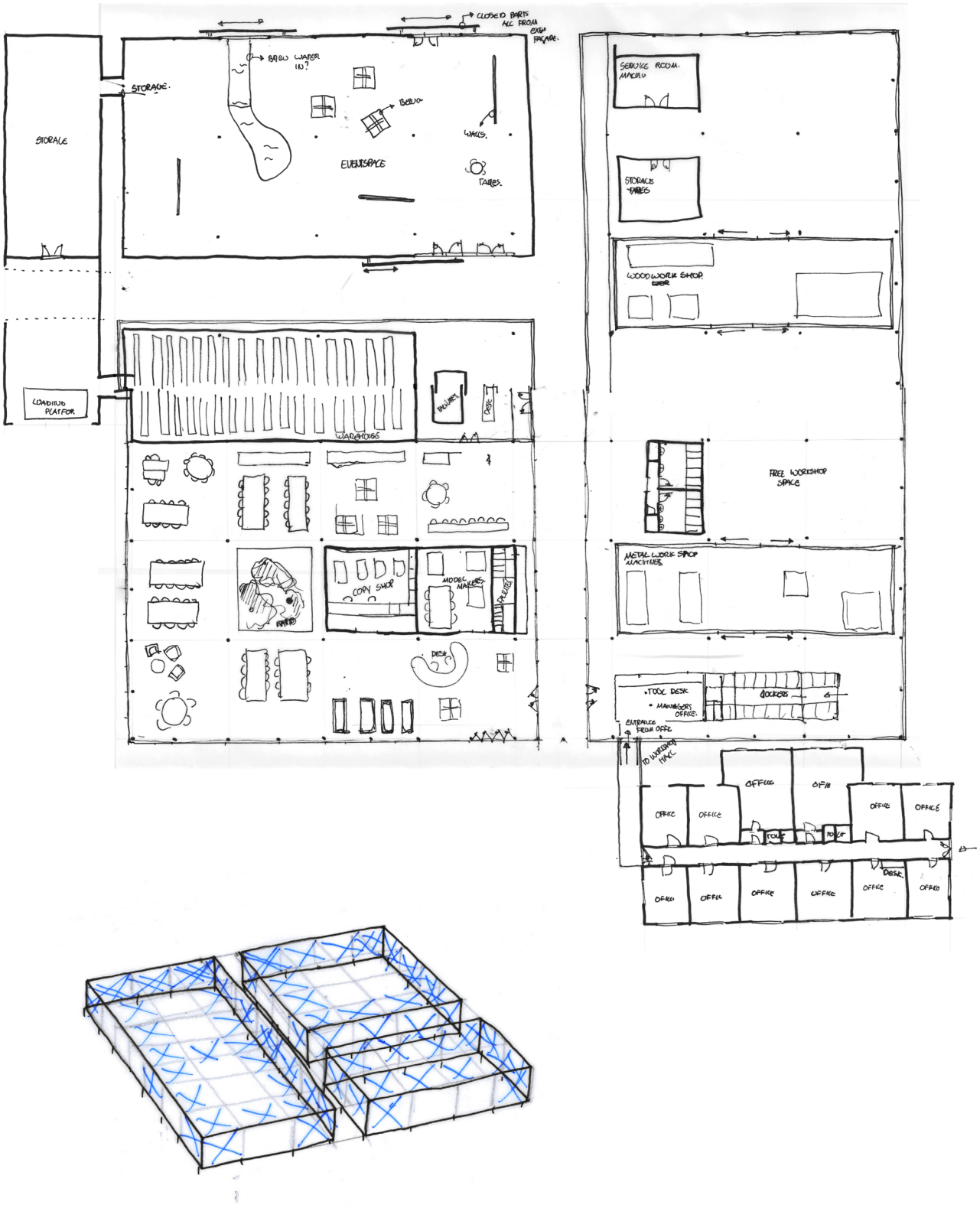
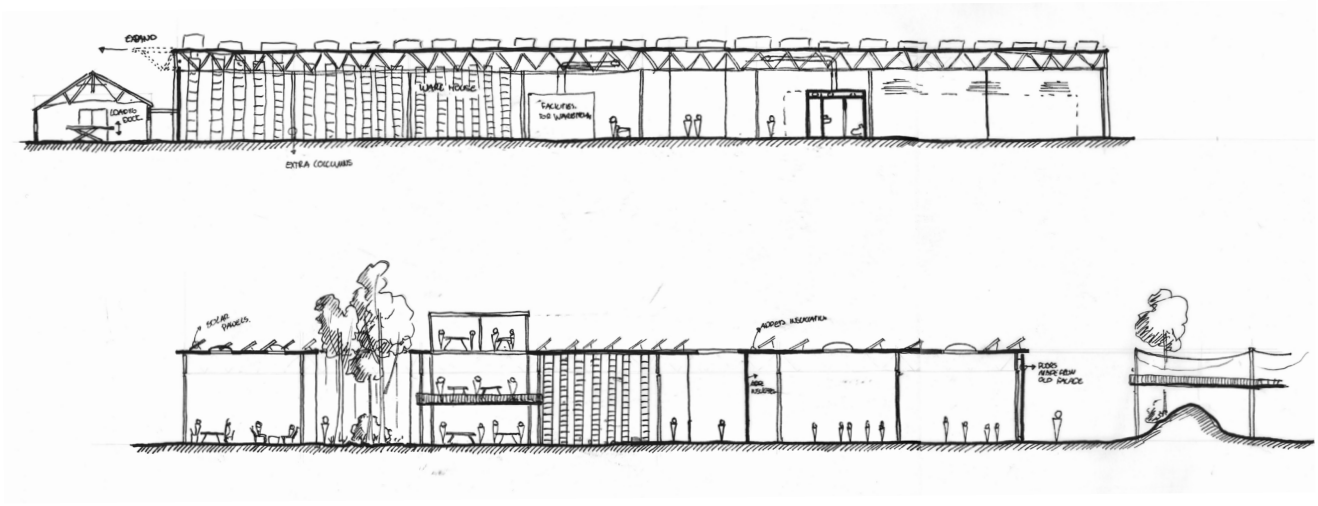


Image 107 & 108: The workshop building will be divided according to the above plan.



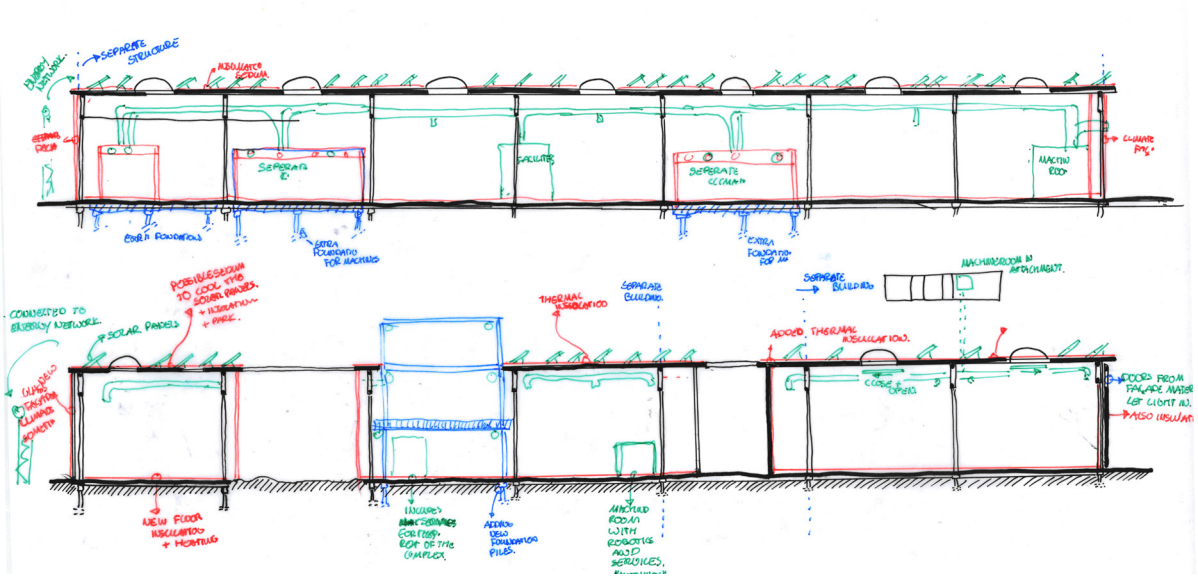


Image 109 & 110: P2 Section drawings of the central production, event and workshop building.

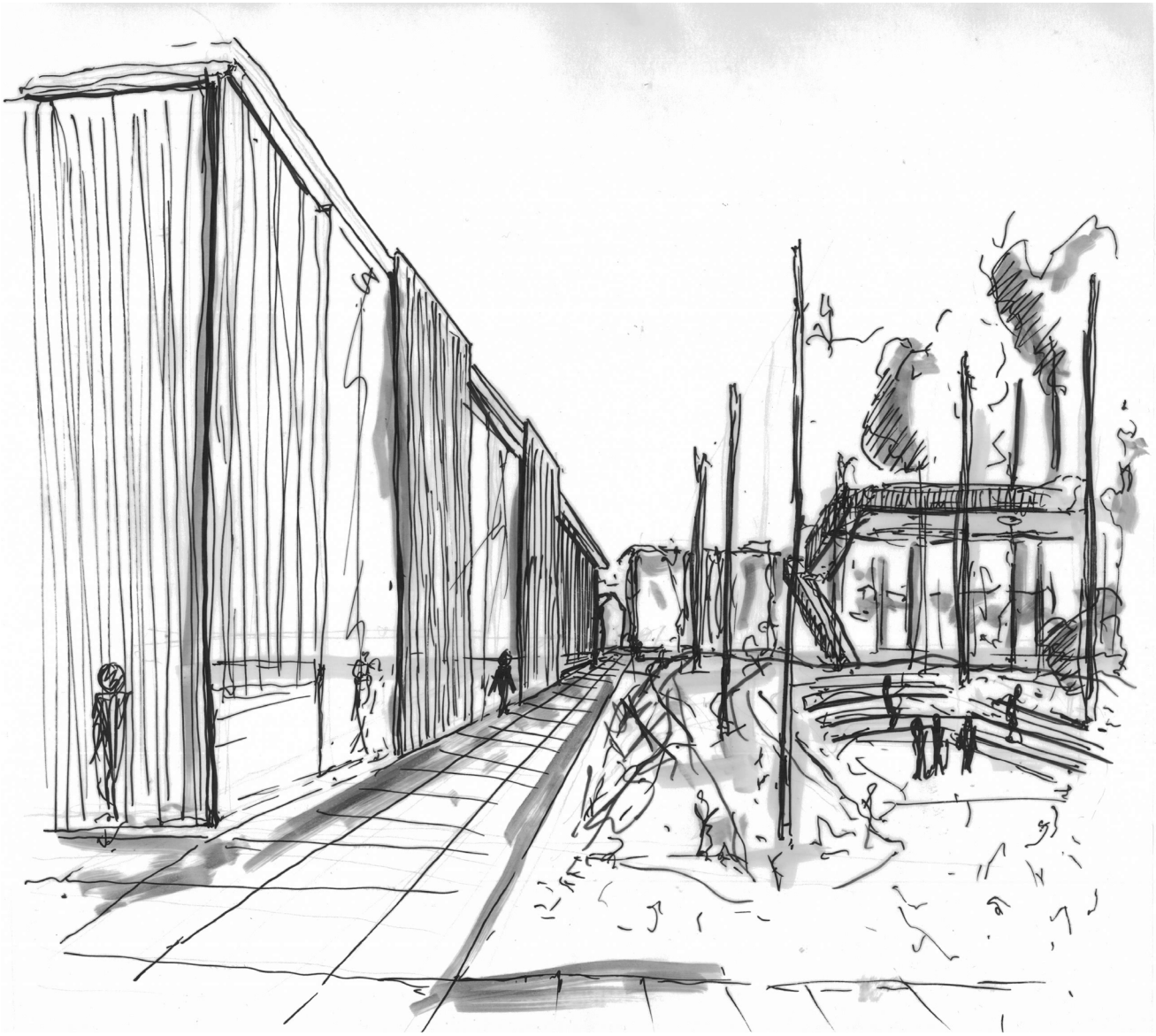


Image 111: Outside impression of the north facade of the workshop building with the theater on the earth walls.

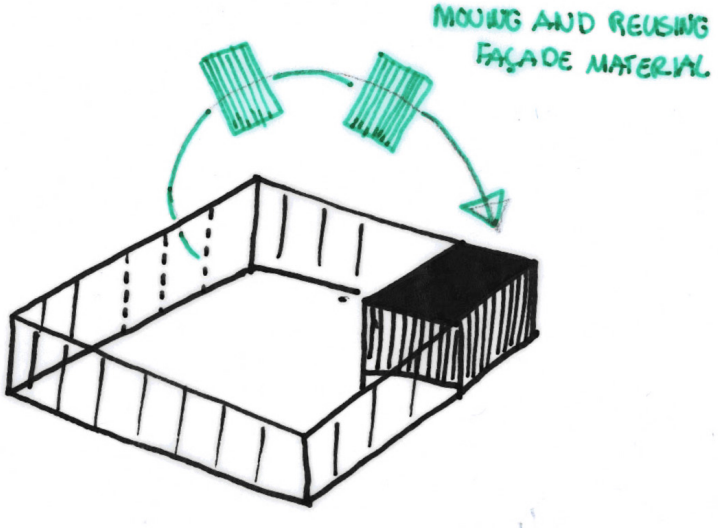


Image 112: To make possible the impression and ideas, reuse helps in the sense that the building can be slowly adapted.



Image 113 & 114: Inside impressions of the different spaces in the workshop building.

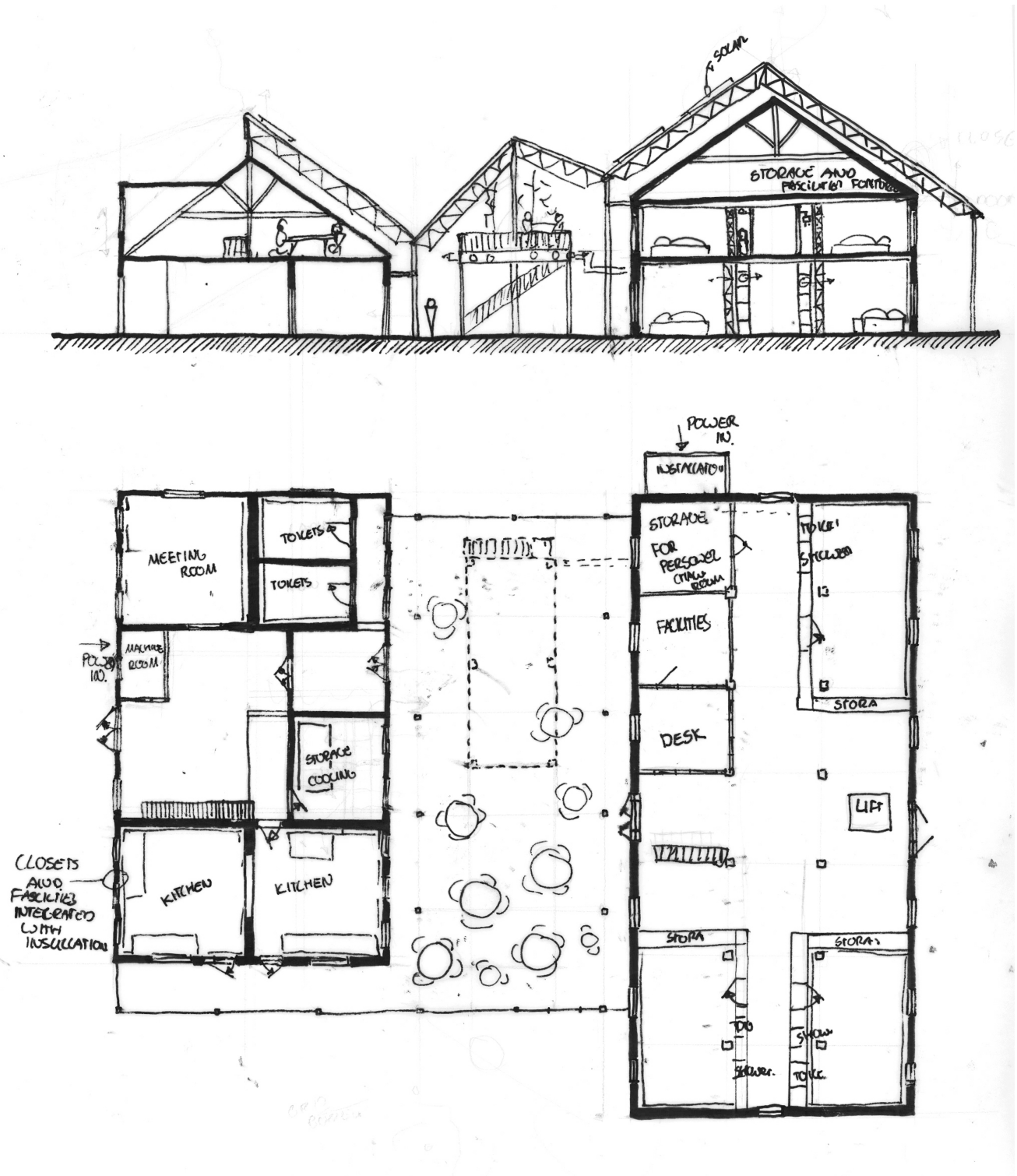


Image 115: Plan and section of the farms containing meeting spaces, hotel and restaurant.

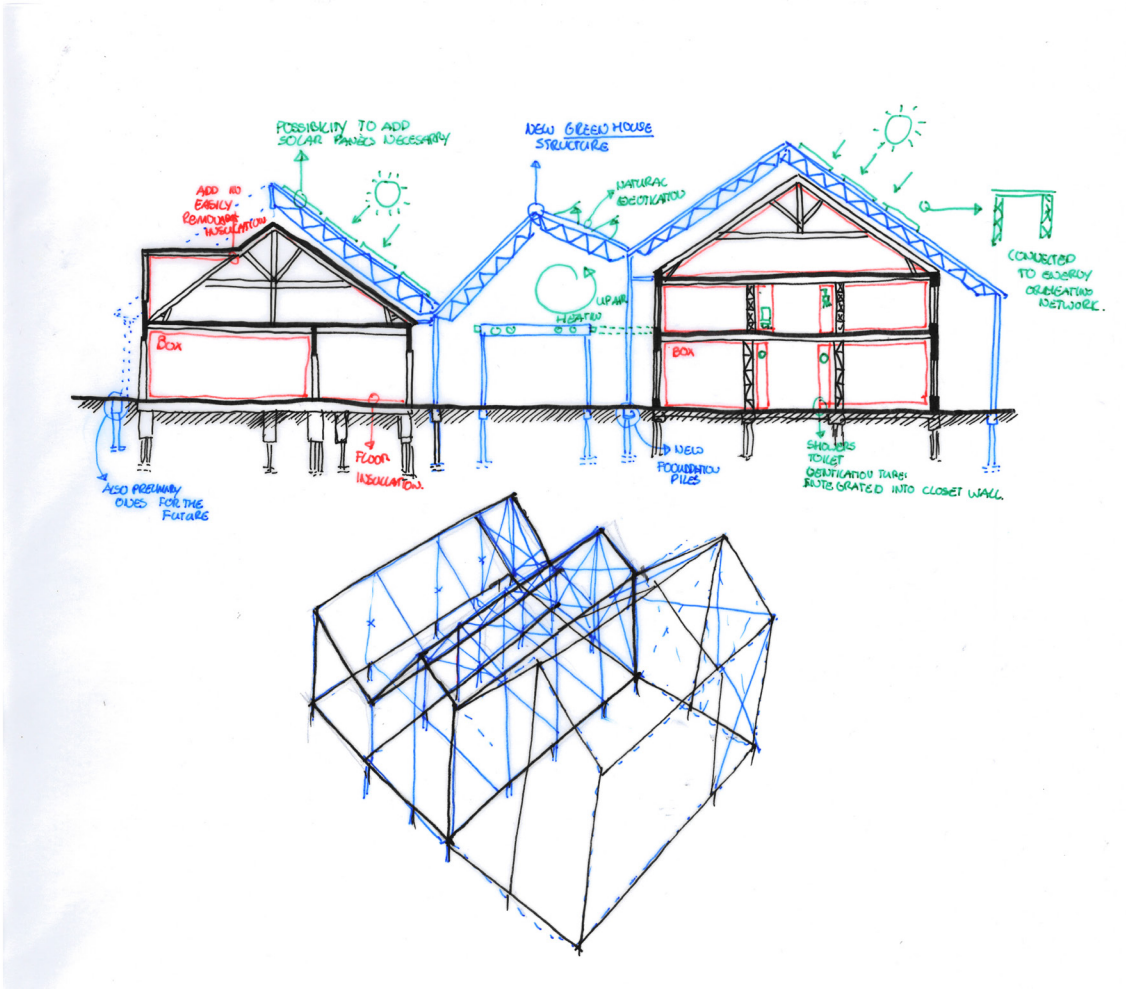


Image 116: Technical ideas and concepts for the farm buildings with restaurant and hotel.



Image 117: Impression of the outside parking area in front of the restaurant and hotel buildings.

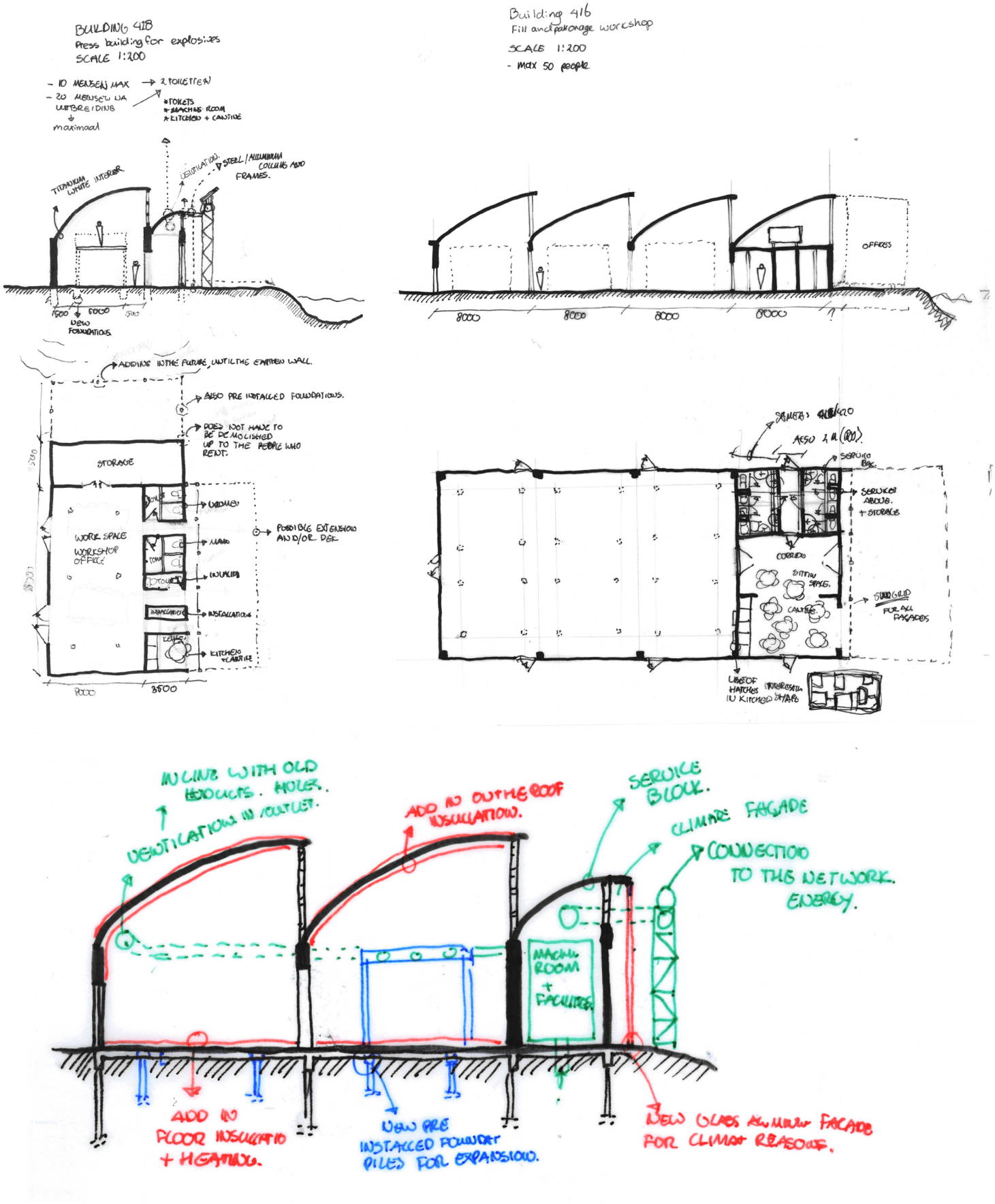
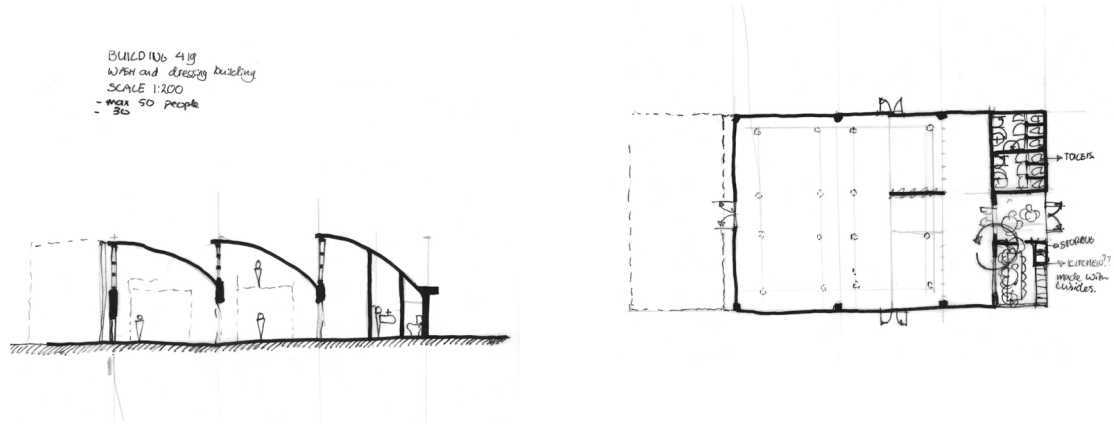
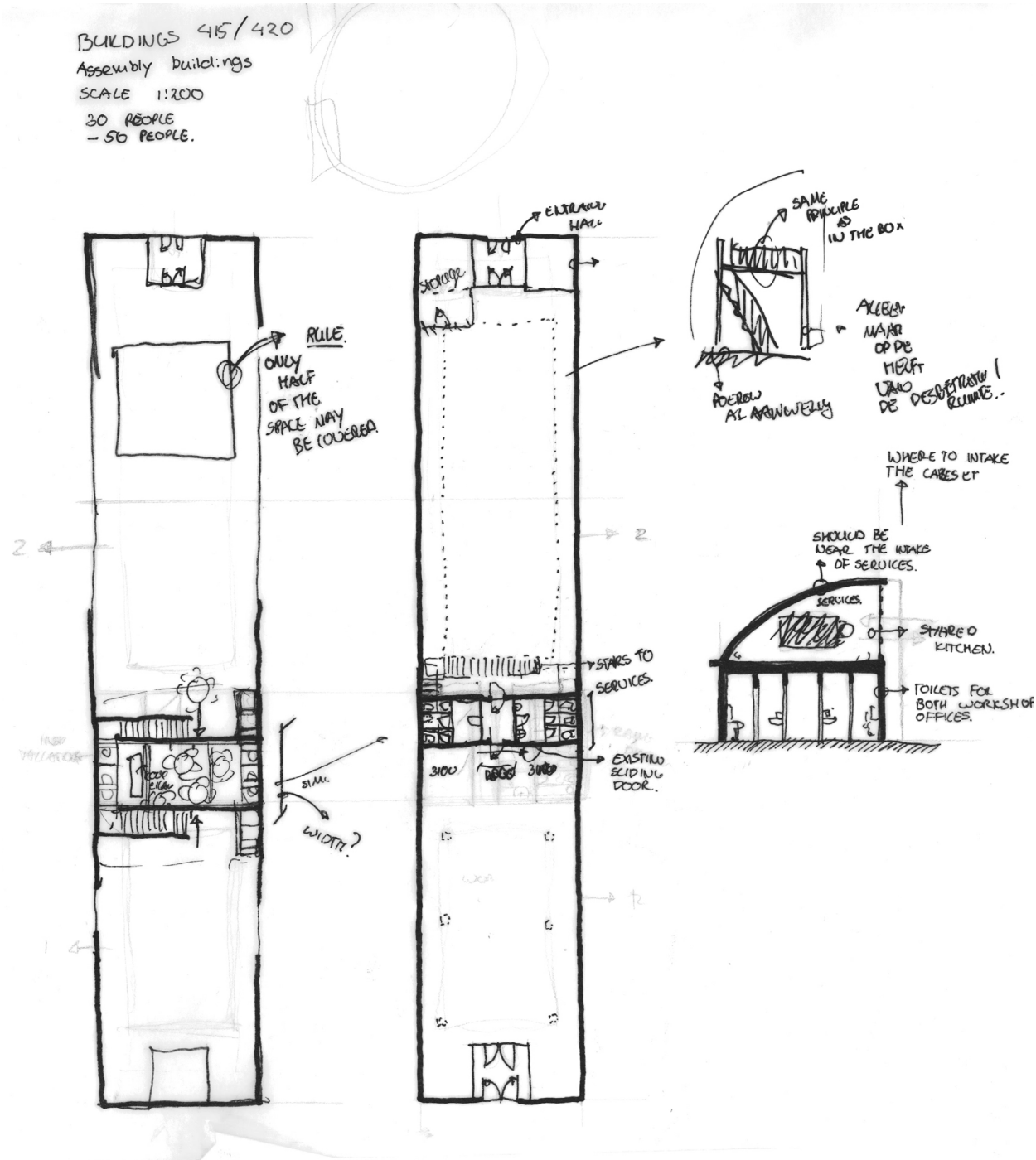


Image 118: Different ideas and concepts for the working spaces and the shell roof buildings.


BUILDING 419
WASH and dressing building
SCALE 1:200
- max 50 people
- 30
TOILETS
STORAGE
KITCHEN??
made with
cuvides.


BUILDINGS 415/420
Assembly buildings
SCALE 1:200
30 PEOPLE
- 50 PEOPLE.
RULE.
ONLY HALF OF THE SPACE MAY BE COVERED.
ENTRANCE HALL
STORAGE
SAME PRINCIPLE AS IN THE BOX
POEROW AL AANWEZIG
WHERE TO INTAKE THE CABLES ET
SHOULD BE NEAR THE INTAKE OF SERVICES.
SERVICES.
SHARED KITCHEN.
TOILETS FOR BOTH WORKSHOP OFFICES.
STAIRS TO SERVICES.
EXISTING SLIDING DOOR.
3100
WIDTH?

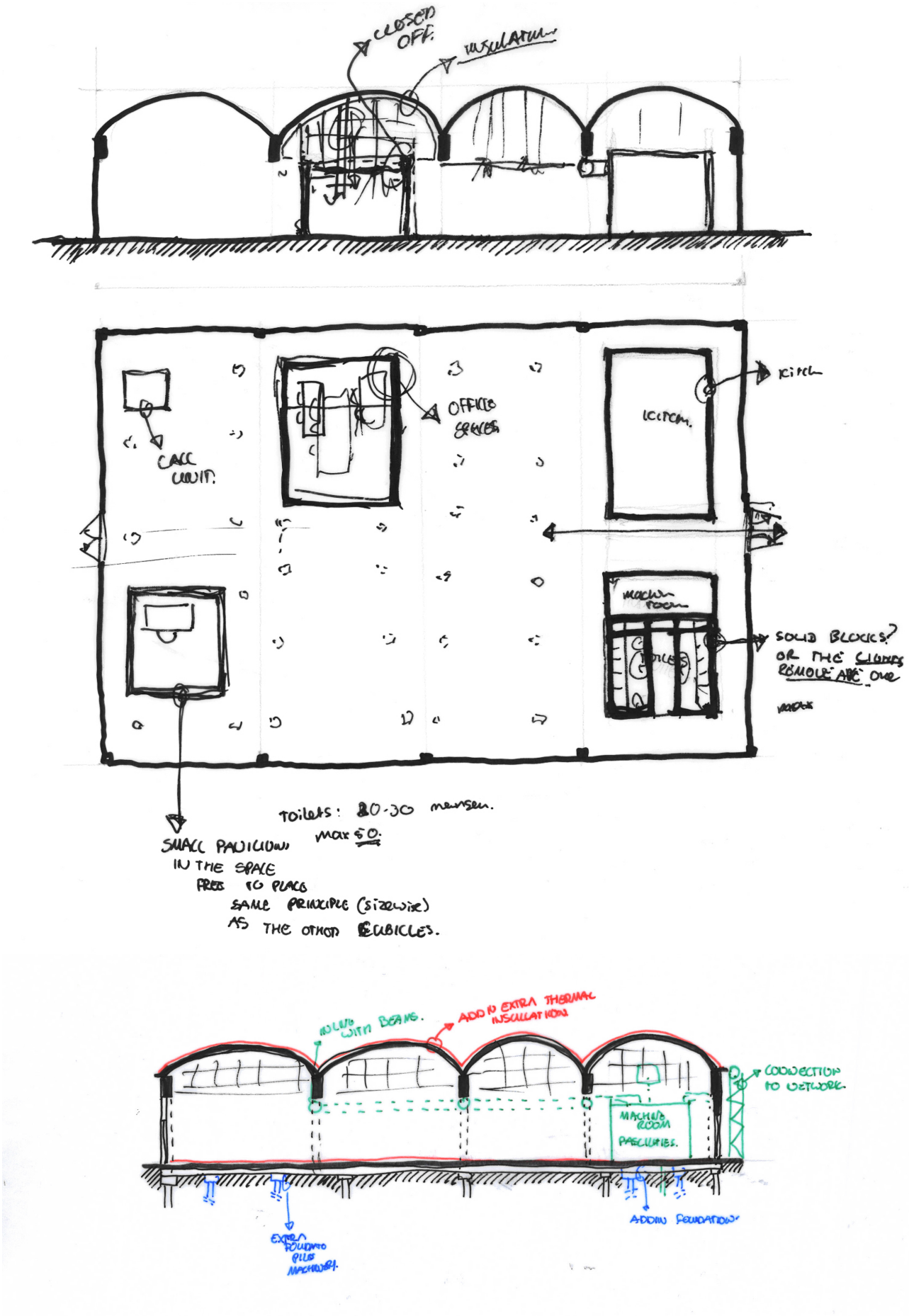


Image 119: Different ideas and concepts for the working spaces and the circular roof buildings.



Image 120: Reduce, Reuse, Recycle by Muck Petzet and Florian Heilmeyer.

Reduce, Reuse, Recycle

During the summer break after the P2 presentation I read the book Reduce, Reuse, Recycle. In this catalogue for the German Venice biennial pavilion in 2012 project mainly in Germany are divided and grouped according to their way of adaptive reuse and interpretation of the different architects. This In accompaniment with interviews with the different architects. These terminologies helped structure my project a great deal in a later stage.



P3

During working out the design there is the P3. This presentation moment acts as a check up on what needs more elaboration also to get a sense of where one stands.

for

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.



Workshop Fragments

After the break the curriculum started out with the Fragments workshop. It consisted of three weeks and aimed to get into the project again with a fresh perspective and some extra knowledge through studying a reference building and detail, sketching, a project visit and finally a presentation on the project and redefining it and placing it in a bigger context. The reading of Reduce, Reuse Recycle helped with that.

Inspiring detail

For my inspiring detail I went to the KV25 building renovated and designed by Mei Architects. This was on 07.09.2019.



Image 121: First introduction slide of the inspirational detail presentation.



Image 121: Slide 02 of the inspirational detail presentation for KV25.



Image 122, 123: Slide 03,04 of the inspirational detail presentation for KV25, sketch of the detail and photos of spaces.



Image 124: From the sketching workshop approaching a connection between the inside and outside through opening up the buildings and creating a buffer space.

Sketching workshop

Here we worked in pairs and started on different problems or interesting areas in each others projects to get a sense on how to start detailing.

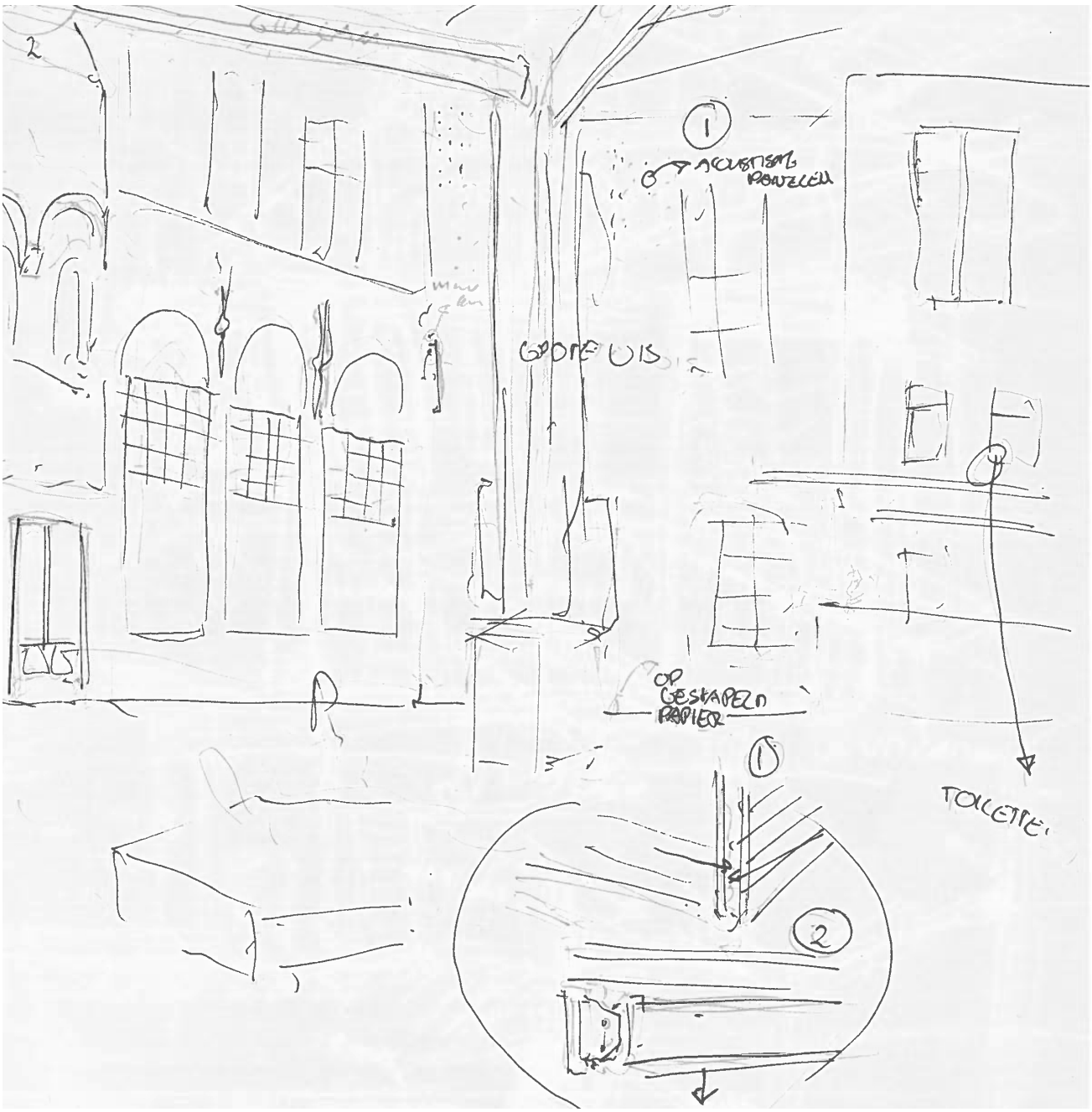


Image 125: Sketch from the site visits

Idea of the designer

The idea was to walk around and look at the building, sketch to find out how the building works and was intended. The day closed with some discussions on how this would work and our thoughts on the buildings. That day we also chose an detail or aspect of the building that spoke to us. For me it was a desk that was hidden and integrated in seemingly endless rows of book shelves. This was creating a new use or interpretation on a space otherwise probably unused or not fully utilized.

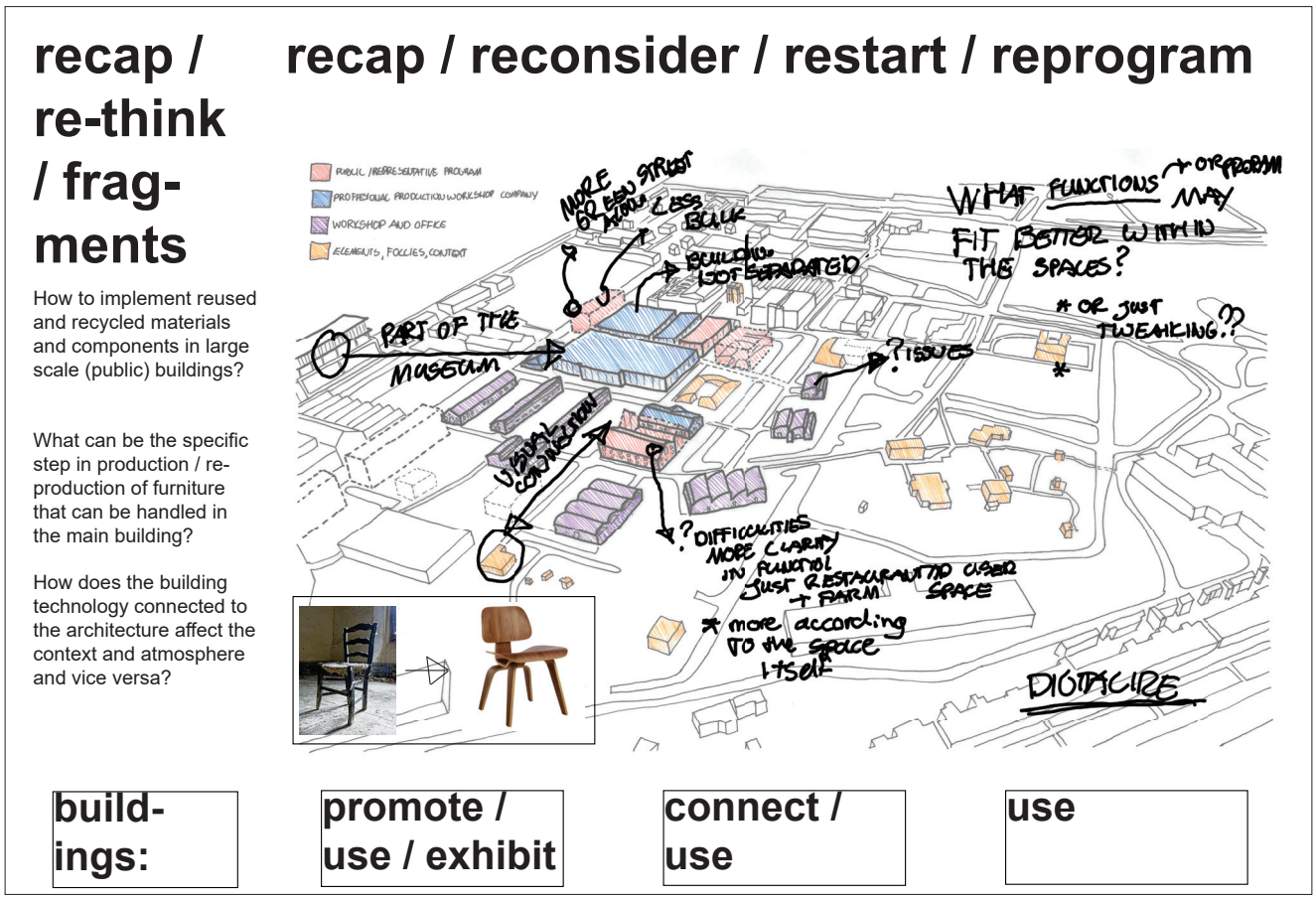
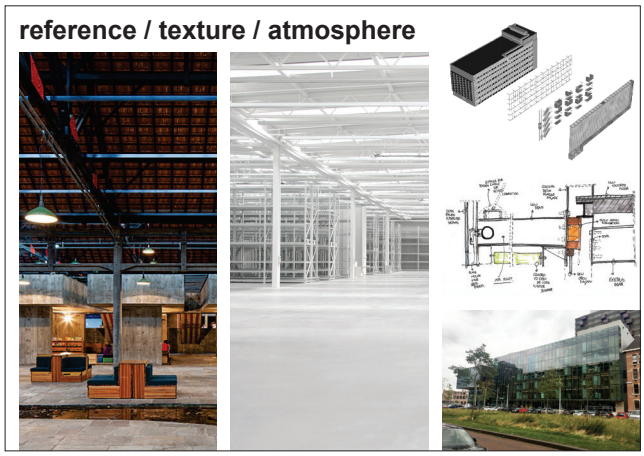


Image 126: First slide. Reconsidering the main concepts and introduce the topics shown and discussed in the later plates.



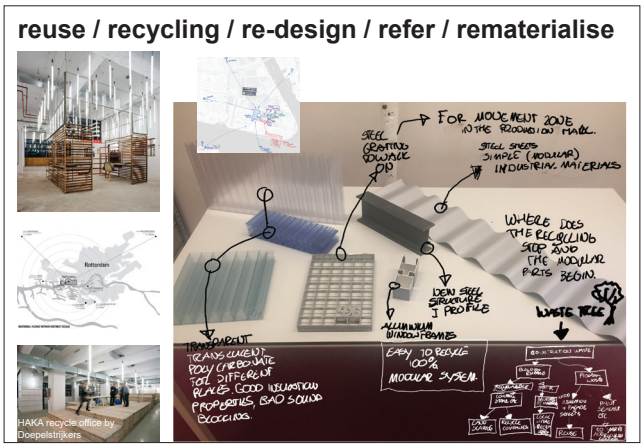
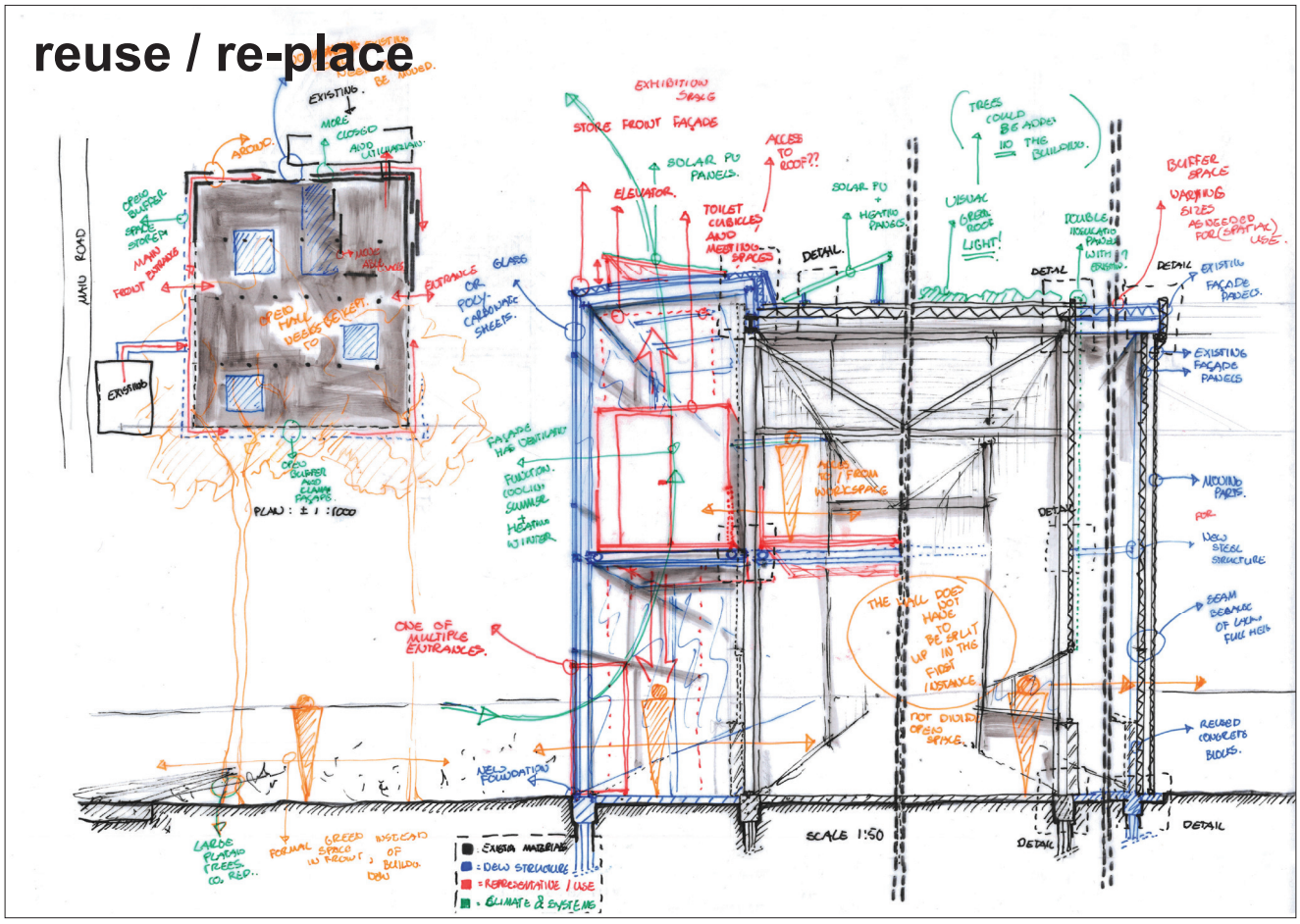
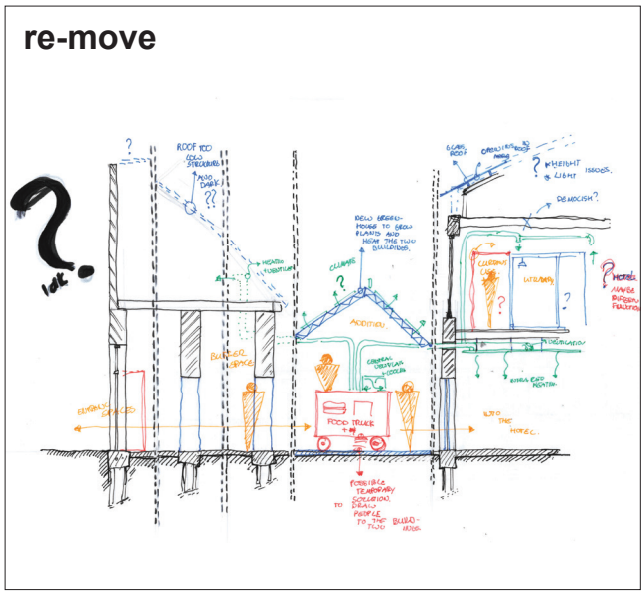


Image 127 & 128: Slide discussing materialization concept and references that are important for that. Standard systems and sizes, creating a building for flexible use.

RE-DO / Rethink

During this presentation I worked on a concept of materialization, reused materials. Here I discussed the concept of unfinished architecture as well, I came across this while reading Reduce, Reuse, Recycle. An important question was asked to me. What binds the site together? Both currently and in my design in this stage. These ideas I took into the second half of the design project.





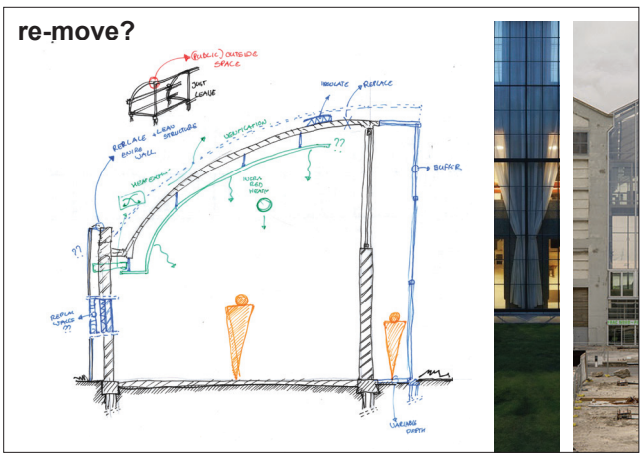


Image 129, 130, 131: Presented sketches on materials, space and starting on details.

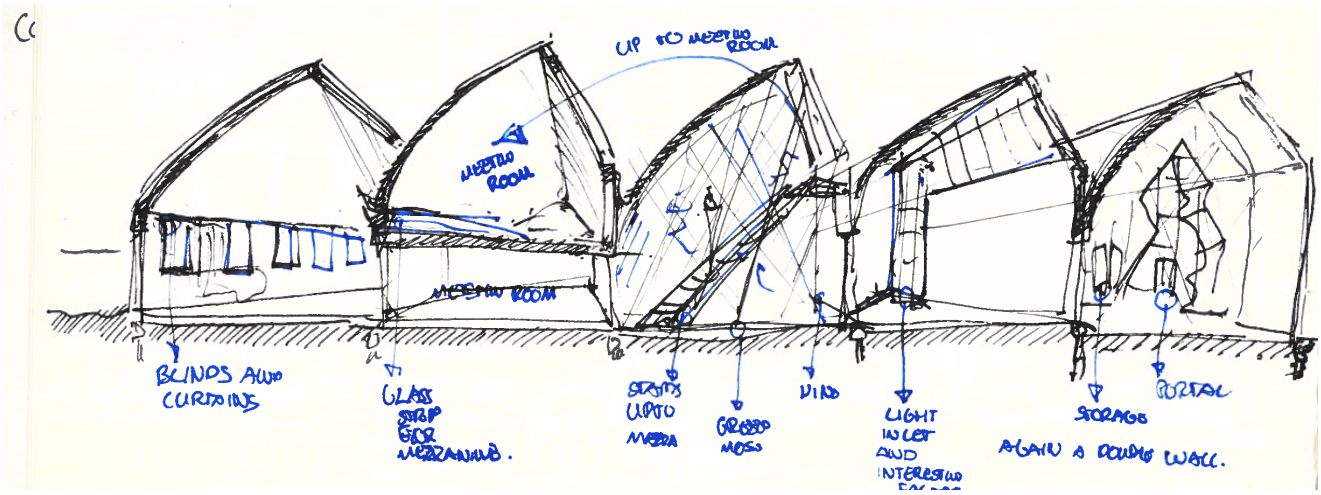


Image 132: Summary drawing after the visit to Bruns located in Bergeijk in the building called De Ploeg by Gerrit Rietveld. This company is housed in a comparable building as the shell roofs in the Plots in the Wood on the Hembrug terrain.

Bergeijk

De Ploeg the building that is used by Bruns originally built as an industrial weavers building. The building is renovated and similar to the ones on Hembrug. The building also houses a big workshop that gave me an idea on how such a space would work in a large scale professional setting.

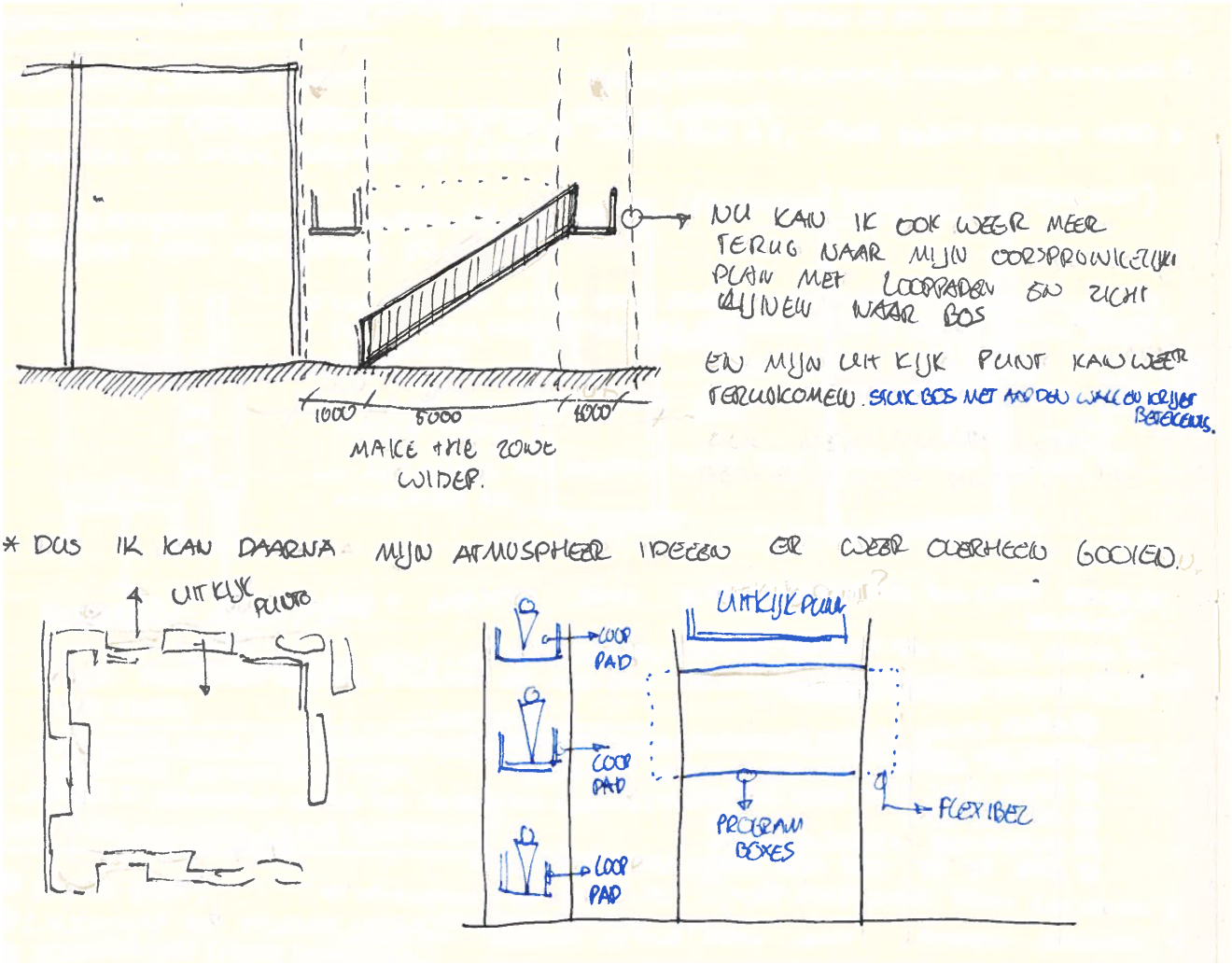


Image 133: In this moment of the design the warehouse and workshop still had a lot of additions around the already large building sizes were explored in sketches like the ones above. Sketch from sketchbook.

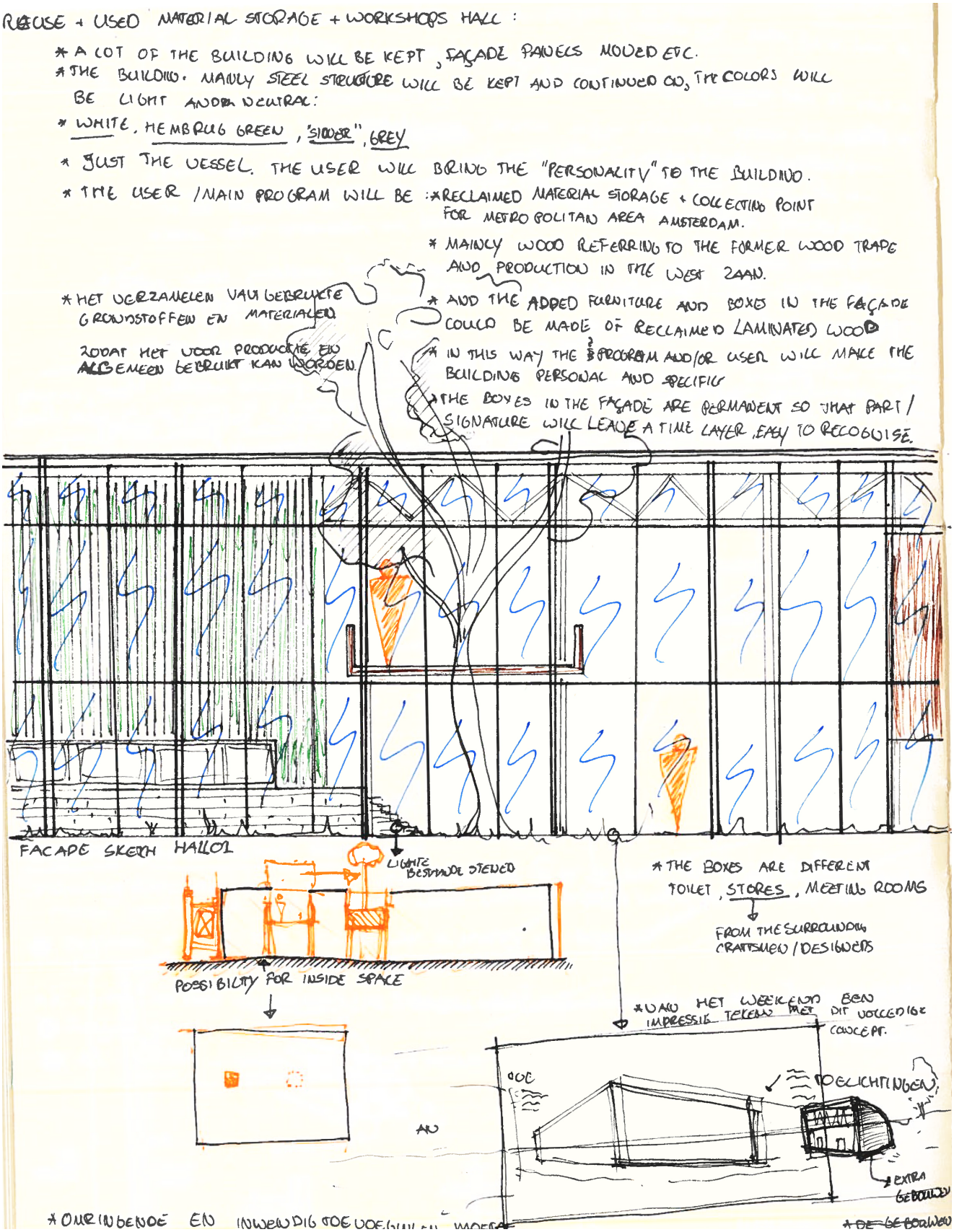
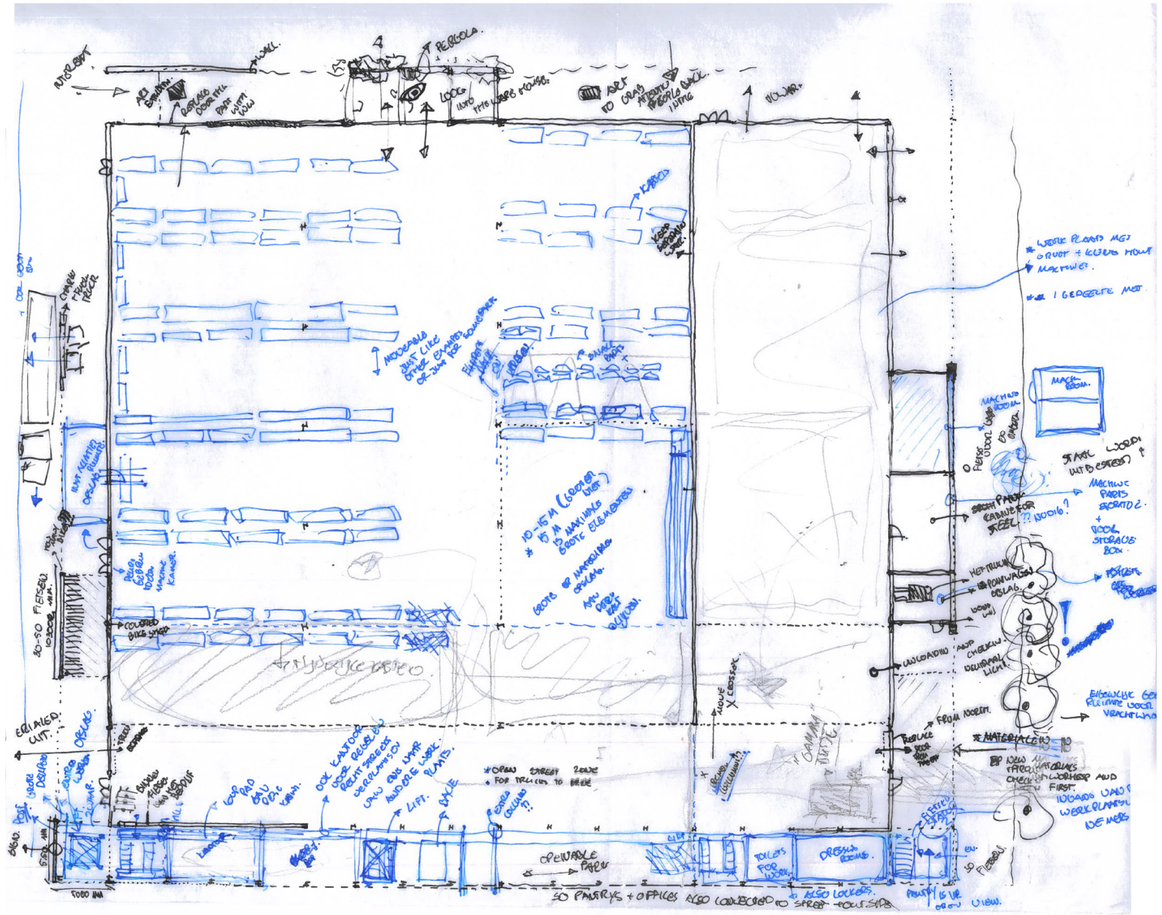
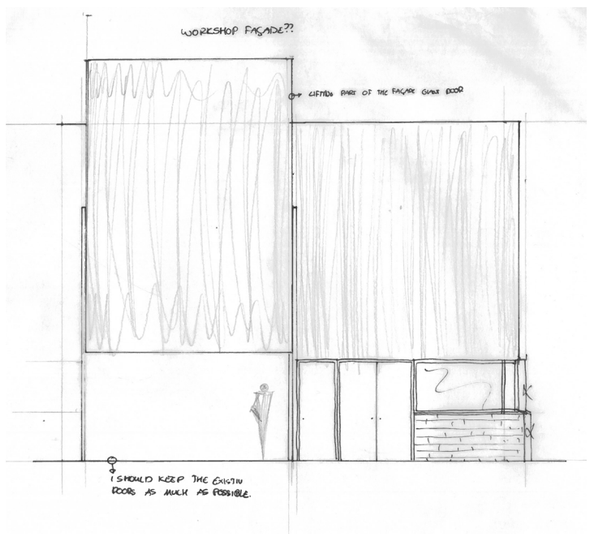
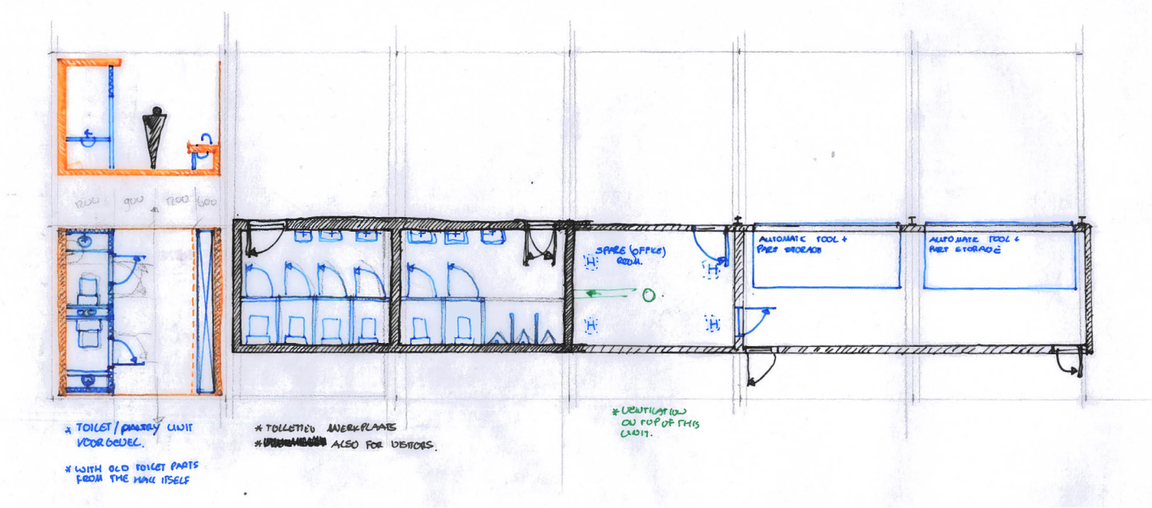


Image 134: The program of the workshop changed for a large part to a storage warehouse for used materials this needed changes in the design.







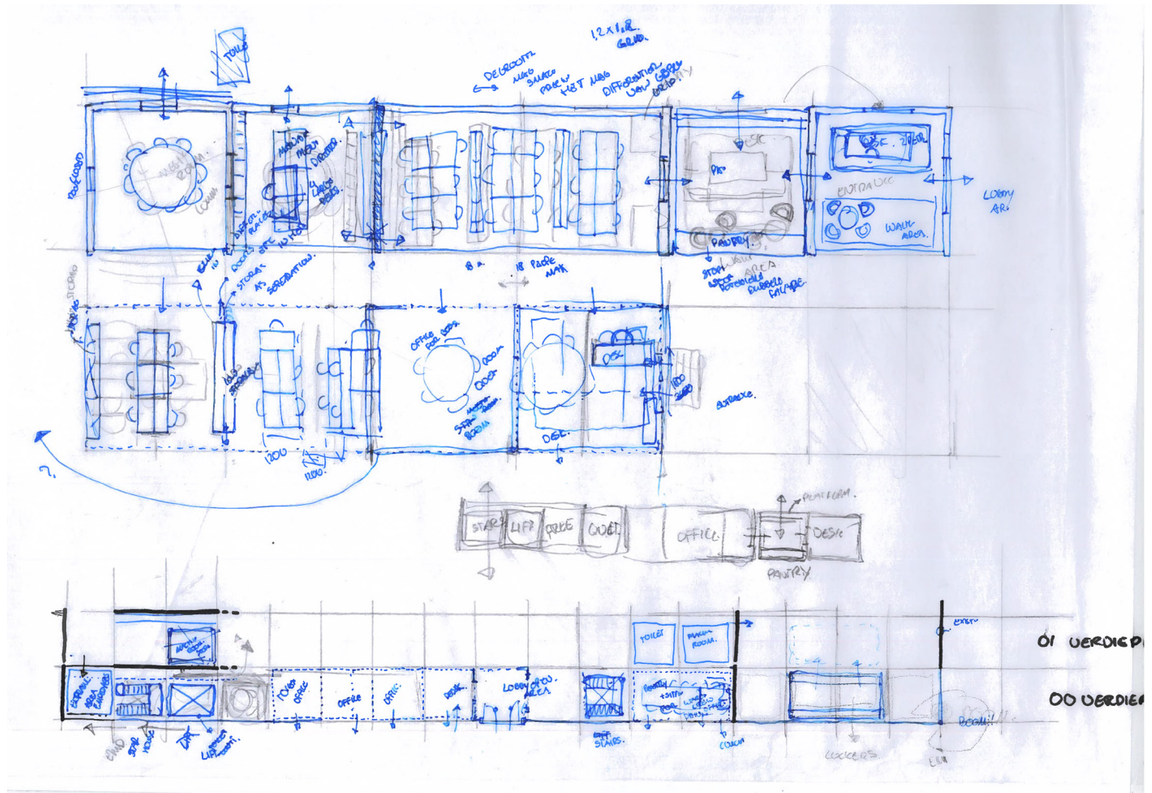


Image 135 & 136: Design and explorations of the floor plan of the warehouse and workshop building, interaction with the facade.

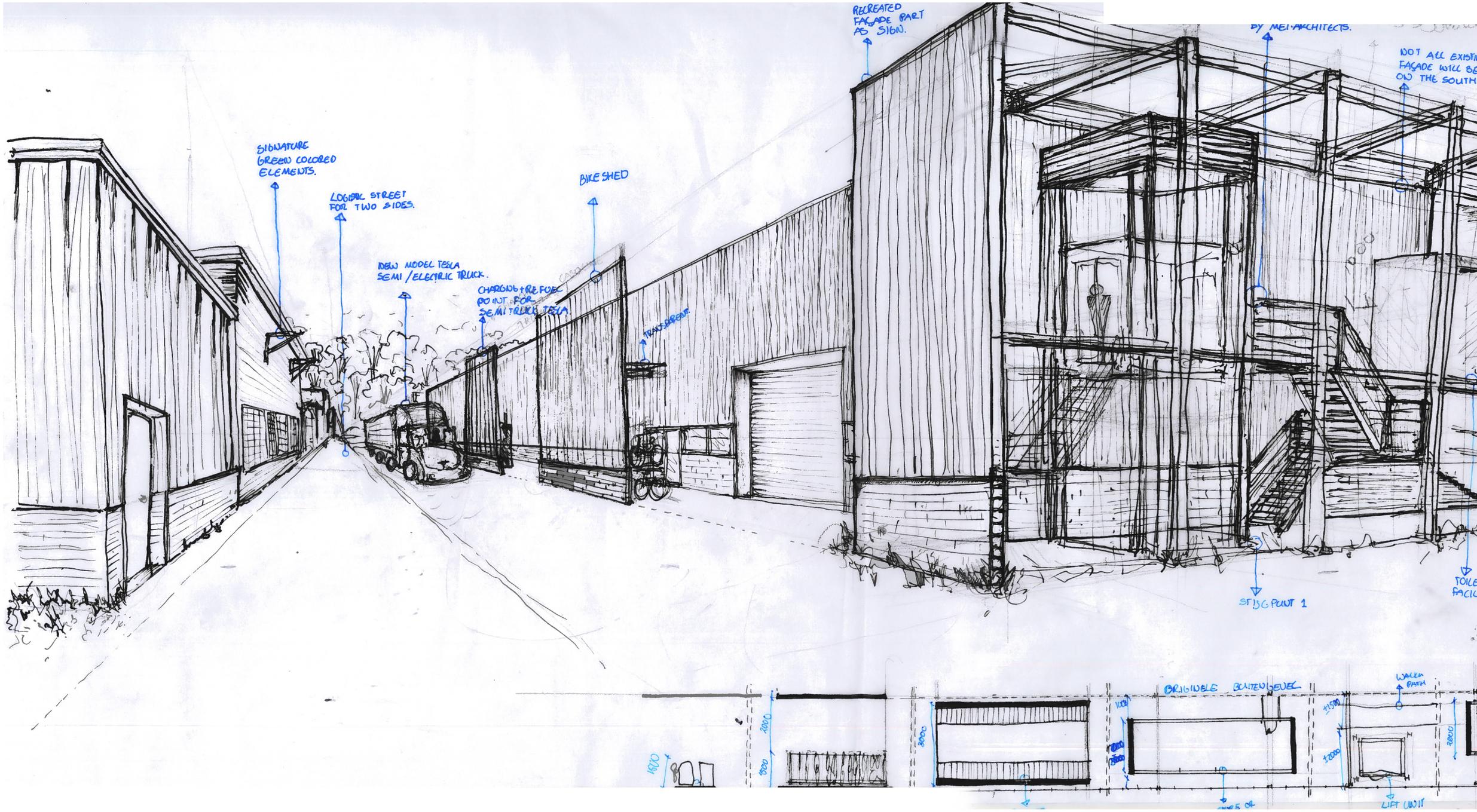
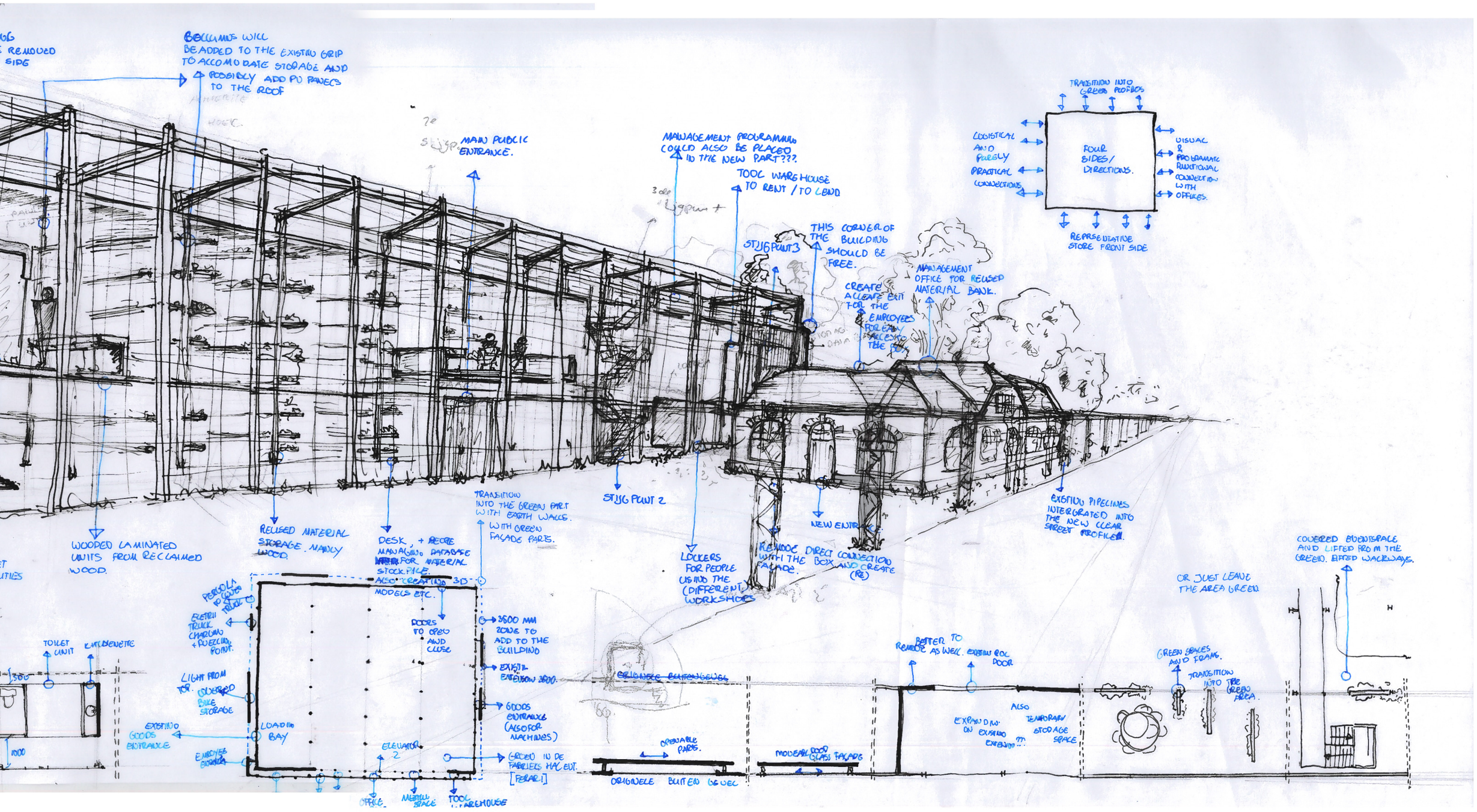


Image 137: Design and explorations of the warehouse and workshop building, interaction with the facade through plans and a perspective drawing.


BUILDINGS WILL BE ADDED TO THE EXISTING GRID TO ACCOMODATE STORAGE AND POSSIBLY ADD PV PANELS TO THE ROOF
MAIN PUBLIC ENTRANCE.
MANAGEMENT PROGRAMMES COULD ALSO BE PLACED IN THE NEW PART???
TOOL WAREHOUSE TO RENT / TO LEND
STIJG PUNT 3
THIS CORNER OF THE BUILDING SHOULD BE FREE.
CREATE A CLEAR EXIT FOR THE EMPLOYEES FOR EASY ACCESS TO THE BUS
MANAGEMENT OFFICE FOR RECYCLED MATERIAL BANK.
TRANSITION INTO GREEN PROFILES
LOGISTICAL AND PURELY PRACTICAL CONNECTIONS
FOUR SIDES / DIRECTIONS.
VISUAL & PROGRAMATIC FUNCTIONAL CONNECTION WITH OFFICES.
REPRESENTATIVE STORE FRONT SIDE
WOODED LAMINATED UNITS FROM RECLAIMED WOOD.
RECUSED MATERIAL STORAGE. MAINLY WOOD.
DESK + RECEPTION MANAGEMENT DATABASE FOR MATERIAL STOCK PILE.
ALSO CREATION 3D MODELS ETC.
TRANSITION INTO THE GREEN PART WITH EARTH WALLS. WITH GREEN FACADE PARTS.
STIJG PUNT 2
LOCKERS FOR PEOPLE USING THE (DIFFERENT) WORKSHOPS
REMODE DIRECT CONNECTION WITH THE BOX AND CREATE (RE)
NEW ENTRANCE
EXISTING PIPELINES INTERGRATED INTO THE NEW CLEAR STREET PROFILE.
COVERED BUSINESS AND LIFTED FROM THE GREEN. LIFTED WALKWAYS.
OR JUST LEAVE THE AREA GREEN
PERGOLA TO COVER TRUCK
ELETRIC TRUCK CHARGING + RECEIVING POINT.
LIGHT FROM TOP.
COVERED BIKE STORAGE
TOILET UNIT
KITCHENETTE
3600
1000
EXISTING GOODS ENTRANCE
EMPLOYEE ENTRANCE
LOADING BAY
DOORS TO OPEN AND CLOSE
3500 MM ZONE TO ADD TO THE BUILDING
EXISTING EXTENSION 3600.
GOODS ENTRANCE (ALSO FOR MACHINES)
GREEN IN DE FABRIEKS HAL EIT. [REAR.]
ELEVATOR 2.
OFFICE
MEETING SPACE
TOOL WAREHOUSE
ORIGINELE BUITENGEVEL
ORIGINELE BUITEN GEVEL
MODERN GLASS FACADE
BETTER TO REMODE AS WELL. EXISTING POOR
ALSO TEMPORARY STORAGE SPACE
EXPANDING ON EXISTING ...
GREEN SPACES AND TRANS.
TRANSITION INTO THE GREEN AREA.

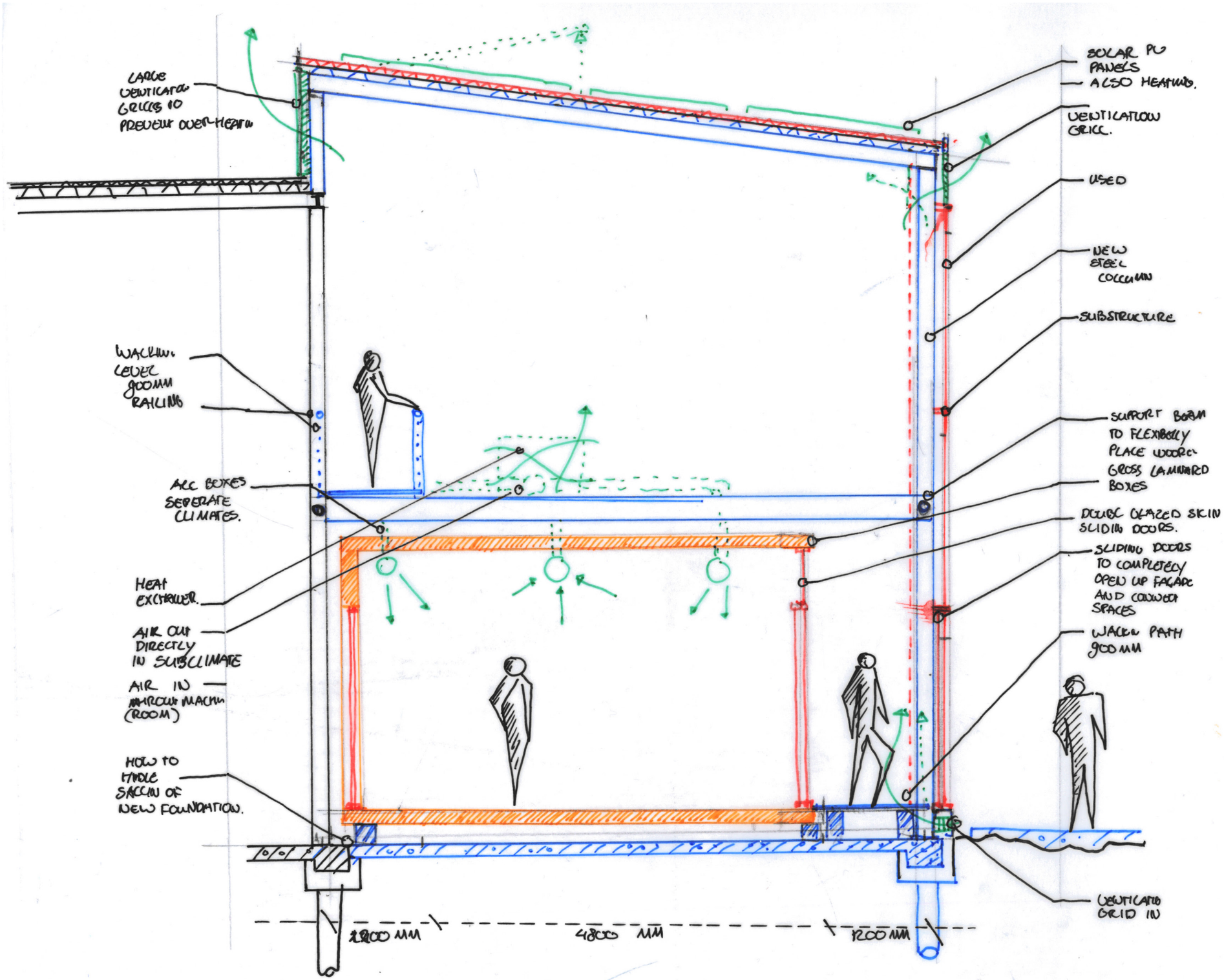


Image 138: Facade section presented during the P3 presentation

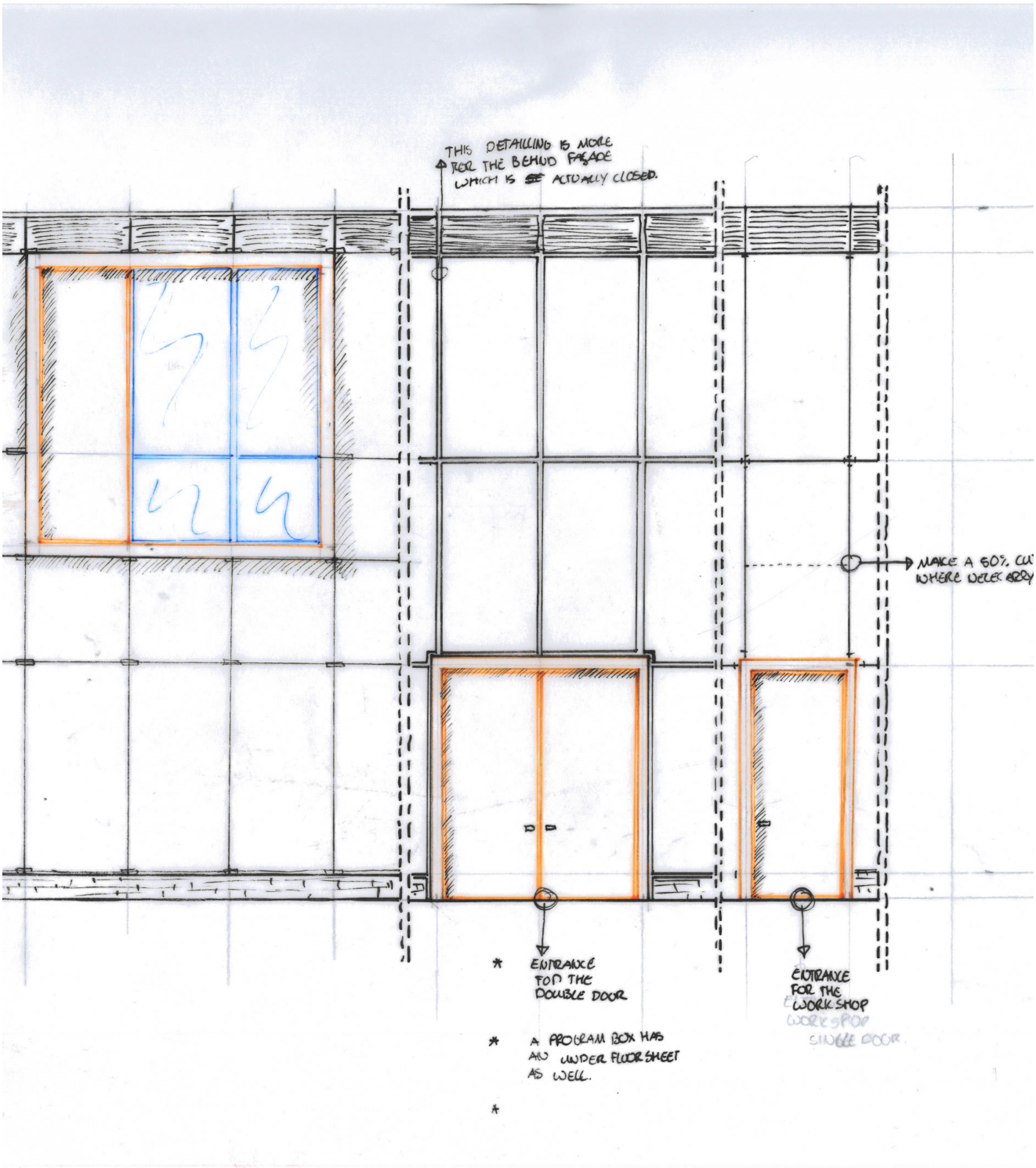


Image 139: Storefront and office facade for the workshop and warehouse building. Presented during the P3.

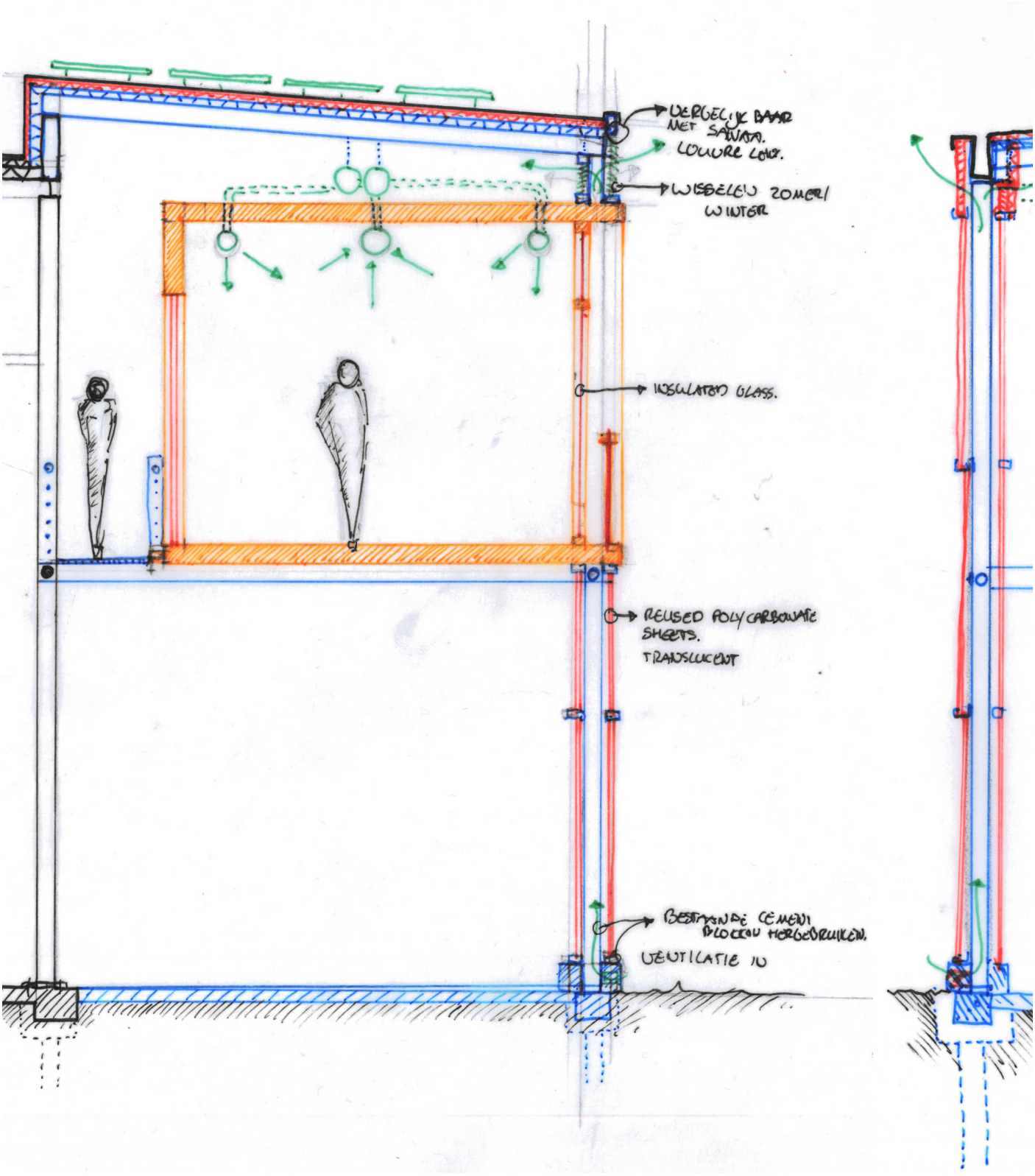
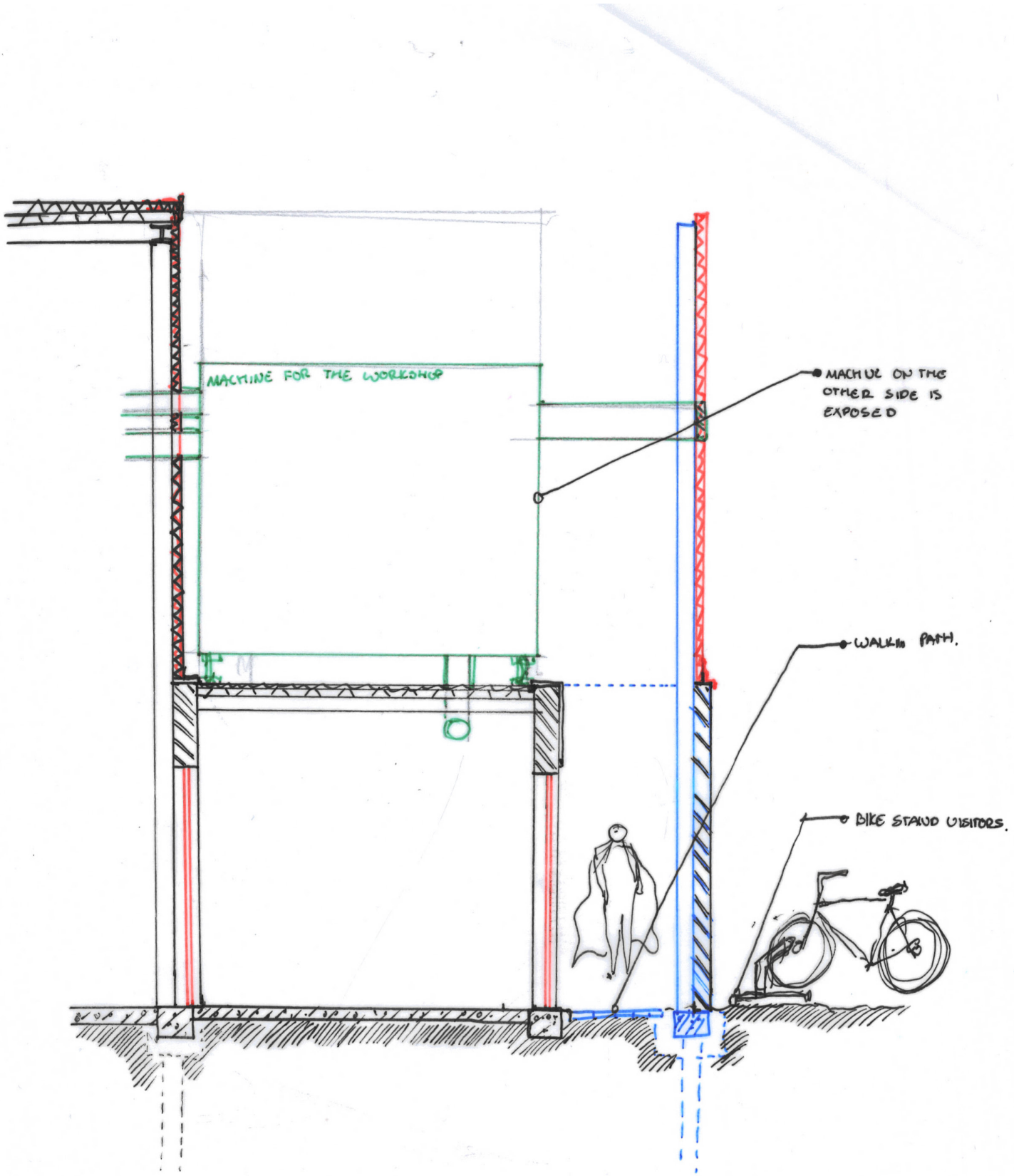


Image 140: Alternative facade sections for the warehouse and workshop building.


MACHINE FOR THE WORKSHOP
MACHINE ON THE OTHER SIDE IS EXPOSED
WALKING PATH.
BIKE STAND VISITORS.

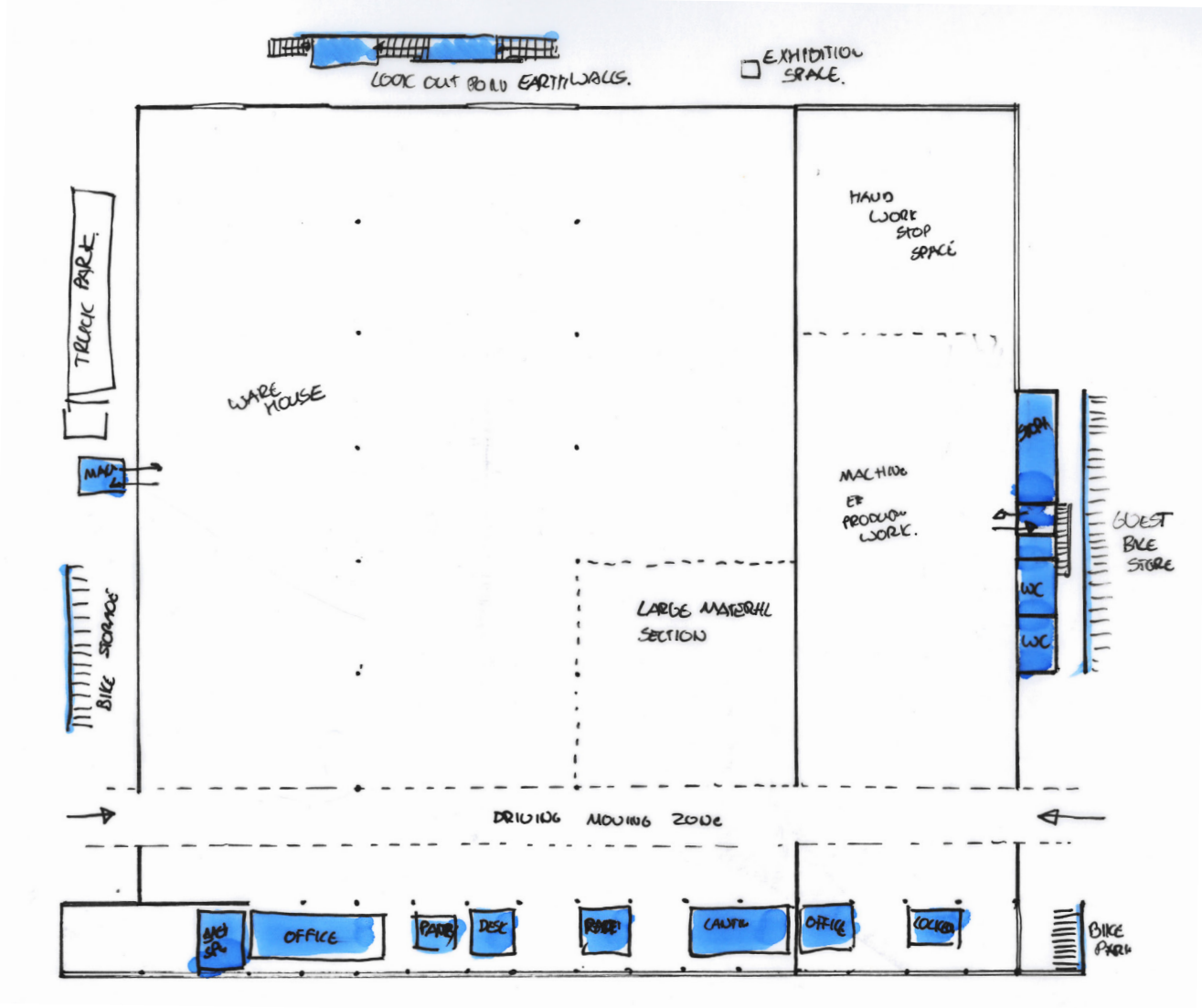
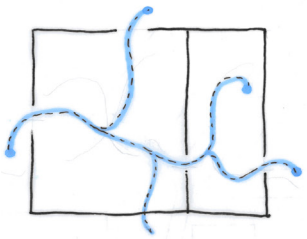
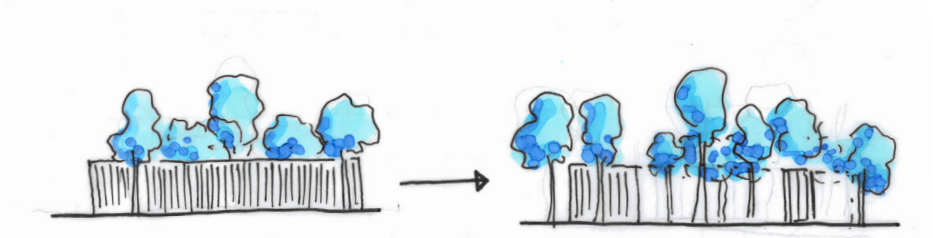


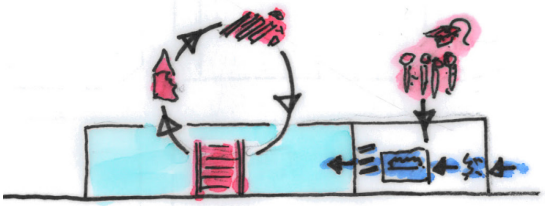
Image 141: diagram plan for the warehouse and workshop building.



free open spaces



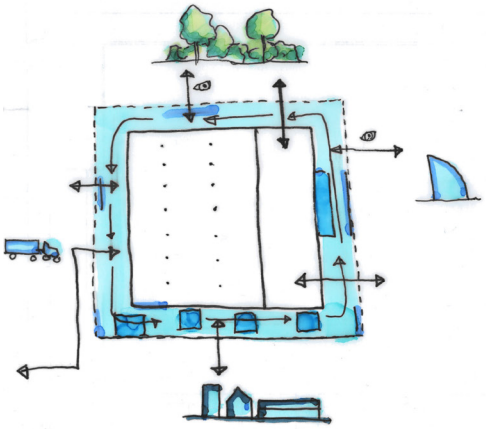
currently a closed facade blocking a view, now create a vaguer boundary, more transparancy



program: used material warehouse & workshop



storefront and testing facade for reused building



create a vaguer, functional and architectural boundary

Image 142: Concept and value diagrams for the used materials warehouse.

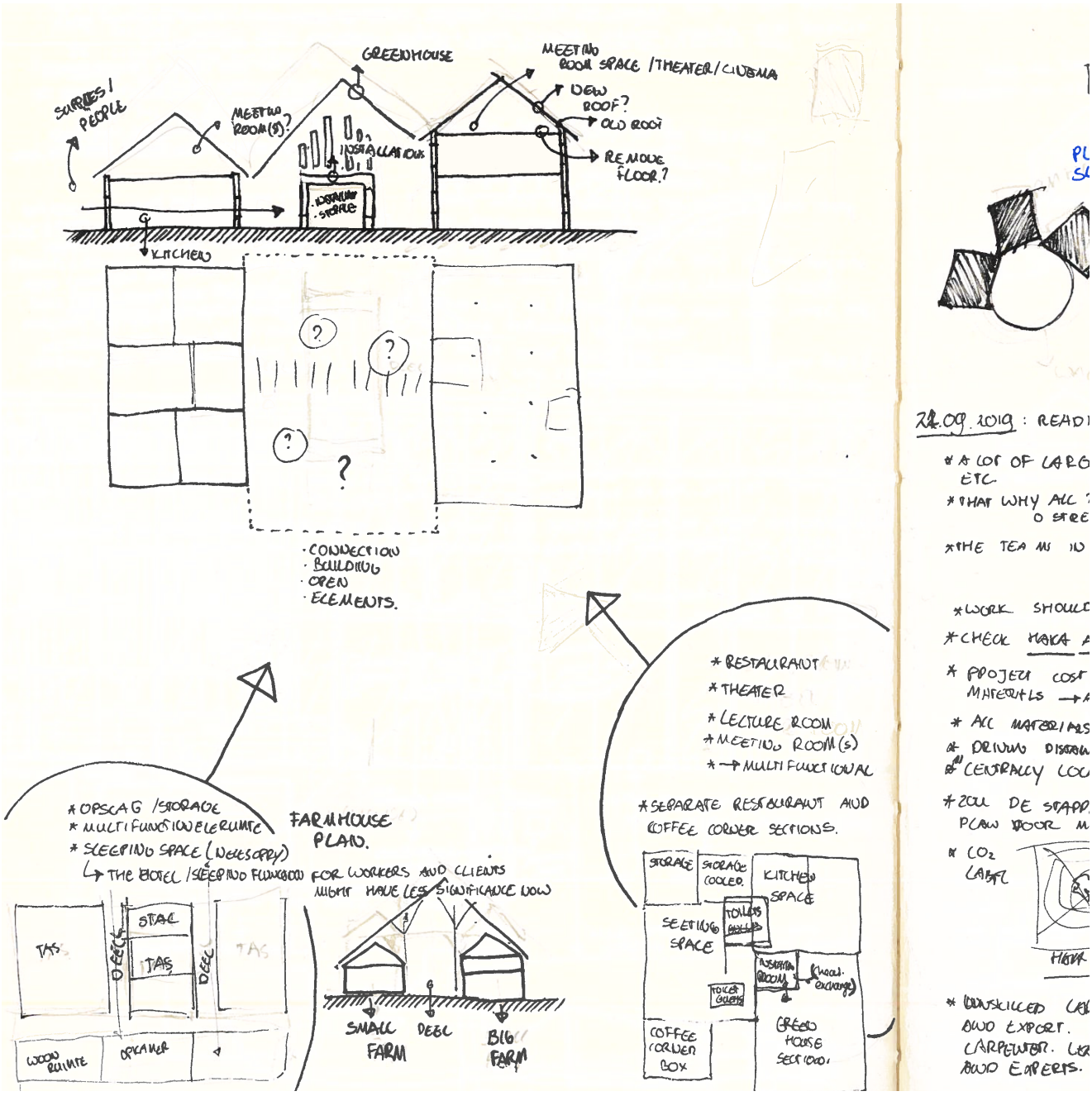


Image 143: Exploring floor plans through looking at standard actual traditional farm plans.

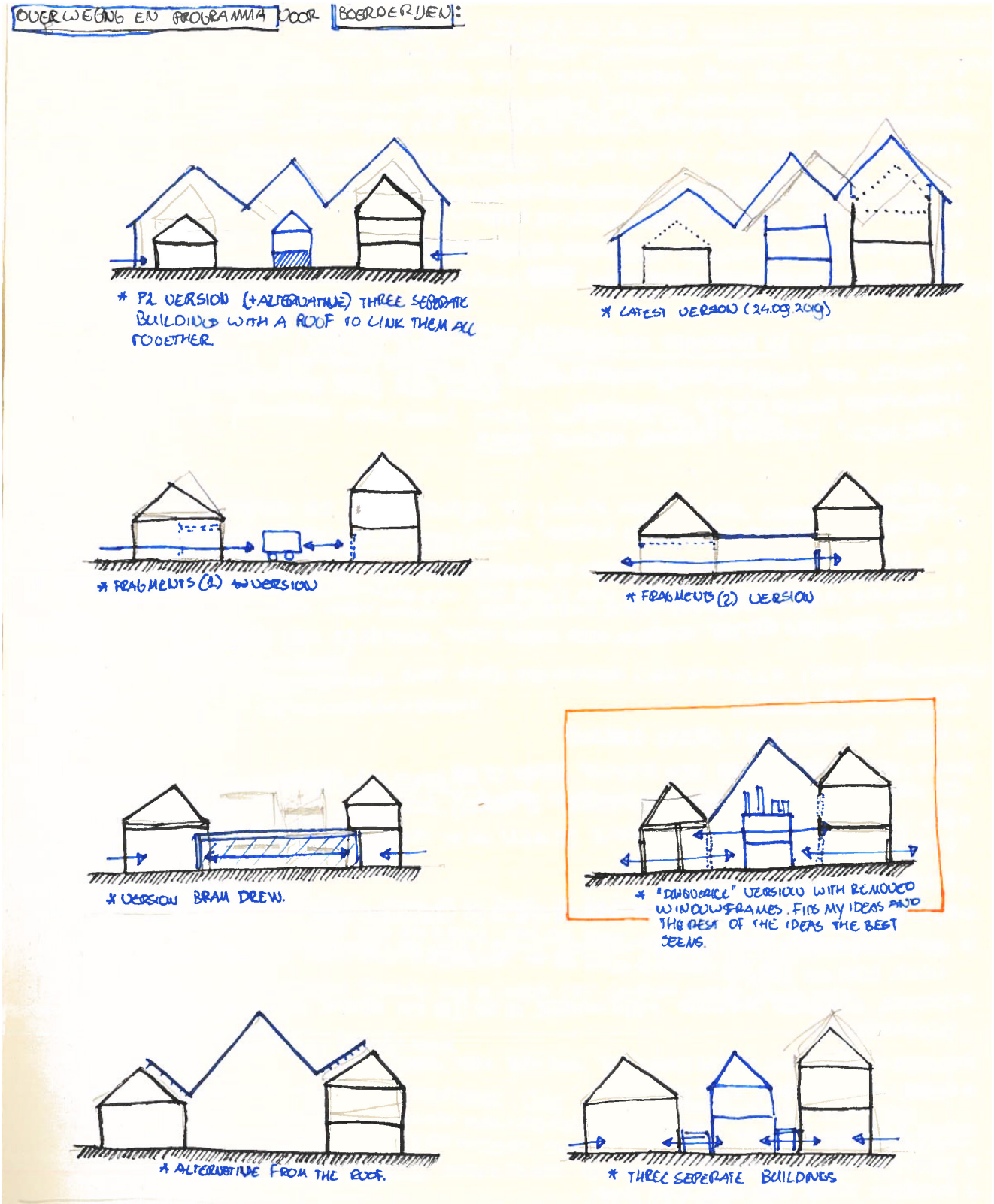


Image 144: Sketches exploring different possibilities for the in-between space of the farm buildings.

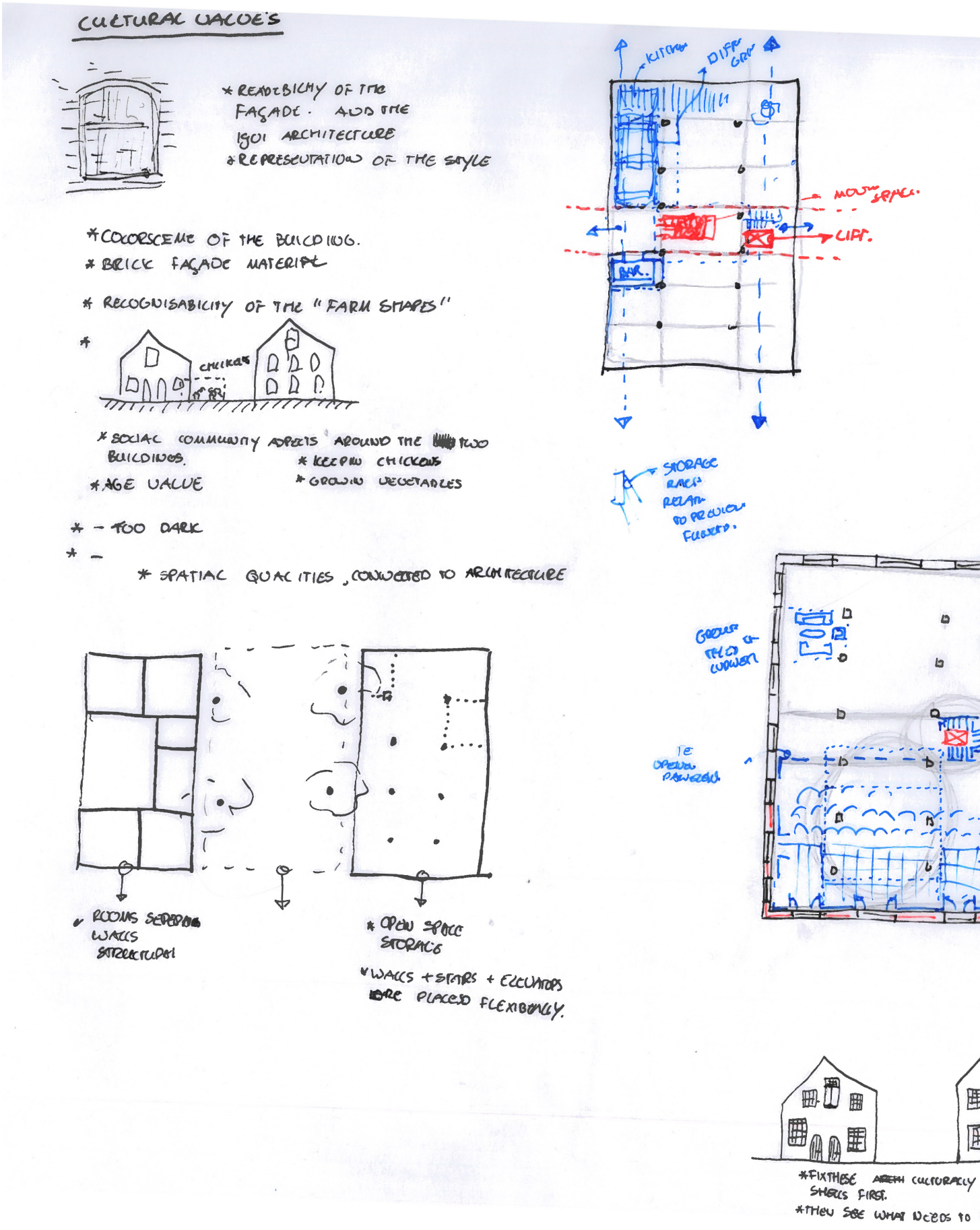
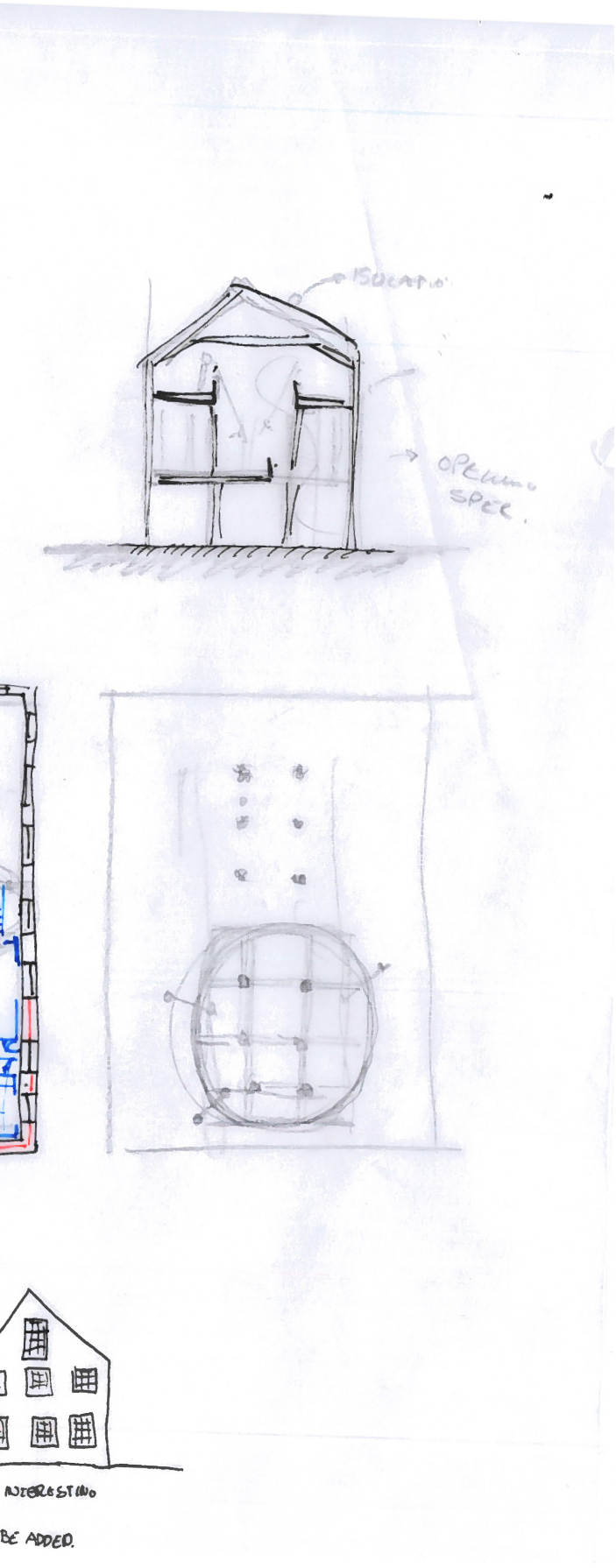
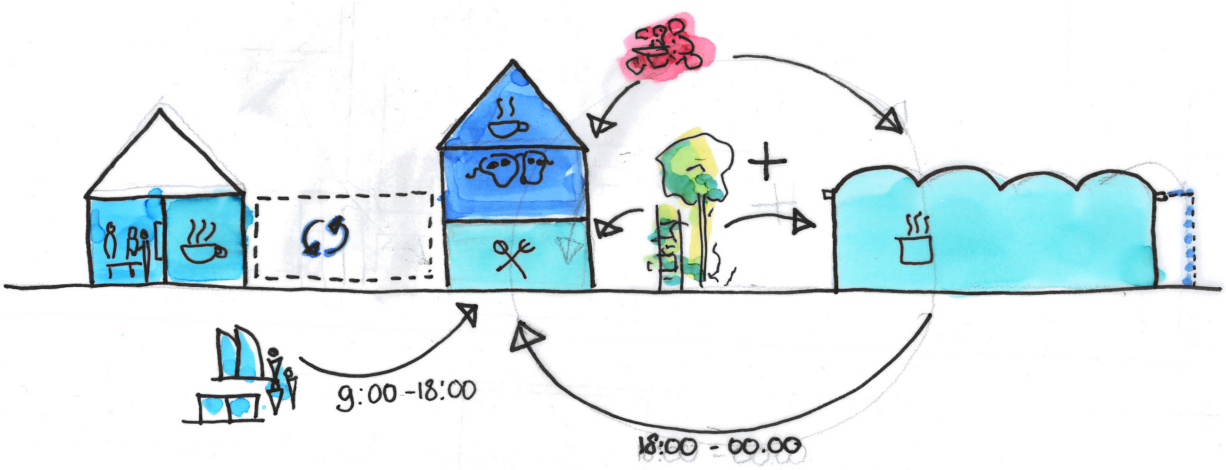


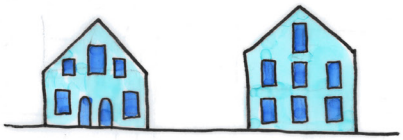
Image 145: Refocusing on cultural values in the design, as to create a clear and precise way of approaching the buildings and the design.



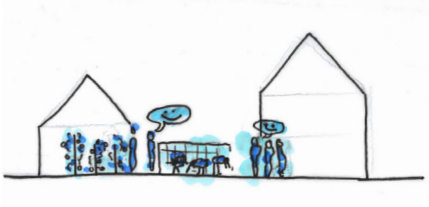




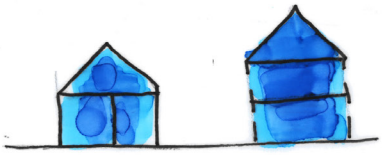
architectural details



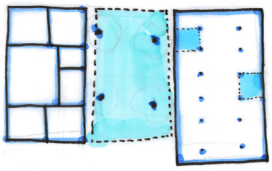
readability, representation of style



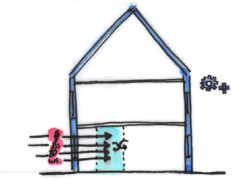
past social interactions



the inside spaces are dark



three different but specific spaces



technical upgrade and installations

Image 146: P3 diagrams for concepts and values for the farm buildings.

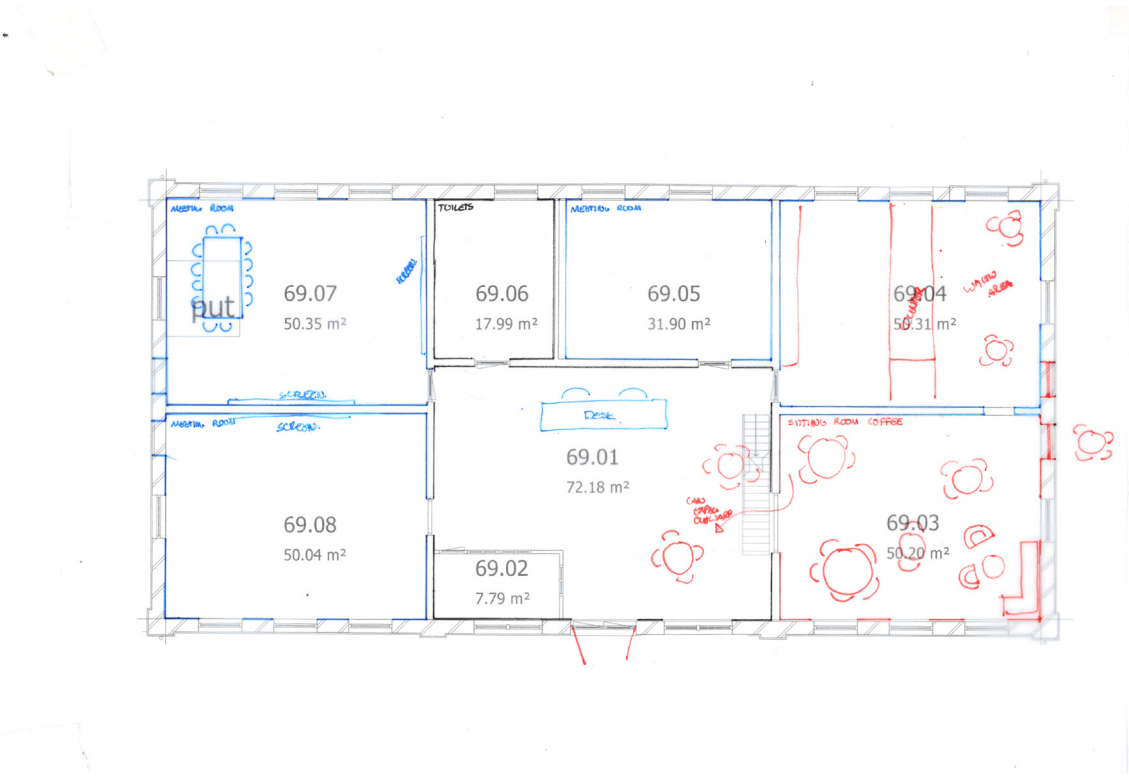
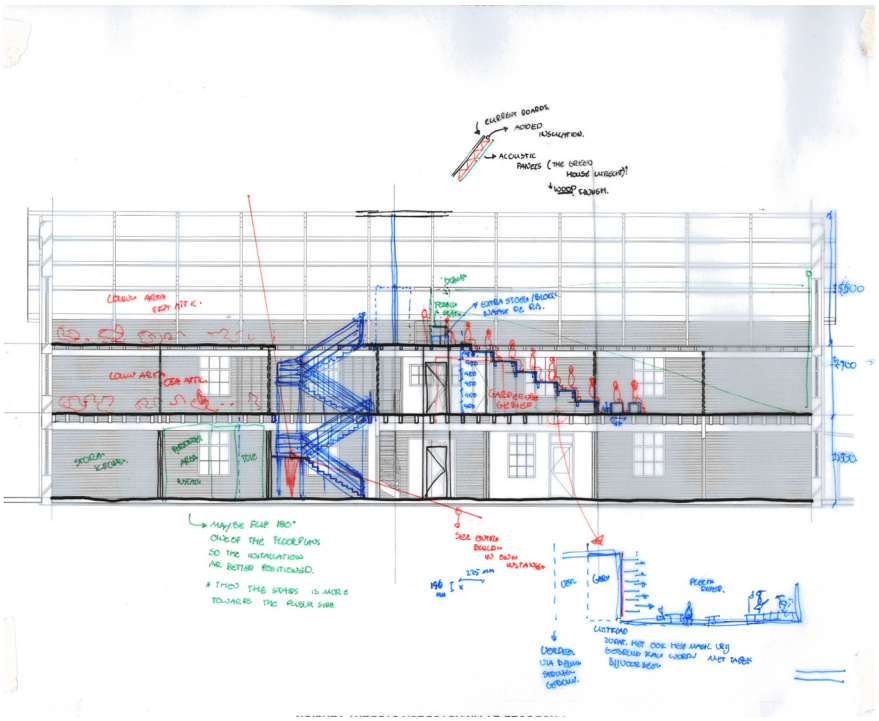


Image 147: P3 version of the floor-plan of the small farm, containing offices.



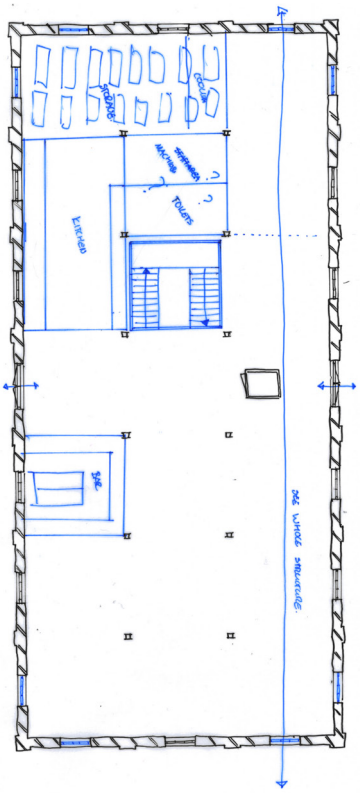


Image 148 & 149: P3 version of the restaurant floor plan and the section of the large farm building theater.

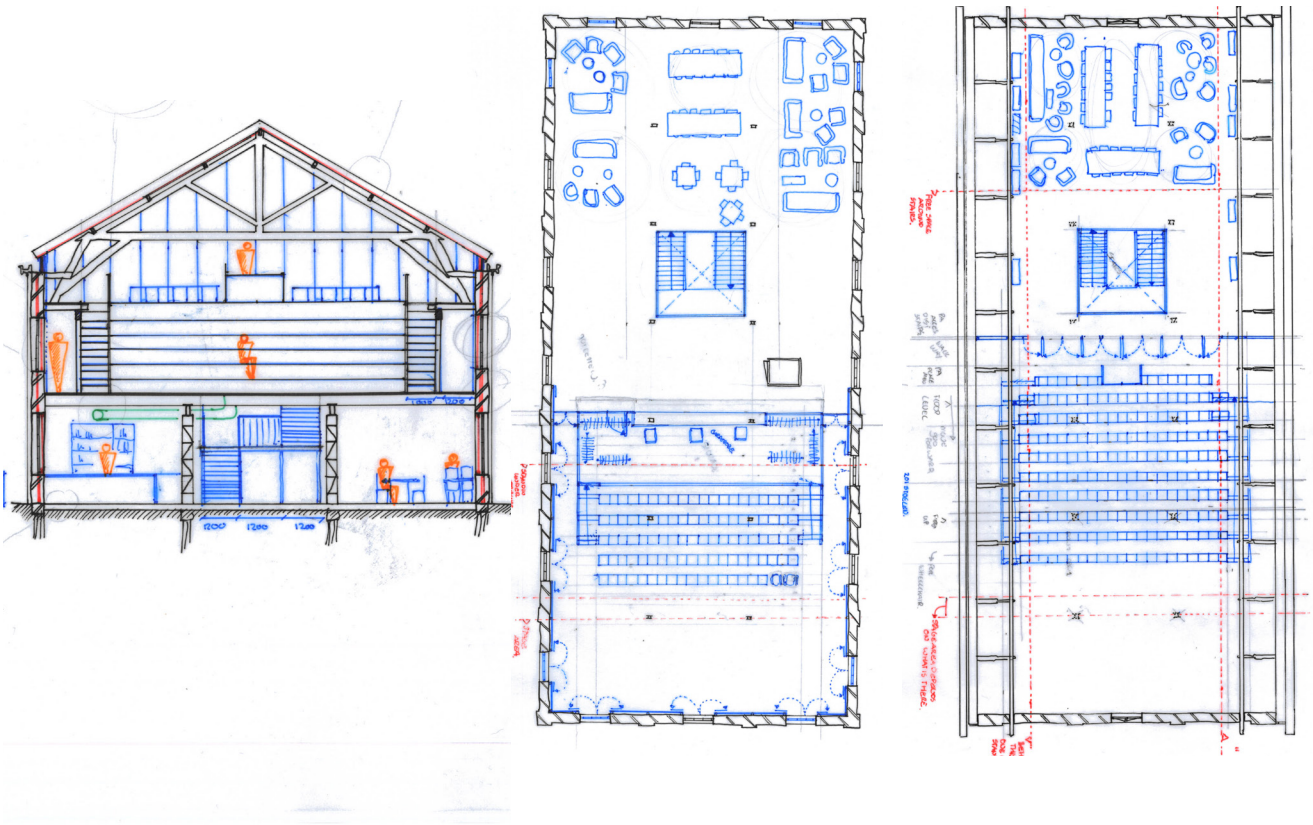


Image 150, 151, 152: P3 section and floor plans of the small theater.

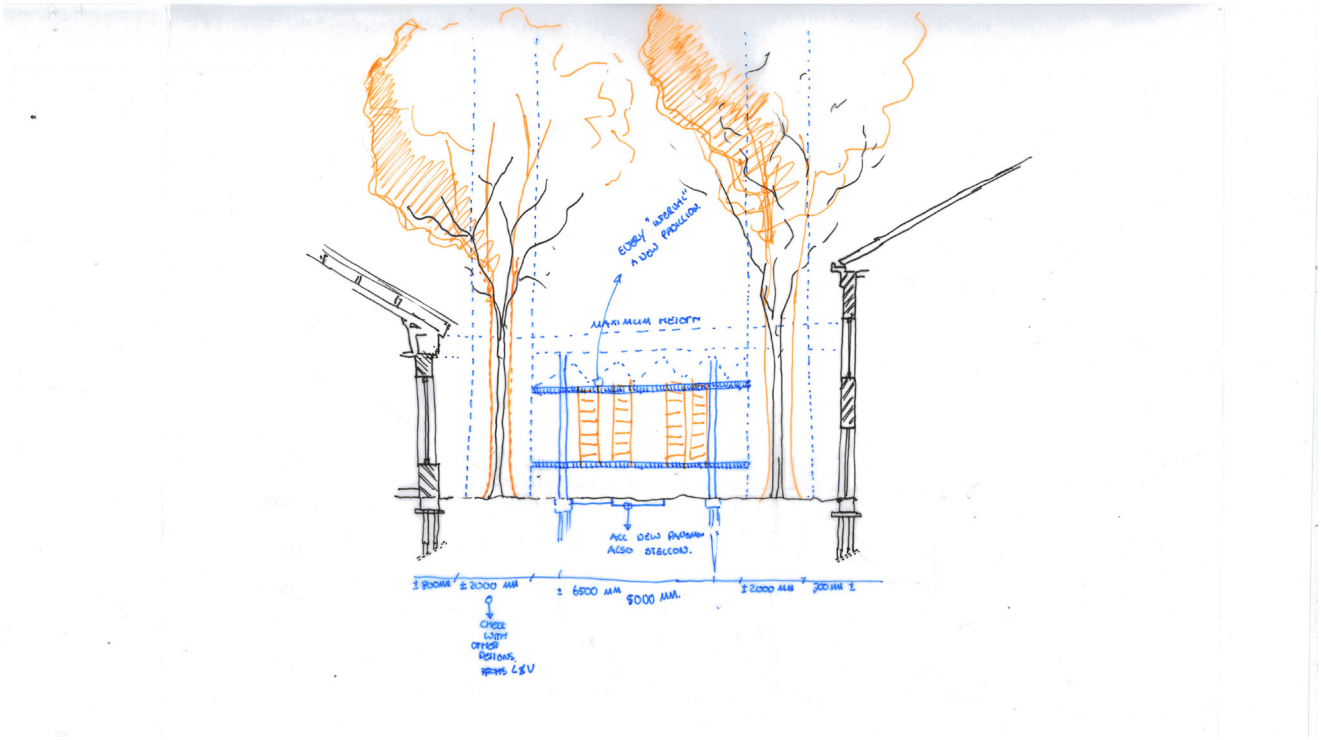


Image 153: Sketch of the public space between the two farm buildings.

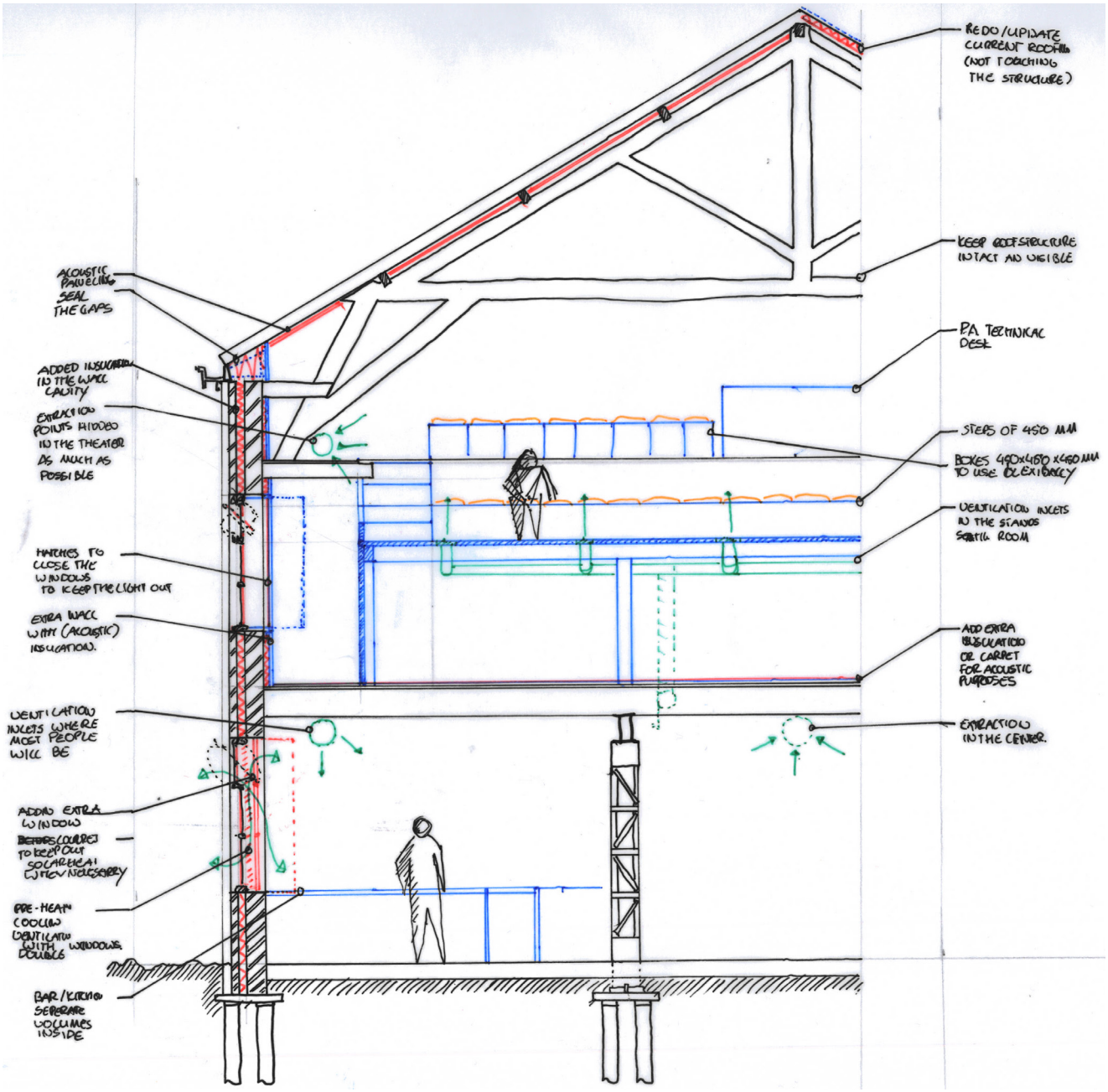


Image 154: Facade section of the large farm containing a theater and a restaurant.

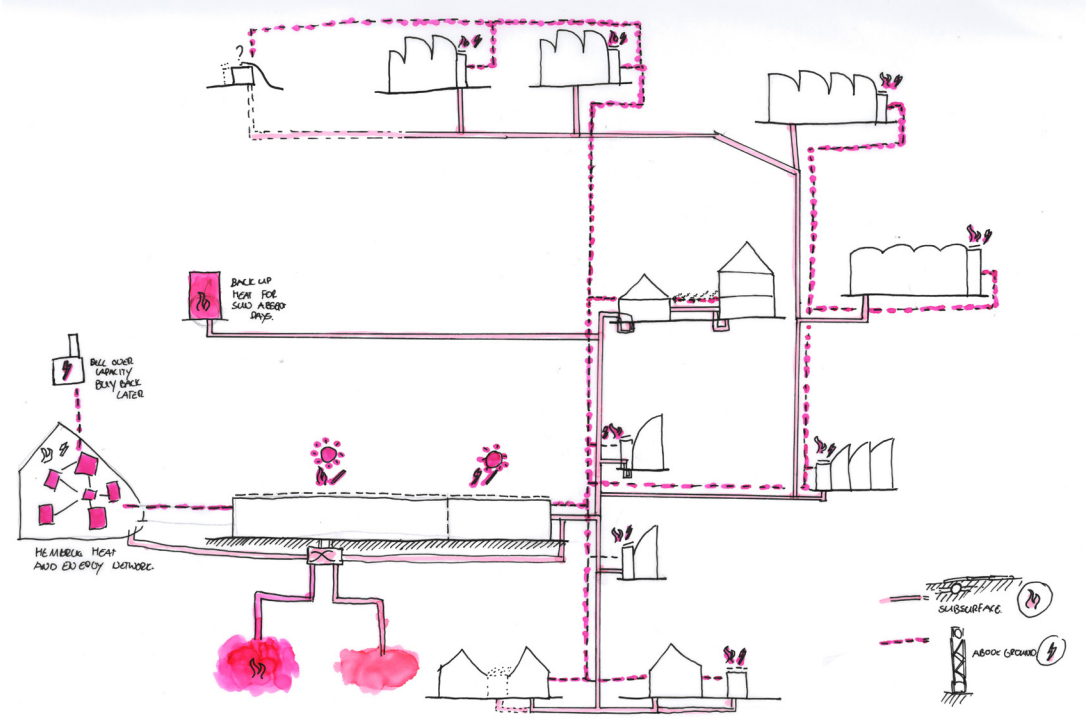
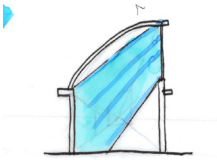


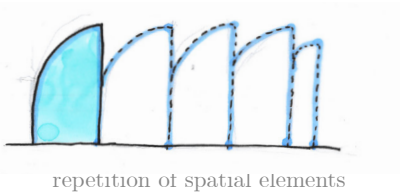
Image 155: Hembrug heat and energy network proposal.



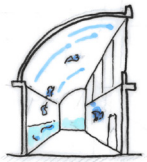
neutral northern daylight



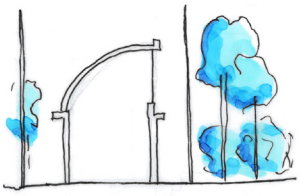
thin shell roof structure



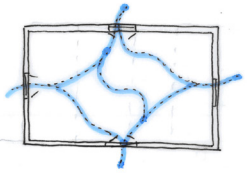
repetition of spatial elements



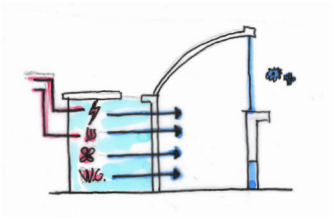
traces of the past use



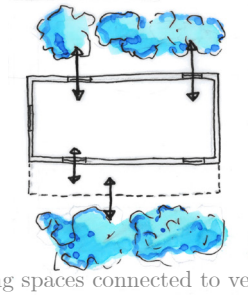
contrast inside outside



free open space with daylight



addition with all basic installations



working spaces connected to vegetation

Image 156: Values and concepts for the shell roof buildings.

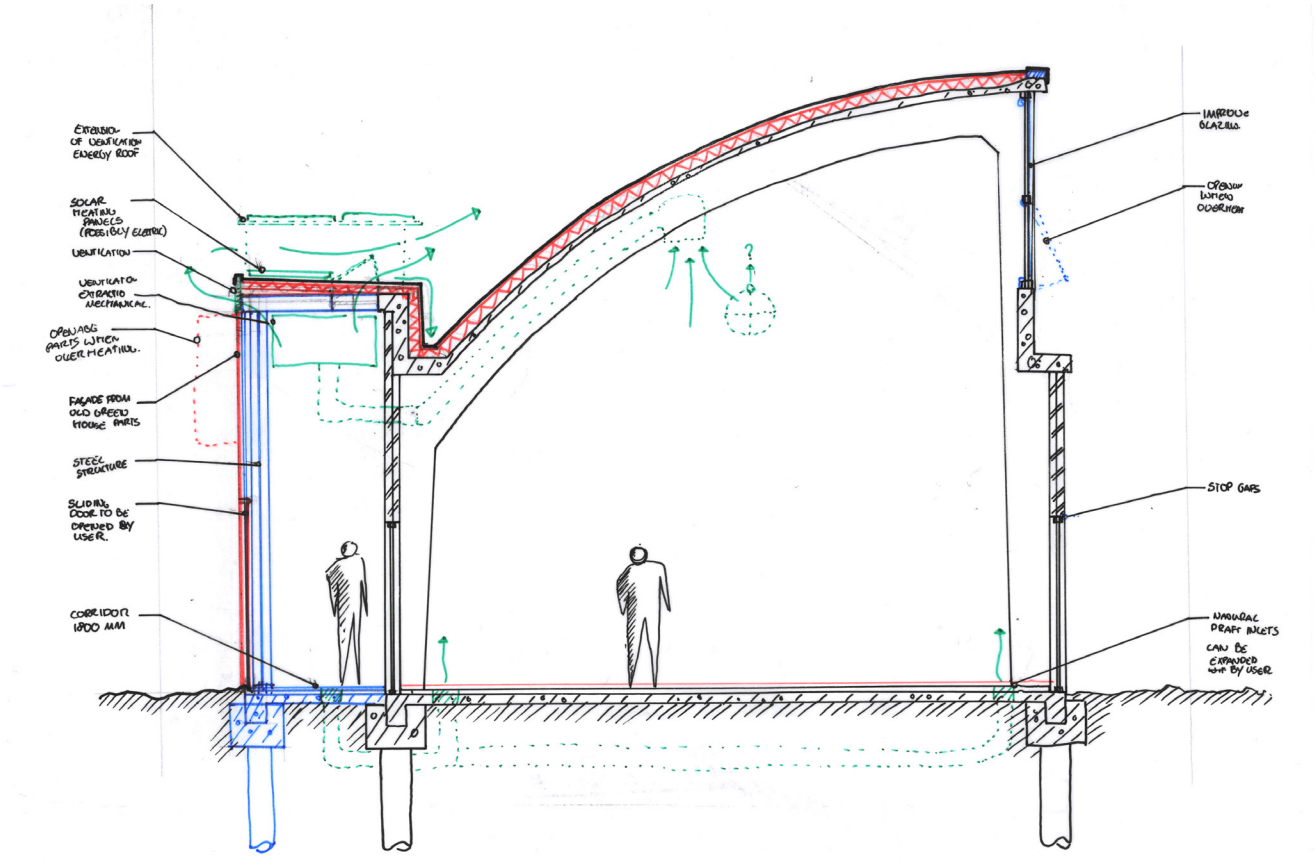
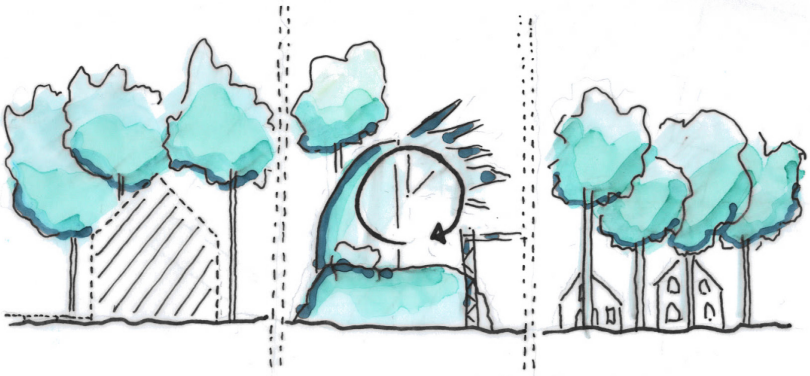
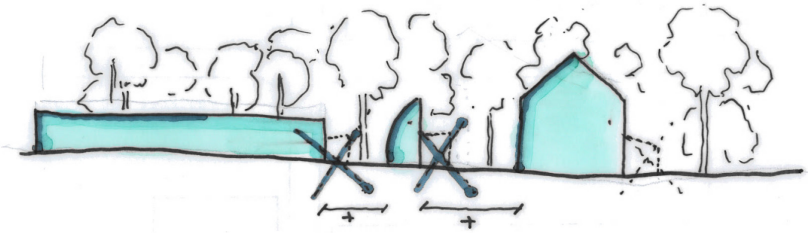


Image 157: 1:50 Section of the shellroofs, representative for the other configurations of this buildingtype.



designing from different values from different periods



remove some of the extra buildings to create space and clarity



the area is serving for its surroundings with new industries

Image 158: Main urban concepts for the redevelopment of the Plots In the woods in Hembrug.

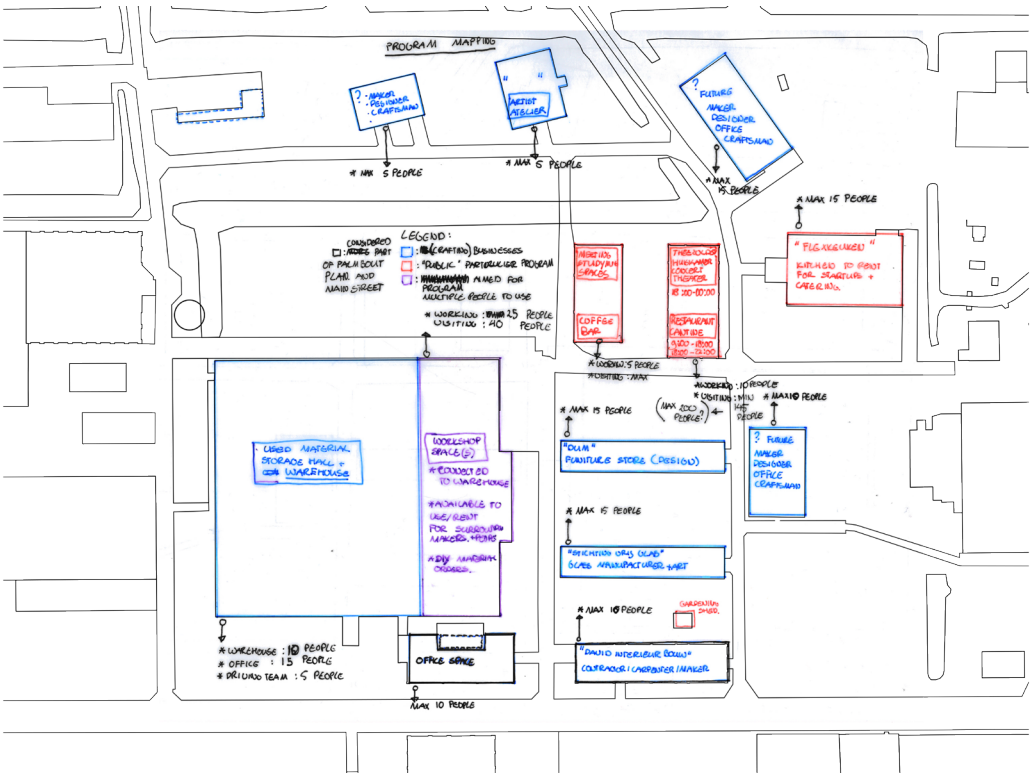


Image 159: Program.

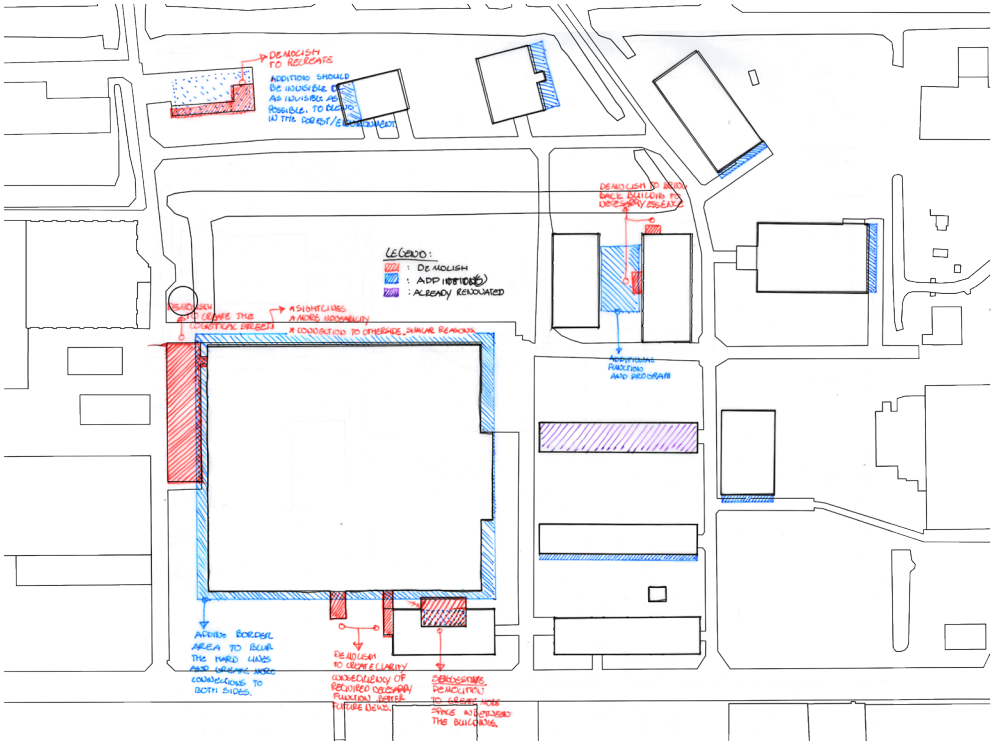


Image 158: Demolition map, for clearing the Plots in the Wood.



protected forest



several applications of different vegetation plans for different areas playing into the existing



artifacts



street profile upgrade



do not cut down any trees



less maintenance

Image 159: Main landscape architectural concepts for the redevelopment of the Plots In the woods in Hembrug.

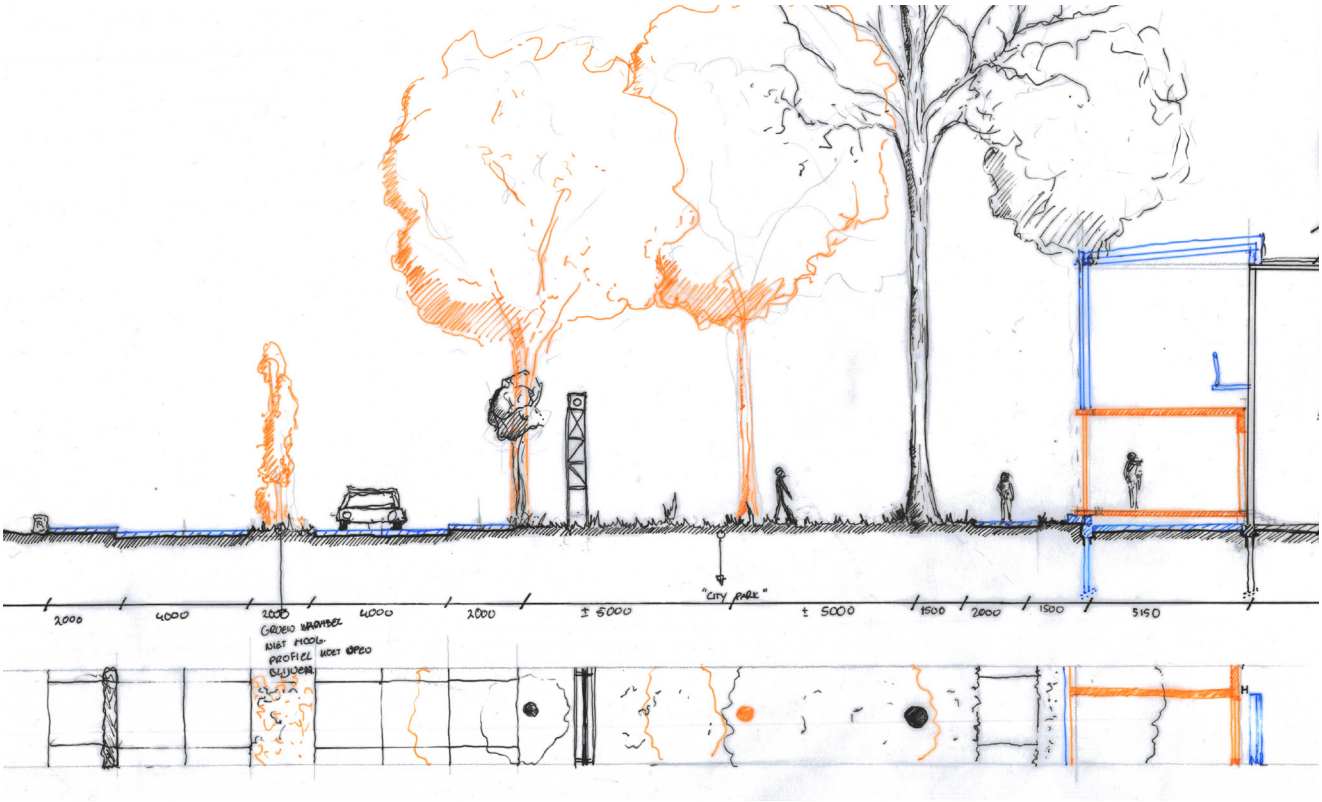
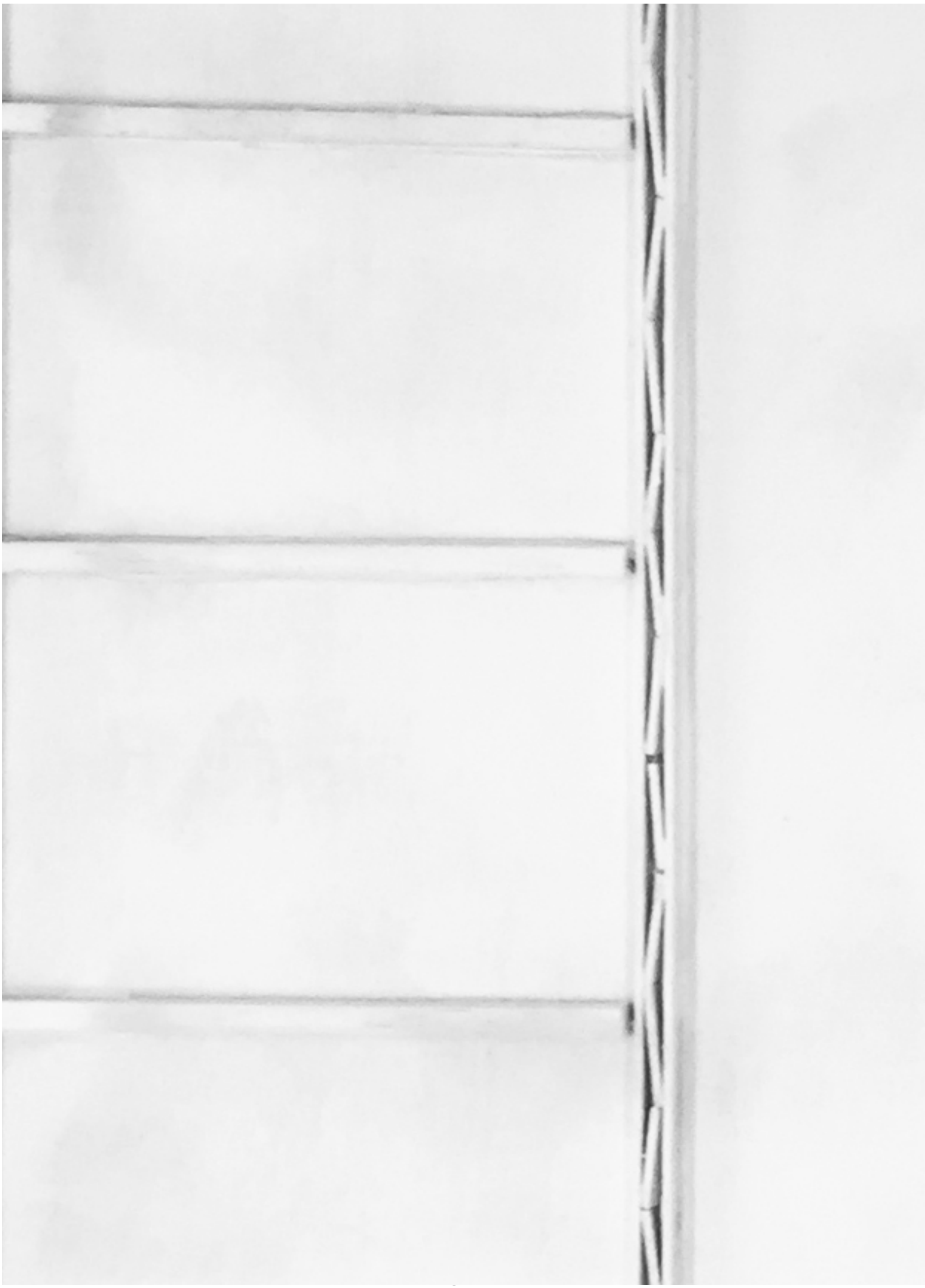


Image 160: Section of the main road and a proposal for a connection between public space and building.



P4

The process of the design and images towards the P4 presentation. Here is considered if the project is in ready stage for the eventual graduation.

for

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.



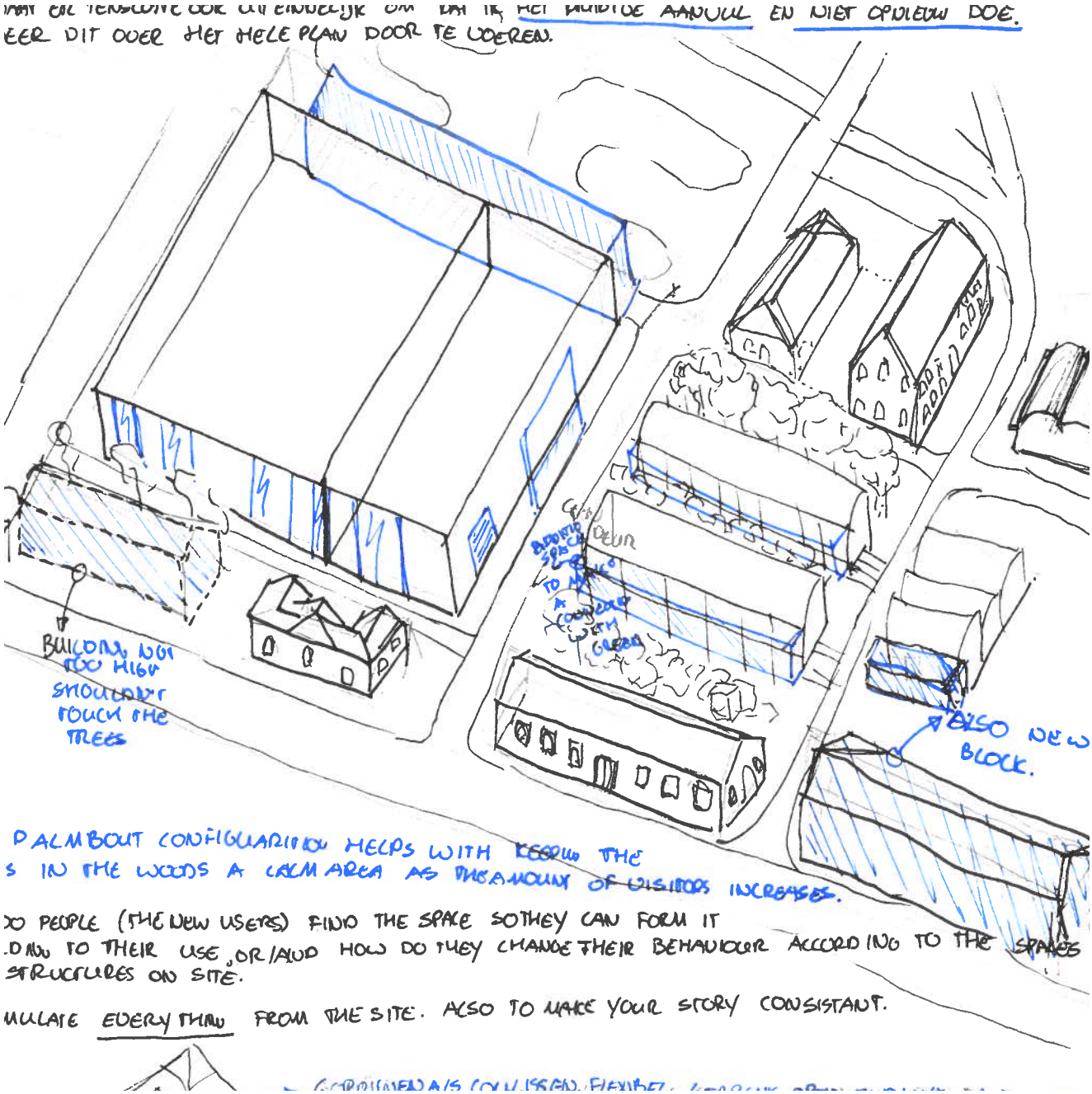


Image 161: Updating urban concept of addition along the lines of unfinished architecture and building the unfinished meant to challenge the user to extend. The drawing here maps possible extensions.

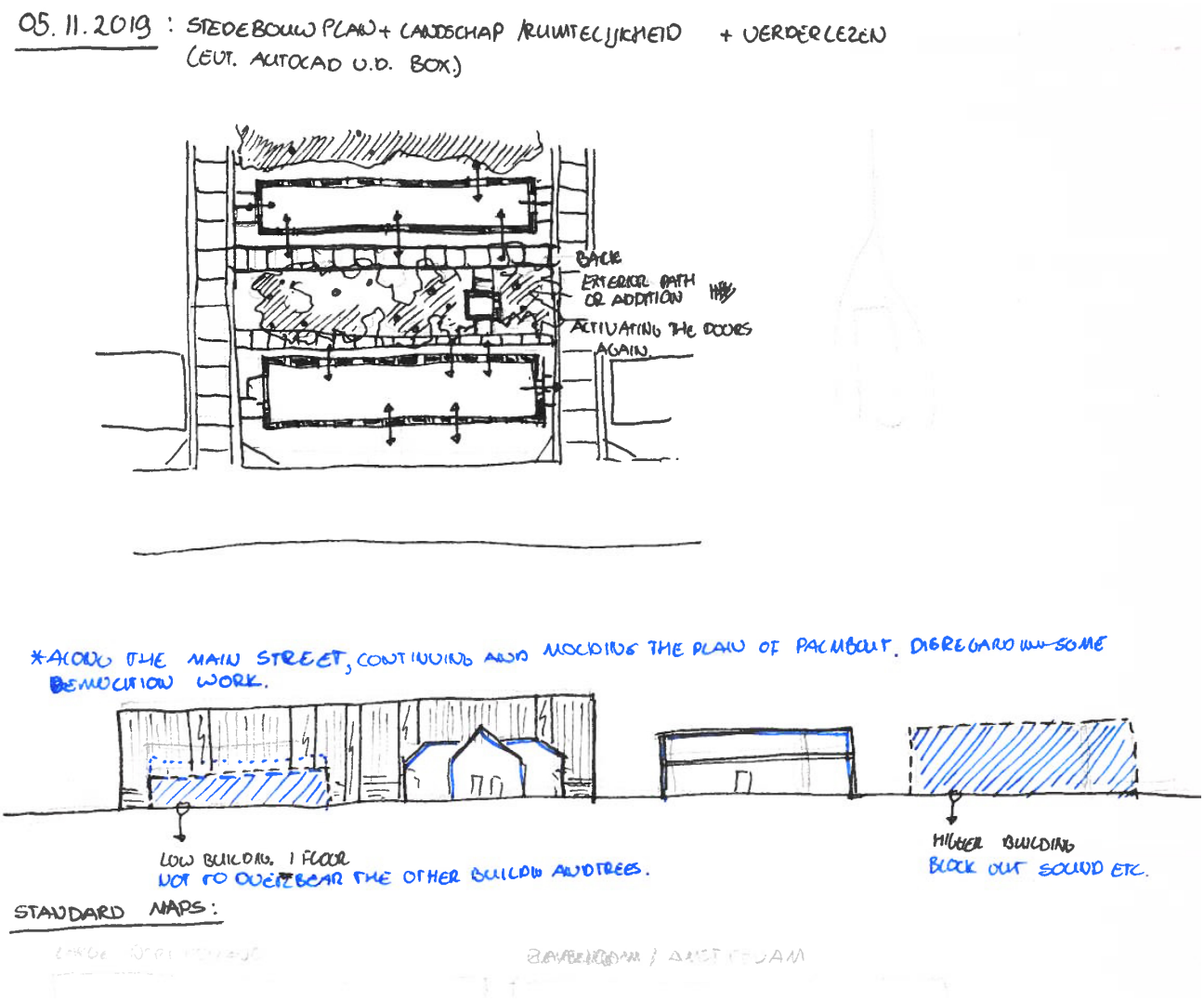


Image 162: Redefining the public space and connecting it to the inside space of the building. The warehouse acts as a backdrop for the Palmbout design for the main street.



Image 163: Design of the context for the process design, a new production space in the green center of Hembrug, Plots in the Wood.



Image 164: Landscape architectural design plan for the Plots in the Wood.



Image 165: Upgraded street profiles from the existing, plant Platan trees fitting to urban and building level surroundings.

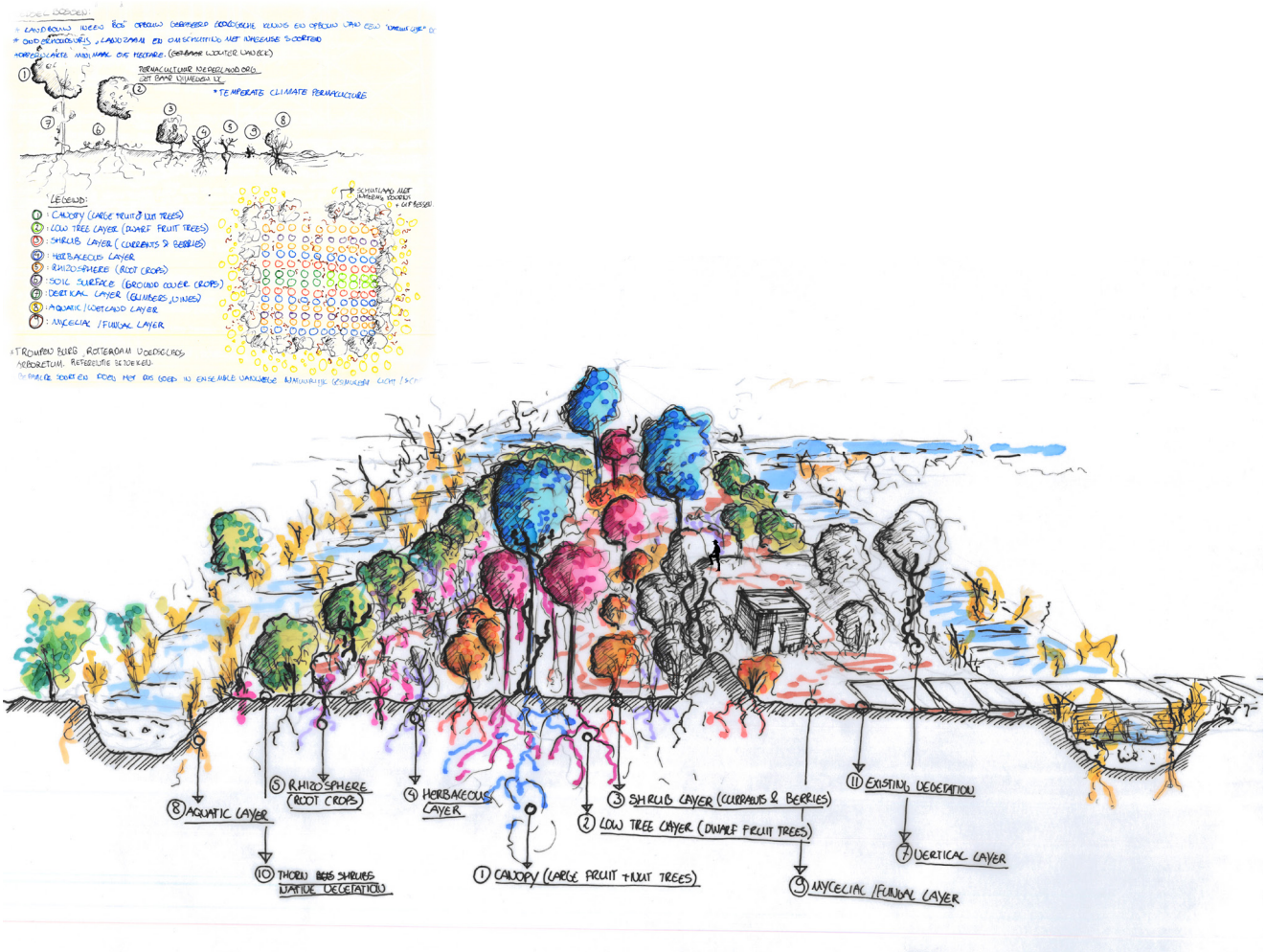
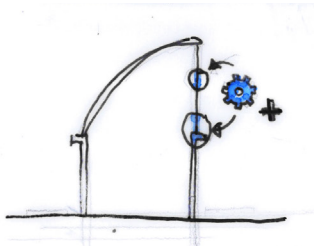


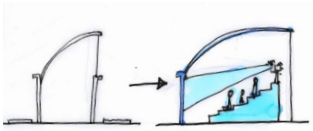
Image 166 & 167: Forest renovation based on ecological knowledge in combination with native species and existing vegetation.



> Perception: *"perceive, recognize, appreciate, represent, document, analyze, explore, compare, collect, discuss, inform, publish, sensitize, reevaluate"*



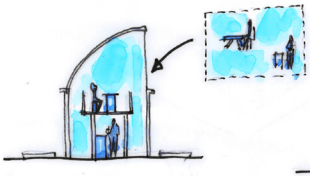
> Maintenance: *"clean, care, improve, patch, seal, cure, prepare, repair"*



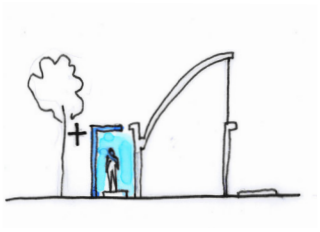
> Conversion: *"reprogram, convert, reorganize, rededicate, transform, remodel"*



> Material Recycling: *"transform, use of spolia, recycle, reprocess, transplant, reassemble"*



> Infill: *"fill, insert, embed, install, connect, close, implant"*



> Addition: *"raise, lengthen, complement, attach, expand, continue, enlarge, append"*

Source: Heilmeyer, F. & Petzet, M. (2012) *Reduce Reuse Recycle.* Ostfildern, Germany: Hatje Cantz Verlag.

phase 1 phase 2 phase 3 programming & detailing

Image 168: The different phases of the process design ordered according to the classifications described in Reduce, Reuse, Recycle.

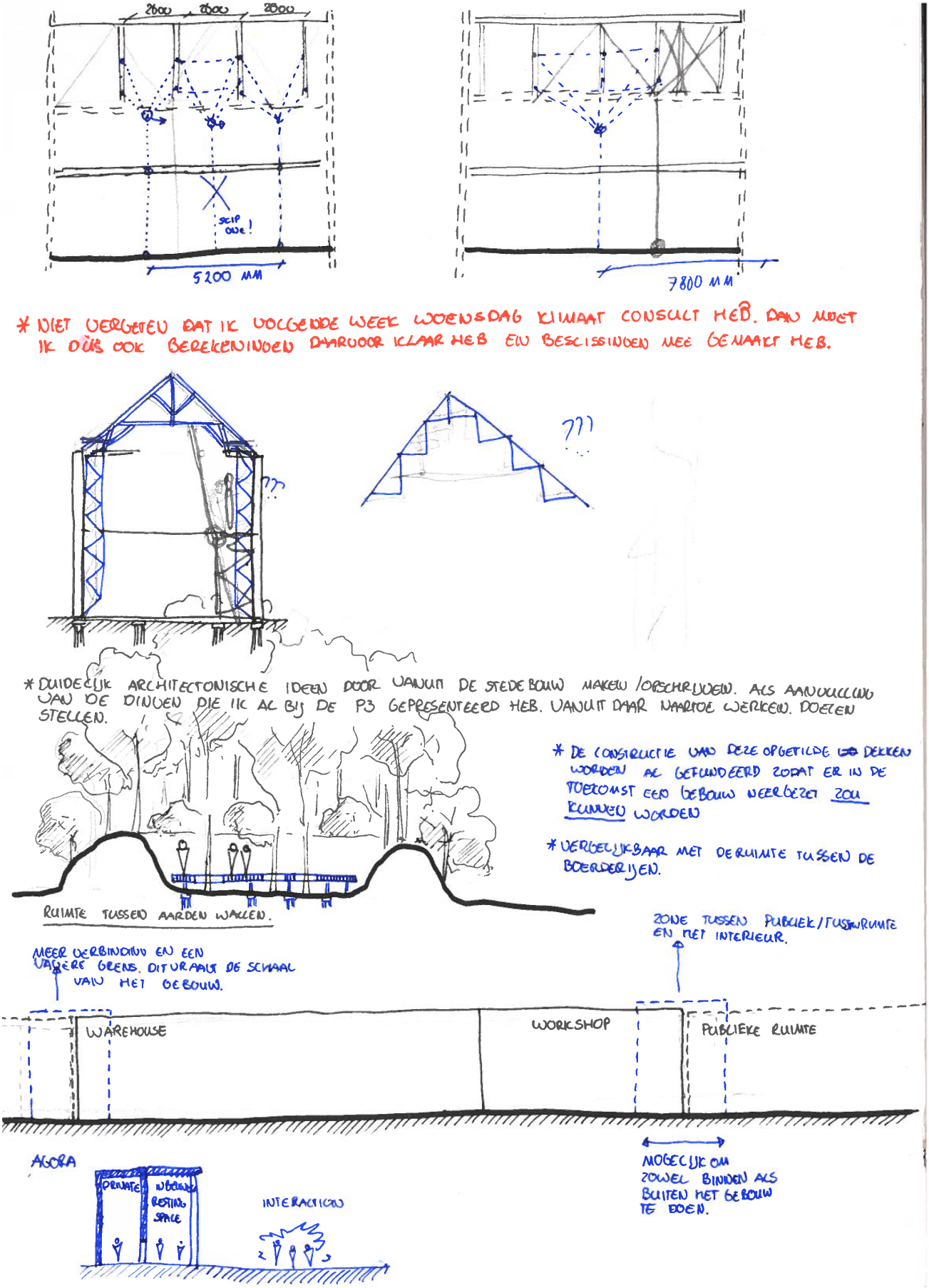
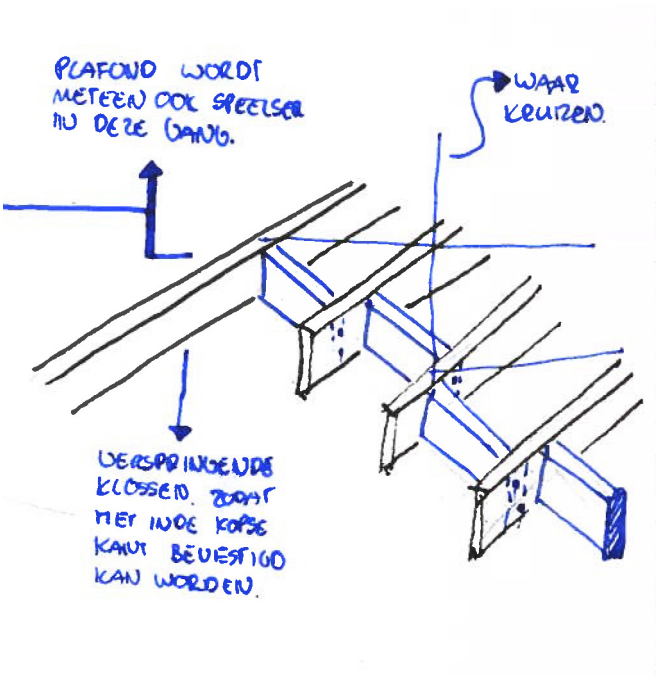
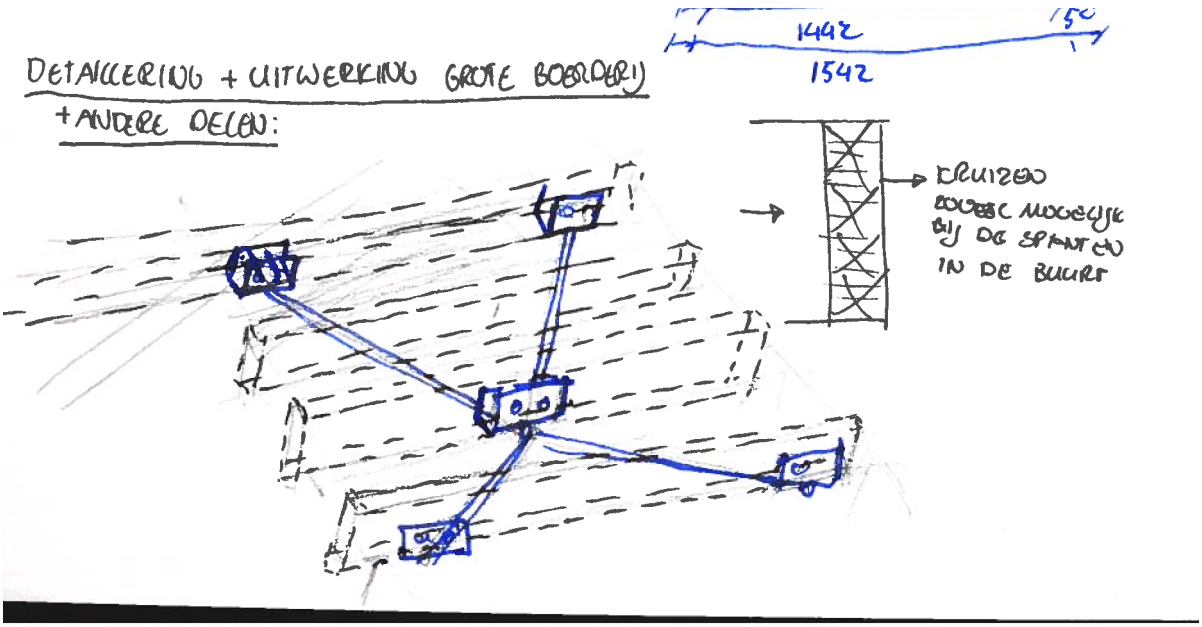
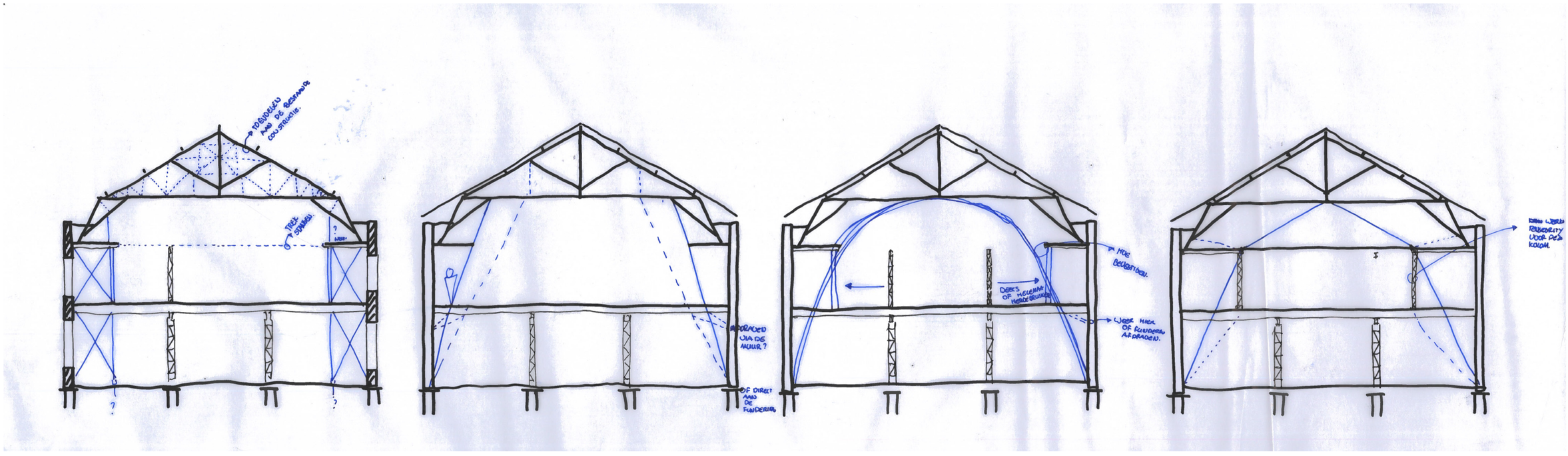


Image 169: Exploring structure and landscape from sketchbook on 14.11.2019.

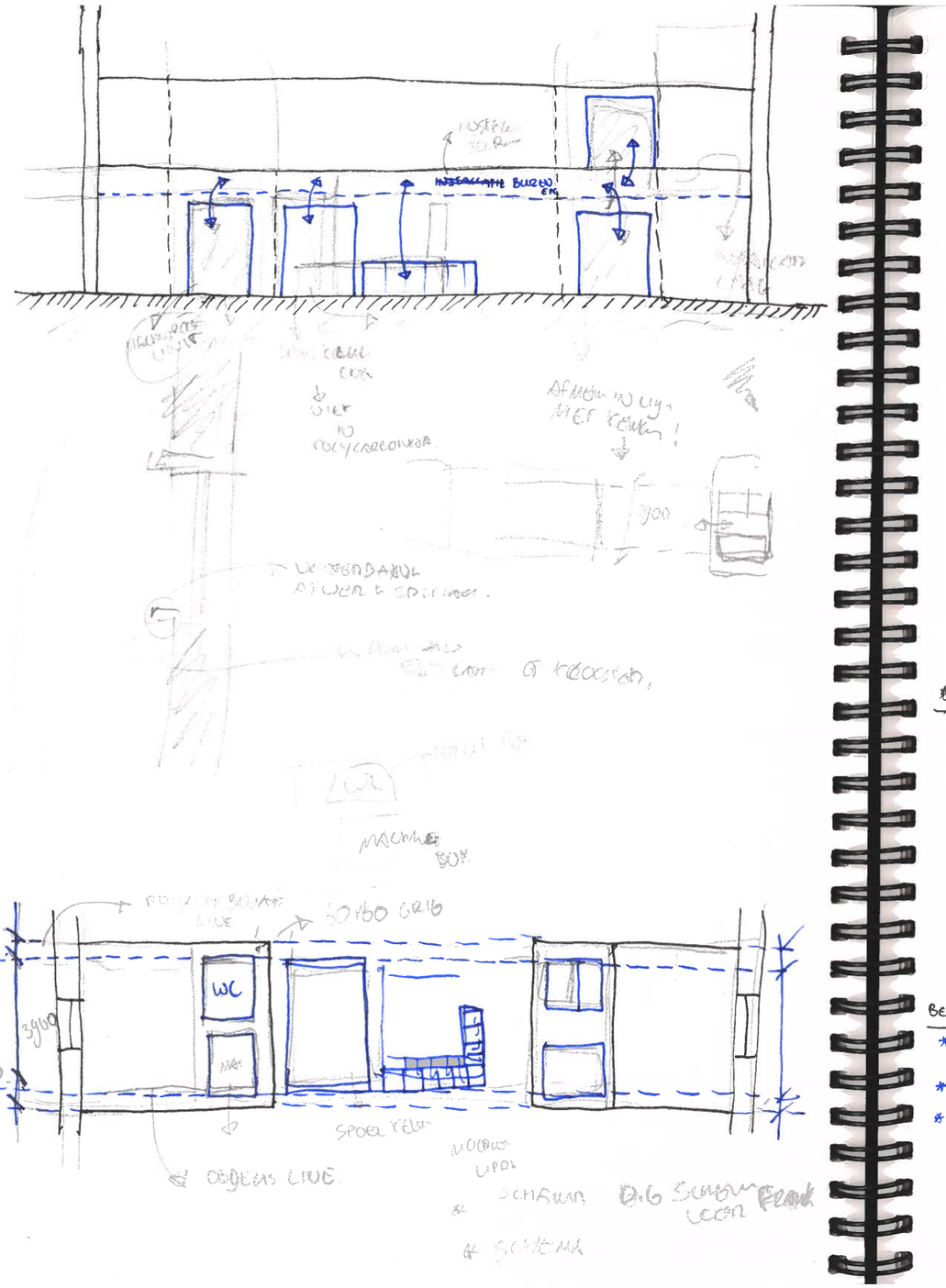




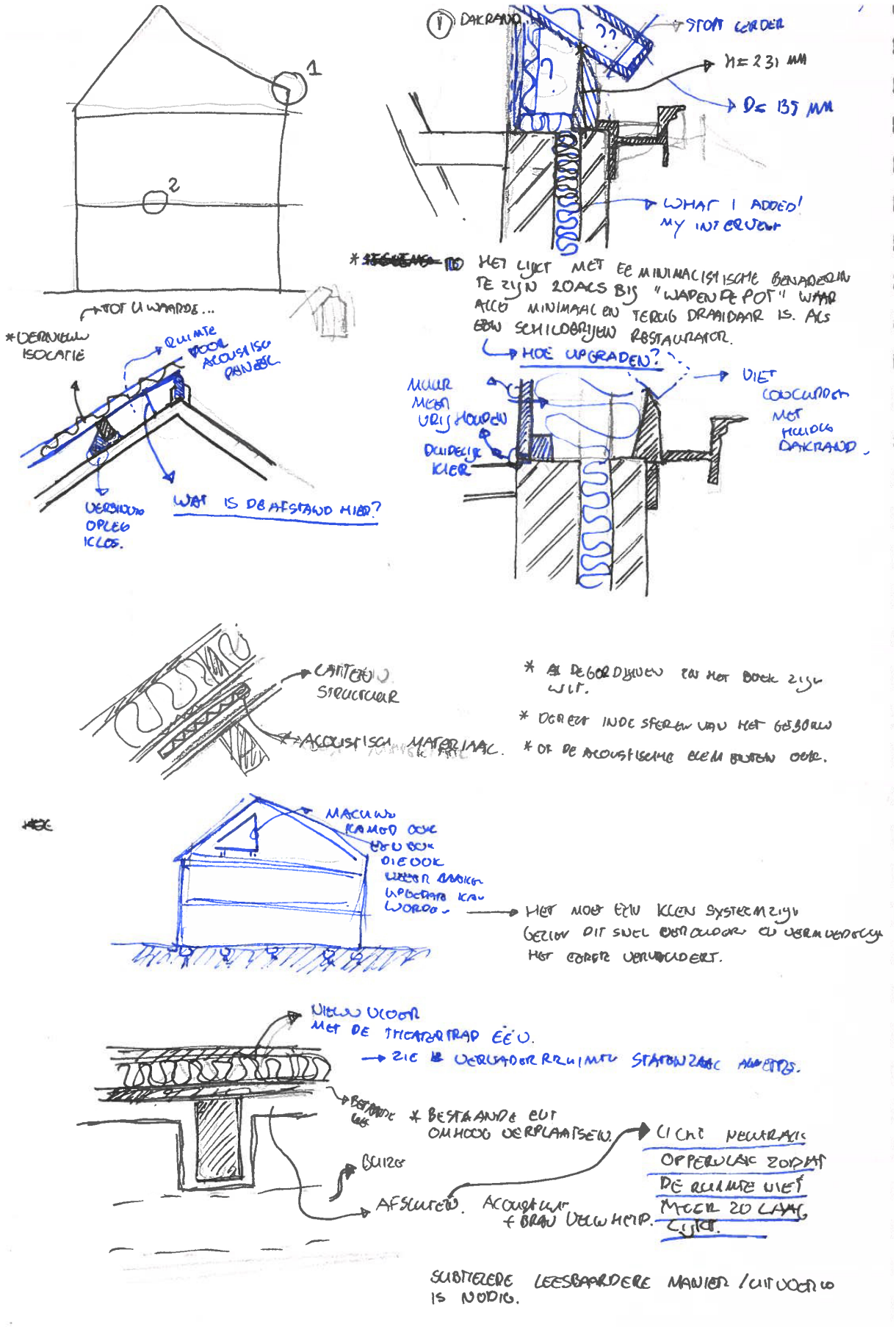
Images 170 & 171: Exploring structural stabilization issues that needed to be addressed after P3 due to cutting large holes in the floors of the buildings.



Images 172: Sketches showing possibilities during the exploring structural stabilization issues that needed to be addressed after P3 due to cutting large holes in the floors of the large farm building.



Images 173: Ideas for the main structural intervention and the installation concepts for the theater building.



Images 174: Detailing sketches from sketchbook from 23.11.2019.

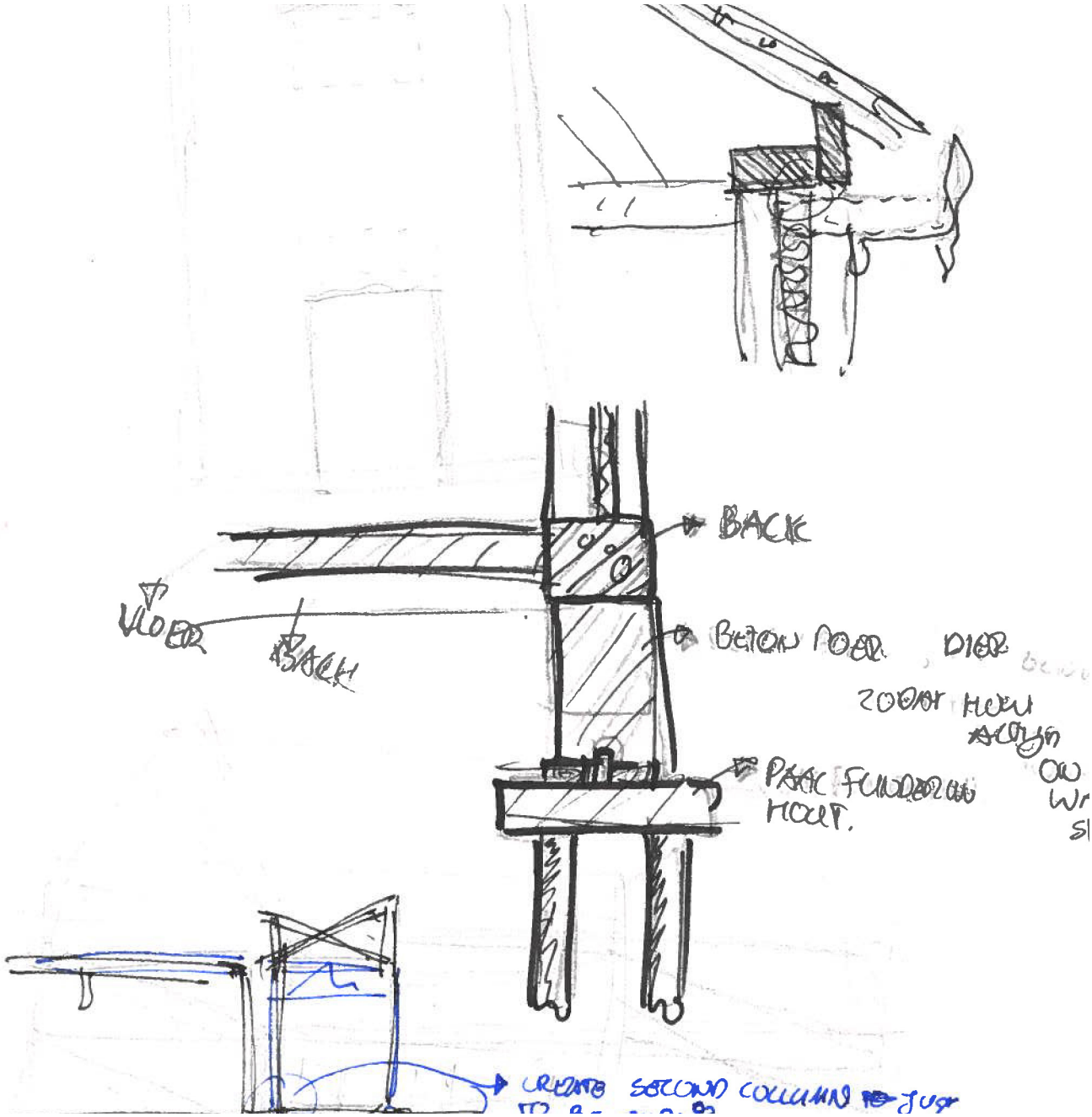


Image 175: Continuing the detailing of the large farm building, defining the existing details so a proper detail can be made for the restaurant and theater.

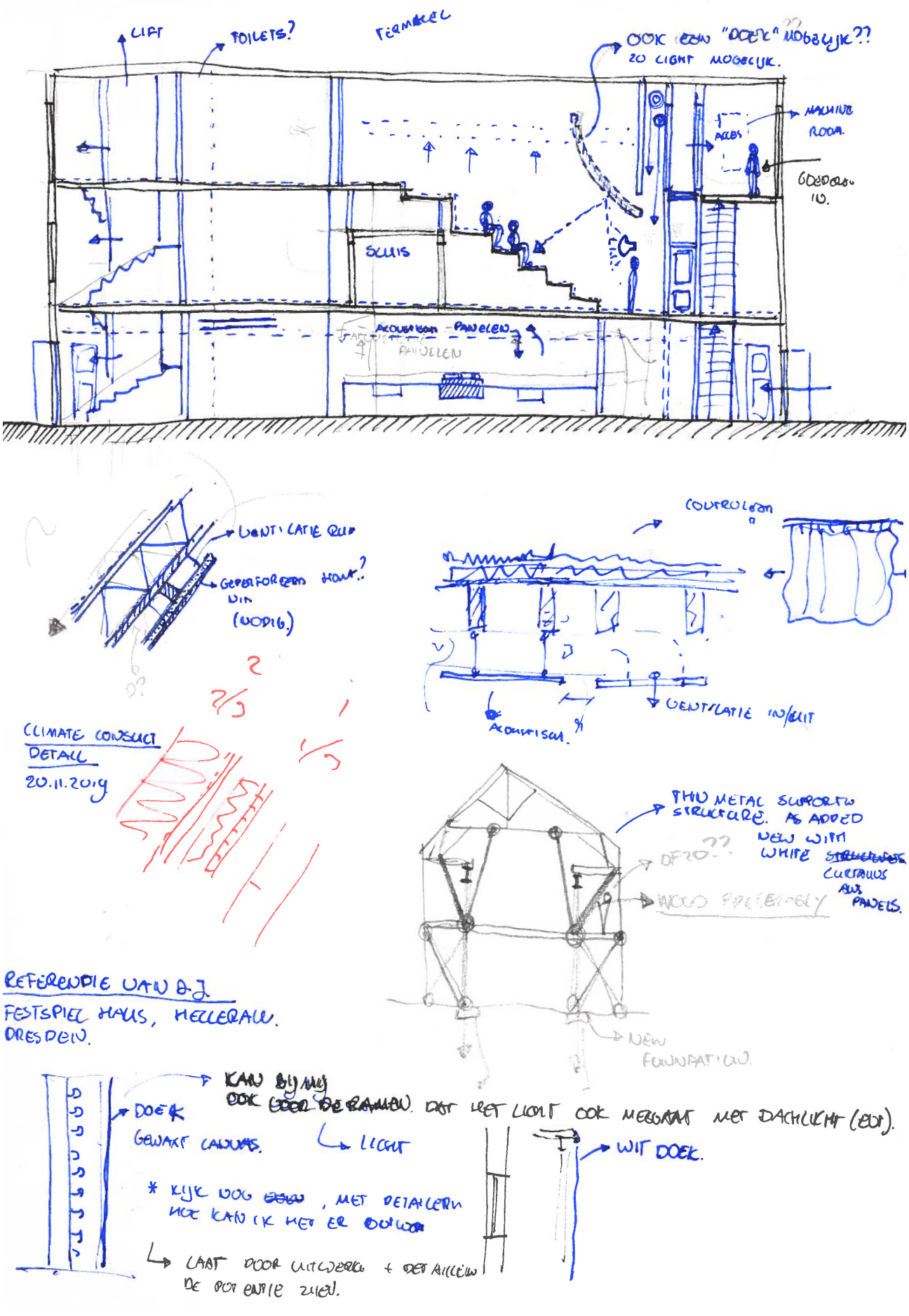


Image 176: Finalizing detailling after the climate consult sketches from 20.11.2019.

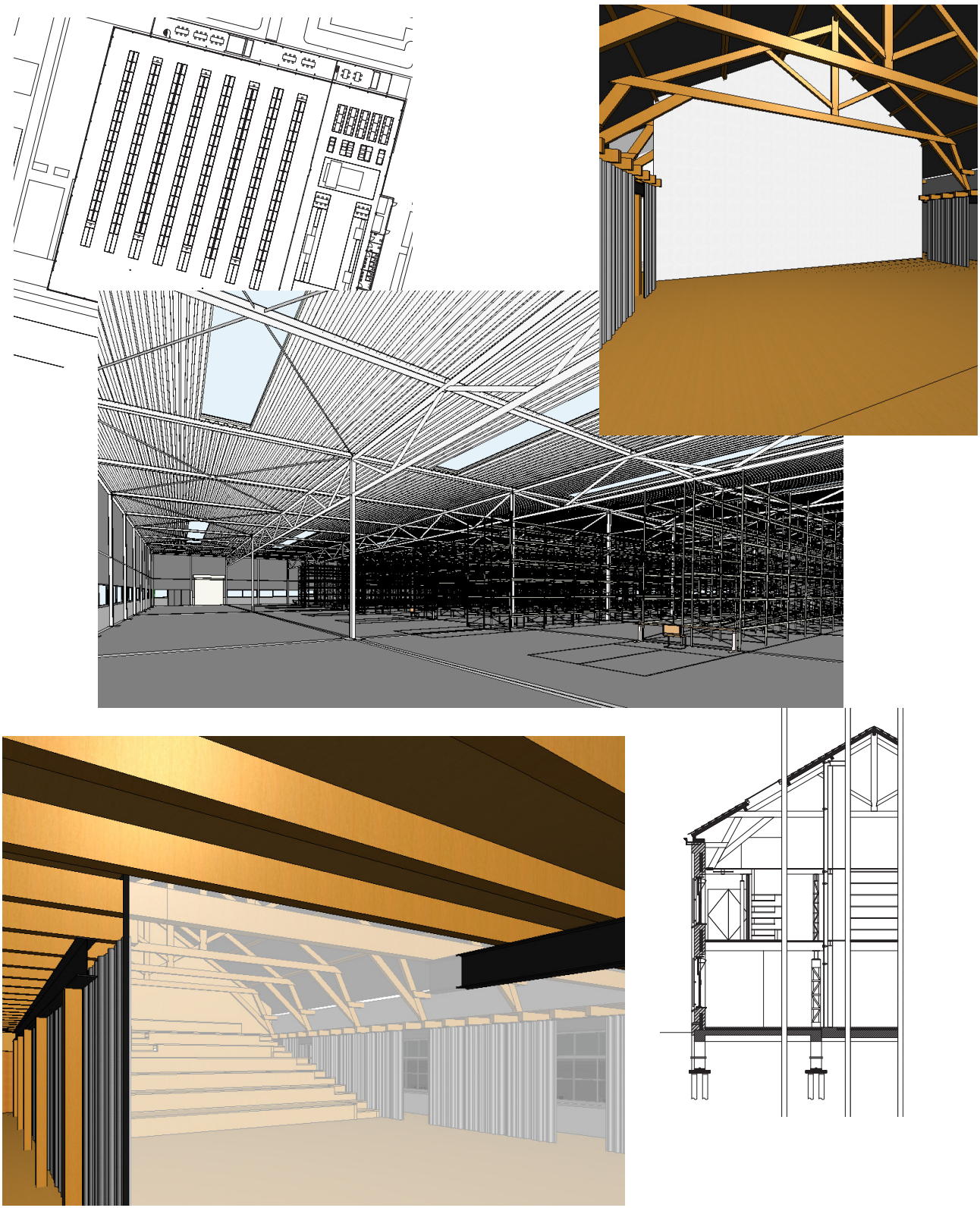
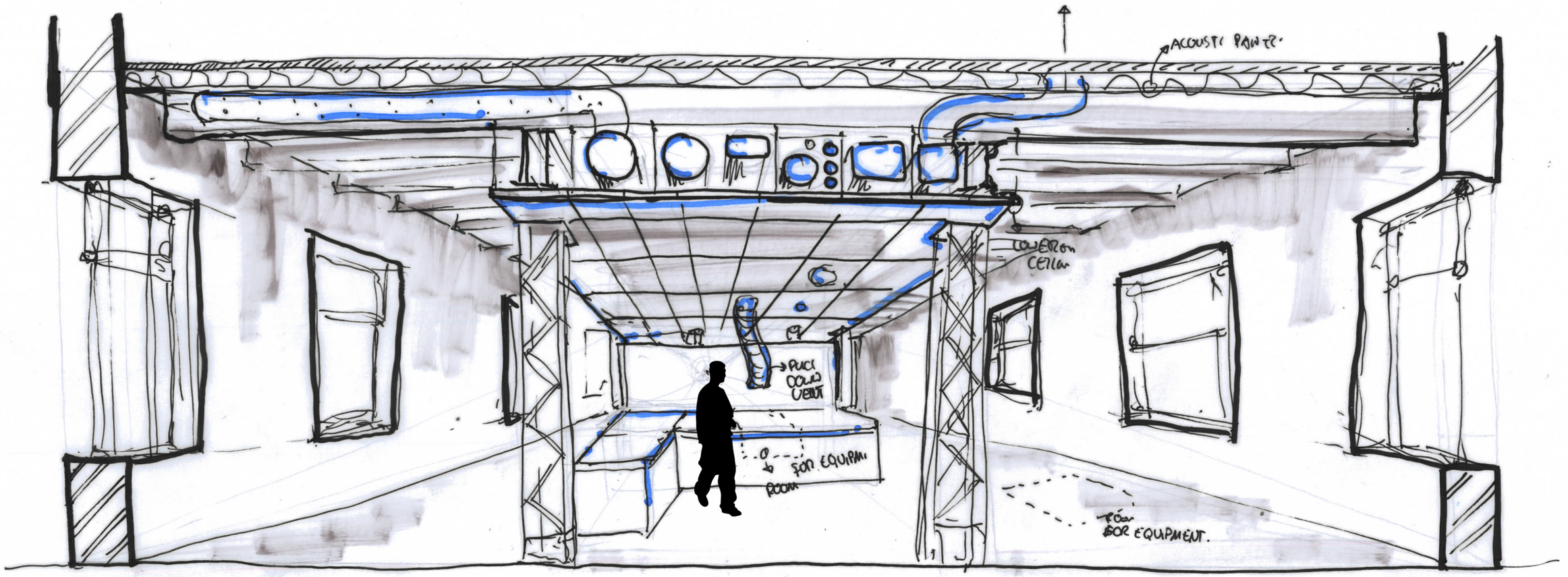


Image 177, 178, 179, 180 & 181: Screenshots and drawings from the respected programs for the theater and the warehouse.

Autocad & Revit

A lot of the sketches in the second stage of the project were design tools next to digital modeling and drawing, Revit and Autocad. The process was about going back and forth between the two mediums.



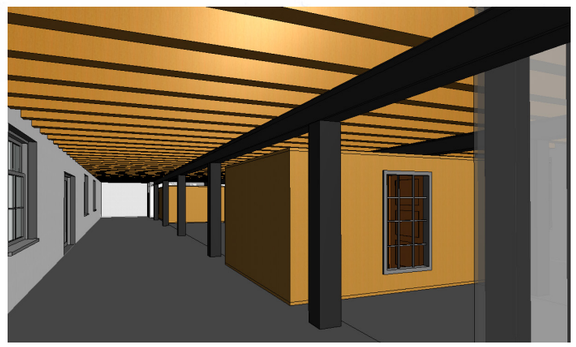


Image 182: The ceiling of the restaurant housing all the cables and making for multiple uses of the spaces. This is the plug point.

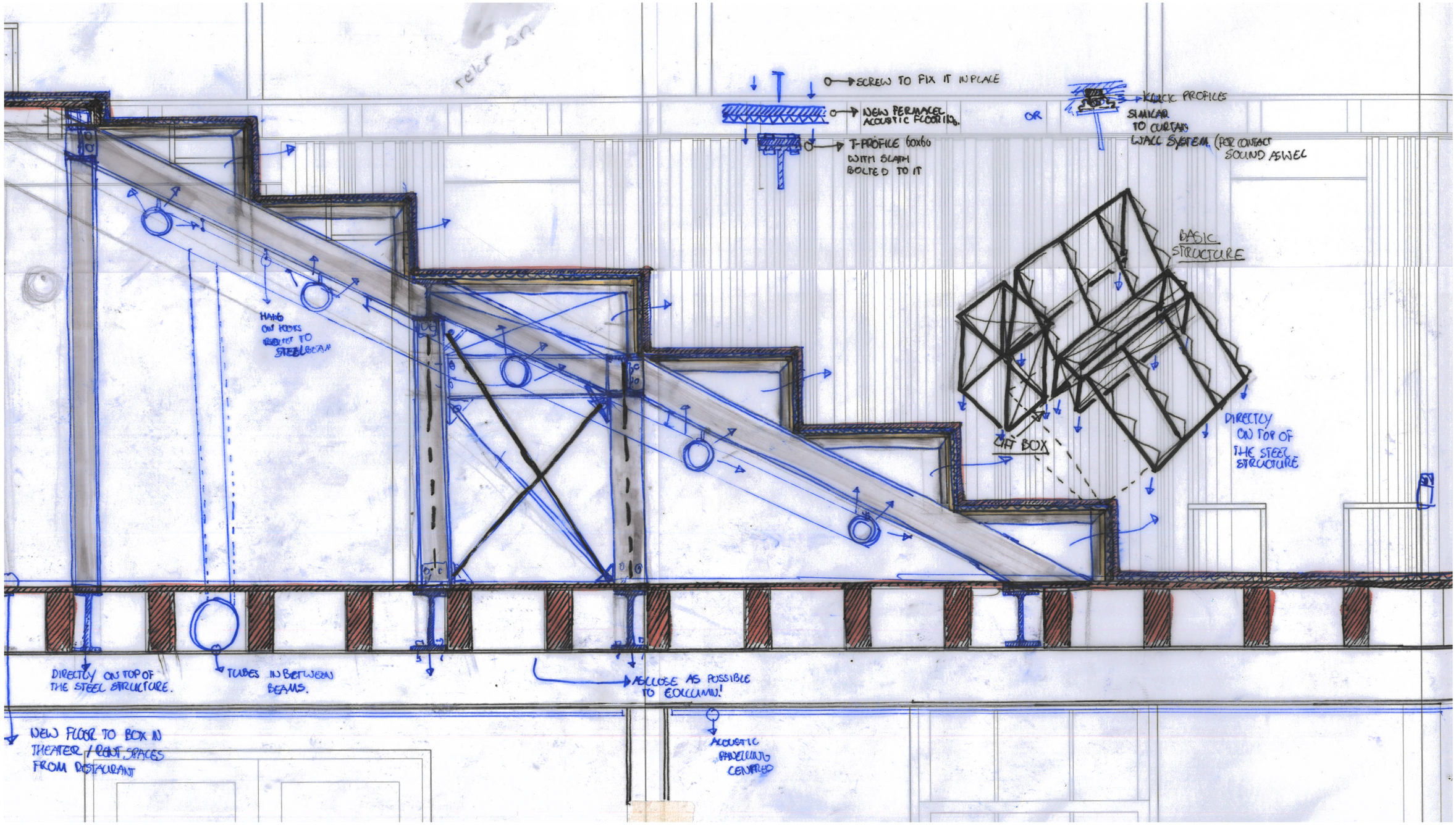
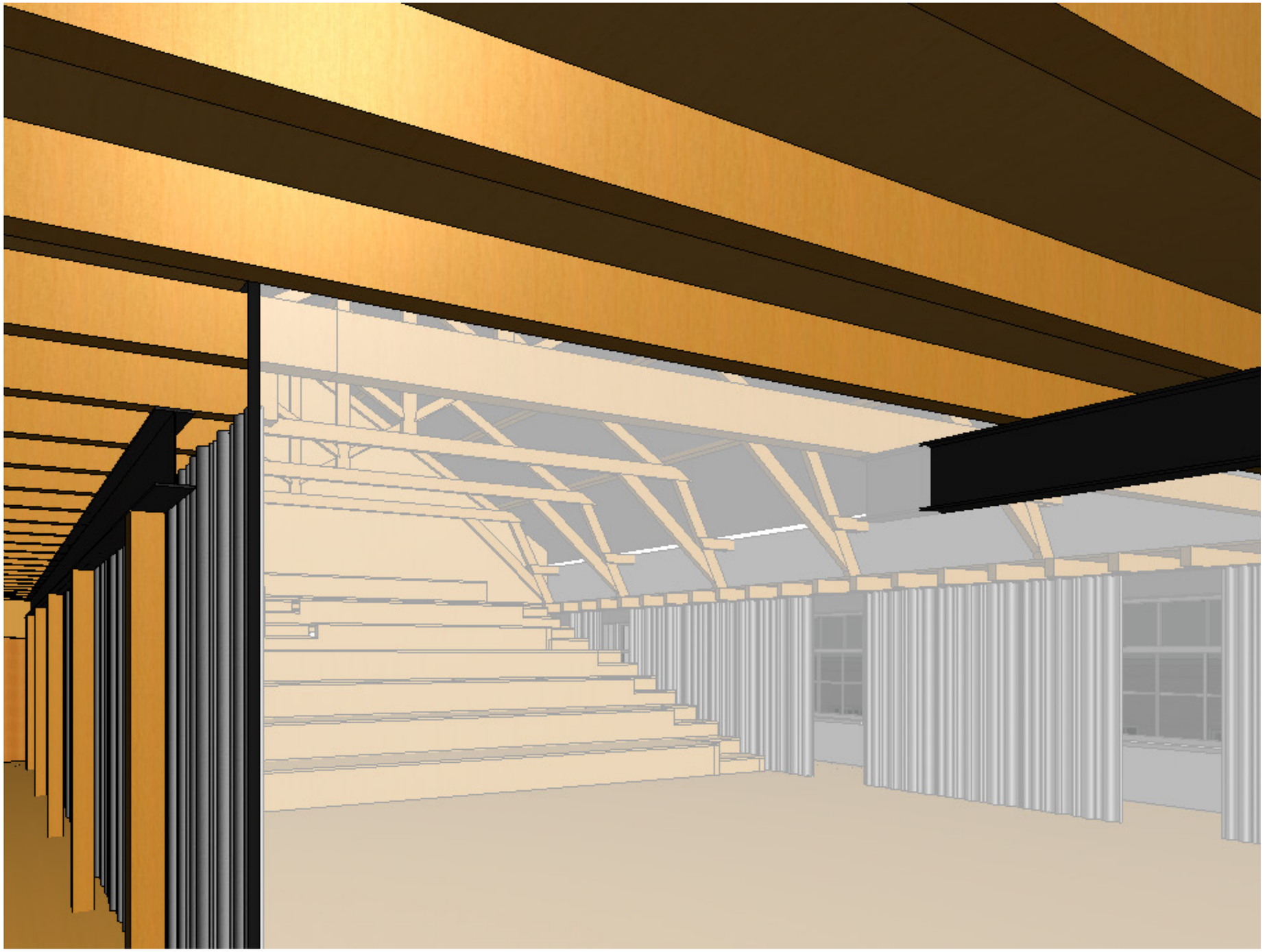


Image 183: Theater stairs detail.



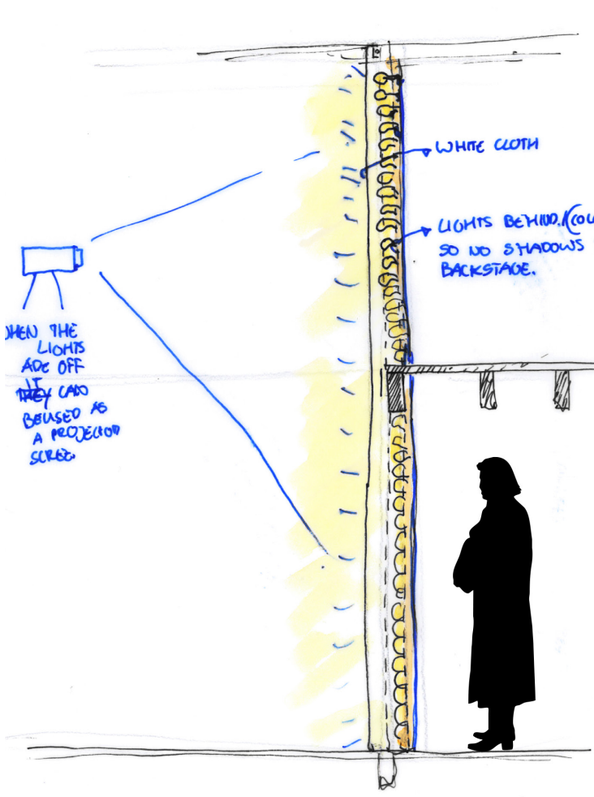
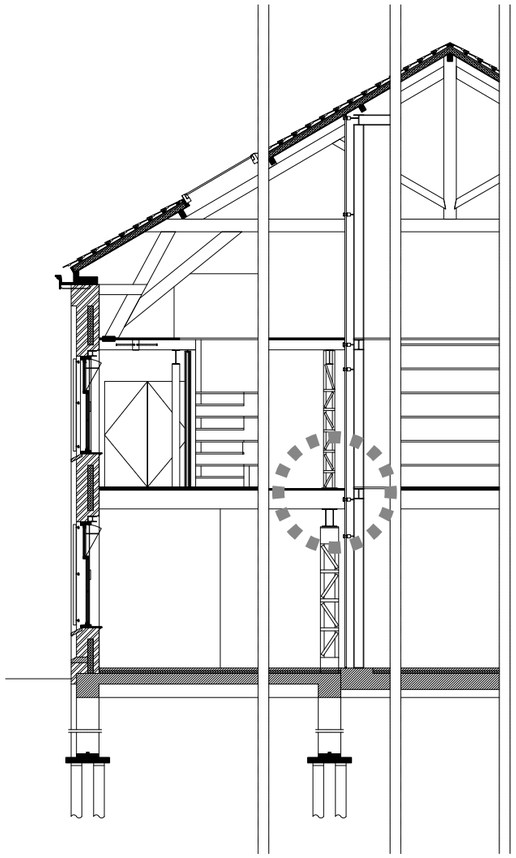


Image 184: Theater back wall detail.



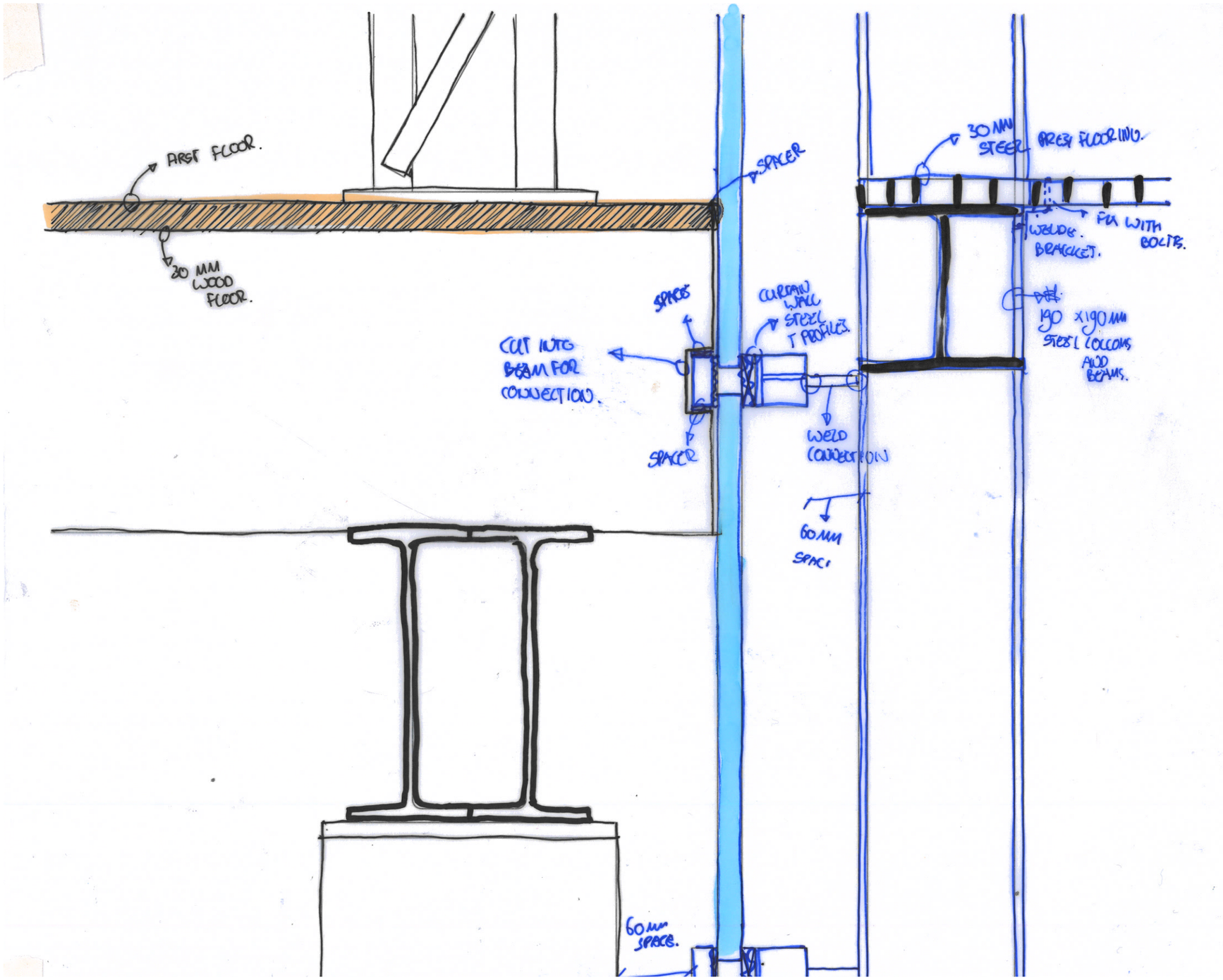
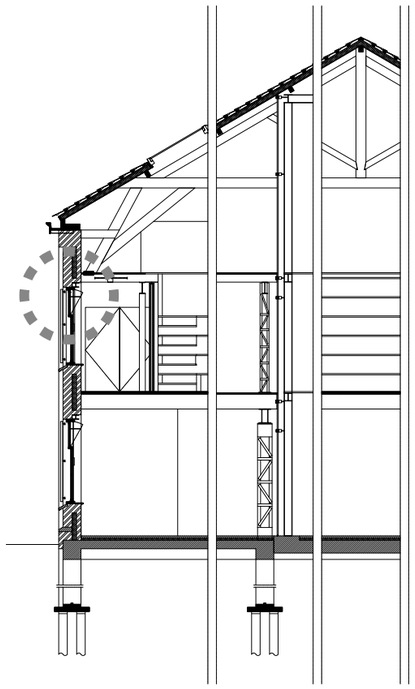


Image 185: stair house detail, curtain wall.



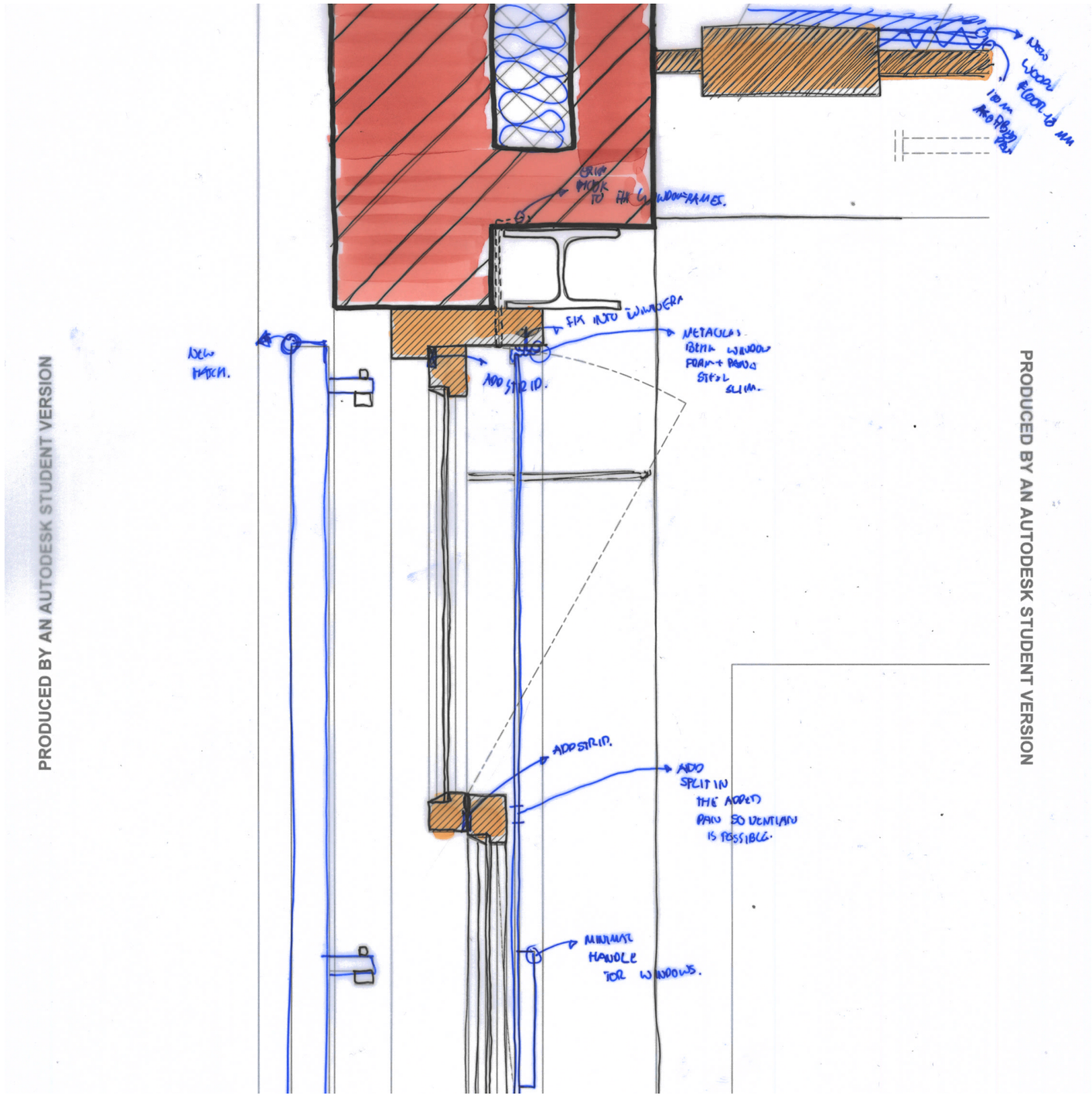
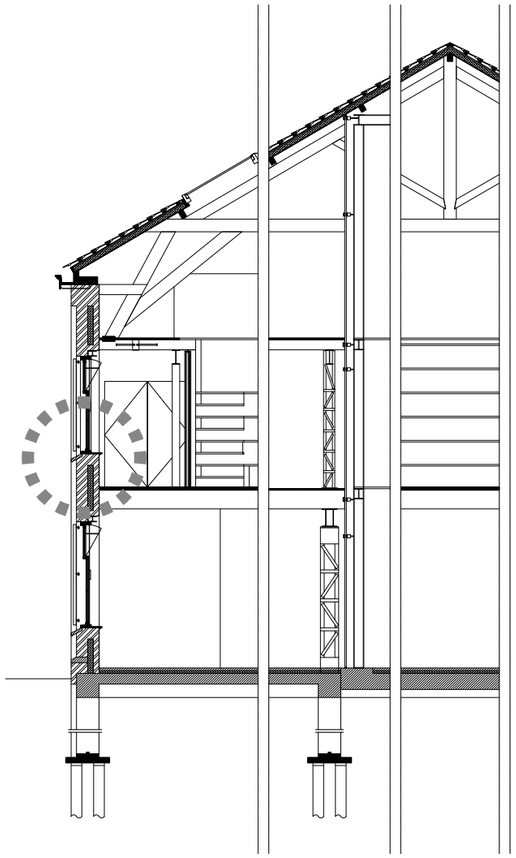


Image 186: window top detail



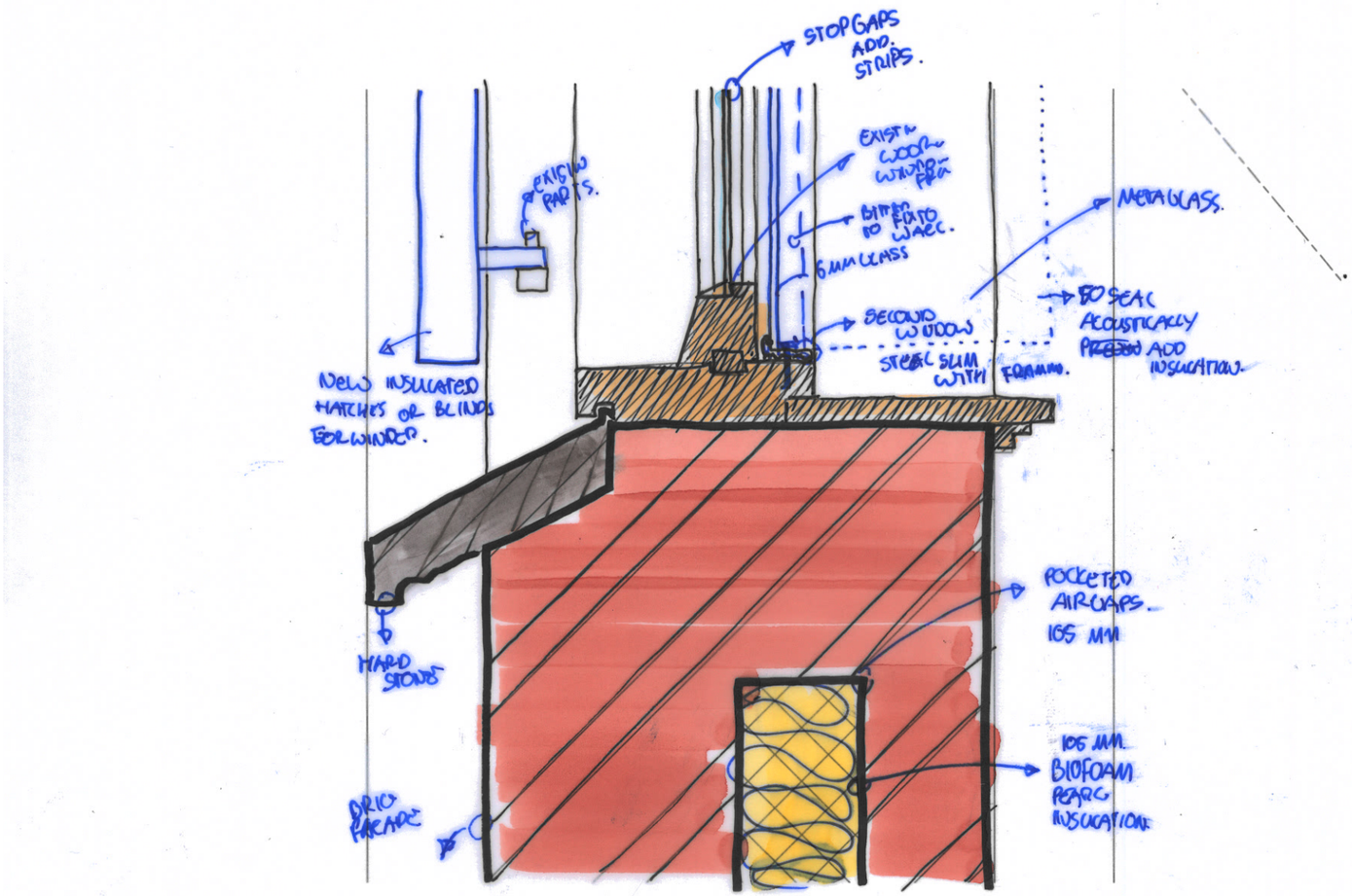


Image 187: window bottom detail

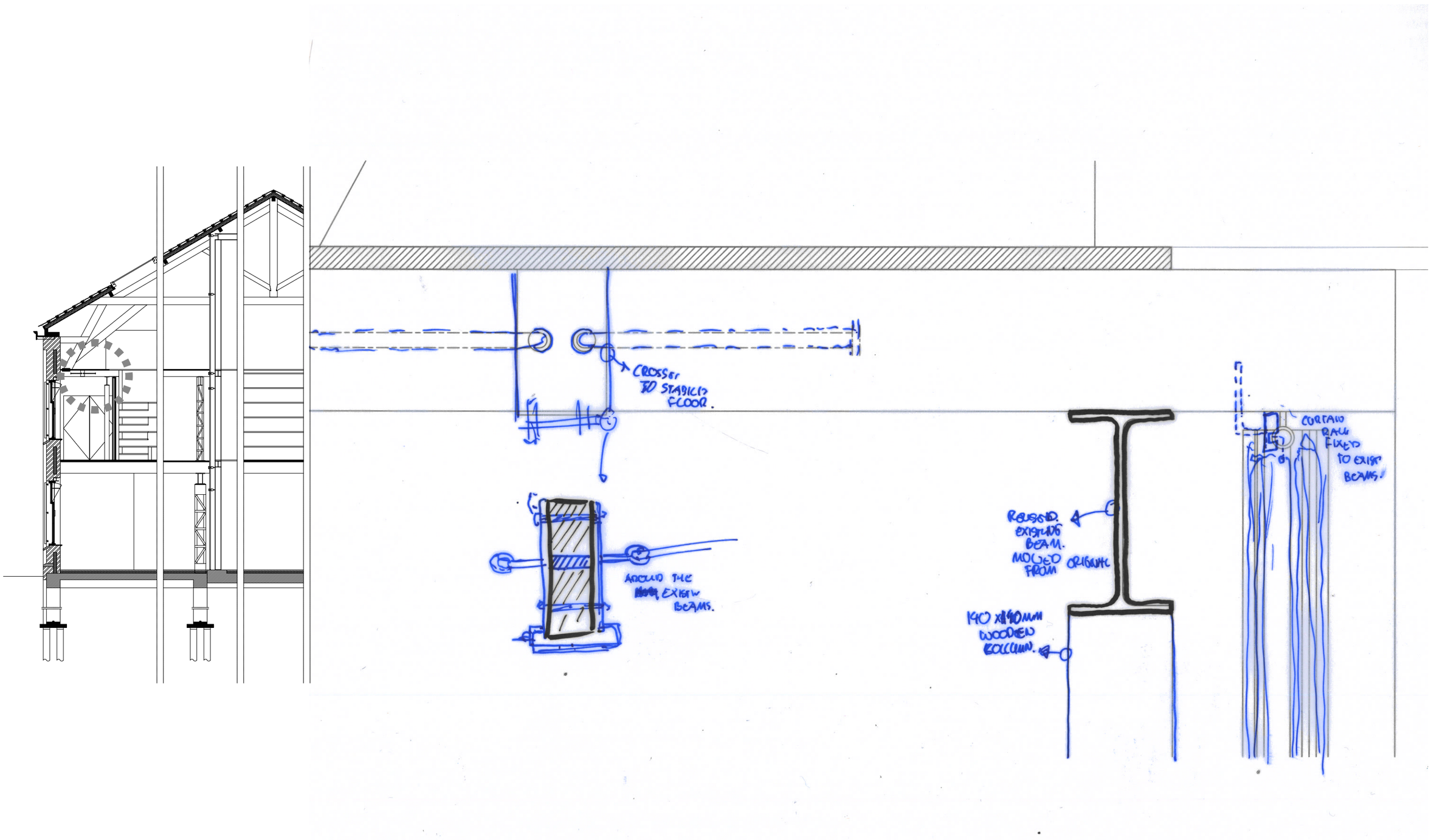
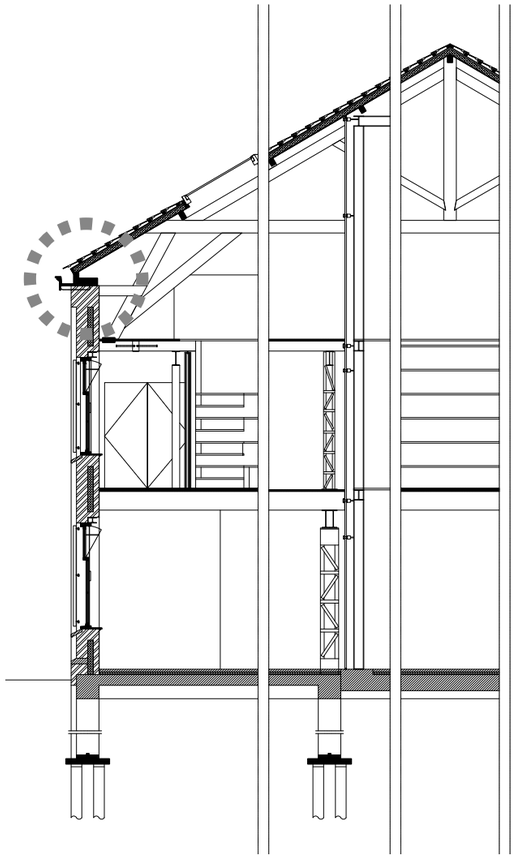


Image 188: stabilizing elements and curtain attachted to the existing beams



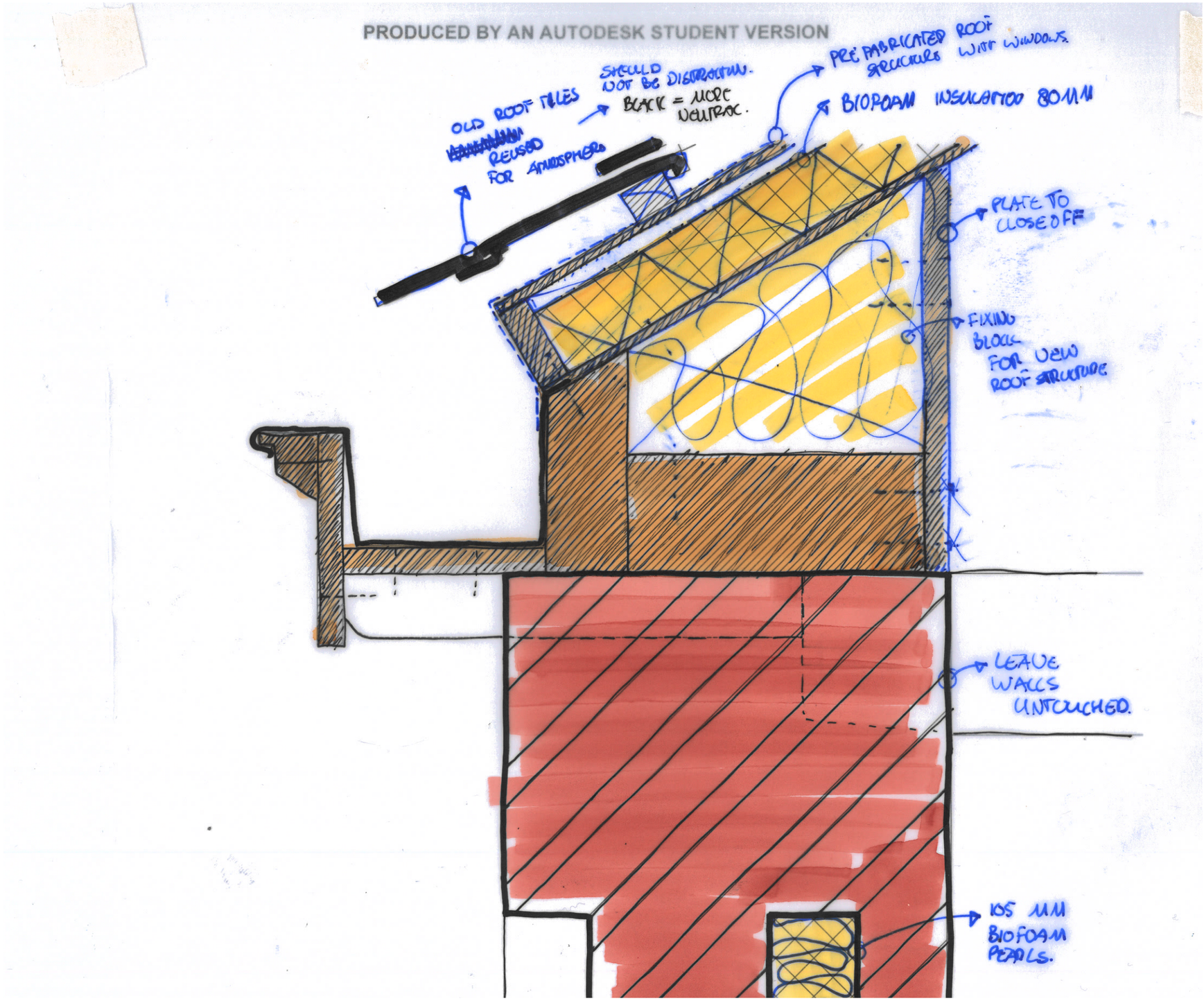
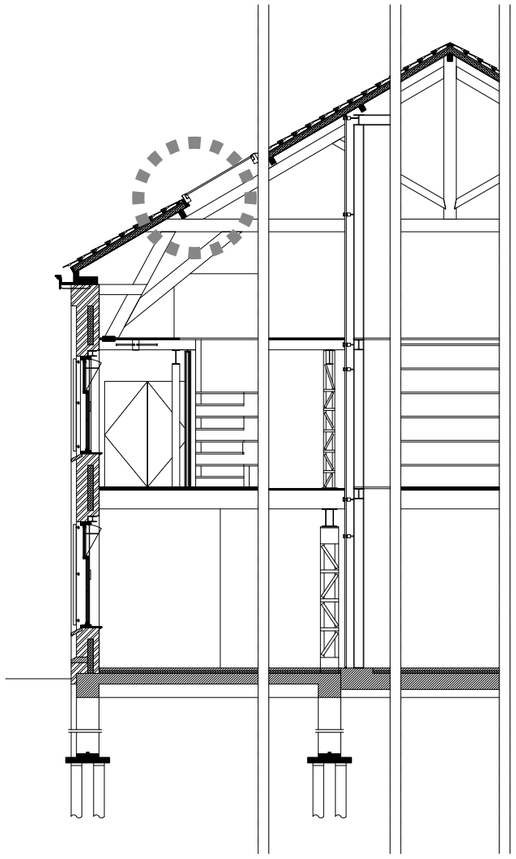


Image 189: roof detail



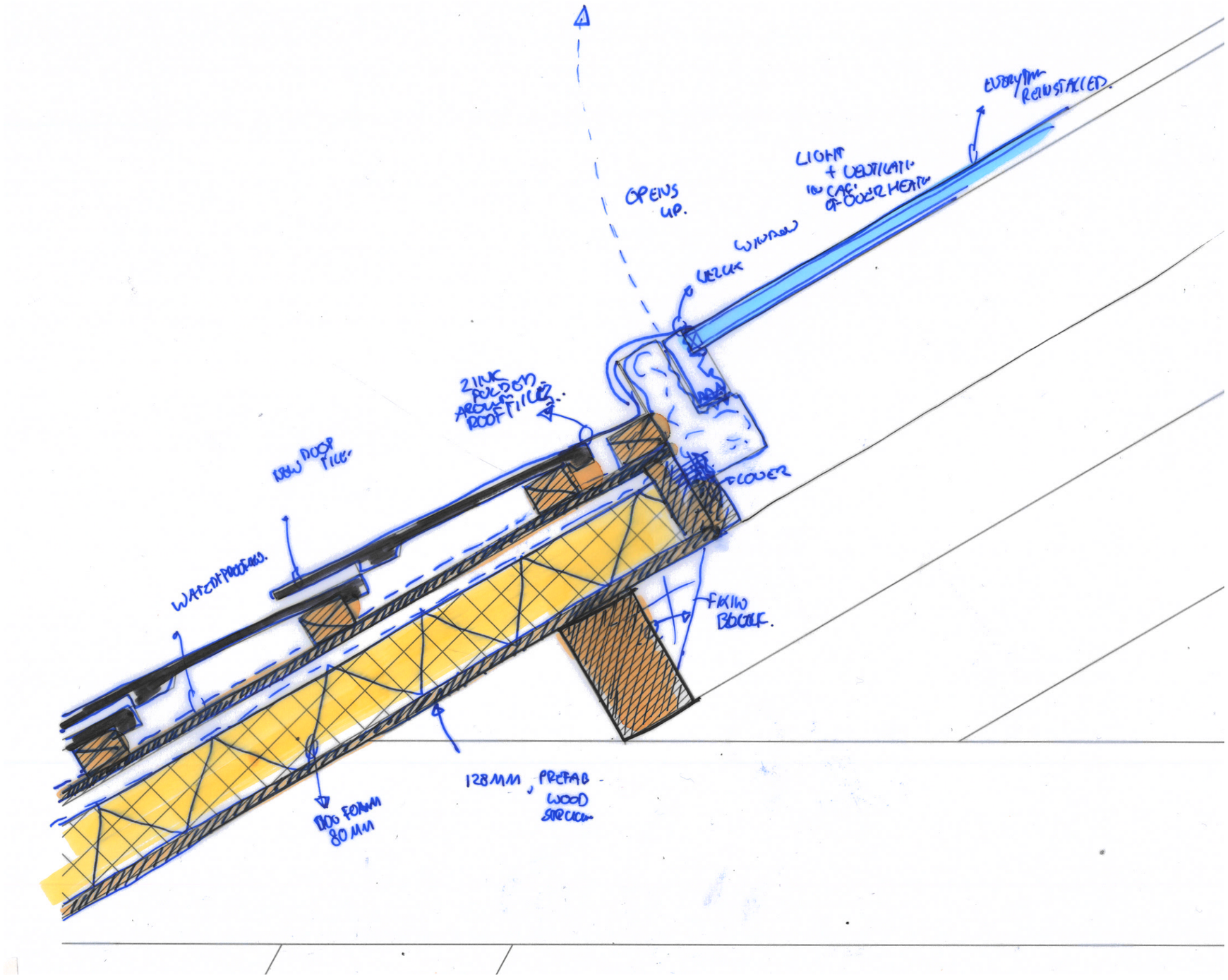


Image 190: roof window detail

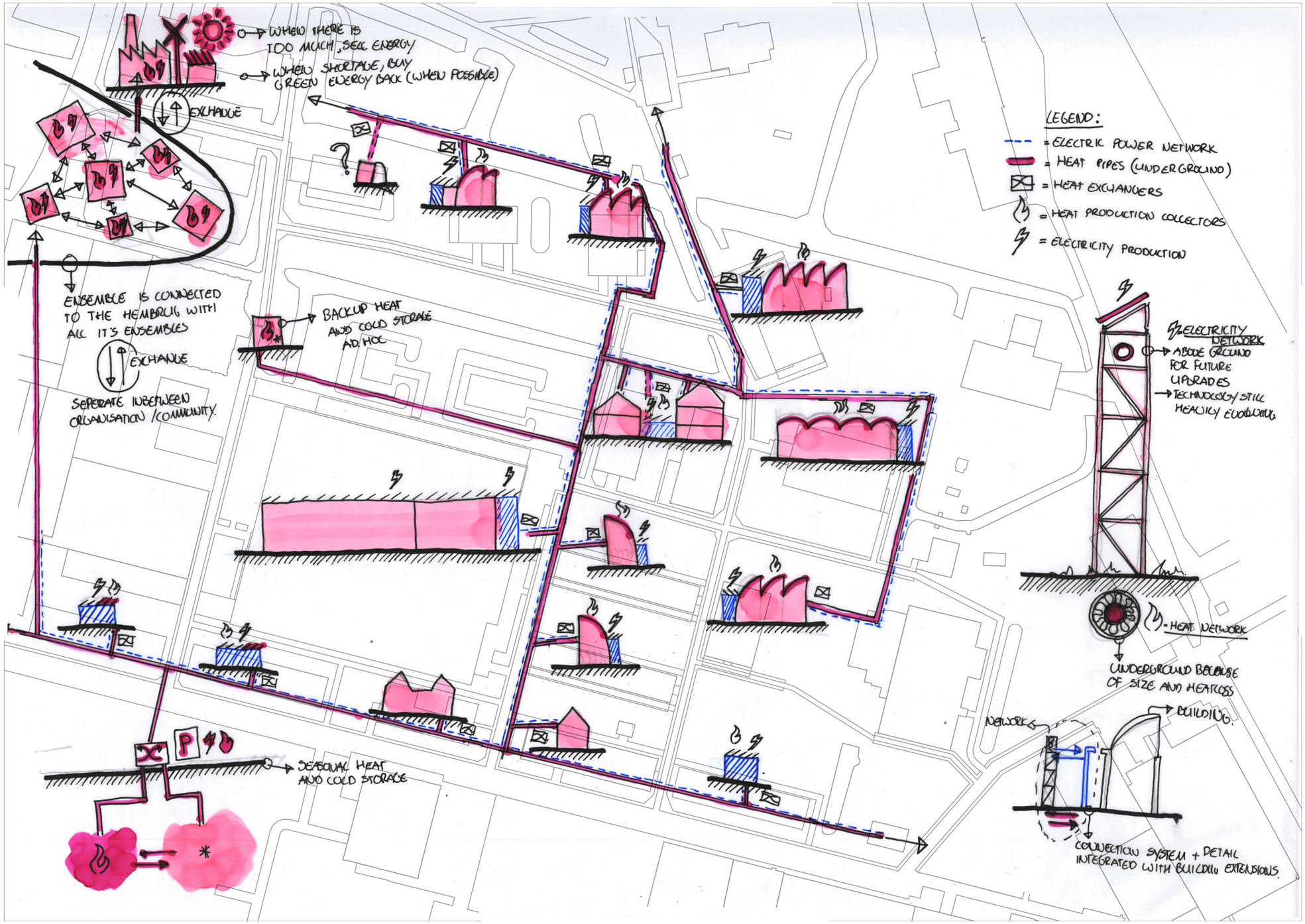


Image 191: Hembrug heat and energy network.

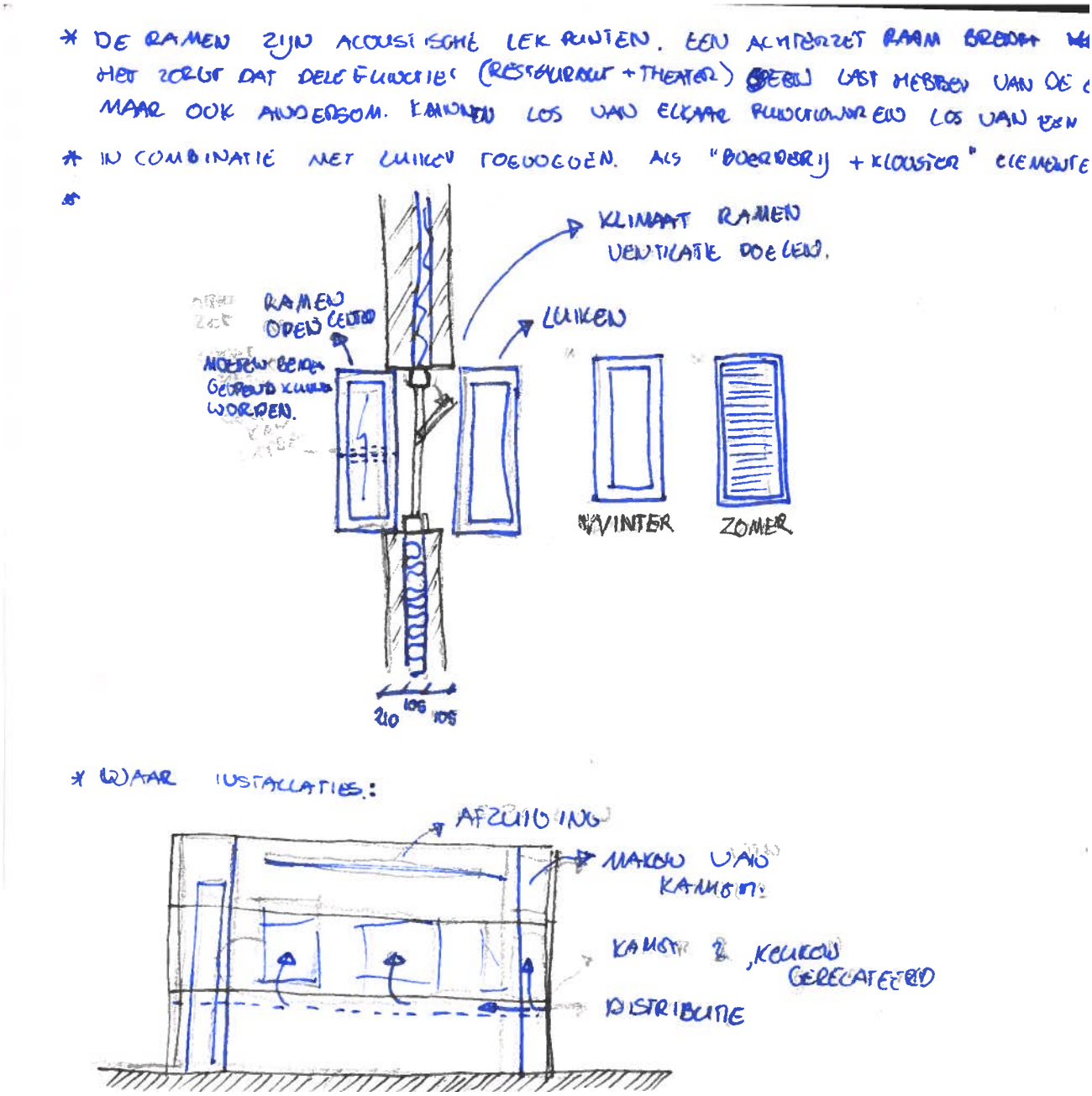


Image 192: Summer and winter louvres on the existing hooks for them.

P5

The final stage of this graduation design.

named

‘production biospheres’

A design of a production space based inspired the notion of unfinished architecture, this space is located on the Plots In The Woods site in Hembrug in the metropolitan area of Zaandam & Amsterdam.



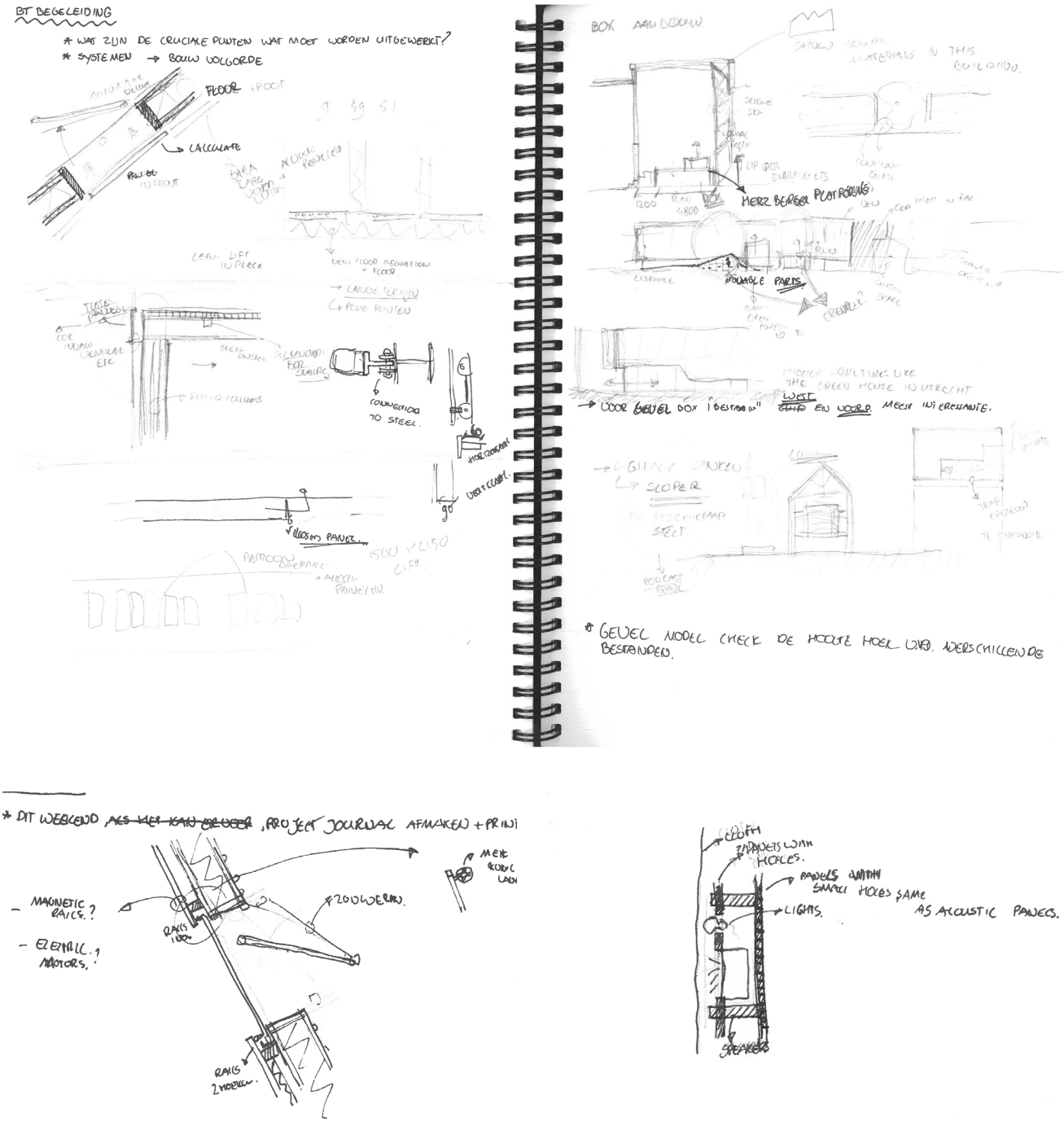


Image 193, 194 & 195: Last changes and additions in the field of details.

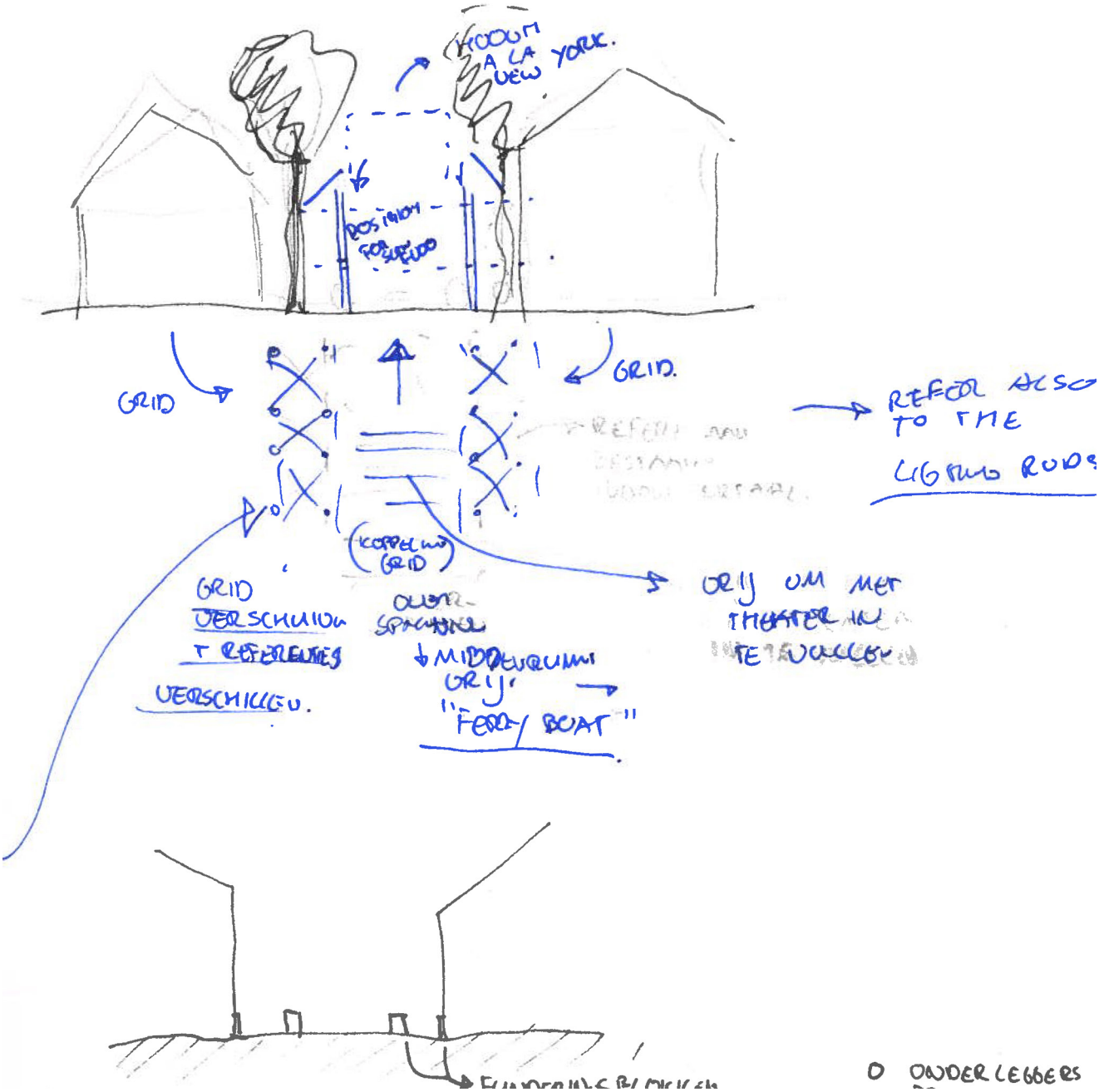


Image 196: Process addition between the two farm buildings based on references of enclosed gardens, cloisters and minimal and contemporary art.