



# **Graduation project Vacant Heritage Analysis booklet - Sustainable estate of the future**

*Research and design into a sustainable reuse of Dutch  
buitenplaats Huis 't Velde*

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Master Architecture graduation studio  
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# Colophon

Graduation project Huis 't Velde  
Master graduation studio – TU Delft AUBS

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This is done in colaboration with: Noah van Asselt & Hilko Ripema

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# 1. History and owners

Huis 't Velde in Warnsveld is a Dutch stately home that find its origin in the 14th century. The building as it is seen nowadays origins from the 18th century. It has undertaken several transformations by a lot of different owners. It is important to research both the history of 't Velde and the owner and building history of Huis De Voorst because these two houses were combined for almost half a century.

This chapter will start with the owner and building history. This is combined because some of the owners made really big changes on the house. After this part the chapter will continue with a description of the architectural design. More detailed information about plans, materials, details and other small part of the building can be found in the next chapters.

## Owners and building history

Three sources have been used to investigate the owner's history. The first one is the cultural historical analysis and value assessment by Lucia Albers and Anja Guinée (2019). The second source is the journal in the Zutphense Archeologische Publicaties number 144 by Bert Fermin, Diederik Rijs and Davy Kastelein (2021). The last source is a small book by Jan Harenberg called *De Havezate 't Velde bij Warnsveld* (2001). Every important step in the building history is named by a phase, in this way it is more easy to distinguish the different stages.

### Phase 0: 't goed ten Velde, family Lerinck (<1538)

The oldest mention of Huis 't Velde is from 1326. In the *Leenactenboek van het Vorstendom Gelre en Graafschap Zutphen* is a record found about a mansion called 't goed ten Velde' is owned by Henrick van Suderoes<sup>1</sup>. In that days the house had a simple rectangular form with a gabled roof. The visible parts of the contemporary house are from the 16th century and on, but in the basement are a few foundations found from the 14th century.

Huis 't Velde came via an inheritance into the ownership of Lutgarde Kreyneck (1360-?) in 1378. She was married with Jacob Lerinck (1355-1390) and so came the house in the family Leerinck<sup>2</sup>. These two families were part of the upper class of Zutphen. Both took place in the '*Zutphense patriciaat*', a community of families who were the governors of the area<sup>3</sup>. Especially in the family Kreyneck were a lot of important persons like '*schepenen, burgemeesters, vroedschapsleden & kerkmeesters*' (Dutch terms of professions similar to major, judge, etc.).

1378- 1402: Jacob Lerinck (1355-1390) x Lutgarde Kreyneck (1360-?).

1402-1431: Willem Lerinck (?-1431) x Nese van Steenberghe.

1432-1439 Andries Pelgrims Lerinck x Wibberich Nin.

1435-1475: Willem Lerinck x Beerne van Boerlo.

1475-1500: Willem Lerinck.

1501-1516: Adries Lerinck.

1516-1538: Gerberich Catharina Lerinck (1470-1538, sister of Andries Lerinck) x Hendrick Bentinck (?-1538).

<sup>1</sup>: Albers & Guinée (2019), p. 18. It is not sure that this record is from Huis 't Velde as we know it nowadays. According to Fermin, Rijs and Kastelein (2021) it is known that Hendrik owned a second/different mansion in the area of Zutphen. It can be possible that this record is from that house. Harenberg (2001, p. 5) shared this hypothesis while he mentions the same possibilities because of the existence of Havezate Suderas. But, in his research he concluded that Henrick owned both houses until 1378.

<sup>2</sup>: Albers & Guinée (2019), p. 18.

<sup>3</sup>: Fermin, Rijs, & Kastelein (2021), pp. 21-23.



Lerinck



Bentinck



Van Lawick



Van Keppel



Schimmelpenninck van der Oye



Van Heeckeren



Van Dorth



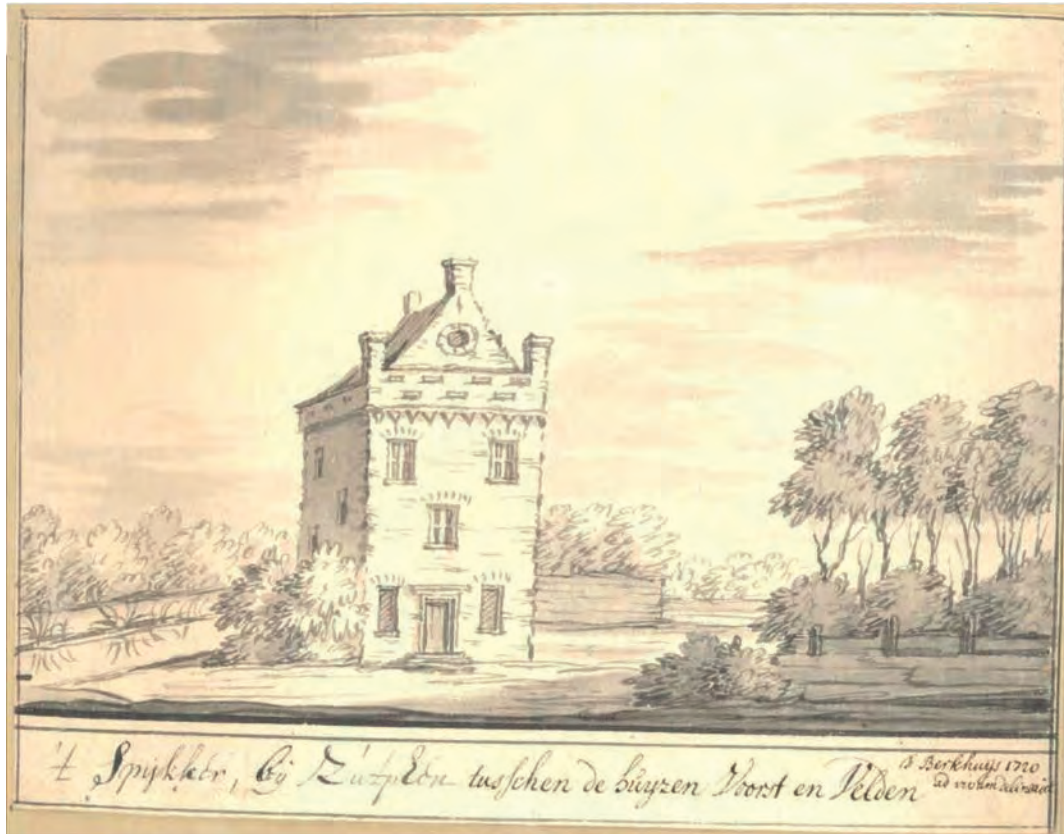
Van Nispen



Van Dijk







't Spijker De oude Voorst. 1720 by Jacobus Stellingwerff. Nederlands Instituut voor Kunstgeschiedenis, 186433.

The house have been in the Lerinck family until 1538 and then came in the possession of Willem Bentinck (1500-1577), son of Hendrick and Gerberich.

#### Phase 1: Spieker 't Velde, family Bentinck (1538-1597)

Shortly after Catharina Lerinck and Hendrick Bentinck passed away the house became in the ownership of Willem Bentinck (1500-1577). Short after 1538 the house was rebuilt. In this phase arose the old renaissance core which can be seen as the starting point of the development of the existing building. This house had the form of a Spieker. A Spieker is a Dutch house typology that origins from medieval times<sup>4</sup>. According to Harenberg (2001, pp. 19-21) there were a lot of Spiekers in the area of Zutphen. This typology was a combination between a barn and a house. It was used to store grain and the building stood on a small hill to prevent the house and grain for flooding. A second characteristic of a Spieker was the presence of a small canal around the house to protect the building for thieves. The word Spieker find its origin in the Latin word spica that means earner of corns or wheat (Dutch: *korenaar*).

The building was well decorated in a Hollandse-renaissance style with stepped gables and pediments above the windows in marl stone and a shell shaped ornament in the tympanums. Some of these pediments survived the centuries and are now visible in the south façade. A rhomb shaped pattern under the tympanums is coloured red and yellowish. This refers to the coat of arms from the Lerinck family with red, white and black colours. This is also confirmed by the discovery of an old red, white and black coloured wooden door in the attic. The door is dated in the 16th century which makes the similarities with the Lerinck's coat of arms very likeable. This is strange because it's sure that the house is rebuilt by Willem Bentinck. Maybe they kept the old door from the Lerinck dynasty and adjusted the ornaments to this colour scheme. The facades were made out of brick and not painted white<sup>5</sup>. Presumably there was not a landscaped garden. According to Albers and Guinée was a landscaped garden not usual in the 16th century. Moreover, the first landscape drawing is found around 1778-1779.



Huis 't Velde. 1726 by Abraham de Haen. Gelders Archief, 1671.

1538-1577: Willem Bentinck (1500-1577) x Margaretha de Groeff van Erkel (1504-?).

1577-1597: Eusebius Bentinck (1535-1584) x Sofia van Ittersum (1540-1624). They gave the ownership to their daughter Johanna.

#### Phase 2: second rebuilt by Bentinck (1597-1645)

1597-1633: Johanna Bentinck (?-1633) x Gooswijn van Lawick (?-1629, 2nd marriage).

Johanna and Gooswijn rebuilt the house at the end of the 16th century. The rectangular house is expanded on all sides. A second volume arose at the westside with a similar stepped gable roof and on the east side a third small volume was built. A little while later an new wing on the east-south side arose with a small tower. This is seen as phase 2b. Probably more small towers were built in the same time. In later drawings there are similar towers like the one on the south wing by the bridge and on the other island left to the carriage house.

1633-1645: Georg Jurrien Nicolaas van Lawick (?-1664, son of Johanna Bentinck) x Gerardina Judith van Hambroick (?).

The Lawick family lost a lot of money and owned three houses. Besides 't Velde they had Huis Stuermandskamp and a big house in Geldermalsen called Huis Ravestein. They valued Ravestein the most and so were Stuermandskamp and 't Velde sold<sup>6</sup>. Dirk van Keppel bought 't Velde in 1646.

4: Albers & Guinée (2019), pp. 19-20.

5: Albers & Guinée (2019), p. 19 & p. 113.





Achterzijde van het Huys. 1726 by Abraham de Haen. Gelders Archief, 1672.

Phase 3: 't Velde and De Oude Voorst, family Van Keppel, Schimmelpenninck and Heeckeren (1646-1692)  
 Dirk van Keppel bought the house in 1646. His wife Theodora lived on the estate De Oude Voorst, a Spieker north of the Berkel nearby Huis 't Velde. De Oude Voorst stood on the same estate as estate De Voorst as we know it nowadays. After the dead of Dirk is 't Velde sold several times to a different family until 1692.

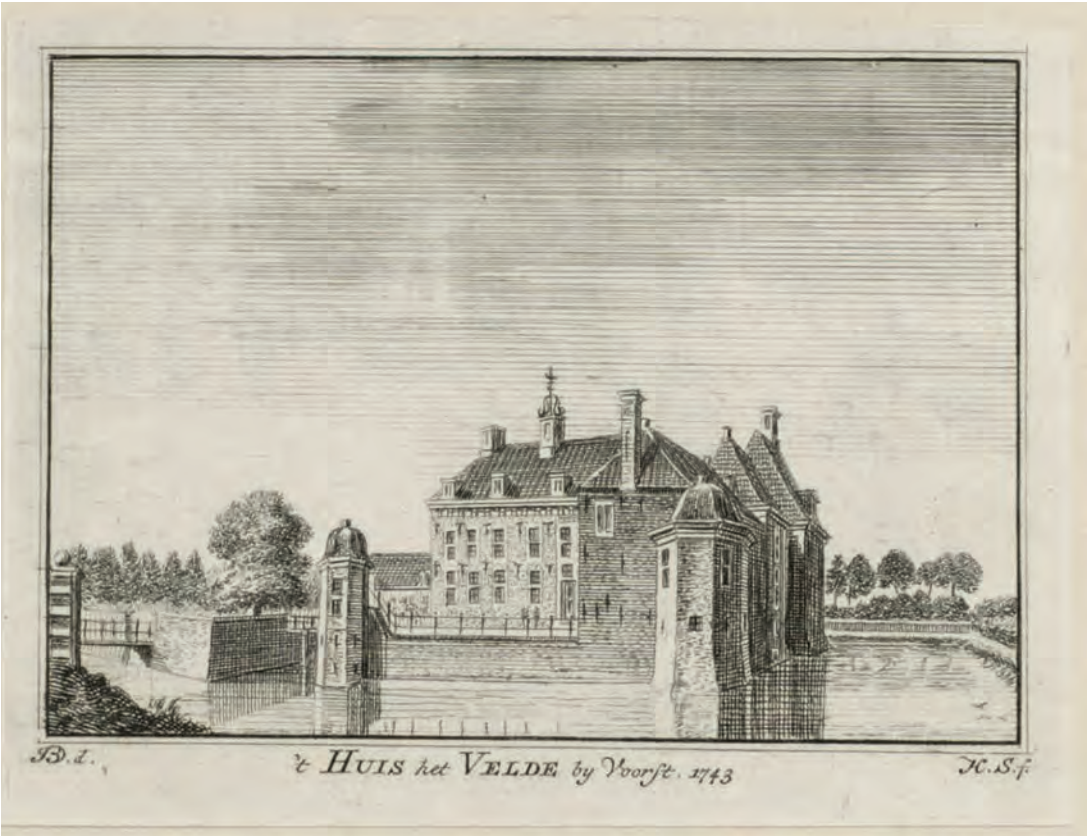
1646-1662: Dirk van Keppel (1599-1662) x Theodora van Sallandt (1615-1666).

1662-1683: Hendrick Schimmelpenninck van der Oye (1632-1683) x Bertha Elisabeth van Zevent (1635-?).

1683-1692: Robert van Heeckeren tot Enghuisen (1655-1699) x Anna Wilhelmina Cecilia van Keppel (1670-1704).

Phase 4: Estate De Voorst and 't Velde, family Van Keppel (1692-1745).  
 According to Harenberg (2001) is Arnold Joost van Keppel (1670-1718) responsible for the recognizable looks of estate 't Velde. He combined this estate with estate De Oude Voorst and built a complete new megalomaniac estate called De Voorst. A little part of the history of estate De Voorst is described below to understand the history and connection between the two estates correctly with the information from Albers and Guinée (2019).

In 1692 bought van Keppel Huis 't Velde for his mother Reiniera Anna Geertruid van Keppel- van Linteloo (1640-1700). This estate was earlier in possession of his grandmother Theodora van Sallandt and he wanted to buy it back. Van Keppel lived nearby in huis De Oude Voorst until 1701. After the death of his mother he decided to built a whole new house on the estate De Oude Voorst and to modernize Huis 't Velde.



't Huis het velde by Voorst. 1743 by unknown. Gelderland in Beeld, GDC007000389.

Van Keppel was part of the army of Stadhouder Willem III in 1688. He became close friends with Willem III during that time, some say that he was Willem's lover. In 1689 Willem III was crowned king William III of England, Scotland and Ireland. Closely next to Willem III Arnold Joost Van Keppel grew in prestige with him. Willem III gave Van Keppel several titles:

- Groom of the Bedchamber in 1695
- Master of the Robes in 1695
- Viscount Bury in Lancashire in 1696
- Baron Ashford of Ashford in 1696
- Earl of Albemarle in 1697
- Command of the First Life Guards in 1699
- Knight of The Most Noble Order of the Garter in 1700

Arnold Joost van Keppel was owner of Estate De Voorst and lived there in the old Spieker. Willem III (king William) was a regular visitor because he liked the good hunting conditions. Willem III owned an estate Huis Het Loo in Apeldoorn built by Jacobus Roman (1640-1716) and Daniël Marot (1661-1752). In 1695-1697 Arnold Joost van Keppel decided to build a new house. The construction of the new house Huis De Voorst was financed by Willem III as a gift for Arnold Joost van Keppel. It is built 200 meters from the De Oude Voorst. English architect William Talman designed the building and Daniël Marot designed the gardens. In the same period designed Marot the connection between the two estates. The gardens of Huis 't Velde were modified as an extension of the gardens of Huis De Voorst.

In 1700-1701 after Reiniera van Keppel van Linteloo died, Arnold Joost van Keppel decided to modernise and expand Huis 't Velde. He combined this with the construction of the newly built Huis De Voorst. The house is expanded on the westside and a new roof and straight continuous gutter was placed above all facades. It is not known who did the design of the renovation, but

6: Albers & Guinée (2019), p. 20.





Arnold Joost van Keppel. No date, unknown. Retrieved from: Adel in Nederland.

it is known that Daniël Marot was involved in the design of the interior<sup>7</sup>. During this time is also the hunting lodge constructed.

Joost Arnold van Keppel died in 1718 and his son William Anne van Keppel inherited the estate. William Anne sold parts of the interior of De Voorst between 1718 and 1759. Even the chairs, paintings and wallpapers were sold<sup>8</sup>. In 1745 he sold estate Huis ‘t Velde and in 1759 he sold estate De Voorst. He had no interest in the Dutch houses because he lived permanently in England.

1692-1718: Arnold Joost van Keppel (1670-1718) x Geertruid Johanna Quirina van der Duyn (1674-1741).

1718-1745: William Anne van Keppel (1702-1754) x Lady Anne Lennox (1703-1789).

### Phase 5: Estate ‘t Velde with sterrenbos, family van Dorth (1745-1801)

1745-1795: Johan Adolph Hendrik Sigmund van Dorth (1720-1798) x Jacoba Schimmelpenninck van der Oije (1711-1776).

Johan Adolp Hendrik Sigmund van Dorth bought the estate on an auction. He lived here with his wife and children. They probably made the first changes in the classicism layout of the garden in a ‘English landscape’ style with the plant of new trees and bushes. Around 1767 were new plans made for a new design of a ‘sterrenbos’ in the southern part of the estate (nearby the hunting lodge). The new ‘sterrenbos’ is created around 1779 and provided in perfect conditions for hunting.

Unfortunately the family had financial troubles and became poor. In 1795 the patriots confiscated all their possessions. The house is auctioned in 1801<sup>9</sup>.



Maison de Campagne près de Zutphen. No date. Gelderland in Beeld, GDC007000043.

In the same time there were four extra farms on the estate owned by the family. The farmers paid rent to live and work there. The farms were: ‘t Kleine Graffel, Langenberg, Biesthors and De Hekkelaar. With the auction in 1801 the estate was divided in several parts and sold separately. From now on the estate lost its original size.

1795-1801: local government, sold in 1801 on an auction.

### Phase 6: Small changes of the estate, families Bouwer, van Heeckeren, van Markel Bouwer & van Nispen (1801-1824)

This periods characterizes itself with a second change in the garden landscape style. Anna Aleida Bouwer (1769-1809), widow of Jacob Derk Burchard van Heekeren bought at an auction in 1801 the house and a part of the estate lands. She renovate and expanded the carriage building (*koetshuis*). This was probably necessary because of the growing agricultural activities on the land<sup>10</sup>. This clarifies the date on the keystone above the central door with the year 1806. After Anna died the estate was inherited to her brother Arnold Hendrik van Markel Bouwer (1771-1826). Arnold continued the modernisation and improvements of the estate’s gardens in an English landscape style. For example is the rectangular shape of the island changed because the canal is diverted in an loop shape. This can be seen on a map from 1810 (Maatboek 1810, A. de Geus). It is also visible that a new orchard arises on the left island. Somewhere between 1801 and 1816 is also the aviary built.

1801-1809: Anna Aleida Bouwer (1769-1809) x Jacob Derk Burchard van Heekeren (1766-1788).

1809-1816: Arnold Hendrik van Markel Bouwer (1771-1826, brother of Anna Aleida) x Sophia Adriana Everdina van Heekeren (1782-1844).

7: Daniël Marot was employed by king William III in the Netherlands. He was one of the most important designers of the court in that days.

8: Fermin, Rijs, & Kastelein (2021), p. 52.

9: Albers & Guinée (2019), p. 26.





View from De Voorst to 't Velde. De Voorst, zicht op het Velde. No date. Gelderland in Beeld, GDC007000198.

1816-1824: Jonkheer Mr. Lodewijk Carel Jacob van Nispen (1790-1872) x Maria Wilhelmina van Hövell tot Swanenburg (1787-1814).

#### Phase 7: empire architecture style, family van Dijk (1824-1849)

Johannes Alexander van Dijk (1795-1849) was the first non-noble owner and inhabitant of Huis 't Velde. He modernized the house by replacing the 17th century windows and plastering the facades with a white plaster. Next to that he placed an entrance hall with six stucco reliefs symbolizing the four seasons, hunting and fishing. Again are changes made to the garden. Especially the canals in front of the main façade and some paths were changed. It is likely that during this renovation the left tower and wall from the courtyard were demolished. A grassed hill came in place. This can be seen in the design study drawings from architect Hendrik van Lunteren from 1824 (1780-1848), he designed a whole new layout and structure of lanes and paths.

1824-1849: Mr. Johannes Alexander van Dijk (1795-1849) x Henriëtte Wilhelmina Coster (1799-1881).

#### Phase 8: maintaining the 'English' landscape, family van Dijk (1849-1959)

In the woods and meadows are a lot of trees and plantings replaced. According to a research from Gelders Landschap & Kastelen are most of the trees replaced around 1885<sup>11</sup>.

1849-1893 Jan Godfried Carel van Dijk (1826-1893, son from Johannes Alexander van Dijk) x Josephina Levina de Bas (1832-1859), 2nd marriage with Caroline Sophia Brants (1839-1924).

1893-1954 Johannes Alexander van Dijk van 't Velde (1878-1954, son of Jan Godfried) x Johanna Maria barones van der Borch tot Verwolde (1880-1975).



Design of the garden. Ontwerptekening park. 1824, by Hendrik van Lunteren. Collectie Gelderland, 06856.

1954-1959: Jan Godfried Carel van Dijk van 't Velde (1920-2000) x Jeanne Jacqueline Radermacher Schorer (1932-2018).

During the Second World War both Huis 't Velde and Huis De Voorst were confiscated by the German Army. 't Velde was an officer barracks. Because of the impending attacks by the Allied Forces the Germans built trenches and bunkers on the estate.

#### Phase 9: new completion of the estate, Gelders Landschap & Kastelen (1959-2021 onwards)

In 1959 sold Jan Godfried Carel van Dijk van 't Velde, the estate to foundation Gelders Landschap & Kastelen (GLK). In 1953 GLK recieved the Veldese bos by tree ladies of the family Verloren van Themaat. In 1978 GLK bought the Kappersbos and Graffelse bos. With that, the estate grew mostly back to its original size.

GLK is the first owner who did not use the estate as a place to live. Between 1962 and 1964 architectural firm H.F. Rappange restored the house and carriage house. From that moment on it is rent to an user. In 1965 was the building in use by a training and conference center for agricultural education<sup>12</sup>.

In 1976 a new tenant took seat. Until today the Conference and Education Center for Police Education makes use of the buildings.

In 1989 GLK intended to change the garden. Designer and gardener Hoefakker designed a new plan.

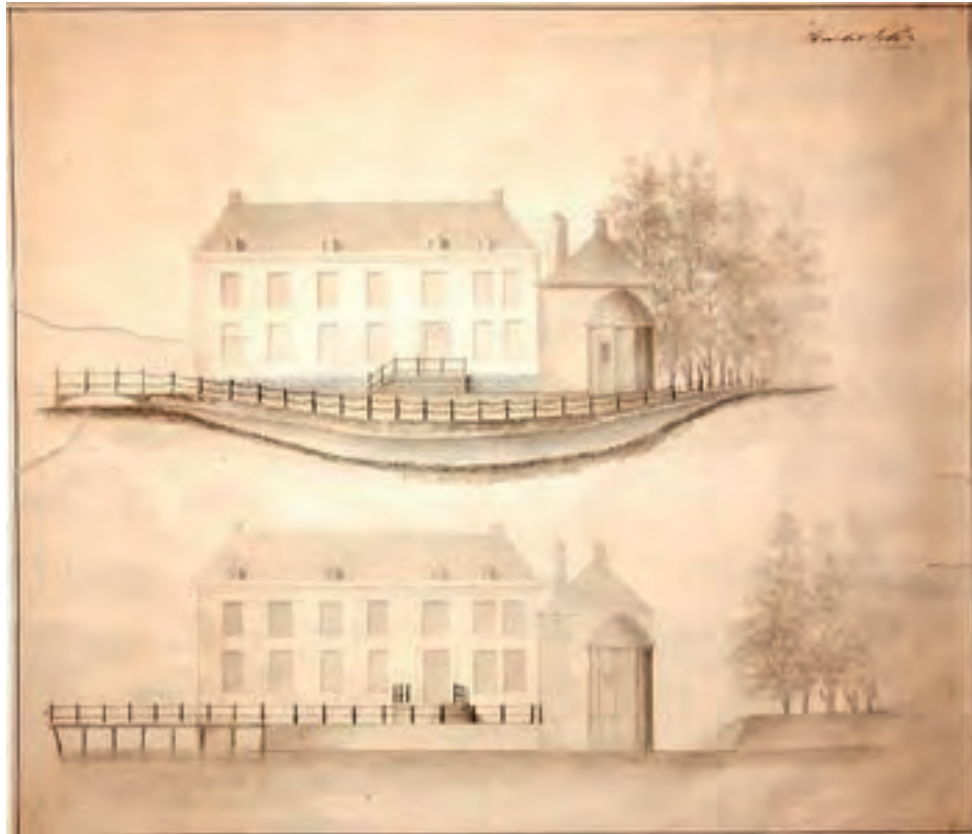
In 2005 landscape architect Poelmans Reesink made a new design for a memorial garden. The labyrinth symbolizes the though way of life and the acanthus leave shaped layout refers to the interior design of Daniël Marot<sup>13</sup>.

1959-2021 onwards: Stichting Het Gelders Landschap en Kastelen.

10: Albers & Guinée (2019), p. 30.

11: Albers & Guinée (2019), p. 49.





Design study. 1820, unknown. Collectie Gelderland, P02376.

### History of the carriage building

There is less information about the carriage building (Koetshuis). The current building is built around 1800, the keystone above the middle door mentions 1806. This can be right, but before the construction of the current building there used to be a smaller shed building. In a drawing from circa 1730 and one from 1743 there is already a building visible. A drawing from Abraham de Haen from 1725 shows the building from the backside. It is clearly visible that there is already a big building and it looks like a farmer house of shed. The first house is probably built during the renovation period of Van Keppel in combination with Huis De Voorst.

In 1801-1806 is the carriage house renovated by order of Anna Aleida Bouwer and reconstructed it the current shape. This was necessary to house all the agricultural tools and vehicles because of the growing agricultural activities on the estate. This can be confirmed with the keystone above the door. Anna Aleida wanted to connect the architectural style with the style of the main house<sup>14</sup>.

Nevertheless is the building changed during times. The facades as we see it nowadays is a product of a major restoration by H.F. Rappange in 1961. The facades are drastically changed to more rhythm and symmetry. The bigger amount of empire windows is very noticeable, especially because there were only two empire windows present before the restoration<sup>15</sup>.

### History of the aviary

This building is probably built during the first quarter of the 19th century during the renovation of the carriage house and changes of the gardens. The building is firstly drawn in a map from 1810. It was a combination of an aviary and a tea house in the middle of the building. According to Albers & Guinée (2019) are the green-white colours and the vases on the eaves of the



Entrance to the house. Unknown. Gelderland in Beeld, GDC002001026.

tea house typical style elements for the first quarter of the 19th century.

### History of the hunting lodge

There is besides the farm houses in the south part of the old estate another important building. This is currently not part of the assignment for the Politiebouwmeester, but it is for the history of the estate important to mention. On the other side of the Rijksstraatweg next to the Vordenseweg is an old hunting lodge, currently in use as a restaurant. The first hunting lodge on the estate is probably built between 1700 and 1702 commissioned by Willem III. During a visit to the construction site Willem III really liked the southern parts of estate 't Velde and found them perfect for hunting<sup>16</sup>. He gave the construction of a hunting lodge as a present to Van Keppel and his mother.

Later was the hunting lodge integrated in the design of the '*sterrenbos*' by Johan van Dorth around 1767. It is not known if there were any changes made to the building.

The building is renovated during the first quarter of the 19th century. Because it is in the same style as the main house of 't Velde it is probably done during the renovation of the house. In that case it is done by order of Johannes Alexander van Dijk around 1824-1825. Corresponding style elements are the empire windows and white plaster.

In 1923 was the hunting lodge sold. Shortly after the transaction was the house changed into a hotel<sup>17</sup>. Later on it was changed a third time to a resident as it is still nowadays.

12: Albers & Guinée (2019), p. 58.

13: Albers & Guinée (2019), p. 60.

14: Albers & Guinée (2019), p. 21.

15: See the drawings of the current and new situation from 1961 by H.F. Rappange.





View to the house. Unknown (before 1941). Regionaal archief Zutphen, SZU002000477.

### Architectural style and dates

The style of the house as we see it nowadays dates back from the renovation by King Willem III and Arnold Joost van Keppel. It has mostly a Louis XIV architecture style, complemented with an empire-style by Van Dijk in the 19th century and changed during the last restoration in 1961. The style of the garden dates back from the 19th and 20th century<sup>18</sup>.

### Facades

The facades are mainly from the reconstruction period of Van Keppel. The south facade is completed in 1695-1701 (XVIIIa) and the south wing with tower is raised (XVIIIa) during the same time. The stepped gables in the north facade are renaissance elements (XVIIIB) and date back from the end of the seventeenth century.

#### South facade

The south façade contain the most time layers. The current layout with seven bays (XVIIIa) is from the reconstruction period by Van Keppel. The right part of the façade (XVIB) is older and marked by marl stone pediments (XVIB). Originally this part of the building had a renaissance architecture style, with stepped gables like the northern facade. The cornice with modillions (XVIIIa) goes around the building and gives the building together with the saddle roof (XVIIIa) and prominent entrance a sober early Louis XIV style. This style comes more to expression in the interior. The iron cramps (XVIB) in the right part of the façade are probably from the renaissance period. In the left part are younger iron cramps (XVIIIa) from the extension around 1700. This is a strange element in a Louis XIV style façade while it was used to hide the cramps. In this case they are probably placed to make a unity in the façade. The window frames (XIXa) are from the reconstruction period by Van Dijk when he placed new empire windows. The sash windows (XXc) are placed during the restoration around 1961. The landing stairs and balustrade (XVIIIa) are likely from the Van Keppel period. Exactly the same design of stairs and balustrade is found by Huis De Voorst which is built by Van Keppel.



View on the northern facade. Unknown (after 1945, before restoration). Gelderland in Beeld, GDC005000493.

The entrance with empire frame (XIXa) and entablature (XIXa) is placed during the reconstruction of the entrance hall (XIXa) by Van Dijk.

#### South wing

The volume of the south wing (XVIIIB) is built by the family Bentinck. The roof (XVIIIB) and tower on the back corner (XVIIIB) are from the same period. A second tower on the main façade of the wing is demolished (see for example a drawing from around 1700). A postcard from 1912 show us that there were only three windows (!) in the front façade. Possible from the construction time (XVIIIB), but maybe younger? The rest of the windows (XXc) are firstly seen in a photograph from 1968, which confirms that they are placed during the restoration in 1961. The dormer with dovecote is probably placed in the eighteenth century. It appears the first time on a drawing dated between 1697 and 1735.

#### North wing

Just like the south façade contains the north façade more time layers. Three layers are the most obvious. The façade exist of three parts. The two parts on the left are the oldest with stepped gables. The left façade (XVIB) is the oldest one, next comes the middle part (XVIIIB), and the right part (XVIIIa) is from the extension of Van Keppel with the last part of the cornice with modillions (XVIIIa). In the top of the left façade are two crossed shaped renaissance windows (XVIB) accentuated by a brick arch (XVIB). These arches are also visible above the other windows. The window frames on the first floor (XIXa) come from the empire-style intervention. The windows are replaced (XXc) during the restoration in 1961. The windows on the bell floor are the original empire windows (XIXa) together with balconies (XIXa).

The middle façade is younger. The differences can be seen in the brickwork, the iron clamps and the lack of brick arches. The window frames (XIXa) and windows (XXc) have the same history.

16: Albers & Guinée (2019), p. 25

17: Albers & Guinée (2019), p. 43.

18: See Rijksmonumentenregister, monument complex 526689 (Rijksdienst voor het Cultureel Erfgoed, 2021).





Memorial Garden. Unknown. From: [www.politieacademie.nl](http://www.politieacademie.nl).

### Brick or white plaster finish

The white colour is painted in 1961 and refreshed during time. Originally the facades had the finish of red-yellowish bricks, but in 1824 Van Dijk decided to finish the facades with a white plaster. The plaster is removed in 1961 and the facades were painted in white afterwards.

### Roofs

The date from the south saddle (XVIIIa) roof is around 1700. The dates from the rest of the roofs are unclear. They are probably connected to the building phase of that particular volume. In that case it is spread between the 15th century and 18th century. But it can also be renewed during the reconstruction by Van Keppel.

It can be said with certainty that a large part of the roof boarding was renewed in the second half of the twentieth century. During inspection, there was a big difference visible between the new and the old wooden parts.

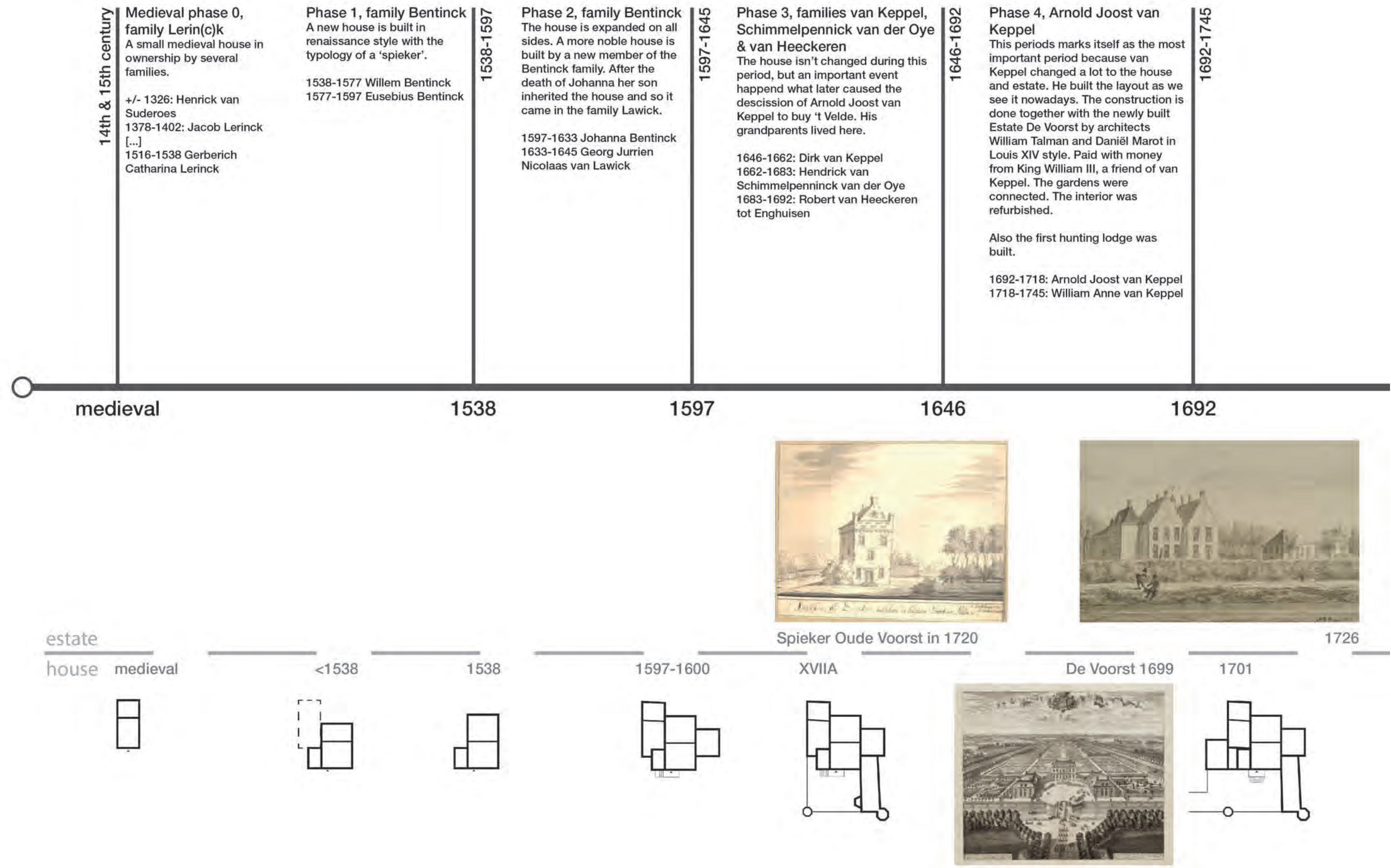
*Date mention: (..). The number of the century in roman numbers and a capital A or B for the first or second half of a century. A lowercase a, b, c or d means the first, second, third or last quarter of a century.*

*The styles are:*

- *Renaissance*
- *Louis XIV*
- *Empire*



## 2. History and owners | timeline





1745-1801

**Phase 5, family van Dorth**  
This family didn't change a lot to the building but more to the gardens. They made the switch from a classicism style garden to the first English Landscape style garden. In 1767 they made the 'sterrenbos'. Four farms were founded.

1745-1795: Johan Adolph Hendrik Sigmund van Dorth  
1795-1801: no inhabitants

1801-1824

**Phase 6, changes by 3 families. Carriage house and aviary built**  
A second change of the landscape garden and modernisation is done. Anna Aleida Bouwer changed a lot with more agricultural activities. Also the carriage house is expanded and the aviary is built around this time.

1801-1809: Anna Aleida Bouwer  
1809-1816: Arnold Hendrik van Markel Bouwer  
1816-1824: Jhr. Mr. Lodewijk Carel Jacob van Nispen

1824-1849

**Phase 7, family van Dijk**  
Johannes van Dijk renewed all the windows and changed the entrance framework to a Empire style. He also added white plaster on all facades and changed the hunting lodge and carriage house in the same style as the main building. Some canals in the garden were changed by architect Hendrik van Lunteren

1824-1849: mr. Johannes Alexander van Dijk

1849-1959

**Phase 8, maintaining the estate**  
This was a period of 'maintaining'. A lot of trees and bushes were renewed. Most is replaced around 1885. Some small changes to the gardens were done.

1849-1893: Jan Godfried Carel van Dijk  
1893-1954: Johannes Alexander van Dijk van 't Velde  
1954-1959: Jan Godfried van Dijk van 't Velde

**Second World War**  
During the second world war were both Huis 't Velde and Huis De Voorst confiscated by the German Army. 't Velde was an officer barracks. Because of the impending attacks of the Allied Forces the German Army built trenches and bunkers on the estate.

1824-1849

1959-onwards

**Phase 9, Gelders Landschap & Kastelen**  
In 1959 bought Foundation Gelders Landschap & Kastelen the estate and the house. In 1953 they already recieved the Veldese Bos by a donation. A few years later they bought forests and lands of the former estate back. The estate is restored between 1961-1964 by H.F. Rappange

1959-now: owner GLK

**Users:**  
1965: training and conference center for agricultural education  
1976-now: conference and eduction center for Police education (politieacademie)  
2001-2008: butler academy  
2005: Tuin van Bezinning opened

1745

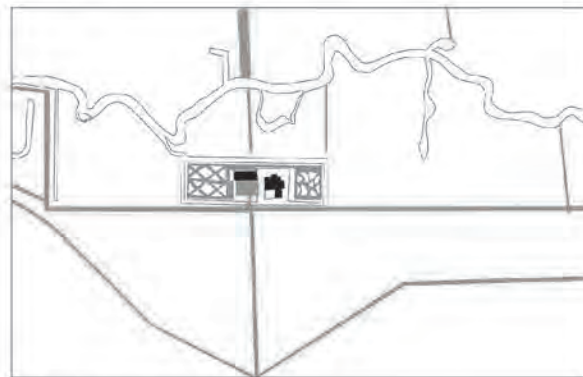
1801

1824

1849

1940-'45

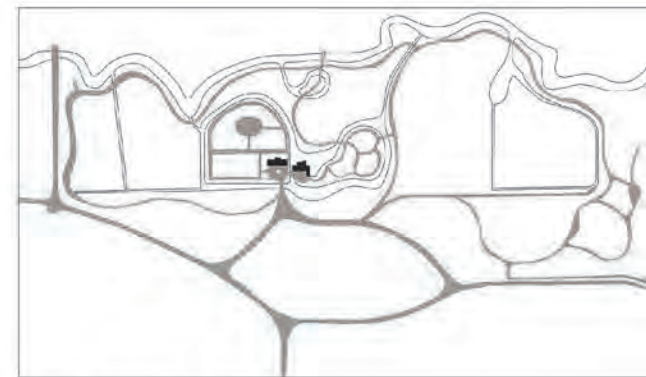
1959<



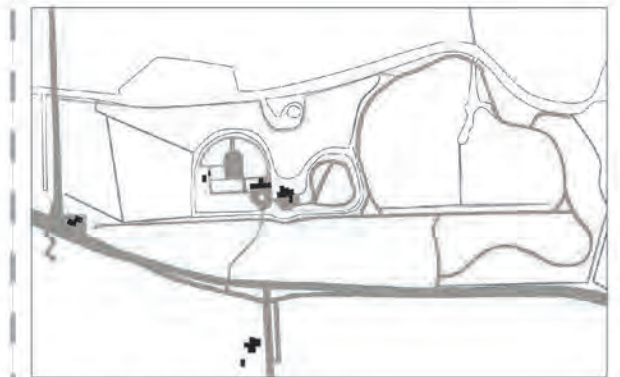
1778 garden layout



1810 garden layout



1824 garden layout



2021 garden layout

1743

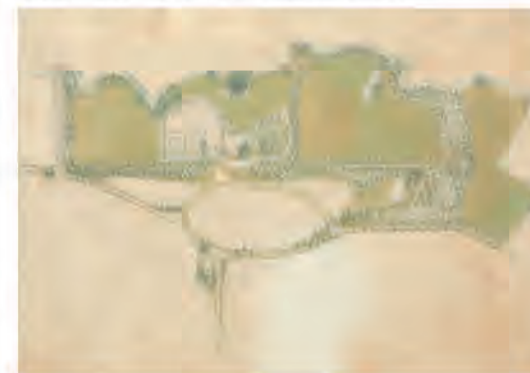
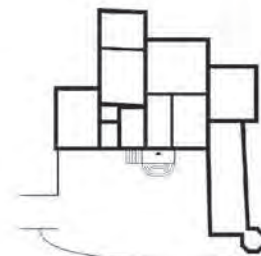
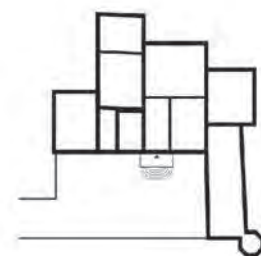
1824

1849

1824 Hendrik van Lunteren

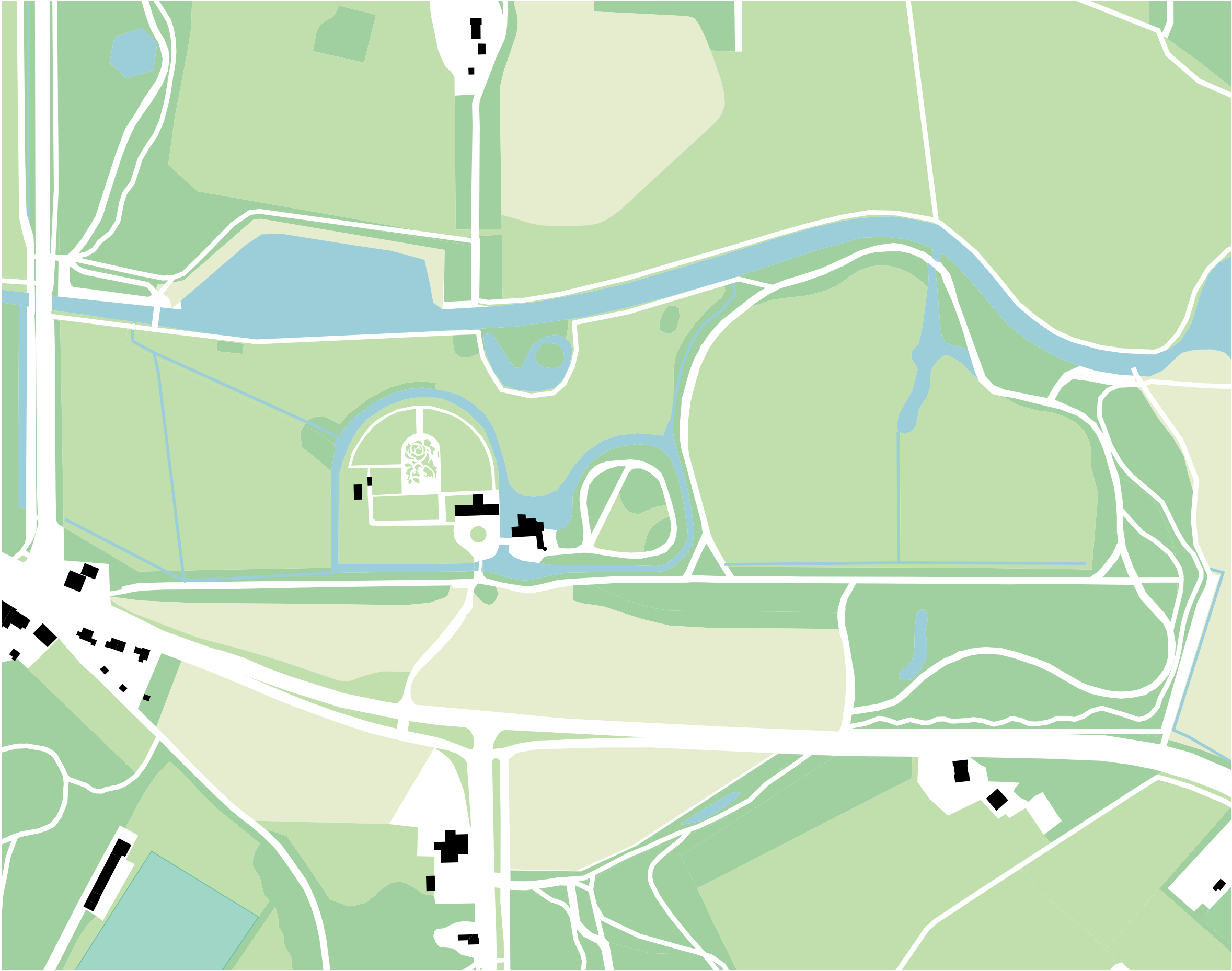
1900-1961

business user function





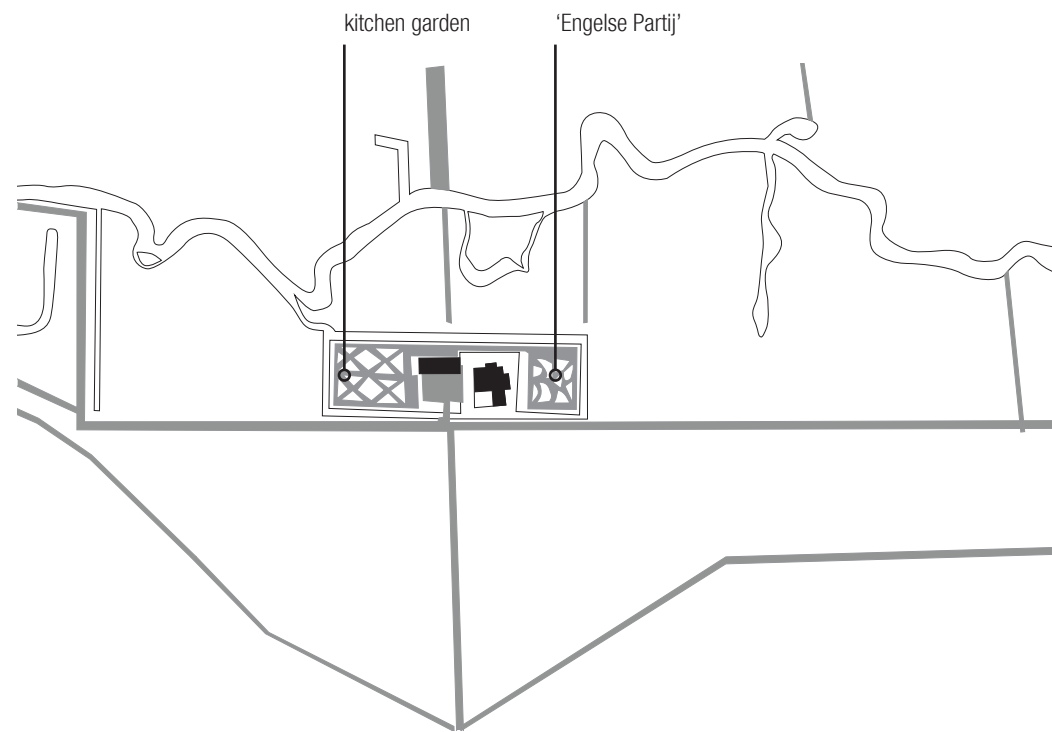
3. Estate and park



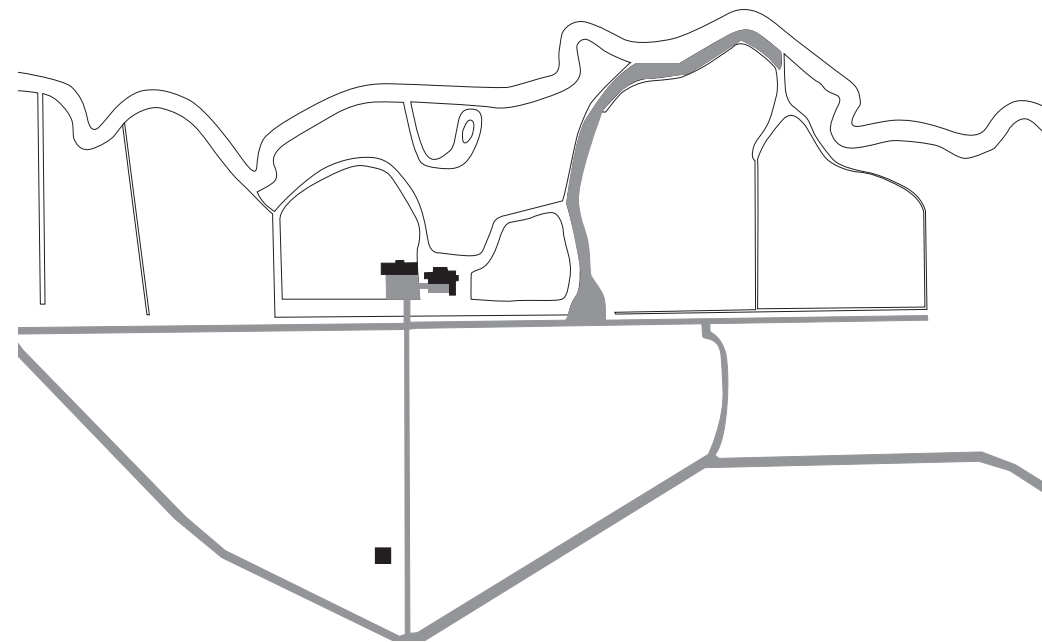
Current situation



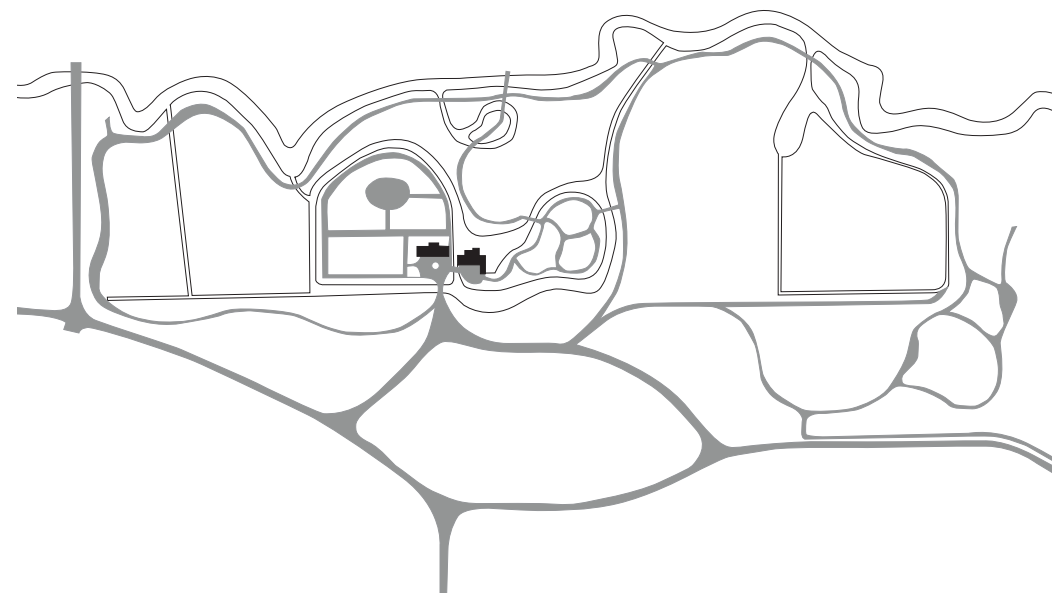
## 3.1 Development of the estate



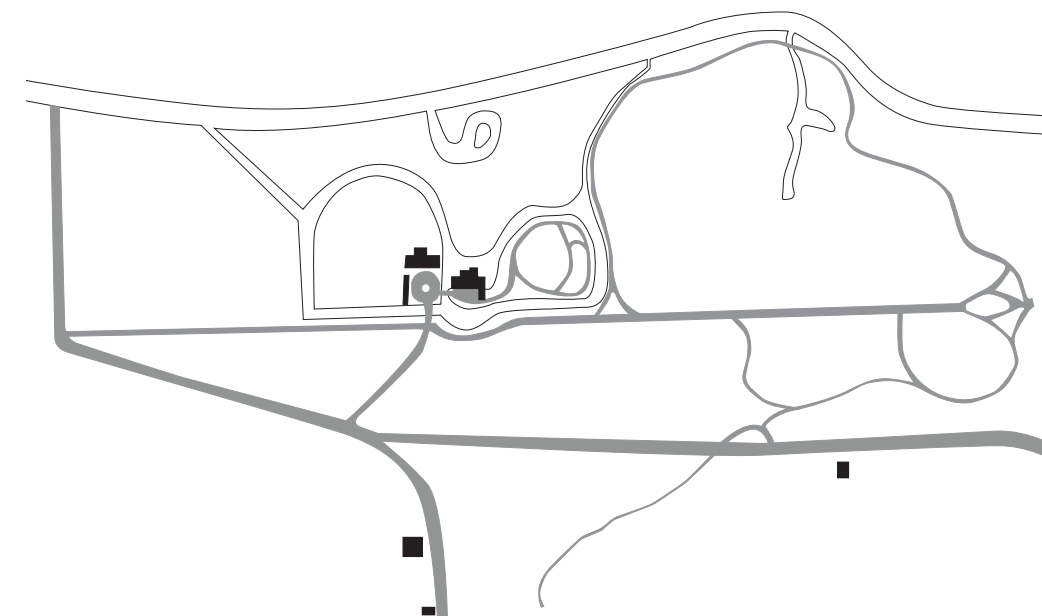
1778- Formal garden: the medieval structure of the garden is still visible and the gardens are surrounded with a moat. The left island contain a kitchen garden and a farm house. Later will this house be replaced for the carriage building. In the middle is the main building and on the right a 'Engelse Partij' -style garden, a typology for a specific garden design style with a formal layout. This was the precursor for the English Landscape style. There is no hunting lodge yet.



1810 - First phase landscape garden: a new garden design and place for farmlands in a English Landscape style garden. Left and right from the middle islands are places for meadows. Under the main entrance (triangular shaped) fields for farmers. There was no high vegetation to ensure a free view to and from the house. The hunting lodge is built together with a special forest for hunting (sterrenbos), this is not shown on this map.

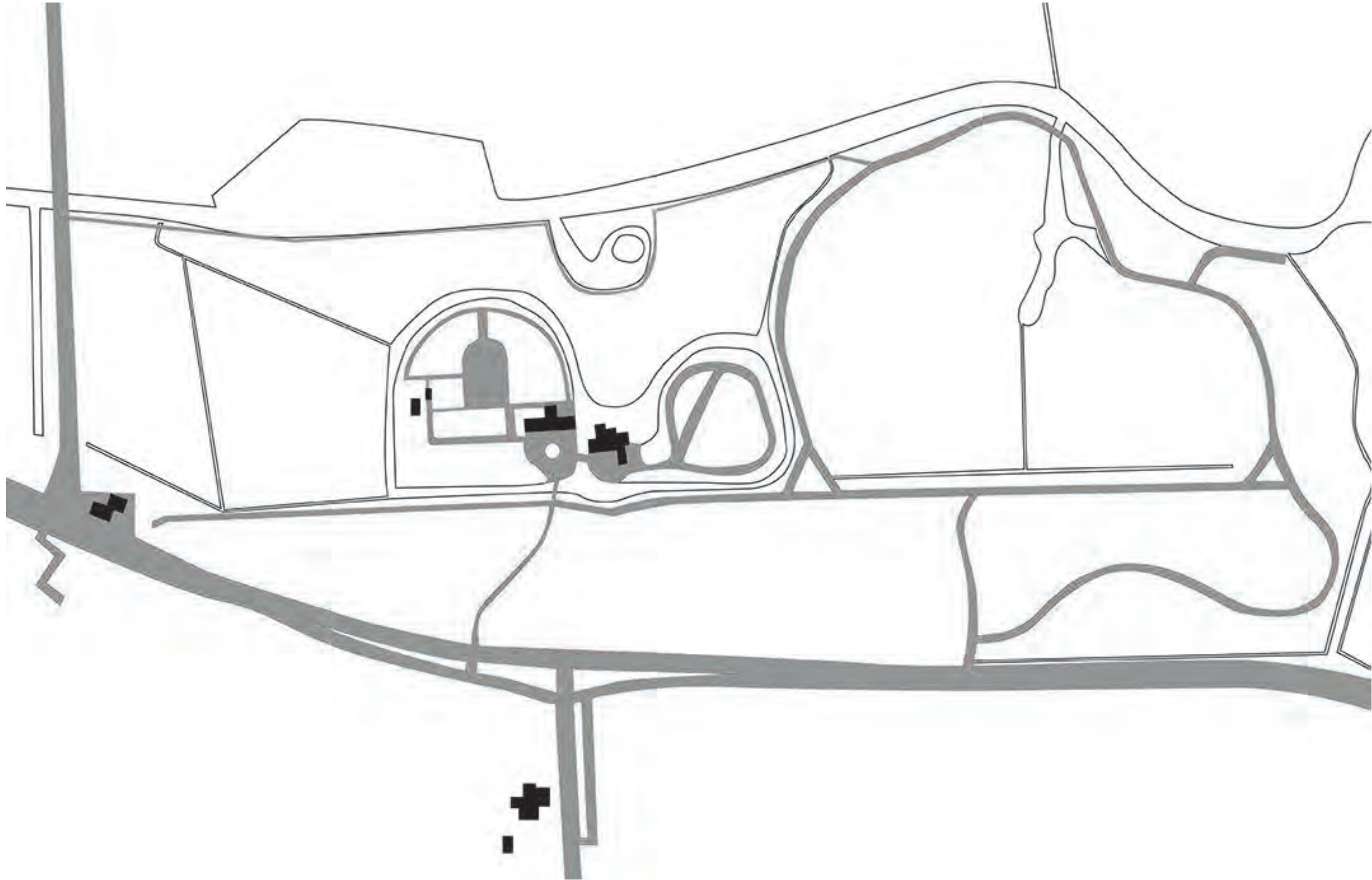


1824 - Arcadian landscape: more hiking paths and a softer idyllic design for the garden. There is no place for farms in this part of the estate. That is located on the southern part (not on this map). The kitchen garden is back on the left island with a big pond in the middle.



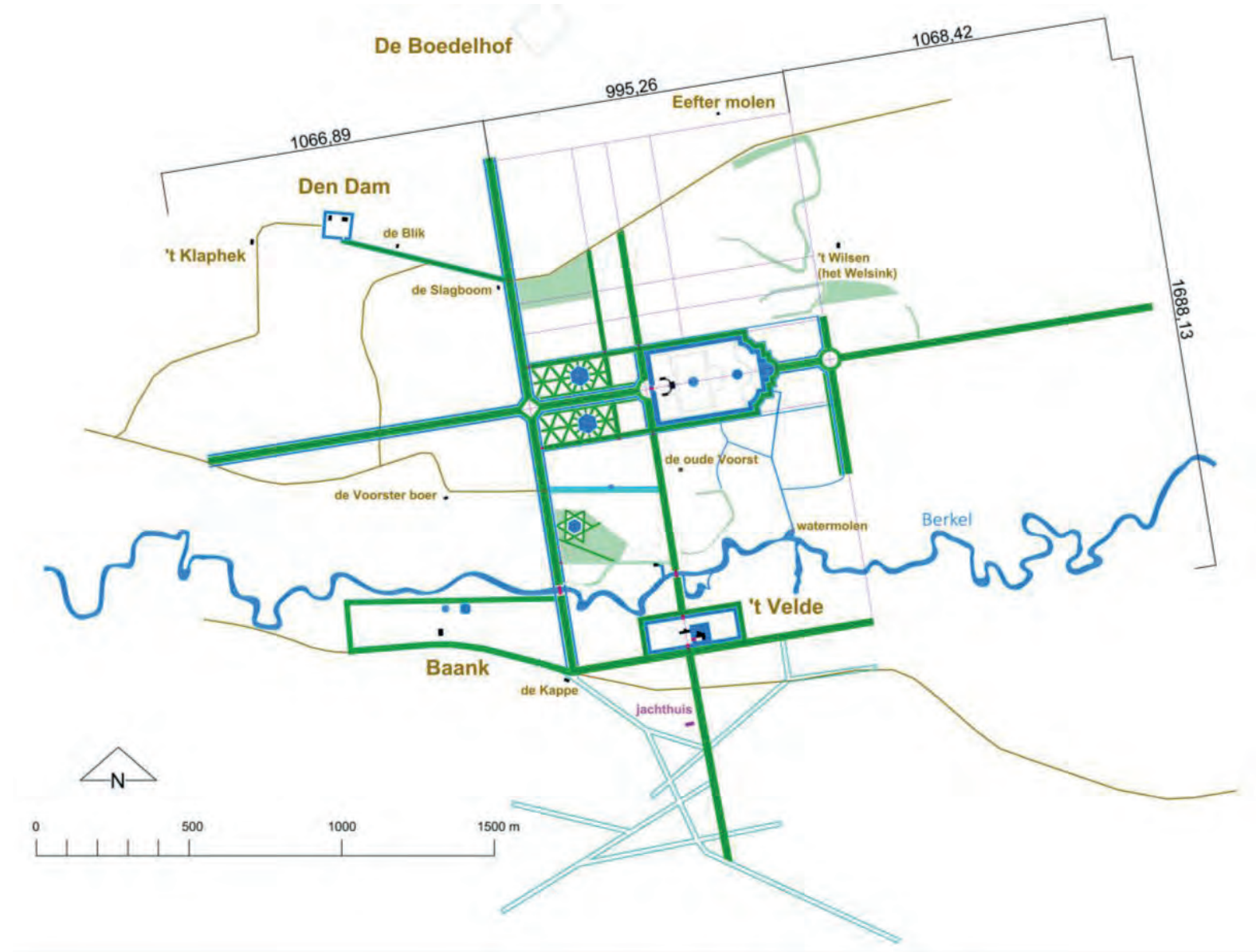
1897 - Agriculture: the farms grew during this period and became solitary companies. It is not known whether the kitchen garden is still there. The hunting forest (sterrenbos) is gone and the hunting lodge is sold to a hotel company. The berkel is canalized and contain a dam now. The small streams on the estate are cut off from the stream from the Berkel. The water network of the estate is no longer in direct connection with the river.



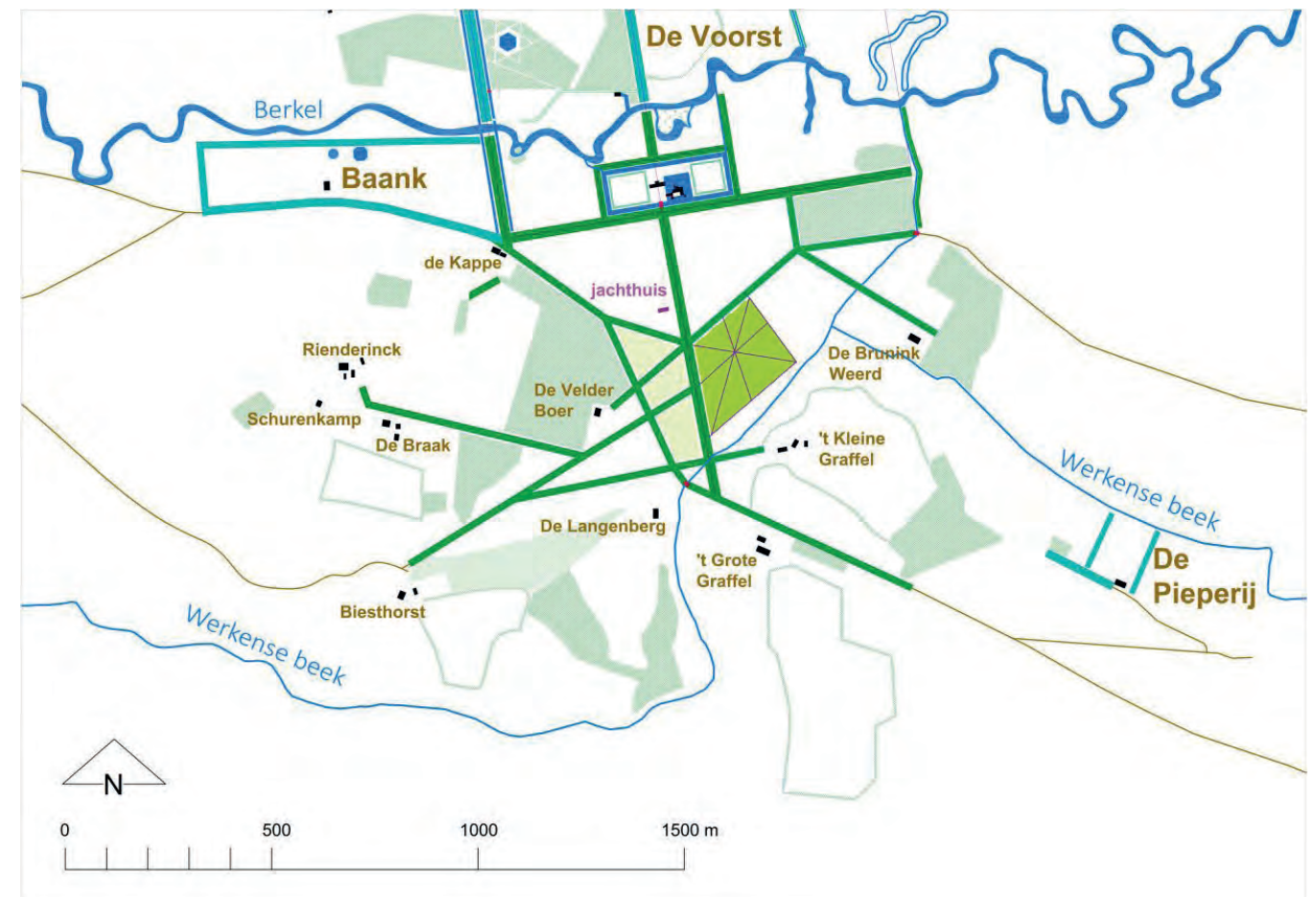


2021 - current situation: in 2005 is the small kitchen garden replaced for a memorial garden: 'Tuin van Bezinning'. There is no longer agricultural activities on the estate, besides the farms in the southern parts. Nevertheless, are these parts of the former estate in private ownership and therefore not part of the estate anymore. But, because of the familiar architecture and materials it is still visible that they once belonged to a group of buildings of 't Velde.





1700: estate 't Velde is integrated in the layout of estate De Voorst by Anrold Joost van Keppel. His mother lived in 't Velde. From Albers & Guinée, Cultuurhistorische analyse en waardestelling, 2019.



1779: 't Velde en De Voorst are two separate estates. 't Velde is expanded to the south and a couple of farms are established. Right of De Velder Boer is the 'sterrenbos'. From Albers & Guinée, cultuurhistorische analyse en waardestelling, 2019.



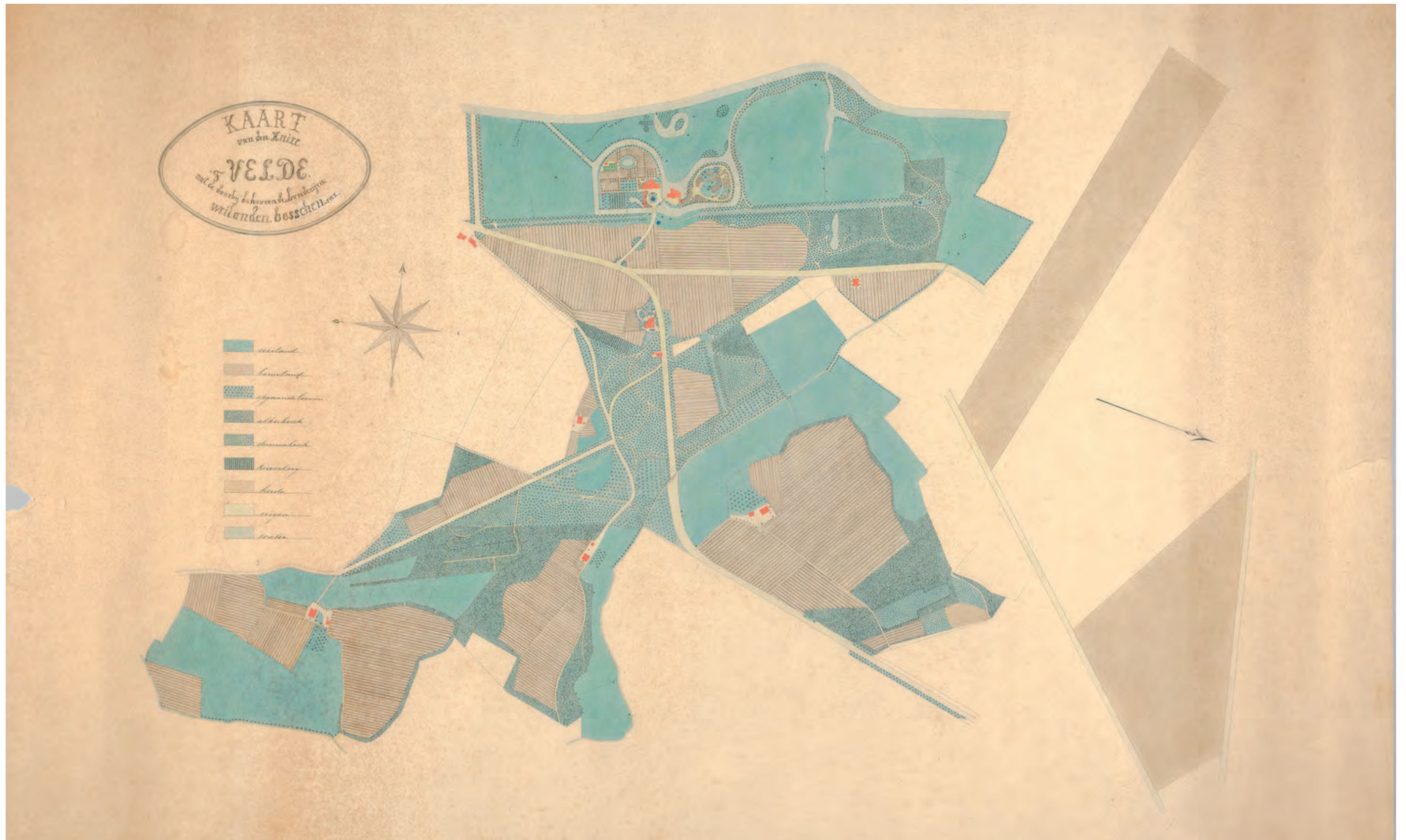






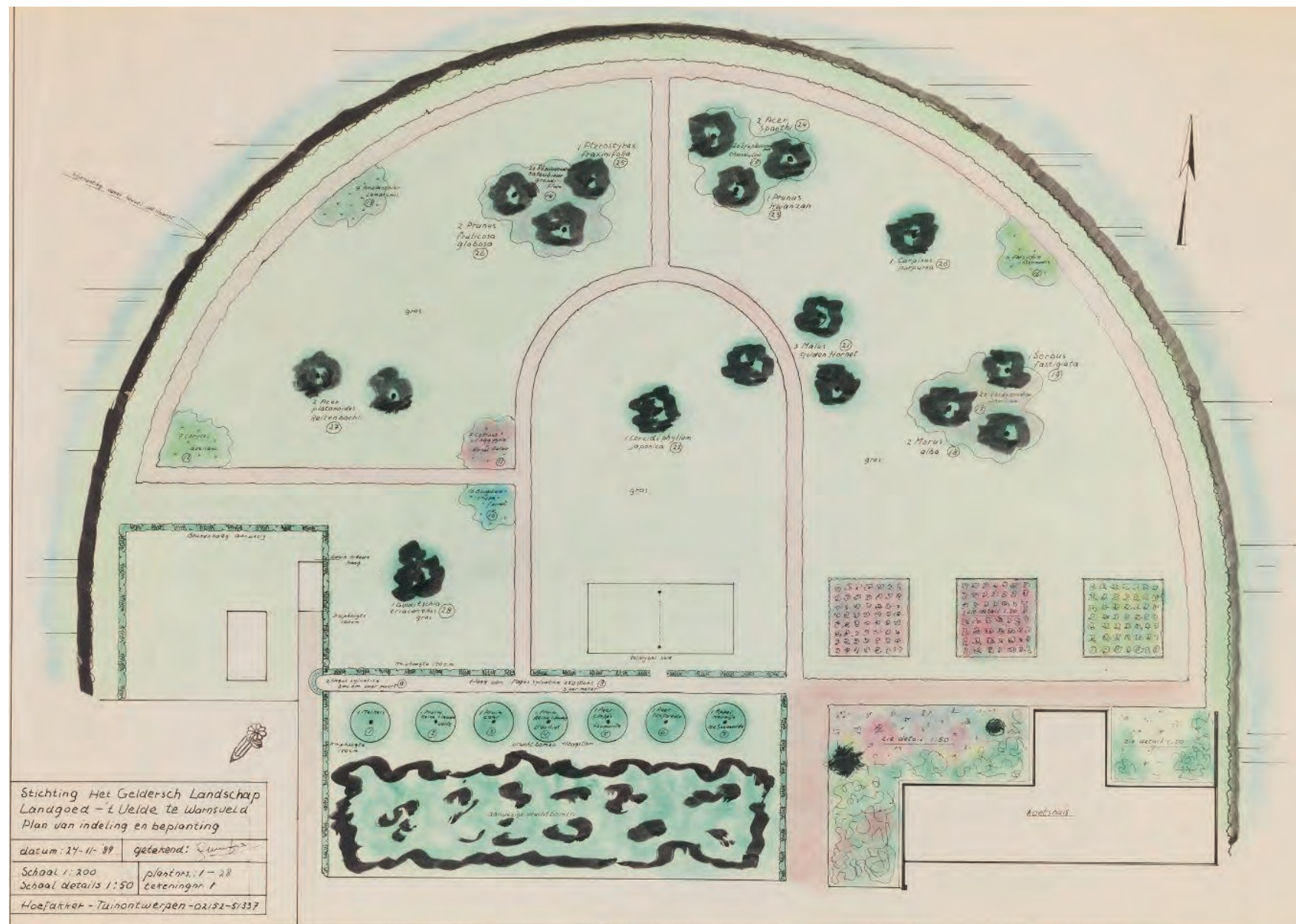
1824  
Ontwerptekening van het park van huis 't Velde  
Hendrik van Lunteren  
Collectie Gelderland



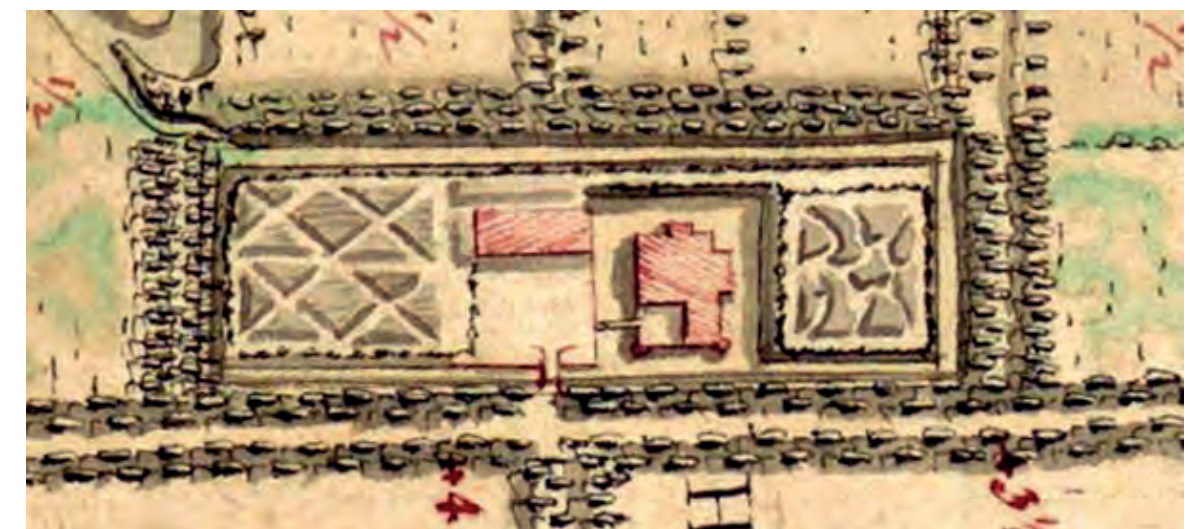


1897  
 Kaart van huis 't Velde  
 Hendrik Jan Walgemoed  
 Collectie Gelderland





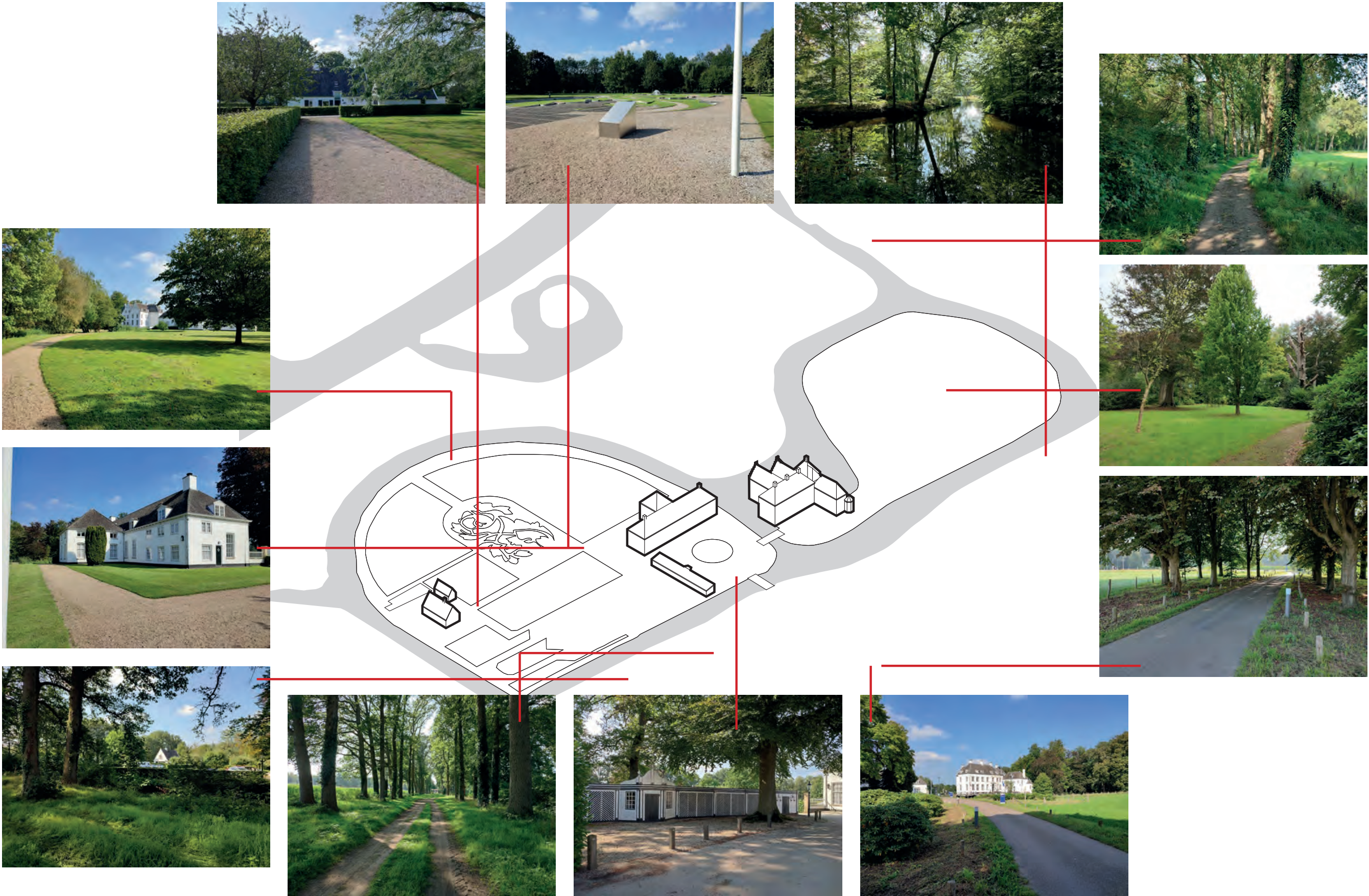
1989  
Garden design 't Velde by Hoefakker  
Collectie Gelderland



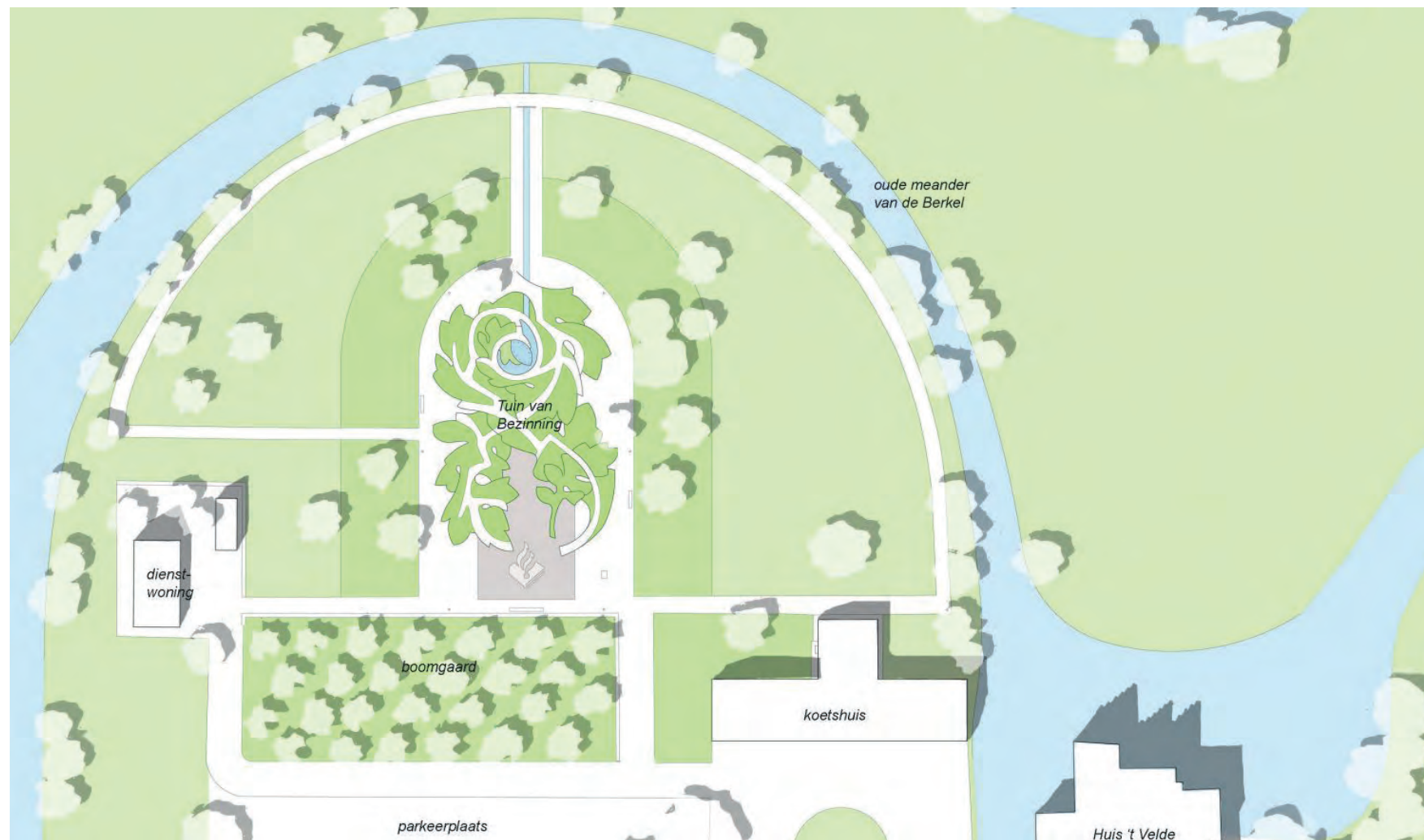
1778 Hottingerkaart  
Collectie Gelderland



3.2 Park overview







(Poelmans Reesink, 2006)



(Architectenweb, 2006)



(Ginkelgroep, 2011)



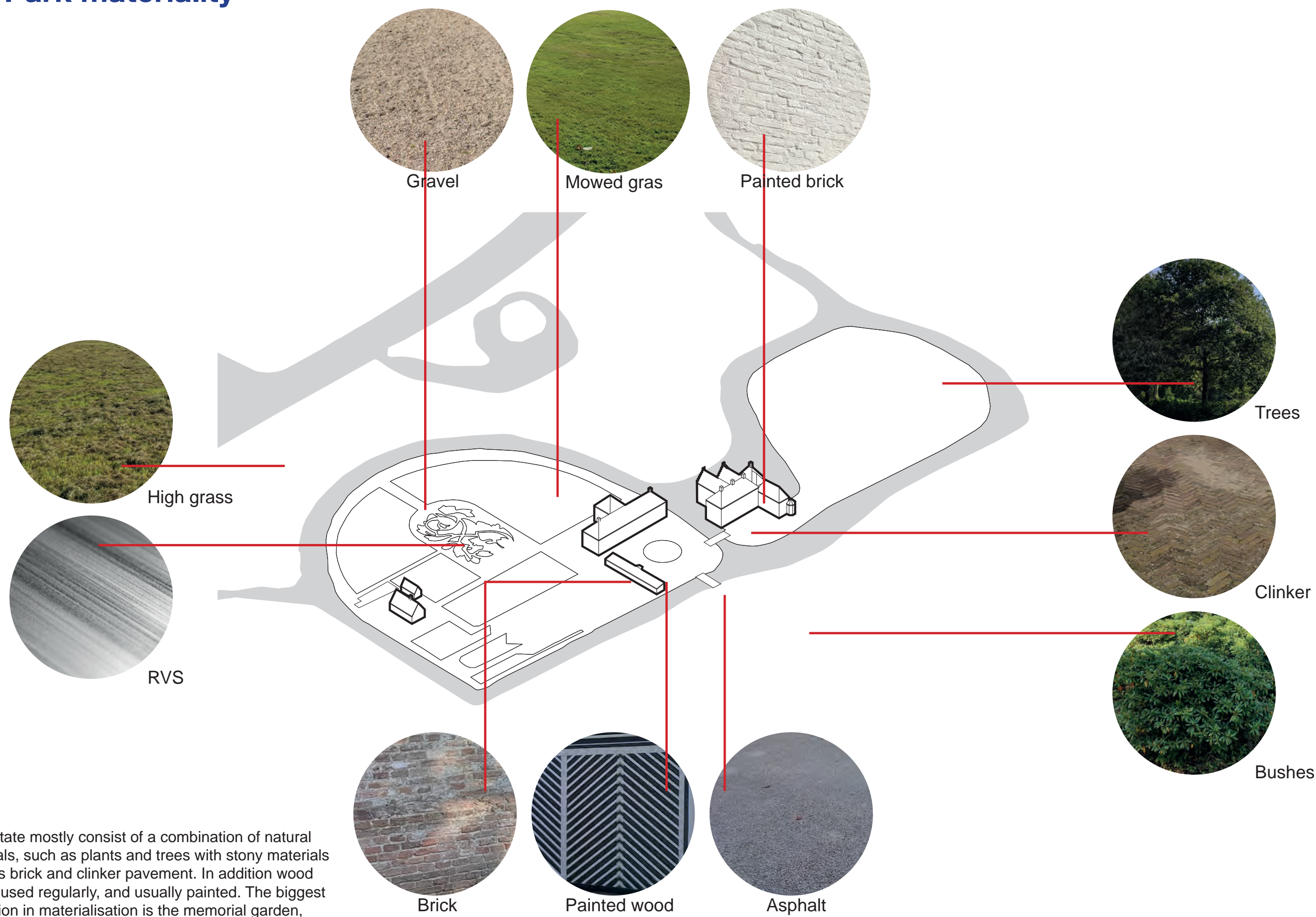
(Ginkelgroep, 2011)



(Ginkelgroep, 2011)



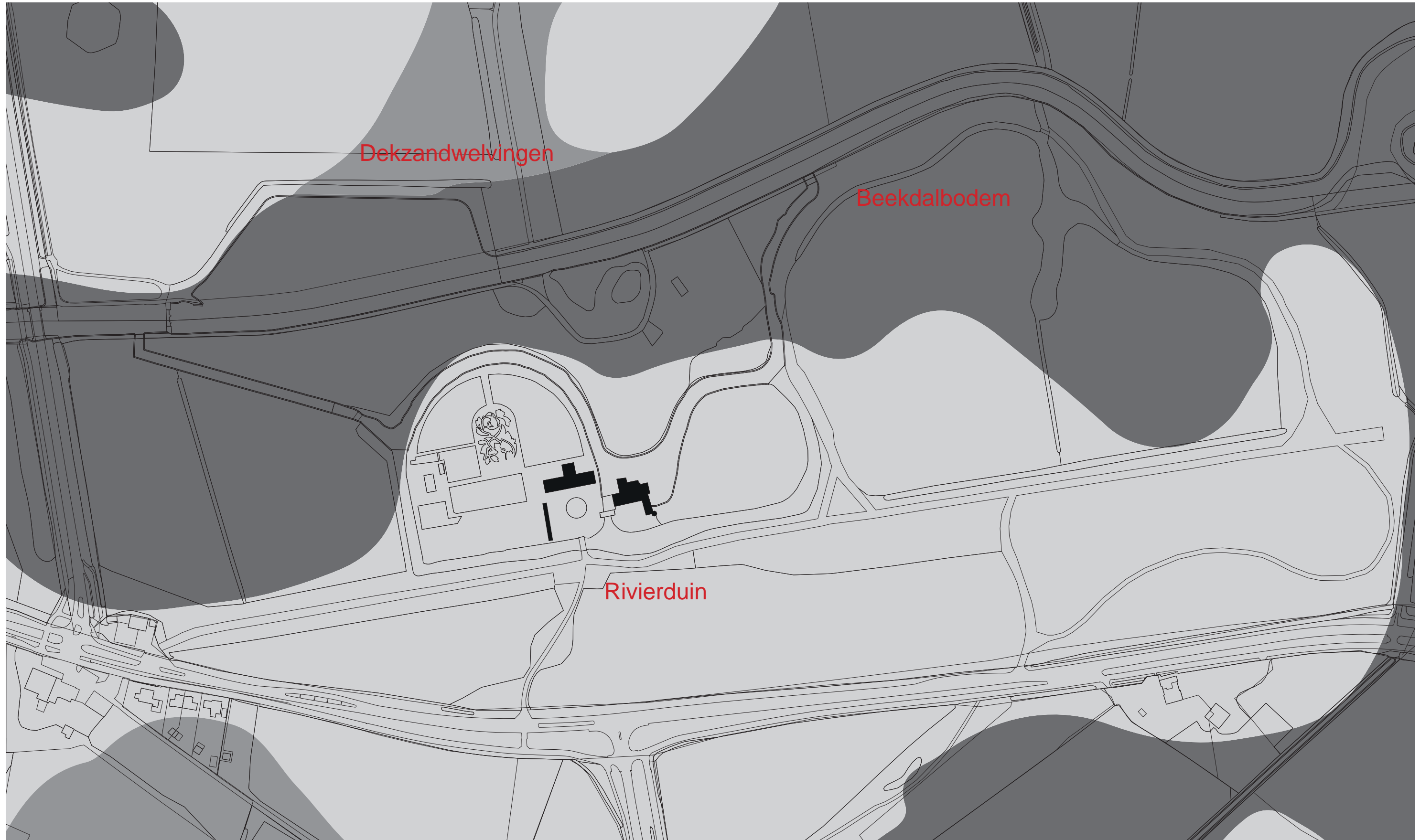
### 3.3 Park materiality



The estate mostly consist of a combination of natural materials, such as plants and trees with stony materials such as brick and clinker pavement. In addition wood is also used regularly, and usually painted. The biggest exception in materialisation is the memorial garden, where RVS plays a major role.

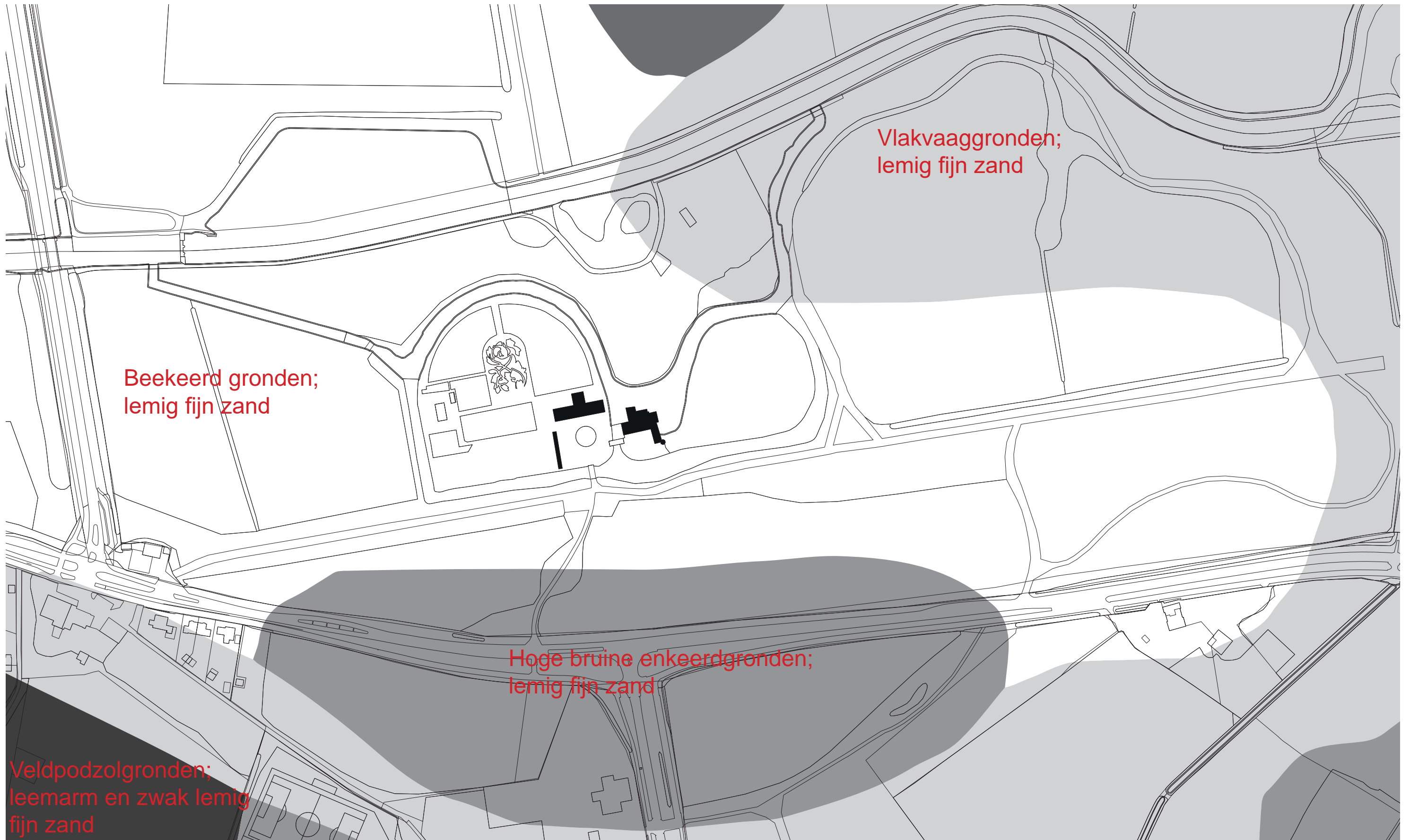


### 3.4 Soil types



The estate is located on a rivierduin, a higher part in the landscape with a sand layer under the surface. This location was probably chosen because this is a good soil to use as a base for the foundation. Directly besides the rivierduin is the underground the beekdalbodem





The ground surface around the estate is beekerd ground. This means that the upper layer consists of a layer of humus, on top of a layer of nutrient-poor cover sand.



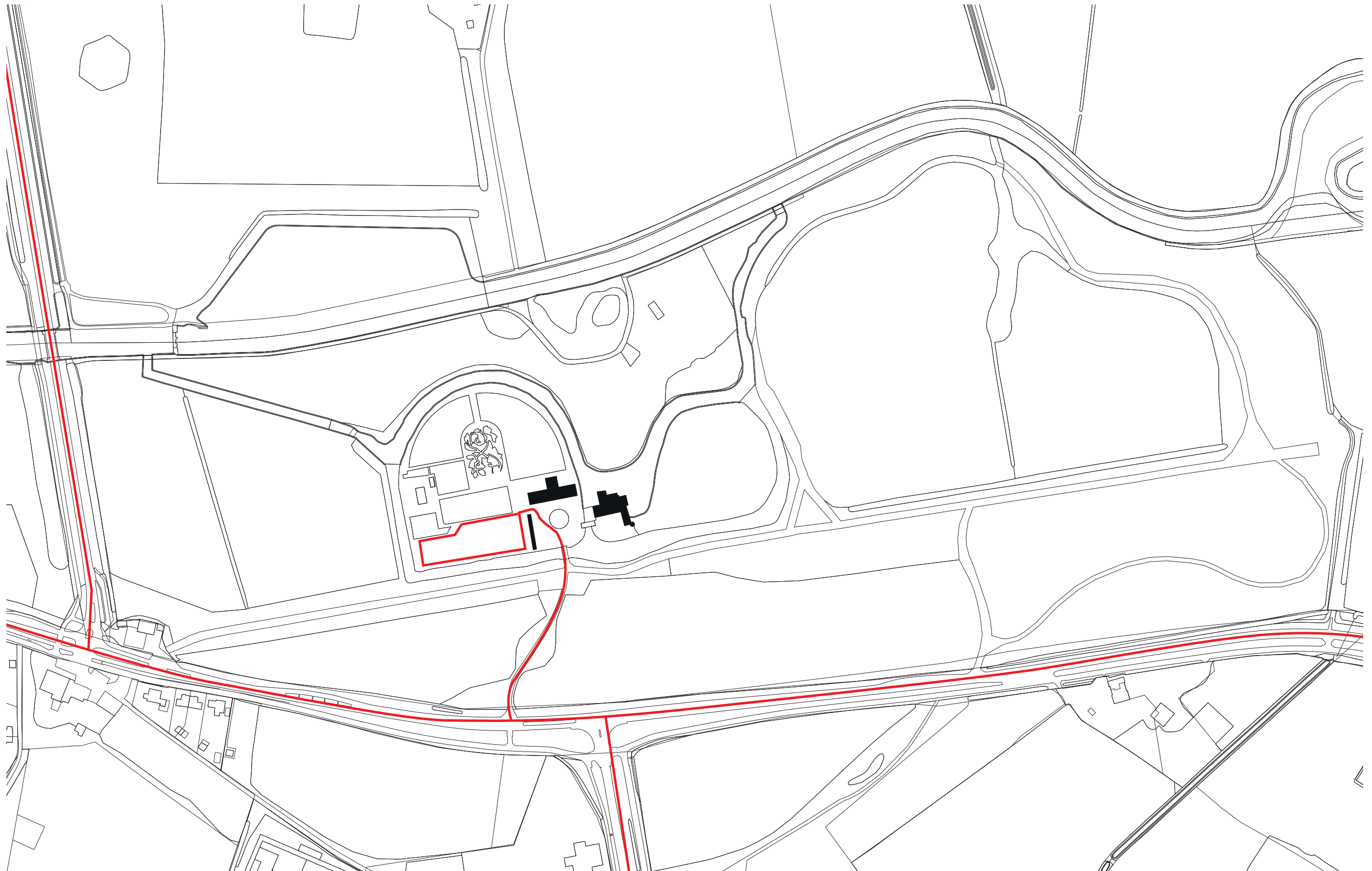
### 3.5 Hiking paths



Around the estate are several walking routes. What is striking is that there are relatively little connections between the walking routes on the two main islands and the surrounding estate.



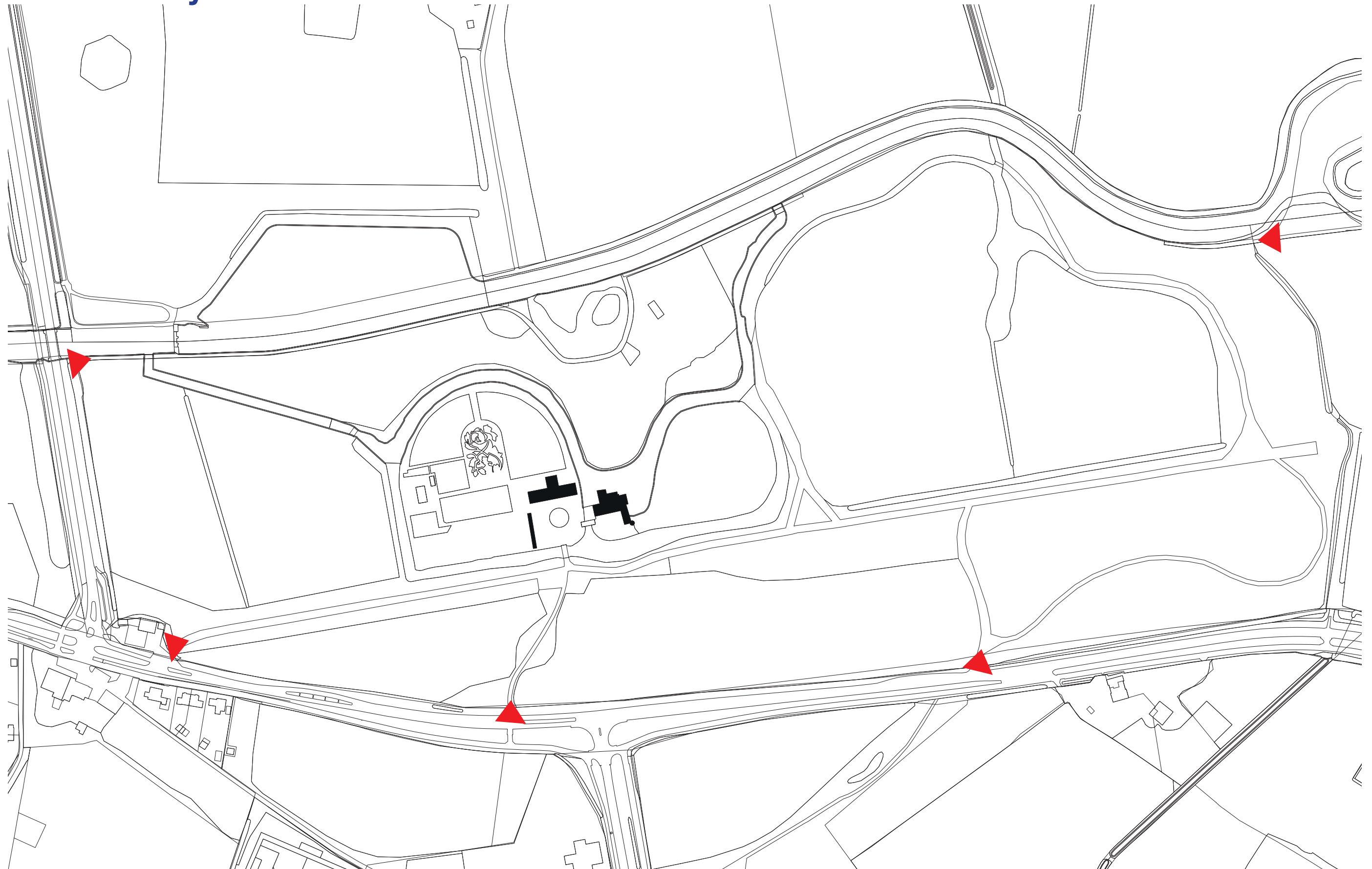
### 3.6 Car roads



South of the estate is the main road Rijksweg. The parking of the estate can be reached from this road via an access avenue. West of the estate is the Kapperallee, which leads in the direction of De Voorst. In front of the estate, on the historic sight line is the Vordenseweg.



### 3.7 Accessibility estate



The plot has 5 different entrances. Two are located along the river Berkel. The main entrance is located in front of the buildings, and can be accessed from the Rijksstraatweg. The two other entrances are also accessible from the Rijksstraatweg, and connected to the walking routes over the estate.



## 4 Building overview





## 4.1 Historic development building



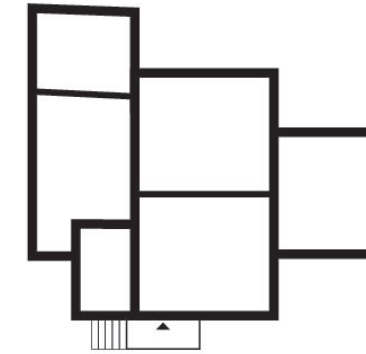
14th century medieval remnants found in basement



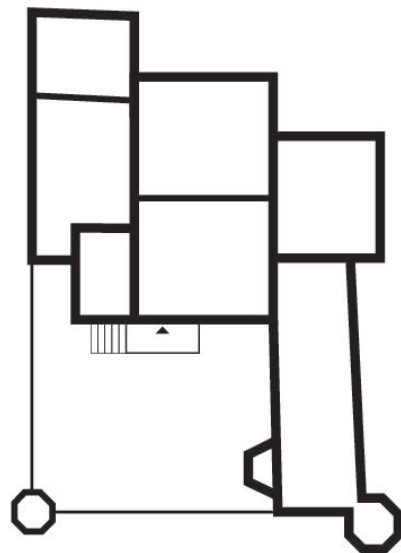
phase 0: <1538, family Lerinck



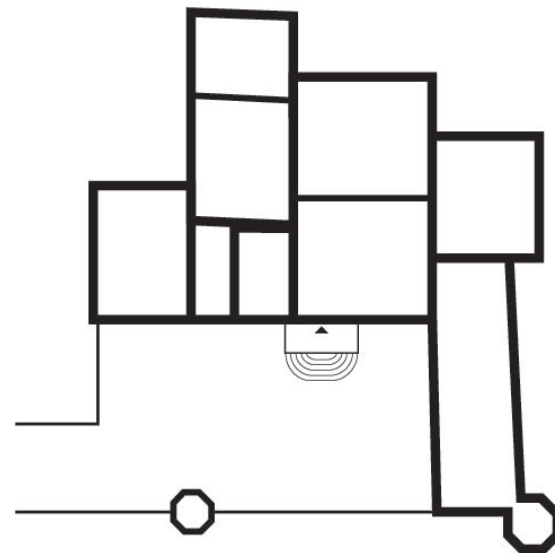
phase 1: 1538-1597, rebuilt of Spieker by family Bentinck #1



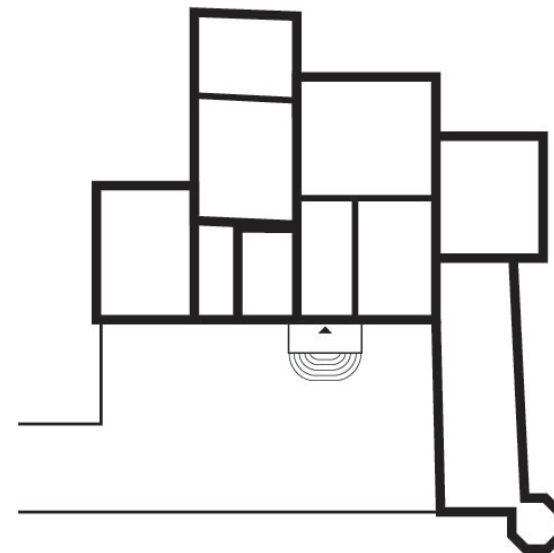
phase 2: 1597-1645, family Bentinck #2, renovation in two phases



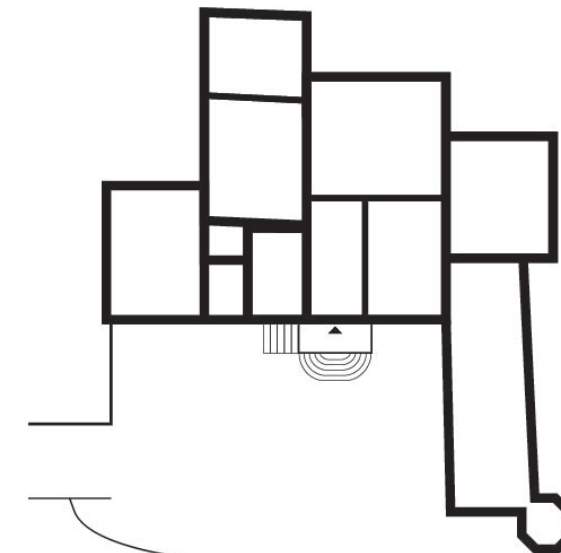
phase 3: 1645-1692, completion by Bentinck. The same until 1692 with different families.



phase 4: 1692-1745, Arnold Joost van Keppel expanded the house and integrated the land in the land of De Voorst.



phase 5: 1824-1849, van Dijk, change to empire style architecture. New windows and cornice.



phase 6: 1849-2022, current situation with changed forecourt.



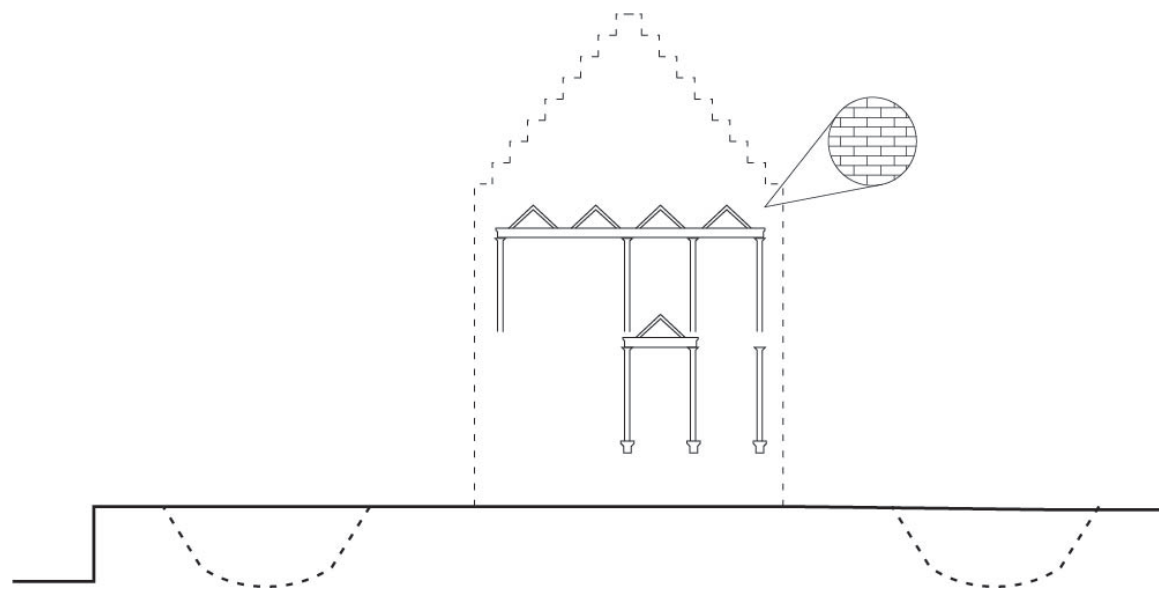
# 4.2 Construction age



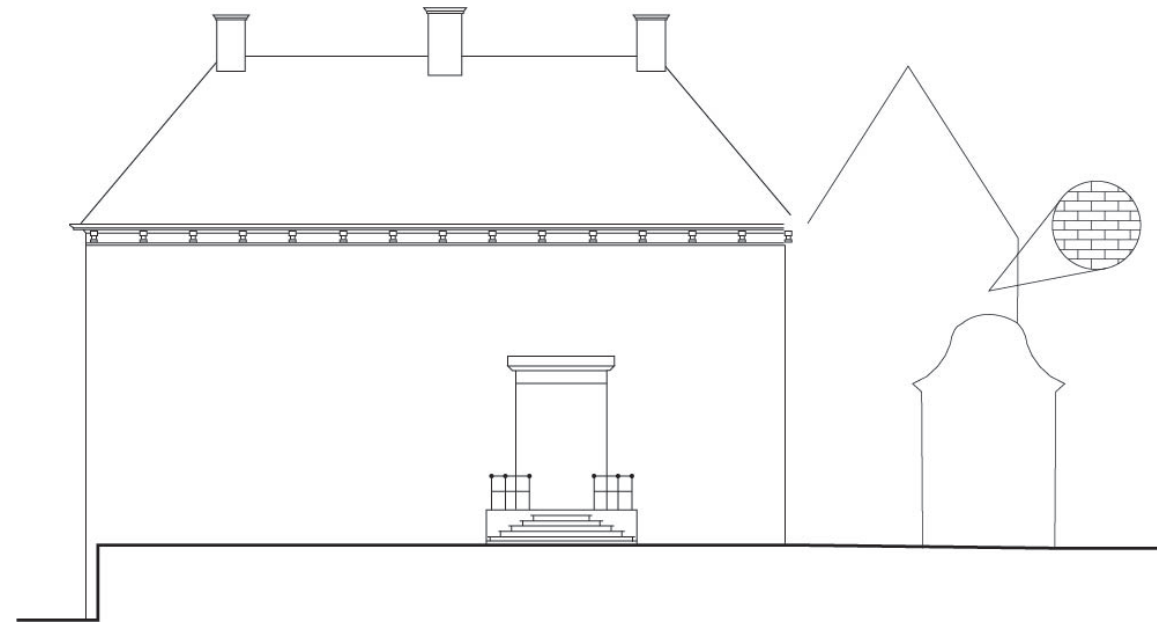
The development of the mansion on the estate Huis 't Velde consist of many different extension. From the oldest building phase are probably only some parts of the brick construction left. Most of the other added building volumes are still clearly visible. The last major changes, around 1824 where mostly architecturally; no large volume was added.



## 4.3 Time layers exterior



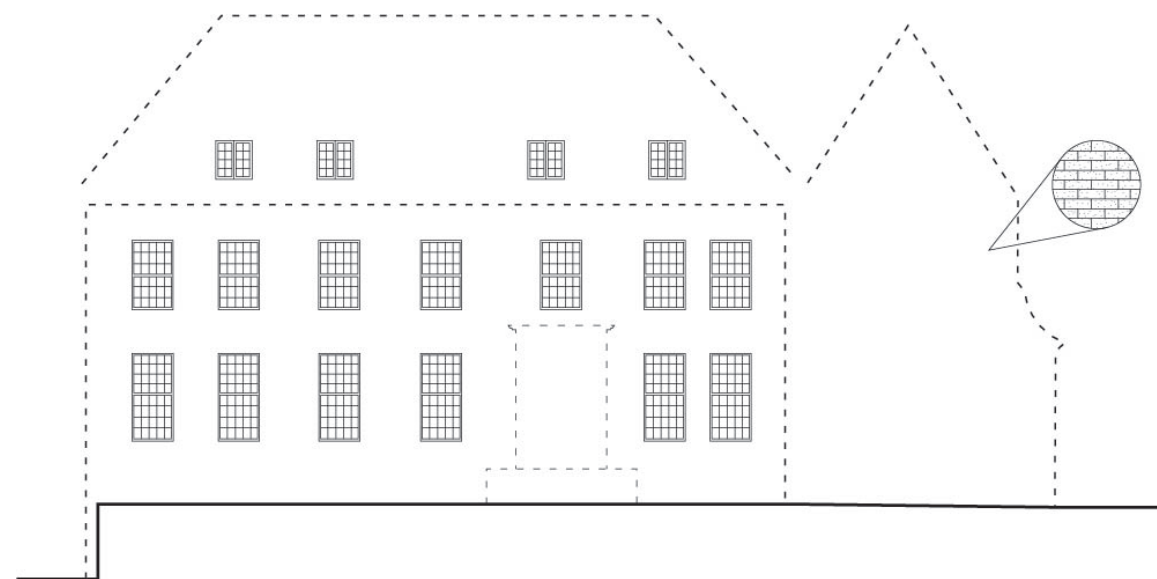
Style 1: renaissance spieker with marl stone pediments.



Style 2: louis XIV, cornice with modillions and entrance frame. Interior changed a lot. Red brick finish.



Style 3: empire windows and new door framing. White stucco facade.

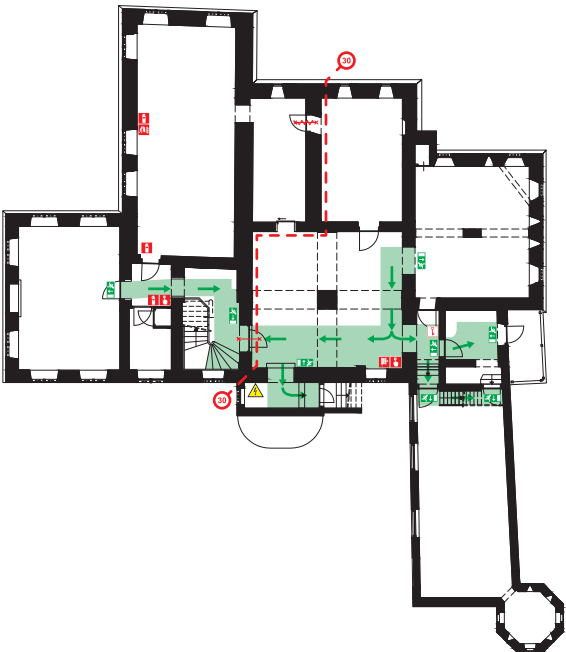


Style 4: historicizing parts added during restoration 1961-1964. White painted bricks.

The different building phases are visible in different elements in the exterior, as shown in the images here. Important are the different types of brickwork used. Also the windows and the entrance where changed several times over time, although these changes are not all visible anymore.

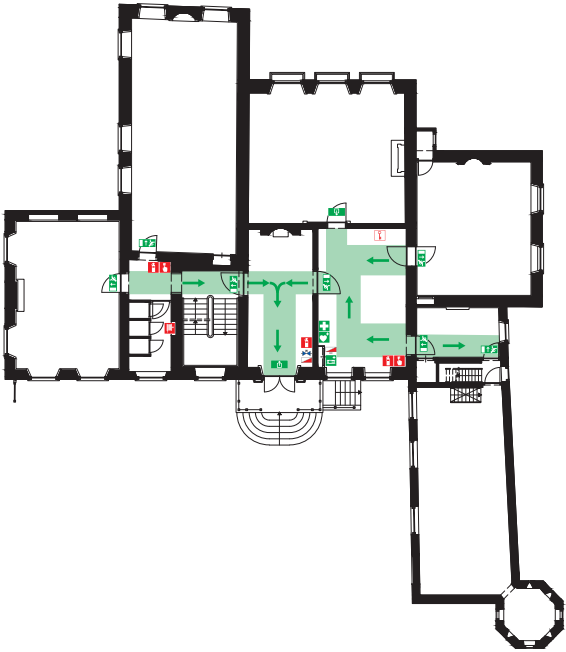


# 4.4 Current fire escape plan



LEGEND

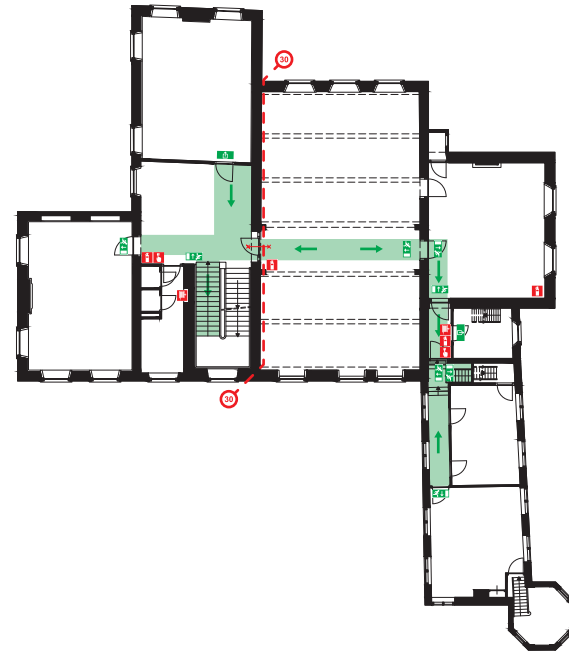
- |                   |                              |                                      |                       |
|-------------------|------------------------------|--------------------------------------|-----------------------|
| Fire extinguisher | Fire blanket                 | Fire door (30 minutes)               | Way to emergency exit |
| Fire alarm button | Key safe                     | Self-closing fire door (30 minutes)  | Escape direction      |
| Fire hose reel    | Danger of electrical voltage | Fire compartment border (30 minutes) |                       |



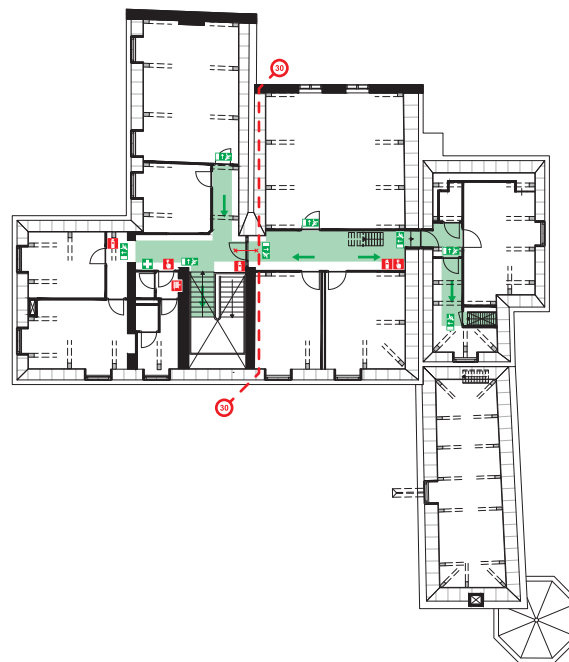
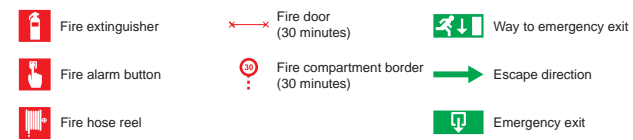
LEGEND

- |                   |                    |                    |                       |                      |                                      |
|-------------------|--------------------|--------------------|-----------------------|----------------------|--------------------------------------|
| Fire extinguisher | Key safe           | First aid supplies | Way to emergency exit | Shut-off valve water | Fire door (30 minutes)               |
| Fire alarm button | Fire report center | AED                | Escape direction      |                      | Self-closing fire door (30 minutes)  |
| Fire hose reel    | Fireman's panel    | Stretcher          | Emergency exit        |                      | Fire compartment border (30 minutes) |

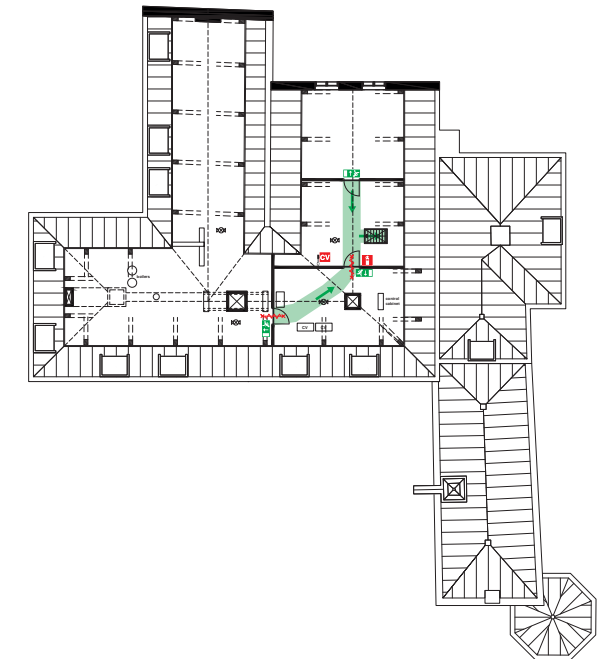
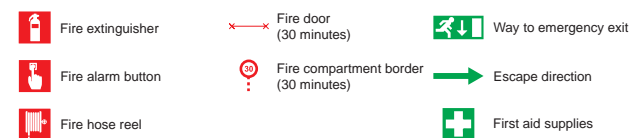




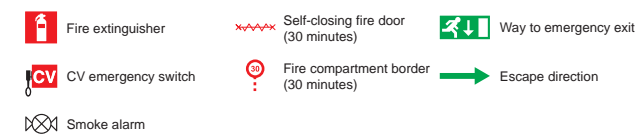
#### LEGEND



#### LEGEND



#### LEGEND





# 5 Materiality and detailing



Painted brick



Wrought iron wheater vane



Wrought iron wall anchors



Sandstone



Wooden lifting hatch with slated roof



Wooden windowframes with sandstone ornamentation



Dormers, combination of wood and plumbum



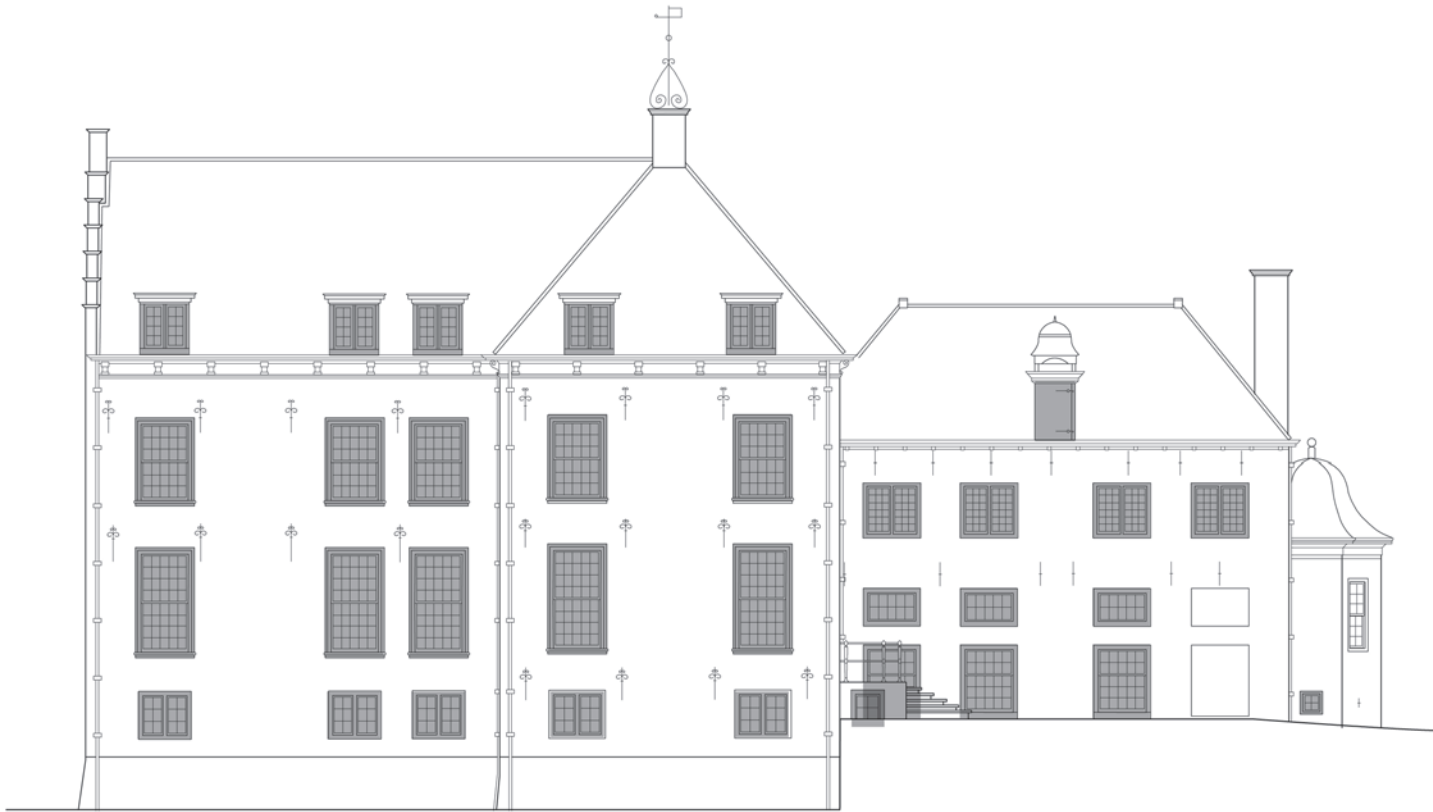
Wooden gutters



Richly ornamented entrance with hardstone balcony



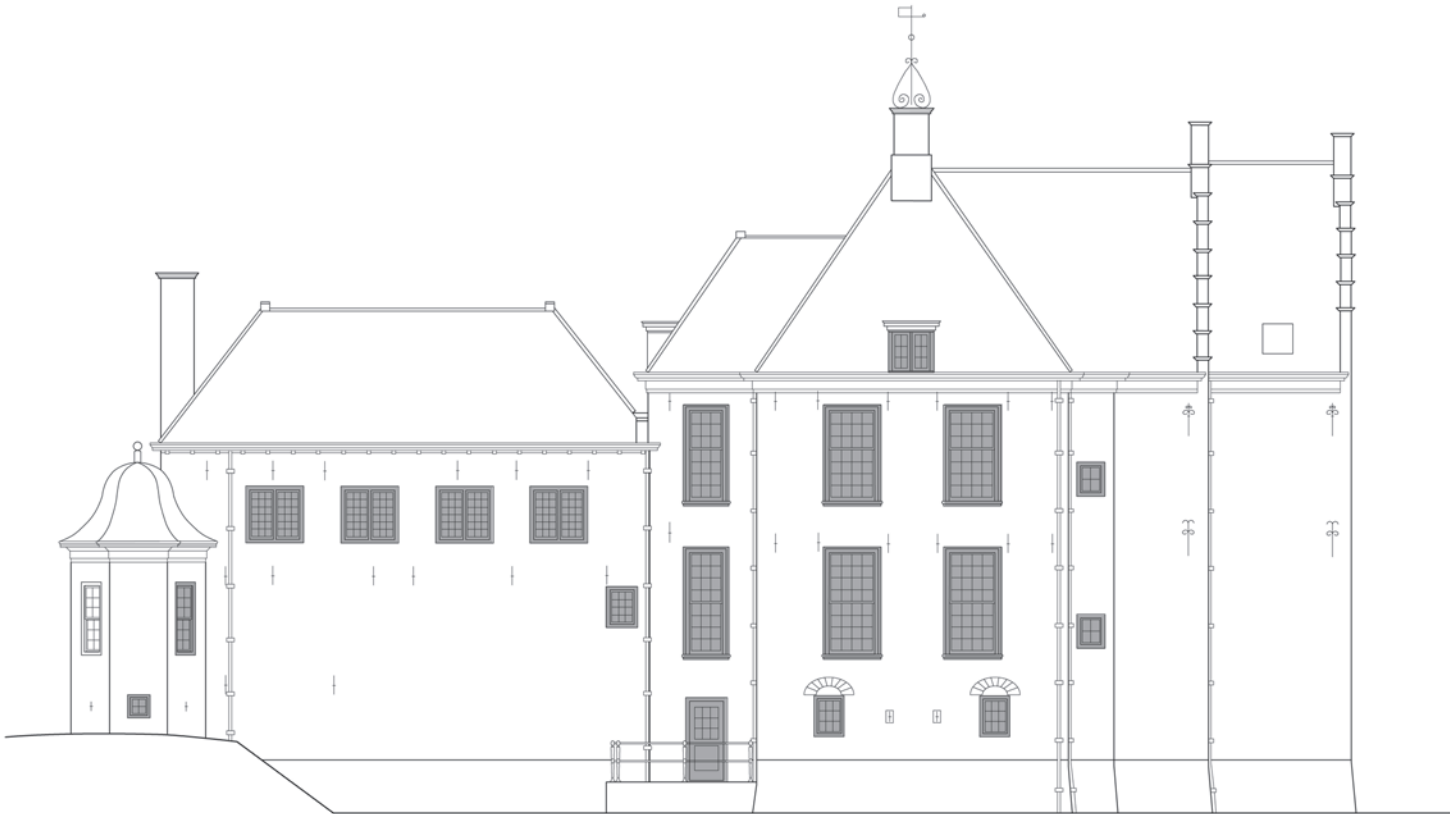
5.1 Window openings



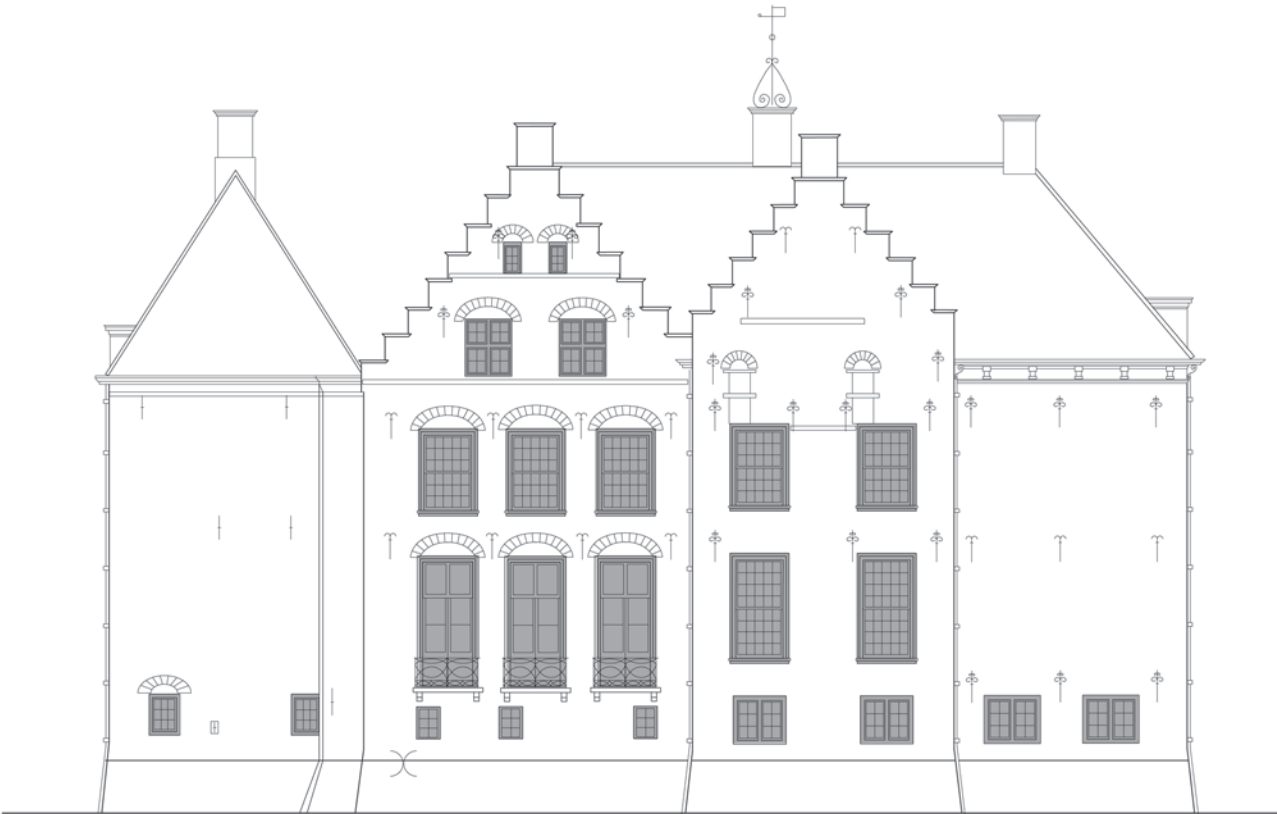
gross total facade surface: 331 m² (100%)  
gross total solid facade surface: 246 m² (74%)  
gross total window openings: 85 m² (26%)



gross total facade surface: 269 m² (100%)  
gross total solid facade surface: 190 m² (71%)  
gross total window openings: 79 m² (29%)



gross total facade surface: 378 m² (100%)  
gross total solid facade surface: 335 m² (89%)  
gross total window openings: 43 m² (11%)



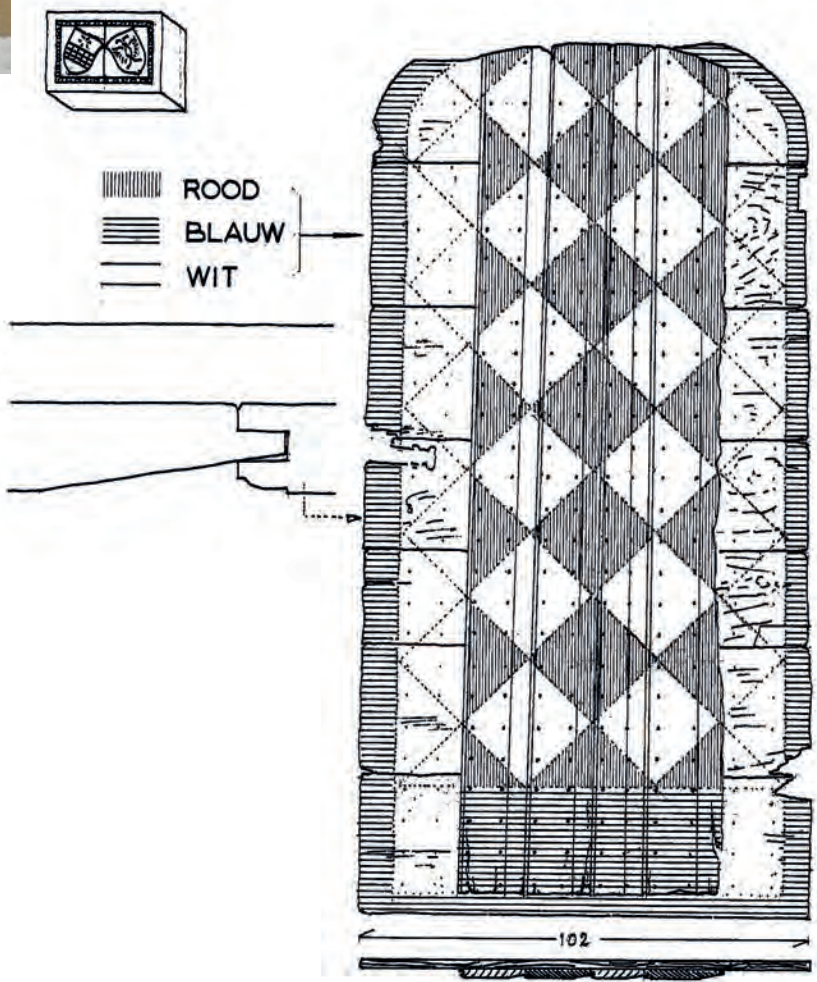
gross total facade surface: 384 m² (100%)  
gross total solid facade surface: 323 m² (84%)  
gross total window openings: 61 m² (16%)



5.2 Facade detailing



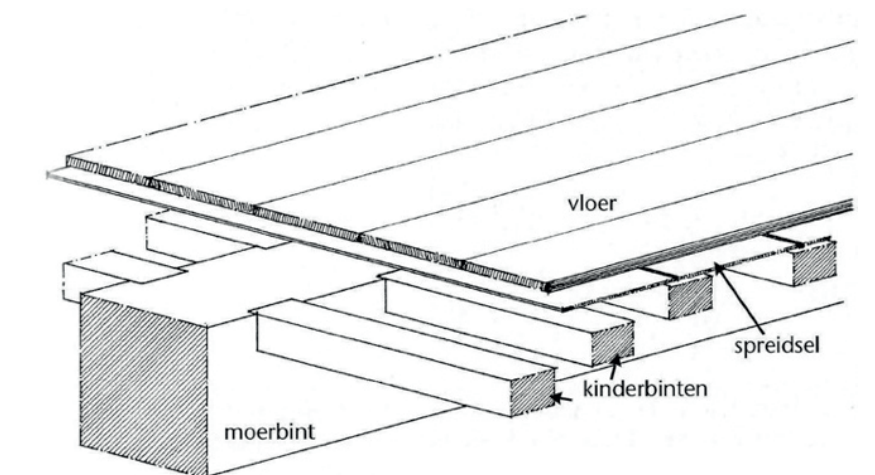
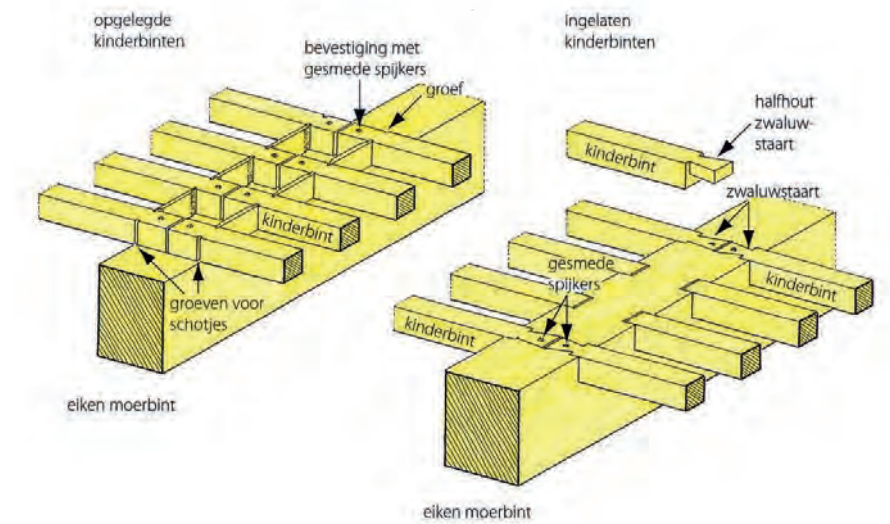
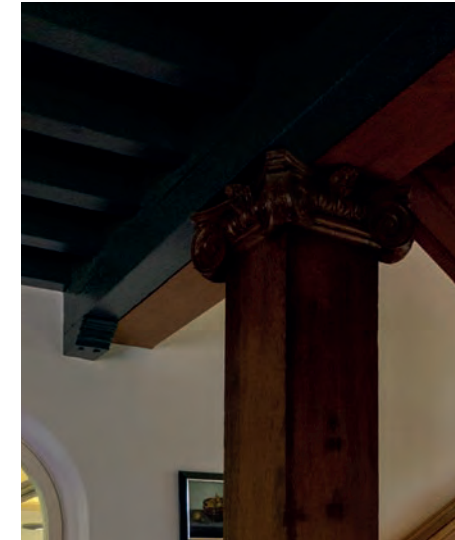
Van Lerinck



Former front door

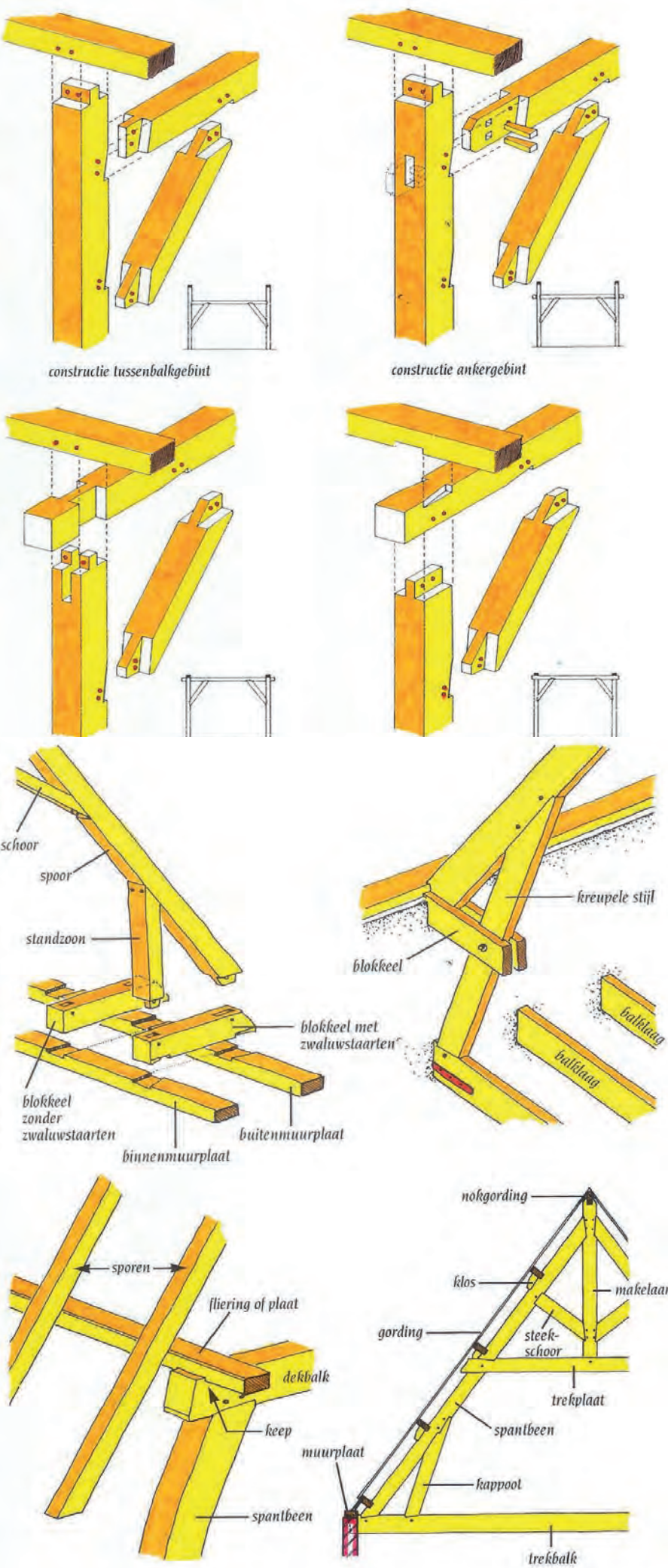
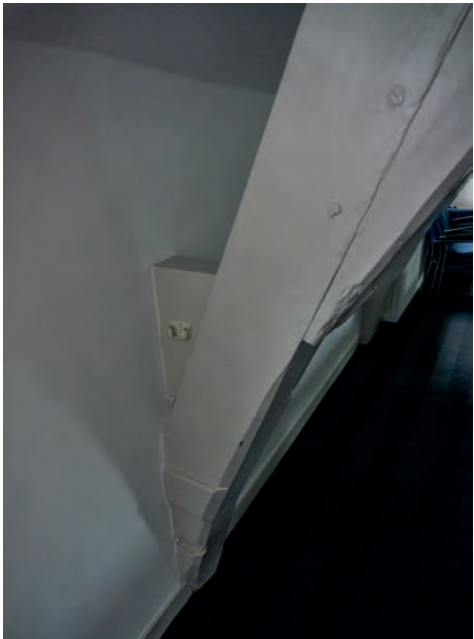


## 5.3 Floor construction



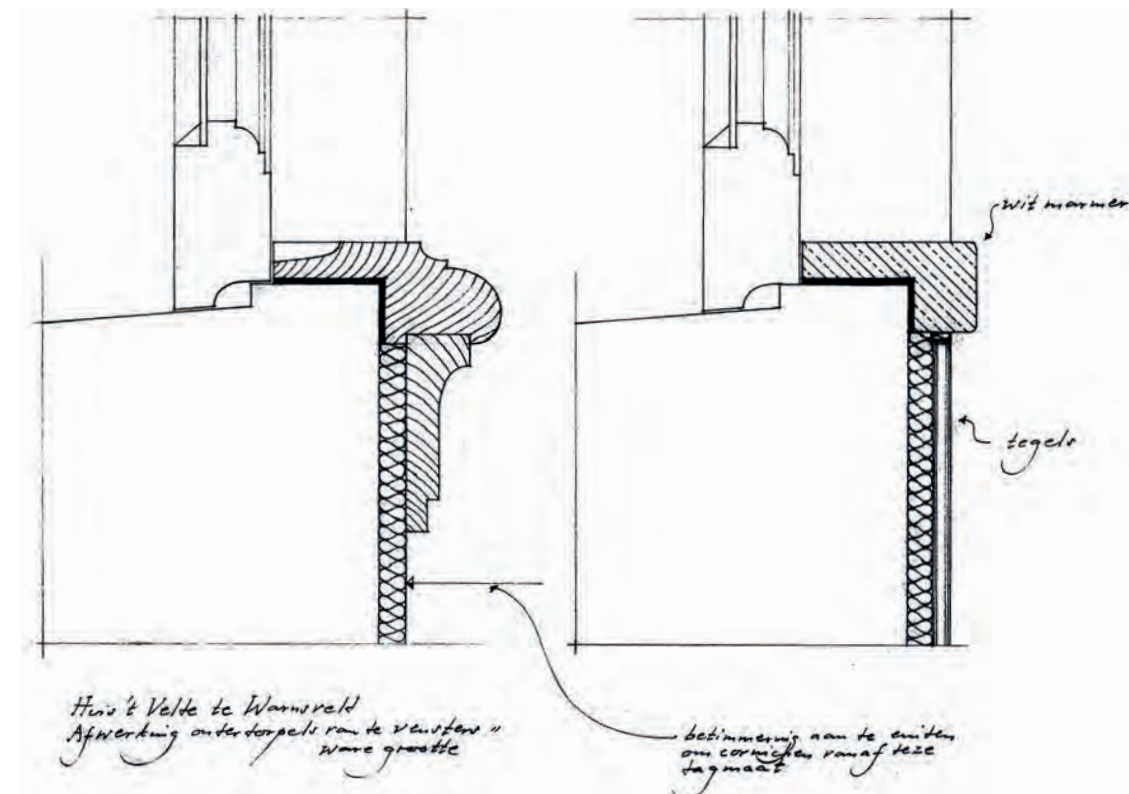


# 5.4 Roof construction



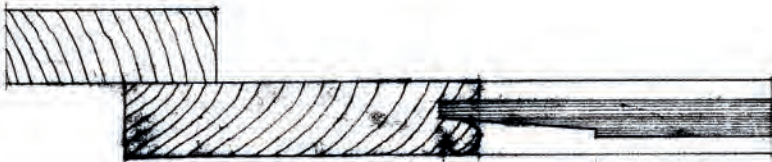
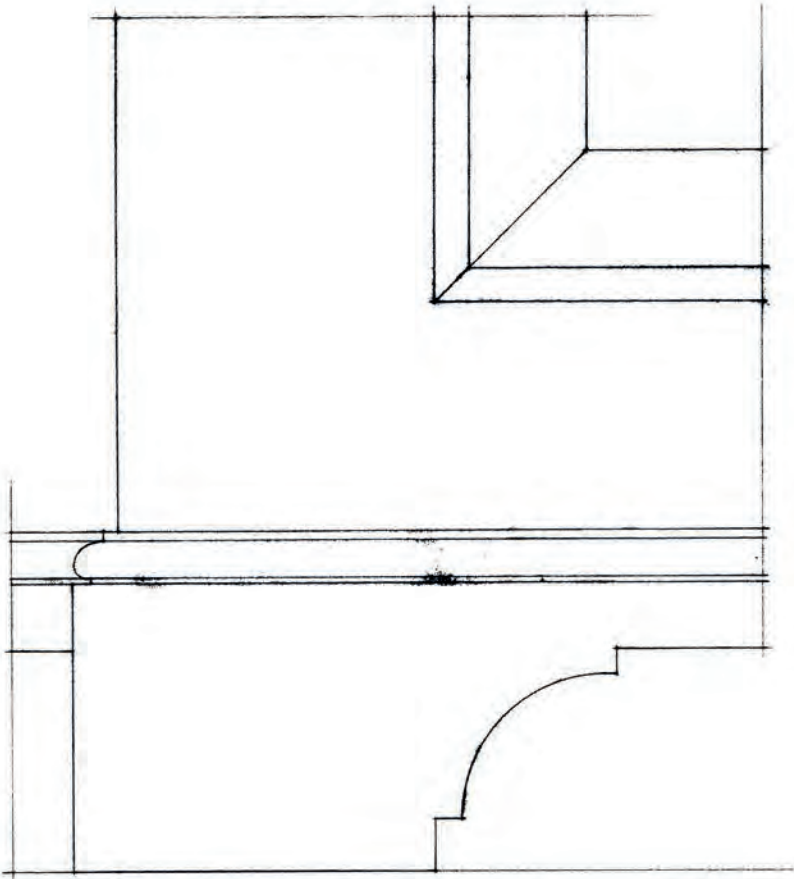
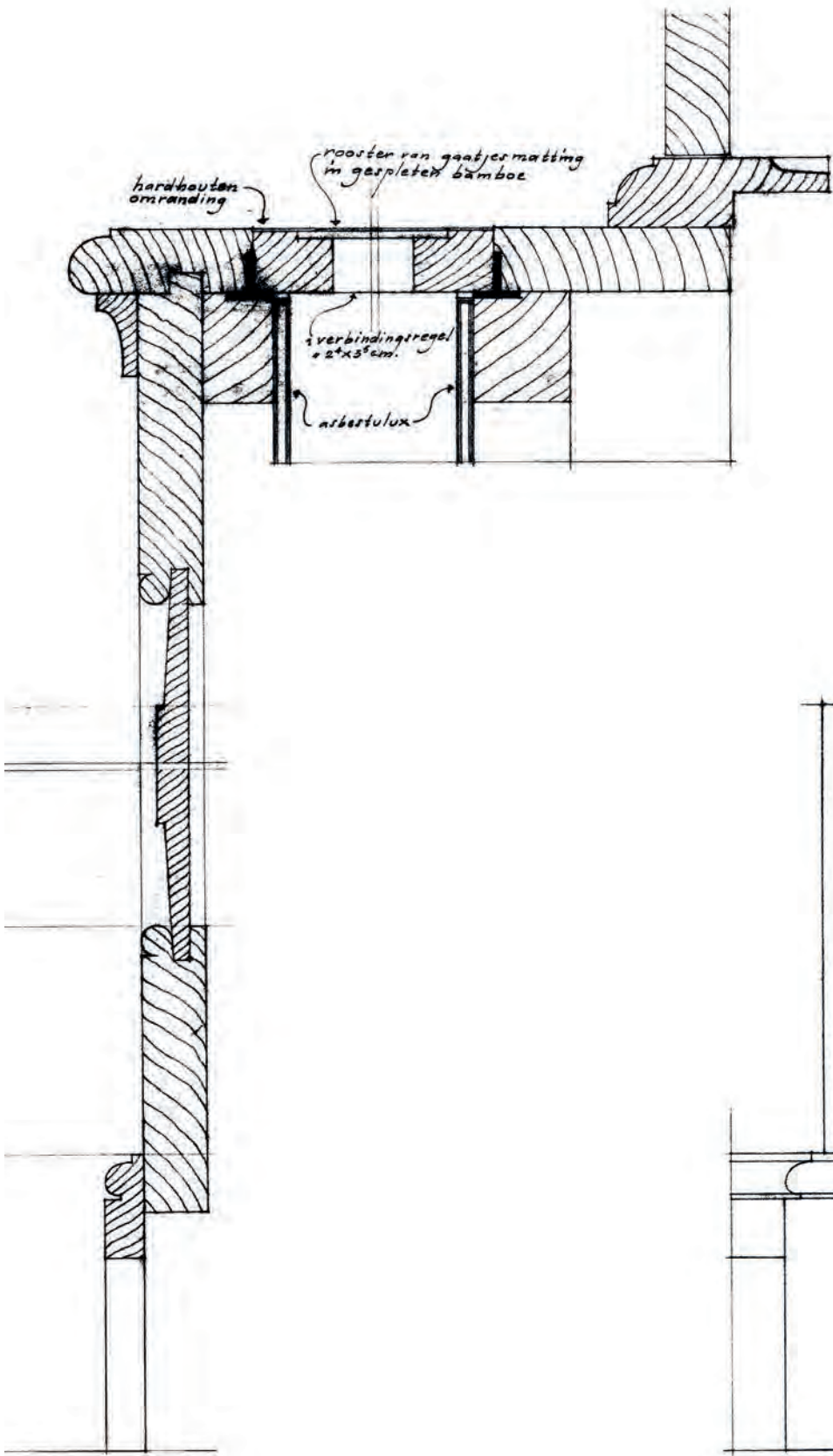


## 5.5 Window detailing



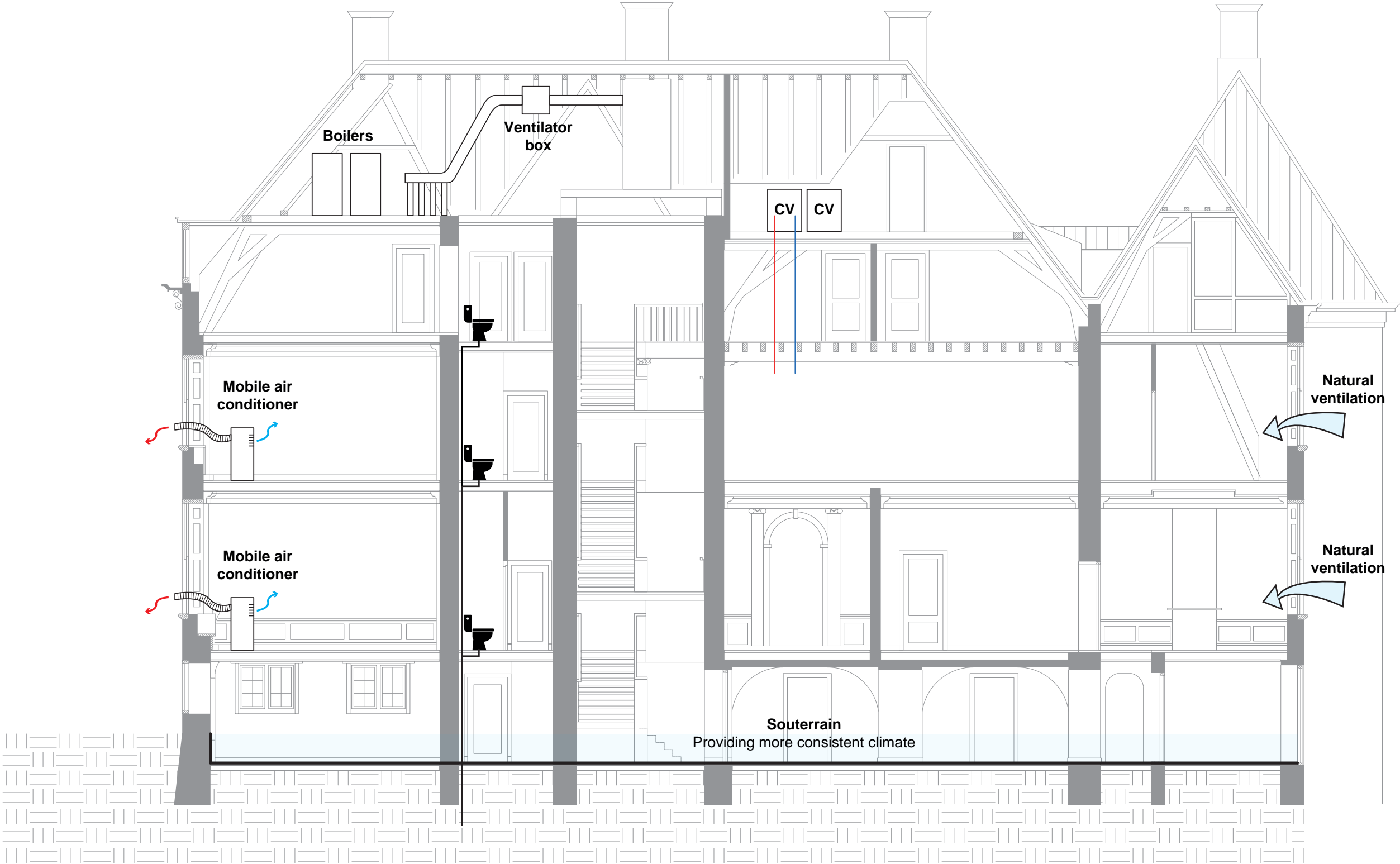


5.6 Current heating systems



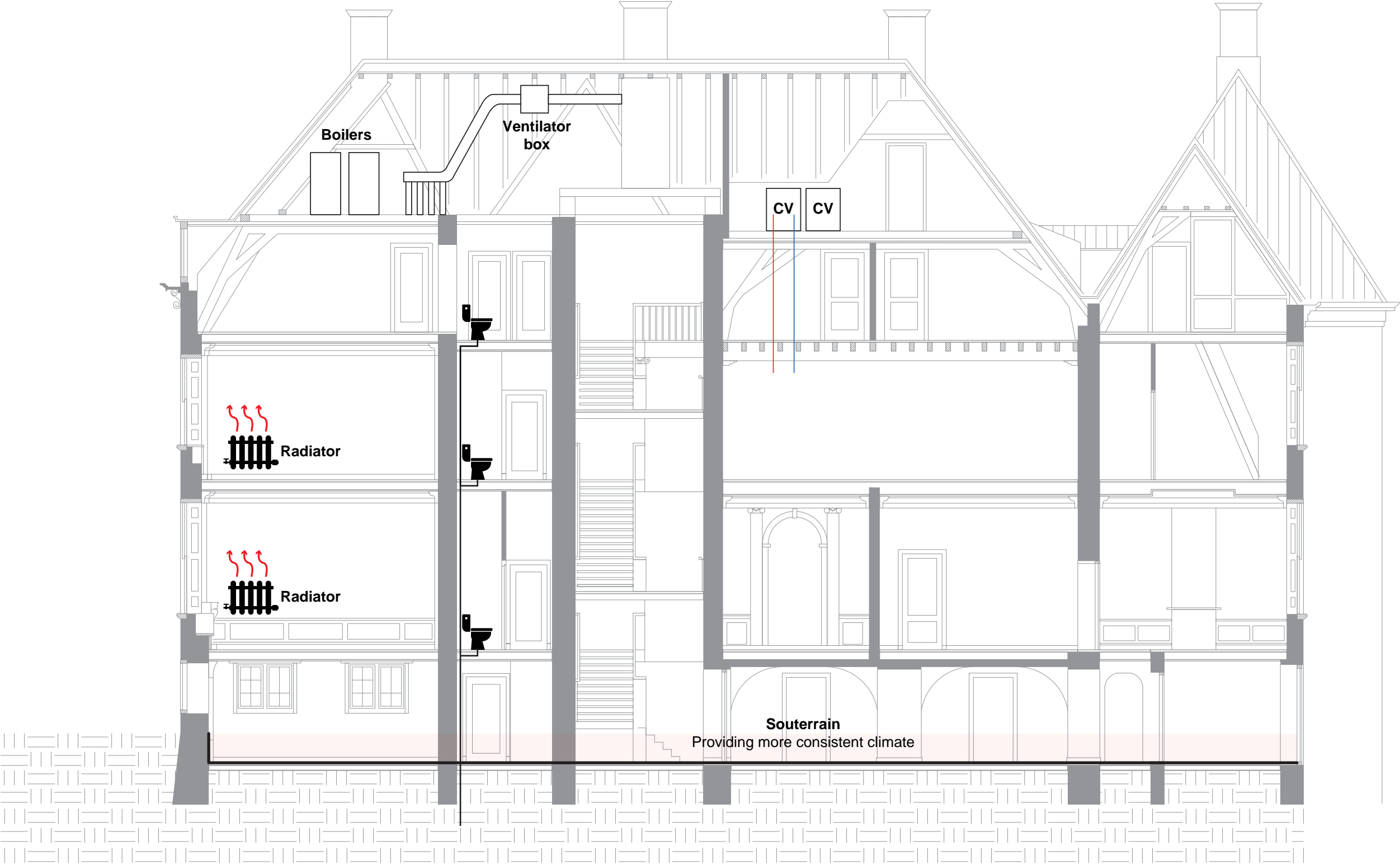


5.7 Current climate section summer situation





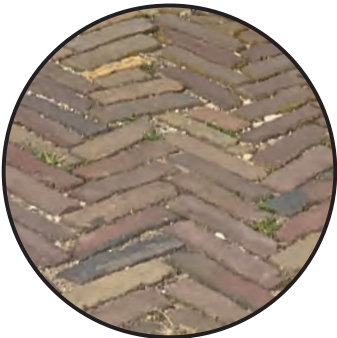
5.8 Current climate section winter situation





# 5.9 Pavements and flooring

GARDEN



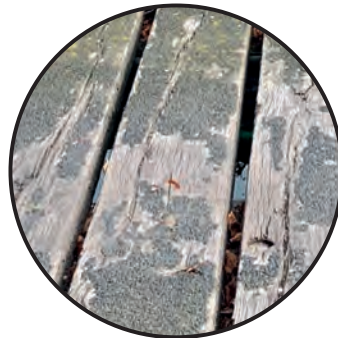
Pavement south square



Pavement south square



Pavement main paths



Bridge 1



Bridge 2



Pavement garden



Gravel



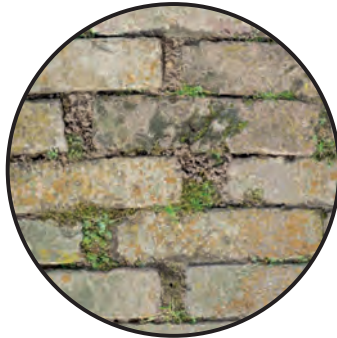
Pavements paths



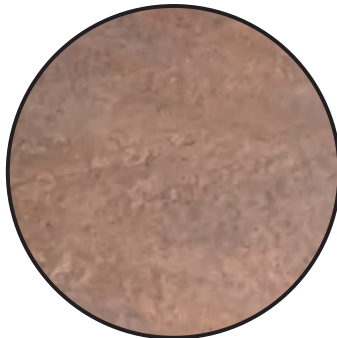
Grass



Water



Pavement around koetshuis



Linoleum SER room

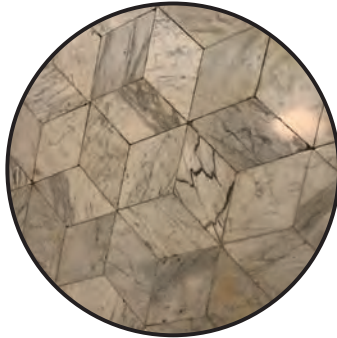
STONE



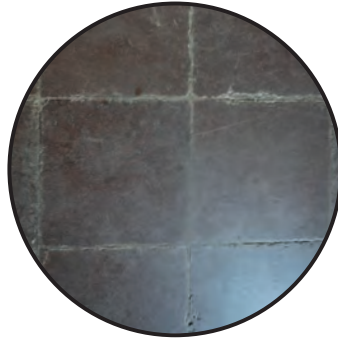
Flooring hallway



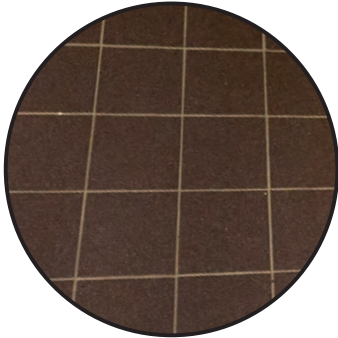
Flooring basement



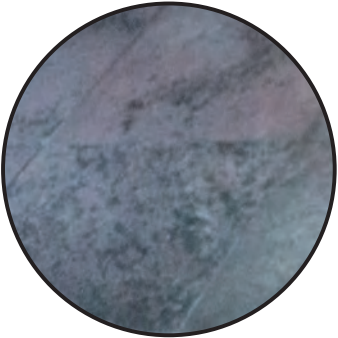
Flooring basement



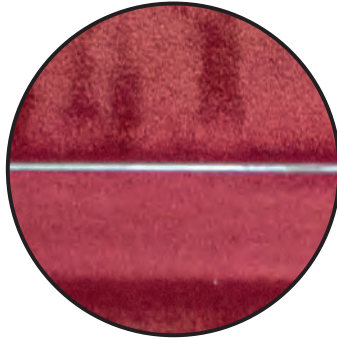
Floor tiles basement



Flooring kitchen



Floor tiles cafe



Stairs

WOOD



Wooden flooring



Wooden flooring



Wooden flooring



Wooden flooring



Flooring attic



Flooring attic

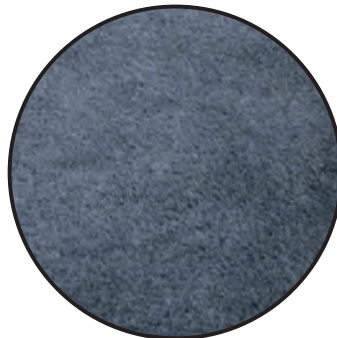


Flooring attic

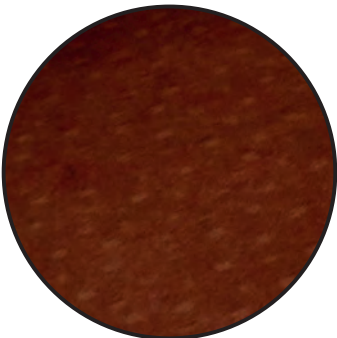
CARPET



Carpet / rug



Carpet / rug



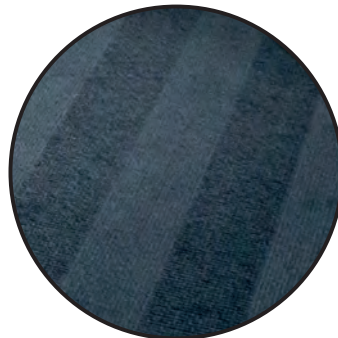
Carpet / rug



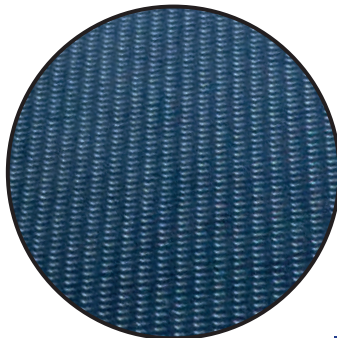
Carpet / rug



Carpet / rug



Carpet / rug



Carpet / rug



## 5.10 Situation in 2000



Foto collage. Pictures from: Beeldbank Rijksdienst voor Cultureel Erfgoed.  
046922, 046923, 515368-515379.



## 5.11 Historical photographs



1905  
Erfgoedcentrum  
Zutphen  
3030  
Fotocollectie  
Warnsveld

No date  
Rijksdienst voor  
Cultureel Erfgoed



1968  
Erfgoedcentrum  
Zutphen  
3030  
Fotoacollectie  
Warnsveld

1955  
Rijksdienst voor  
Cultureel Erfgoed







No date  
 Erfgoedcentrum  
 Zutphen  
 3030 Fotocollectie  
 Warnsveld



1976  
 Erfgoedcentrum  
 Zutphen  
 3030 Fotocollectie  
 Warnsveld



No date  
 Gelderland in  
 beeld

1955  
 Rijksdienst voor  
 Cultureel Erfgoed

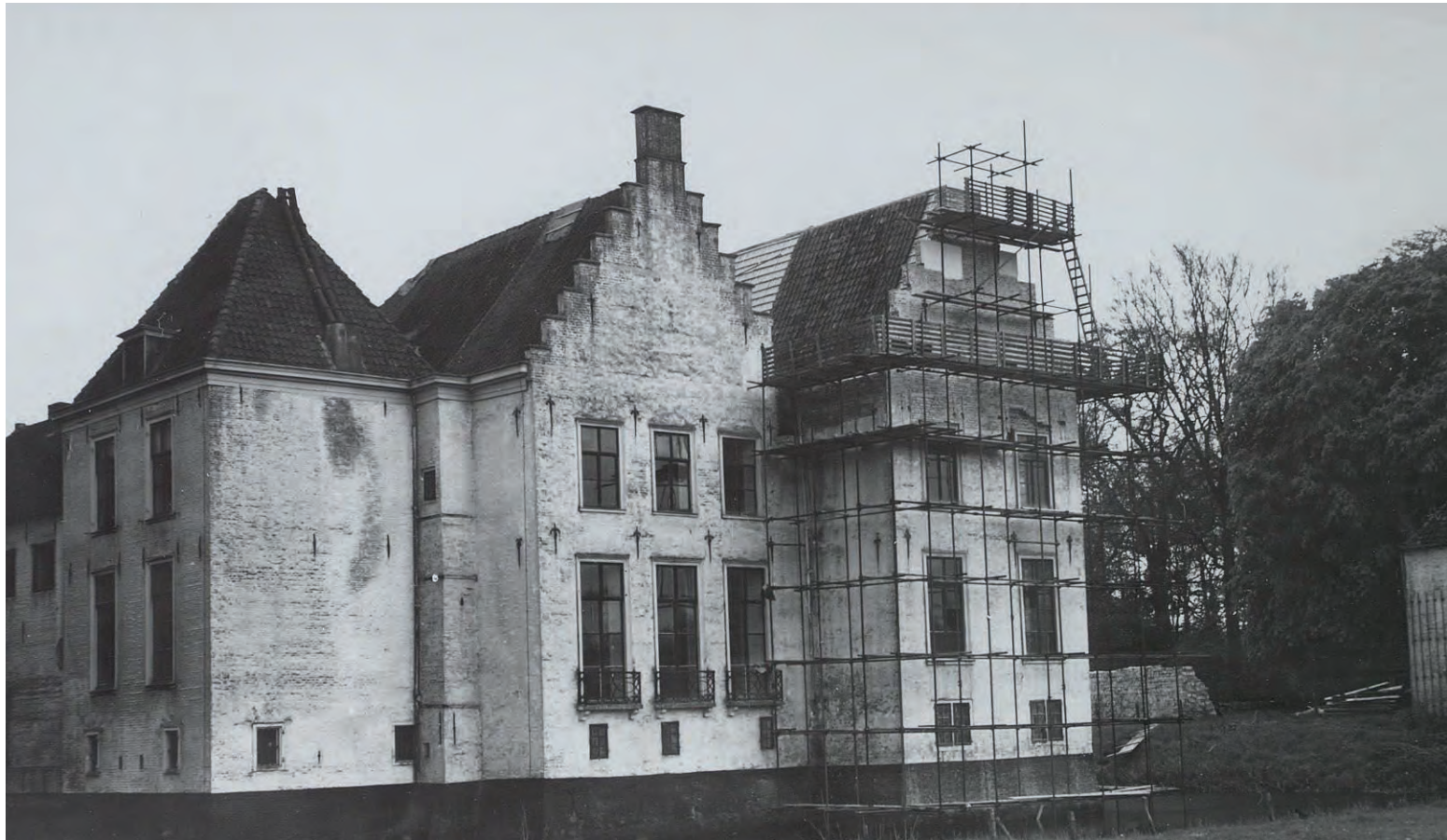






1962-1964  
Picture of Jan  
Harenberg  
during the Rappange  
renovation

1963  
Erfgoedcentrum  
Zutphen  
3030 Fotocollectie  
Warnsveld



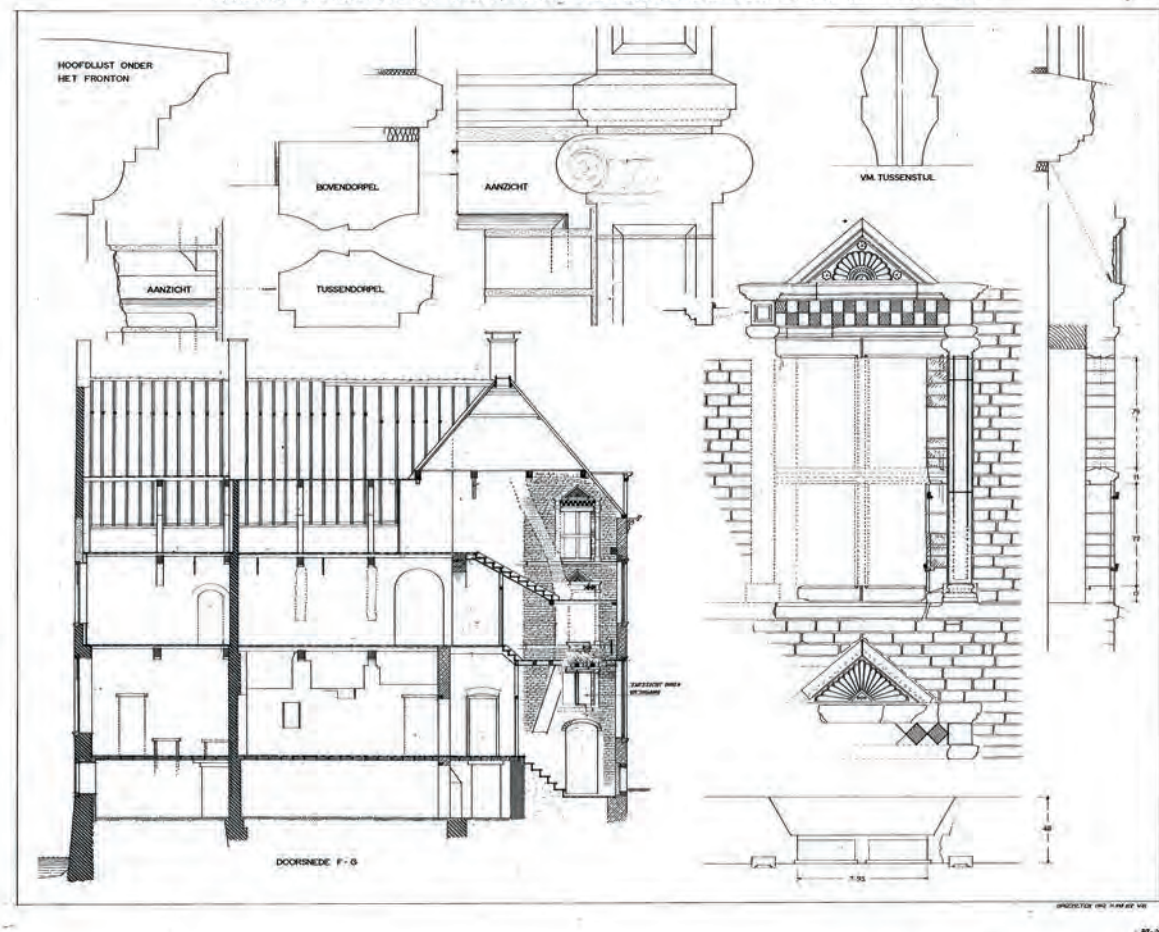
No date  
Gelderland in beeld



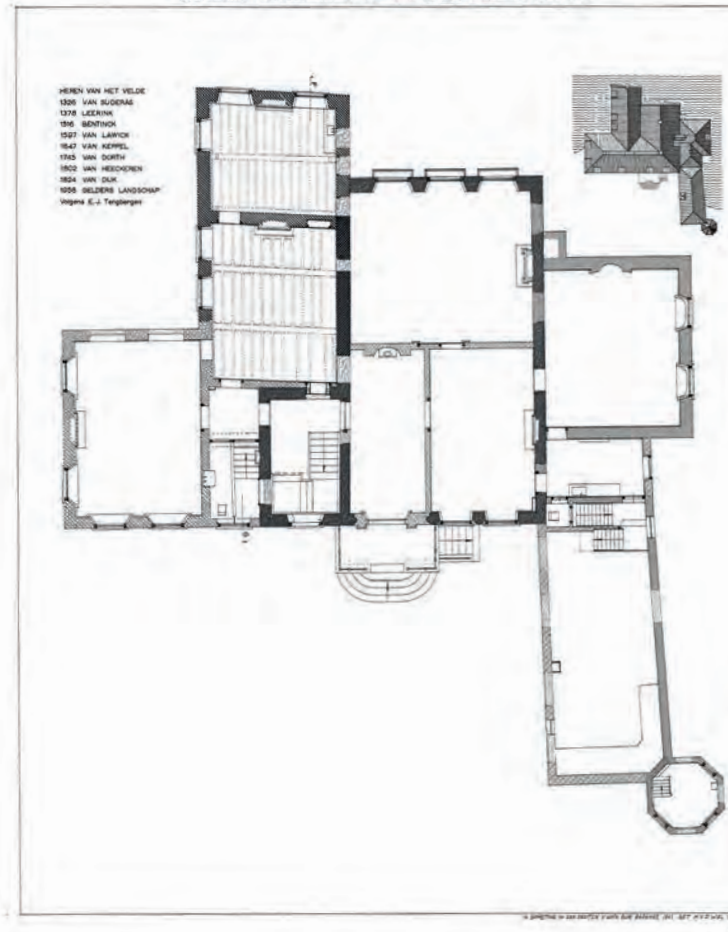
No date  
Gelderland in beeld



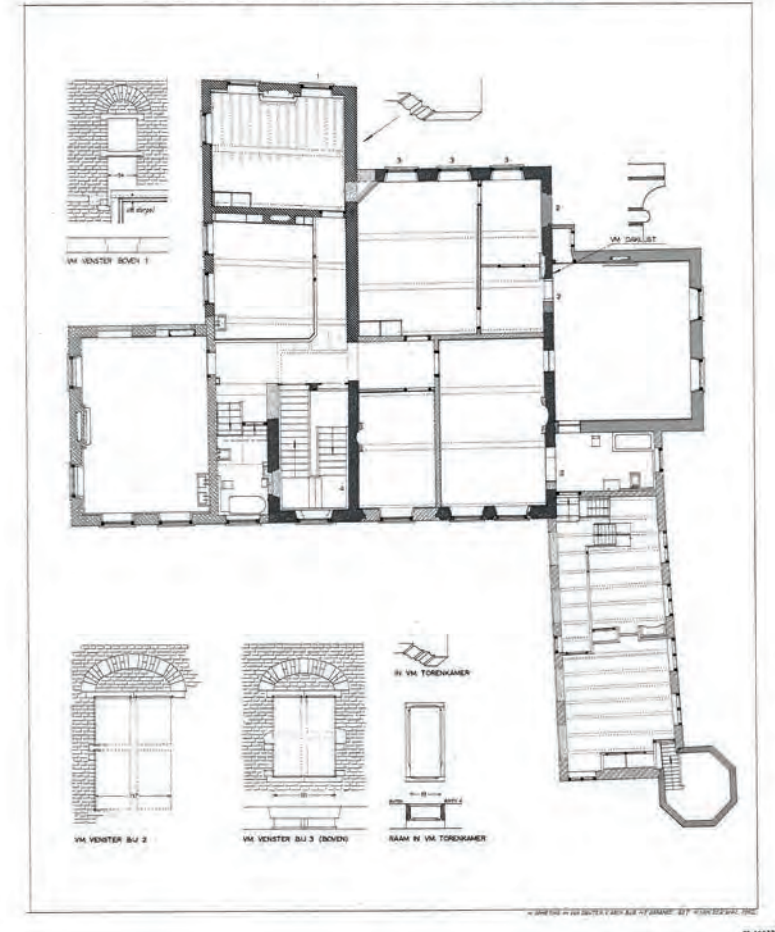
WARNVELD Gld. KASTEEL HET VELDE, TIJDENS RESTAURATIE 1962 SCH. 1:50 DETAILS 1:10 en 1:2.



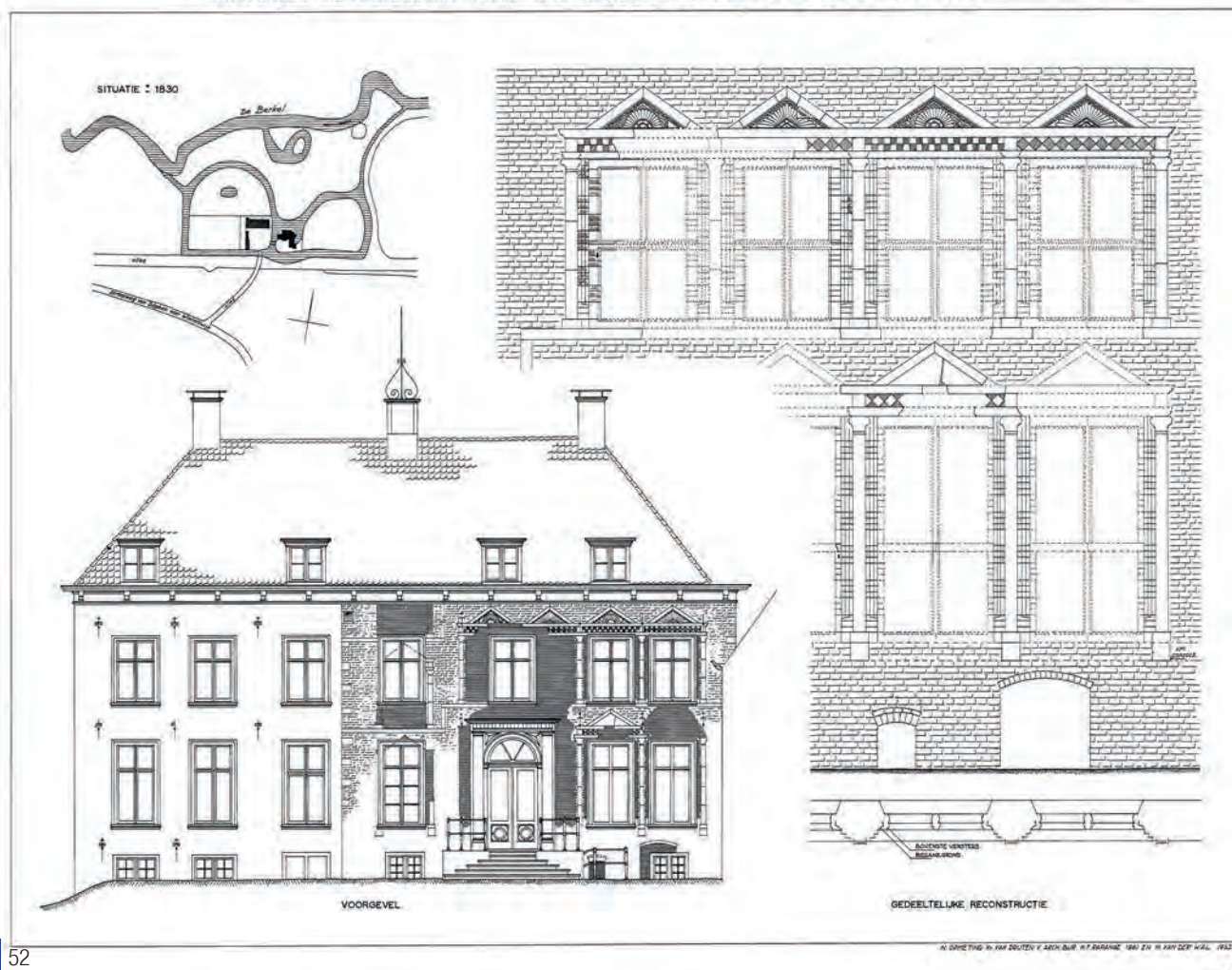
WARNVELD KASTEEL HET VELDE 1962 HOOFDVERDIEPING SCH. 1:50



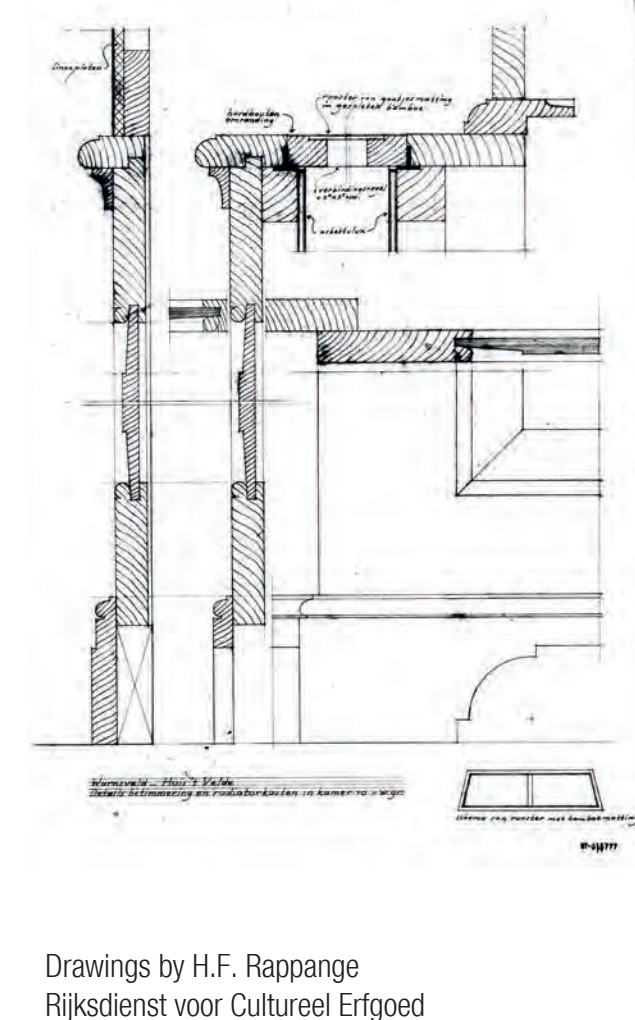
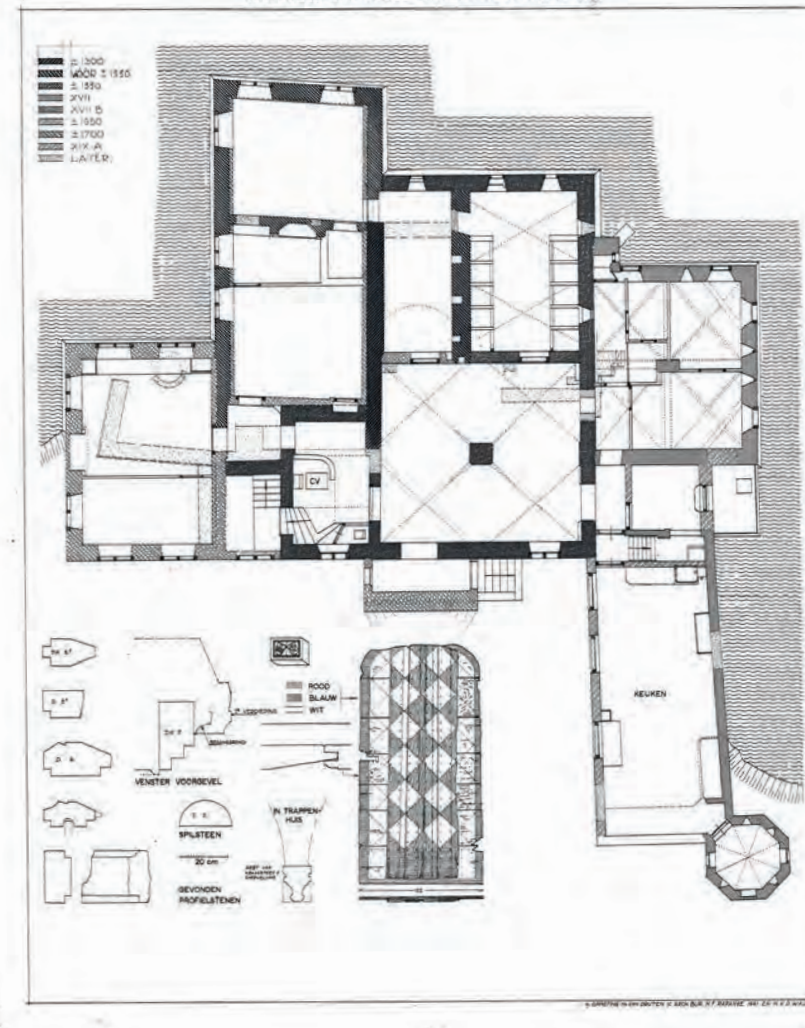
WARNVELD Gld. KASTEEL HET VELDE 1962 1<sup>ste</sup> VERDIEPING SCH. 1:50



WARNVELD Gld. KASTEEL HET VELDE 1962 SITUATIE EN VOORGEVEL SCH. 1:50 en 1:20



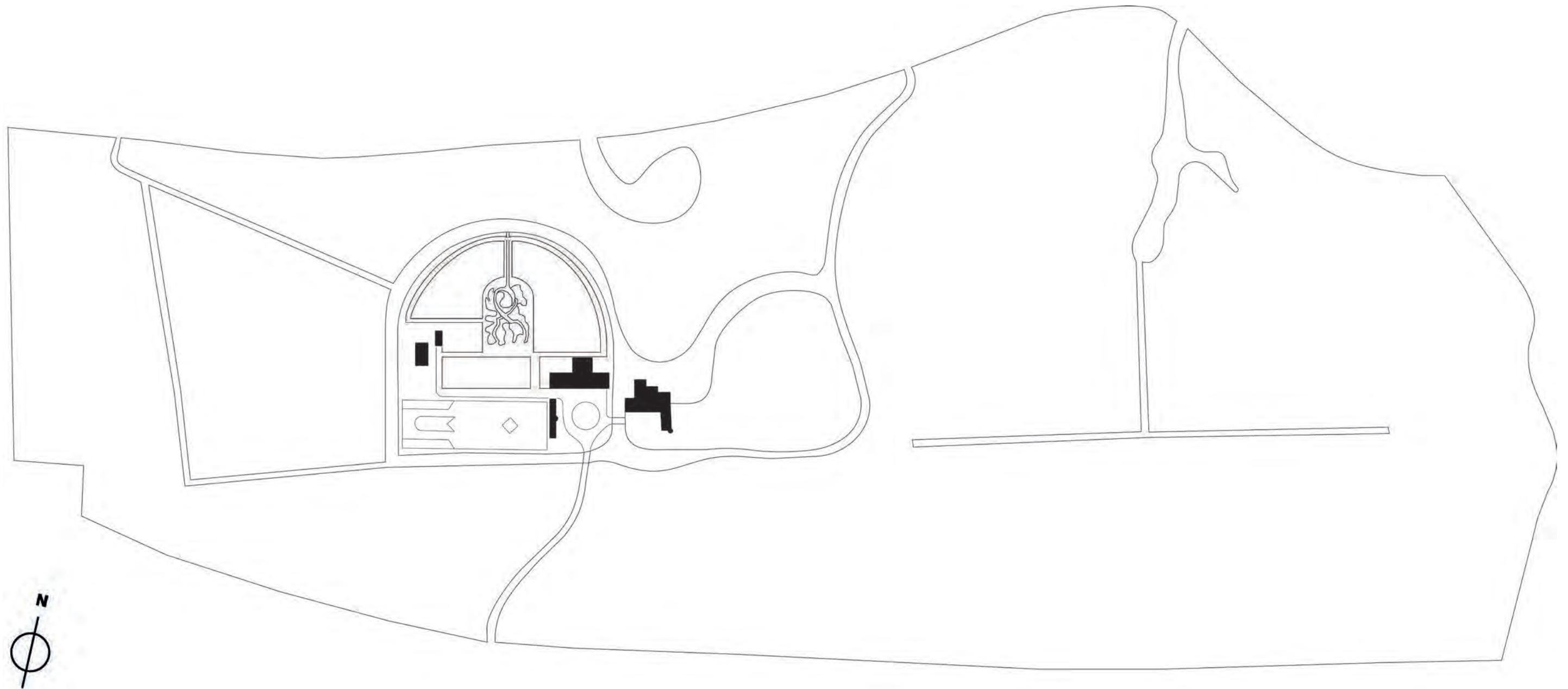
WARNVELD Gld. KASTEEL HET VELDE KELDERS 1962



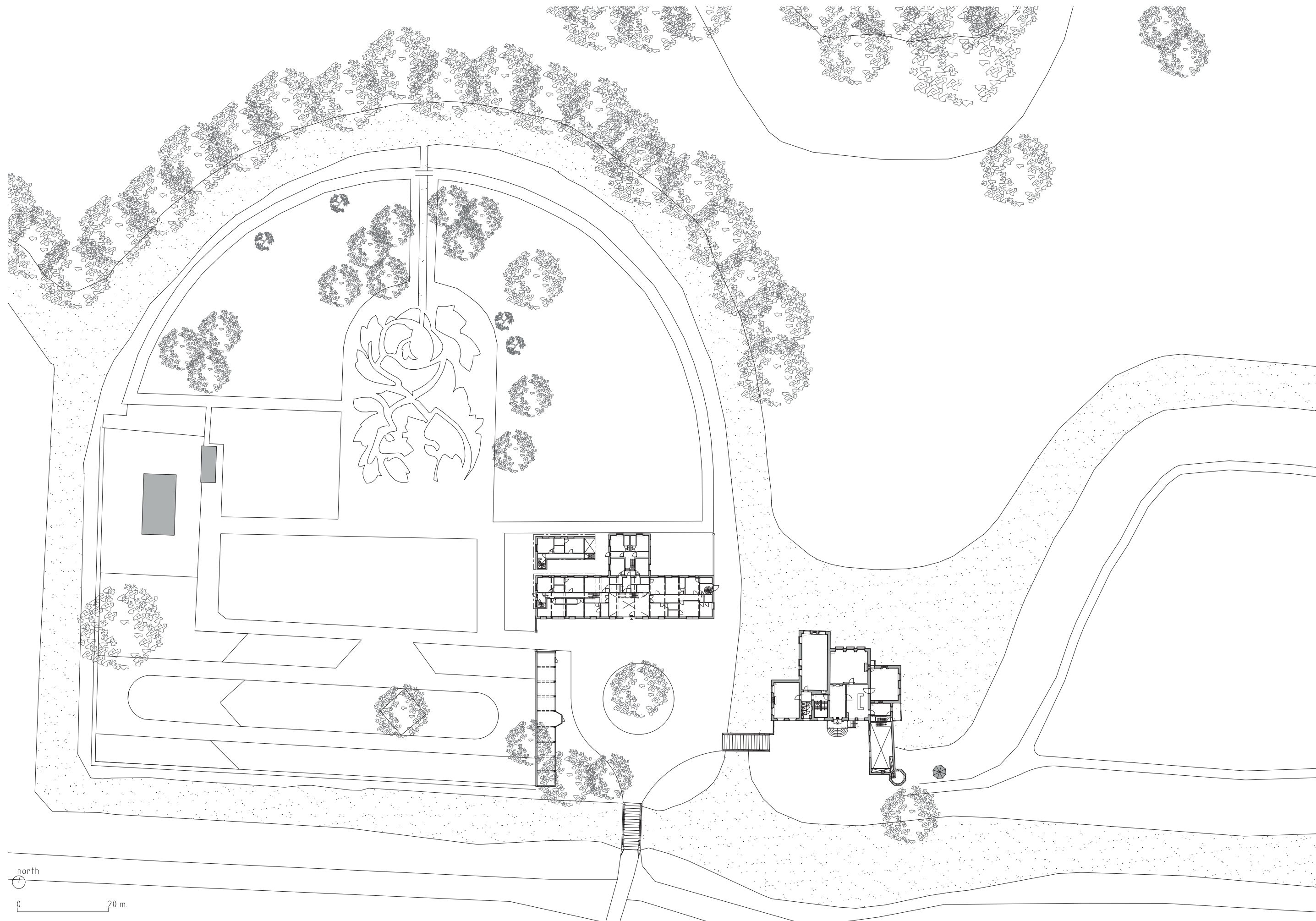
Drawings by H.F. Rappange  
Rijksdienst voor Cultureel Erfgoed



## 6 Current situation drawings



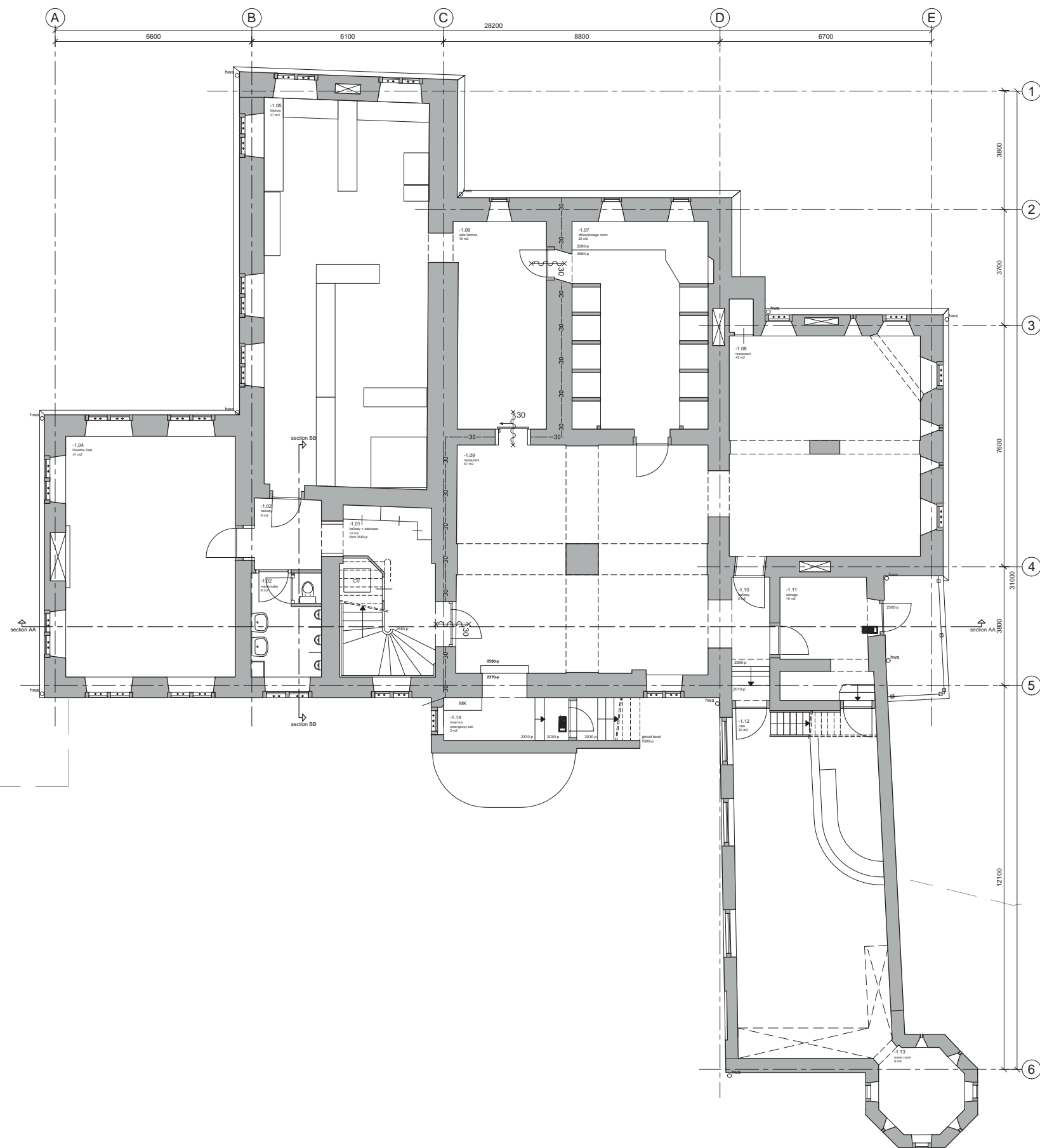




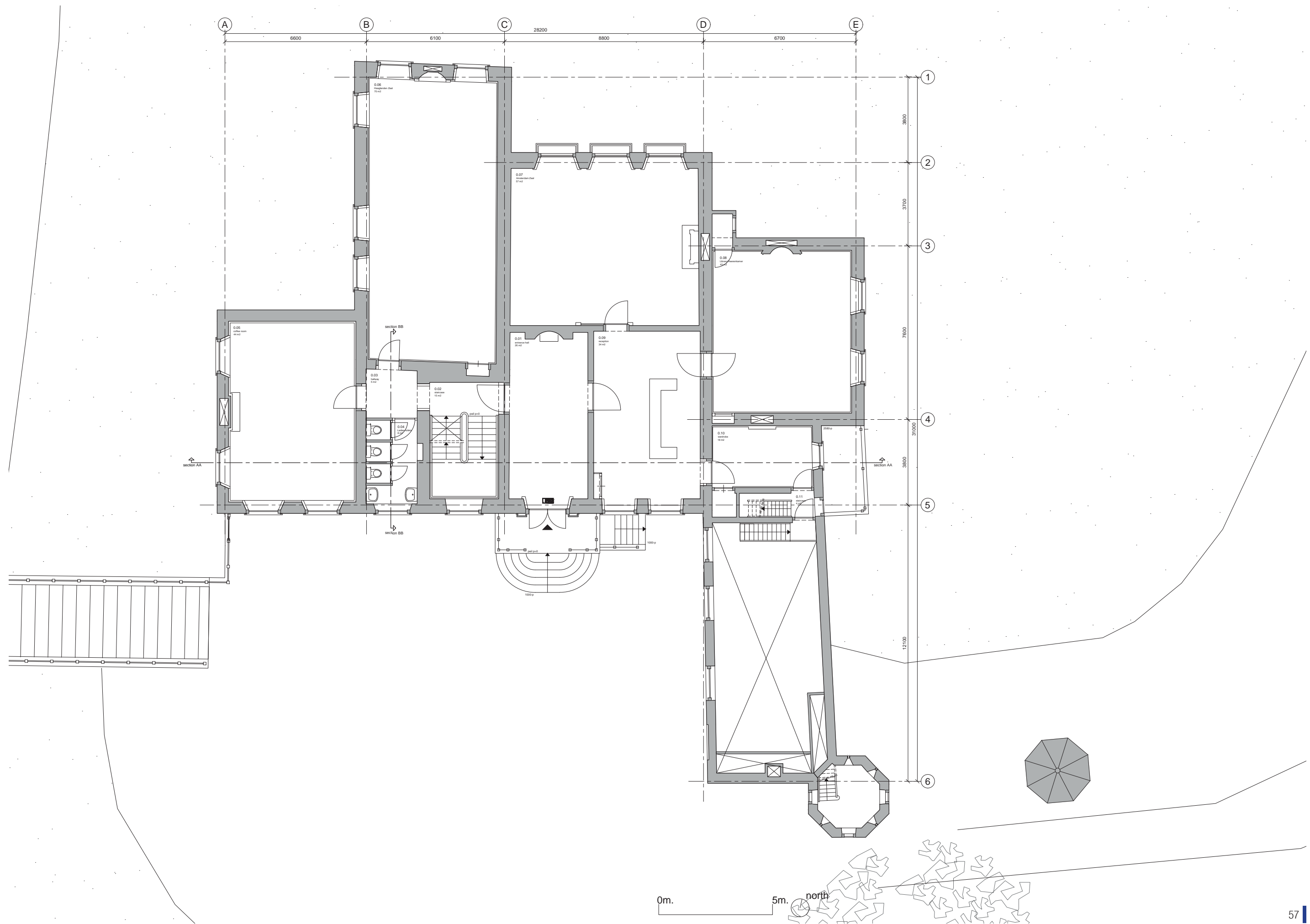








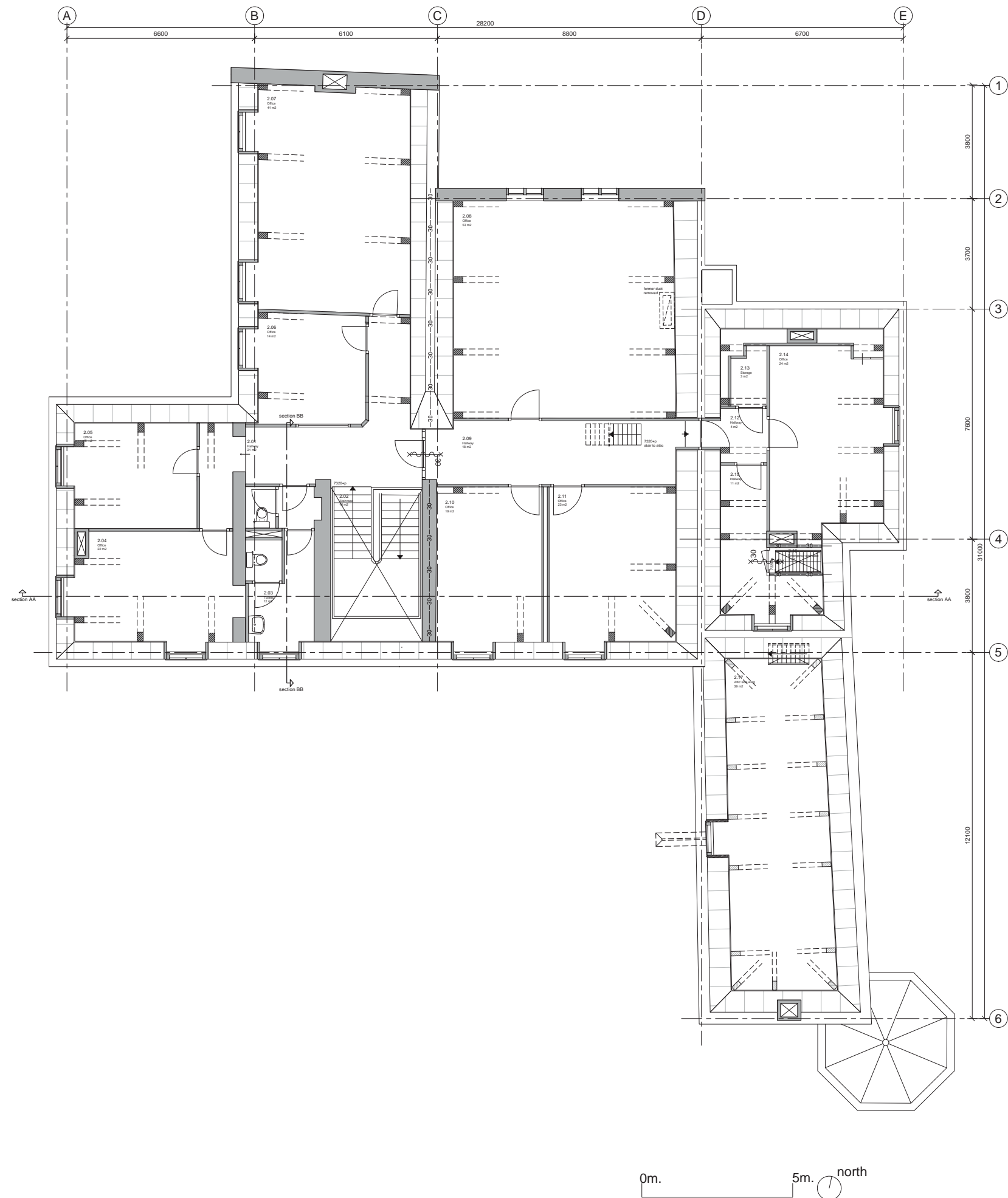




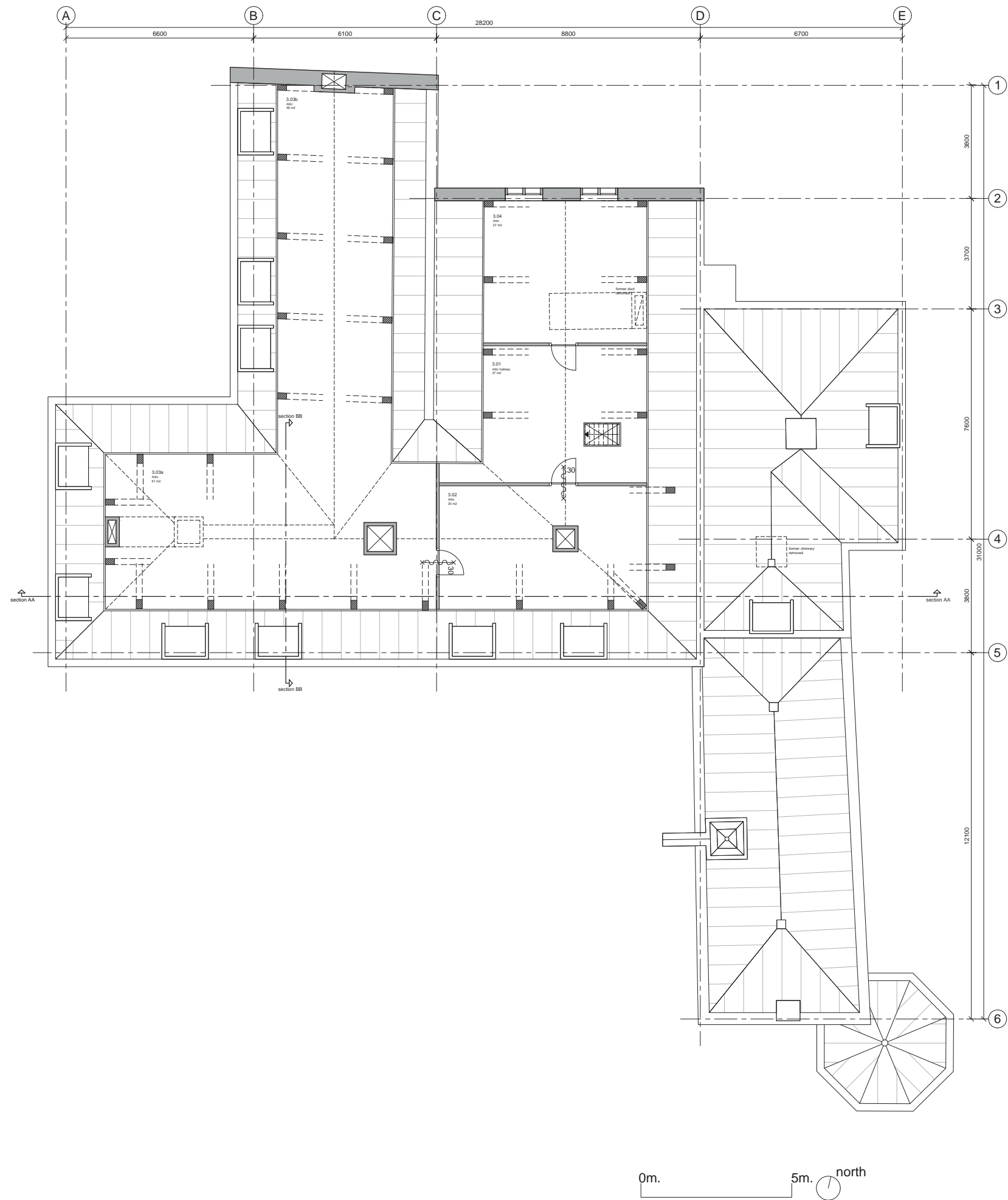




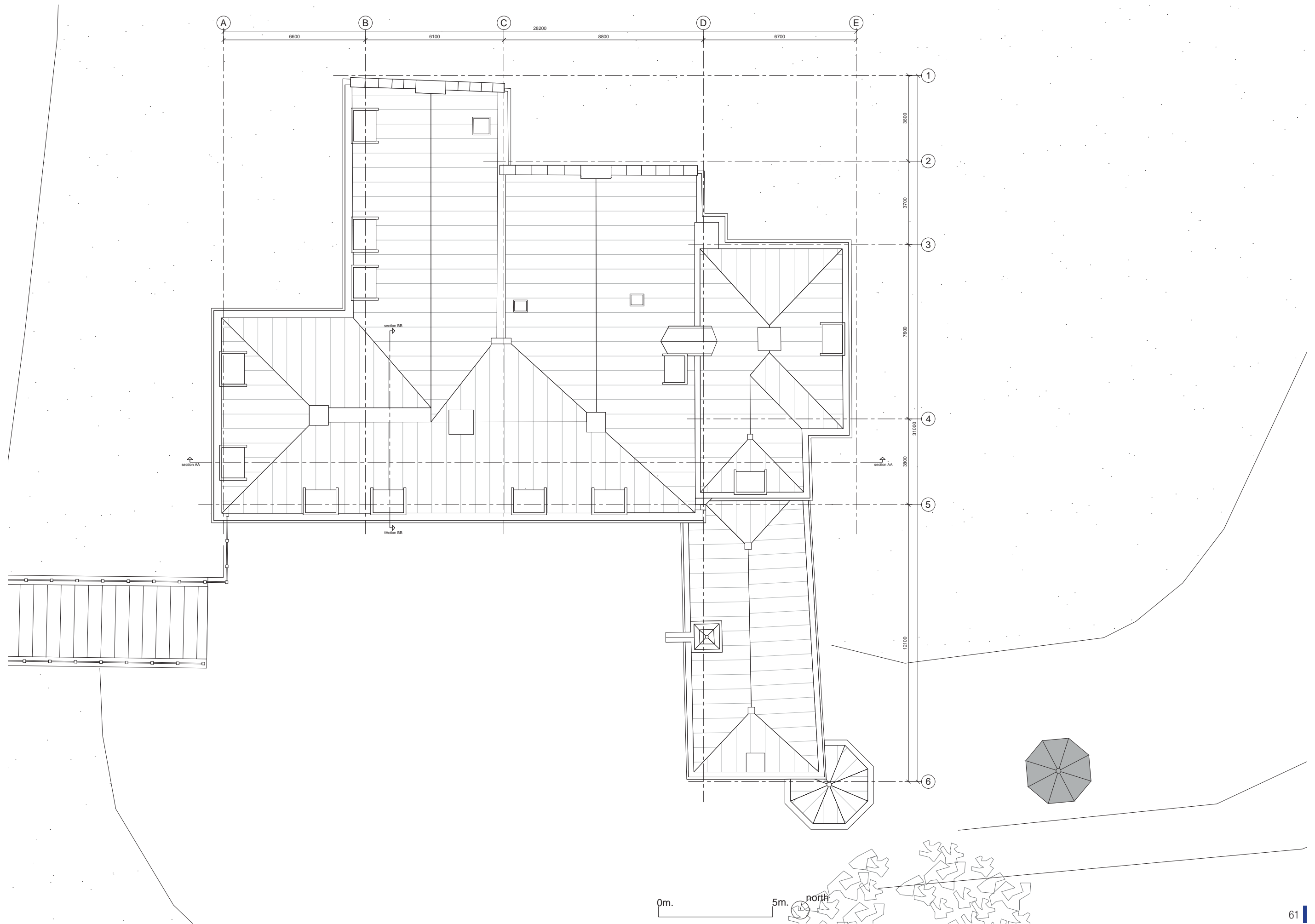




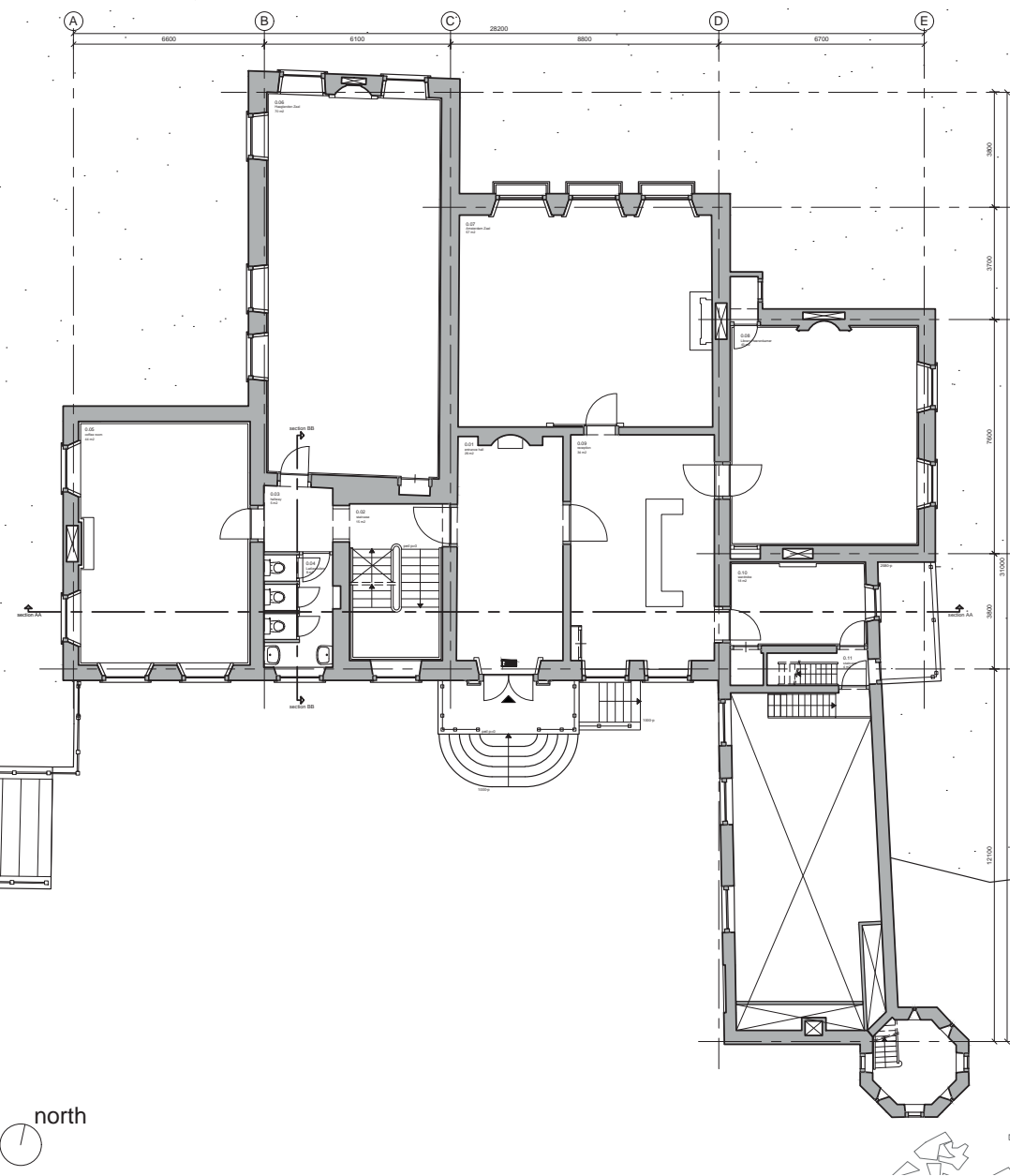
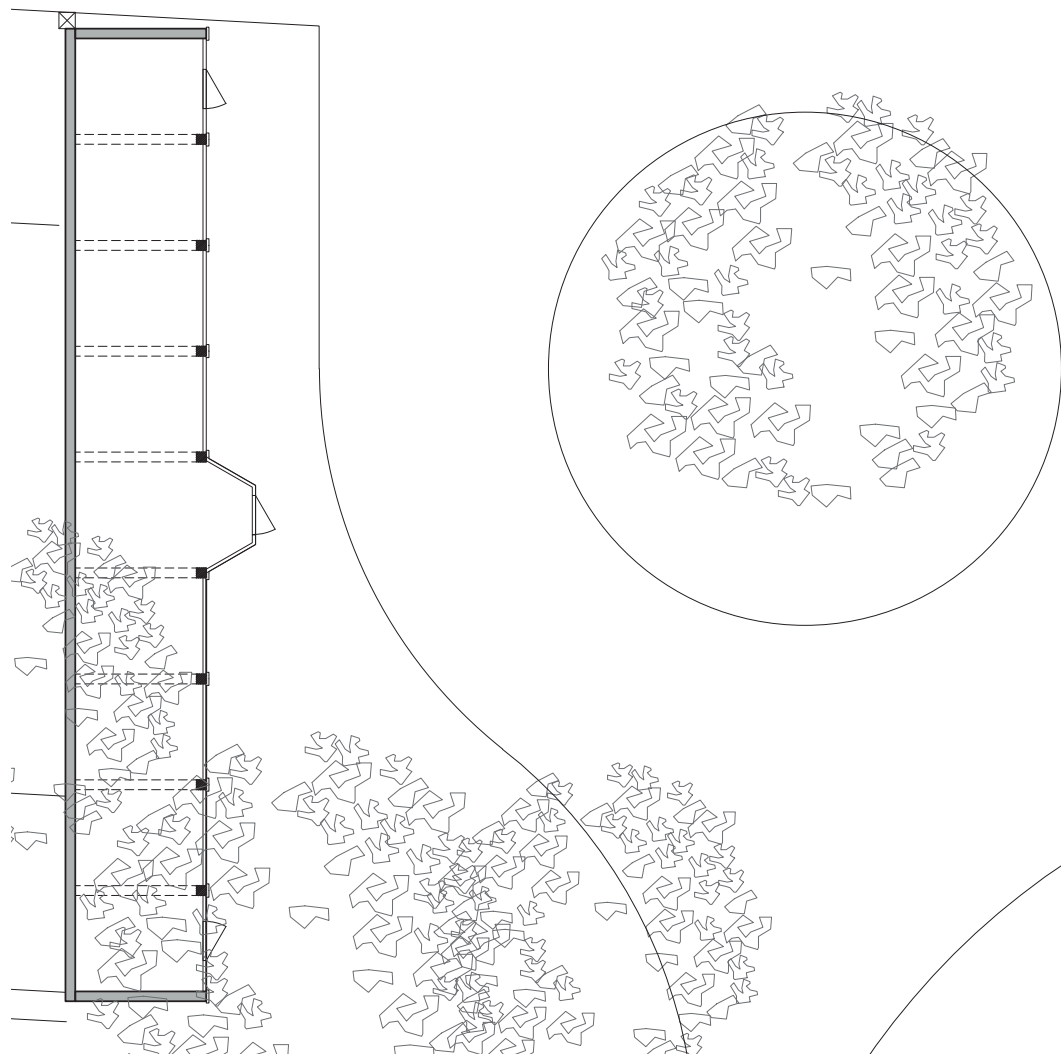
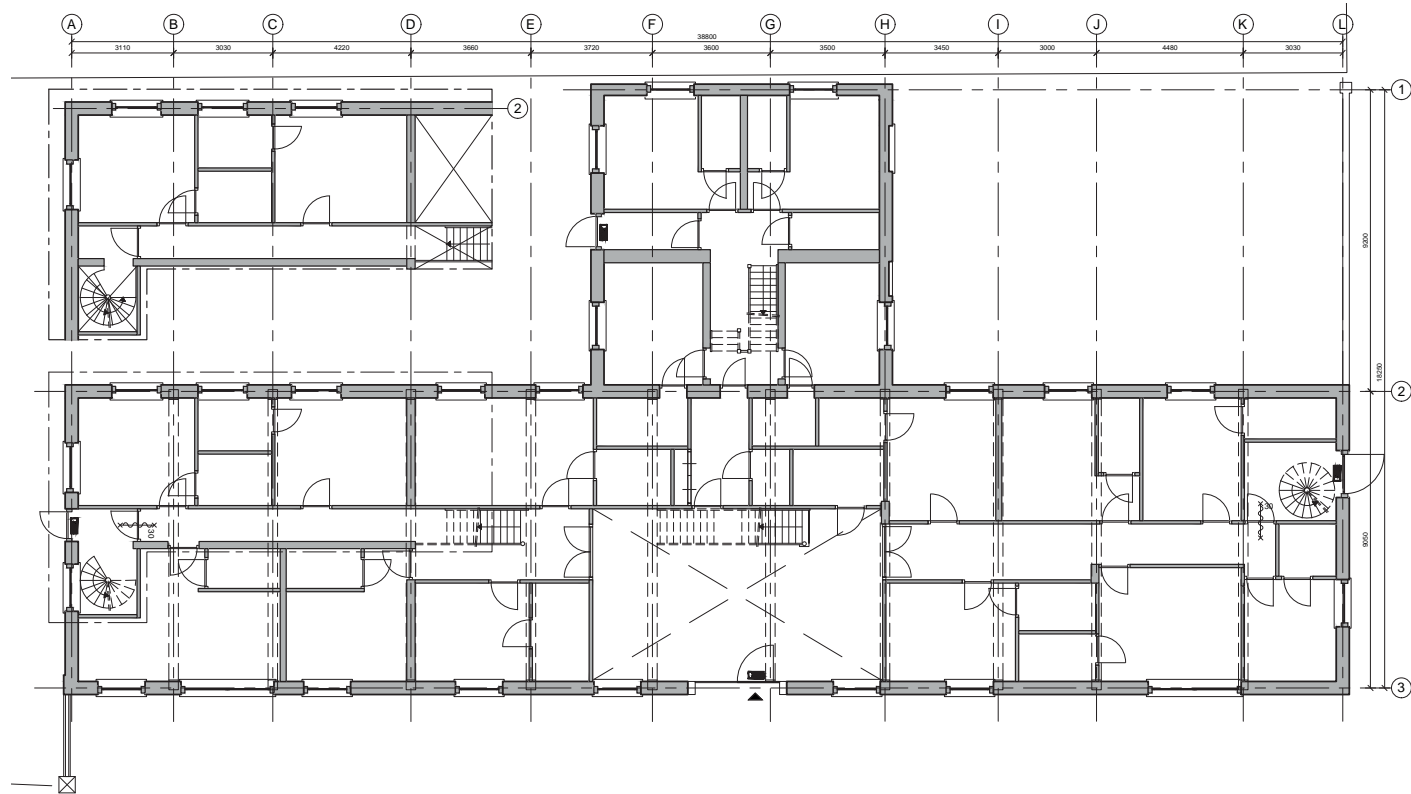






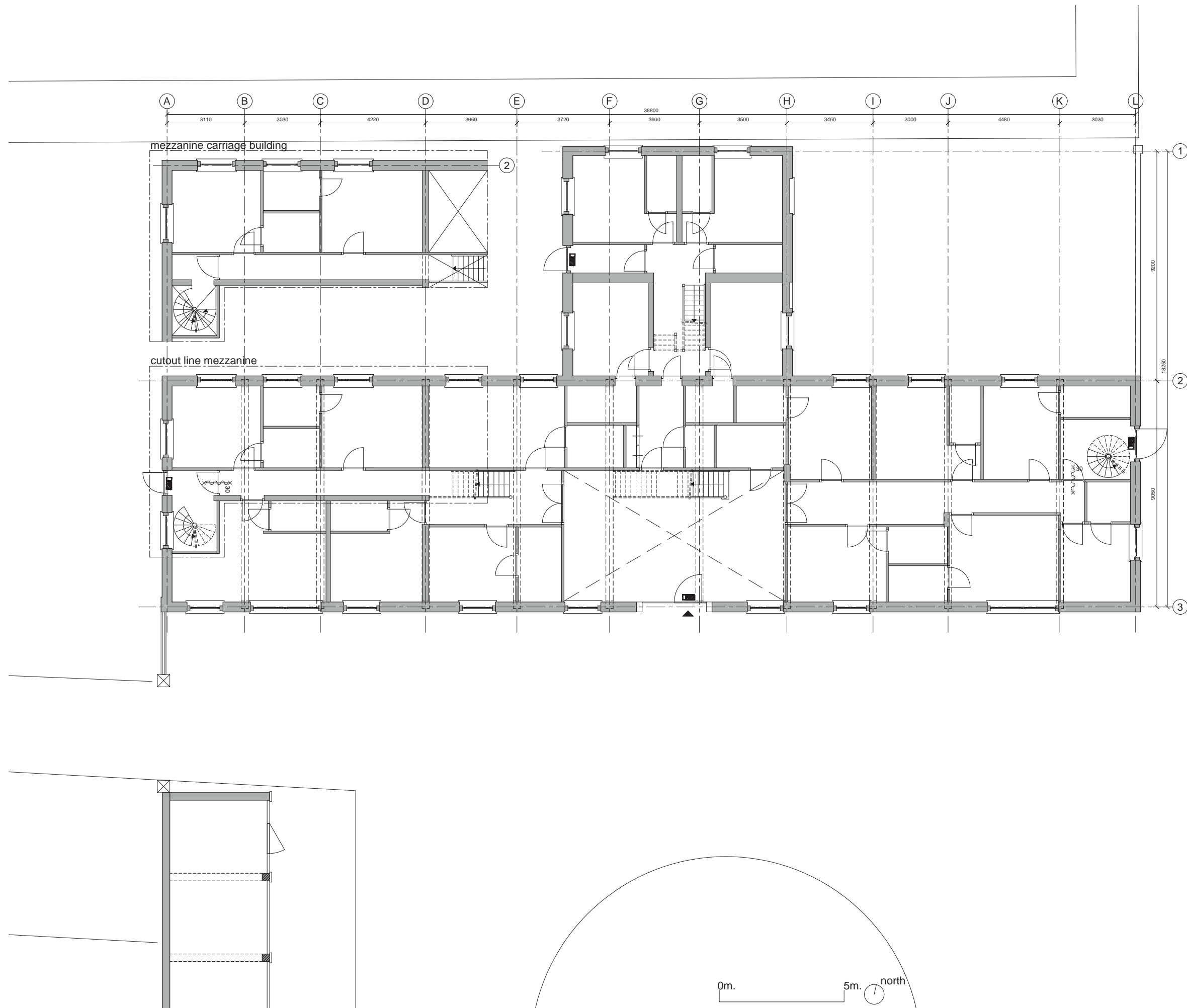




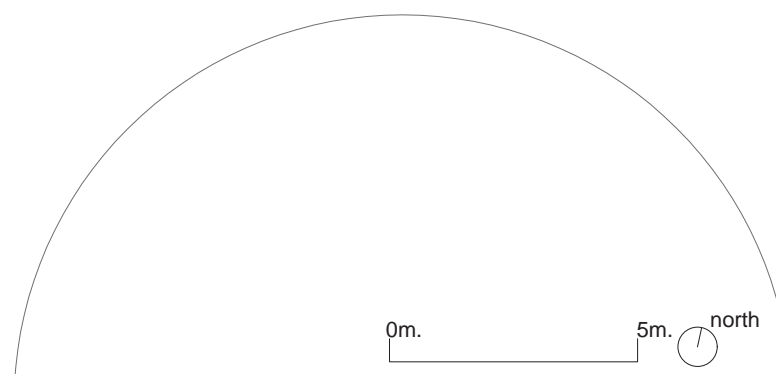
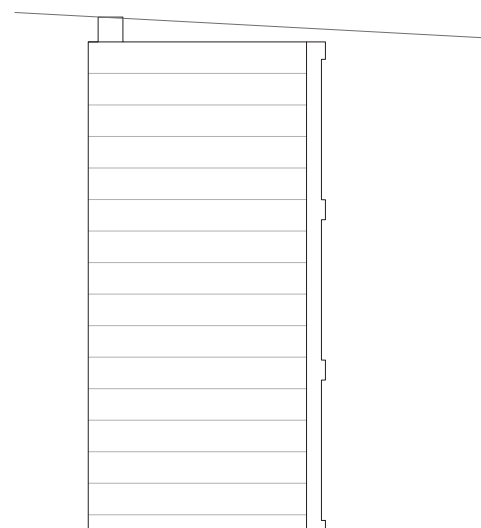
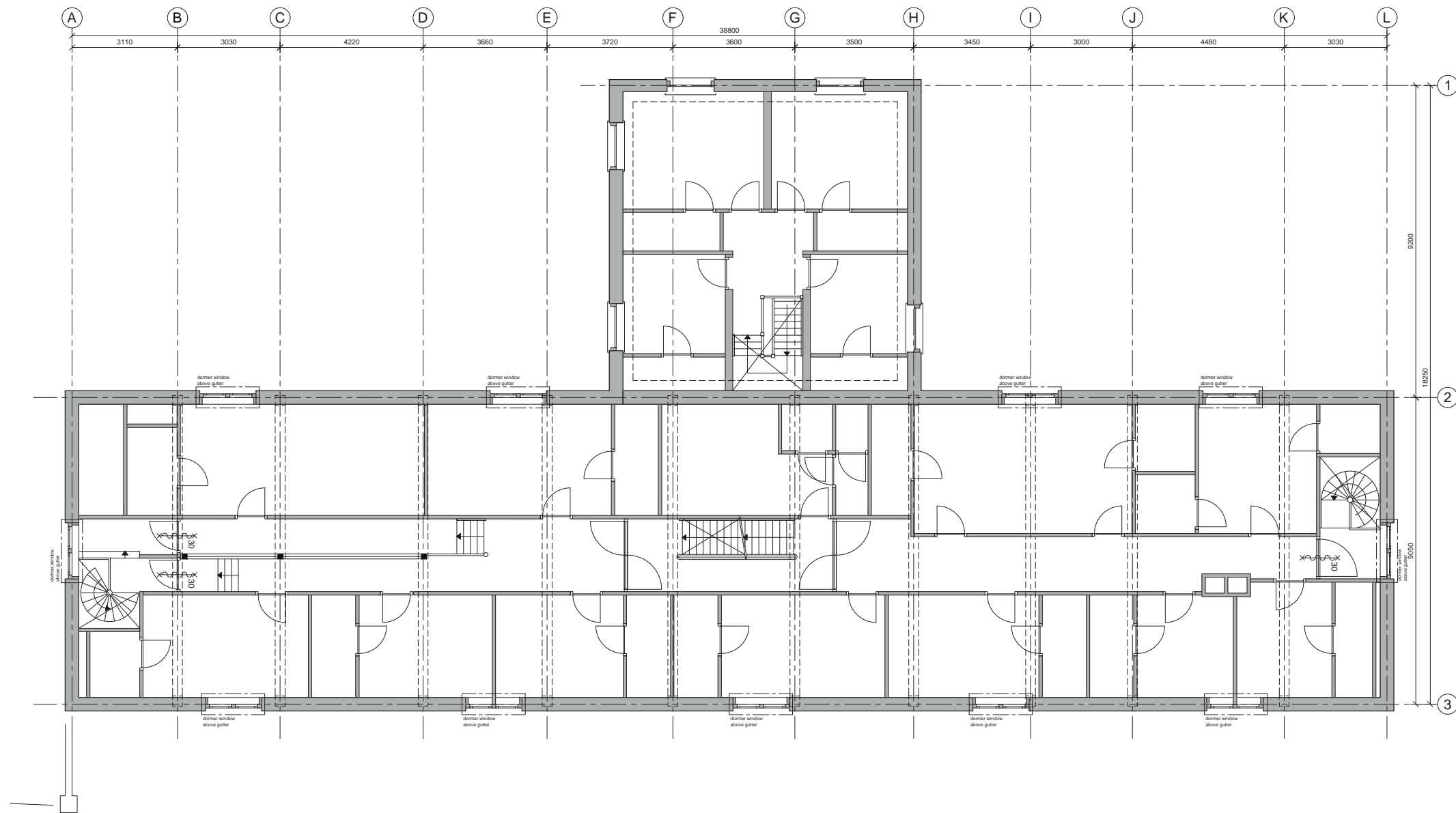


0m. 10m. north

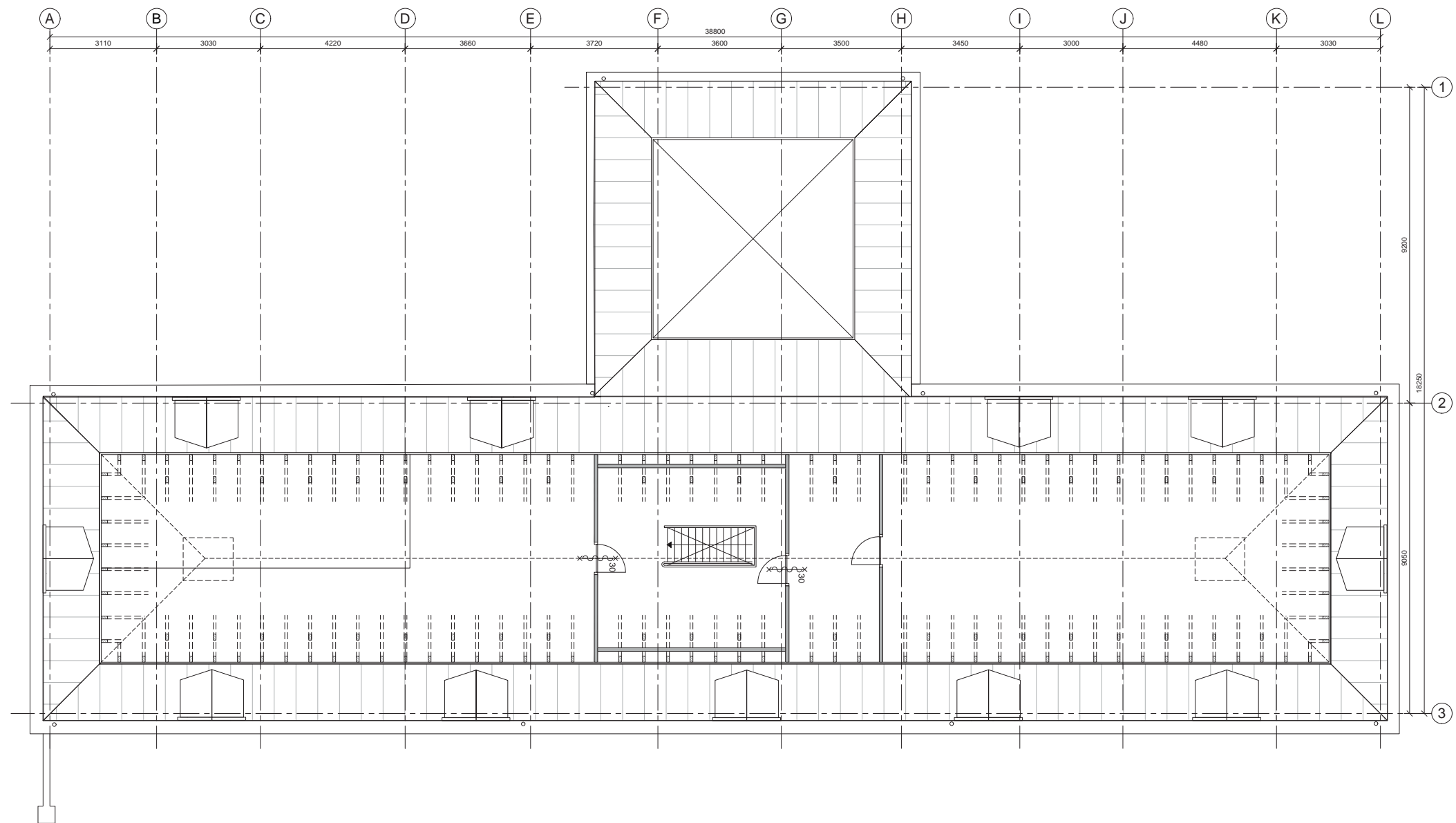






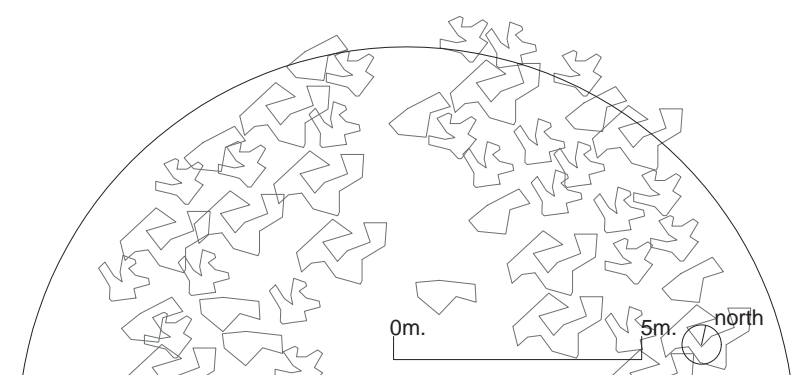
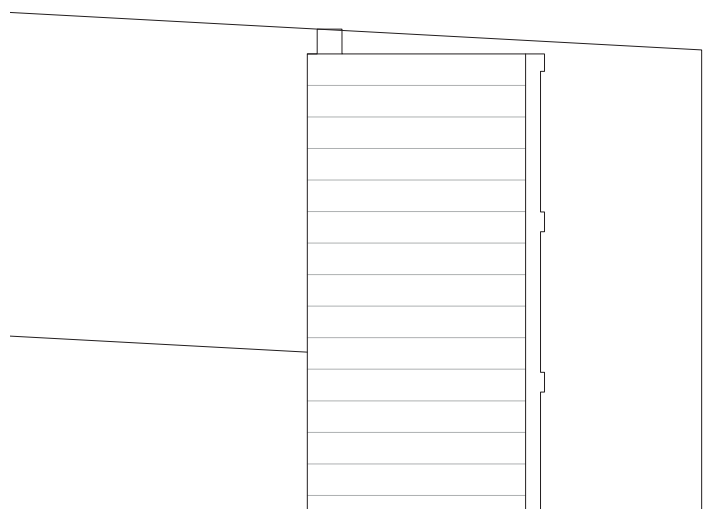
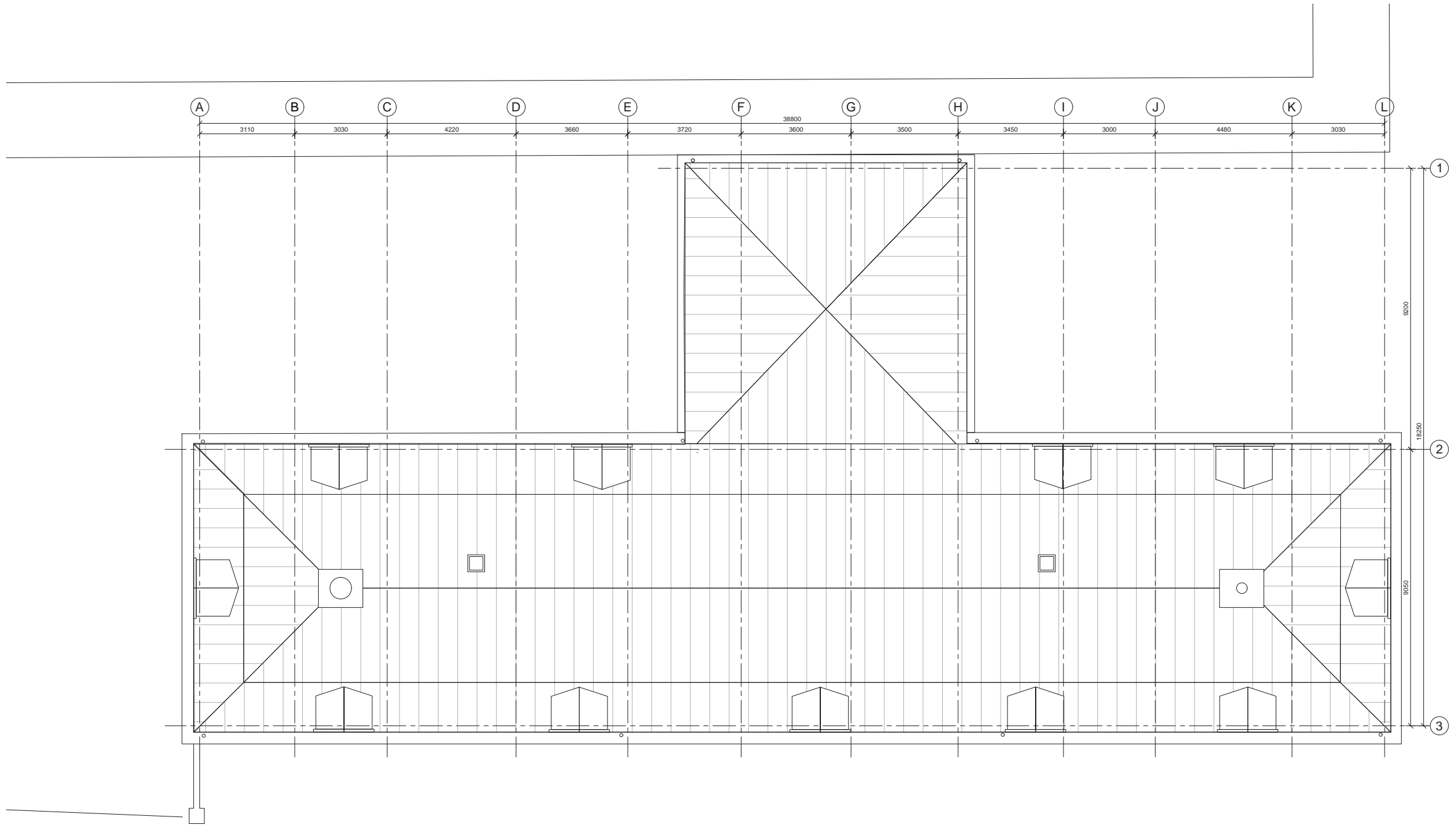






0m. 5m. north









south facade  
0m 5m





east facade  
0m 5m





north facade  
0m 5m





west facade  
0m 5m

13840+p  
roof top

10260+p  
3rd attic

bottom trusses  
9840+p

7320+p  
second floor (attic)

4020+p  
first floor

peil p=0  
1st stage

1000-p  
ground level

2010-p  
top floor side  
wing basement

2580-p  
top floor  
souterrain





south facade  
0m 5m





10400+

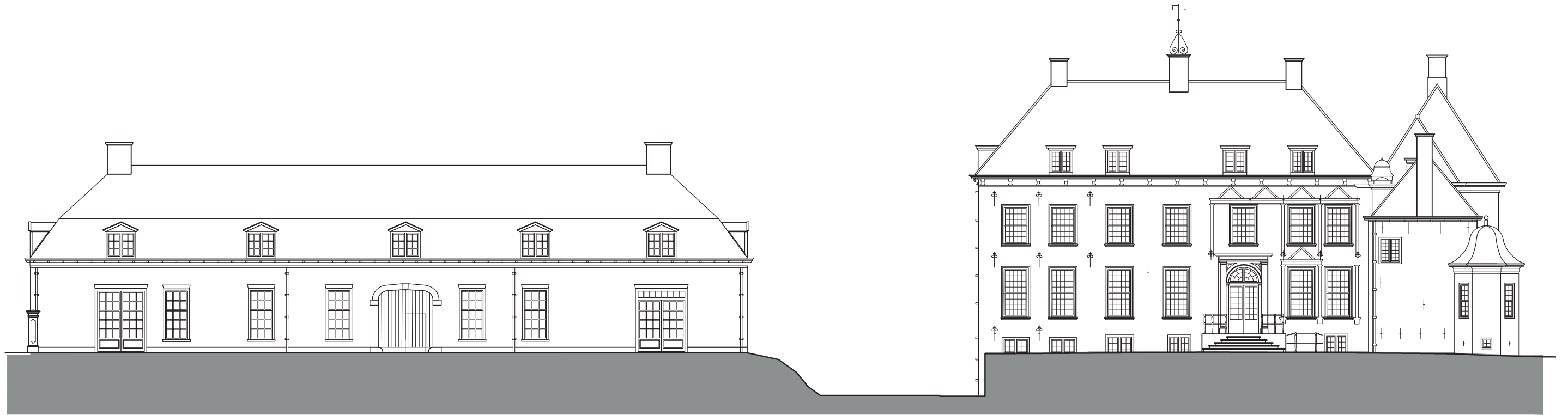
north facade  
0m 5m





west & east facade  
0m 5m





north & south facades complete  
0m 5m





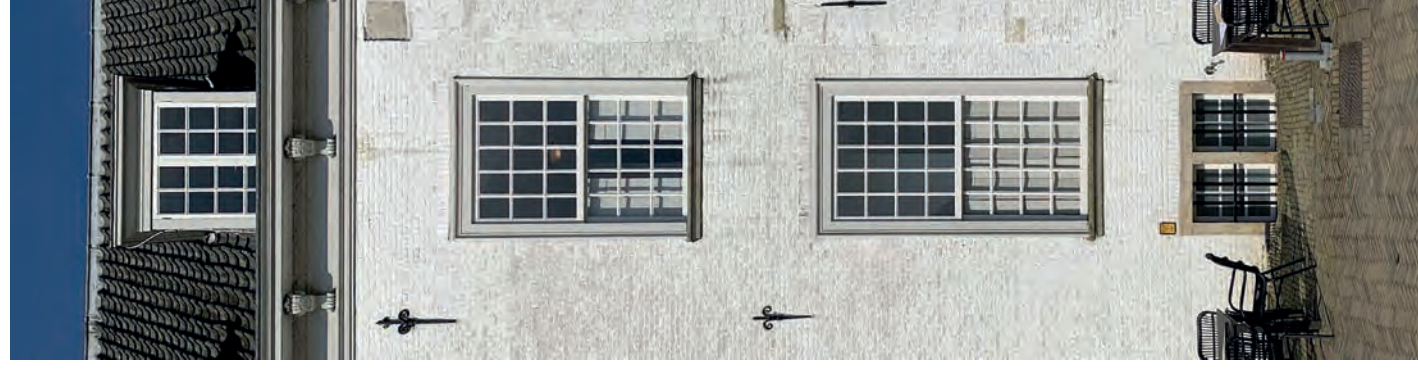
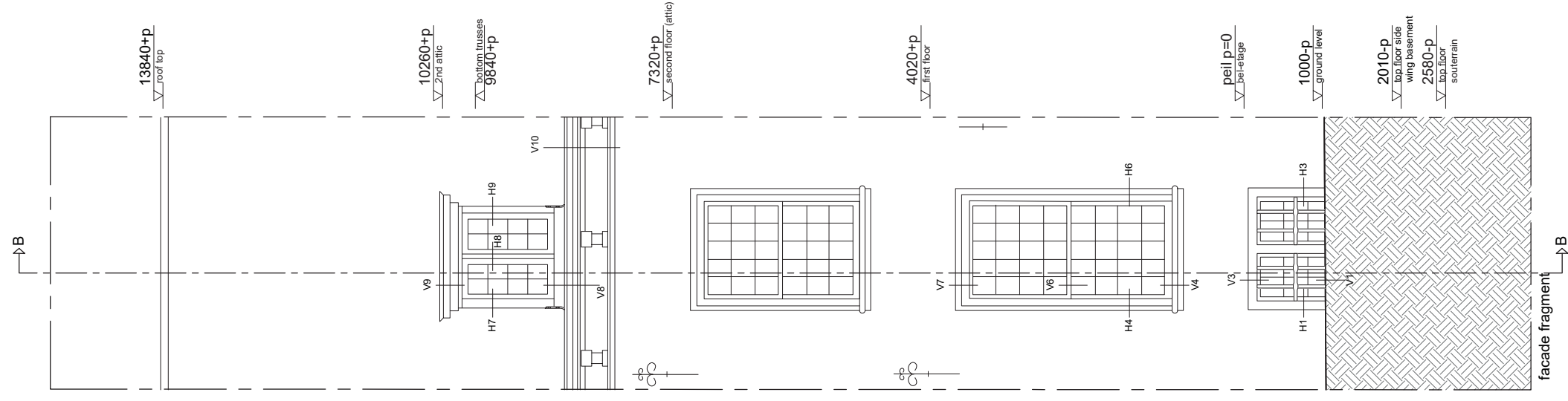
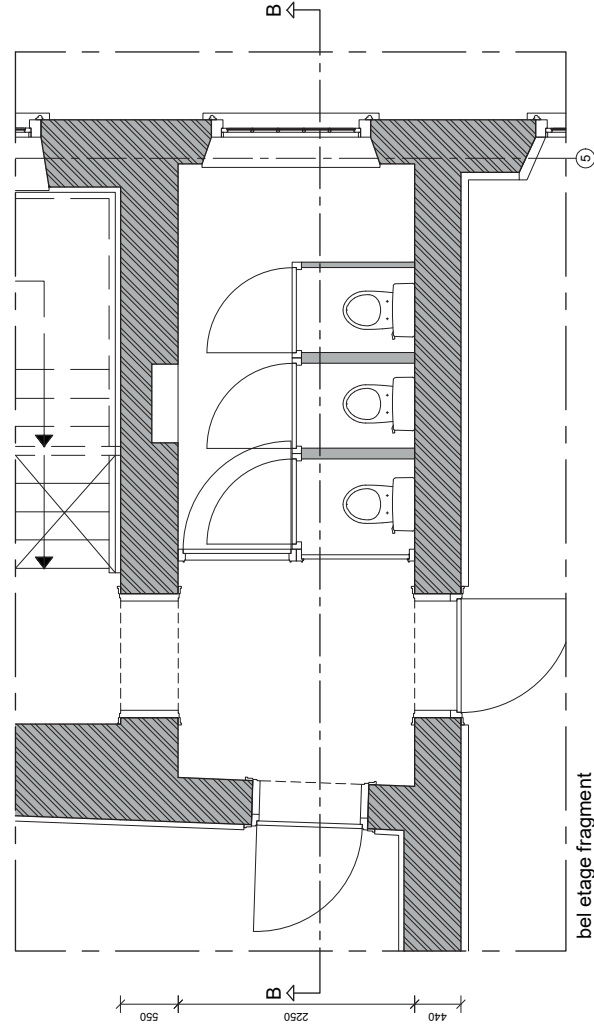
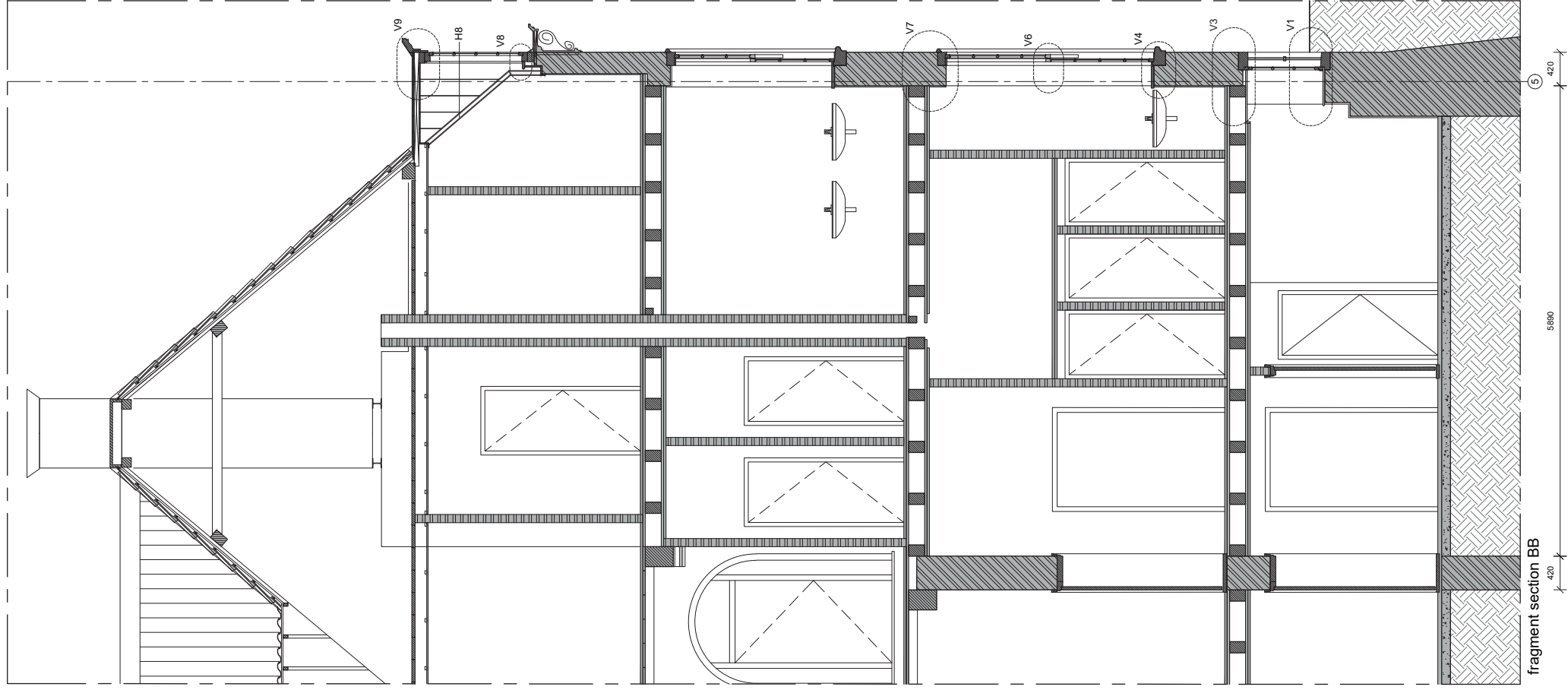
east & west facades complete  
0m 5m



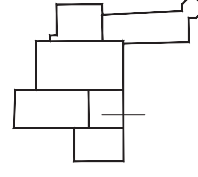


Section AA  
0m 5m

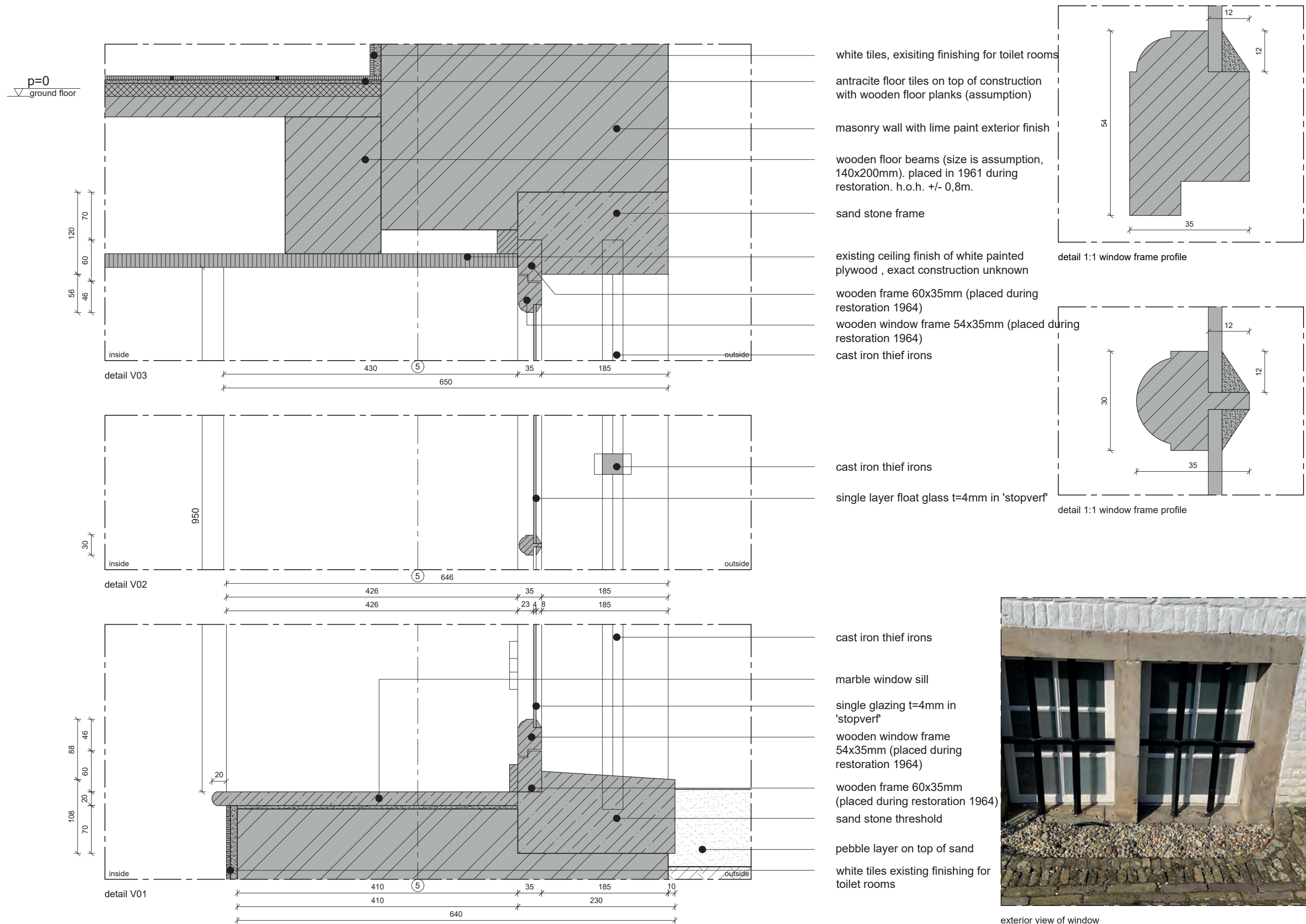




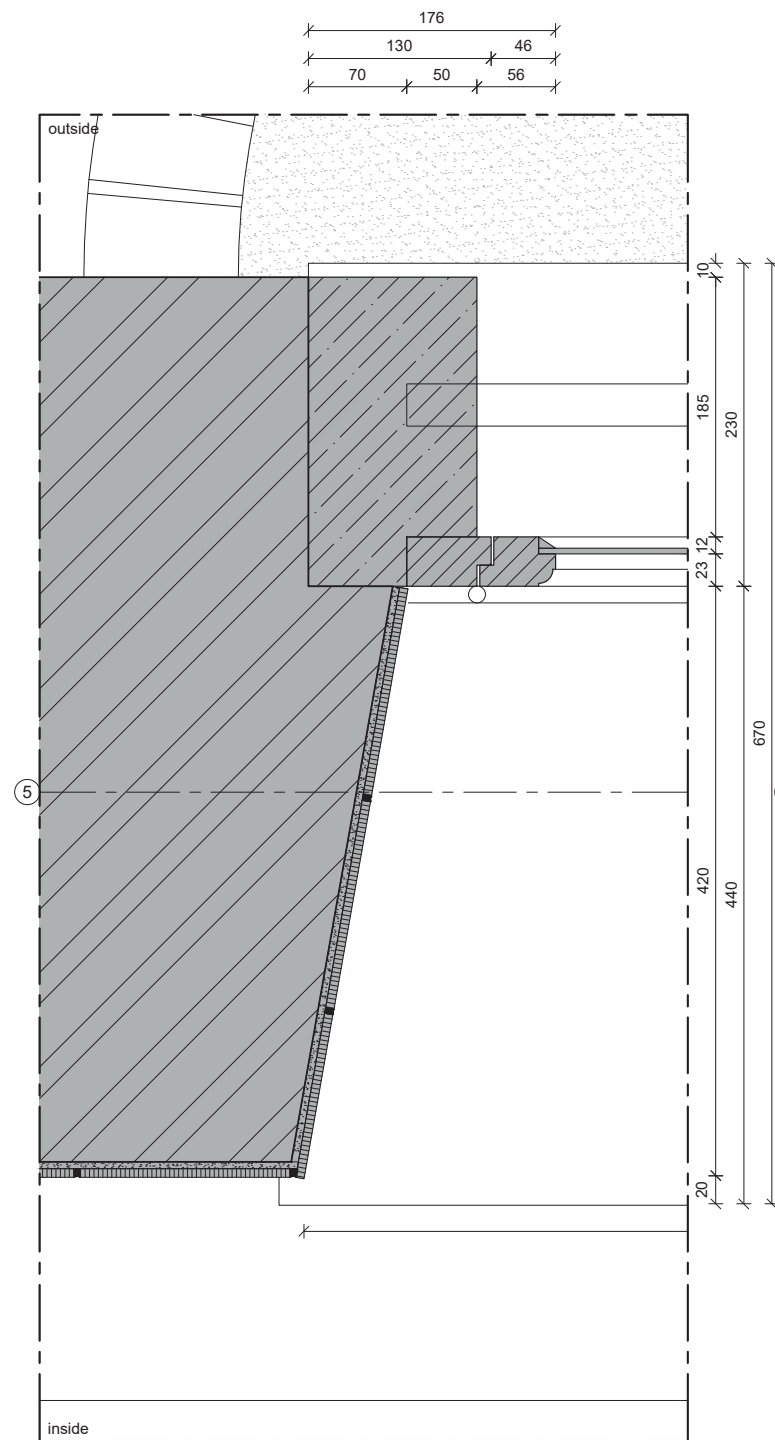
picture of facade fragment in 2021.  
Own image



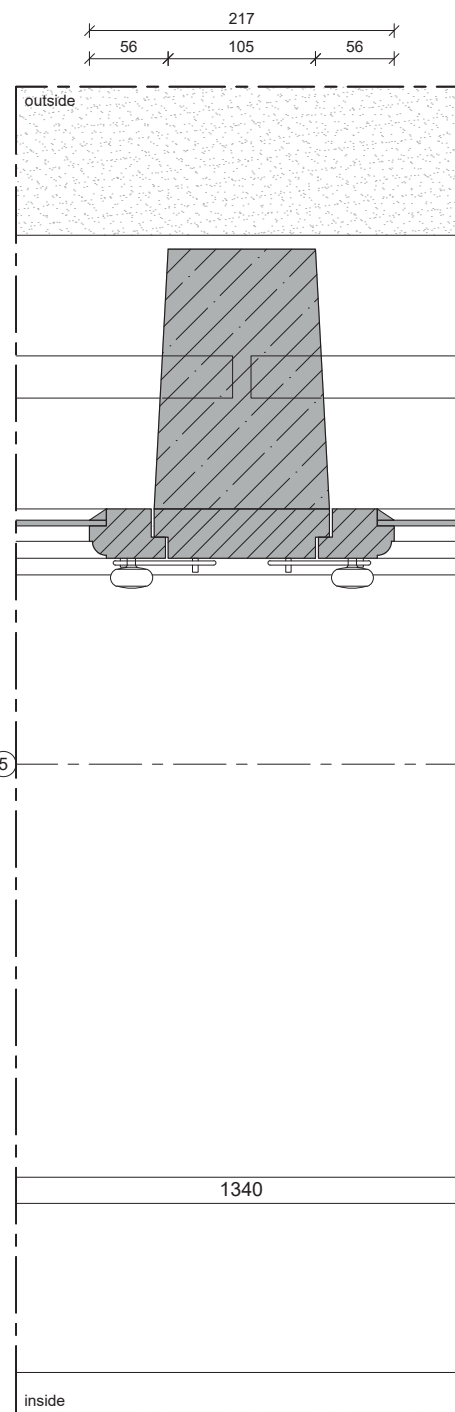




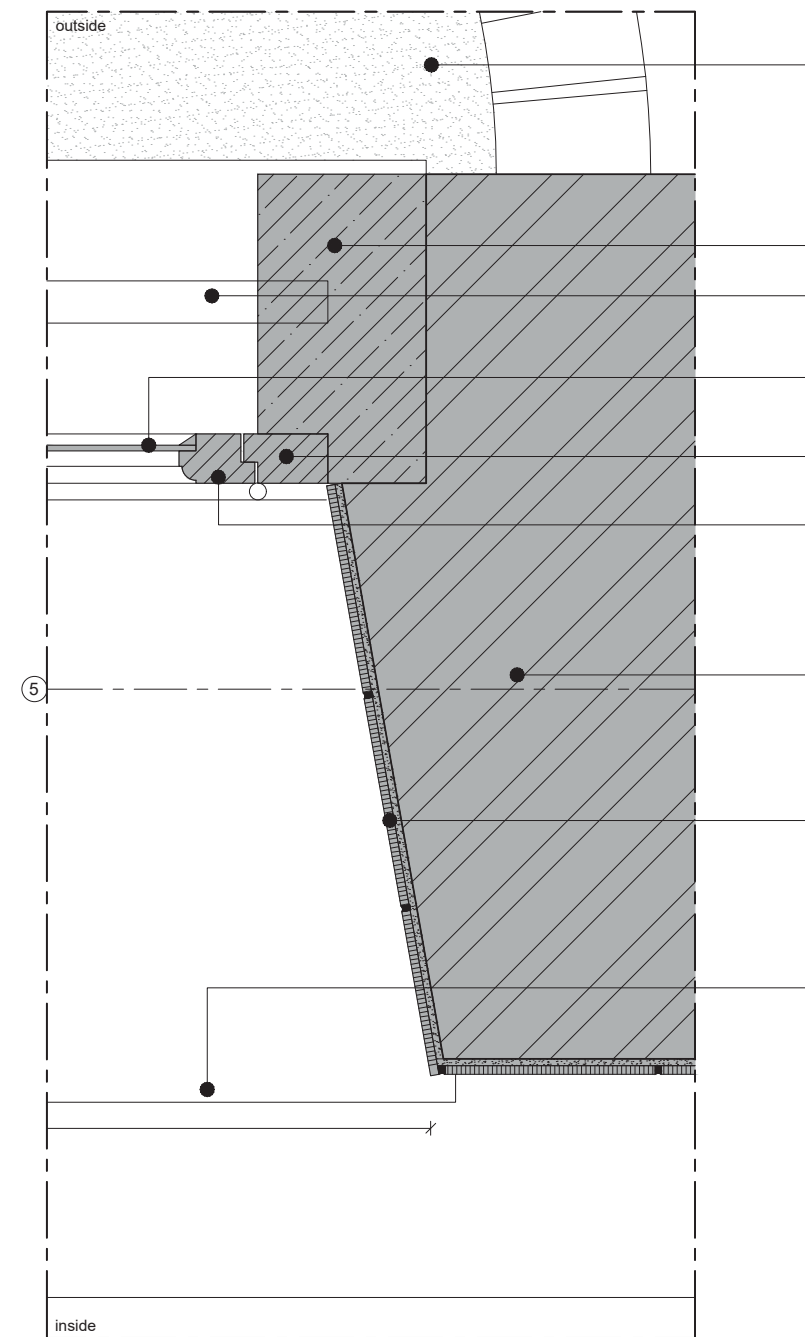




detail H1



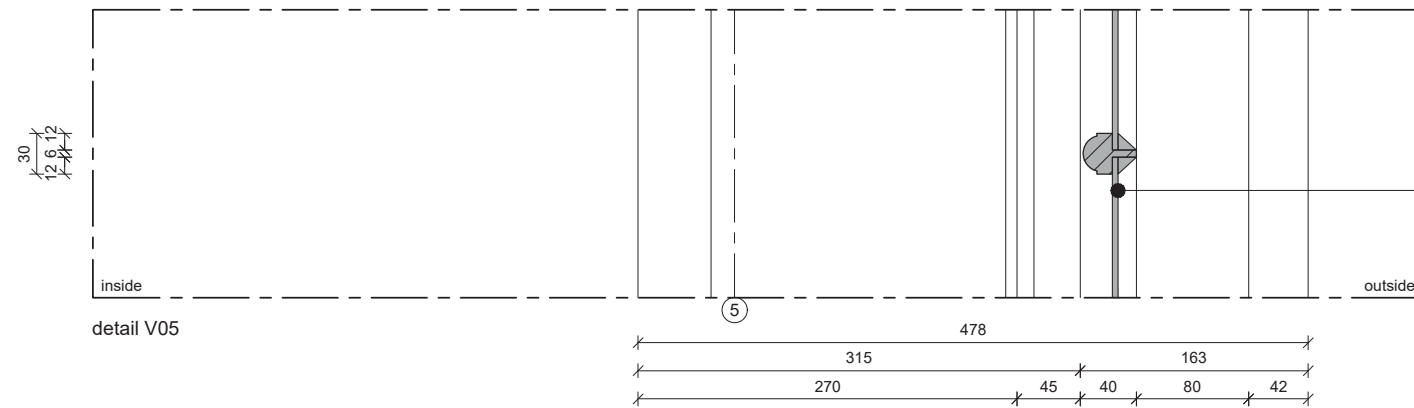
detail H2



detail H3

- pebble layer on top of sand
- sand stone window frame
- cast iron thief irons
- single layer float glass t=4mm in 'stopver'
- wooden frame 60x35mm (placed during restoration 1964)
- wooden window frame 54x35mm (placed during restoration 1964)
- masonry wall with lime paint exterior finish
- white tiles existing finishing for toilet rooms
- marble window sill

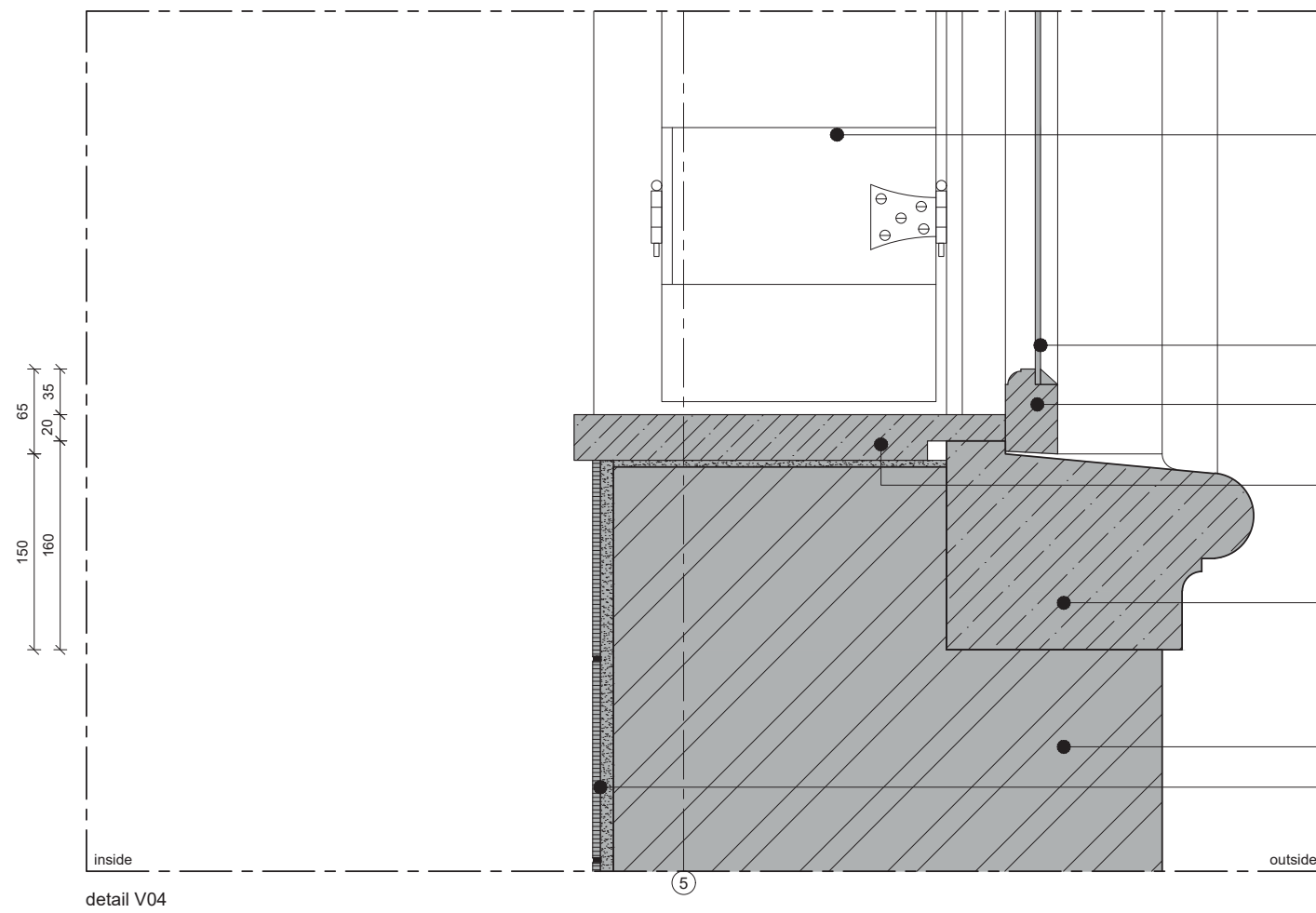




single layer float glass  $t=4\text{mm}$   
in 'stopverf'



photo of window threshold



wooden shutters

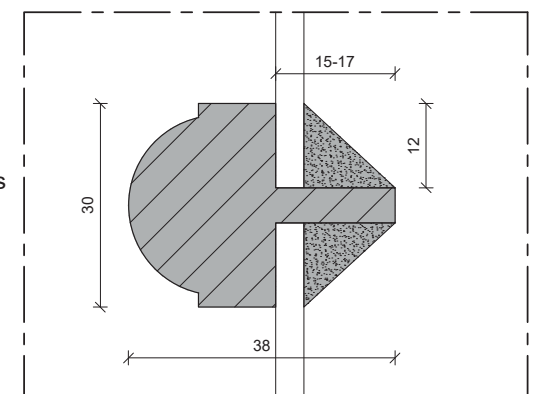
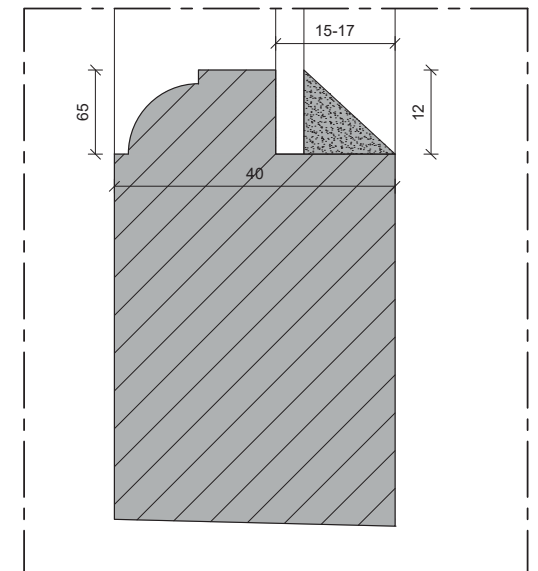
single layer float glass  $t=4\text{mm}$  in 'stopverf'

wooden window frame 65x40mm (placed  
during restoration 1964)

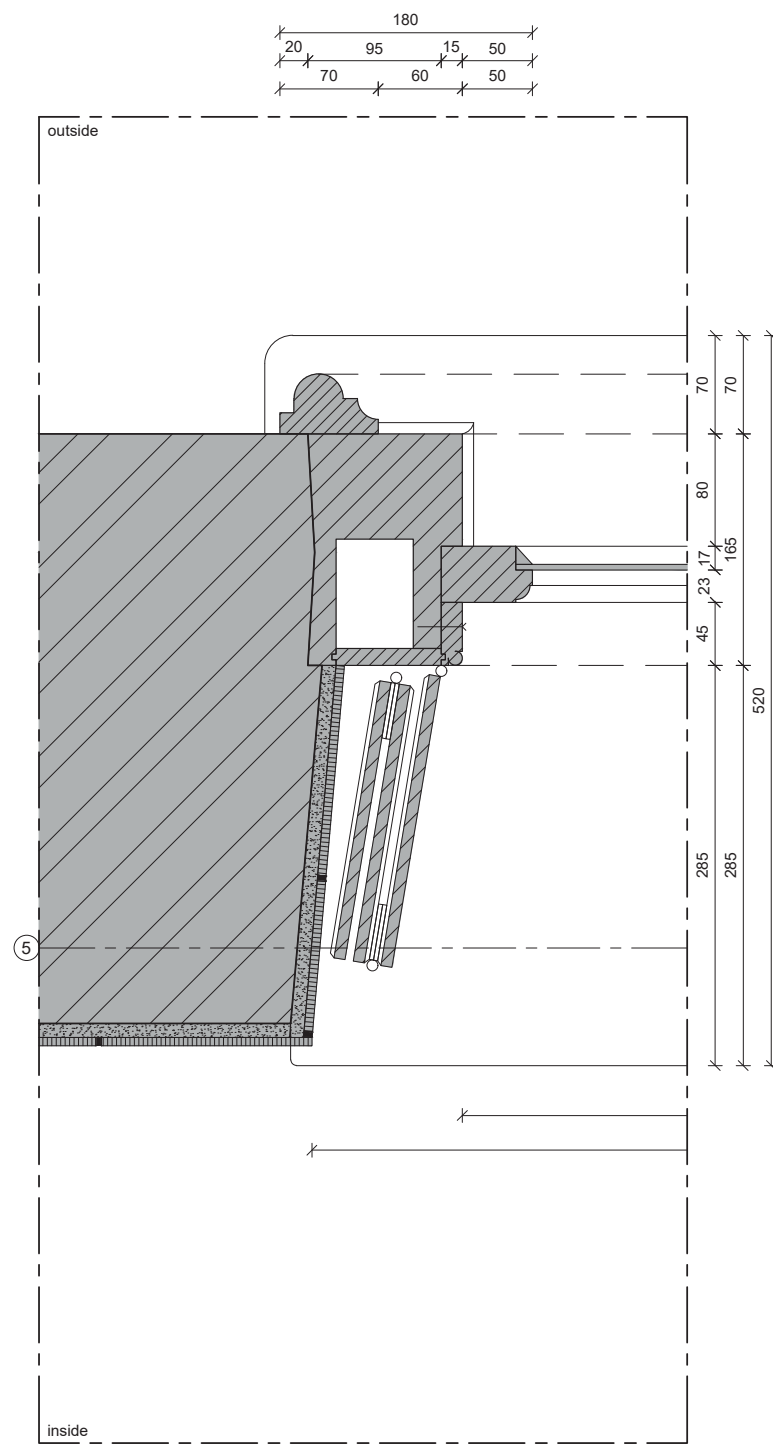
marble window sill

sand stone threshold (size is assumption)

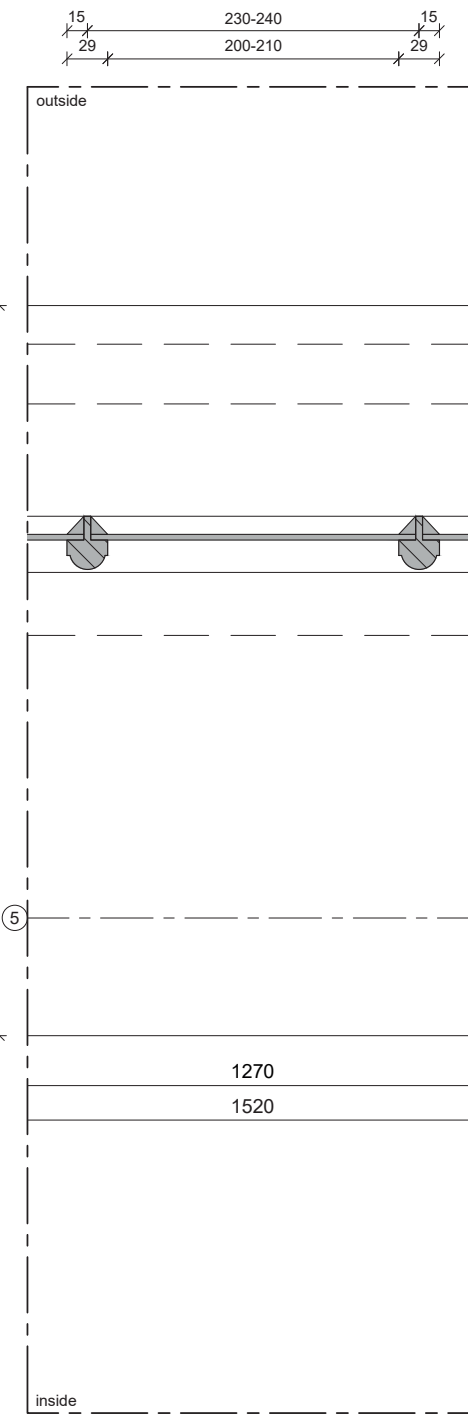
masonry wall with lime paint exterior finish  
white tiles existing finishing for toilet rooms



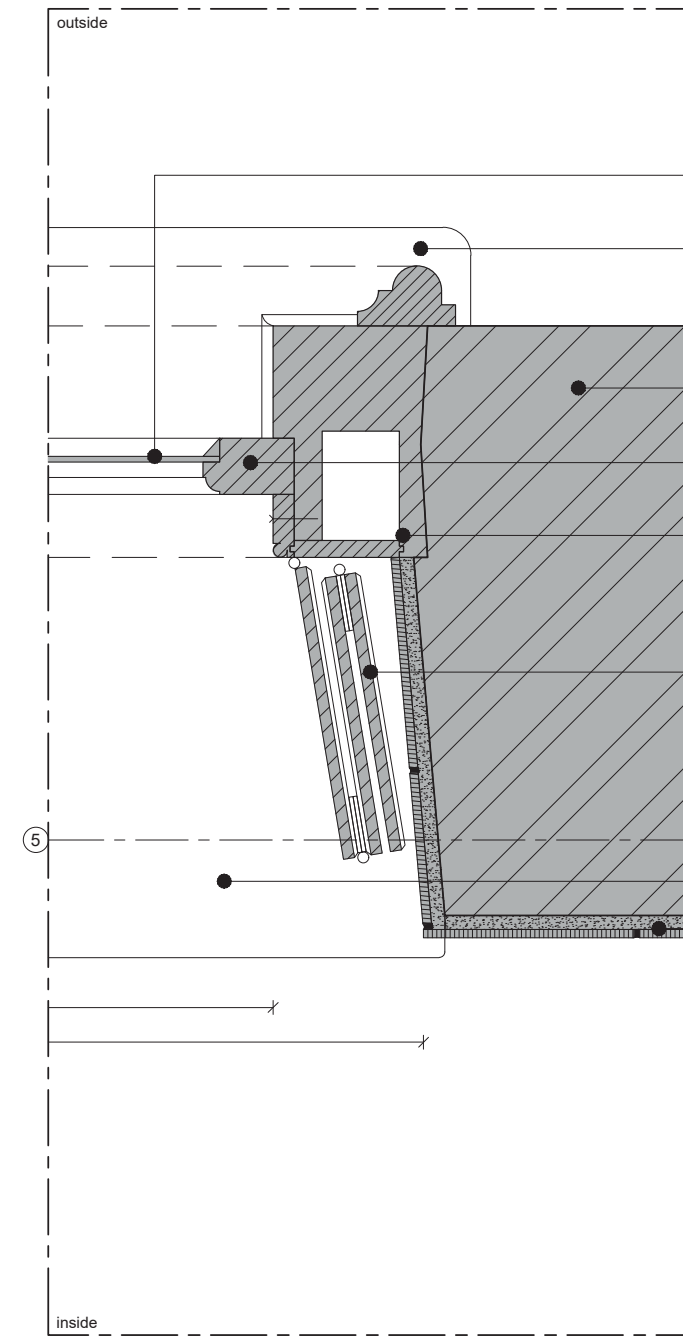




detail H4

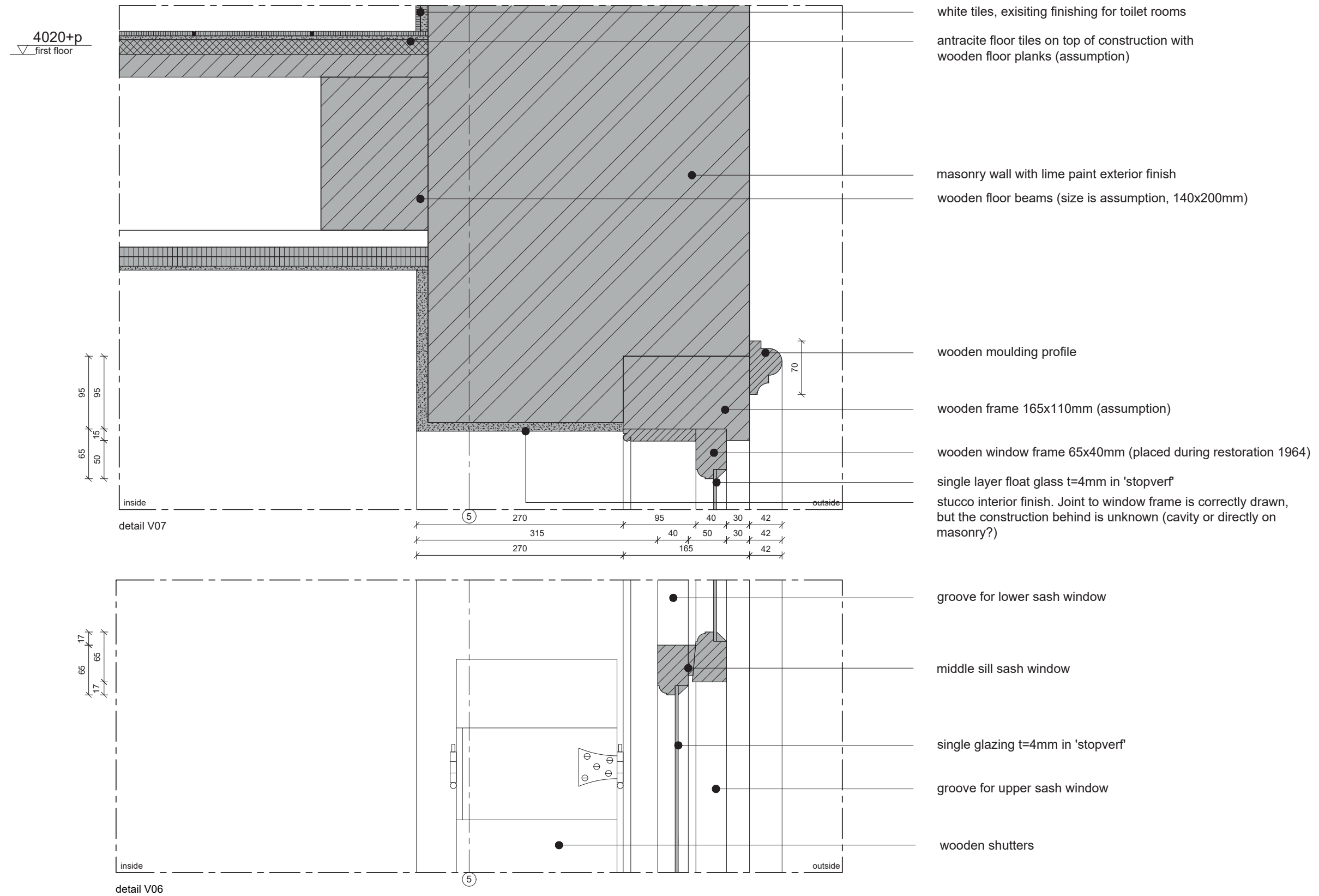


detail H5

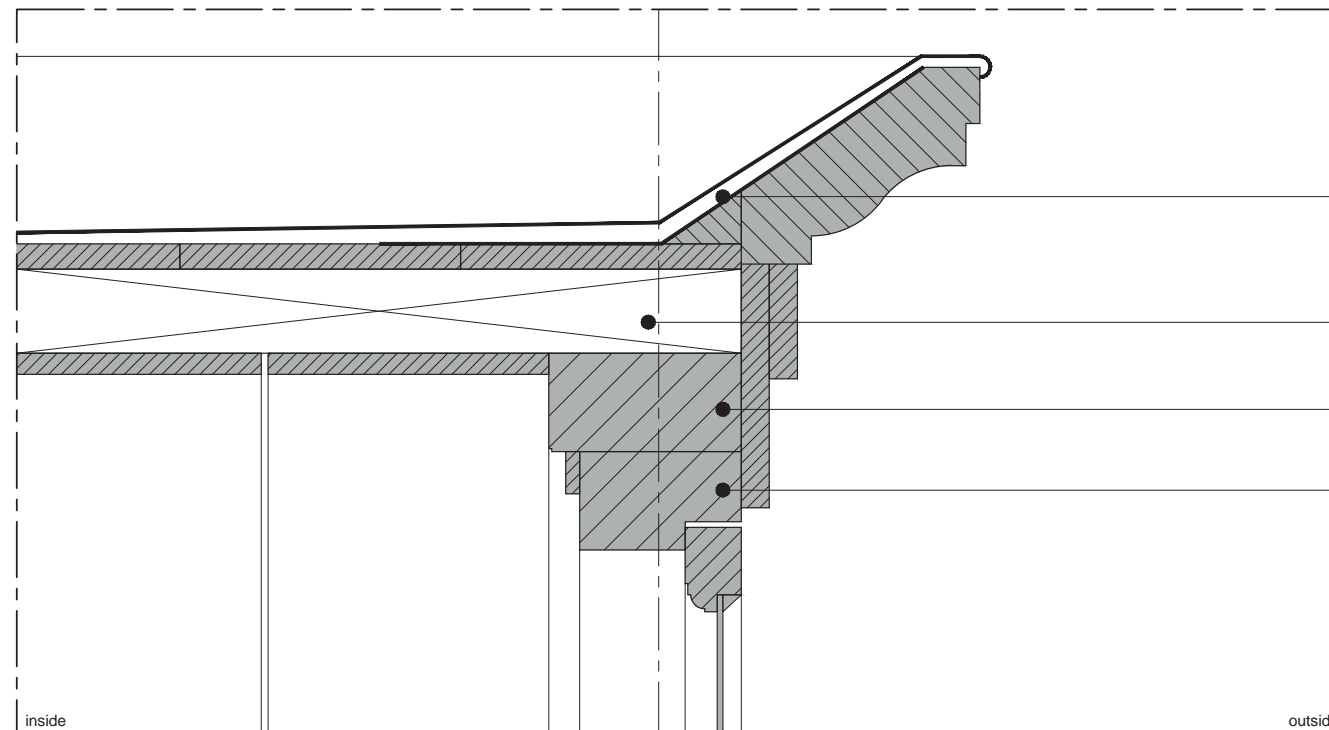


detail H6

- single layer float glass t=4mm in 'stopver'
- view on sand stone threshold
- masonry wall with lime paint exterior finish
- wooden window frame 65x40mm (placed during restoration 1964)
- wooden frame 110x165mm for sash window (disabled) (size is assumption)
- wooden shutters, painted white
- view on marble window sill
- white tiles existing finishing for toilet rooms







detail V09

200 22 75 (5) 40 170  
 200 97 40 210  
 127 95 75 40

roof covering unknown.  
 Assumption is lead or zinc.  
 Fall in direction to roof

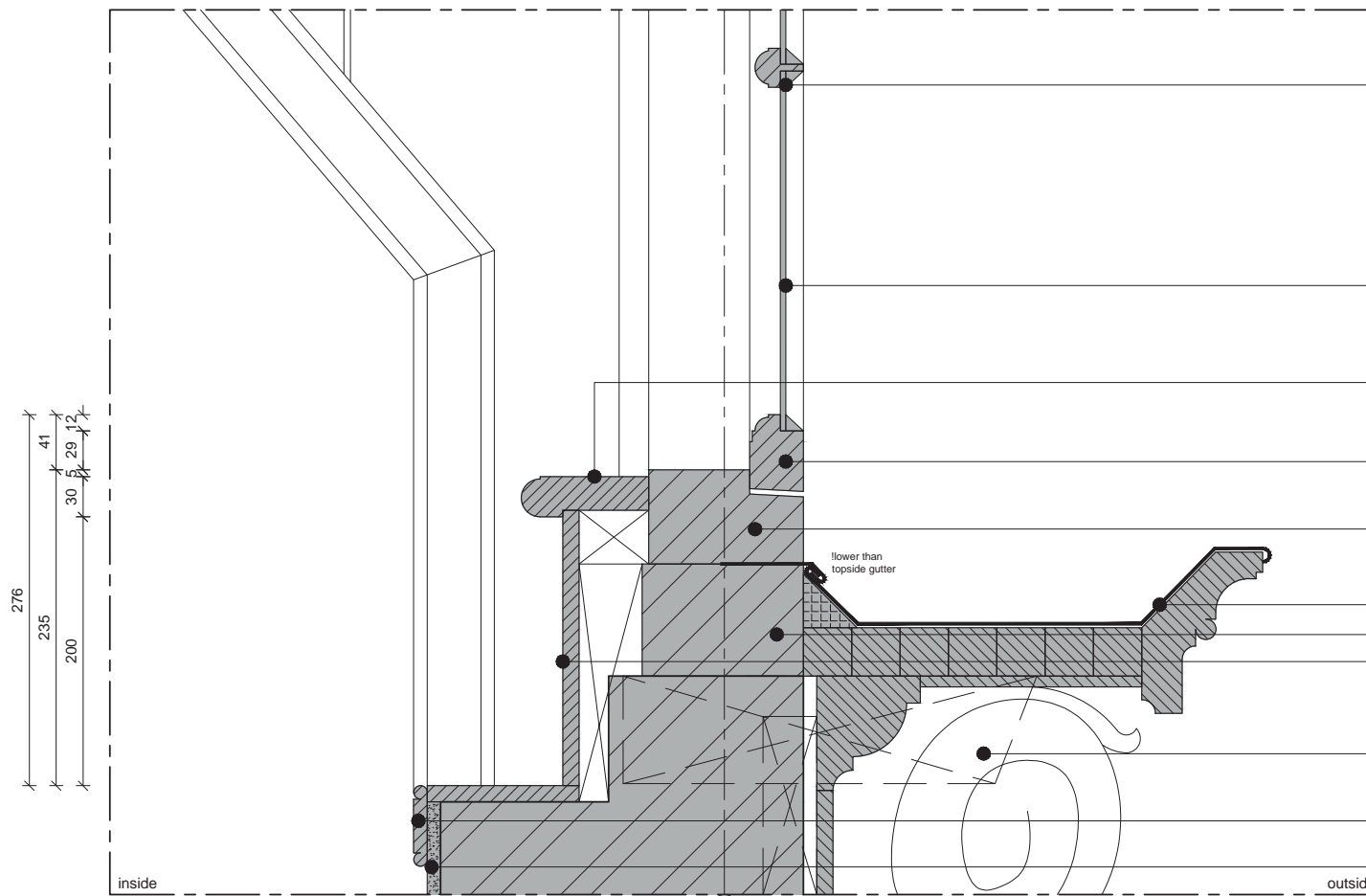
unknown whether cavity is  
 filled with insulation material

wooden frame 70x140mm

wooden frame 70x115mm



photo of dormer window and gutter



detail V08

10 101 12 52 75 (5) 40 22 320  
 175 115 342  
 632

mullion

single layer float glass t=4mm in 'stopverf'

wooden window sill

wooden window frame 65x40mm (placed during  
 restoration 1964)

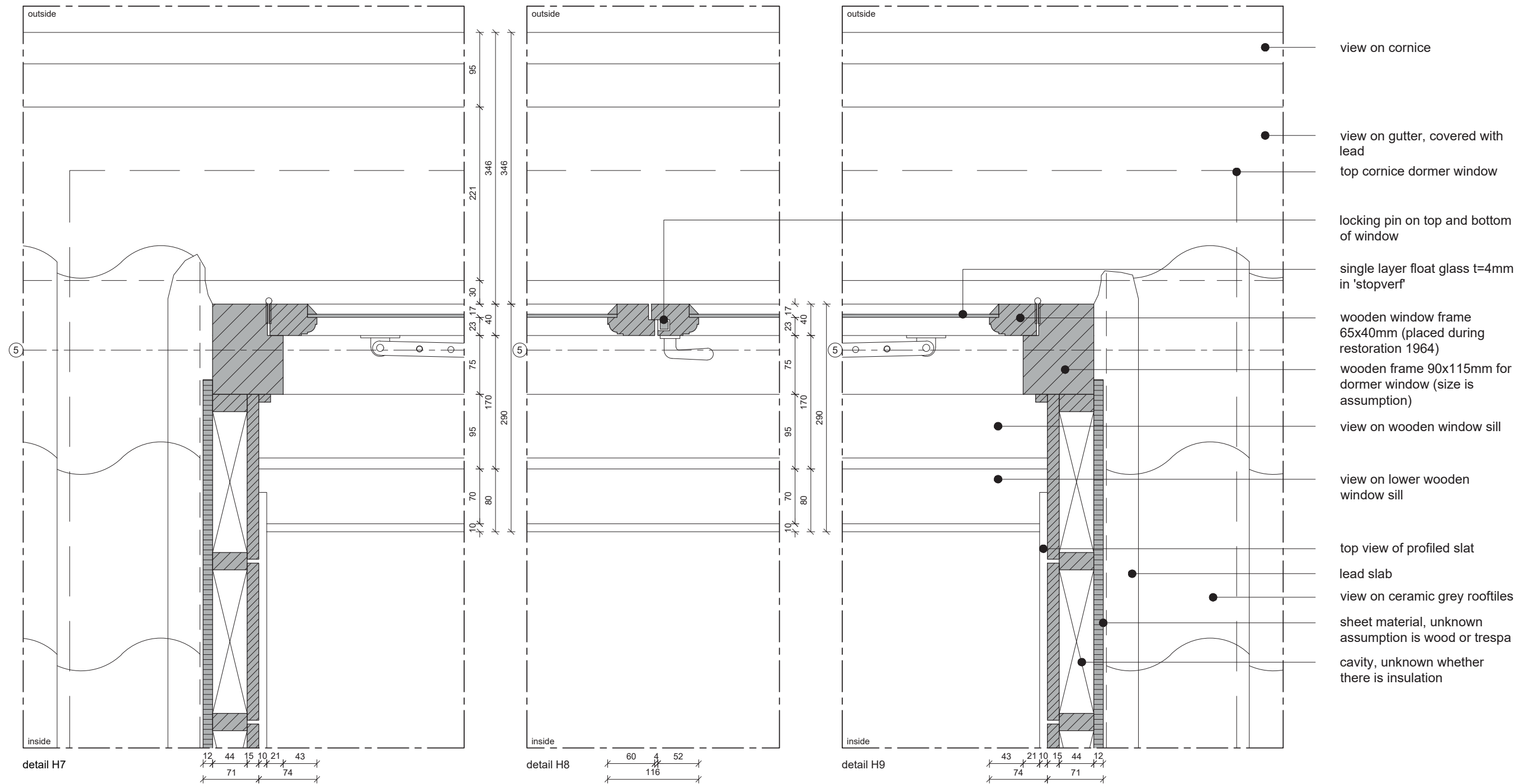
wooden dormer window frame 70x115mm

gutter covered with lead  
 wooden wall plate 80x120mm  
 painted wooden board

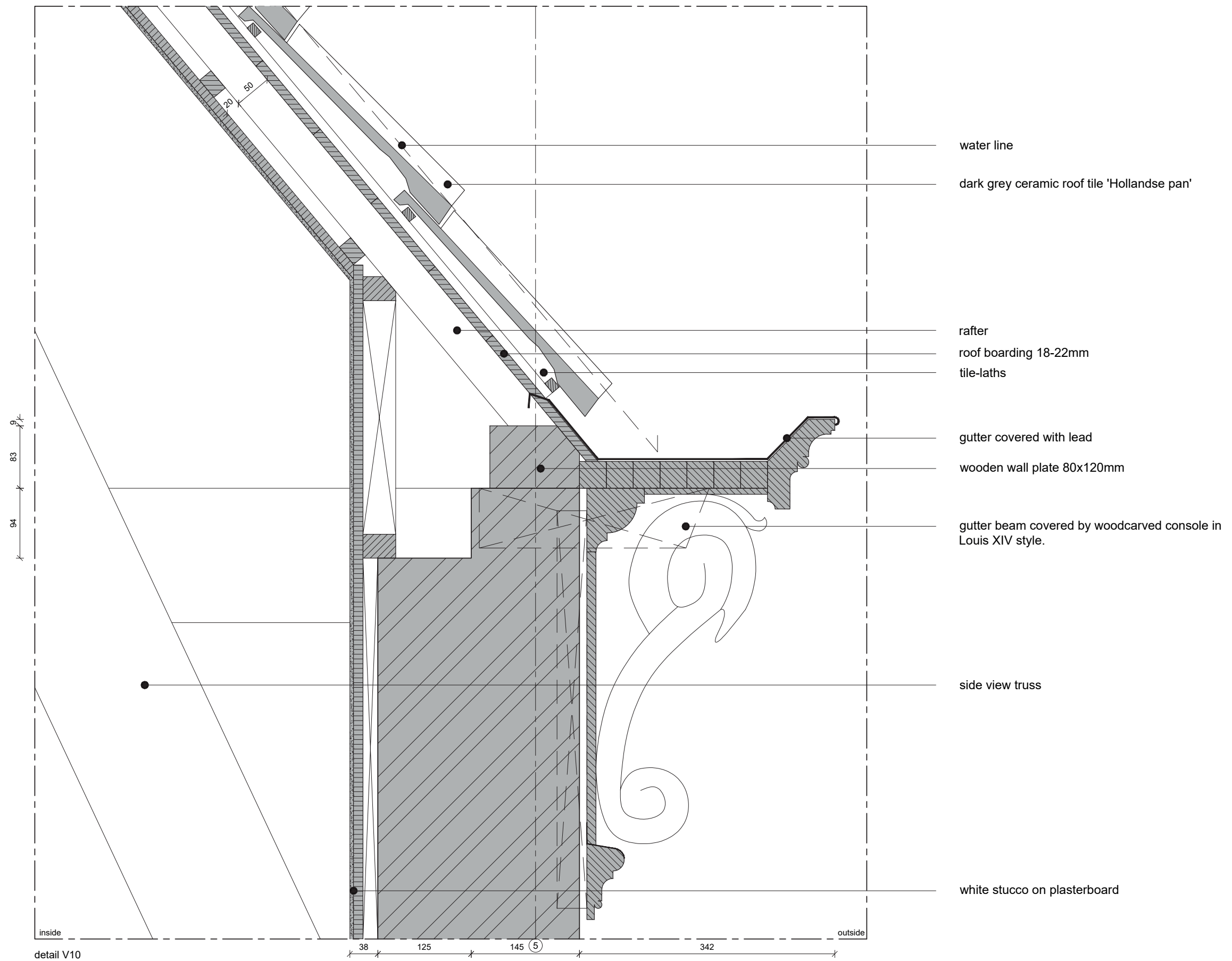
gutter beam covered by woodcarved console in  
 Louis XIV style.

slat

white stucco

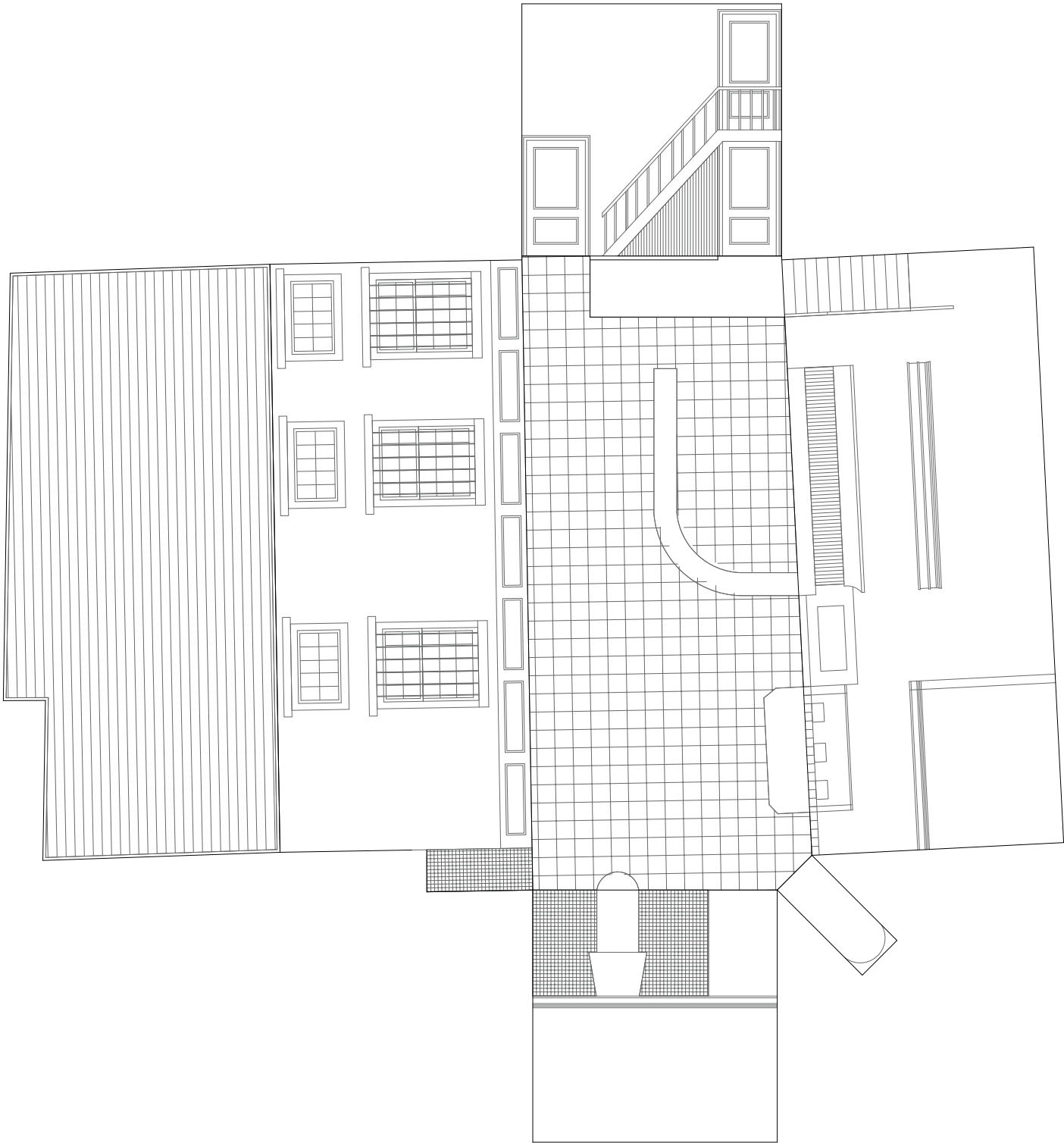
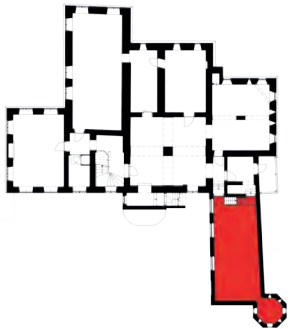






# 7 Room finishing

room -1.12 café



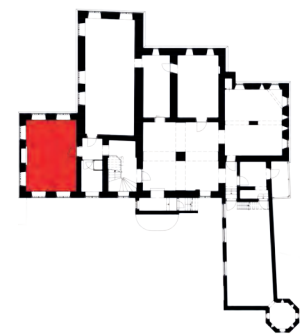




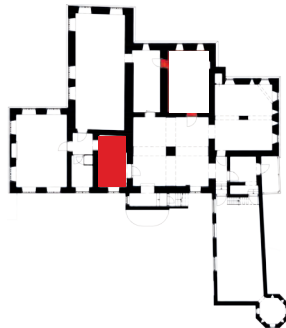


7 Room finishing

room -1.04 Drenthe Zaal



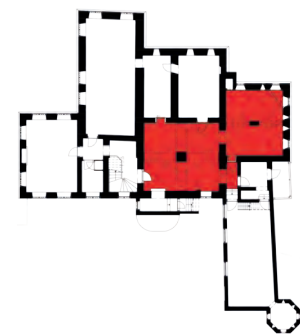




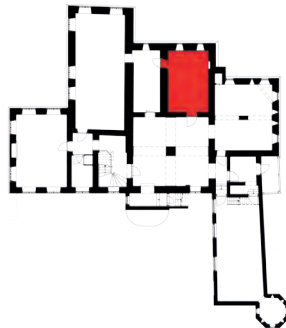


7 Room finishing

room -1.08 & -1.09 basement



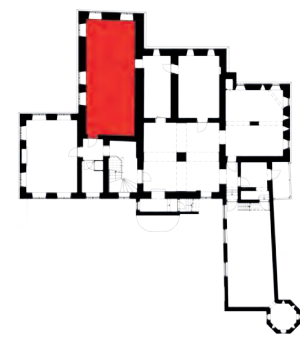




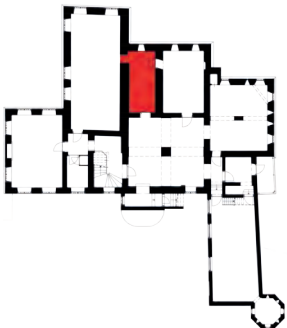


7 Room finishing

room -1.05 Kitchen

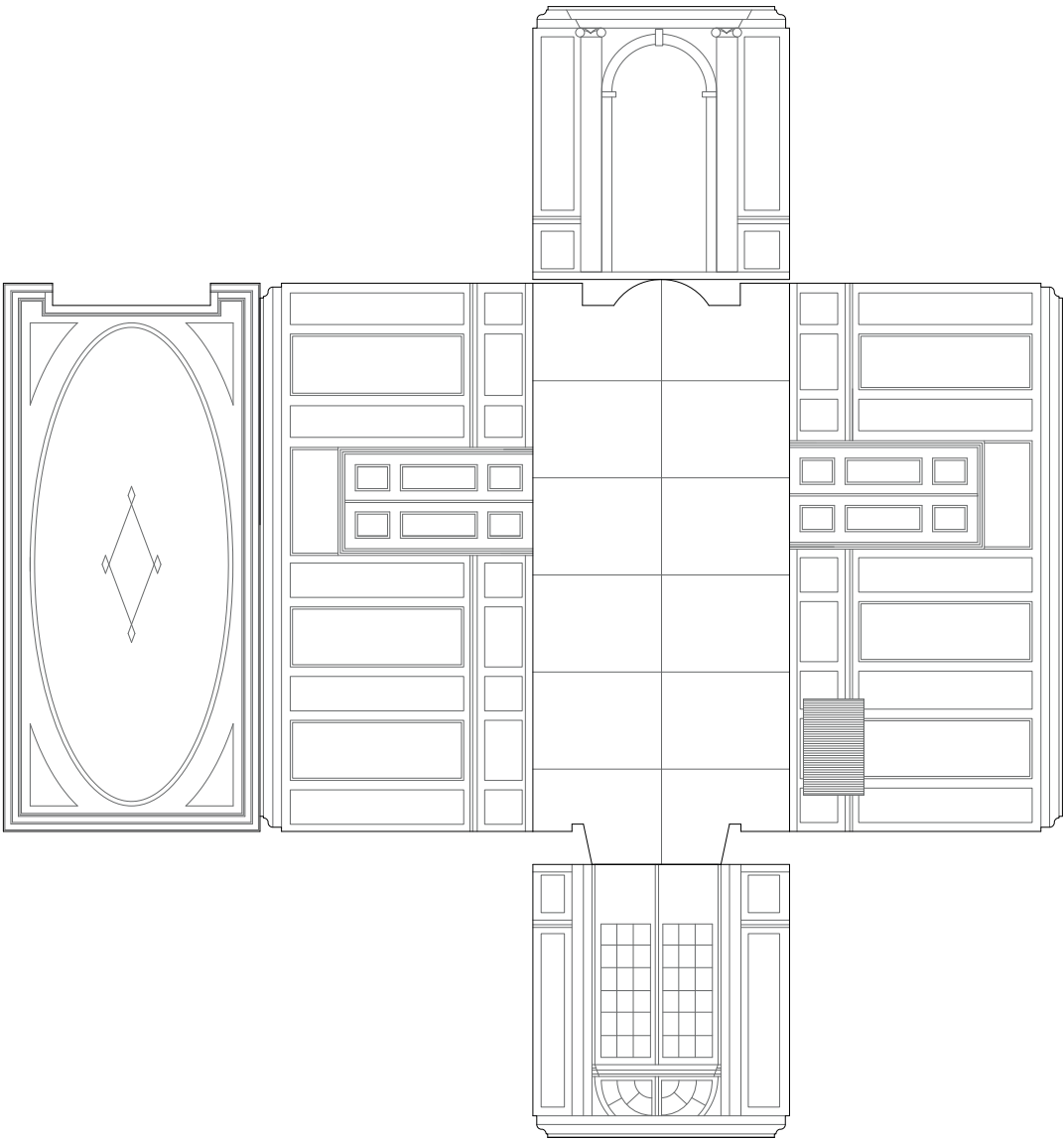
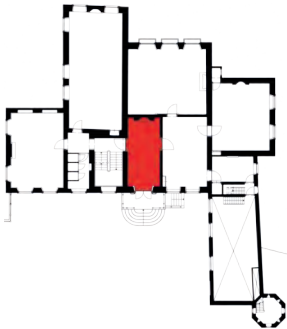






# 7 Room finishing

room 0.01 entrance

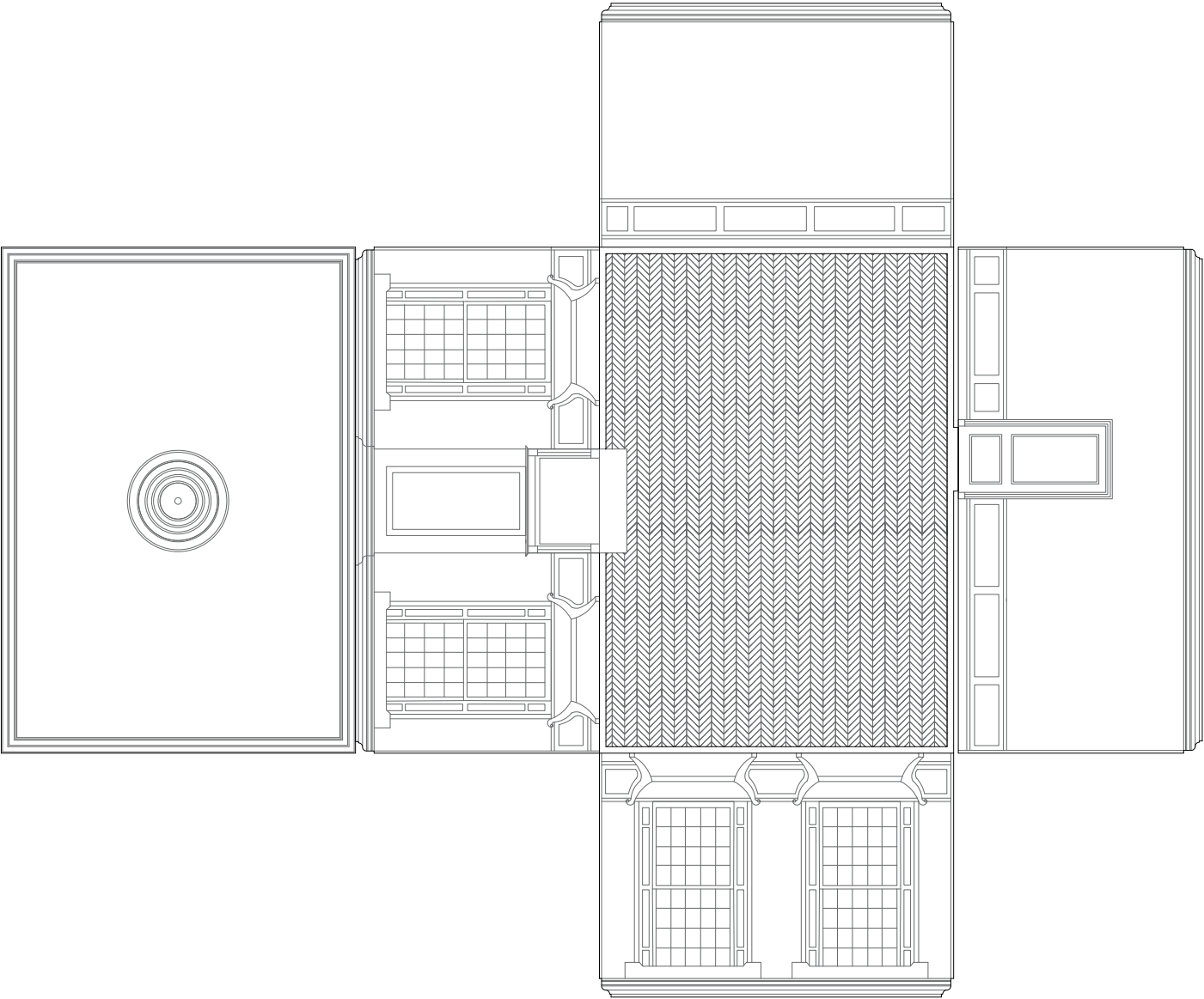
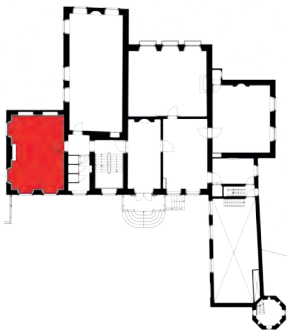






# 7 Room finishing

room 0.05 Koffiekamer



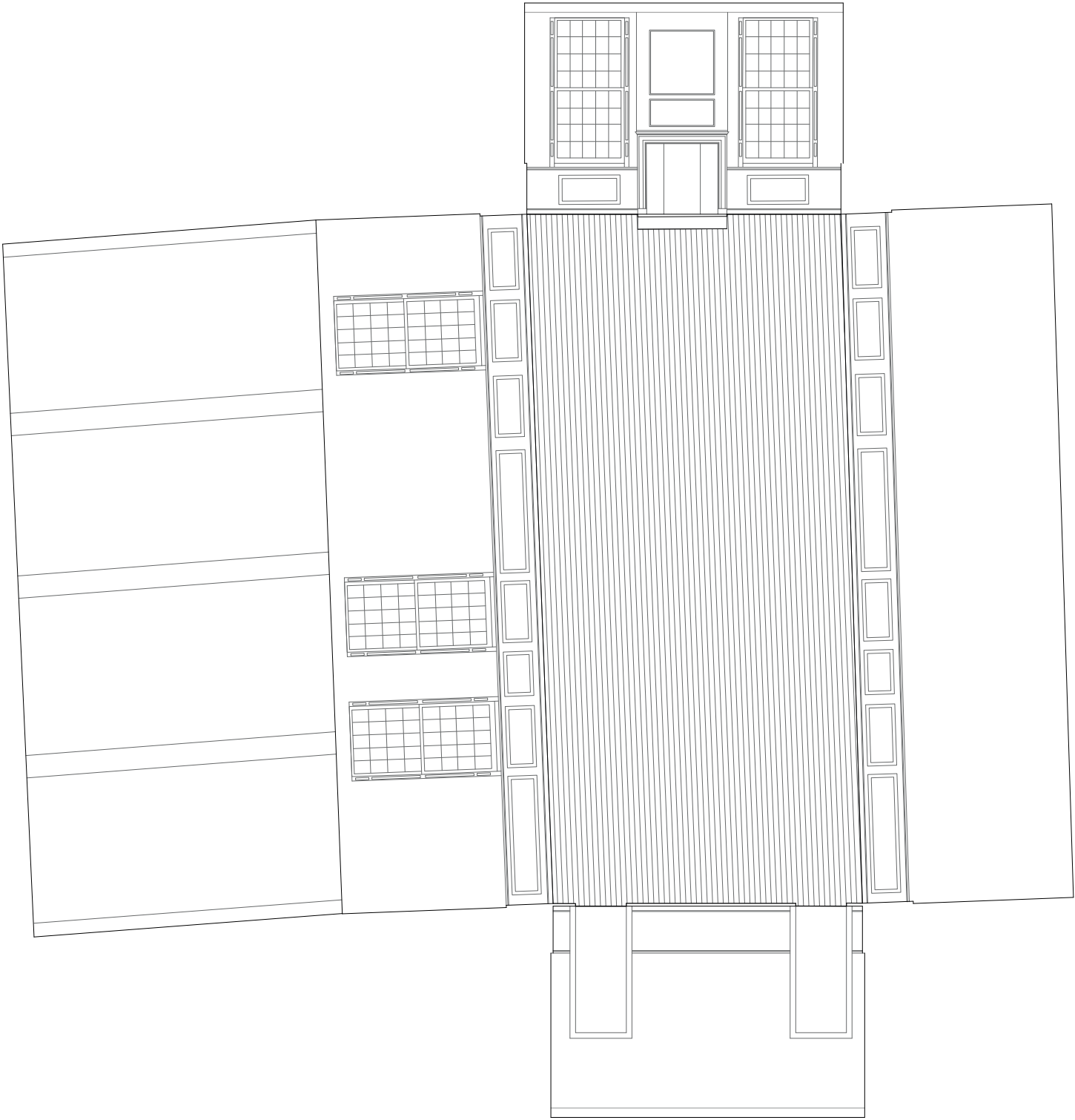
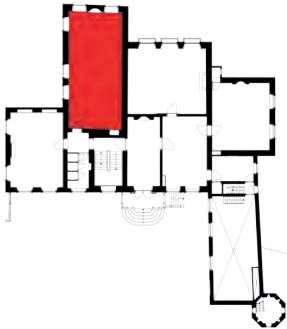






# 7 Room finishing

room 0.06 Haaglanden Zaal



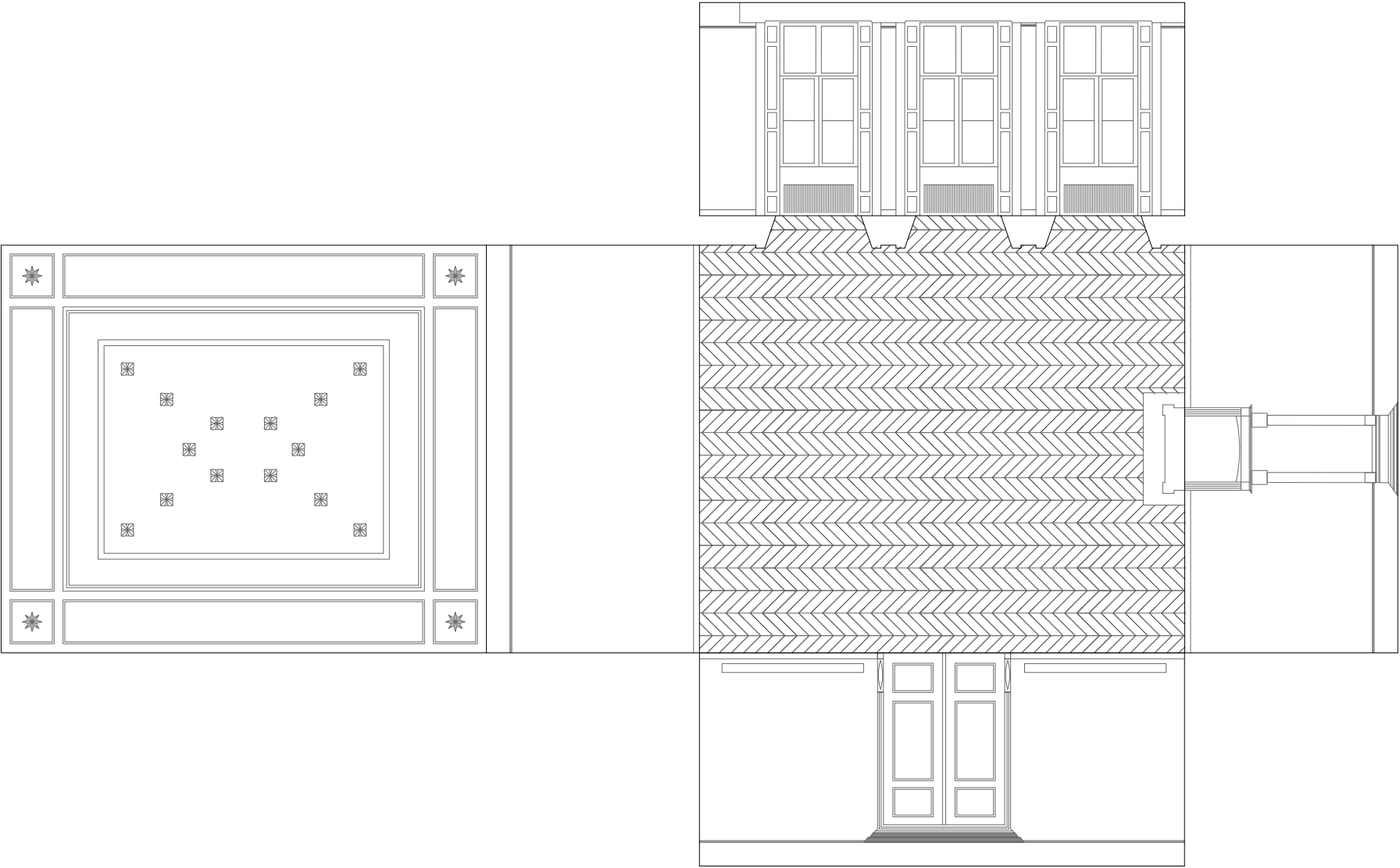






# 7 Room finishing

room 0.07 Amsterdam Zaal



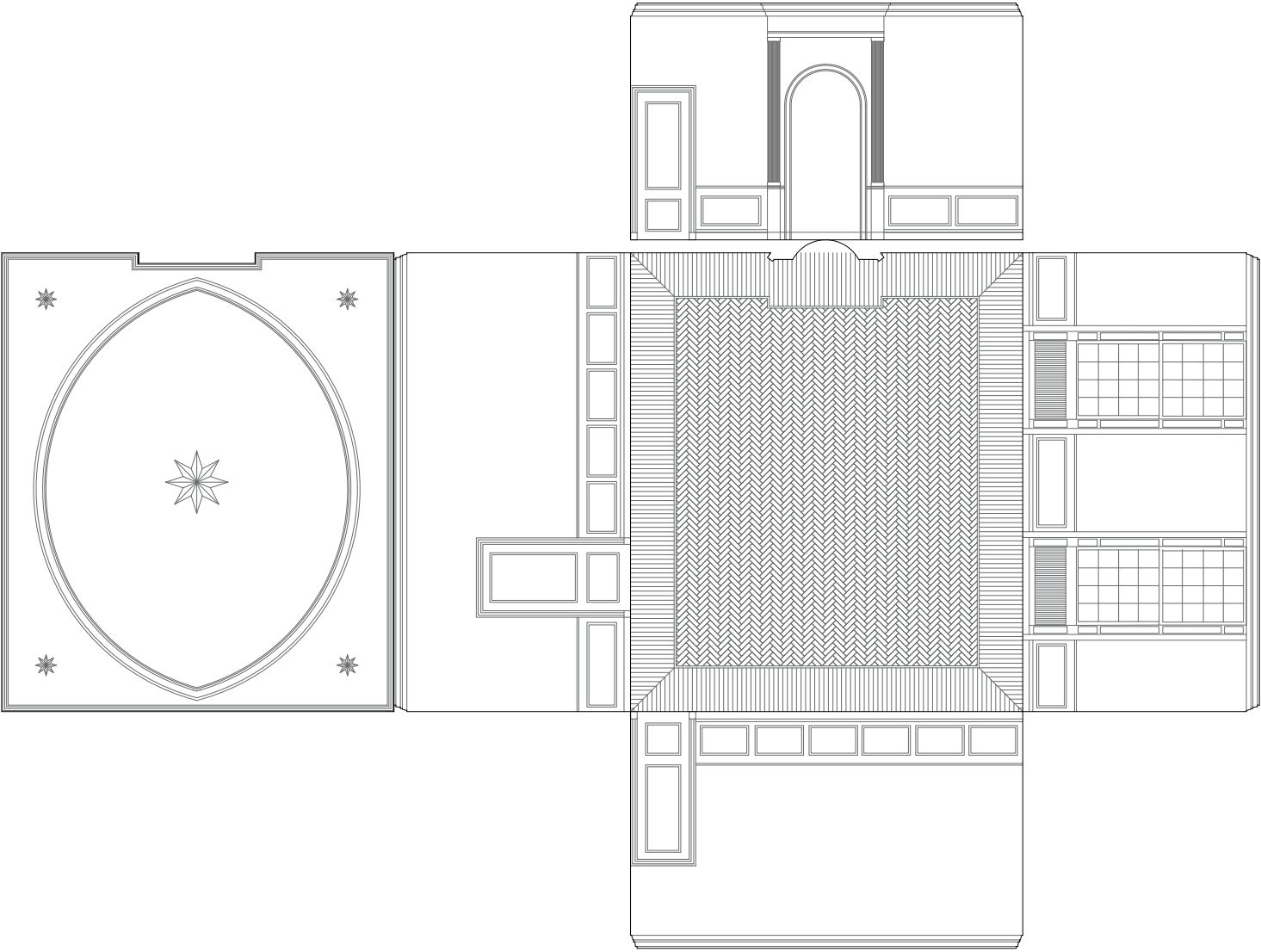






# 7 Room finishing

room 0.08 Bibliotheek/Heerenkamer



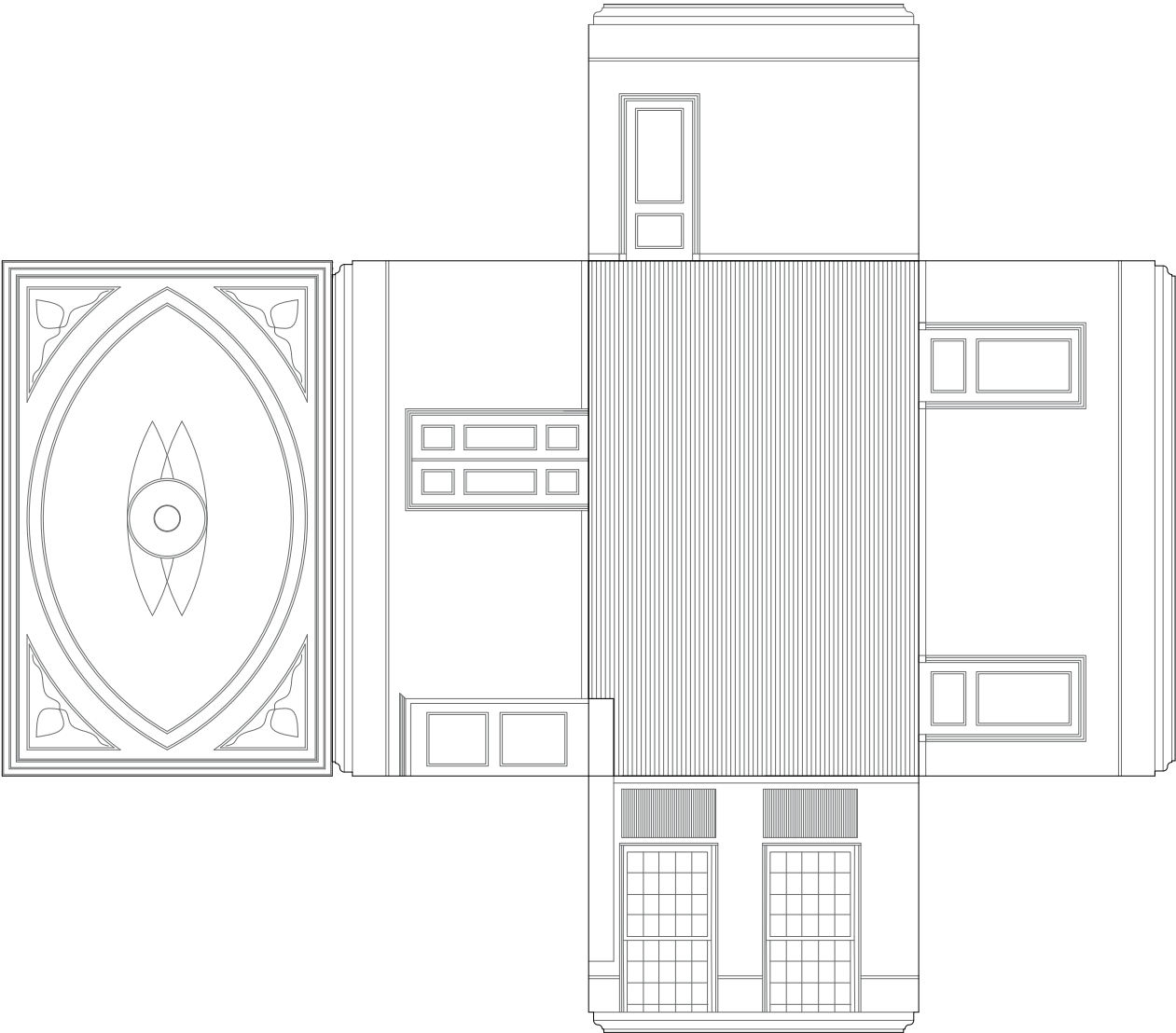






# 7 Room finishing

room 0.09 Reception



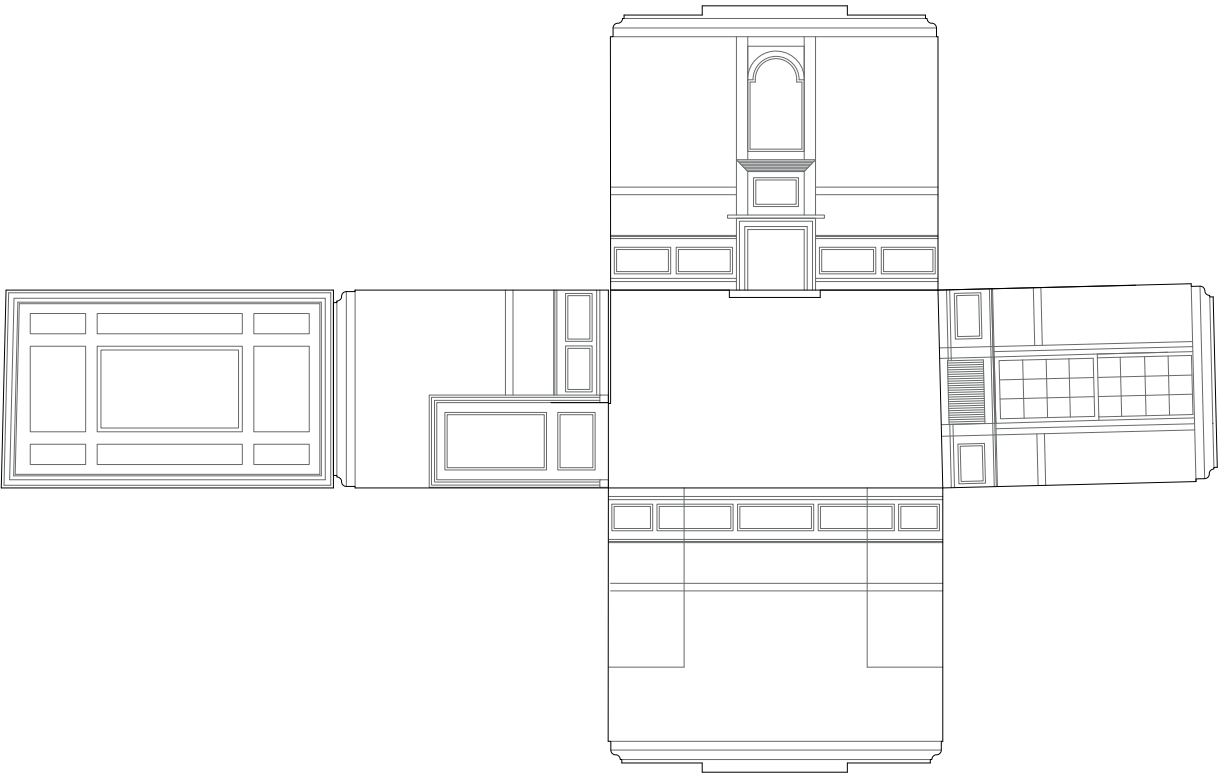
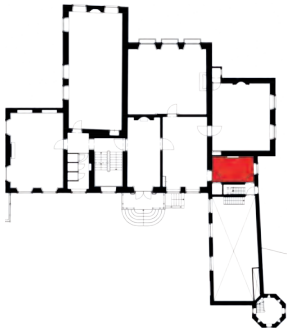






# 7 Room finishing

room 0.10 Garderobe (wardrobe)



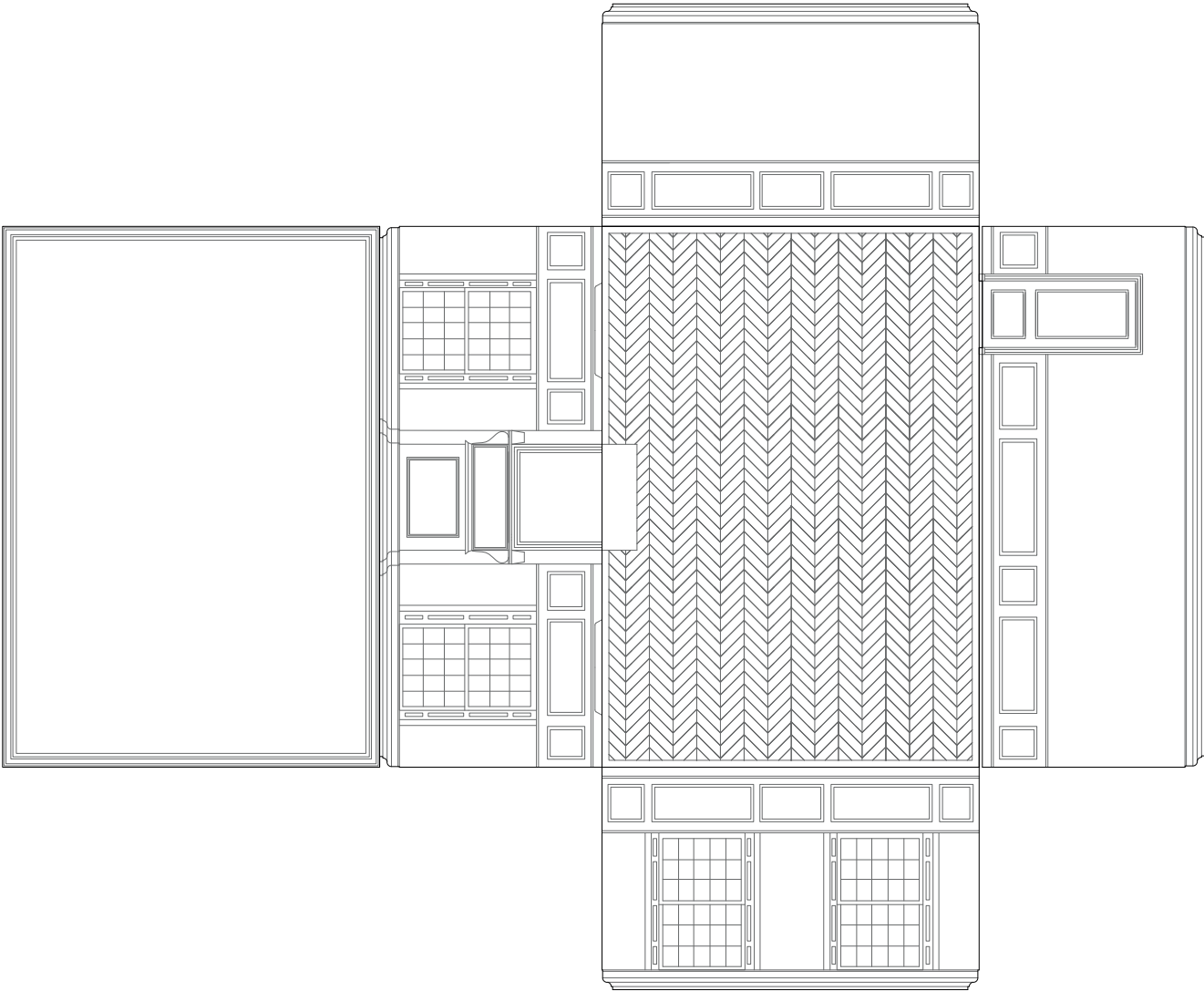
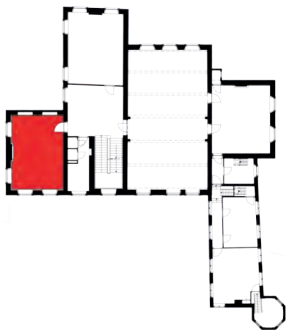




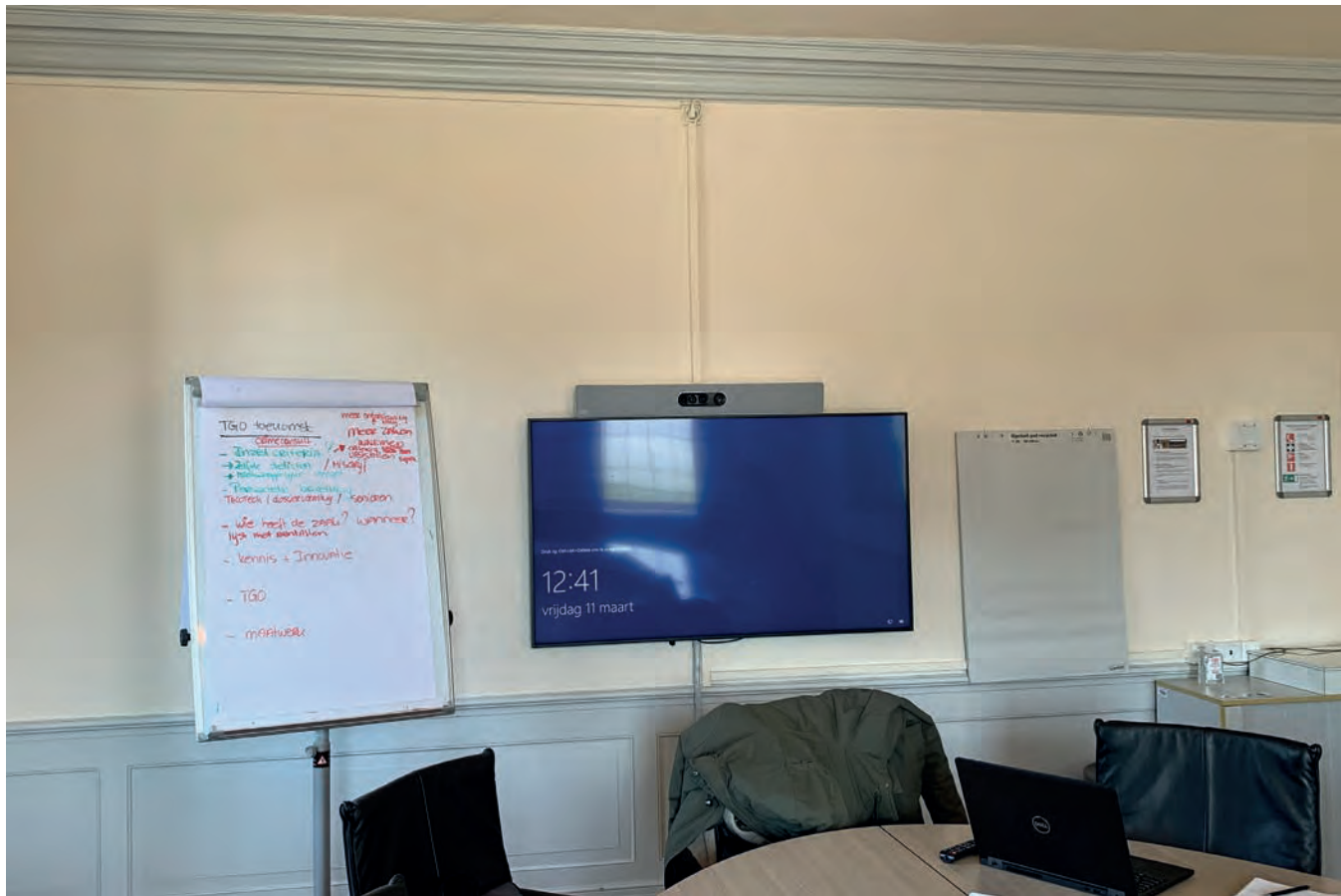


# 7 Room finishing

room 1.04 Noord-Oost Nederland Zaal



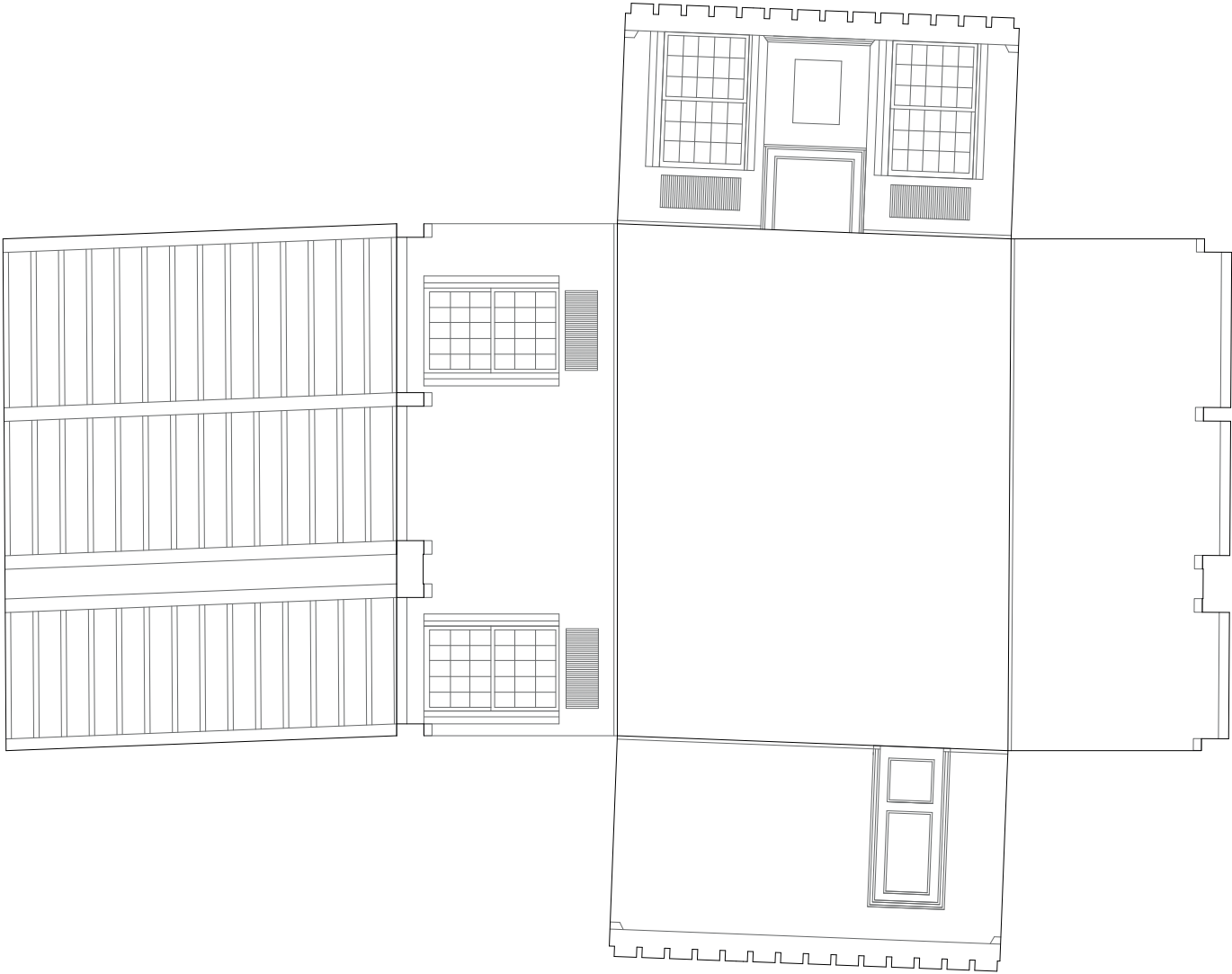
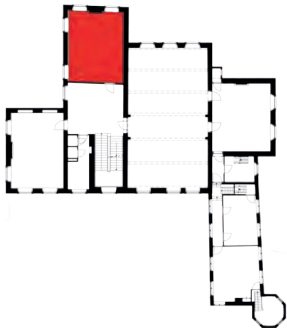






# 7 Room finishing

room 1.05 Rotterdam Rijnmond Zaal



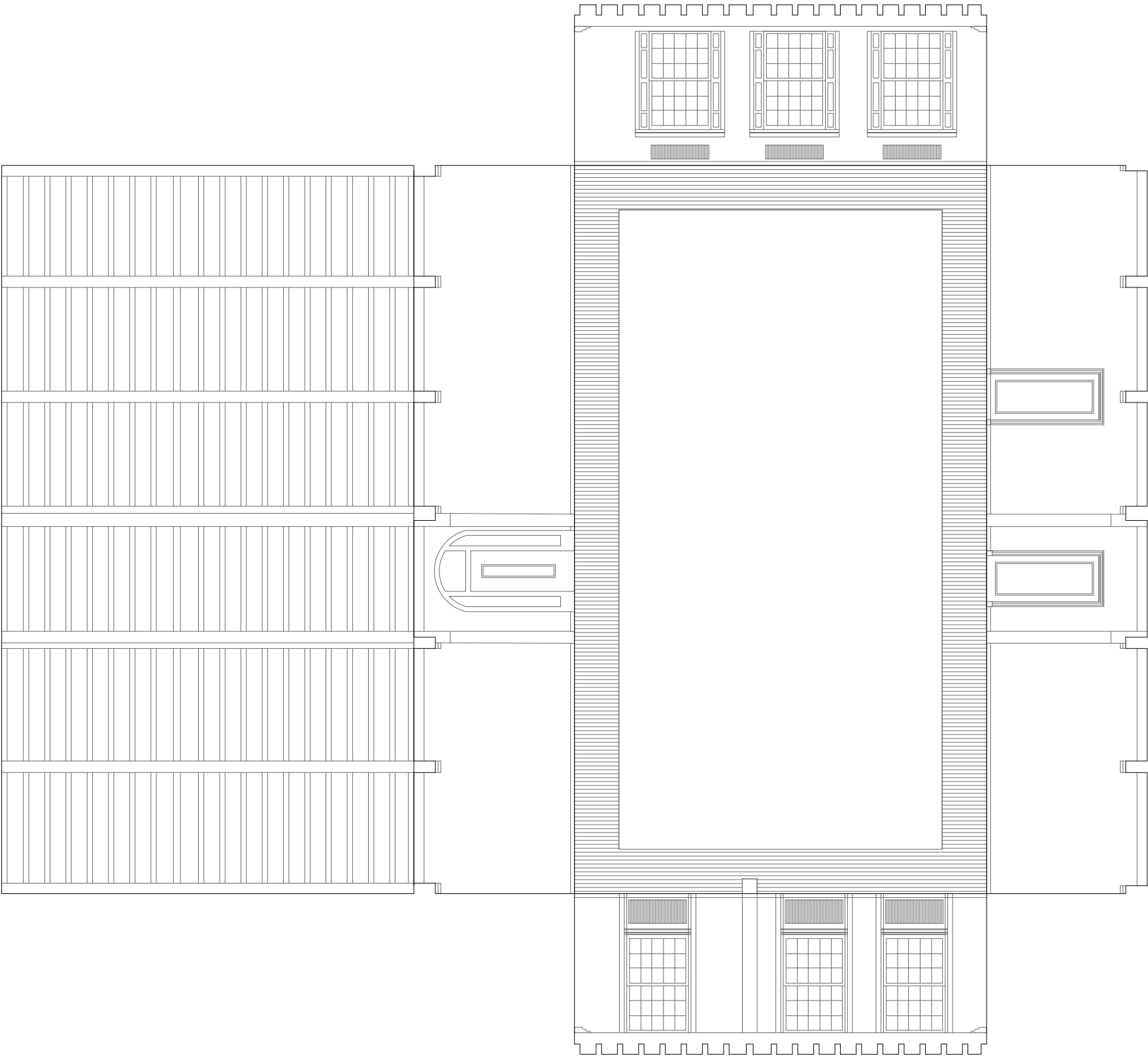
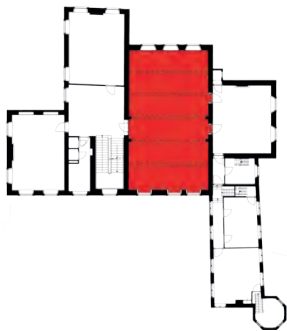






# 7 Room finishing

room 1.06 Grote Zaal



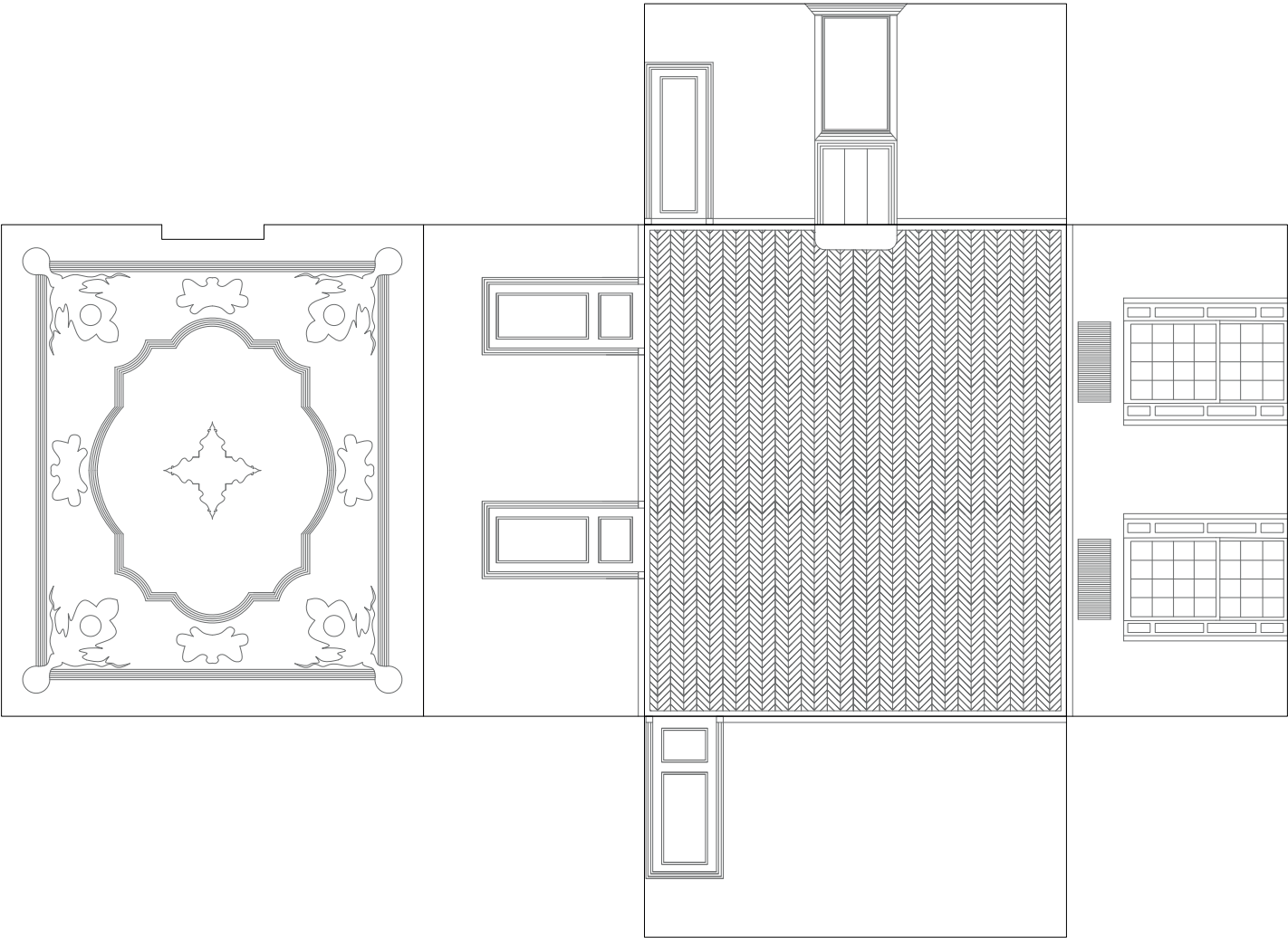
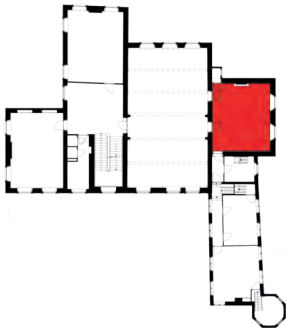






# 7 Room finishing

room 1.07 Rentmeesterskamer



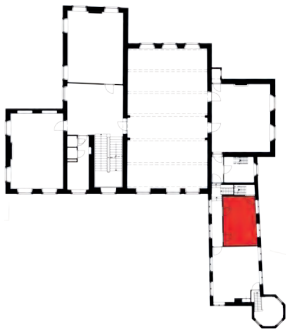






# 7 Room finishing

room 1.11 Office room



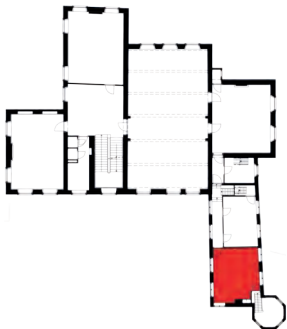






# 7 Room finishing

room 1.12 Office room



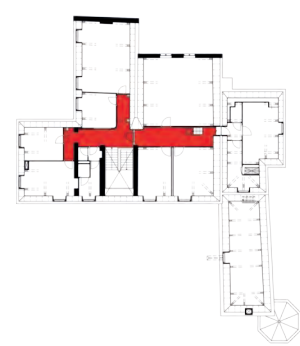






# 7 Room finishing

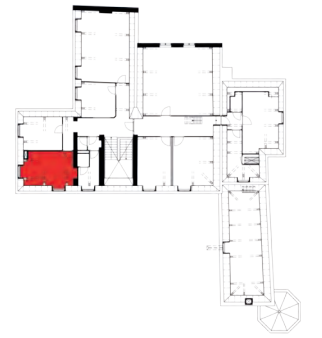
room 2.01 & 2.09 Hallway





## 7 Room finishing

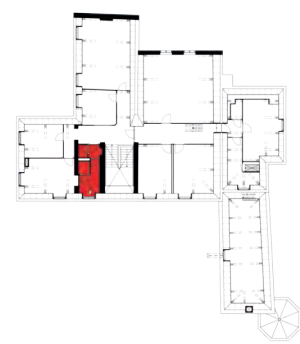
room 2.04 Office



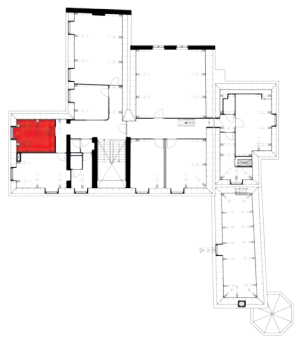


# 7 Room finishing

room 2.03 Toilets



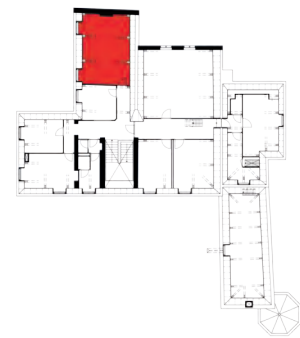




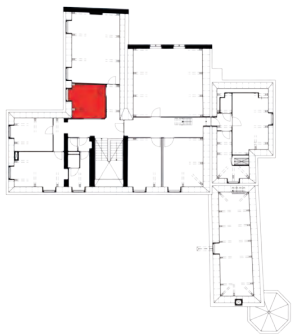


# 7 Room finishing

room 2.07 Office



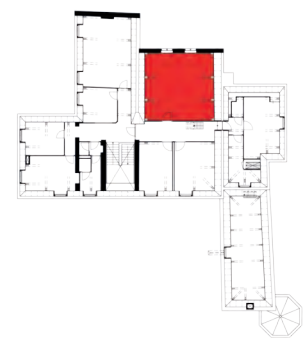




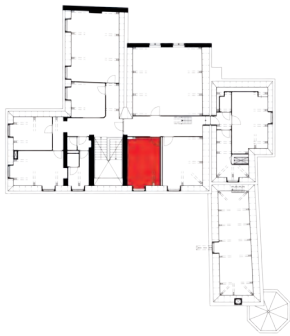


7 Room finishing

aroom 2.08 Office



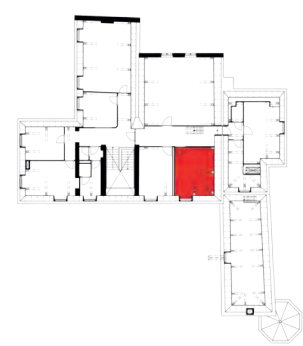




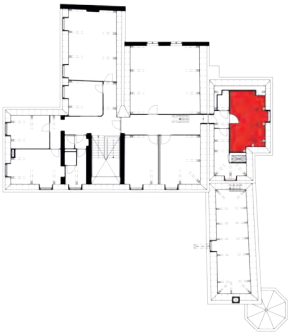


7 Room finishing

room 2.11 Office



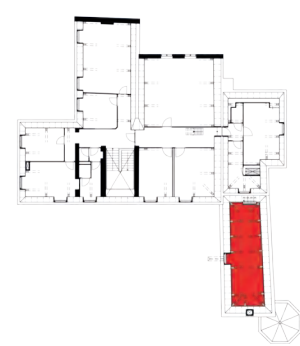






# 7 Room finishing

Attic side wing





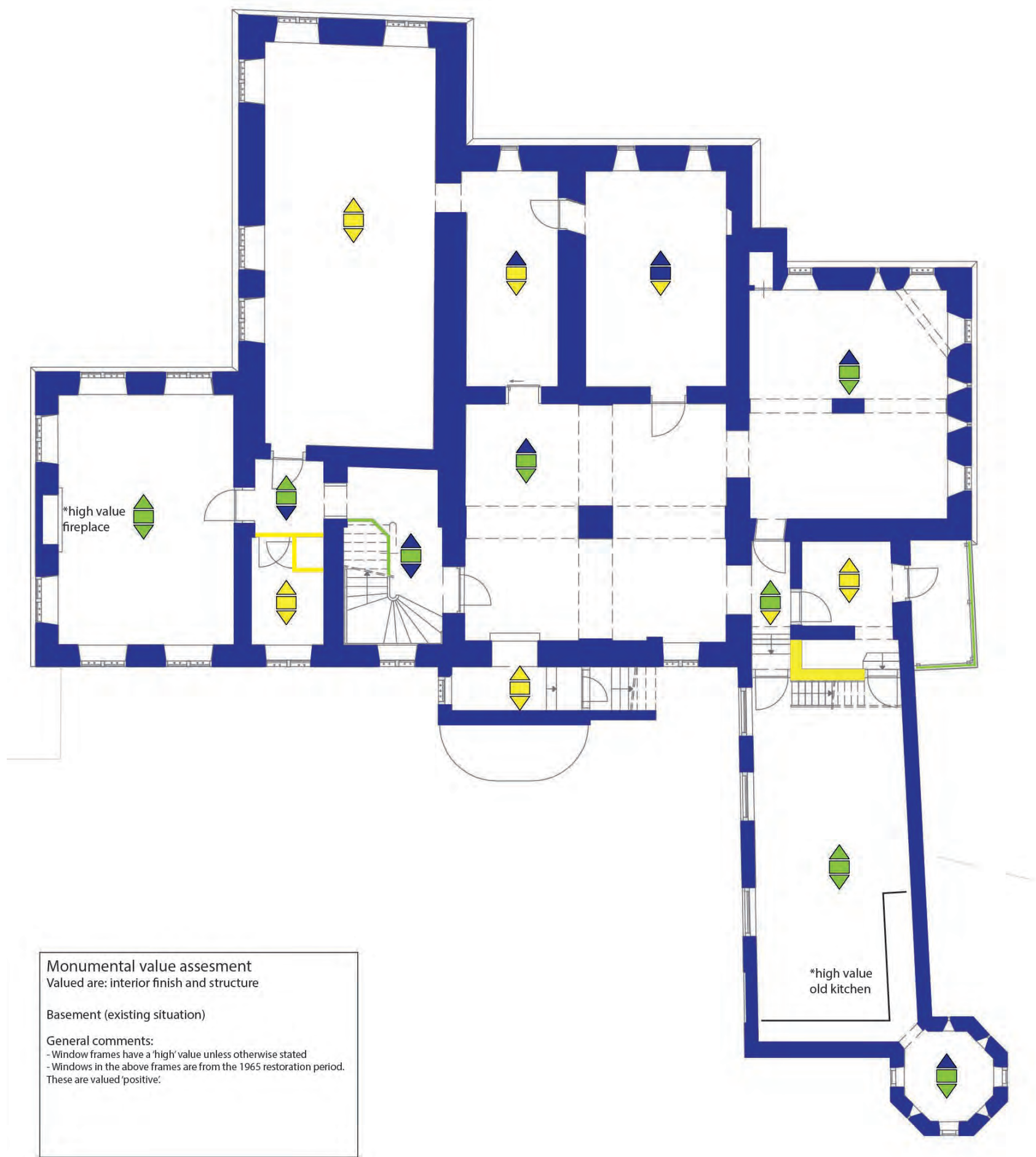
## 7 Room finishing

Attic main building (vliering)

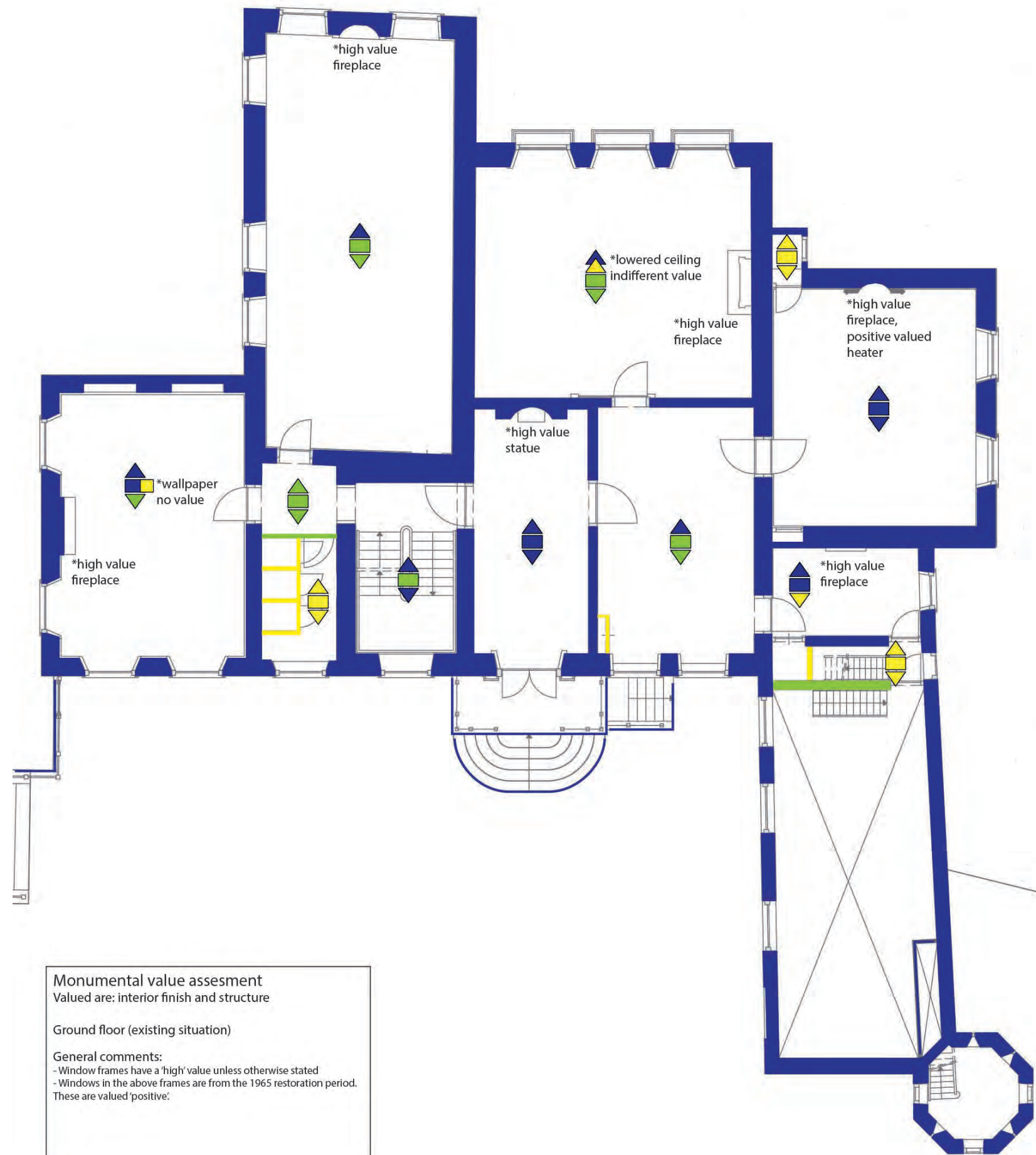




# 8 Value assesment





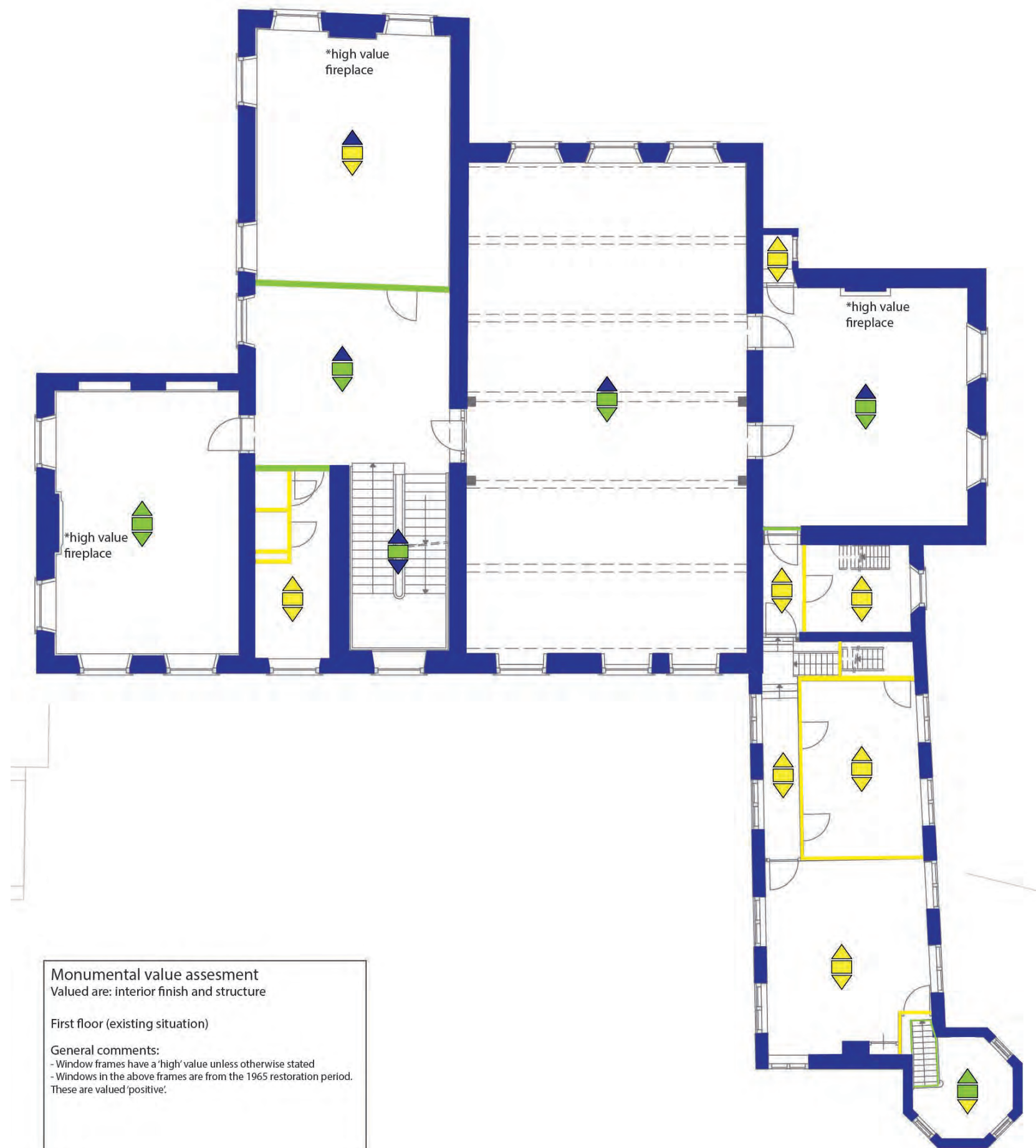


**Monumental value assesment**  
 Valued are: interior finish and structure

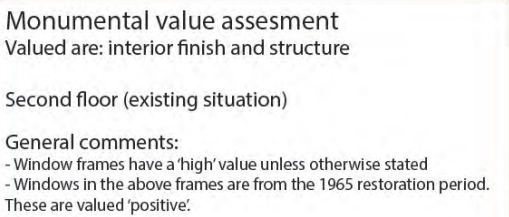
Ground floor (existing situation)

General comments:  
 - Window frames have a 'high' value unless otherwise stated  
 - Windows in the above frames are from the 1965 restoration period.  
 These are valued 'positive'.













#### Monumental value assesment

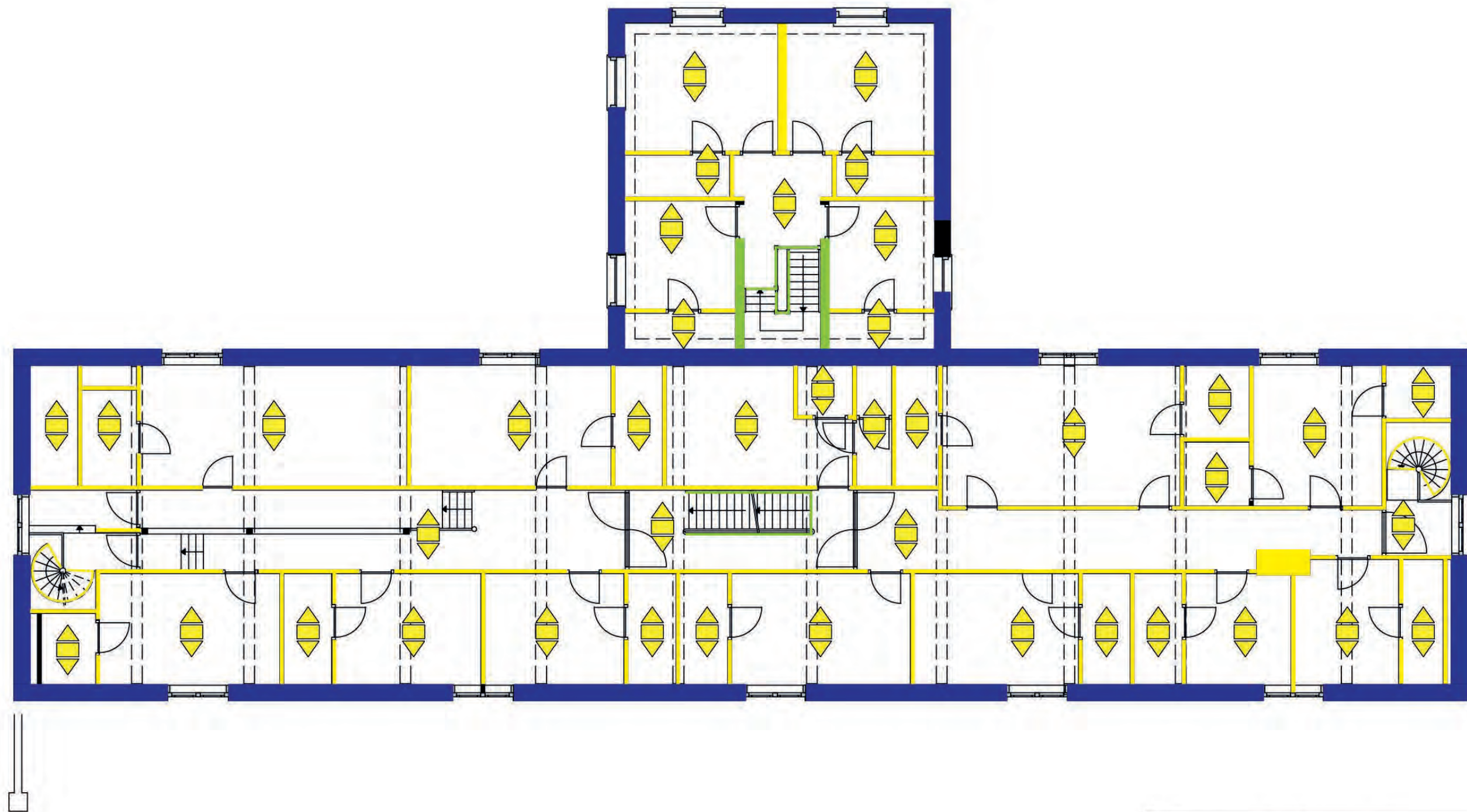
Valued are: interior finish and structure

Carriage building ground floor (existing situation)

#### General comments:

- Window frames have a 'high' value unless otherwise stated
- Windows in the above frames are from the 1965 restoration period. These are valued 'positive'.
- The interior is completely renovated during the redesign for a hotel user function. There are no monumental parts left.
- Wooden column and truss construction presumably part of old structure.





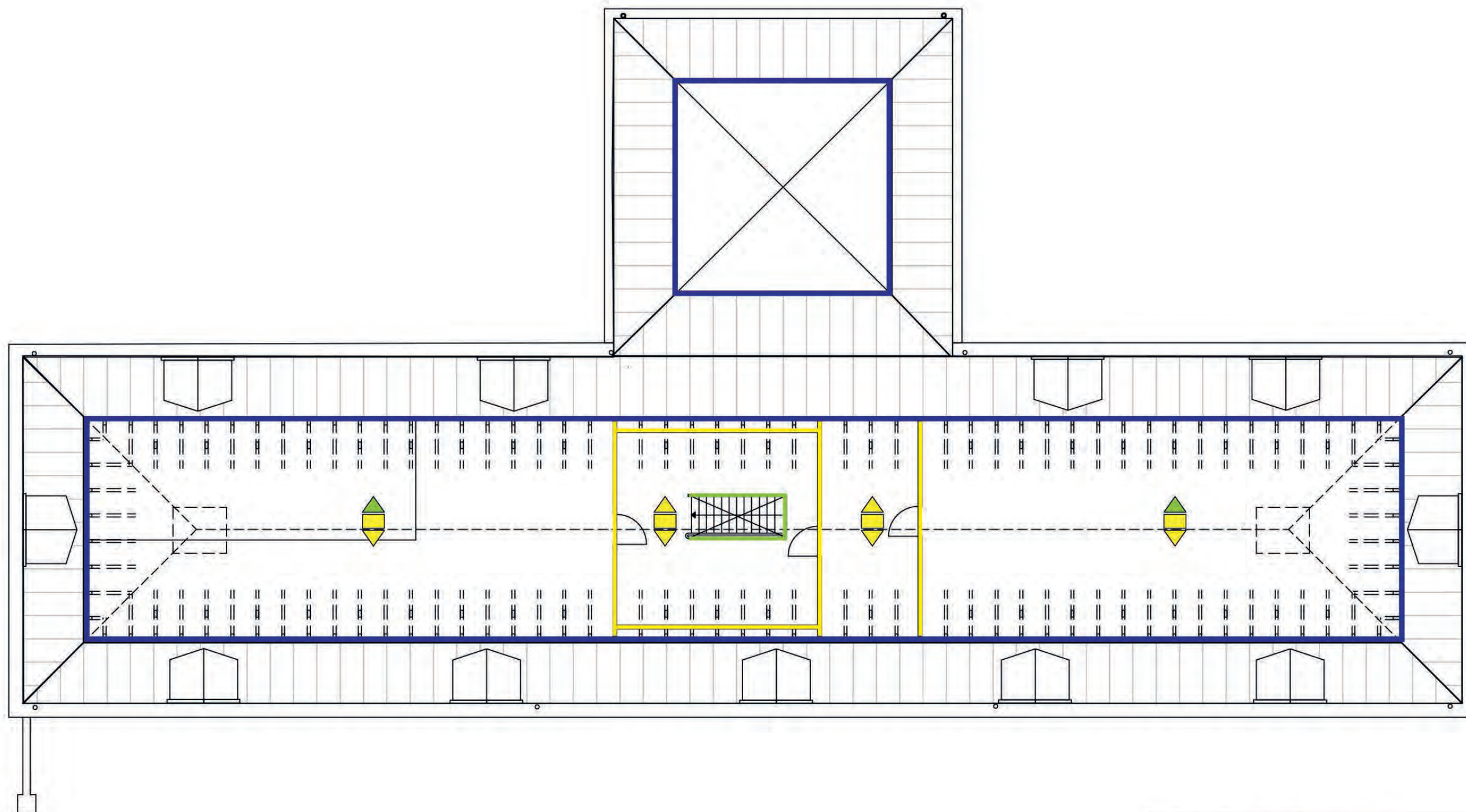
**Monumental value assesment**  
 Valued are: interior finish and structure

Carriage building first floor (existing situation)

General comments:

- Window frames have a 'high' value unless otherwise stated
- Windows in the above frames are from the 1965 restoration period. These are valued 'positive'.
- The interior is completely renovated during the redesign for a hotel user function. There are no monumental parts left.
- Wooden column and truss construction presumably part of old structure.





### Monumental value assesment

Valued are: interior finish and structure

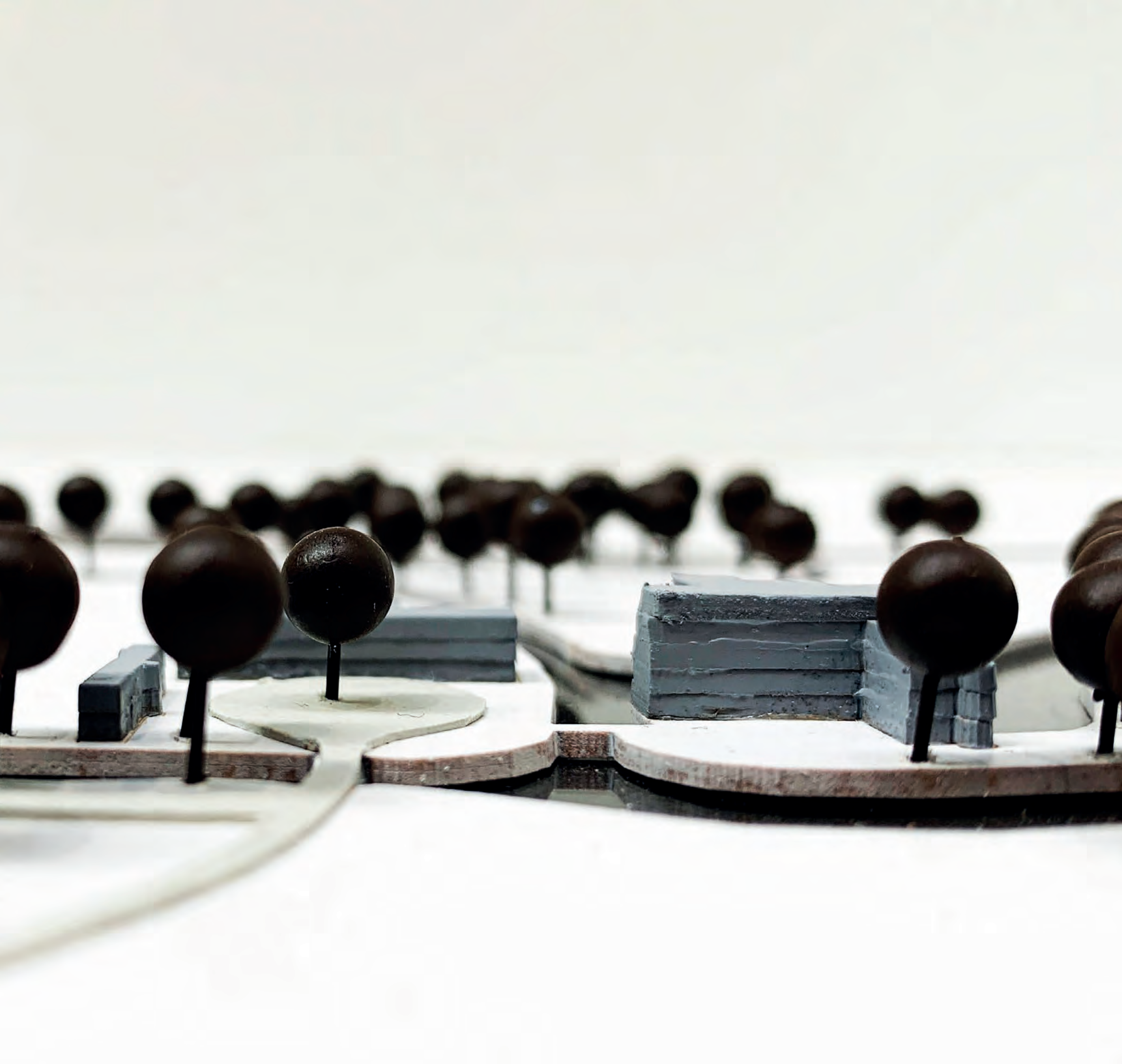
#### Carriage building attic (existing situation)

##### General comments:

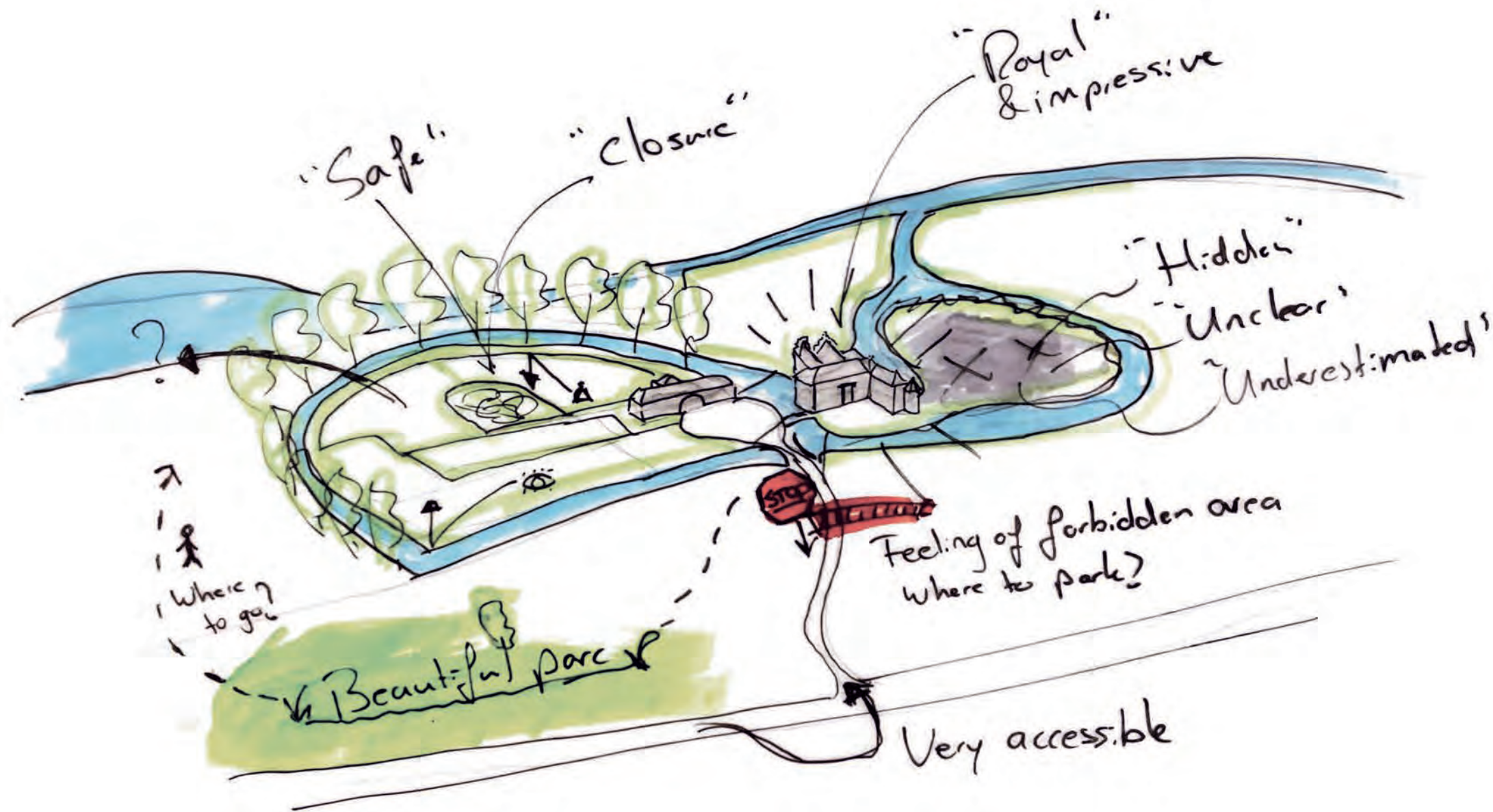
- Window frames have a 'high' value unless otherwise stated
- Windows in the above frames are from the 1965 restoration period. These are valued 'positive'.
- The interior is completely renovated during the redesign for a hotel user function. There are no monumental parts left.
- Wooden column and truss construction presumably part of old structure.



## 9 Additional estate analysis

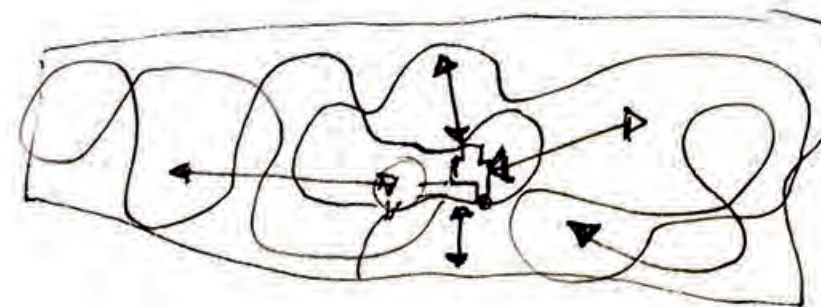






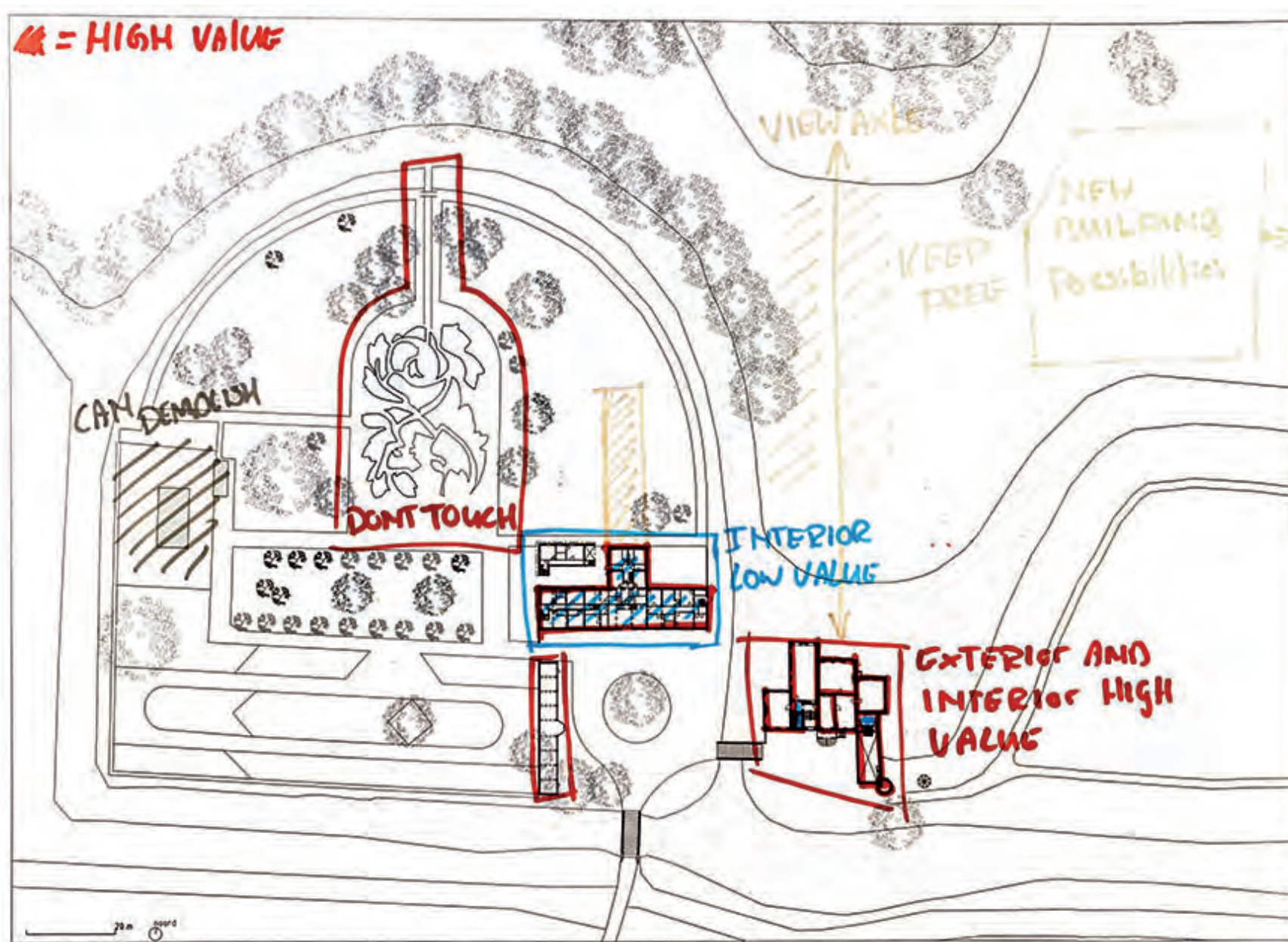
Emotional mapping after first visit, September 2021.

### 3. Garden

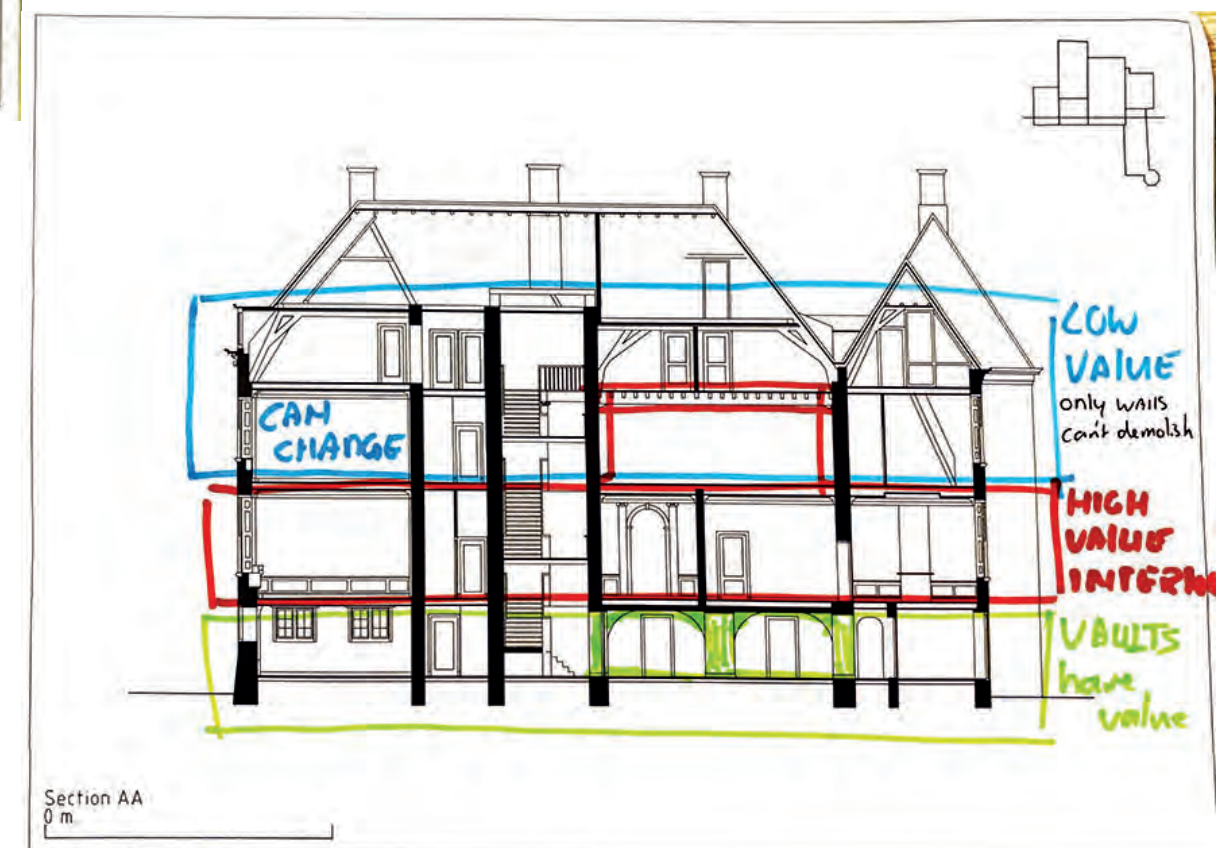


Routing > stroll through garden



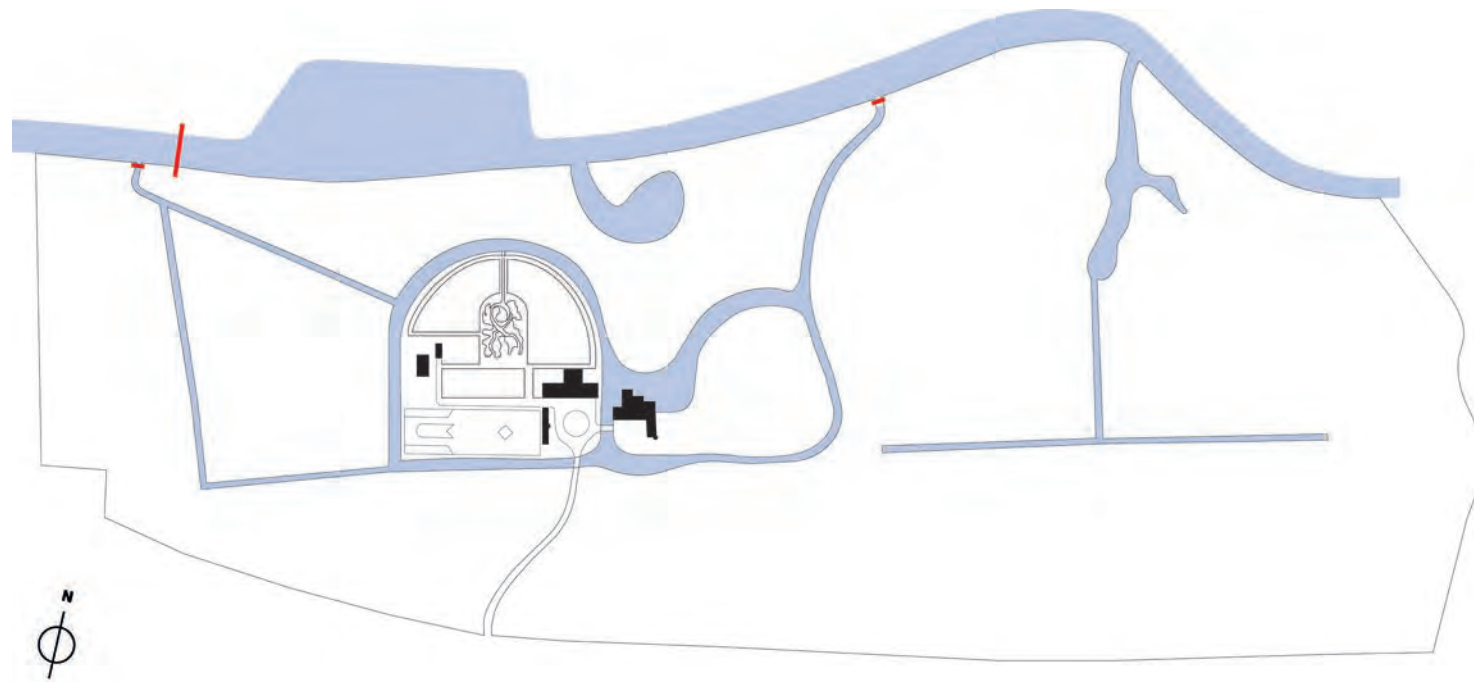


First value assesment draft



First value assesment draft

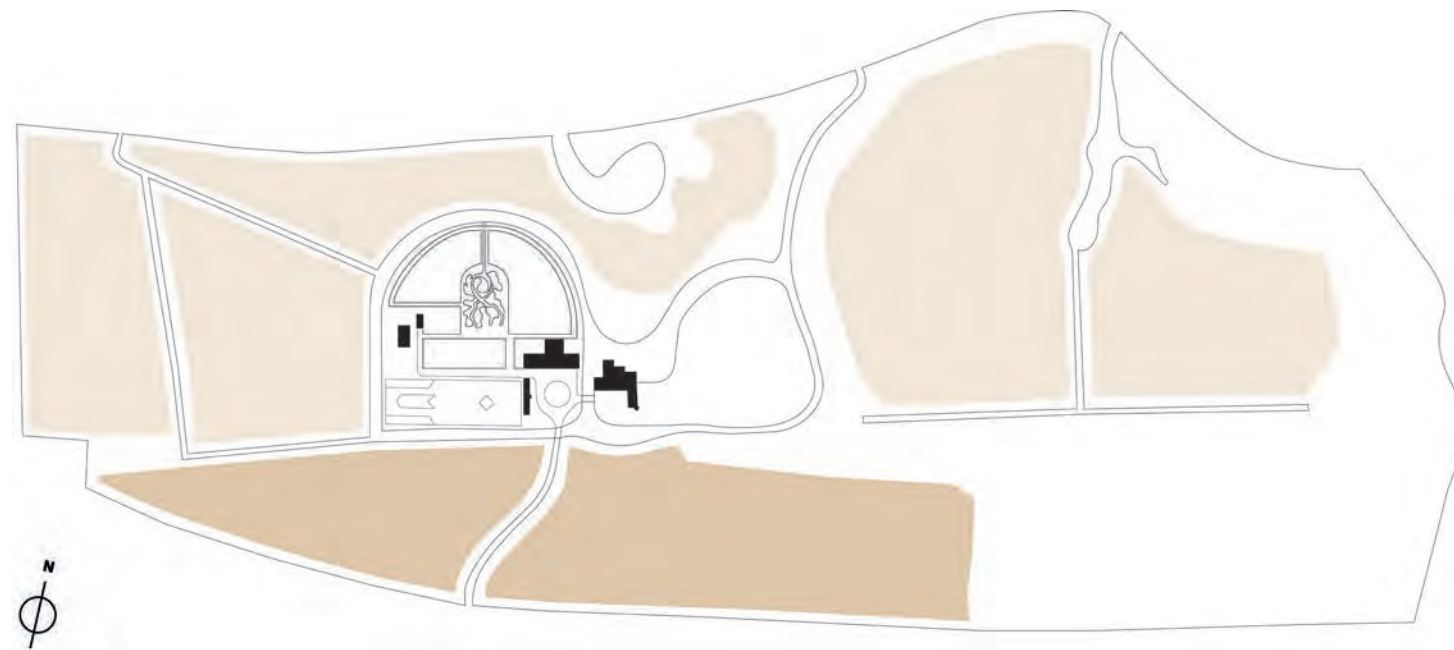




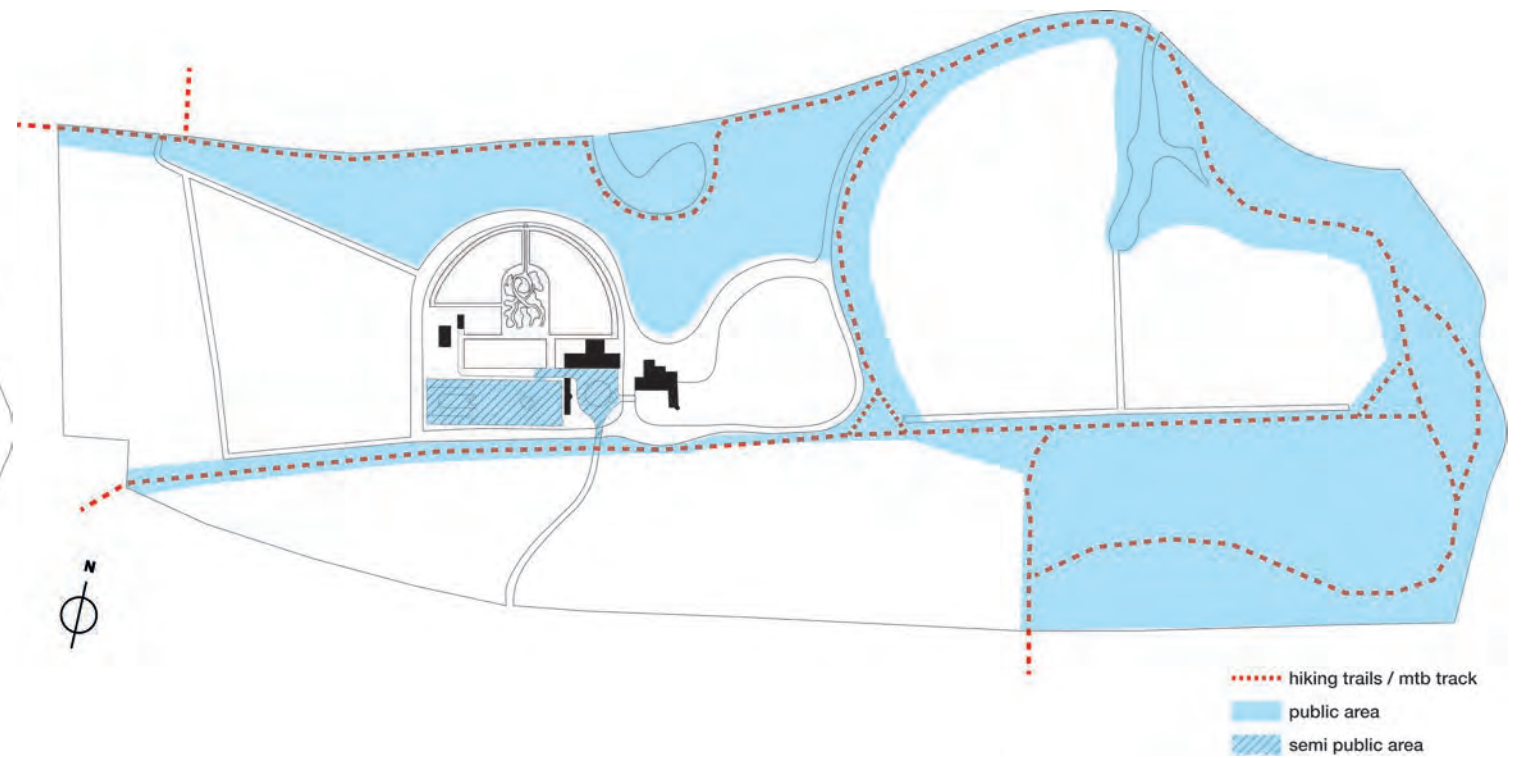
Water on the estate.



Greenery on the estate.

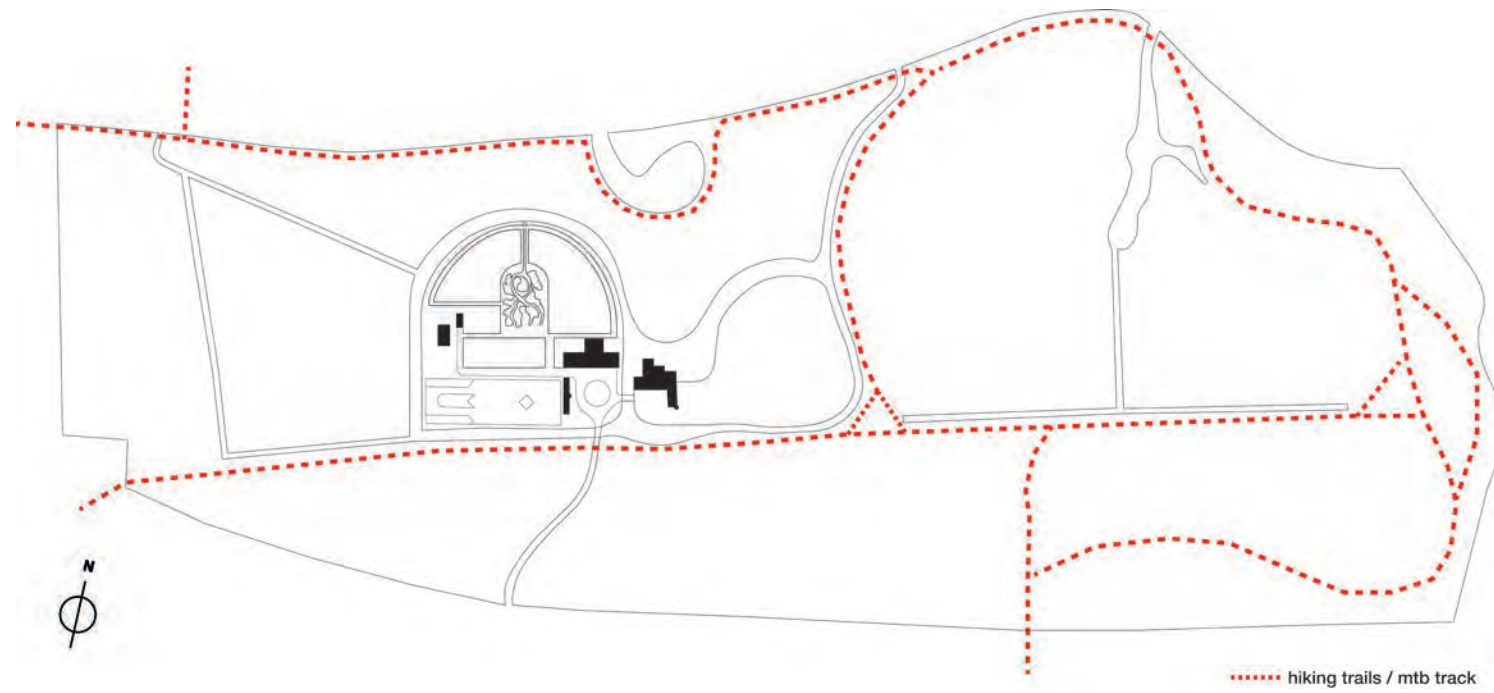


Meadows on the estate. Dark brown in farmer's use.

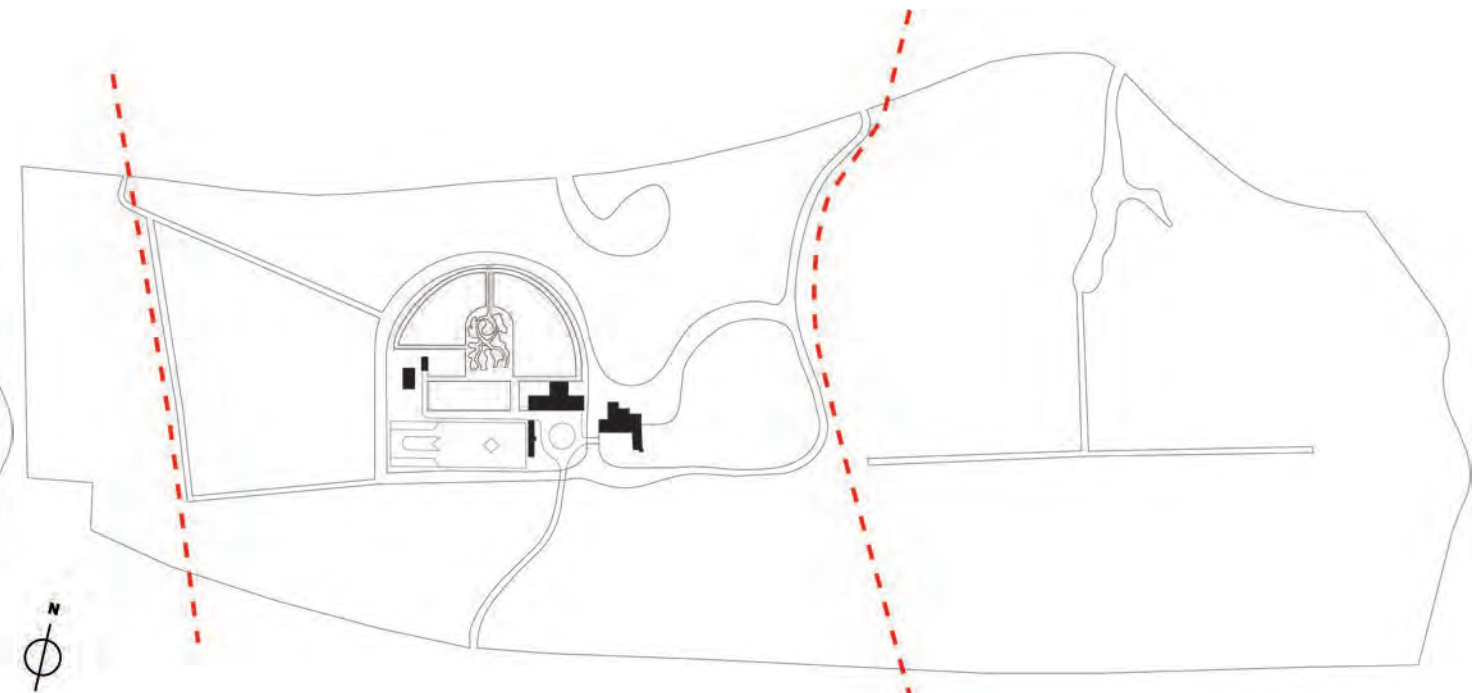


Public area





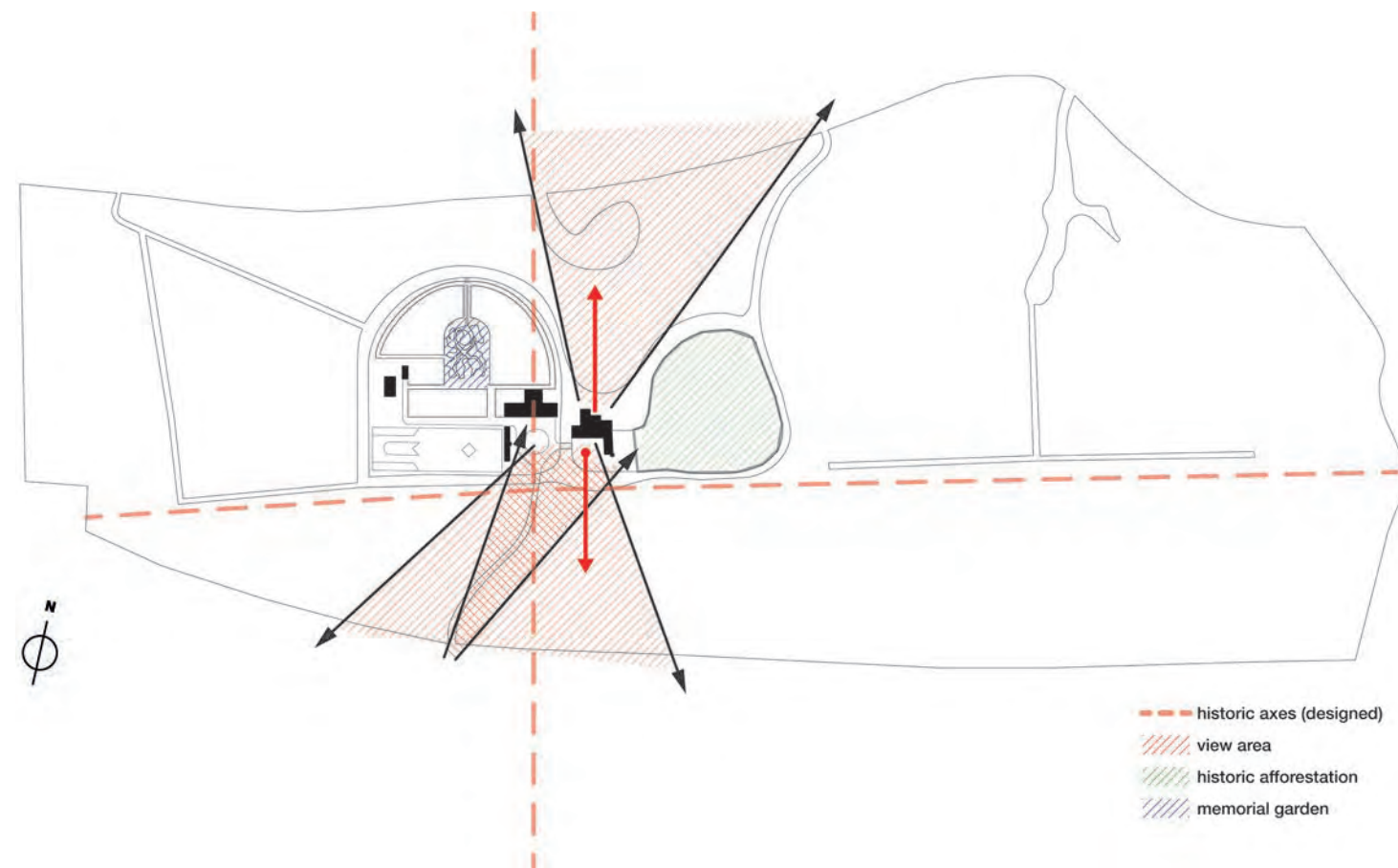
..... hiking trails / mtb track



- - - limitation

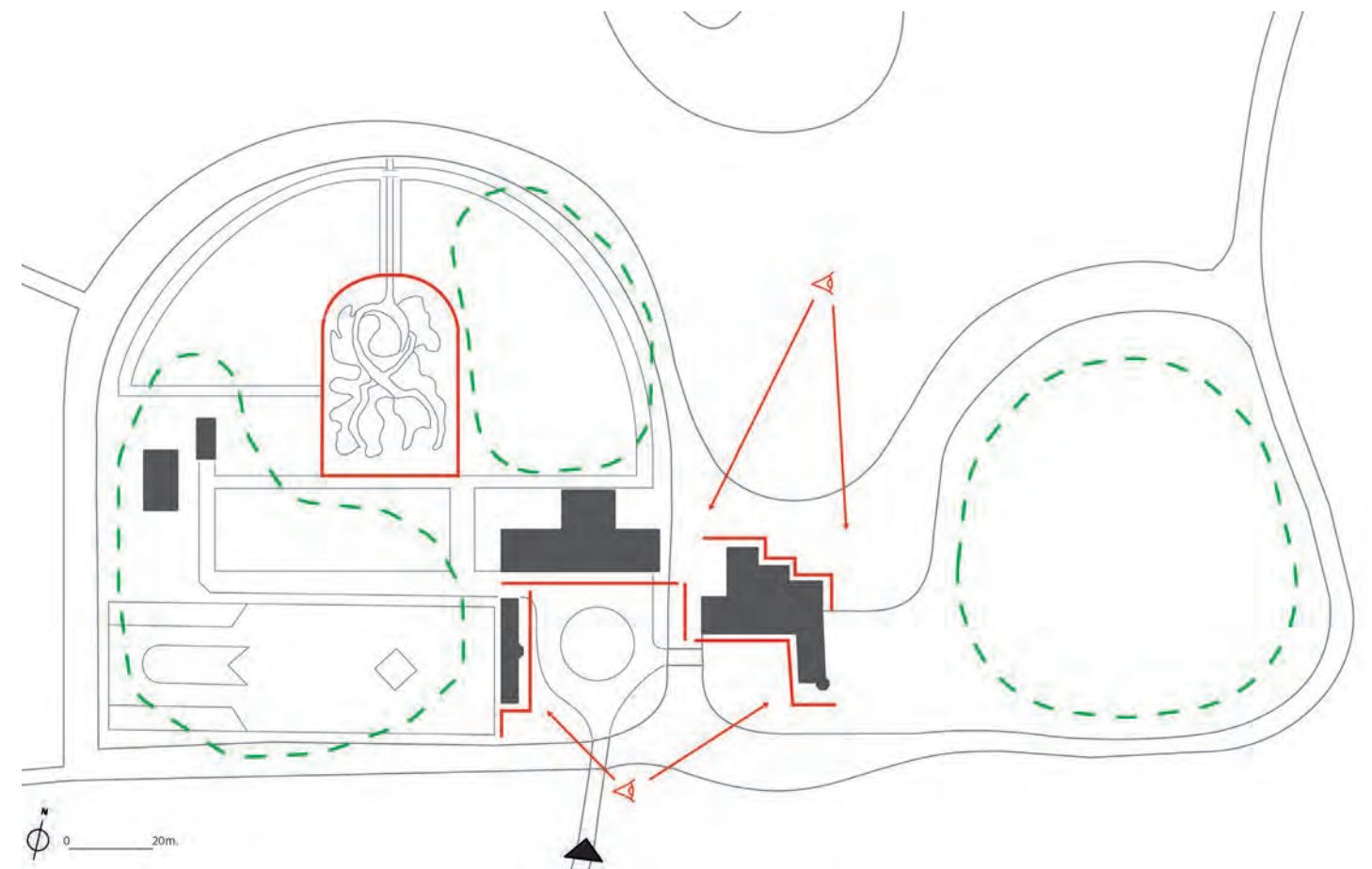
Hiking paths.

Natural boundaries.



- - - historic axes (designed)  
 // view area  
 // historic afforestation  
 // memorial garden

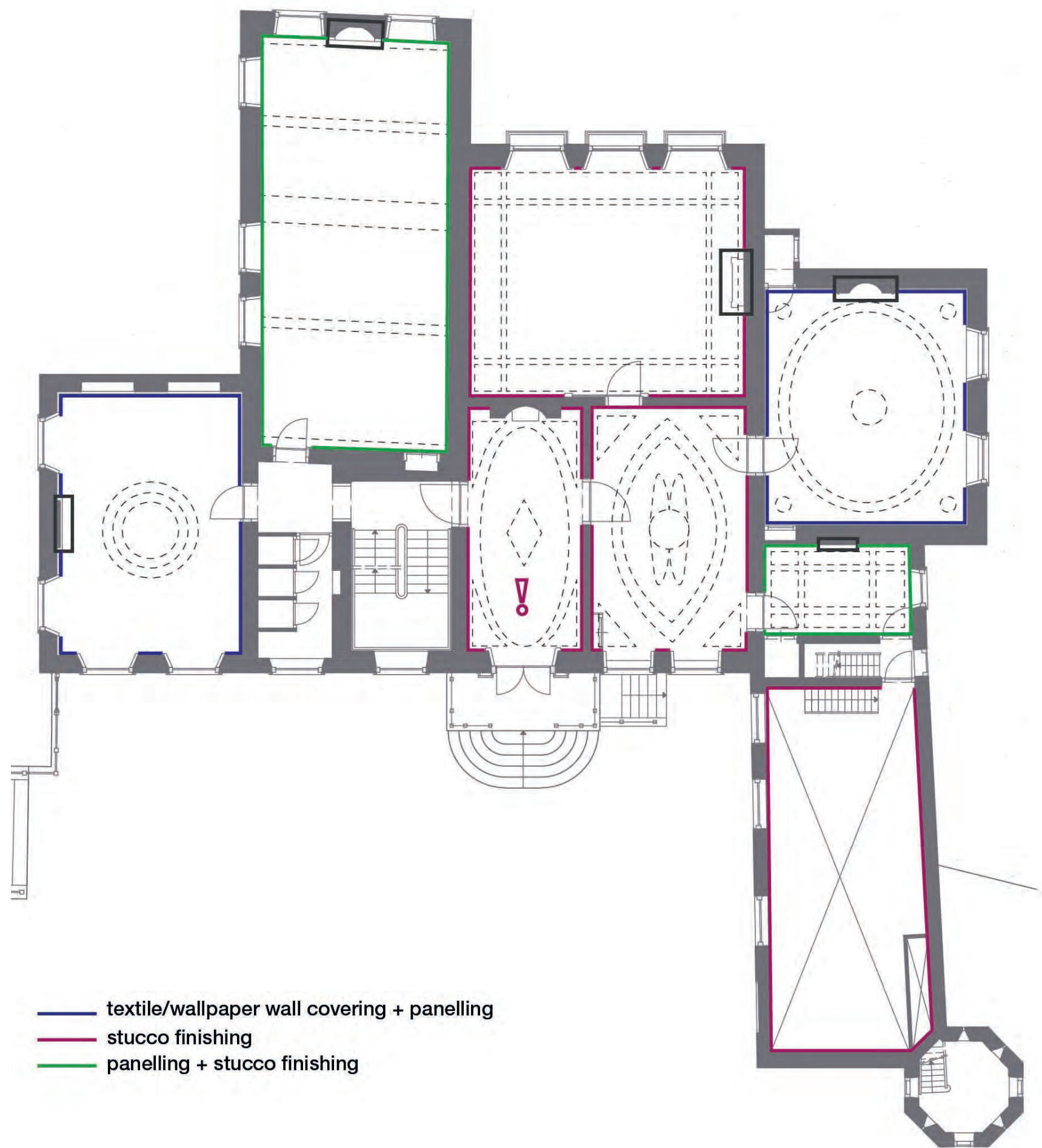
View axes and areas.



Monumental views versus low valued areas (green).



# Impact insulation on interior finishing

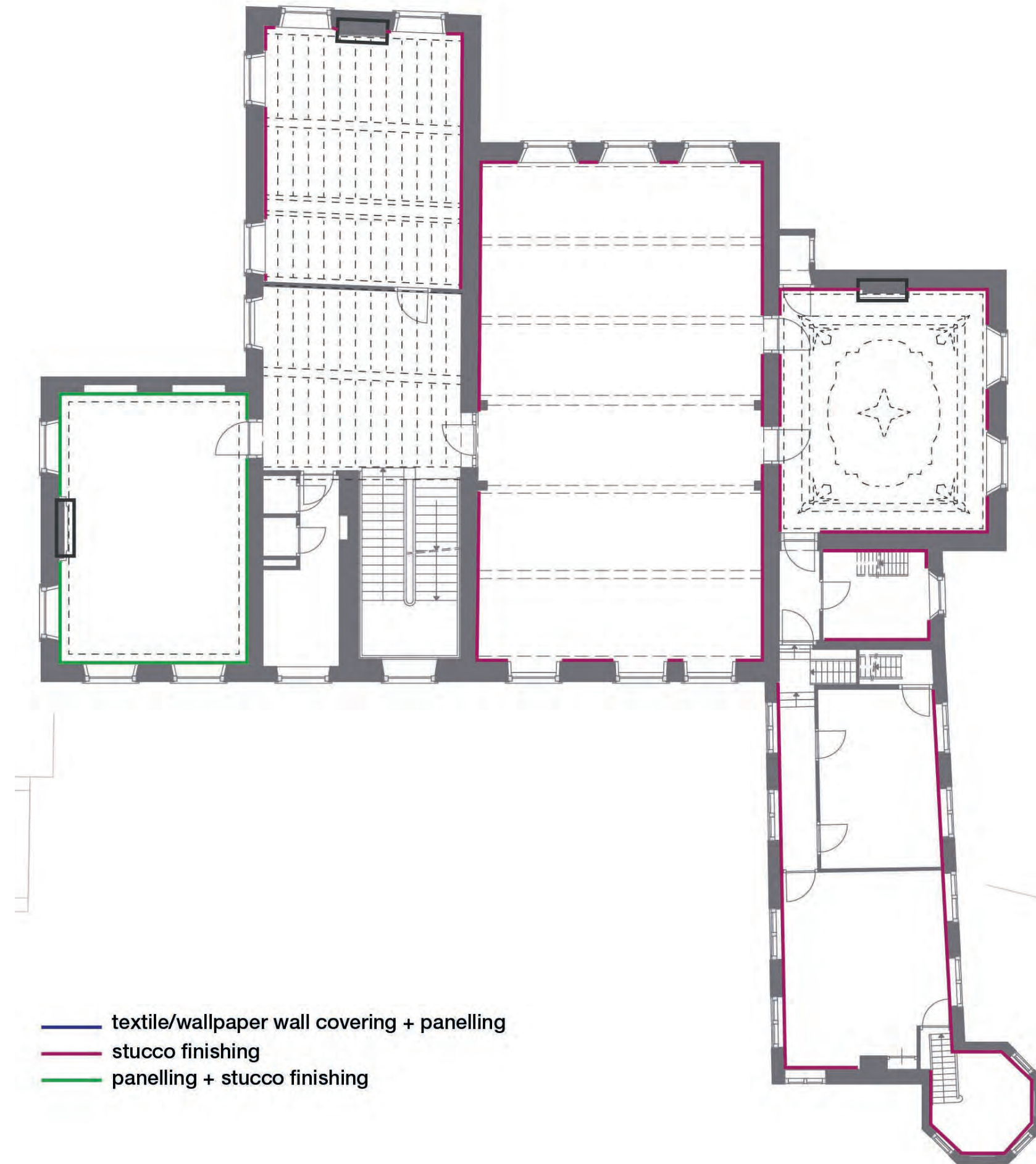


As can be seen in the drawing, most of the exterior walls adjoin a room with a monumental finish. Placing insulation on the inside therefore has a lot of impact on the interior finish. Details of ornaments on the ceiling, panels and frames must then be changed.

I can still choose to insulate part of the walls with only a stucco finish and not to change the rooms with a monumental finishing. This insulates part of the wall surface and will have a positive effect on energy consumption. The only risk in winter time is that large temperature differences can appear in the wall structure. This gives an highly increased risk of cracking.



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# Impact insulation on interior finishing

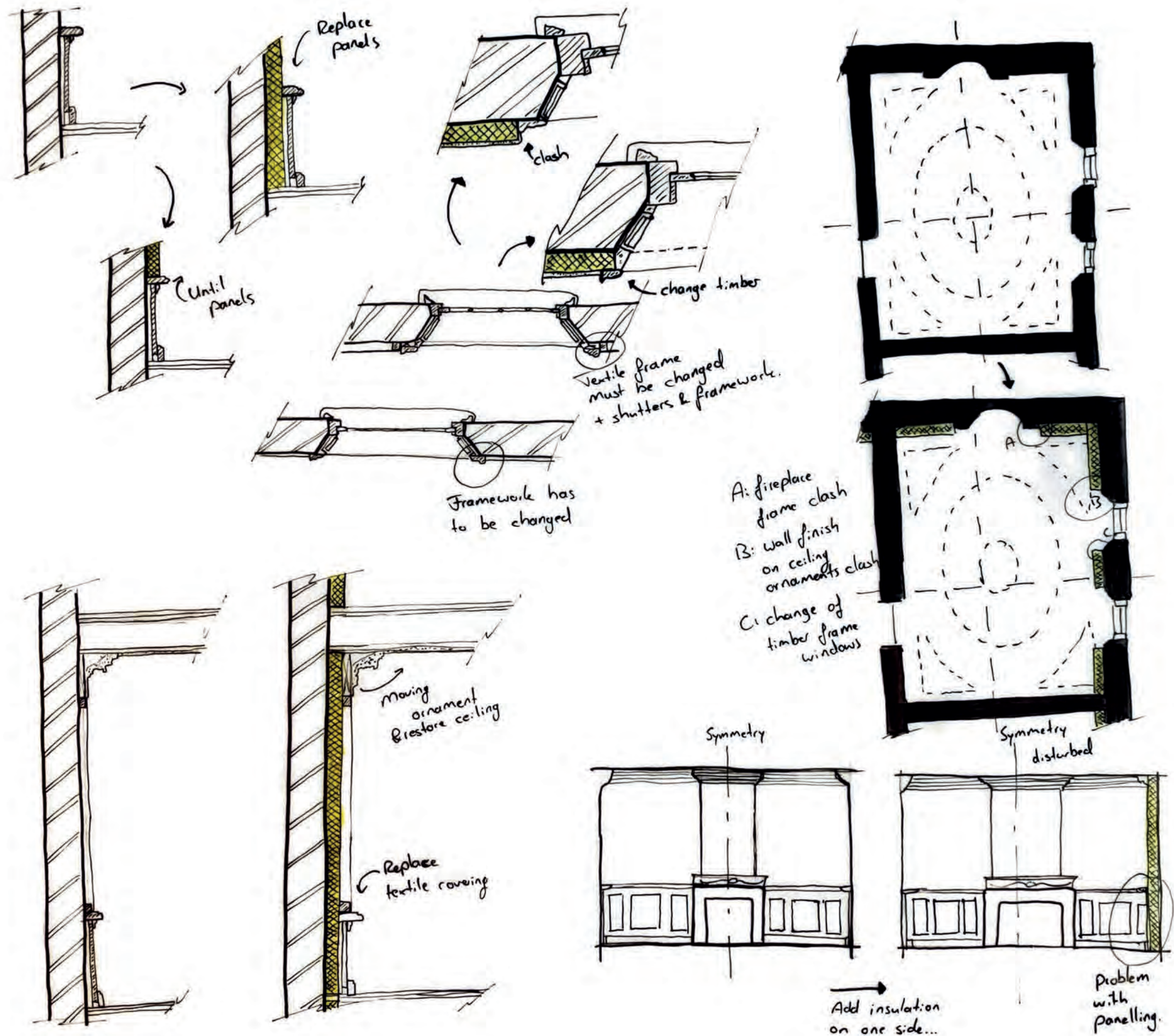
The impact of extra insulation of the walls has been investigated. As can be seen in the sketches, it has an impact on room scale level and level of detail.

At room level, the effect has the effect that one or two walls come in because they become thicker due to the insulation layer. This disrupts the symmetry - which is often very important in the finishing and architecture of the room interior. This cannot be easily repaired without changing all parts of a room. For example, stucco ornaments in the ceiling will have to be moved and floors will have to be re-laid. So the impact is too great.

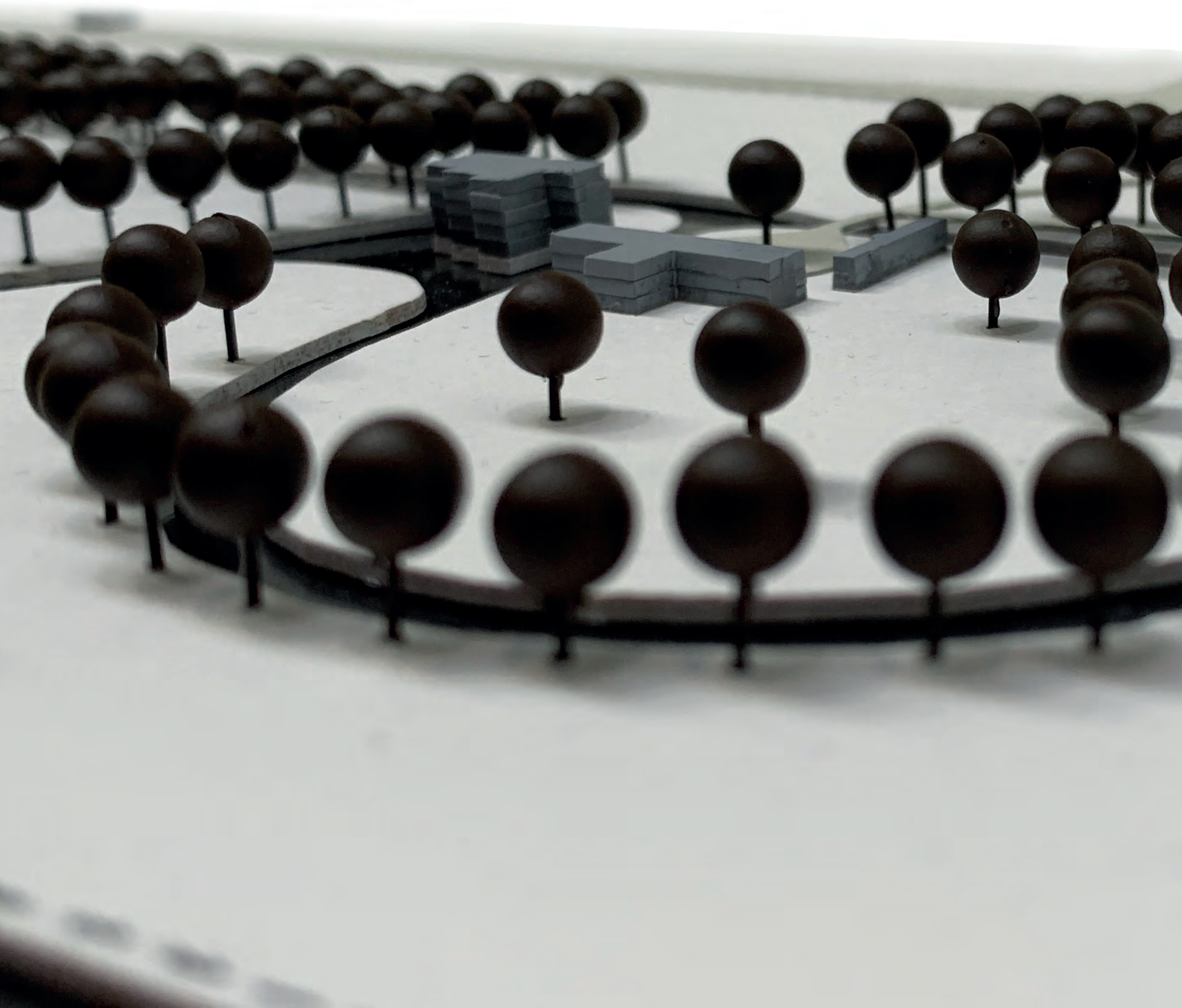
On a detailed level, it results in an adjustment of the window timberwork and panelling. Paneling must be brought forward, or disappear in a thickened wall surface. The rhythm of panels on the adjacent walls is no longer good when the paneling is replaced.

The timberwork and framing of the window openings connects to the stucco with a frame. Insulation can extend up to this frame, but the frame therefore disappears into the wall surface. Another option is to extend the cladding and let it run over the insulation plus a new layer of stucco. Then the paneling on all windows must be adjusted. In addition, this can lead to a problem with ceiling moldings.

Because the application of insulation on the ground floor and first floor has such a major impact, it was decided not to insulate the walls here. Insulation could then still be placed in the basement and the low wall under the roof in the attic, but this can lead to temperature differences and tensions in the whole masonry structure. Because this is only a small part of the wall surface, it also has little effect on the total energy consumption. That is why it was decided not to insulate the walls at all.









# Buildings from the estate in the area

Farms in the area and old residential buildings that had a connection to the estae are the inspiration for new architecture. This map shows the area around estate 't Velde. Estate De Voorst is in the north. On the left are the districts of Warnsveld and Zutphen.

Most important is the architectural style of the buildings on and near the old estate. Therefore it is necessary to draw the old boundaries of the estate.





## Historical structure

An old map from 1897 has been placed over the map of the area. This map was drawn to determine the family's properties, by Hendrik Jan Walgemoed. The colours mark the types of landuse of the estate.



- water
- gardens
- meadows
- farm fields
- forests for timber wood (akkerbos)
- forests

Kaart van huis 't Velde by H.J. Walgemoed. (1897). From Collectie Gelderland; GK12854.



# Barnyards on the estate 't Velde

There used to be a number of farms on the estate. These were owned by the family. Later were the farms - together with the lands - sold to the farmers. That is why these farms are no longer part of the estate.

Barnyards that were owned by 't Velde (1897):

- 1. Herberg De Kappe
- 2. De Velder Boer
- 3. Het Langenberg
- 4. 't Kleine Graffel
- De Bieshorst (demolished)





## Barnyard typology

For the research are several locations found.

List of farms and other buildings in the area:

1. Herberg De Kappe (formerly of 't Velde)
2. Farm De Velder Boer (formerly of 't Velde)
3. Farm Het Langenberg (formerly of 't Velde)
4. Farm 't Kleine Graffel (formerly of 't Velde)
5. Former farm (formerly of 't Velde)
6. Farm De Bruninkweerd
7. Farm
8. Farm
9. Farm
10. Farm
11. Boombosch & Altena (De Voorst)
12. Nieuwe Ooitink (De Voorst)
13. Berkeloord (De Voorst)

To understand the local typology, I looked at the contemporary appearance of the buildings. This is because of the lack of archival information. But moreover because new designed buildings can only embrace contemporary appearances instead of appearances that are already disappeared.

The locations below have been taken in a closer look:

1. Herberg De Kappe
2. De Velder Boer
3. De Langenberg
4. 't Kleine Graffel
5. Former farm
6. De Bruninkweerd
11. Boombosch & Altena
13. Berkeloord





# Barnyard typology

## 1. Herberg De Kappe

Former hostelry and small farm De Kappe has been part of Esate 't Velde. Nowadays it is a restaurant.

### Location

Next to the Rijkssstraatweg is the hostelry De Kappe. The hostelry appears on early maps of Warnsveld and 't Velde and was part of the estate for a long time. De kappe is already mentioned in a reconstruction map from 1779 (Albers & Guinée). In the past were the hostelry and farm located on the edge of a farmfield next to a forest.

### Shape & composition

The building is renovated. The architecture of the main building is not really relevant. On the other hand is the composition relevant. Also the shape of the barn is relevant.

The composition of the former hostelry exists of two buildings. A barn and a house. The barn is a rectangular building with two gabled roofs. Presumably is the building split in two parts. Both parts have a big entrance door and small windows.

### Materials & colors

The facades of the main building are plastered white. The presence of wall anchors in the front facade may indicate an older structure of which the front facade was part of. Window frames are painted dark green and windows white. The entrance part of natural stone also indicates the older structure.

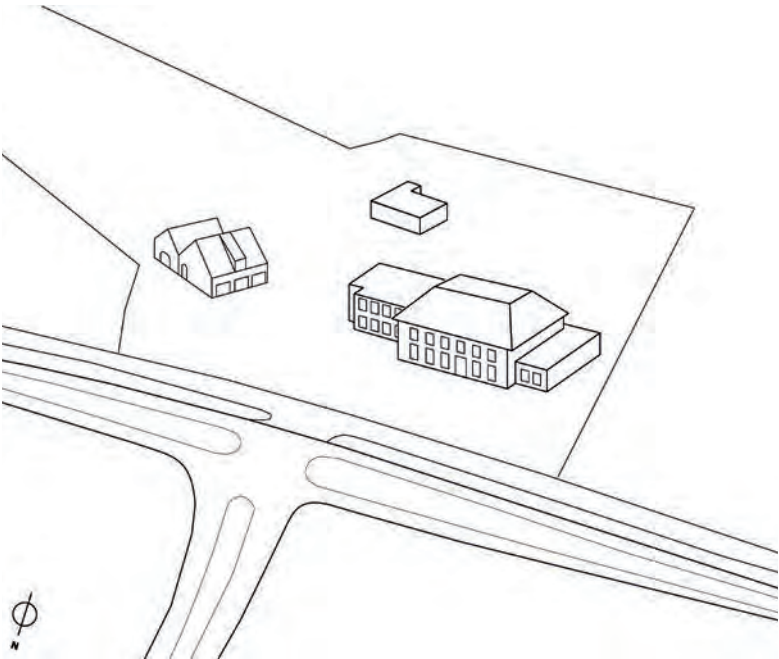
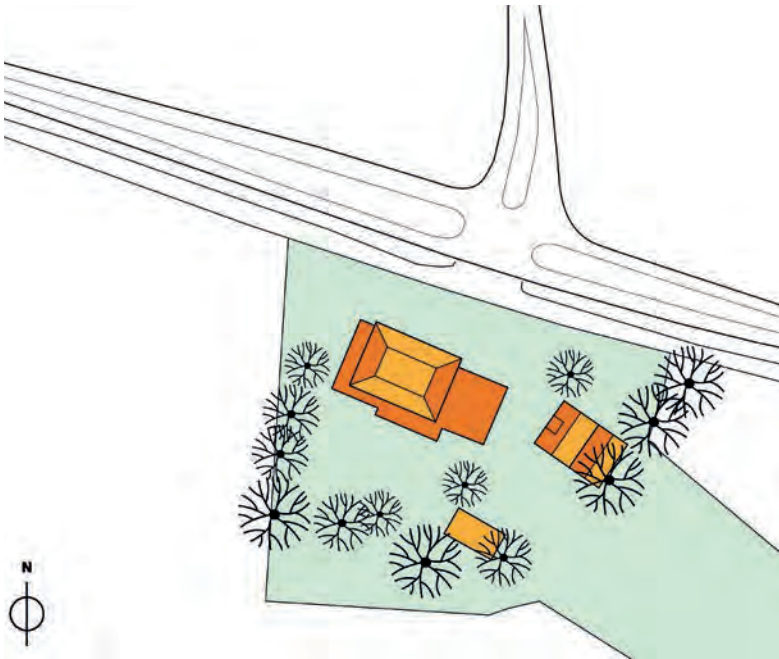
The materials and colors from the barn are giving more information about the local farm style. Most sides are brickwork and one side is plastered white. The windows and doors are painted dark green.

### Footprint

640 m² + 200 m²



Albers, L. & Guinée, A. (2019). 't Velde, *Cultuurhistorische analyse en waardenstelling*. Gelders Landschap & Kastelen. Images from Google Maps. Retrieved in February, 2022.





## Barnyard typology

### 2. Farm De Velder Boer

Farm De Velder Boer has been part of Esate 't Velde in the past.

#### Location

This farm is located on the edge of a forest that used to be part of the estate 't Velde. The buildings are close to the trees for shelter. Next to the yard is a large farmfield.

#### Shape & composition

The main building has a rectangular footprint with a residence and a farm side. The farm side has a big entrance door. The building is one layer high with a large gable roof with two hip-ends.

The other building is an old barn. The barn is one building layer high, only half of the building is covered with a gable roof, the other half is covered with a pitched roof.

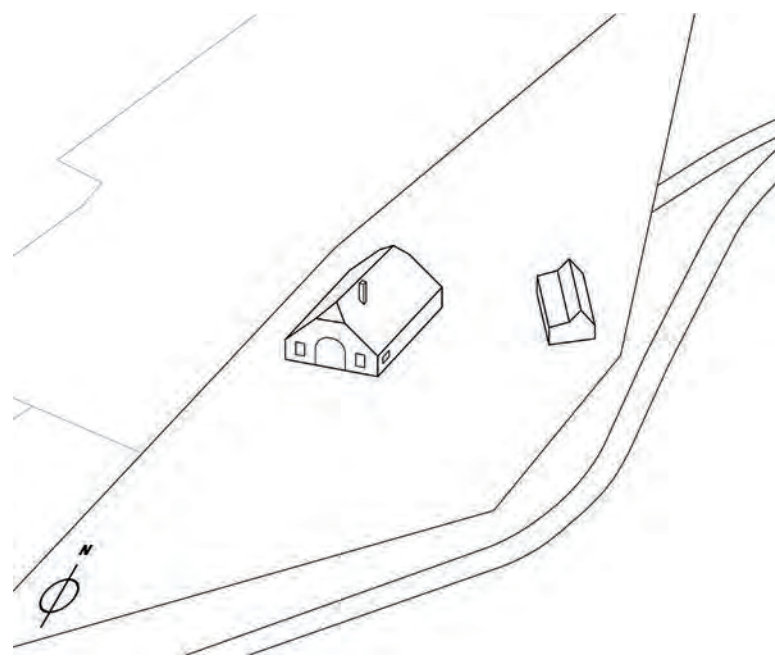
#### Materials & colors

The brickwork facades are painted white on all sides. The plinth is painted black. The colour scheme is obviously the same as Huis 't Velde. The front facade of the residential side of the building is not painted.

The window frames have a creme white colour and the windows are painted white. Shutters are painted dark green with a white line. The roof is finished with grey roof tiles.

#### Footprint

195 m<sup>2</sup> + 70 m<sup>2</sup>



Images from Google Maps. Retrieved in February, 2022.



# Barnyard typology

## 3. Farm Het Langenberg

Farm Het Langenberg has been part of Esate 't Velde in the past.

### Location

The farm is located next to the edge of forest Het Veldese Bos. It stands on the border between the forest and the farm fields. It is surrounded with trees, bushes and fields.

### Shape & composition

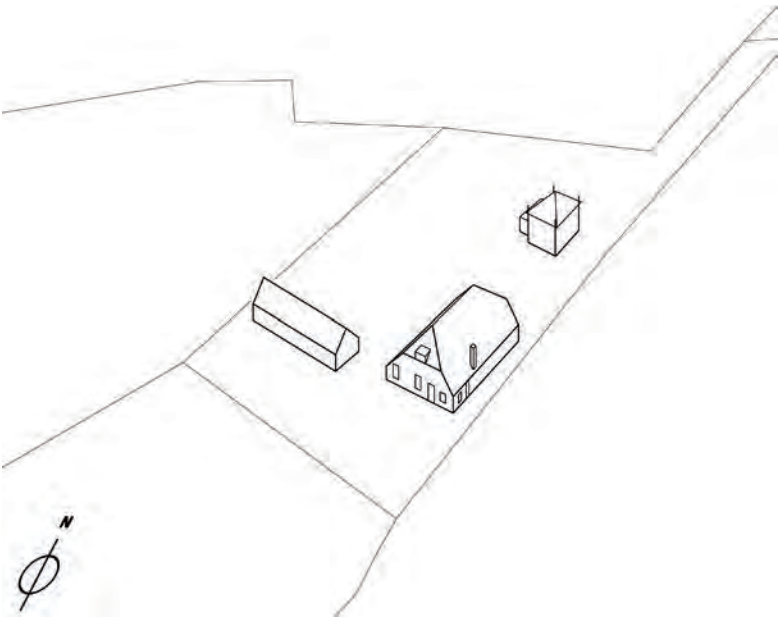
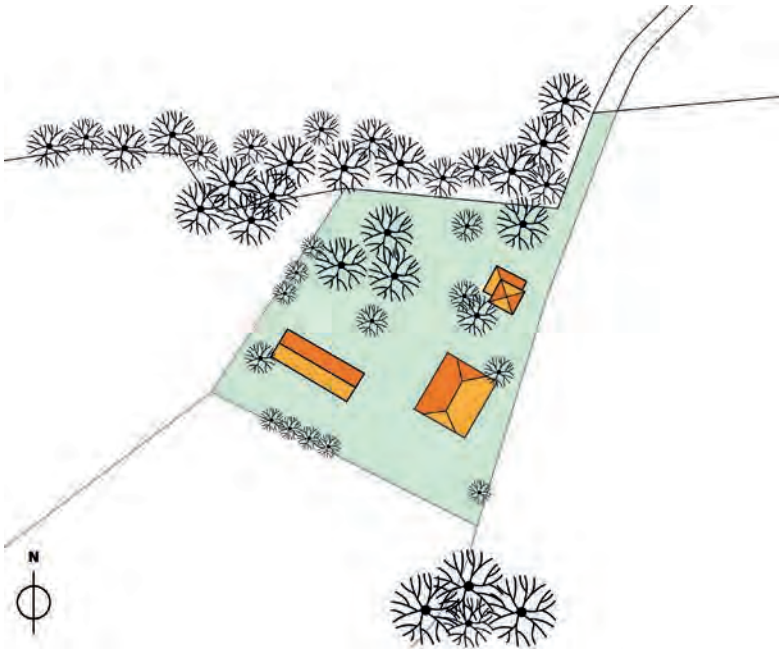
Originally the barnyard consisted of two buildings. Nowadays there are three buildings. The main house has a rectangular shape with a gable roof with two hip-ends. One facade was used for the farm with a big central entrance door, the other side for the residents with small door and windows. On this side is a dormer window in the hip-end of the roof.

### Materials & colors

The residential side have a white painted brick facade. The other sides are made of red brickwork. The side facades are shorter than the front and back facade and have small windows. The roof is partly finished with grey roof tiles and partly with thatch. The window frames are painted creme white, the windows white, and doors are painted dark green.

### Footprint

195 m2 + 50m2 + 126 m2



^ Farm Het Langenberg. By unknown. From Regionaal Archief Zutphen, SZU002002304.  
> Images from Google Maps. Retrieved in February, 2022.



## Barnyard typology

### 4. Farm 't Kleine Graffel

Farm 't Kleine Graffel has been part of Esate 't Velde in the past. Nowadays it has grown into a big farm. The old farm was demolished around 1930. An old picture shows that the old farm looked like other farms in the area, just like De Velder Boer and Het Langenberg.

#### Location

The location of this farm is different than the others. The barnyard is located in the middle of the farm fields. In addition has this farm a driveway. Besides a few trees is this farm not sheltered behind hedges and bushes.

#### Shape & composition

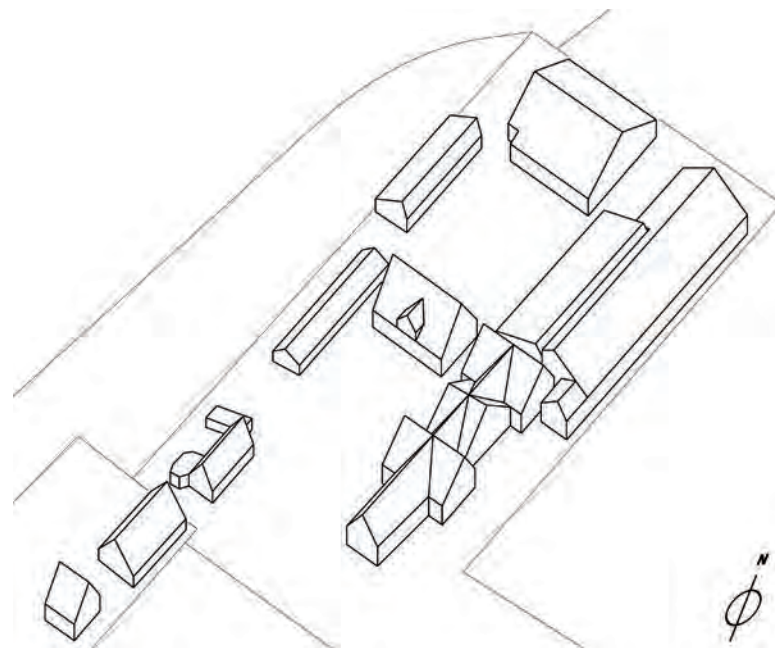
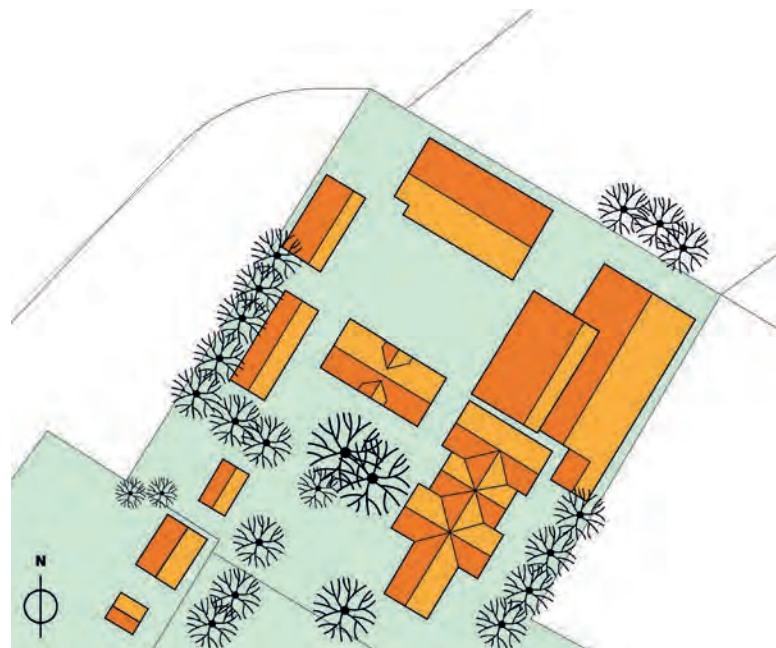
Despite the fact that the old composition of the barnyard has been completely replaced by the contemporary large-scale structure of the farm, does the old typology of the farm still emerge. The most important aspect is the composition of various detached buildings. All buildings are rectangular shaped and have gable roofs.

#### Materials & colors

The buildings are built with red bricks and red roof tiles. The windows and doors are painted white. The big doors of the sheds are painted dark green. All front and side facades have brick ornaments or white painted wooden paneling in the top facade.

#### Footprint

50m<sup>2</sup> to 880 m<sup>2</sup>



^ The old farm that is demolished. By B.J. Hoetink. From Collectie Gelderland, SZU002002402\_014.

< Images from Google Maps. Retrieved in February, 2022.



# Barnyard typology

## 5. Former farm

This farm has been part of estate 't Velde in the past.

### Location

The farm is adjacent to an old lane of the estate. On the south side of the building is the farm field situated. The map from Walgemoed (1897) shows that this farm had only one field. On the north side of the lane (Rijksstraatweg) is a forest.

### Shape & composition

According to the Walgemoed map consisted this barnyard of only one building in the past. Nowadays there are two detached buildings. The shape of the farm is similar to most of the others farms that are described here. The front and rear facades are higher than the side facades and the roof is gable roof with on two sides a hip-end.

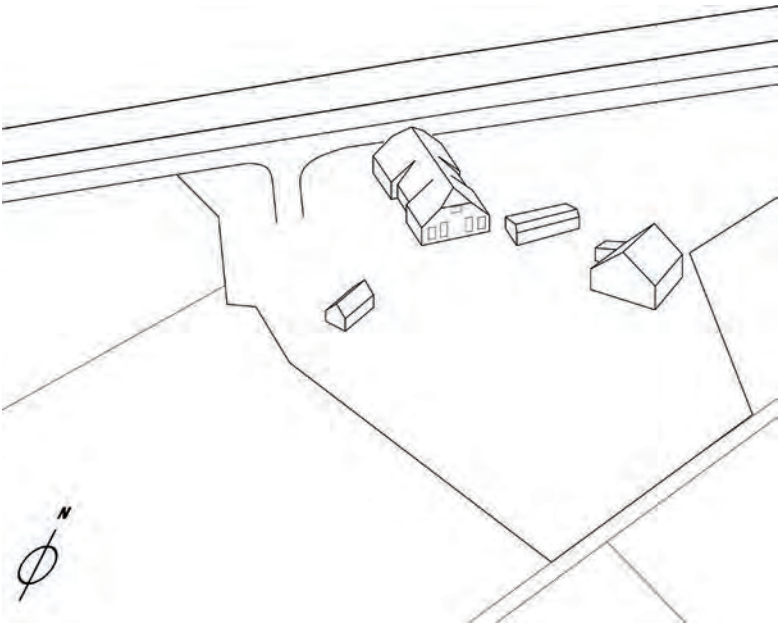
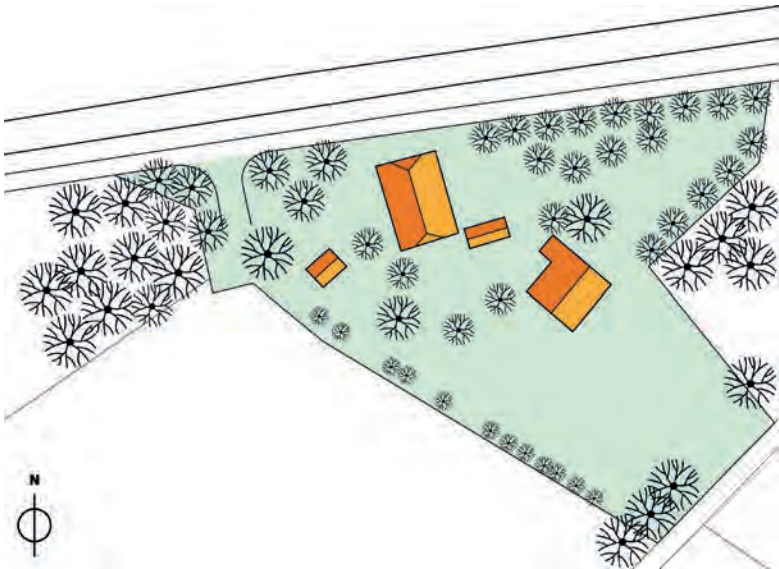
The farm is shelterd with trees and hedges.

### Materials & colors

The facades are finished with red bricks. Eaves are painted cream-white and windows and frames are painted white. The shutters and doors are painted dark green. The roof is finished with grey roof tiles.

### Footprint

247 m² + 50 m² + 196 m²



Images from Google Maps. Retrieved in February, 2022.



## Barnyard typology

### 6. Farm De Bruninkweerd

Part of the building is damaged during a storm and demolished. The picture on the right shows the building when it was intact.

#### Location

The farm is located next to the Rijksstraatweg. In the past led this road to the former lane through the estate 't Velde. This farm is also located on the edge of the fields.

#### Shape & composition

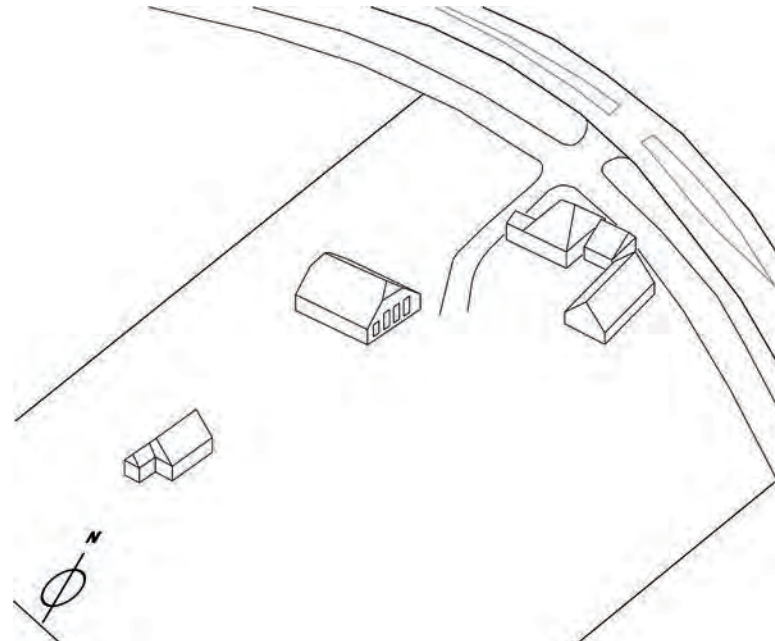
The main building consisted of two volumes. A square building with hip roof and a rectangular building with a gable roof with hip-end. On the barnyard are various small detached buildings like sheds. They all have similar shapes.

#### Materials & colors

The former residential part of the farm was made of white painted brickwork. The red-yellowish brickwork from the small square-shaped part was and still is not painted. The roof is finished with red roof tiles. Window frames are painted white and windows and doors are painted dark green.

#### Footprint

110 m<sup>2</sup> + 140 m<sup>2</sup> + 170 m<sup>2</sup>



< Image from Google Maps. Retrieved in February, 2022.

< Side elevation view of farm Brunninkweerd. By unknown. Regionaal Archief Zutphen, SZU002001662.



# Barnyard typology

## 11. Farm Boombosch & Keuterboerderij Altena

This farm is located on the land of estate De Voorst. Nowadays the company still pays ground rent (erfpacht). There are two farms on the barnyard.

### Location

The barnyard is at the end of a long axis in the garden design of the estate. Farm fields border on both sides. The yard is surrounded with hedges and trees for a little shelter.

### Shape & composition

The composition consists of various buildings that differ in size and age. The modern contemporary buildings are the biggest. The older farm houses have an rectangular shape. The old farms Altena and Boombosch have both a T-shape floorplan. It is the same shape as farm Berkeloord. The small square part on the north side is the residence with a formal layout and shape. One building layer with a hip roof. The long rectangular volume is the former stable. This part has the same heigth as the mansion. The roof is on one side connected to the other roof. On the other end is a hip-end.

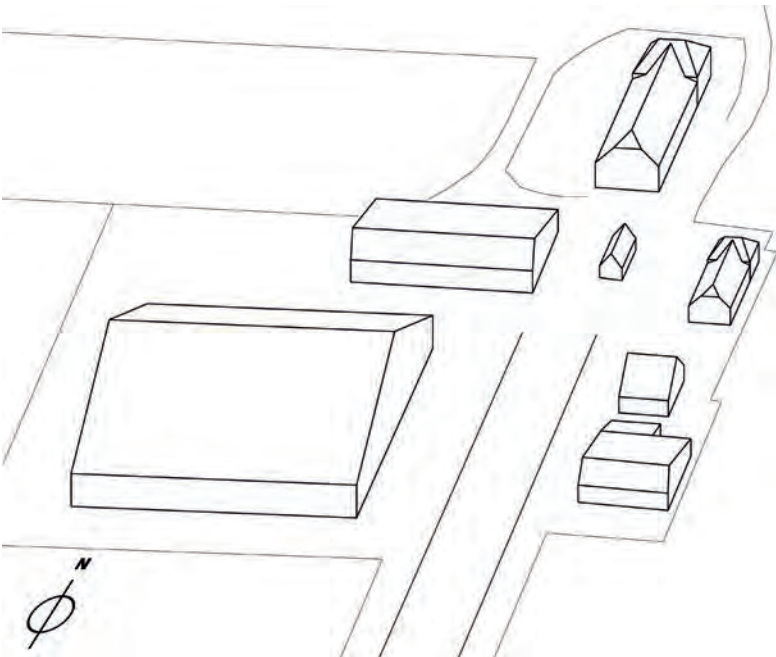
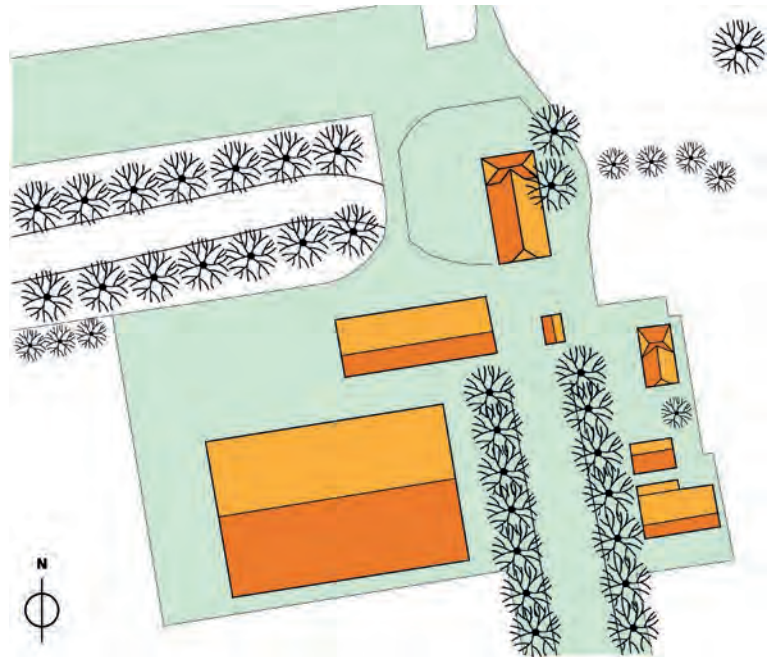
### Materials & colors

The facades are made of red bricks. The window frames are painted white and also the windows are white. Doors are painted dark green. The shutters represent the identity of the estate, every farm of De Voorst has the same colour shutters. The colour is dark green, with a yellow-red symbol in the top-middle. The roof is finished with grey roof tiles.

The materials and colors of both Altena and Boombosch are the same.

### Footprint of Altena and Boombosch

110 m² + 290 m²



> Image from Google Maps. Retrieved in February, 2022.



## Barnyard typology

### 13. Farm Berkeloord

This location is situated on the estate De Voorst. In the past century it is reused and refurbished as a forester's house.

#### Location

The farm is located on an important visual axis between estates De Voorst and 't Velde. This axis has arisen around 1692-1710 when both estates belong to one owner: Arnold Joost van Keppel. The axis began on the forecourt of De Voorst and was focused on the heart of the carriage house of 't Velde. It is located in between two farmfields and is surrounded with trees for shelter.

#### Shape & composition

The composition consist of two buildings. The main building has a T-shape with a fronthouse and backhouse. The fronthouse is built right-angled on the rear volume. This rectangular shaped volume has a gable roof. The back house has the shape of other farms in the area with low side facades and one high front facade. The roof is a gable roof with a hip end in the side of the front facade. Above the entrance door is a dormer window.

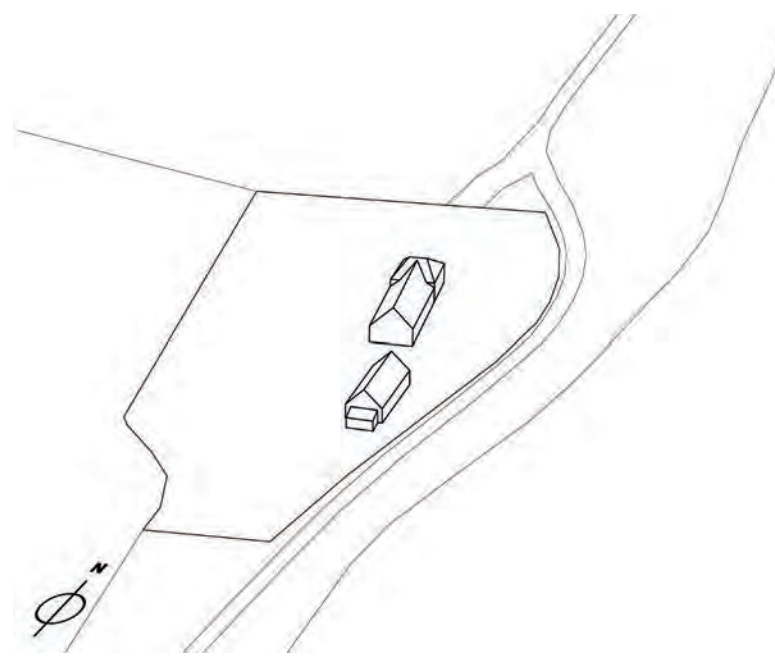
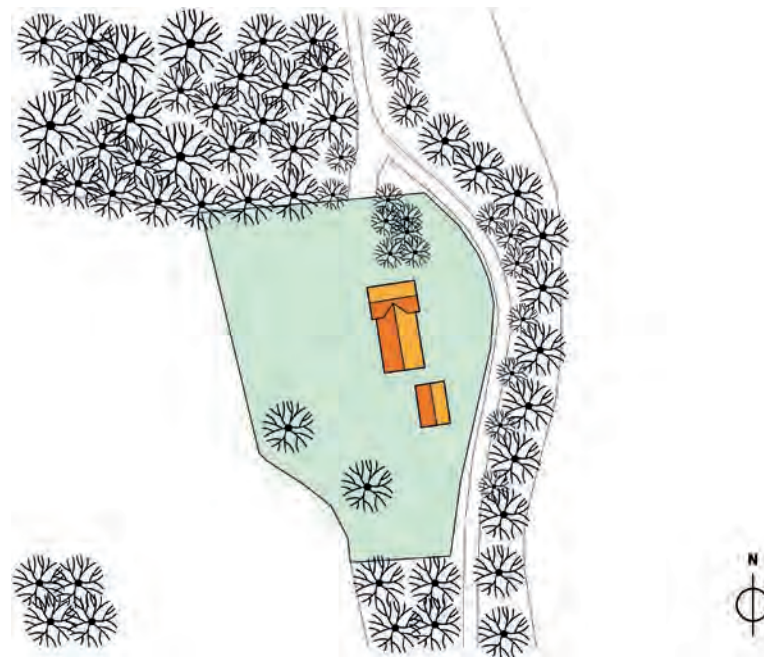
#### Materials & colors

The red brick facades with horizontal yellow lines have stucco corner pilasters and natural stone frames for the windows and door. These framers are painted white. The windows, shutters and door are painted dark green. The profiled eaves are painted in the same white color as the natural stone window frames. The roof is finished with grey roof tiles.

The materials and colors of the second part of the building are similar to the residential part. In the front facade of the farm house is a big entrance door.

#### Footprint

180 m<sup>2</sup> + 60 m<sup>2</sup>



< Image from Google Maps. Retrieved in February, 2022.

< Picture of the front facade. By unknown. Retrieved from Rijksmonumenten.nl, in February, 2022.



# Barnyard typology

## Conclusions

A number of similarities can be seen in the group of eight farms. The most important characteristic is that all buildings are separate from each other. In addition, almost all buildings consist of one storey with a large gable or hip roof.

What is striking is that each accommodation or user function has its own building volume on the yard. This varies from various residences to stables, barns and sheds. The residence is always nearby the entrance of the yard. Sheds, stables and other buildings are on the back. Most of the time nearby the fields and meadows of the farm.

### Yard

- The yards are located on the edges of farmfields and near forests.
- The yards are accessible from one entrance, connected to a road;
- The edges of the yards are marked with bushes and trees;
- The layout of the yards have an open character, less trees and bushes are surrounding the buildings;
- Combination of green and semi-hardened ground such as gravel or sand. Another common material is vowels;
- Buildings on the yards are standing close together and not far apart from each other;
- Buildings are not in the corner of a yard, but more or less in the middle;
- Lanes are accentuated with rows of trees;

### Buildings

- Rectangular shape;
- One building layer with a large gable roof;
- Roofshape is pitched roof, gabled roof with or without hip-end;
- Various buildings have dormer windows;
- One side of the farmhouse usually has large barn doors;
- In case of one building, residence and stables are combined;

### Average aize of buidling footprints

- Small scale farm building: 60 m² <> 290 m²
- Big scale farm building: 50 m² <> 880 m²





## Barnyard typology

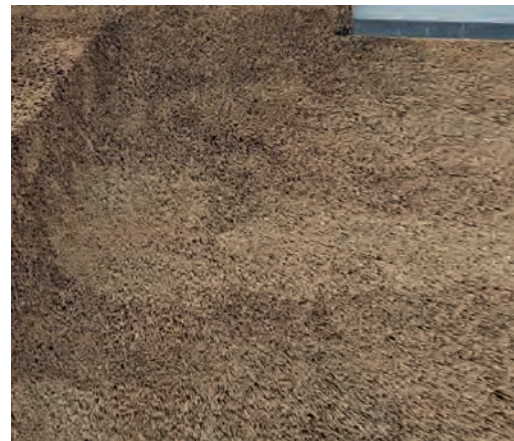
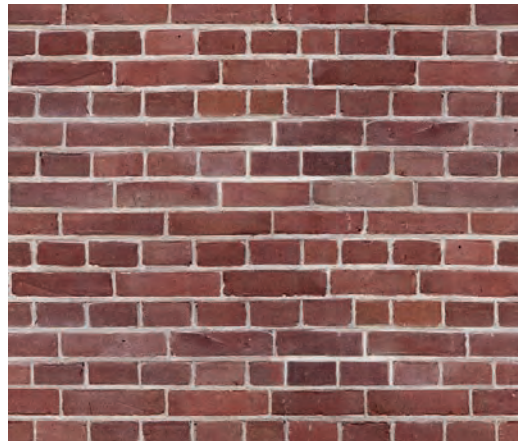
### Conclusions

#### Materials

- Red bricks
- White stucco
- Wood
- Natural stone
- Thatch roofing
- Red or grey ceramic roof tiles

#### Colors

- Red bricks
- White painted bricks
- Red tiles
- Grey tiles
- White stucco
- Green frames and green windows
- White frames and white windows
- Different color for the plinth of the facade, grey or black





# Building on the estate

## Current regulations for the estate

### Restrictions of environmental law

#### What functions are allowed?

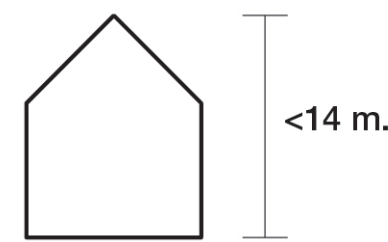
- Detached house with residential function is allowed
- Specific for Huis ‘t Velde the following public user functions are allowed:
  - social-educational purposes,
  - hotel, restaurant, cafe,
  - spa or rehabilitation center,
  - conference center.

#### What sizes are allowed?

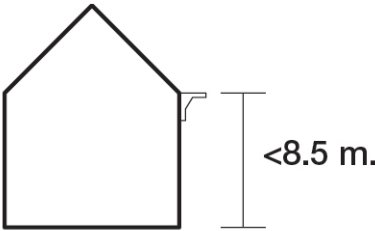
- The building height may not exceed the existing building height;  
The highest building is the main house, maximum height is 14 meter.
- The gutter height may not exceed the existing gutter height;  
The highest gutter is from the main house, maximum height is 8,5 meter.
- The surface occupies a maximum of the existing surface;  
The biggest footprint surface is from the carriage building, this is 400 m<sup>2</sup>.

#### Structures that are not a building

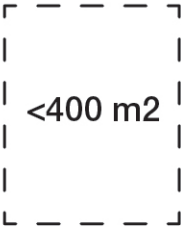
- Flagpoles, masts, etc. <8 meter,
- Height of other constructions, <2,5 meter.



maximum building height on estate



maximum gutter height on estate



maximum building footprint on estate

Sources: Omgevingsplan Landelijk Gebied Zutphen (Gemeente Zutphen), Landschapvisie Zutphen (Gemeente Zutphen) & Beheervisie Velde & Voorst 2021 (Stichting Gelders Landschap en Kastelen).



## Boundary conditions for residential areas

### New 'woonerven' on the estate

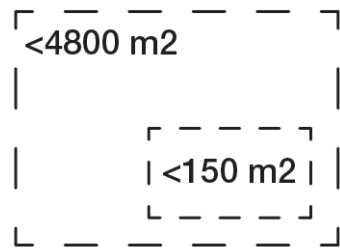
The new residential areas are free to design and the buildings may be designed separately. However, it must meet a number of criteria. These criteria concern: size, layout, location, shape and materialization.

#### Size

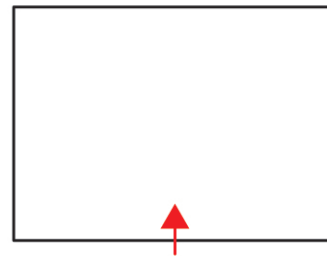
The size of the yards should not exceed 4800 square meters. In addition, the footprints of the individual buildings may not exceed 150 square meters. These dimensions are derived from a small-scale farmyard, as the atmosphere must also be in the new residential areas. There are several small buildings arranged together. All buildings must together form an aesthetic whole. This is done by taking the character of Estate Huis 't Velde as the basis for the new designs.

#### Layout

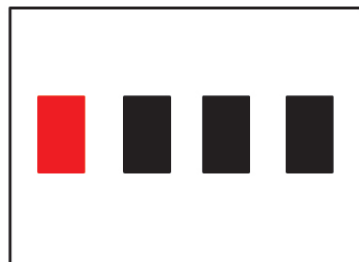
The layout of the yards is free to arrange. There is a maximum of four buildings on one yard. These may be freely arranged. There are also options between building side by side, in line with each other or even diagonally. A farmyard is often arbitrarily, but functionally arranged. This has a degree of 'free' and 'playful' character. This atmosphere must be taken over in the new residential areas.



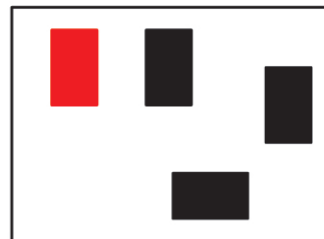
maximum size woonerf



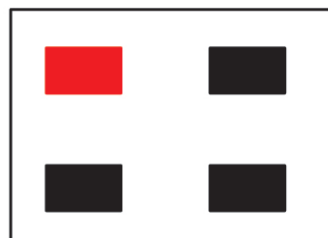
one entrance



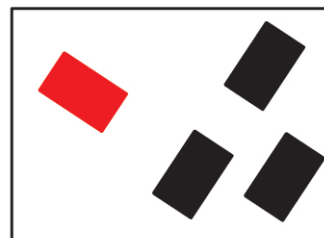
side by side



orthogonal



in line



diagonal



composition



Location

The locations on the estate have been carefully chosen to create a living environment with a rustic and green character. An attempt has been made to prevent the unobstructed view of empty meadows from being disturbed, which is why no residential areas may be built in the middle of meadows. The most important criterion for the location is therefore that it must be located along a forest edge or a road or ditch/moat.

Green environment

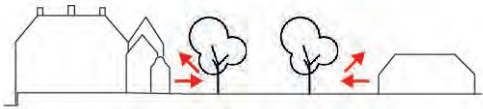
In addition, there should be no sight lines between the residential areas and the country house. In this way, the ‘green environments’ are maintained for both locations. Especially for the country house, the natural unobstructed view with a rural character is of great importance for the typology of the estate. There must therefore be at least a double row of trees and no residential areas may be built on the immediately adjacent meadows.

Unobstructed views

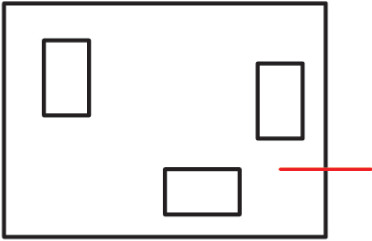
The best locations are in the axils of the meadows, in other words the places where the yards adjoin forest edges or roads on two sides. Access to the residential areas is via only one access road and/ or an optional entrance gate. The other sides of the residential areas have an unobstructed view to the meadows to enhance the rustic character.

Boundaries

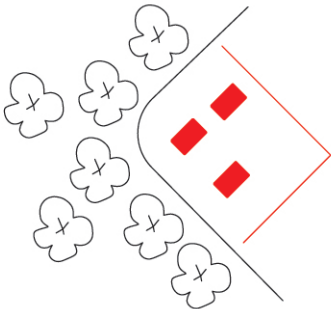
Boundaries must be minimal and preferably have a green quality. A hard boundary in the form of a fence should not be higher than 1.2 meters to ensure a free sight. This maximum height also applies to hedges or bushes. An alternative to the boundary is a row of trees, as it was traditionally used by farmers to divide meadows. These were called in Dutch: ‘houtwallen’.



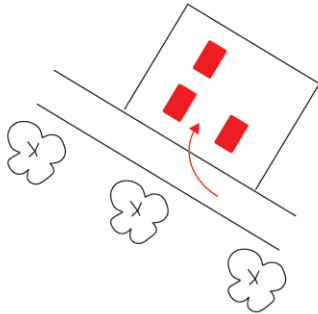
seperated



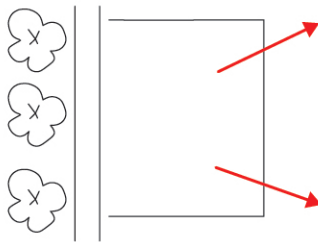
boundary



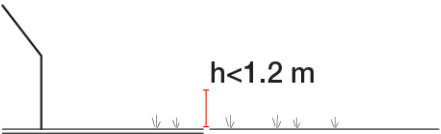
forest edges



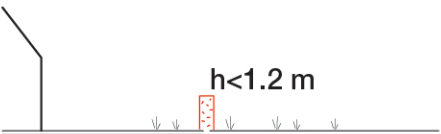
accessebility



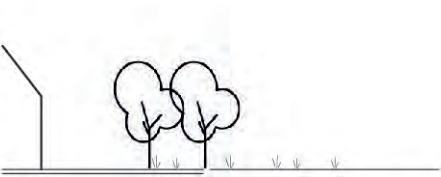
free view



fencing

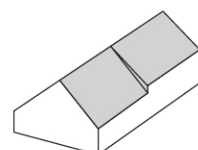
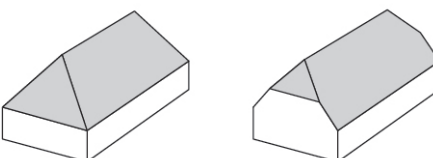
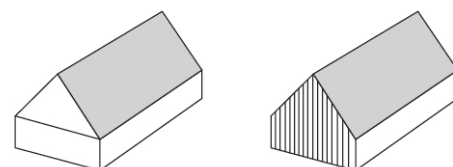
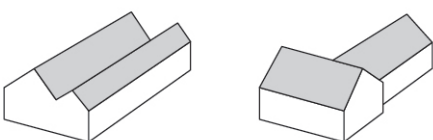
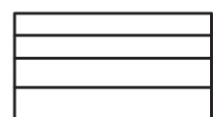
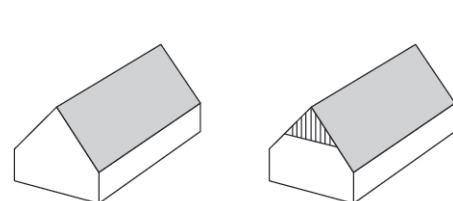
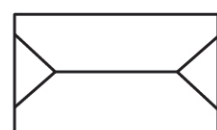
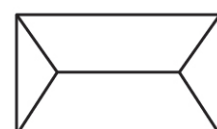
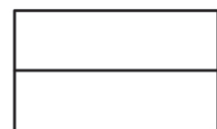


hedges



tree lanes (houtwallen)





## Shape & form

The shape of the residential buildings will be inspired by what is already present in the area. Therefore, prior to setting the boundary conditions, an environmental analysis was done to determine that character.

The building volume may only consist of one storey and a roof. The basic shape is rectangular or a T-shape. The shape of the roof may be varied, as shown in the diagrams on the right. A 3D study elaborates on this.





### Materialisation

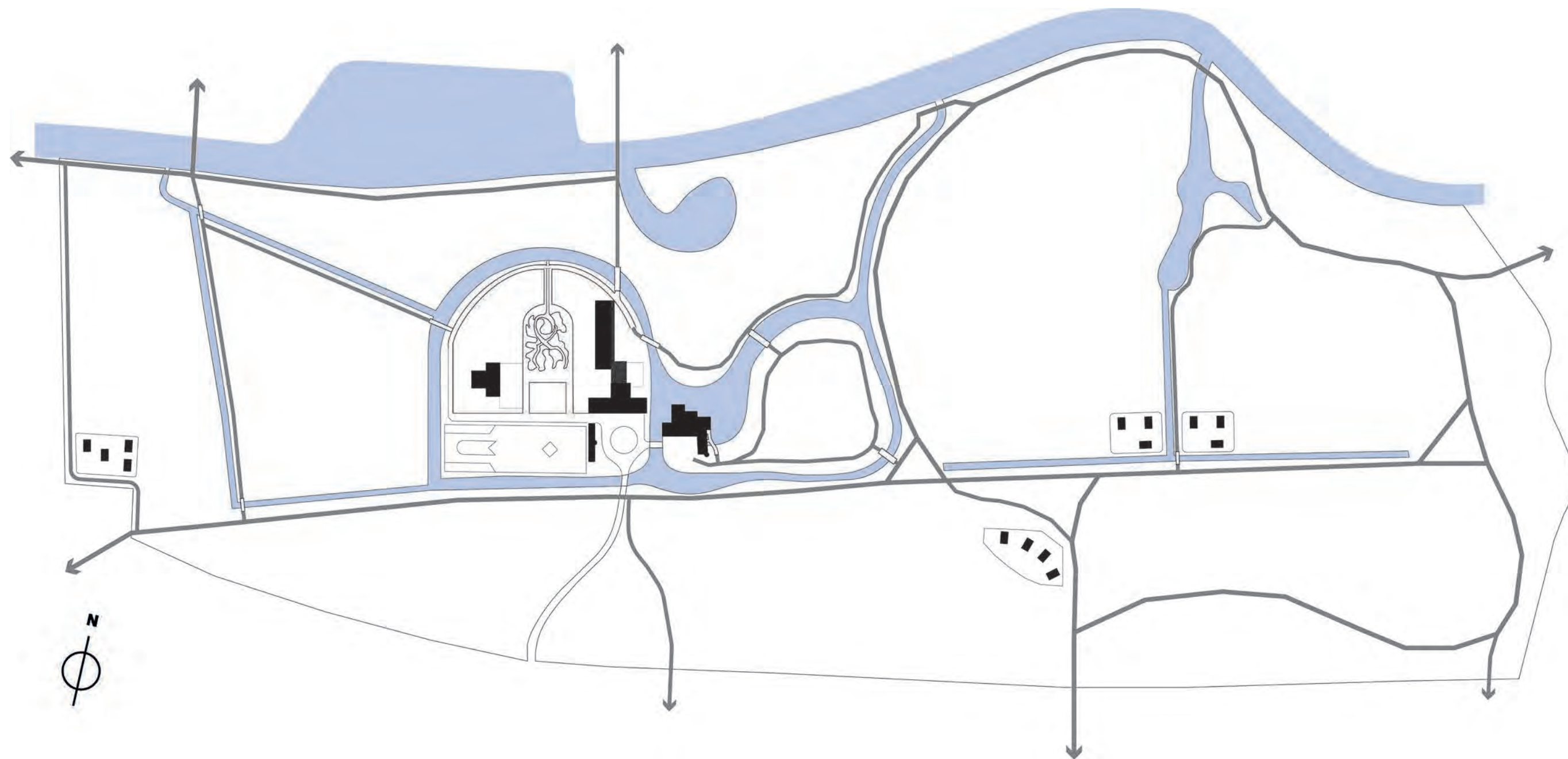
The strongest connection to the estate is made with the help of the materialization. This has been the recognizable character of the 't Velde estate for centuries. All buildings have the same preconditions, so that they are experienced as a whole. These have been adopted and based on this, a number of requirements have been drawn up that the materialization of the new facades must meet:

- Facade finish of white painted bricks, black plinth
- Light grey windows, similar to country house colour
- Windows white
- Shutters dark green, equal to existing colour
- Gutter panelling light grey, similar to main house colour
- Roof finish with dark grey ceramic Dutch roof tiles, or different tile in equivalent colour
- A vertical facade panelling is permitted for a barn character (Dutch: schrootdelen), painting panelling dark green or black

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< Image from own collection.



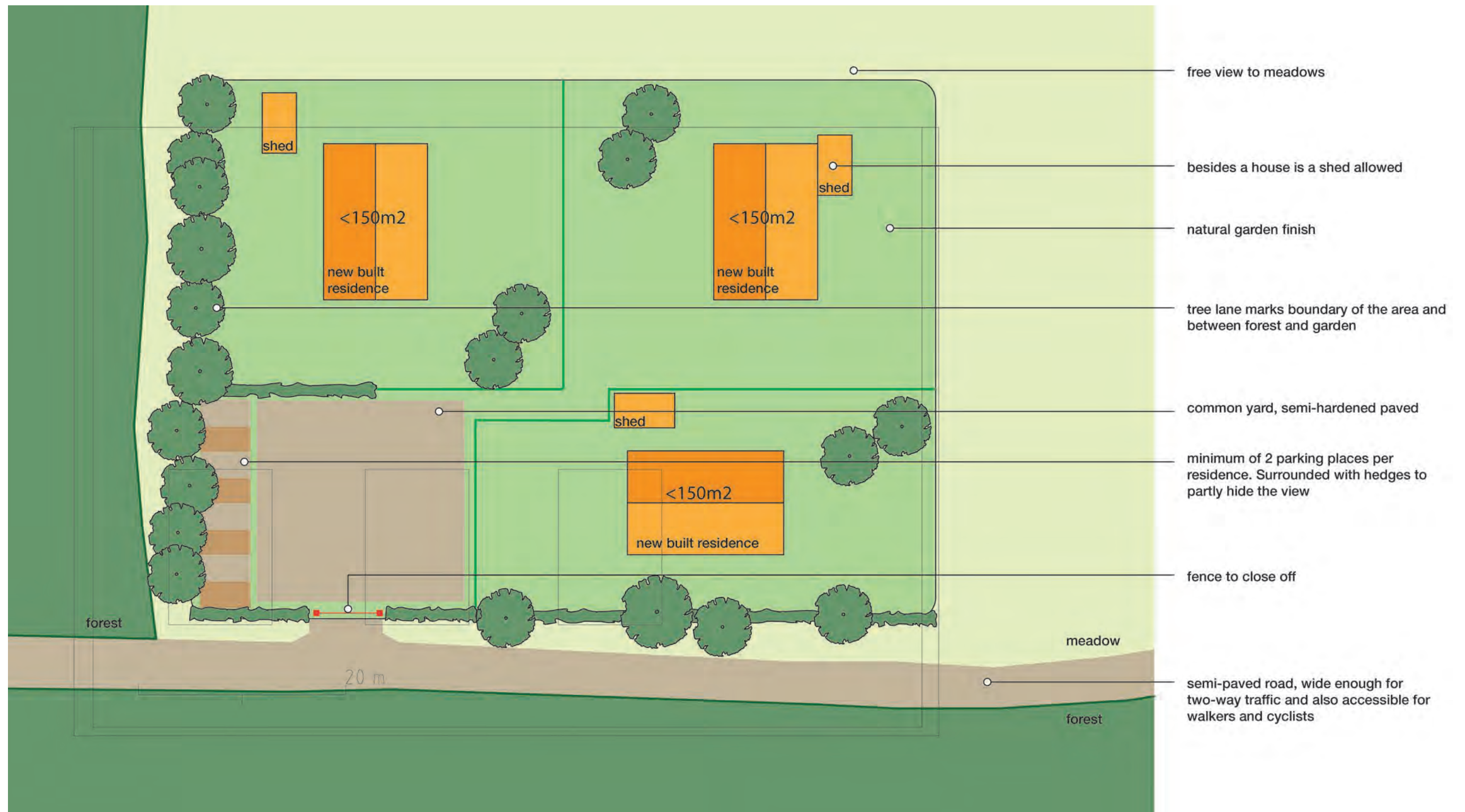


### Drawing of the new design of the estate

Four locations are selected to built residential areas. The locations have been selected for their situation. It is close to a forest edge, path and not directly in sight of the mansion.

The layout of the areas is free to design, but is subject to a number of boundary conditions that have been drawn up for this. In this way, an architectural style is guaranteed that fits the estate. Regardless of which architect designs it. On the next page, these criteria are elaborated in an example plan of one area.



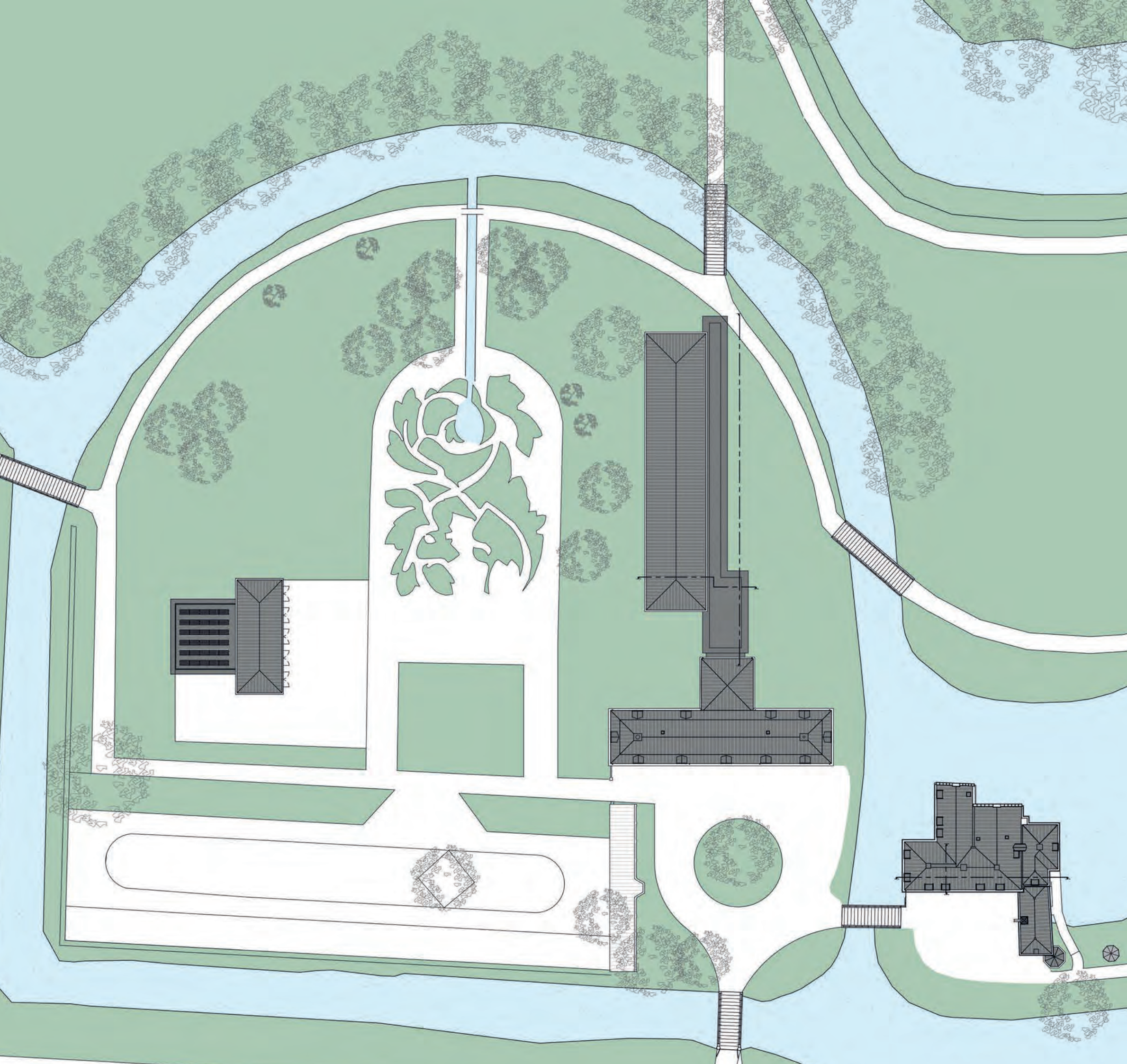


### Drawing of an example for the residential area.

Based on the criteria for the areas as stated before



## 11 Orangery typology





# Typology of an orangery (oranjerie)

## The place to let orange trees overwinter

### What is an orangery?

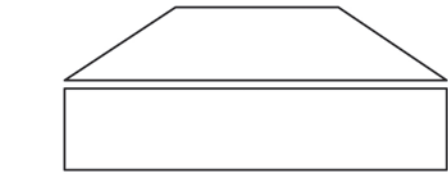
The typology of an orangery arose around 1600. Influential individuals who lived on estates believed it was important to acquire botanical knowledge as part of their world knowledge. They also wanted to show this knowledge by owning native plants. This became an increasingly important part of the gardens and greenhouses of an estate. To allow these plants to survive the cold Dutch winters, they were placed indoors during the winter. As the collections on estates grew, more and more often separate barns were built for this purpose.

In the second half of the seventeenth century, the popularity of the orange citrus tree increased. These were arranged in rows in the Classicist gardens in summer. Because these trees did not survive the winters, they were stored in sheds. Because the growing size and the number of trees the usually small sheds were no longer sufficient. So house owners began to build stone buildings. It became a serious architectural part of the garden, often designed in beautiful classicist style and even neo-gothic style. In the eighteenth century, these types of buildings were often equipped with a basic heating system.

At the end of the nineteenth century, its popularity declined. This led to a halt in construction around 1890. No new buildings were built at that time, except for one in 1910. In 1991 Erik Geytenbeek published a study into Dutch orangeries. At the time, he had found 90 of them in the Netherlands, of which only twenty were in use as an orangery. In the twenty-first century, a number of orangeries were rebuilt. Two examples are those of Castle Ruurlo and Landgoed de Schaffelaar.

### Typology

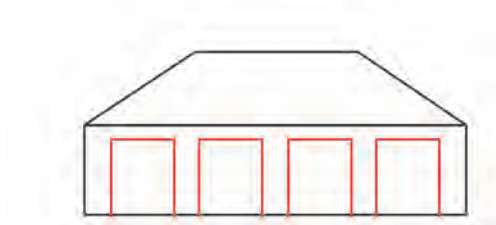
The building is characterized as a rectangular volume with an empty floor plan. Thick stone outer walls with large daylight openings ensure a pleasant indoor climate for the plants. The facade usually has one or more large French doors to bring the plants inside. The buildings are always 1 storey high, with a roof. The facades are usually designed in a classicist architecture, because of the design style which was popular during the heyday of the orangery. However, other styles do occur in the Netherlands. The front facade is in some cases articulated with a central risalite or two risalites on one and two thirds of the facade.



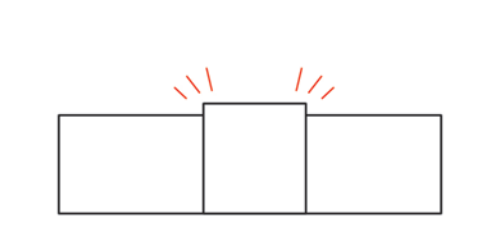
1 storey + roof



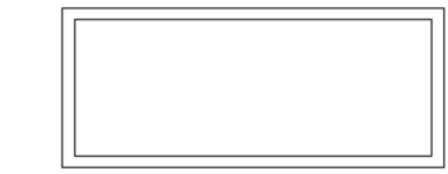
cornice



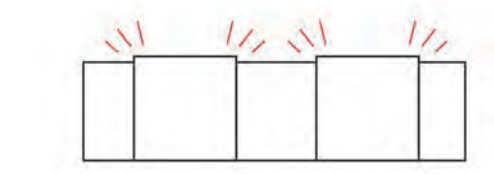
big openings



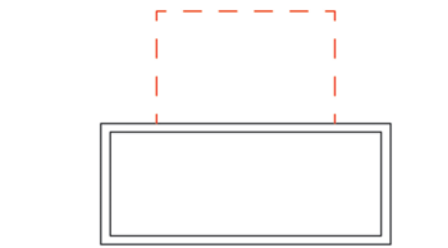
peristyle or median risalit



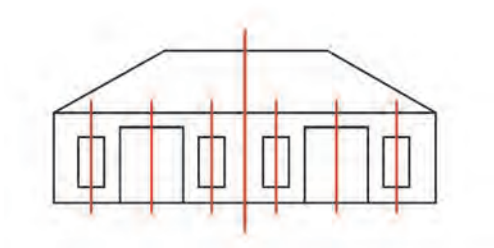
rectangular shaped plan



two risalits



extension possible



xxx

Sources: Verschuure-Stuip, G. (2019). *Welgelegen: analyse van Hollandse buitenplaatsen in hun landschappen* [dissertation] (1630-1730). TU Delft: A+BE | Architecture and the Built Environment. <https://doi.org/10.7480/abe.2019.6>  
Geytenbeek, E. (1991). *Oranjerieën in Nederland*. Alphen a/d Rijn (Netherlands): Canaletto.  
Wikipedia (2022). *Oranjerie (wintertuin)*. [https://nl.wikipedia.org/wiki/Oranjerie\\_\(wintertuin\)](https://nl.wikipedia.org/wiki/Oranjerie_(wintertuin))





Oranjerie Elswout 1879. From: <https://www.zankyou.nl/f/orangerie-elswout-620204>



Oranjerie Ruurlo rebuilt 2001. From: <https://www.achterhoekpromotie.nl/eropuit/kastelen-en-landhuizen.php?naam=kasteel+huize+ruurlo+in+ruurlo>



Oranjerie Mattemburgh 1880. From: <https://www.nicodebont.nl/projecten/herbestemming-en-restauratie-orangerie-landgoed-mattemburgh>



Oranjerie Oranjewoud 1876. From: <https://www.monumenten.nl/monument/519636>





Oranjerie de Schaffelaar 2002 rebuilt. From: <https://www.takarchitecten.nl/projecten/oranjerie>



Oranjerie Paleis Soestdijk 1884. From: <https://www.paleissoestdijk.nl/de-oranjerie/>



Oranjerie Twickel 1833. From: own image.



Oranjerie Middachten XIXa. From: <https://www.middachten.nl/tuin/oranjerie/>





Orangery in Dordrecht 1838. From: <https://erfgoedstem.nl/dordtse-orangerie-krijgt-oude-functie-terug-op-nieuwe-plek/>



Orangery Hydepark 1888. From: <https://oranjeriehydepark.nl/historie.html>

## Orangery for estate ‘t Velde

### Boundary conditions

A number of preconditions have been drawn up for the design of the orangery. This is done in a similar way as for the residential areas. The design of the orangery has not been fully elaborated, but leaves the possibility open to be designed by another designer. This is the same as with the residential areas. With the preconditions, a preliminary design has been made that can serve as an example.

- The building must be designed in the typology of an Dutch orangery and has a rectangular base.
- The building must be designed in the character of the estate, with similar materials and colours. In this way is the coherence with the estate guaranteed.
- The building must consist of at least one and a maximum of two volumes.
- A second volume is designed in the form of an extension. This is allowed in a contemporary style in contrast to the typology. A design with a partial ‘shed’ appearance is preferred.
- The building has a maximum of one storey.
- The length of the orangery building is in between 15 and 30 meter.
- The width of the orangery building is in between 6 and 12 meter.
- The extension as being the second building volume, must be smaller than the orangery building.
- The maximum cornice height is 4.5 meter.
- The maximum roof height is 7.5 meter.

### Orangery design

The design consists of two building volumes. The largest volume is designed in the orangery typology. In the design are the characteristics of the estate been adopted. Which means; white painted masonry, light coloured window frames, black plinth, dark grey roof tiles and a cornice. It is a rectangular volume with large daylight openings in the form of large doors. These can be opened in the summer.

The extension contrasts with the orangery. This is a contemporary modern design with dark wood cladding and thinly dimensioned materials. This volume seeks contrast with the orangery, but has the character of a barn due to the use of the wood. The design seeks connection with the gallery of the museum.



